

Truckee Tahoe Airport
Runway 10-28 West End Rehabilitation

Presentation to
Truckee Tahoe Airport District

Reinard W. Brandley
CONSULTING AIRPORT ENGINEER
6125 King Road, Suite 201
Loomis, California 95650
(916) 652-4725

June 13, 2011

Truckee Tahoe Airport - FWD Deflection Data

Runway 10-28 - 10' South of Centerline

(Station 0+00 at R/W 10 Threshold)

- Runway 10-28 South - 25 kips - 2009
- Runway 10-28 South - 25 kips - 2011

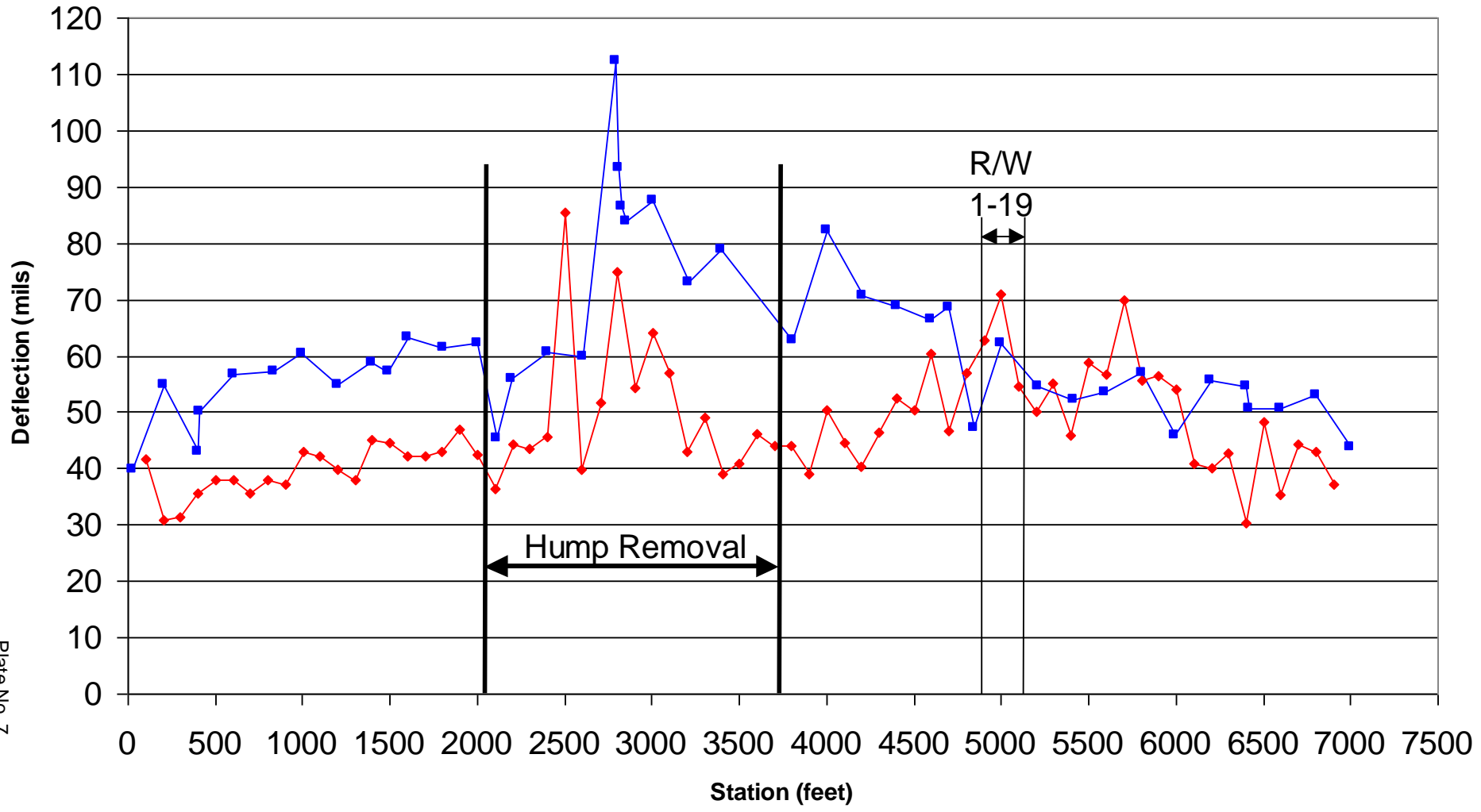
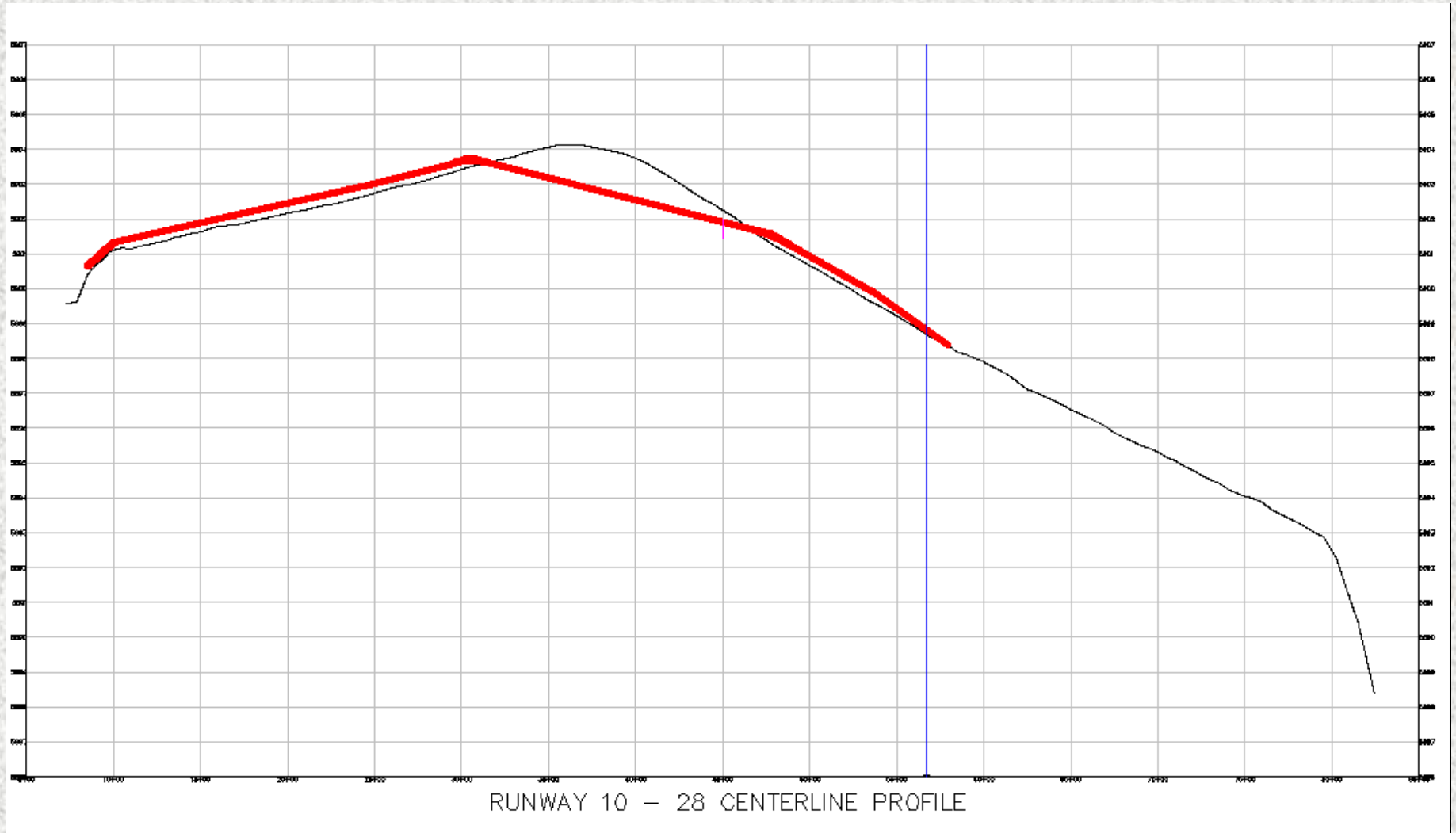


Plate No. 7

R/W 10-28 Profile – Lower Hump



RUNWAY 10 - 28 CENTERLINE PROFILE

R/W 10-28 Design Option Summary

- Design Option A – Pulverize AC/AB, 3” AC Overlay
- Design Option B – Grind, Remove, and Replace 4” AC
- Design Option C – Pulverize AC/AB, 3” New Agg. Base, & 3” AC Overlay
- Design Option D – Grind 2” AC, Crack Repair, 2” AC Overlay, Saw & Seal Joints

