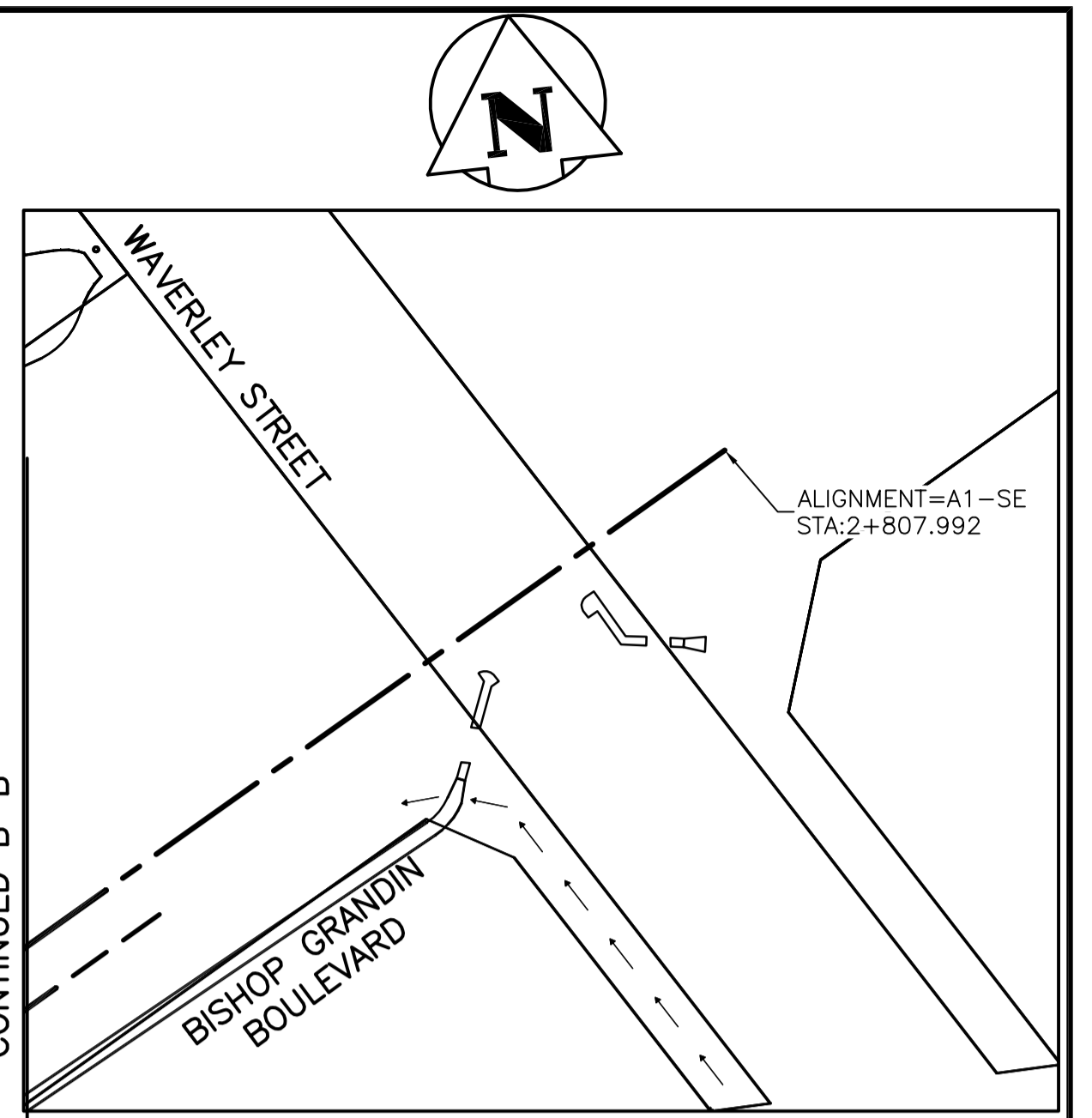
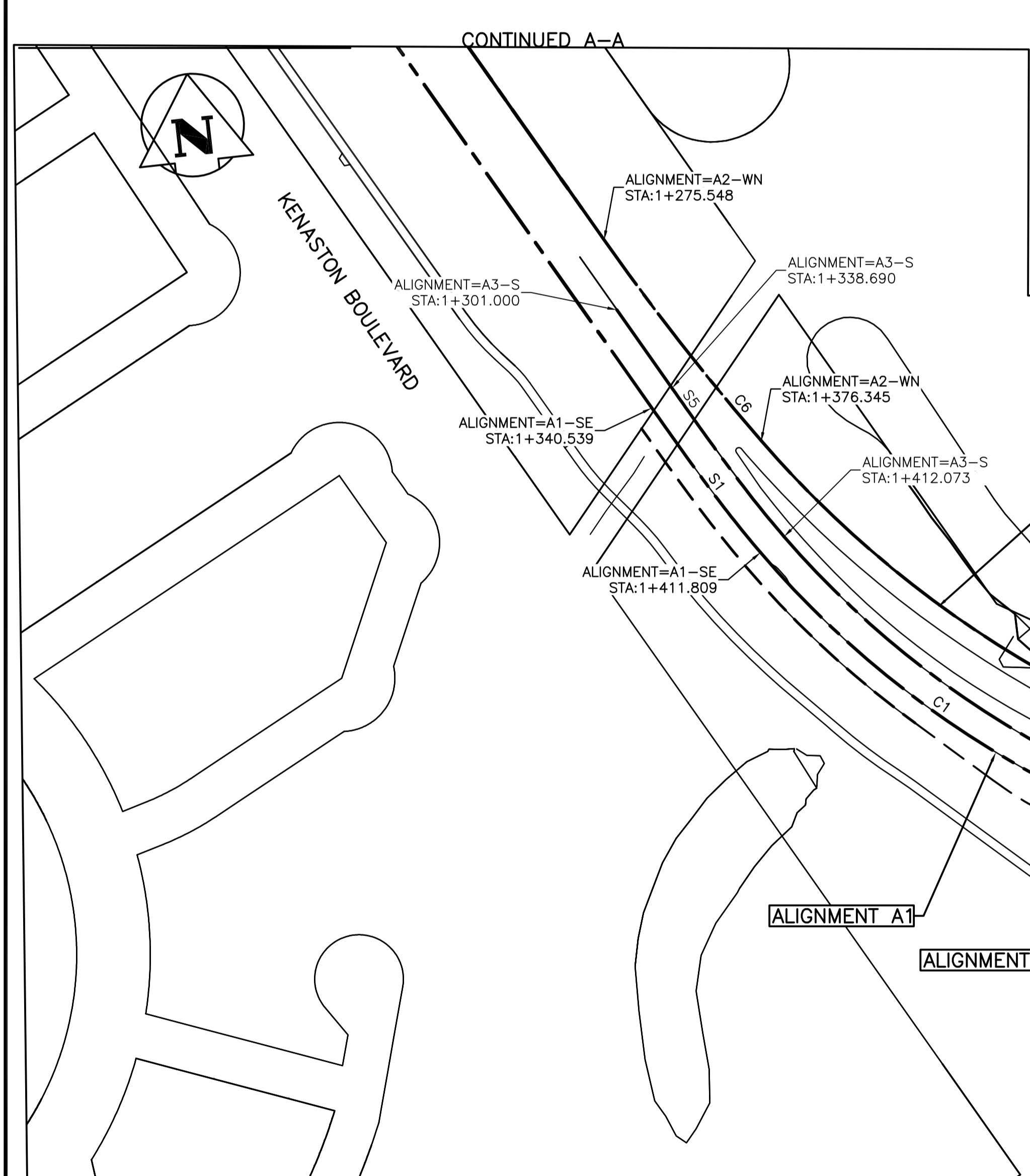


