

APPENDIX D

Bedrock Quality Evaluation

N

Equal Area

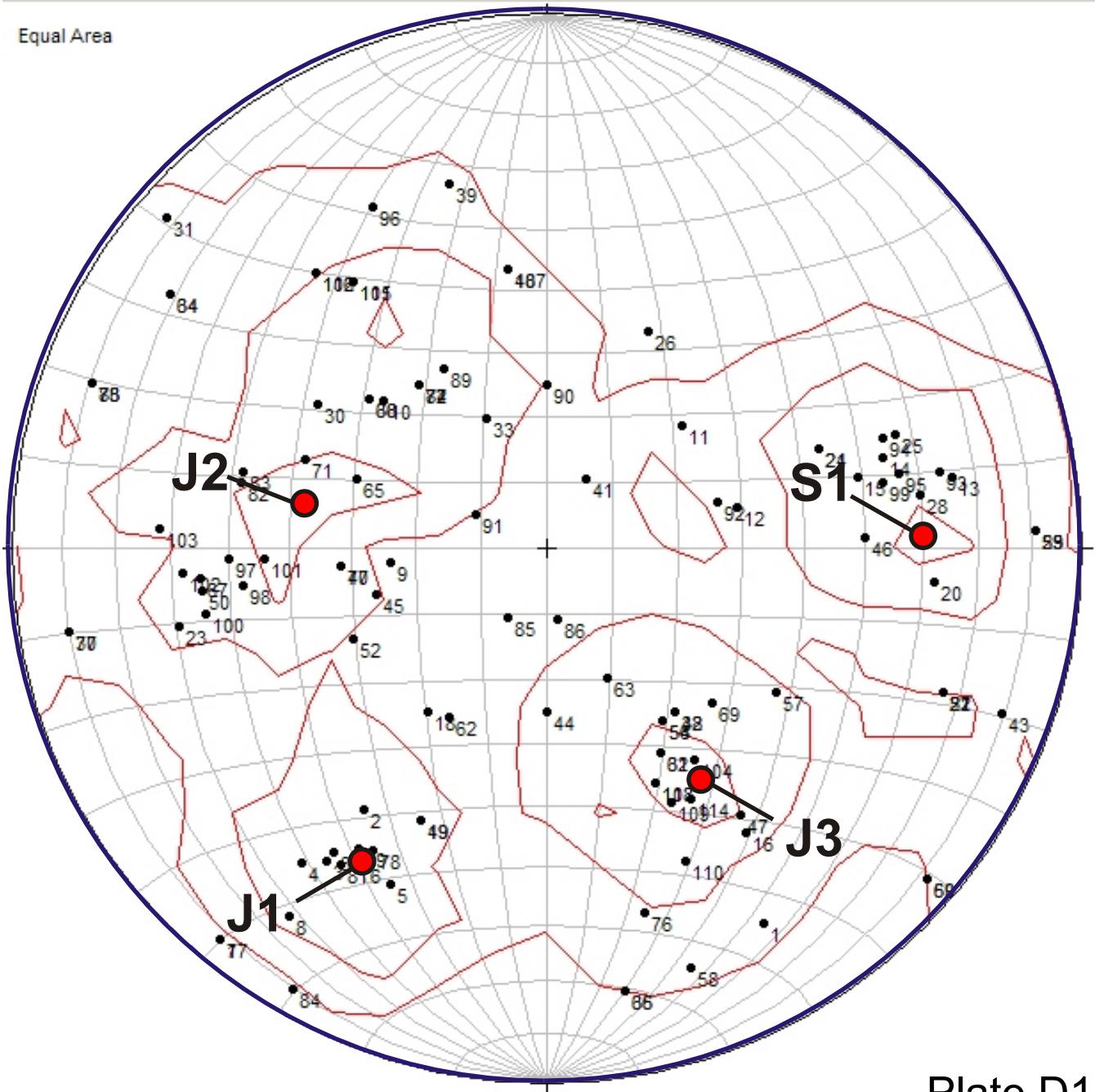


Plate D1

ROCK DISCONTINUITY POLAR PLOT

PROPOSED RESIDENTIAL DEVELOPMENT
VIC. 2167 LAUREL CANYON BLVD.
LOS ANGELES, CALIFORNIA



Earth Systems
Southern California

9/10/2007

LA-01121-01

N

Equal Angle

RANGE OF
AVG SLOPE SURFACE

SECONDARY DISCONTINUITIES

Plate D2

ROCK DISCONTINUITY STEREONET PLOT

PROPOSED RESIDENTIAL DEVELOPMENT
LAUREL CANYON BLVD. AT OAKDEN
LOS ANGELES, CALIFORNIA



Earth Systems
Southern California

9/10/2007

LA-01121-01

ROCK MASS CLASSIFICATION

There are several methods to address the stability of in place masses for engineering purposes. Earth Systems Southern California finds that the Rock Mass Rating System (RMR), (ASTM D 5878) has suitable parameters for the subject site for use in the slope stability analysis.

The RMR Classification is based on a point system controlled by the quality of rock and groundwater. The following is a summary of the parameters set forth which are specific to the site. The associated point classification and overall rating of the rock at the subject site are formulated by adding the ratings for each row.

Conservative Evaluation of Quality of Relatively Unweathered Bedrock (>15 feet deep)

Parameters	Description	Value	Rating
Strength of Rock	Point load strength Index	2 - 4 MPa	7
Drill Core quality RQD	Estimated	50% - 75%	13
Spacing of Discontinuities	Measured	60 - 200 mm	8
Conditions of Discontinuities	Highly weathered walls		20
Groundwater		Damp	10
Joint Orientation	Between favorable and Fair		-10
Total			48
Rock Mass Classes for Slopes			Class III
Description			“Fair Rock”
Meaning of Rock Mass Classification			Cohesion 200-300 kPa ~4 – 6 ksf
			Friction angle 25° - 35°

Moderate Evaluation of Quality of Relatively Unweathered Bedrock (>15 feet deep)

Parameters	Description	Value	Rating
Strength of Rock	Point load strength Index	4 - 10 MPa	12
Drill Core quality RQD	Estimated	75% - 90%	17
Spacing of Discontinuities	Measured	200 – 600 mm	10
Conditions of Discontinuities	Highly weathered walls		25
Groundwater		Damp	10
Joint Orientation	Between favorable and Fair		-10
Total			64
Rock Mass Classes for Slopes			Class II
Description			“Good Rock”
Meaning of Rock Mass Classification			Cohesion 300-400 kPa ~6 - 8 ksf
			Friction angle 35° - 45°