Design Option	Bearing Capacity Single / Dual Gear (1,000 lbs)	Expected Life (Years)			Construction Cost (Lower Hump)	Construction Cost (Leave Hump)
		Forecast Traffic	Double 40k+ Jets	Without 40k+ Jets		
Existing	29 / 38	19	13	33	-	-
A	37 / 57	46	34	77	\$ 2,381,000	\$ 1,820,000
B	29 / 38	23	16	40	\$ 2,575,000	\$ 2,167,000
C	54 / 74	91	68	150	\$ 2,826,000	\$ 2,603,000
D	29 / 38	23	16	40	\$ 2,195,000	\$ 1,787,000

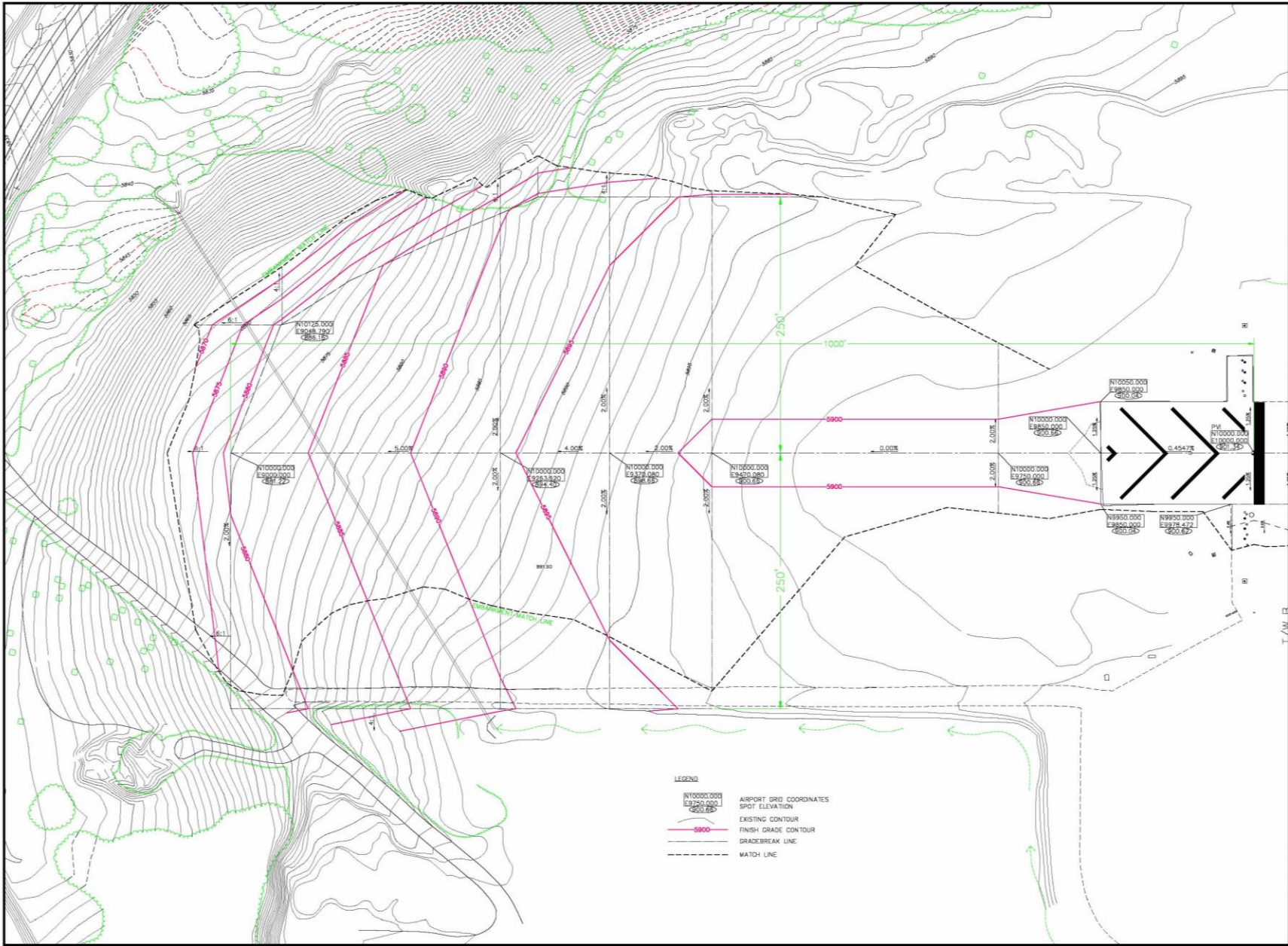
R/W 10-28 Brandley vs. FAARFIELD

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Design Option	Bearing Capacity Single / Dual Gear (1,000 lbs) (1,000 lbs)	Expected Life (Years)					
		Forecast Traffic	Forecast Traffic	Double 40k+ Jets	Double 40k+ Jets	Without 40k+ Jets	Without 40k+ Jets
		Brandley	FAARFIELD	Brandley	FAARFIELD	Brandley	FAARFIELD
Existing	29 / 38	19	0.7	13	0.3	33	11
A	37 / 57	46	7	34	4	77	75
B	29 / 38	23	2	16	1	40	27
