NorCal Engineering

Soils and Geotechnical Consultants
10641 Humbolt Street, Los Alamitos, CA 90720
(562) 799-9469 Fax (562) 799-9459

July 15, 1999 Project Number 5936-96

Boeing Realty Corporation
4060 Lakewood Boulevard
Long Beach, California 90808-1700

Attn: Mr. Johnny Marasco

RE: **Observation and Testing of Precise Grading Operations** – Proposed Street Improvements for the Harborgate Way Development - Located at Harborgate Way and Francisco Street, in the City of Los Angeles, California (Legal Description: Tract No. 52172)

Dear Mr. Marasco:

Pursuant to your request, this firm has observed and tested precise grading operations at the above referenced project. Results of the compaction tests are attached and locations of these tests are shown on the accompanying Site Plan. All work was performed in accordance with our Geotechnical Investigation dated March 18, 1996, Project Number 5936-96 and all present day standards of the Geotechnical Engineering Industry.

The subject streets, Harborgate Way and Francisco Street, were previously mass graded as described in our geotechnical report titled "Observation and Testing of Rough grading Operations", Project Number 5936-96, dated June 1, 1999. The report summarizes the geotechnical observation and compaction testing of the mass grading operations. The tests indicated in this report have been extrapolated from the on-going grading operations and are not numbered in order.

Site Grading

The purpose of the grading operations was for the placement of fill to provide structural support of the proposed development. All vegetation and demolition debris was stripped and removed from the fill area prior to the placement of any fill soils. The upper low density surface soils were removed to competent native material (>90% relative compaction) or approved engineered fill, the exposed surface scarified, moisture conditioned and then recompacted to a minimum of 90% relative compaction. All excavations were observed by this firm prior to placement of fill material. In the opinion of this firm, the native material and the previously placed engineered fill is suitable to support the placement of fill material.

Fill soils placed were compacted to a minimum of 90% of the laboratory standard in lifts not in excess of eight inches in thickness. The maximum depth of recently placed fill was approximately 2 feet in the proposed street areas. Conventional earthmoving equipment was utilized for compaction control. A water truck provided moisture control.

Laboratory/Field Testing

The relative compaction was determined by Sand Cone Method (ASTM: D1556-82) and by the Drive Tube Method (ASTM: D2937). The maximum density of the fill soils was obtained by the laboratory standard (ASTM: D1557-91) and results are shown on Table I. Tests were performed a minimum of every 500 cubic yards placed and every two feet in depth of fill placed. A summary of the compaction tests of the precise grading operations are described in Table II with locations shown on the accompanying plan.

Pavement Subgrade

The pavement subgrade areas including concrete curb and gutter areas were fine graded and compacted to a minimum of 90% of the laboratory standard. The base section consisted of an approved crushed miscellaneous base material tested to a minimum of 95% relative compaction. The maximum depth of base material was approximately twelve inches. Five and ten ton steel drum rollers were utilized for compaction control and a water truck provided moisture control. A summary of compaction tests of the fine grading operations are also provided in Table II with location shown on the accompanying plans.

Conclusions

The geotechnical engineering aspects of the grading operations have been observed and are in compliance with the applicable conditions of the grading permits and have geotechnical engineer's recommendations. The development has been graded to the approval of this firm and is suitable for its intended use.

We appreciate this opportunity to be of service to you. If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,
NORCAL ENGINEERING

Keith D. Tucker
Project Engineer
R.G.E. 841

REGISTERED PROFESSIONAL ENGINEER
KEITH D. TUCKER
No. 841
Exp. 12/31/00
GEOTECHNICAL
STATE OF CALIFORNIA

Gregory H. Bennett
Project Manager

TABLE I
MAXIMUM DENSITY TESTS
(ASTM: D1557-91)

Sample	Classification	Optimum Moisture	Maximum Dry Density (lbs./cu.ft.)
I	Silty CLAY	14.0	110.0
II	Silty CLAY	13.0	112.0
III	Silty CLAY with gravel	15.0	121.0
IV	Clayey SILT	12.0	121.0
V	Silty, sandy CLAY with gravel	10.5	128.0
VI	Silty, sandy CLAY with occasional gravel	15.0	118.0
VII	Silty CLAY with occasional gravel	13.5	119.0
VIII	Clayey silty SAND	14.0	117.0
IX	Clayey SAND slightly silty with gravel	9.5	127.0
X	Gravelly clayey SAND	9.0	128.0
XI	Clayey silty sandy with occasional gravel	11.0	125.0
XII	Clayey silty sandy with asphalt and gravel	8.5	126.0
XIII	SAND fine to medium grained, clayey, silty with gravel	10.0	126.0
XIV	Silt and Sand with shale fragments	18.0	100.0
XV	SAND fine to medium grained, silty, slightly clayey	17.0	112.0
XVI	SAND fine to medium grained, slightly silty	10.0	125.0
XVII	Silt and Sand with shale fragments	18.0	103.0

TABLE I
MAXIMUM DENSITY TESTS
(ASTM: D1557-91)

Sample	Classification	Optimum Moisture	Maximum Dry Density (lbs./cu.ft.)
XVIII	SAND fine to medium grained, slightly silty with occasional gravel	11.0	120.0
XIX	SAND fine to medium grained, silty with shale fragments and occasional gravel	15.0	115.0
XX	Crushed Miscellaneous Base	7.5	130.0
XXI	slightly silty clayey SAND	12.0	122.0
XXII	SAND fine to medium grained, slightly silty with occasional gravel	9.5	119.0
XXIII	SAND fine to medium grained, slightly silty	10.0	120.0
XXIV	Clayey silty SAND	11.0	121.0
XXV	slightly silty clayey SAND with occasional gravel	10.5	125.0
XXVI	slightly silty SAND	11.0	120.0
XXVII	Crushed Miscellaneous Base	6.0	125.0
XXVIII	sandy SILT clayey with fine grained, SAND	15.0	123.0
XXIX	sandy SILT clayey with fine grained, SAND	15.0	113.0
XXX	Crushed Miscellaneous Base	6.5	129.0

