

14-505-01



Rite in the Rain®
ALL-WEATHER
**CROSS SECTION
FIELD BOOK**

No 370-6F

**PARKS HWY GRADE SEPARATIONS
2014 SURVEY SERVICES
BOOK 3**

14-505-01 PARKS HWY GRADE SEPARATIONS 2014

BOOK 3



CONTENTS		
PAGE	REFERENCE	DATE
		

Rite in the Rain 
ALL-WEATHER WRITING PAPER

ALL-WEATHER CROSS SECTION FIELD BOOK

Name HATTENBORG, WILLEY & LINNELL

Address 202 W ELMWOOD AVE STE 1

PALMER, ALASKA 99645

Phone 907-746-5230

Project 14-S05-01 H&I P&S HWY GRADE SEPARATIONS

2014 SURVEY SERVICES

BOOK 3

Rite in the Rain – A patented, environmentally responsible, all-weather writing paper that sheds water and enables you to write anywhere, in any weather. Using a pencil or all-weather pen, *Rite in the Rain* ensures that your notes survive the rigors of the field, regardless of the conditions.

Specifications for this book

Page Pattern		Cover Options	
Left Page	Right Page	Polydura Cover	Fabrikoid Cover
1/10" Grid	1/10" Grid	NA	Item No. 370-6F

RiteintheRain.com

Made in the USA
US Pat No. 6,863,940

INDEX

<u>PAGE</u>	<u>DESCRIPTION</u>	<u>DATE</u>
1	SET CP 82 THROUGH CP 86 MP 100.5	9/17/14
2	GPS STATIC CONTROL CP 82 THROUGH CP 86	9/18/14
3	LEVEL LOOP TBM 626, CP 83, CP 82	9/20/14
4	LEVEL LOOP TBM 627, CP 84, CP 85, CP 86	9/20/14
5	GPS STATIC CONTROL CP 82 THROUGH CP 86	9/19/14
6	CONTROL COLLECT FOR MP 100.5 LOCALIZATION	9/22/14
7	SET CP 87 THROUGH CP 91 MP 91.5	9/22/14
8	GPS STATIC CONTROL CP 87 THROUGH CP 91 MP 91.5	9/23/14
9	GPS STATIC CONTROL CP 87 THROUGH CP 91 MP 91.5	9/24/14
10	GPS STATIC CONTROL CP 87 THROUGH CP 91 MP 91.5	9/25/14
11-15	ROW MONUMENTS MP 100.5	9/29/14
16-17	ROW MONUMENTS MP 100.5	9/30/14
18	RE-TURN PT #471	10/1/14
19	LOCATES MP 100.5 RR. + ACS	10-02-14
20	LOCATES MP 91.5 ACS	10-02-14
21	LEVEL LOOPS 604, 87-89 & 605, 90-91	10/3/14

SEPARATED GRADE CROSSINGS

SET CONTROL MP 100.5

CP 82 SET 2" ALCAP ON 5/8" X 30" REBAR 0.2' BELOW GRADE
 +/- 102' NE OF NE EDGE PARKS HWY
 +/- 84' NW OF POLE P21
 +/- 120' SE OF POLE P21A
 +/- 400' NORTH OF MP 100

CP 83 SET 2" ALCAP ON 5/8" X 30" REBAR 0.2' BELOW GRADE
 +/- 87' NORTH OF NORTH EDGE PARKS HWY
 +/- 1490' NORTHWEST OF MP 100 SIGN
 +/- 19' NORTHWEST OF WOOD UTILITY POLE P24
 +/- 265' SOUTHEAST OF WOOD UTILITY POLE P25
 +/- 580' EAST OF RAILROAD TRACKS & PARKS HWY