Curve Table: Alignments					
Curve #	Radius	Length	Chord Direction	Start Point	End Point
C1	382.00	298.64	S56° 37' 33.32"E	(629980.83,5519234.10)	(630223.92,5519073.97)
C2	322.00	128.31	N79° 48' 48.60"E	(630342.29,5519060.76)	(630467.74,5519083.30)
C3	50.00	24.40	S14° 28' 38.33"E	(629764.97,5519687.57)	(629771.01,5519664.18)
C4	165.00	13.70	S26° 30' 23.78"E	(629800.16,5519611.34)	(629806.27,5519599.09)
C5	165.00	13.70	S26° 30' 23.78"E	(629817.92,5519573.07)	(629824.03,5519560.82)
C6	1000.00	100.60	S31° 46' 00.05"E	(629933.02,5519363.27)	(629985.96,5519277.78)
C7	425.00	606.16	S75° 30' 27.69"E	(629985.96,5519277.78)	(630524.33,5519138.62)
C8	5000.00	238.31	N62° 16' 04.40"E	(630524.33,5519138.62)	(630735.25,5519249.51)
C9	371.00	248.85	S53° 45' 59.74"E	(629990.76,5519239.29)	(630187.74,5519094.94)
C10	860.00	58.18	S74° 55' 12.59"E	(630187.74,5519094.94)	(630243.91,5519079.81)
C11	50.00	26.24	S61° 49' 19.72"E	(630243.91,5519079.81)	(630266.78,5519067.56)
C12	50.00	29.48	N70° 30' 27.63"E	(630287.79,5519057.36)	(630315.18,5519067.05)
C13	426.30	210.66	N73° 14' 23.44"E	(630343.00,5519068.32)	(630542.66,5519128.45)
C14	3000.00	134.91	N60° 22' 18.84"E	(630542.66,5519128.45)	(630659.92,5519195.14)
C15	165.00	13.50	N59° 18' 57.72"E	(630700.58,5519217.06)	(630712.19,5519223.95)
C16	165.00	11.32	N58° 56' 13.73"E	(630749.18,5519248.01)	(630758.88,5519253.85)