TABLE II
COMPACTION TEST RESULTS

Test Date	Tests No.	Location	Depth	Soil Tech.	Laboratory Data Unit Wt. Type	Optimum lbs./cu.ft.	Dry Moisture	Field Data Moisture Density	Content	Relative Compacti Minimum Results	Spec
11/9/98	885	Subgrade-Harborgate Way Sta. 0+90	0.0-0.5	PG	III	121.0	15.0	112.0	15.2	92	90
11/9/98	886	Subgrade-Harborgate Way Sta. 5+90	0.0-0.5	PG	II	112.0	13.0	103.7	12.6	93	90
11/17/98	887	Curb Subgrade-190th Street Sta. 19+00	0.0-0.5	PG	III	121.0	15.0	104.9	13.4	94	90
11/17/98	888	Curb Subgrade-190th Street Sta. 22+25	0.0-0.5	PG	III	121.0	15.0	108.2	14.6	91	90
11/17/98	889	Curb Subgrade-190th Street Sta. 9+10	0.0-0.5	PG	VII	119.0	13.5	107.2	13.4	90	90
11/17/98	890	Curb Subgrade-190th Street Sta. 15+00	0.0-0.5	PG	II	112.0	13.0	102.9	12.9	92	90
11/19/98	891	Curb Base-Harborgate Way Sta. 3+00	0.0-0.5	PG	XX	130.0	7.5	125.2	7.6	96	95
11/19/98	892	Curb Base-Harborgate Way Sta. 8+00	0.0-0.5	PG	XX	130.0	7.5	128.0	8.2	98	95
11/19/98	893	Curb Base-Harborgate Way Sta. 13+00	0.0-0.5	PG	XX	130.0	7.5	128.9	5.5	98	95
11/19/98	894	Curb Base-Harborgate Way Sta. 18+00	0.0-0.5	PG	XX	130.0	7.5	126.9	6.0	97	95
11/19/98	895	Curb Base-Harborgate Way Sta. 22+00	0.0-0.5	PG	XX	130.0	7.5	123.8	7.9	95	95
11/19/98	896	Curb Base-190th Street Sta. 21+60	0.0-0.5	PG	XX	130.0	7.5	124.6	7.6	96	95
11/19/98	897	Curb Base-190th Street Sta. 14+00	0.0-0.5	PG	XX	130.0	7.5	123.8	10.4	95	95
11/19/98	898	Curb/Gutter Base Sta. 8+60	0.0-0.5	PG	XX	130.0	7.5	127.2	9.3	97	95
2/4/99	960	Subgrade-Harborgate Way Sta. 1+50	2.0-2.5	DR	VIII	117.0	14.0	106.6	15.8	91	90
2/4/99	961	Subgrade-Harborgate Way Sta. 5+50	2.0-2.5	DR	VIII	117.0	14.0	106.8	17.0	91	90
2/4/99	962	Subgrade-Harborgate Way Sta. 9+00	0.0-0.5	DR	VIII	117.0	14.0	109.1	14.6	93	90
2/4/99	963	Subgrade-Harborgate Way Sta. 4+00	0.0-0.5	DR	VIII	117.0	14.0	105.8	13.4	90	90
2/6/99	964	Base-Harborgate Way Sta. 0+80	0.0-0.5	PG	XX	130.0	7.5	123.4	4.9	96	95
2/6/99	965	Base-Harborgate Way Sta. 4+00	0.0-0.5	PG	XX	130.0	7.5	127.6	7.6	98	95

**Retest of failing tests after area reworked

TABLE II
COMPACTION TEST RESULTS

Test Date	Tests No.	Location	Depth	Soil Tech.	Laboratory Data Unit Wt. Type	Optimum lbs./cu.ft.	Dry Moisture	Field Data Moisture Density	Content	Relative Compactic Minimum Results	Spec.
2/6/99	966	Base-Harborgate Way Sta. 8+00	0.0-0.5	PG	XX	130.0	7.5	127.0	9.3	97	95
2/6/99	967	Base-Harborgate Way Sta. 12+00	0.0-0.5	PG	XX	130.0	7.5	125.0	5.0	96	95
2/6/99	968	Base-Harborgate Way Sta. 14+00	0.0-0.5	PG	XX	130.0	7.5	122.8	9.5	95	95
3/5/99	1021	Curb Sg-Harborgate Way Sta. 15+00	0.0-0.5	PG	III	121.0	15.0	113.7	17.0	94	90
3/5/99	1022	Sg-Harborgate Way Sta. 15+75	0.0-0.5	PG	III	121.0	15.0	111.5	13.9	92	90
3/5/99	1023	Curb Sg-Harborgate Way Sta. 17+00	0.0-0.5	PG	III	121.0	15.0	110.3	18.8	91	90
3/5/99	1024	Sg-Harborgate Way Sta. 17+50	0.0-0.5	PG	V	128.0	10.5	117.6	12.2	92	90
3/8/99	1025	Curb Sg-Harborgate Way Sta. 18+00	0.0-0.5	PG	VI	118.0	15.0	109.1	16.4	92	90
3/8/99	1026	Sg-Harborgate Way Sta. 19+00	0.0-0.5	PG	II	112.0	13.0	114.9	13.1	95	90
3/8/99	1027	Curb Sg-Harborgate Way Sta. 19+50	0.0-0.5	PG	III	121.0	15.0	114.9	14.8	95	90
3/9/99	1028	Curb Sg-Harborgate Way Sta. 19+75	0.0-0.5	PG	III	121.0	15.0	114.3	16.2	94	90
3/10/99	1029	Sg-Harborgate Way Sta. 21+00	0.0-0.5	PG	III	121.0	15.0	112.4	16.5	93	90
3/10/99	1030	Curb Sg-Harborgate Way Sta. 23+50	0.0-0.5	PG	III	121.0	15.0	110.3	18.5	91	90
3/10/99	1031	Curb Sg-Harborgate Way Sta. 25+00	0.0-0.5	PG	VI	118.0	15.0	109.1	16.4	92	90
3/10/99	1032	Sg-Harborgate Way Sta. 26+00	0.0-0.5	PG	III	121.0	15.0	112.4	16.5	93	90
3/10/99	1033	Sg-Harborgate Way Sta. 27+00	0.0-0.5	PG	III	121.0	15.0	111.1	17.0	92	90
3/10/99	1034	Sg-Harborgate Way Sta. 28+00	0.0-0.5	PG	V	128.0	10.5	118.6	9.6	93	90
3/10/99	1035	Sg-Harborgate Way Sta. 29+00	0.0-0.5	PG	III	121.0	15.0	113.9	15.8	94	90
3/30/99	1036	Base-Harborgate Way Sta. 25+00	0.0-0.5	PG	XXVII	125.0	6.0	118.0	7.0	95	95
3/30/99	1037	Base-Harborgate Way Sta. 29+25	0.0-0.5	PG	XXVII	125.0	6.0	119.0	6.0	95	95