CP 84 SET 2" ALCAP ON 5/8" X 30" REBAR 0.2' BELOW GRADE
 +/- 85' NORTH OF NORTH EDGE PARKS HWY
 +/- 120' EAST OF WOOD UTILITY POLE WITH RISER & GUY ANCHOR
 +/- 125' WEST OF WOOD UTILITY POLE P28
 +/- 510' NORTHWEST OF RAILROAD TRACKS & PARKS HWY
 +/- 122' NORTH OF & MONUMENT STA. 106+18.0 PC
 +/- 20' EAST OF EAST EDGE OF DRIVEWAY

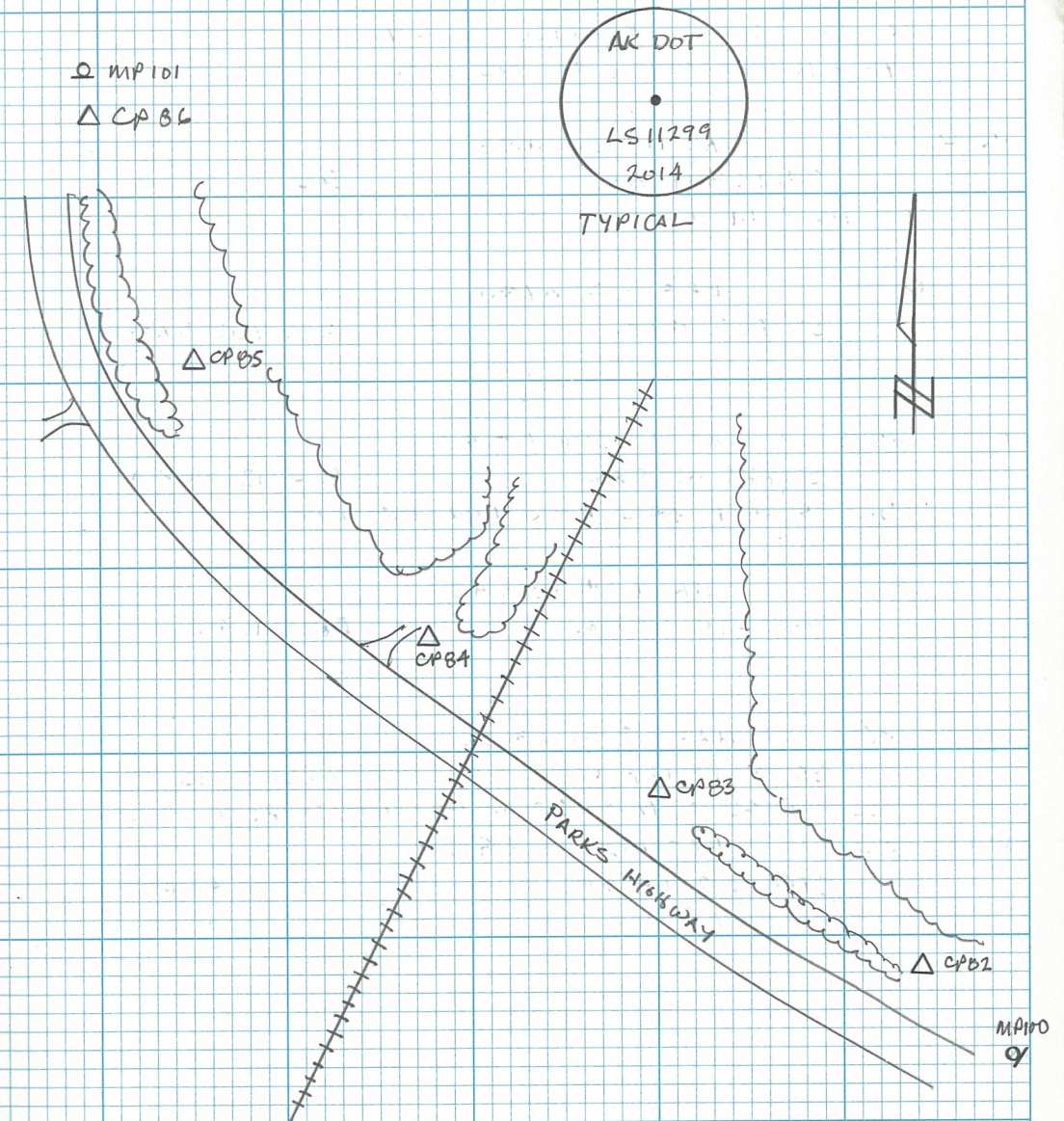
CP 85 SET 2" ALCAP ON 5/8" X 30" REBAR 0.3' BELOW GRADE
 +/- 85' NORTH OF NORTH EDGE PARKS HWY
 +/- 75' NORTHWEST OF WOOD UTILITY POLE WITH 3 GUY ANCHORS
 +/- 83' SOUTH EAST OF WOOD UTILITY POLE P30A
 +/- 1100' NORTHWEST OF RAILROAD TRACKS & PARKS HWY
 +/- 130' NORTH OF & DRIVEWAY SOUTH SIDE PARKS HWY