C	54 / 74	91	43	68	26	150	1012
D	29 / 38	23	2	16	1	40	27

R/W 10-28 Design Option Comparative Study

Item	Design Option A	Design Option C
Load Rating - Single/Dual Gear - kips	37 / 57	54 / 74
Remaining Pavement Life - Years (Subgrade Failure)	46	91
Base Failure Susceptibility	Moderate	Low
Frost Susceptibility	Moderate	Low
Initial Construction Cost (No Hump Lowering)	\$ 1,820,000	\$ 2,603,000
Added Construction Cost - Upgrade Load Rating (No Hump Lowering)	\$ 1,100,000	\$ -



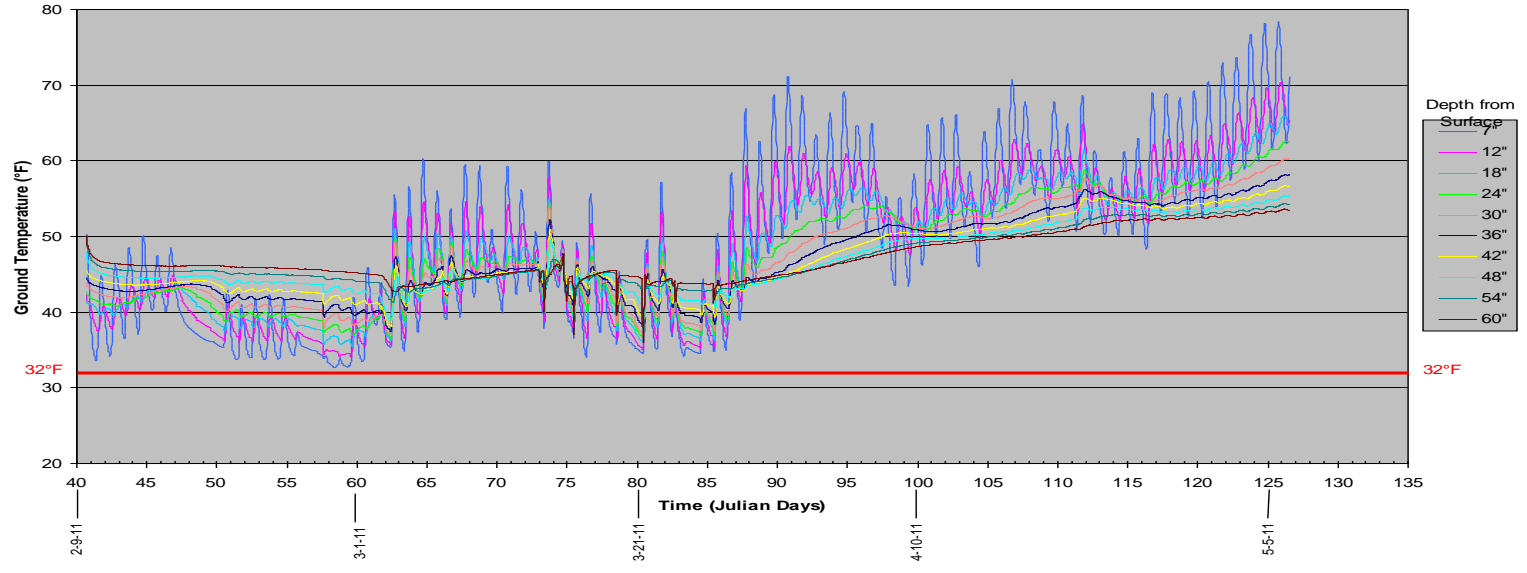
		DESIGN BY: RMB
		DRAWN BY: TAS
TAHOE TRUCKEE AIRPORT RUNWAY 10-28 REHABILITATION EXTENDED RUNWAY 10 GRADING PLAN		DATE: MAY 24, 2011
		CONTRACT NO.:
T. J. VAN LEE CALIFORNIA REGISTERED PROFESSIONAL ENGINEER		PROJECT NO.: 4811
		DWG. FILE:
REINARD W. BRANDLEY CONSULTING AIRPORT ENGINEER		DRAWING SCALE: 1"=40'
		SHEET NUMBER
1 OF 1 SHEETS		1 OF 1 SHEETS