**Retest of failing tests after area reworked

TABLE II
COMPACTION TEST RESULTS

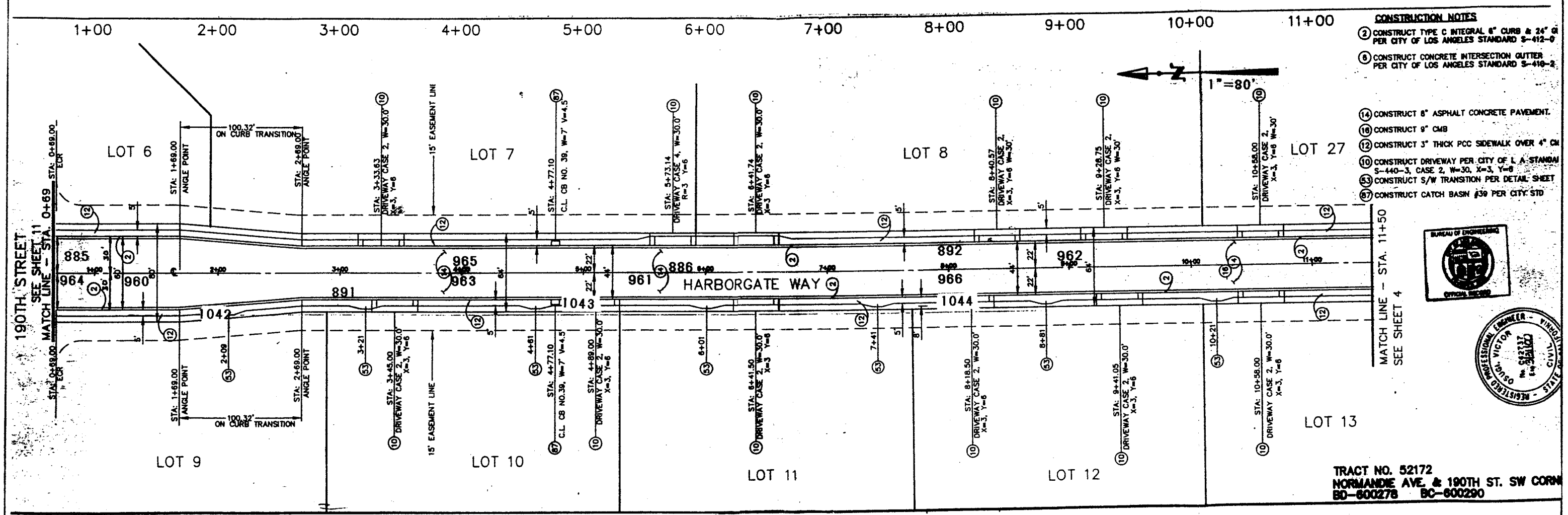
Test Date	Tests No.	Location	Depth	Soil Tech.	Laboratory Data Unit Wt. Type	Optimum lbs./cu.ft.	Dry Moisture	Field Data Moisture Density	Content	Relative Compacti Minimum Results	Spec.
3/30/99	1038	Base-Harborgate Way Sta. 26+75	0.0-0.5	PG	XXVII	125.0	6.0	122.5	6.1	98	95
3/30/99	1039	Base-Harborgate Way Sta. 22+50	0.0-0.5	PG	XXVII	125.0	6.0	120.1	6.9	96	95
3/30/99	1040	Base-Harborgate Way Sta. 19+00	0.0-0.5	PG	XXVII	125.0	6.0	119.0	6.8	95	95
3/30/99	1041	Base-Harborgate Way Sta. 17+50	0.0-0.5	PG	XXVII	125.0	6.0	121.3	6.5	97	95
4/1/99	1042	Sidewalk-Harborgate Way Sta. 2+00	0.0-0.5	PG	XXVII	125.0	6.0	119.3	6.4	95	95
4/1/99	1043	Sidewalk-Harborgate Way Sta. 5+00	0.0-0.5	PG	XXVII	125.0	6.0	119.9	7.0	96	95
4/1/99	1044	Sidewalk-Harborgate Way Sta. 8+00	0.0-0.5	PG	XXVII	125.0	6.0	121.2	5.5	97	95
5/11/99	1080	Curb Sg.-Francisco Street Sta. 18+00	4.0-4.5	PG	III	121.0	15.0	110.9	11.8	92	90
5/11/99	1081	Subgrade-Francisco Street Sta. 16+00	0.0-0.5	PG	VII	119.0	13.5	111.4	10.4	94	90
5/11/99	1082	Subgrade-Francisco Street Sta. 14+50	0.0-0.5	PG	IV	121.0	12.0	112.9	11.6	93	90
5/11/99	1083	Curb Sg.-Francisco Street Sta. 13+00	0.0-0.5	PG	IV	121.0	12.0	113.2	6.0	94	90
5/11/99	1084	Subgrade-Francisco Street Sta. 11+75	0.0-0.5	PG	II	112.0	13.0	106.3	14.5	95	90
5/11/99	1085	Subgrade-Francisco Street Sta. 9+10	0.0-0.5	PG	II	112.0	13.0	106.9	12.2	95	90
5/11/99	1086	Curb Sg.-Francisco Street Sta. 7+00	0.0-0.5	PG	V	128.0	10.5	123.6	11.5	97	90
5/11/99	1087	Subgrade-Francisco Street Sta. 4+00	0.0-0.5	PG	V	128.0	10.5	120.1	12.2	94	90
5/11/99	1088	Subgrade-Francisco Street Sta. 2+50	0.0-0.5	PG	V	128.0	10.5	124.0	9.3	97	90
5/11/99	1089	Curb Sg.-Francisco Street Sta. 0+50	0.0-0.5	PG	V	128.0	10.5	116.4	12.6	91	90
5/11/99	1090	Subgrade-Francisco Street Sta. 19+00	0.0-0.5	PG	V	128.0	10.5	119.6	11.0	93	90
5/20/99	1091	Base-Francisco Street Sta. 17+50	0.0-0.5	PG	XXX	129.0	6.5	126.0	7.0	98	95
5/20/99	1092	Curb Base-Francisco Street Sta. 13+50	0.0-0.5	PG	XXX	129.0	6.5	123.9	8.2	96	95