CP 86 SET 2" ALCAP ON 5/8" X 30" REBAR 0.2' BELOW GRADE
 +/- 72' EAST OF EAST EDGE PARKS HWY
 +/- 95' SOUTH OF WOOD UTILITY POLE P32A
 +/- 100' NORTH OF WOOD UTILITY POLE WITH 2 GUY ANCHORS
 +/- 130' NORTHEAST OF & MONUMENT STA 117+27.1 PT
 +/- 1340' SOUTHEAST OF MP 101 SIGN

9/17/14
 40°
 RAIN

14-SOS-01

BOOK 3 PAGE 1
 M DANIEL
 D BORK



SEPARATED GRADE CROSSINGS
GPS CONTROL STATIC

R3 @ CP3 HA = 4.93' / 1.503 m
START: 7:40 AM END: 4:12 PM
ATK-1230 GG POLE PUCK/TRIBENCH - NO OFFSET
SEE PAGE 16 HORIZONTAL CONTROL BOOK 1 HDL PROJECT 13-025-02

VB @ CP1 HA = 1.243 m / 4.08'
START: 8:19 AM END: 3:48 PM
SEE PAGE 14 HORIZONTAL CONTROL BOOK 1 HDL PROJECT 13-025-02

V4 @ CP82 HA = 1.254 m / 4.11'
START: 8:44 AM END: 10:28 AM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

R1 @ CP83 HA = 1.350 m / 4.43'
START: 8:55 AM END: 12:09 PM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

V4 @ CP84 HA = 1.346 m / 4.42'
START: 10:38 AM END: 1:49 PM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

R1 @ CP85 HA = 1.290 m / 4.23'
START: 12:17 PM END: 3:35 PM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

V4 @ CP86 HA = 1.280 m / 4.20'
START: 2:04 PM END: 3:40 PM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

9/18/14
48°
RAIN

14-505-01

BOOK 3 PAGE 2
M DANIEL
O BURKE

EQUIP: LEICA 1200 SMARTROVER R1
LEICA 1200 SMARTROVER R3
LEICA GS10 BASE VB
LEICA GS14 ROVER V4

FILES: 1450501514091BR3
1450501514091BV8
1450501514091BV4A (CP82)
1450501514091BR1A (CP83)
1450501514091BV4A (CP84)
1450501514091BR1B (CP85)
1450501514091BV4A (CP86)

SEPARATED GRADE CROSSINGS
LEVEL LOOP LINE 3

STA	+	-	ELEV	ADS ELEV
TBM 626			359.176	359.105
CA 83	7.371	9.044	357.443	357.432
TP 1	8.857	5.477		
	7.008			
TP 2		5.401		
	6.475			
TP 3		5.964		
	4.836			
CA 82		8.461	359.316	359.304
	9.232			
TP 4		5.608		
	5.896			
TP 5		6.407		
	5.262			
TP 6		6.867		
	4.761			
TBM 626		6.468	359.117	359.105

