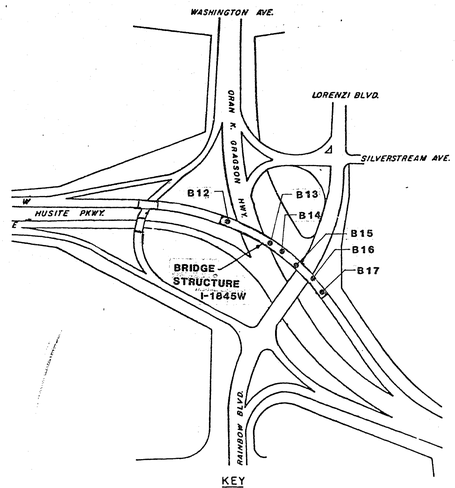
FED. RD. REG. NO.	STATE	PROJECT NO.	COUNTY
9	NEV.	SPS-095-2(4)	CLARK



KEY

• -APPROX. BORING LOCATION

KEY PLAN

BORING NO. 12

DATE DRILLED: 06-10-86
LOCATION: See Key Plan
ELEVATION: 2393.9

DEPTH IN FEET	FIELD MOISTURE %	DRY DENSITY PCF	OTHER TESTS*	BLOWS/FT**	GRAPHIC SYMBOL	SOIL DESCRIPTION	MOISTURE	CONSIST.
0					FILL	FILL - SANDY GRAVEL - w/cobbles light brown	sl. moist	
				48 10"				
5						Cemented SAND and GRAVEL - lt. brown	dry	m.h/h.
								hard to very hard
10							to	hard
								m.h/h.
15						brown	sl.	hard
								h./v.h.
20						light brown	moist	mod. hard to hard
25								hard

Bottom at 25 feet.

BORING NO. 13

DATE DRILLED: 06-10-86
LOCATION: See Key Plan
ELEVATION: 2378.9

DEPTH IN FEET	FIELD MOISTURE %	DRY DENSITY PCF	OTHER TESTS*	BLOWS/FT**	GRAPHIC SYMBOL	SOIL DESCRIPTION	MOISTURE	CONSIST.
0						Cemented SAND and GRAVEL - lt. brown	dry	m. hard
								hard
5					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown	to	v.dense m. hard
				50 4"				
						Cemented SAND and GRAVEL - lt. brown		m.h/h.
								hard
10							sl.	m. hard to hard
								hard
15					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown	moist	v.dense to m. hard
								v.dense
						Cemented SAND and GRAVEL -lt br		hard
					GP	SANDY GRAVEL - part. cemented		v.d/m.h
20						Bottom at 20 feet.		

BORING NO. 14

DATE DRILLED: 06-10-86
LOCATION: See Key Plan
ELEVATION: 2377.0

DEPTH IN FEET	FIELD MOISTURE %	DRY DENSITY PCF	OTHER TESTS*	BLOWS/FT**	GRAPHIC SYMBOL	SOIL DESCRIPTION	MOISTURE	CONSIST.
0					FILL	FILL- SANDY GRAVEL - lt. brown	sl. moist	
					GP	SANDY GRAVEL - light brown		v.dense m. hard
						Cemented SAND and GRAVEL - lt. brown		m.h/h.
								h./v.h.
5					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown	dry	v.dense to m. hard
						Cemented SAND and GRAVEL - lt. brown	to	m. hard to hard
10				50 4"	GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown		v.dense to m. hard
						Cemented SAND and GRAVEL - lt. brown	sl.	m. hard to hard
15					GP	SANDY GRAVEL - w/cob., lt. brn.	moist	v.d/m.h
						Cemented SAND and GRAVEL -lt.br		m.h./h.
					CL	SANDY CLAY - w/gravel, brown		very stiff
20						Bottom at 20 feet.		

BORING NO. 15

DATE DRILLED: 06-09-86
LOCATION: See Key Plan
ELEVATION: 2384.6

DEPTH IN FEET	FIELD MOISTURE %	DRY DENSITY PCF	OTHER TESTS*	BLOWS/FT**	GRAPHIC SYMBOL	SOIL DESCRIPTION	MOISTURE	CONSIST.
0					FILL	FILL - SANDY GRAVEL - lt. brn.	sl. moist	
				46	GP	SANDY GRAVEL - w/cobbles, lt. brown		dense to v.dense
						Cemented SAND and GRAVEL - lt. brown	dry	hard
5								v. hard
								hard
10							to	mod. hard
					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown	sl.	v.dense m. hard
						Cemented SAND and GRAVEL - lt br		hard
15					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown	moist	v.dense m. hard
						Cemented SAND and GRAVEL - lt. brown		hard
					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown		v.dense m. hard
20						Bottom at 20 feet.		

BORING NO. 16

DATE DRILLED: 06-09-86
LOCATION: See Key Plan
ELEVATION: 2384.6

DEPTH IN FEET	FIELD MOISTURE %	DRY DENSITY PCF	OTHER TESTS*	BLOWS/FT**	GRAPHIC SYMBOL	SOIL DESCRIPTION	MOISTURE	CONSIST.
0					FILL	FILL - SANDY GRAVEL - lt. brown	sl.moist	
						Cemented SAND and GRAVEL - lt br		hard
					GP	SANDY GRAVEL - light brown		v. dense
						Cemented SAND and GRAVEL - lt. brown	dry	m. hard to hard
5				50 1"				h./v.h.
							to	hard
10								
							sl.	m. hard to hard
15							moist	hard
				50 2"				m.h./h.
20					GP	SANDY GRAVEL - w/cob. lt. brown		v.d/m.h
						Bottom at 20 feet.		