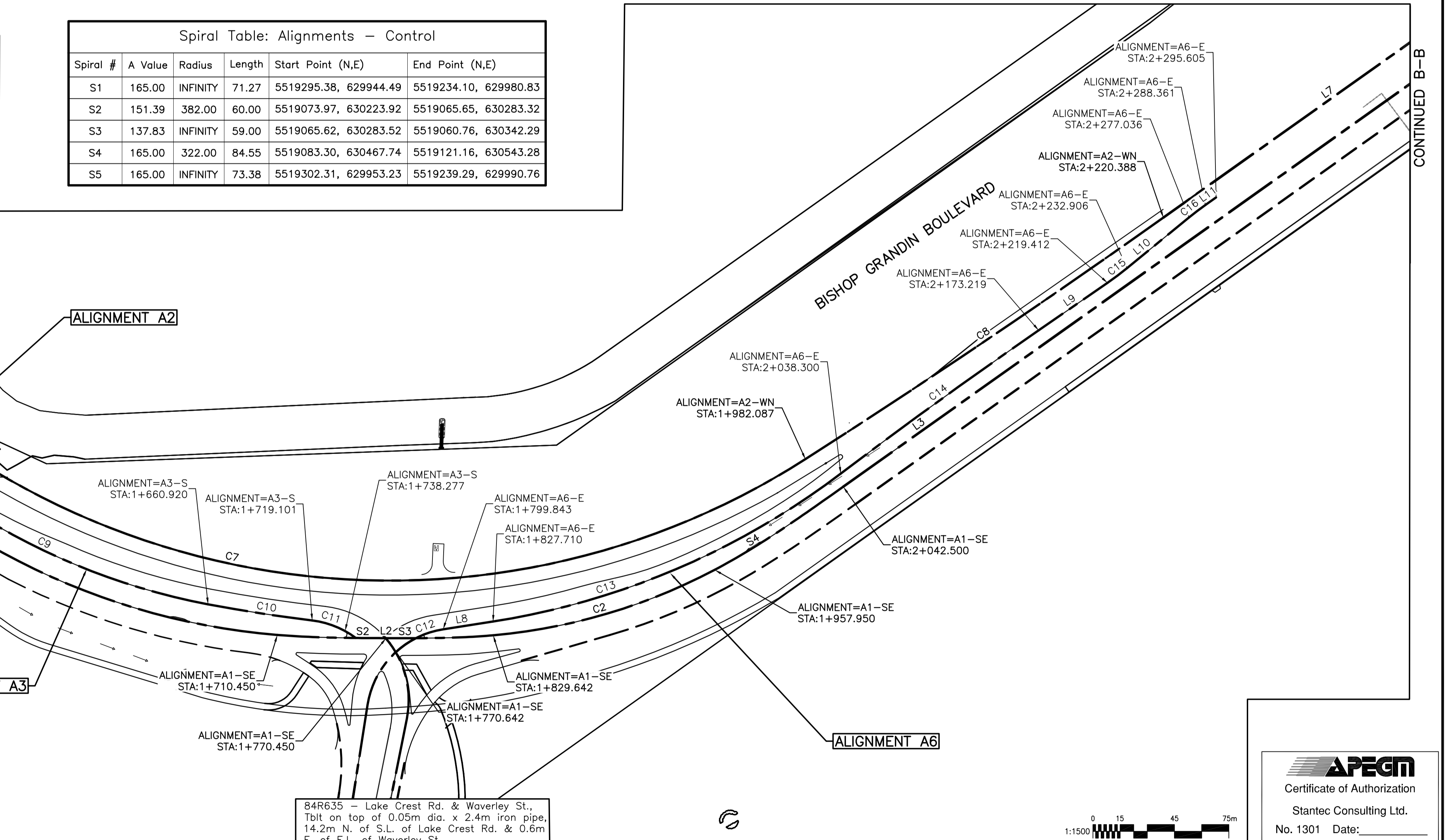
Line Table: Alignments - Control			
Line #	Length	Start Point (N,E)	End Point (N,E)
L1	540.54	5519768.67, 629683.39	5519295.38, 629944.49
L2	0.19	5519065.65, 630283.32	5519065.62, 630283.52
L3	765.49	5519121.16, 630543.28	5519493.73, 631211.98
L4	60.35	5519664.18, 629771.01	5519611.34, 629800.16
L5	28.51	5519599.09, 629806.27	5519573.07, 629817.92
L6	225.61	5519560.82, 629824.03	5519363.27, 629933.02
L7	263.91	5519249.51, 630735.25	5519377.85, 630965.85
L8	27.85	5519067.05, 630315.18	5519068.32, 630343.00
L9	46.19	5519195.14, 630659.92	5519217.06, 630700.58
L10	44.13	5519223.95, 630712.19	5519248.01, 630749.18
L11	7.24	5519253.85, 630758.88	5519257.37, 630765.21