9/29/14
46°
RAIN

14-SOS-01

BOOK 3, PAGE 3
M DANIEL
D BURK

EQUIP: LEICA DNA 10
JOB: 14505
LINE 0003
EXPORT FILE 14505L3

EOC 0.001

SEPARATED GRADE CROSSINGS
LEVELS LINE 4

STA	←	—	ELEV	ADJ ELEV
TBM 627			360.760	
CP 86	7.714	9.133	359.341	359.341
TP1	8.952	4.179		
TP2	5.604	4.384		
CP 85	2.507	11.764	356.077	356.077
TP3	11.959	4.398		
CP 84	6.390	6.595	363.433	363.434
TP4	6.298	6.094		
TP5	4.662	6.190		
	5.148			
TBM 627		6.498	360.759	360.760

9/20/14
46°
CLOUDY

14-505-01

BOOK 3 PAGE 4
M DANIEL
D BORKE

EOC 0.002

SEPARATED GRADE CROSSINGS
GPS CONTROL STATIC

R3 @ CA3 HA = 4.85' / 1.478m
START: 7:25 AM END: 4:20 PM
SEE PAGE 16 HORIZONTAL CONTROL BOOK 1 HDL PROJECT 13-025-02

VB @ CA1 HA = 1.266m / 4.15'
START: 8:05 AM END: 3:45 PM
SEE PAGE 14 HORIZONTAL CONTROL BOOK 1 HDL PROJECT 13-025-02

V4 @ CAB6 HA = 1.301m / 4.27'
START: 8:16 AM END: 10:00 AM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

R1 @ CAB5 HA = 1.374m / 4.51'
START: 8:28 AM END: 12:01 PM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

V4 @ CAB4 HA = 1.345m / 4.41'
START: 10:12 AM END: 12:43 PM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

R1 @ CAB3 HA = 1.303m / 4.28'
START: 12:12 PM END: 3:35 PM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

V4 @ CAB2 HA = 1.244m / 4.08'
START: 1:55 PM END: 3:40 PM
SEE PAGE 1 THIS BOOK FOR DESCRIPTION

END DAY

9/19/14
46
RAIN

14-505-01

BOOK 3 PAGES
M DANIEL
D BURKE

EQUIP: LEICA 1200 SMARTROVER (R3)
LEICA 1200 SMARTROVER (R1)
LEICA GS10 VIVA BASE (VB)
LEICA GS14 VIVA (V4)

FILES: (R3) 1450501S140919R3
(VB) 1450501S140919VB
(V4) 1450501S140919V4A (CAB6)
(R1) 1450501S140919R1A (CAB5)
(V4) 145051S140919V4A (CAB4)
(R1) 145050S140919R1B (CAB3)
(V4) 145051S140919V4A (CAB2)

SEPARATED GRADE CROSSINGS
CONTROL COLLECT

B1 @ CABO HAZ 1.336 m / 4.38'
V2 HAZ 2m / 6.562'

PT	CODE	DESC
9	9010	CA 9 (13-025)
78	9010	CA 78
82	9010	CA 82
79	9010	CA 79
83	9010	CA 83
85	9010	CA 85
81	9010	SP 81
86	9010	CA 86
50	9010	CA 50 (13-032-A02)

9/22/14

14-SOS-01

BOOK 3 PAGE 6
F SCHWADENER
T TUK

35°

SUNNY

LIGHT WIND

CA 80

WGS 84 HERE COORDINATES

62° 08' 51.84282" N

150° 04' 57.31663 W

ELL HT 402.965'

EQUIP: LEICA GPS 1200 SYSTEM W/ROL RADIO (B1)
LEICA GS 14 (V2)

FILES: 1450501 BASE 80 (B1)

1450501 COLLECT (V2)

ALL POINTS COLLECTED WITH 50 OBSERVATIONS, ROTATED
90° AND ANOTHER 50 OBSERVATIONS COLLECTED

SEPARATED GRADE CROSSINGS
SET CONTROL MAP 91.5

CP 87 SET 2 "ALCAP ON 5/8" X 30" REBAR 0.2' BELOW GRADE
 +/- 92' SOUTHEAST OF SOUTHEAST EDGE PARKS HWY
 +/- 270' SOUTHWEST OF POLE WT 235
 +/- 275' NORTH EAST OF POLE WT 234
 +/- 195' SOUTHWEST OF SOUTHWEST EDGE E MCKINLEY AVE
 +/- 40' SOUTHWEST OF UNNUMBERED POLE