BORING NO. 17

DATE DRILLED: 06-10-86
LOCATION: See Key Plan
ELEVATION: 2380.8

DEPTH IN FEET	FIELD MOISTURE %	DRY DENSITY PCF	OTHER TESTS*	BLOWS/FT**	GRAPHIC SYMBOL	SOIL DESCRIPTION	MOISTURE	CONSIST.
0					FILL	FILL - SANDY GRAVEL - lt. brn.	sl. moist	
					GP	SANDY GRAVEL - w/cob., lt. brn.		dense
						Cemented SAND and GRAVEL - lt. brown		m. hard
								v. hard
								hard
5					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown	dry	v. dense to m. hard
				50 5"				
						Cemented SAND and GRAVEL - lt. brown		hard
								mod. hard
10							to	hard
					GP	SANDY GRAVEL - w/cobbles, lt. brown		v.d/m.h
						Cemented SAND and GRAVEL - lt. brown		hard
15								m. hard
				50 3"	GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown	sl.	v. dense m. hard
						Cemented SAND and GRAVEL - lt br		hard
20					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown		v. dense m. hard
						Cemented SAND and GRAVEL - lt. brown	moist	very hard
								hard
25								m. hard
				50 3"	GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown		v.dense m. hard
						Cemented SAND and GRAVEL - lt br		m.h/h.
					GP	SANDY GRAVEL - w/cob., lt. brn.		v.d/m.h
30						Cemented SAND and GRAVEL - lt. brown	dry	m. hard to hard
								hard
					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brn.	to	v. dense m. hard
						Cemented SAND and GRAVEL - lt. br	sl.	hard
35					GP	SANDY GRAVEL - w/cobbles, partially cemented, lt. brown	moist	v.dense to m. hard
40						Bottom at 40 feet.		

EXPLANATION OF MATERIAL CLASSIFICATIONS

MAJOR DIVISIONS			Group Symbols	TYPICAL NAMES
COARSE GRAINED SOILS More than 50% of material is larger than the No. 200 sieve.	GRAVELS More than 50% of coarse part is larger than the No.4 sieve	CLEAN GRAVELS Little or no fines	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVELS WITH FINES Appreciable amt of fines	GM	Silty gravels, gravel-sand-silt mixtures.
			GC	Clayey gravels, gravel-sand-clay mixtures.
	SANDS More than 50% of coarse part is smaller than the No.4 sieve	CLEAN SANDS Little or no fines	SW	Well graded sands, gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES Appreciable amt of fines	SM	Silty sands, sand-silt mixtures.
			SC	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS More than 50% of material is smaller than No. 200 sieve.	SILTS AND CLAYS Liquid limit LESS than 50		ML	Inorganic silts & very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
			CL	Inorganic clays of low to med. plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS Liquid limit GREATER than 50		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

PARTICLE SIZE LIMITS

silt or clay	sand			gravel		cobbles	boulders
	fine	medium	coarse	fine	coarse		

No.200 No.40 No.10 No.4 3/4" 3" 12"
U.S. STANDARD SIEVE SIZE

DESCRIPTIVE TERMS USED WITH SOILS

	CONSISTENCY: Silts and Clays	CONSISTENCY: Sands and Gravels	MOISTURE CONTENT	
Strongest	very stiff	very dense	Wettest	wet
	stiff	dense		very moist
	firm	medium dense		moist
	soft	loose		slightly moist
Weakest			Driest	dry

DESCRIPTIVE TERMS USED WITH CALICHE AND CEMENTED SOILS

	CALICHE	CEMENTED SAND AND GRAVEL	IDENTIFICATION TEST USING KNIFE AND STANDARD GEOLOGIST'S HAMMER
Strongest	very hard	very hard	Difficult to scratch or break.
	hard	hard	Scratches leave only dust, requires many hammer blows to break.
	moderately hard	moderately hard	Can be readily cut with knife and crumbles with several hammer blows.
Weakest	partially cemented	partially cemented	Gouges easily with knife and crumbles readily with a few blows of a hammer

✳ OTHER TESTS: C-CONSOLIDATION, A-ATTERBERG, S-SHEAR, G-GRAIN SIZE, E-EXPANSION, CH-CHEMICAL

✳✳ USING 370 LB. DRIVING WEIGHT AND 2.625 INCH. (I.D.) DIAMETDER SAMPLER

NOTE: WATER NOT ENCOUNTERED

SHEET B38, OMITTED
SHEET B40, OMITTED

I-1845W

REV	DATE	DESCRIPTION
A	11/16/87	ISSUE FOR GMP
B	2-26-88	ISSUE FOR CONSTRUCTION

RECOMMENDED: GEORGE C. WALLACE, R.E. 1815 — DATE 2/26/88

G.C. WALLACE, INC. Engineering/Architecture
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89102

HOWARD HUGHES PROPERTIES
HUSITE PARKWAY INTERCHANGE
LOG OF BORINGS

SHEET B39 OF 138 SHEETS

JOB NO. 620.222

8/84 DIETERICH-POST 8532B

26-3162 107-U1882