Reinard W. Brandley
CONSULTING AIRPORT ENGINEER



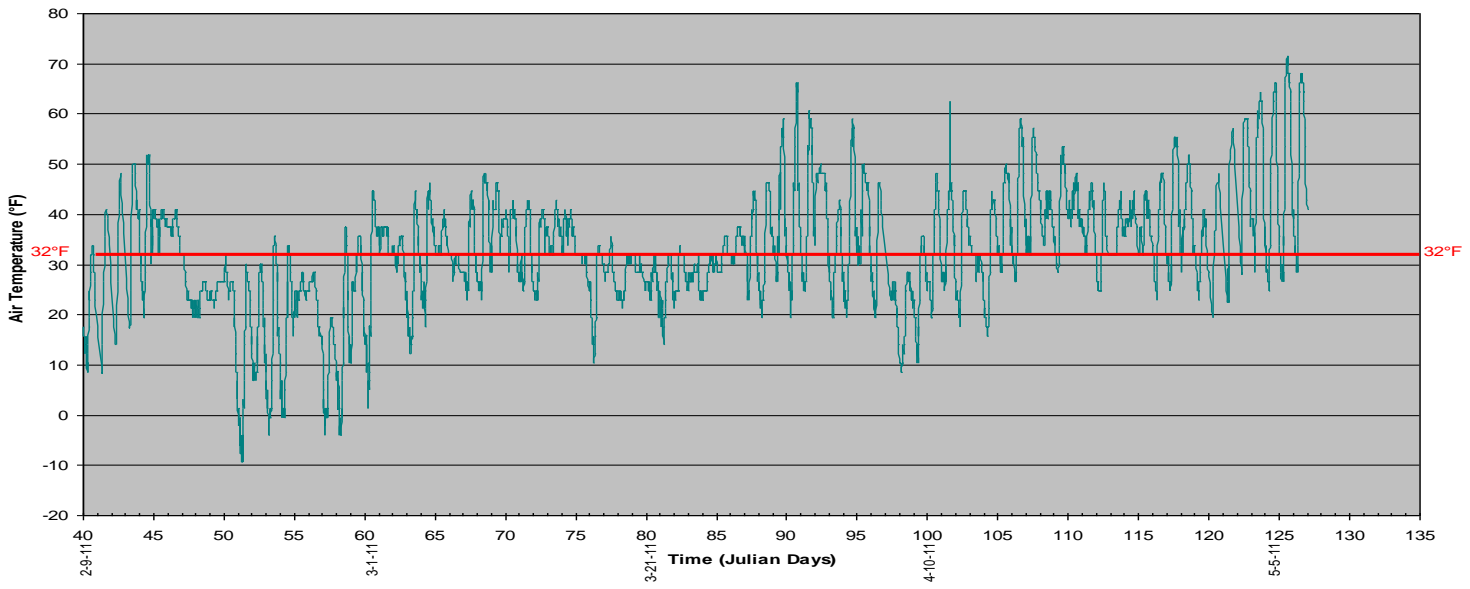
**Reinard W. Brandley
CONSULTING AIRPORT ENGINEER**

**Truckee-Tahoe Airport
Runway 10-28 Ground Temperature**



**Truckee-Tahoe Airport
Air Temperature**

Air Temperature



**Truckee-Tahoe Airport
FAA Theoretical Frost Penetration Depth
Winter 2010-2011**

— 32°F Degree Day Baseline