CA88 SET 2" ALCAP ON 5/8" X 30" REBAR 012' BELOW GRADE
 +/- 85' SOUTHEAST OF SOUTHEAST EDGE PARKS HWY
 +/- 95' NORTHEAST OF POLE WIT 236
 +/- 270' SOUTHWEST OF POLE WIT 237
 +/- 235' EAST OF "BIG SU B&B" SIGN
 +/- 490' NORTHEAST OF NORTHEAST EDGE E MCKINLEY AVE

CA 89 SET 2" ALCAA ON 5/8" X 30" REBAR 0.3' BELOW GRADE
 +/- 90' SOUTHEAST OF SOUTHEAST EDGE PARKS HWY
 +/- 130' NORTHEAST OF POLE WIT 238A
 +/- 105' SOUTHWEST OF POLE WIT 239
 +/- 515' SOUTHWEST OF RAILROAD TRACKS AT PARKS HWY

CP90 SET 2"ALCAP ON 5/8"X30"REBAR 0.3' BELOW GRADE
 +/- 60' SOUTHEAST OF SOUTHEAST EDGE PARKS HWY
 +/- 25' SOUTHWEST OF SOUTHWEST EDGE S PARKA PARKWAY
 +/- 170' EAST OF "STOP/S JASSUEDR" SIGN
 +/- 120' NORTHEAST OF POLE WT 243
 +/- 1160' SOUTH OF MP 92
 +/- 740' NORTHEAST OF RAILROAD TRACKS AT PARKS HWY

CA 91 SET 2" ALCAN ON 5/8" X 30" REBAR 0.3' BELOW GRADE
 +/- 53' SOUTHEAST OF SOUTHEAST EDGE PARKS HWY
 +/- 40' NORTH OF POLE WT 245
 +/- 530' SOUTH OF MA 92
 +/- 550' SOUTH OF POLE WT 246
 +/- 150' NORTH OF NORTH EDGE LICHEN
 +/- 16' NORTHWEST OF MTH R/O VAULT