**Retest of failing tests after area reworked

TABLE II
COMPACTION TEST RESULTS

Test Date	Tests No.	Location	Depth	Soil Tech.	Unit Wt. Type	Laboratory Data Optimum lbs./cu.ft.	Dry Moisture	Field Data Moisture Density	Content	Relative Compactio Minimum Results	Spec.
5/20/99	1093	Base-Francisco Street Sta. 9+50	0.0-0.5	PG	XXX	129.0	6.5	125.9	6.5	98	95
5/20/99	1094	Curb Base-Francisco Street Sta. 5+50	0.0-0.5	PG	XXX	129.0	6.5	125.2	7.6	97	95
5/20/99	1095	Base-Francisco Street Sta. 3+00	0.0-0.5	PG	XXX	129.0	6.5	123.5	6.5	96	95
5/20/99	1096	Curb Base-Francisco Street Sta. 1+00	0.0-0.5	PG	XXX	129.0	6.5	123.0	6.0	95	95

**Retest of failing tests after area reworked



CONSTRUCTION NOTES

(2) CONSTRUCT TYPE C INTEGRAL 6" CURB & 24" GI PER CITY OF LOS ANGELES STANDARD S-412-0

(6) CONSTRUCT CONCRETE INTERSECTION GUTTER PER CITY OF LOS ANGELES STANDARD S-410-2

(14) CONSTRUCT 8" ASPHALT CONCRETE PAVEMENT.

(16) CONSTRUCT 9" CMB

(12) CONSTRUCT 3" THICK PCC SIDEWALK OVER 4" CM

(10) CONSTRUCT DRIVEWAY PER CITY OF L. A. STANDA S-440-3, CASE 2, W=30, X=3, Y=6

(53) CONSTRUCT S/W TRANSITION PER DETAIL SHEET

(67) CONSTRUCT CATCH BASIN #39 PER CITY STD

TRACT NO. 52172
NORMANDIE AVE. & 190TH ST. SW CORN
BD-600278 BC-600290

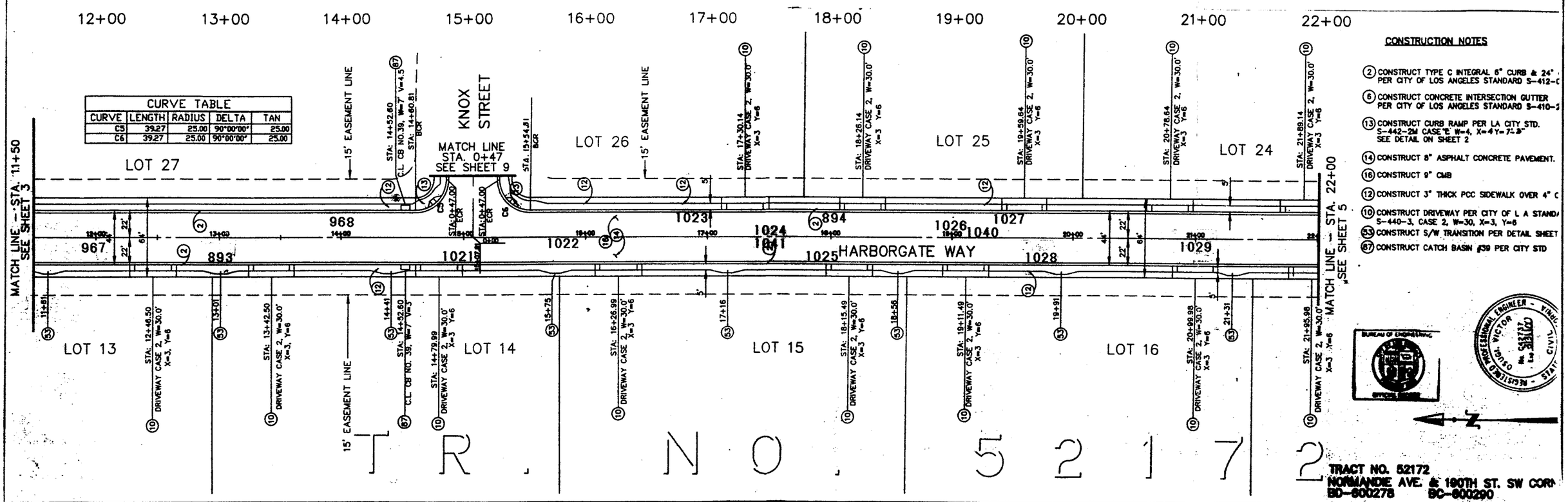
NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT 5936-96 | DATE JULY 1999