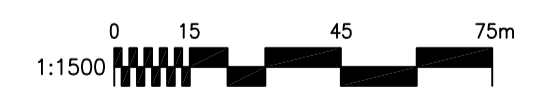
- NOTES:
- ALL STATIONS OF KENASTON BLVD. SOUTH BOUND MEDIAN EDGE TO BISHOP GRANDIN BLVD. EAST ALIGNMENT, BASED ON CONTROL LINE A1.
 - ALL STATIONS OF EAST BISHOP GRANDIN BLVD. WEST BOUND GUTTER EDGE TO KENASTON BLVD. NORTH ALIGNMENT, BASED ON CONTROL LINE A2.
 - ALL STATIONS OF LEFT TURN NORTH BOUND FROM SOUTH KENASTON BLVD. ALIGNMENT, BASED ON CONTROL LINE A3.
 - ALL STATIONS OF WEST BOUND LEFT TURN SOUTH FROM EAST BISHOP GRANDIN BLVD. ALIGNMENT, BASED ON CONTROL LINE A6.



Spiral Table: Alignments - Control					
Spiral #	A Value	Radius	Length	Start Point (N,E)	End Point (N,E)
S1	165.00	INFINITY	71.27	5519295.38, 629944.49	5519234.10, 629980.83
S2	151.39	382.00	60.00	5519073.97, 630223.92	5519065.65, 630283.32
S3	137.83	INFINITY	59.00	5519065.62, 630283.52	5519060.76, 630342.29
S4	165.00	322.00	84.55	5519083.30, 630467.74	5519121.16, 630543.28
S5	165.00	INFINITY	73.38	5519302.31, 629953.23	5519239.29, 629990.76



84R635 - Lake Crest Rd. & Waverley St.,
Tbt on top of 0.05m dia. x 2.4m iron pipe,
14.2m N. of S.L. of Lake Crest Rd. & 0.6m
E. of E.L. of Waverley St.



V:\137\proj\13704840\winipeg\02_design\sheet_files\3d\04840c-106-geom-control.dwg
 2010-03-15 10:28:04 By: [redacted]

150 WM		300 LDS		250 WWS		150 WM		300 LDS		250 WWS	
○	HYDRANT	+	VALVE	○	CONCRETE	○	ASPHALT	○	WASTE WATER SEWER	○	WASTE WATER SEWER
○	MANHOLE	○	CATCH BASIN	○	CURB INLET	○	JUNCTIONS	○	CULVERT	○	GAS
○	LEGEND-PLAN	○	PROPOSED	○	EXISTING	○	LEGEND-PLAN	○	PROPOSED	○	EXISTING

LOCATION APPROVED UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE DATE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER	11.07.15	V.M.M.

Stantec Consulting Ltd.
 905 Waverley Street, Winnipeg, Manitoba
 Tel 204-489-5900 Fax 204-453-9012

DESIGNED BY: V.M.M. CHECKED BY: S.B.C.
 DRAWN BY: T.G. APPROVED BY: V.M.M.

HOR. SCALE: 1:1500
 VERTICAL: _____

RELEASED FOR CONSTRUCTION: _____
 DATE: 09.06.17

ENGINEER'S SEAL
PROVINCE OF MANITOBA
 REGISTERED PROFESSIONAL ENGINEER
 V.M. MAROTI
 MEMBER 30809

CONSULTANT DRAWING NO. C-106

THE CITY OF WINNIPEG
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION

WWARP PART I
 KENASTON BOULEVARD EXTENSION - N.B. LANES
 NORTH TOWN ROAD TO BISHOP GRANDIN BOULEVARD
 HORIZONTAL GEOMETRY
 CONTROL LINES A1, A2, A3 & A6

SHEET 6 OF 65
 CAD FILE DRAWING NUMBER 04840c-106-XXX.dwg
 CITY DRAWING NUMBER P-3316-06