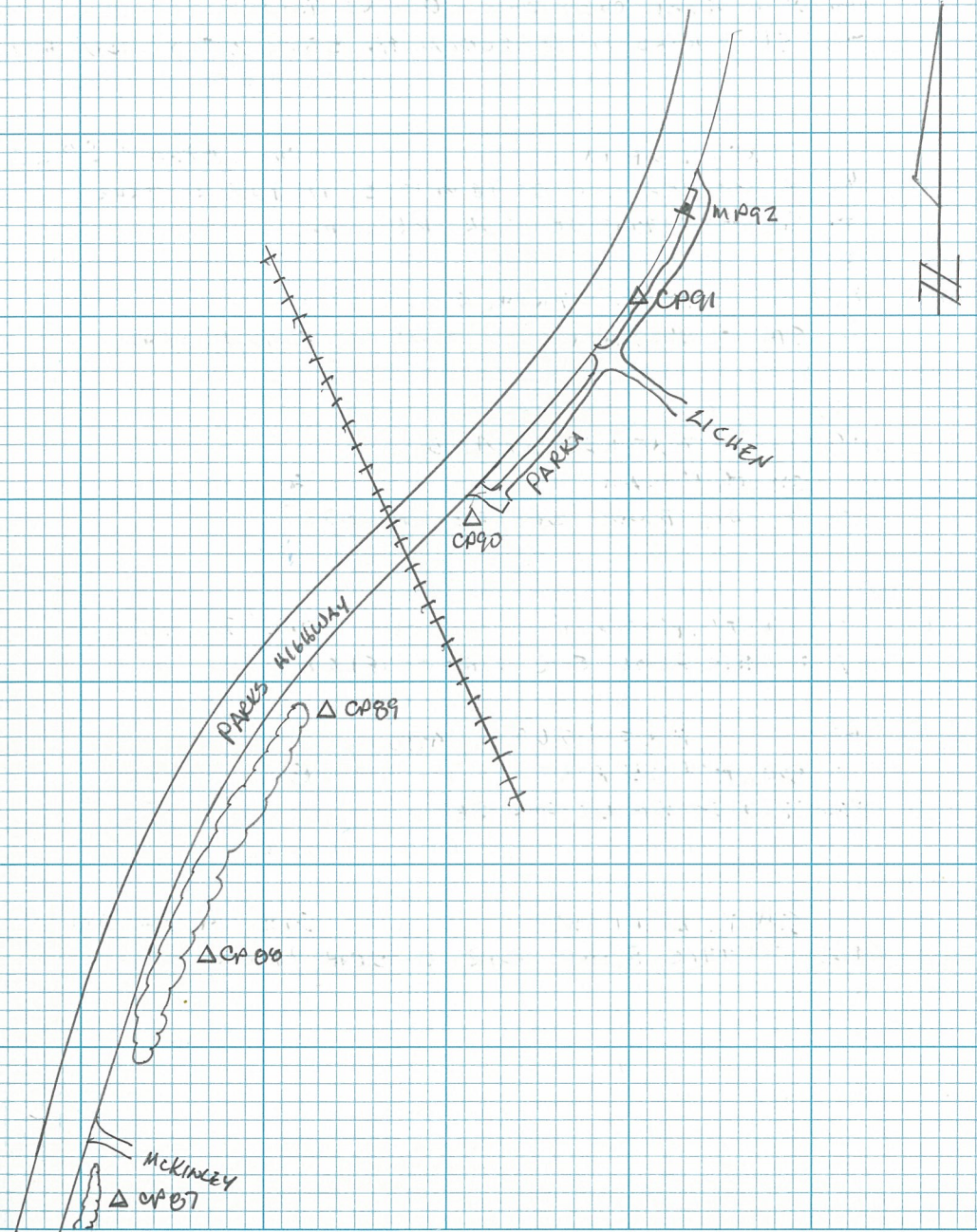
END DAY

9/22/14
39°
CLEAR

14-505-01

BOOK 3 PAGE 7
M DANIEL
D BORKE

SEE PAGE 1 THIS BOOK FOR TYPICAL CAP MARKINGS



SEPARATED GRADE CROSSINGS
GPS CONTROL STATIC MP 91.5

VB @ CP 551 (W105) HA = 1.063 m / 3.49'
START: 7:53 AM END: 5:11 PM

FOUND 3 1/2" BRASS CAP, USC#GS W105 1965, IN AN ORANGEBURG PIPE 0.1' ABOVE GROUND IN GOOD CONDITION. 0.4' NORTHBOUND OF THE PARKS HWY TACKERNA SPUR ROAD INTERSECTION +/- 55' LEFT OF CENTERLINE.

CHANGED TO FT. 700
R3 @ CP ~~626~~ (U10A) HA = 1.716 m / 5.63'

START: 9:04 AM END: 4:42 PM FOUND OUT OF POSITION
FOUND 3 1/2" BRASS CAP, USC#GS U104 1965, IN THE NORTHEAST END OF THE NORTH WEST ABUTMENT OF THE KASHWITNA RIVER BRIDGE.