LOCATION OF COMPACTION TESTS

SHEET 1 OF 7

BOE-C6-0100219



CONSTRUCTION NOTES

(2) CONSTRUCT TYPE C INTEGRAL 6" CURB & 24" PER CITY OF LOS ANGELES STANDARD S-412-C

(6) CONSTRUCT CONCRETE INTERSECTION GUTTER PER CITY OF LOS ANGELES STANDARD S-410-2

(13) CONSTRUCT CURB RAMP PER LA CITY STD. S-442-2M CASE "E" W=4, X=4 Y=7'-3" SEE DETAIL ON SHEET 2

(14) CONSTRUCT 8" ASPHALT CONCRETE PAVEMENT.

(16) CONSTRUCT 9" CMB

(12) CONSTRUCT 3" THICK PCC SIDEWALK OVER 4" C

(10) CONSTRUCT DRIVEWAY PER CITY OF L A STAND/ S-440-3, CASE 2, W=30, X=3, Y=6

(53) CONSTRUCT S/W TRANSITION PER DETAIL SHEET

(67) CONSTRUCT CATCH BASIN #39 PER CITY STD

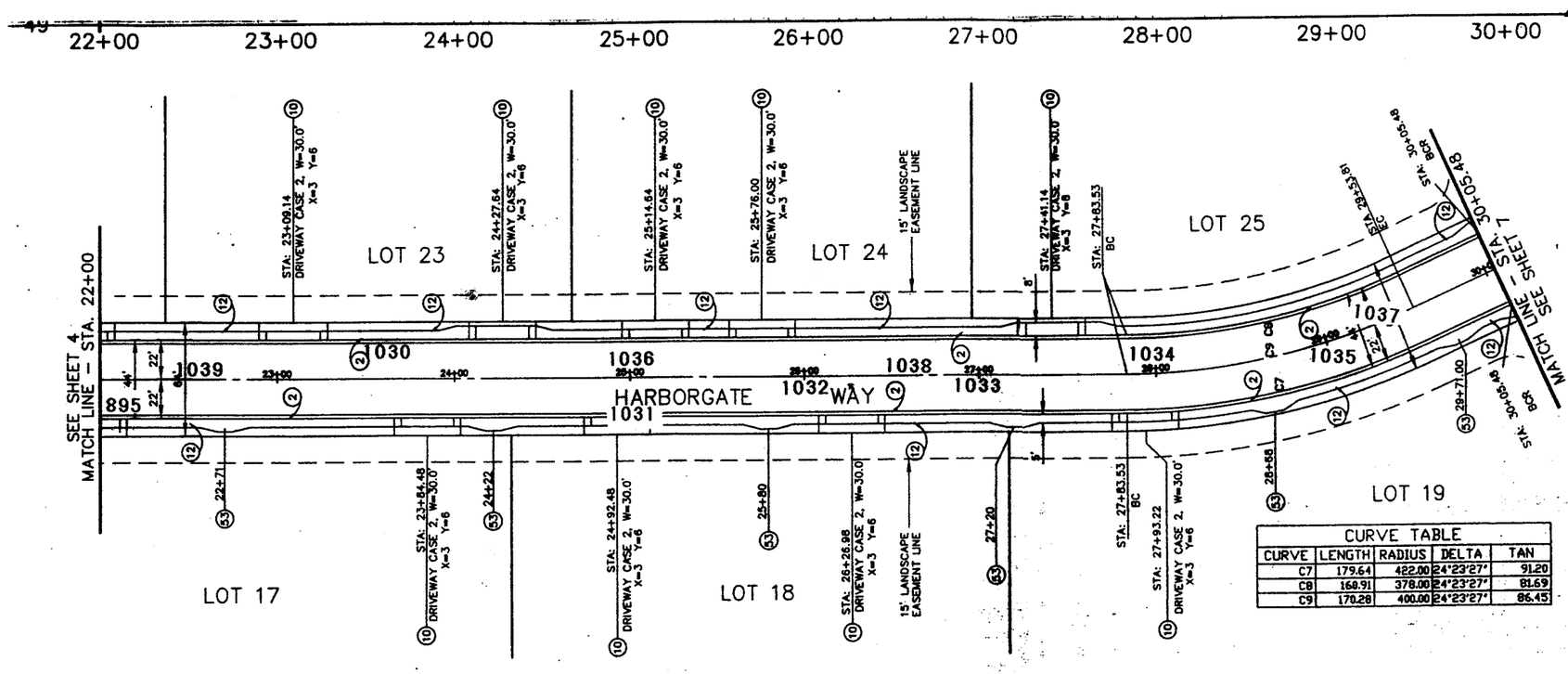
NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT	DATE

LOCATION OF COMPACTION TESTS

SHEET 2 OF 7

BOE-C6-0100220



CONSTRUCTION NOTES

(2) CONSTRUCT TYPE C INTEGRAL 6" CURB & 24" GUTTER PER CITY OF LOS ANGELES STANDARD S-412-0

(5) CONSTRUCT CONCRETE INTERSECTION GUTTER PER CITY OF LOS ANGELES STANDARD S-410-2

(14) CONSTRUCT 8" ASPHALT CONCRETE PAVEMENT.