V4 @ CP 87 HA = 1.307 m / 4.29'
START: 9:27 AM END: 11:07 AM
SEE PAGE 7 THIS BOOK FOR DESCRIPTION

R1 @ CP 88 HA = 1.299 m / 4.26'
START: 9:36 AM END: 12:51 PM
SEE PAGE 7 THIS BOOK FOR DESCRIPTION

VA @ CP 89 HA = 1.304 m / 4.28'
START: 11:18 AM END: 2:39 PM
SEE PAGE 7 THIS BOOK FOR DESCRIPTION

R1 @ CP 90 HA = 1.269 m / 4.16'
START: 1:05 PM END: 4:24 PM
SEE PAGE 7 THIS BOOK FOR DESCRIPTION

V4 @ CP 91 HA = 1.337 m / 4.38'
START: 2:47 PM END: 4:28 PM
SEE PAGE 7 THIS BOOK FOR DESCRIPTION

END DAY

9/23/14
35°
CLOUDY

14-505-D

BOOK 3 PAGE 8
M DANIEL
D BORKE

EQUIP: LEICA GS10 VIVA BASE (VB)
LEICA 1700 SMART ROVER (R3)
LEICA GS14 VIVA (V4)
LEICA 1700 SMART ROVER (R1)

FILES: (VB) 1450S1S140923VB (CP 551)
(R3) 1450S1S140923R3 (CP 626)
(V4) 1450S1S140923V4A (CP 87)
(R1) 1450S1S14923R1A (CP 88)
(V4) 1450S1S14923V4A (CP 89)
(R1) 1450S1S14923R1B (CP 90)
(V4) 1450S1S14923V4A (CP 91)

SEPARATED GRADE CROSSINGS
GPS CONTROL STATIC MP 91.5

VP @ CP 551 (W105) HA = 1,072m / 3.52'
START: 7:43 AM END: 4:16 PM

SEE PAGE 8 THIS BOOK FOR DESCRIPTION

CHANGED TO PT. 700
R3 @ CP ~~626~~ (U104) HA = 1,582m / 5.19' (NO OFFSET)
START: 8:22 AM END: 3:46 PM

SEE PAGE 8 THIS BOOK FOR DESCRIPTION

V4 @ CP 91 HA = 1,334m / 4.38'
START: 8:46 AM END: 10:28 AM

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

R1 @ CP 90 HA = 1,373m / 4.51'
START: 8:57 AM END: 12:09 PM

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

V4 @ CP 89 HA = 1,330m / 4.36'
START: 10:38 AM END: 1:52 PM

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

R1 @ CP 88 HA = 1,332m / 4.37'
START: 12:21 PM END: 3:32 PM

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

V4 @ CP 87 HA = 1,249m / 4.10'
START: 2:00 PM END: 3:37 AM

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

END DAY

9/24/14
28°
CLEAR

14-505-01

BOOK 3 PAGE 9
M DANIEL
D BURKE

EQUIP: LEICA GS10 VIVA BASE (VB)
LEICA 1200 SMARTROVER (R3)
LEICA GS14 VIVA (V4)
LEICA 1200 SMARTROVER (R1)

FILES: (VB) 1450501S140924VB (CP551)
(R3) 1450501S140924R3 (CP626)
(V4) 1450501S140924V4A (CP91)
(R1) 1450501S140924R1A (CP90)
(V4) 1450501S140924V4A (CP89)
(R1) 1450501S140924R1B (CP88)
(V4) 1450501S140924V4A (CP87)

SEPARATED GRADE CROSSINGS
GPS CONTROL STATIC MAP 91.5

VB@CP551 (W105) HA= 1.112m / 3.65'
START: 7:38 AM END: 6:10 PM

SEE PAGE 8 THIS BOOK FOR DESCRIPTION

CHANGED TO PT. 700
R3@CP626 (U104) HA= 1.682m / 5.52' (END OFFSET)
START: 8:23 AM END: 5:41 AM

SEE PAGE 8 THIS BOOK FOR DESCRIPTION

V4@CP87 HA= 1.217m / 3.99'
START: 8:44 AM END: 10:25 AM

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

R1@CP88 HA= 1.325m / 4.35'
START: 8:54 AM END: 12:08 PM

V4@CP89 HA= 1.311m / 4.30'
START: 10:37 AM END: ? FOUND POWERED DOWN

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

R1@CP90 HA= 1.346m / 4.42'
START: 12:17 PM END: 5:20 PM

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

V4@CP89 HA= 1.311m / 4.30' RE-BURN
START: 1:59 PM END: 3:31 PM

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

V4@CP91 HA= 1.341m / 4.40'
START: 3:49 AM END: 5:23 PM

SEE PAGE 7 THIS BOOK FOR DESCRIPTION

END DAY

9/25/14
39°
SUNNY

14-505-01

BOOK 3 PAGE 10
M DANIEL
D BURKE

EQUIP: LEICA GS10 VIVA BASE (VB)
LEICA 1200 SMARTROVER (R3)
LEICA GS14 VIVA (V4)
LEICA 1200 SMARTROVER (R1)