(16) CONSTRUCT 9" CMB

(12) CONSTRUCT 3" THICK PCC SIDEWALK OVER 4" CMB

(10) CONSTRUCT DRIVEWAY PER CITY OF L A STANDARD S-440-3, CASE 2, W=30, X=3, Y=6

(53) CONSTRUCT S/W TRANSITION PER DETAIL SHEET 2

(87) CONSTRUCT CATCH BASIN #39 PER CITY STD

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TAN
C7	179.64	422.00	24°23'27"	91.20
C8	168.91	378.00	24°23'27"	81.69
C9	170.28	400.00	24°23'27"	86.45

BUREAU OF ENGINEERING OFFICIAL RECORD

REGISTERED PROFESSIONAL ENGINEER OSCAR DEL VICTOR No. C42717 Exp. 3/31/00 CIVIL STATE OF CALIFORNIA

TRACT NO. 52172
NORMANDIE AVE. & 190TH ST. SW CORNER
BD-600278 BC-600290

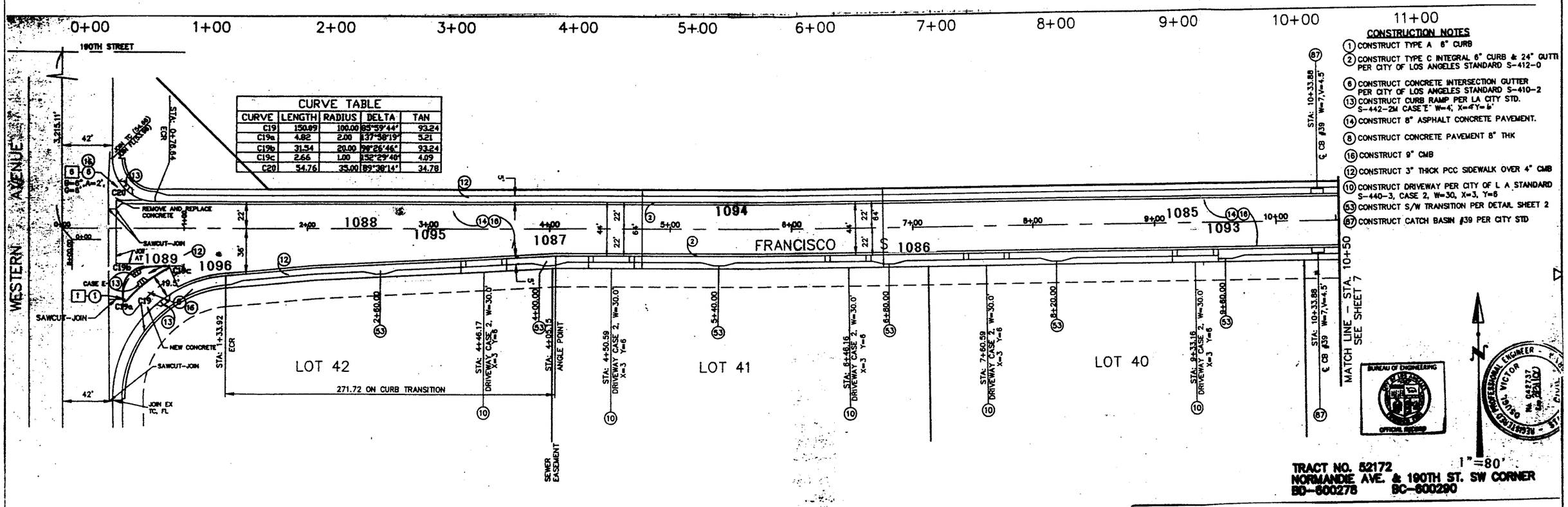
NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT | DATE

LOCATION OF COMPACTION TESTS

SHEET 3 OF 7

BOE-C6-0100221



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TAN
C19	150.89	100.00	85°59'44"	93.24
C19a	4.82	2.00	137°58'19"	5.21
C19b	31.54	20.00	90°26'46"	93.24
C19c	2.66	1.00	152°29'40"	4.09
C20	54.76	35.00	89°38'14"	34.78

CONSTRUCTION NOTES

1. CONSTRUCT TYPE A 8" CURB
2. CONSTRUCT TYPE C INTEGRAL 6" CURB & 24" GUTTI PER CITY OF LOS ANGELES STANDARD S-412-0
6. CONSTRUCT CONCRETE INTERSECTION GUTTER PER CITY OF LOS ANGELES STANDARD S-410-2
13. CONSTRUCT CURB RAMP PER LA CITY STD. S-442-2M CASE "E" W=4', X=4' Y=6'
14. CONSTRUCT 8" ASPHALT CONCRETE PAVEMENT.
8. CONSTRUCT CONCRETE PAVEMENT 8" THK
16. CONSTRUCT 9" CMB
12. CONSTRUCT 3" THICK PCC SIDEWALK OVER 4" CMB
10. CONSTRUCT DRIVEWAY PER CITY OF L A STANDARD S-440-3, CASE 2, W=30, X=3, Y=6
53. CONSTRUCT S/W TRANSITION PER DETAIL SHEET 2
87. CONSTRUCT CATCH BASIN #39 PER CITY STD

TRACT NO. 52172
NORMANDIE AVE. & 190TH ST. SW CORNER
BD-600278 BC-600290

1"=80'

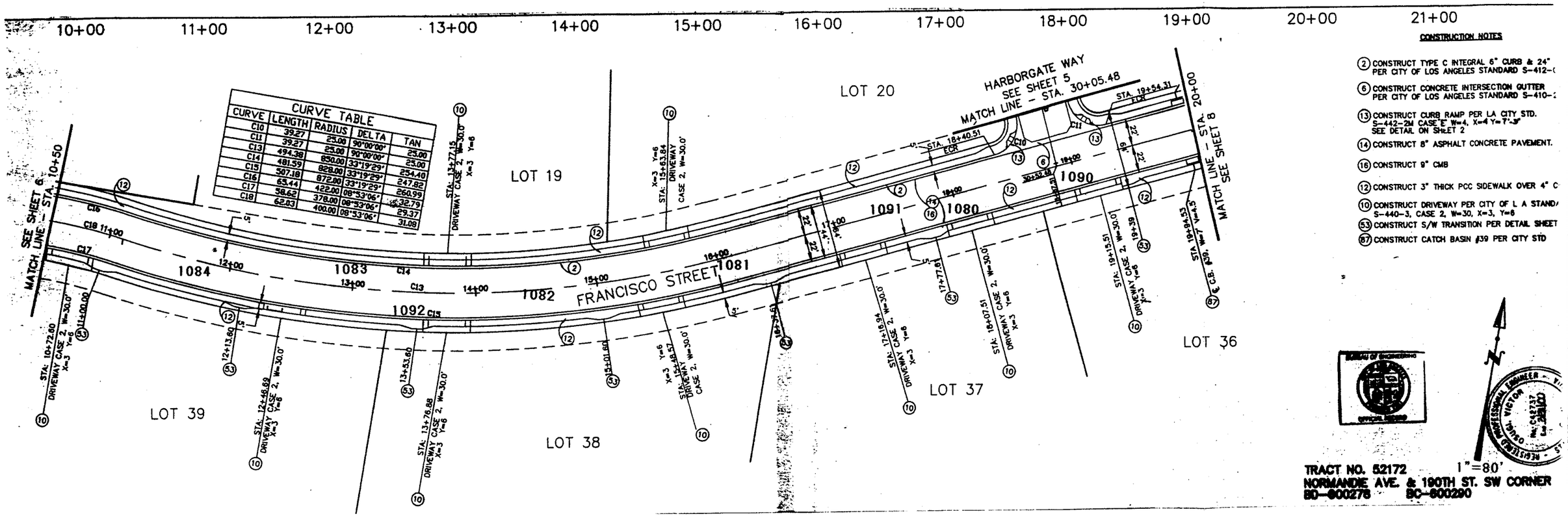
NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT	5936-96	DATE	JULY 1999

LOCATION OF COMPACTION TESTS

SHEET 4 OF 7

BOE-C6-0100222



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TAN
C10	39.27	25.00	90°00'00"	25.00
C11	39.27	25.00	90°00'00"	25.00
C13	494.38	850.00	33°19'29"	254.40
C14	481.59	828.00	33°19'29"	247.82
C15	507.18	872.00	33°19'29"	260.99
C16	65.44	422.00	08°53'06"	32.79
C17	58.62	378.00	08°53'06"	29.37
C18	62.03	400.00	08°53'06"	31.08

CONSTRUCTION NOTES

(2) CONSTRUCT TYPE C INTEGRAL 6" CURB & 24" PER CITY OF LOS ANGELES STANDARD S-412-(

(6) CONSTRUCT CONCRETE INTERSECTION GUTTER PER CITY OF LOS ANGELES STANDARD S-410-2

(13) CONSTRUCT CURB RAMP PER LA CITY STD. S-442-2M CASE 'E' W=4, X=4 Y=7'-3" SEE DETAIL ON SHEET 2

(14) CONSTRUCT 8" ASPHALT CONCRETE PAVEMENT.

(16) CONSTRUCT 9" CMB

(12) CONSTRUCT 3" THICK PCC SIDEWALK OVER 4" C

(10) CONSTRUCT DRIVEWAY PER CITY OF L A STAND/ S-440-3, CASE 2, W=30, X=3, Y=6

(53) CONSTRUCT S/W TRANSITION PER DETAIL SHEET

(87) CONSTRUCT CATCH BASIN #39 PER CITY STD

TRACT NO. 52172 1"=80'
NORMANDIE AVE. & 190TH ST. SW CORNER
BD-600276 BC-600290

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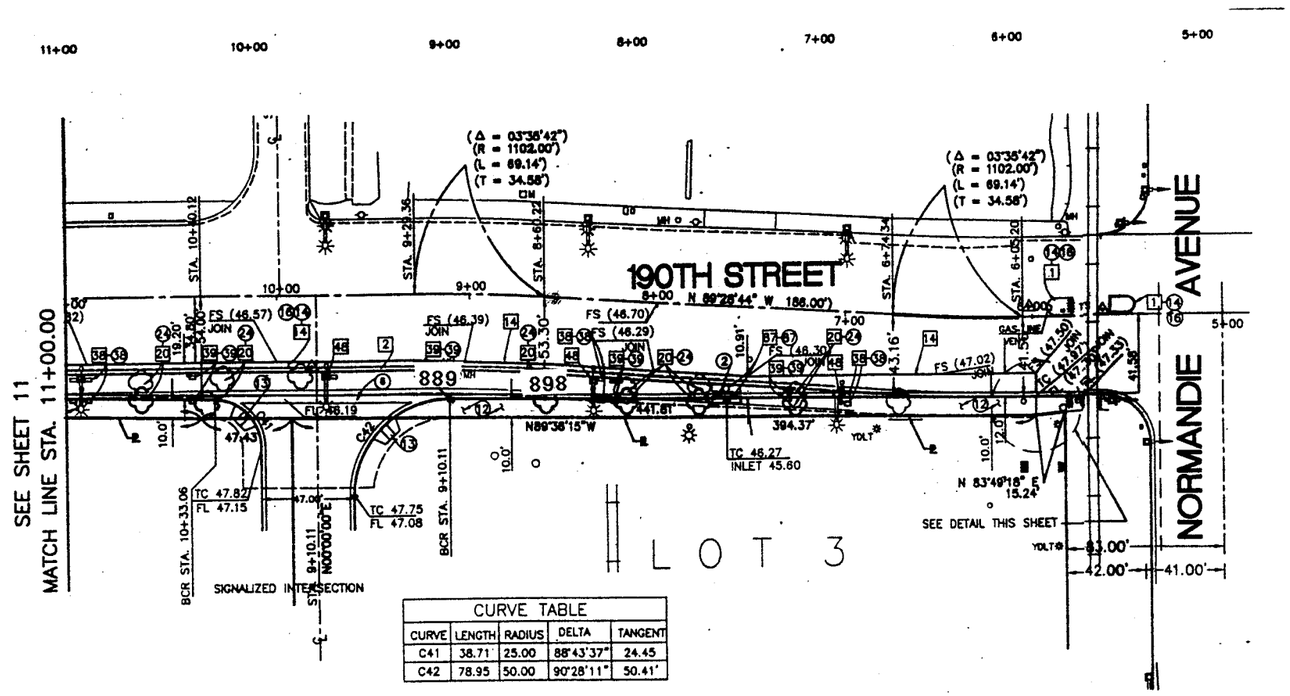
PROJECT 5936-96 | DATE JULY 1999

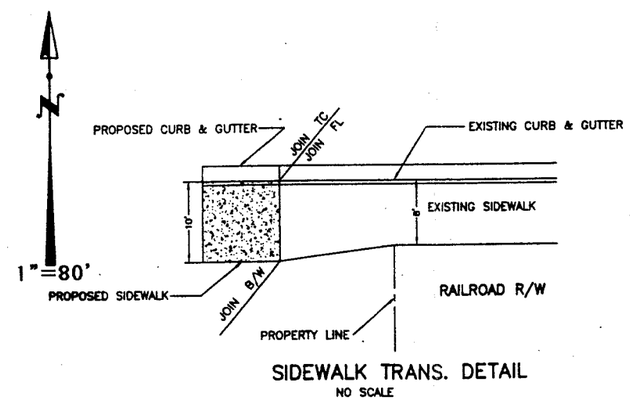
LOCATION OF COMPACTION TESTS

SHEET 5 OF 7

BOE-C6-0100223



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C41	38.71'	25.00	88°43'37"	24.45
C42	78.95	50.00	90°28'11"	50.41'



SIDEWALK TRANS. DETAIL
NO SCALE

TRACT 52172
NORMANDIE AVE. & 190TH ST. SW CORNER
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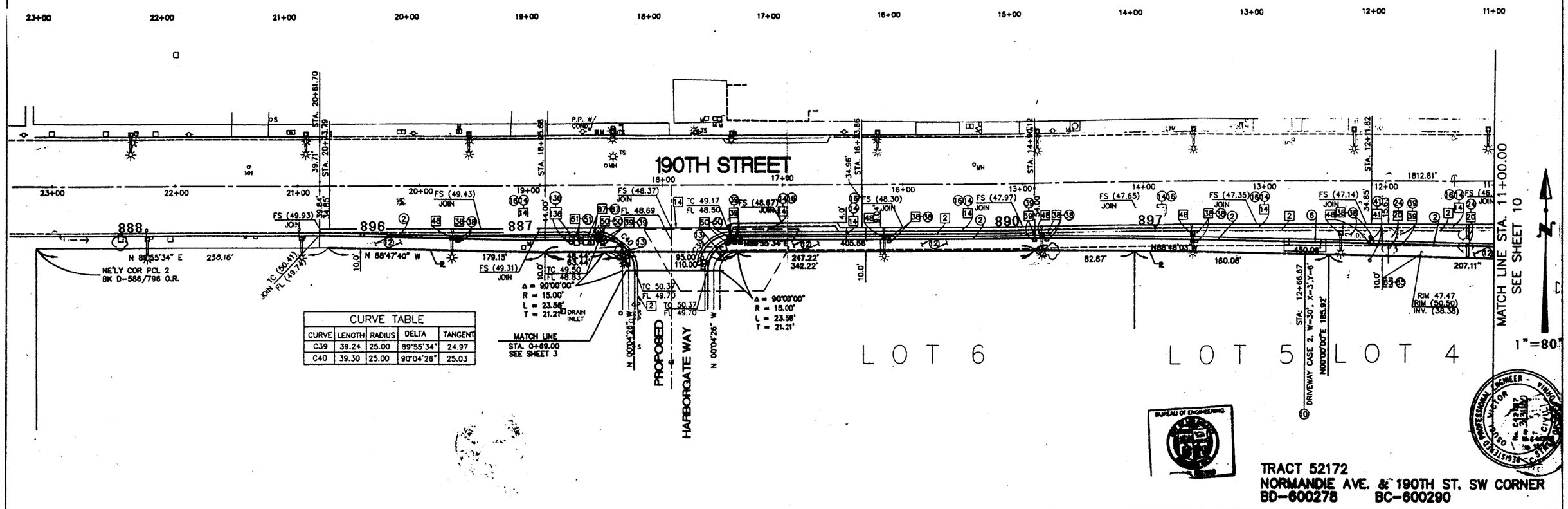
LOCATION OF COMPACTION TESTS

SHEET 6 OF 7

BOE-C6-0100224



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C39	39.24	25.00	89°55'34"	24.97
C40	39.30	25.00	90°04'26"	25.03

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LOCATION OF COMPACTION TESTS

SHEET 7 OF 7

BOE-C6-0100225