FILES: (VB) 14505015140925VB (CP551)
(R3) 14505015140925R3 (CP626)
(V4) 1450501514925V4A (CP87)
(R1) 1450501514925R1A (CP88)
(V4) 1450501514925V4A (CP89)
(R1) 1450501514925R1B (CP90)
(V4) 1450501514925V4B (CP89)
(V4) 1450501514925V4B (CP91)

SEPERATED GRADE CROSSING

ROW CONTROL

MA100.5

AE 84 BS 85 BSD = 545.60'
FND 6"x6" CONC ROW MARKER LEANING TO

875 BSD) 0-00-00 FSD) 211-03-09 D = 982.52'

I) 180-00-05 I) 31-03-15 D = 982.52'

MX 211-03-10 95

BSD) 0-00-00 FSD) 148-56-50 D = 545.60

I) 180-00-02 I) 328-56-56 D = 545.60

MX 148-56-52 ✓

MX 211-03-09

HD 982.52'

AE 84 BS 85 BSD = 545.60

876

BSD) 0-00-00 FSD) 188-51-22 D = 1118.52'

I) 180-00-01 I) 08-51-22 D = 1118.52'

MX 188-51-22 21.5

BSD) 0-00-00 FSD) 171-08-30 D = 545.60

I) 179-59-58 I) 351-08-32 D = 545.60

MX 171-08-32 ✓

CONT NEXT PG

MX 188-51-25

HD = 1118.52'

9-29-30

35° PC

14-505-01

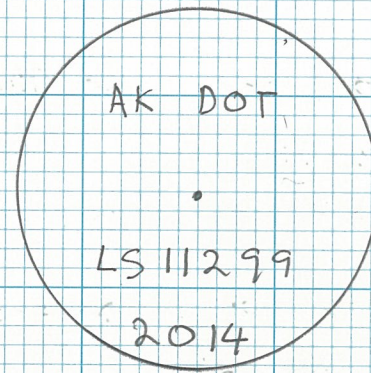
BK3 PG 11

D. BURICK

M. DANIEL

EQUIP

TCR 803



TYPICAL 84, 85, 86, 78

* SEE PG 12 FOR SKETCH

SEPERATED GRADE CROSSING

ROW CONTROL
MP100.5

877 $\pi @ 84 BS 85 BSD = 545.60$
FND 6"X6" CONC ROW MARKER ~0.3' BG
BROKEN BUT USABLE SHOT AT CENTER
BSD) 0-00-00 FSD) 348-21-⁵⁷~~54~~ D= 60.30
I) 180-00-06 I) 168-22-03 D= 60.30
MX 348-21-57 ✓

BSD) 0-00-00 FSD) 11-38-03 D= 545.60
I) 18000-06 I) 191-38-08 D= 545.60

~~MX 11-38-03 62.5~~
MX 348-21-57 HD 60.30 ✓

470 $\pi @ 84 BS 85 BSD = 545.60$
SET 12" SRK
BS D) 0-00-00 FSD) 170-42-⁴⁵~~39~~ D= 277.70
I) 180-00-⁰³~~04~~ I) 350-42-⁴⁵~~29~~ D= 277.70
MX 170-42-⁴⁵~~26~~ 40.5

BSD) 0-00-00 FSD) 189-17-14 D= 545.60
I) 180-00-04 I) 09-17-20 D= 545.60

~~MX 189-17-15~~ ✓
MX 170-42-43 HD 277.70 ✓

CONT NEXT PG.

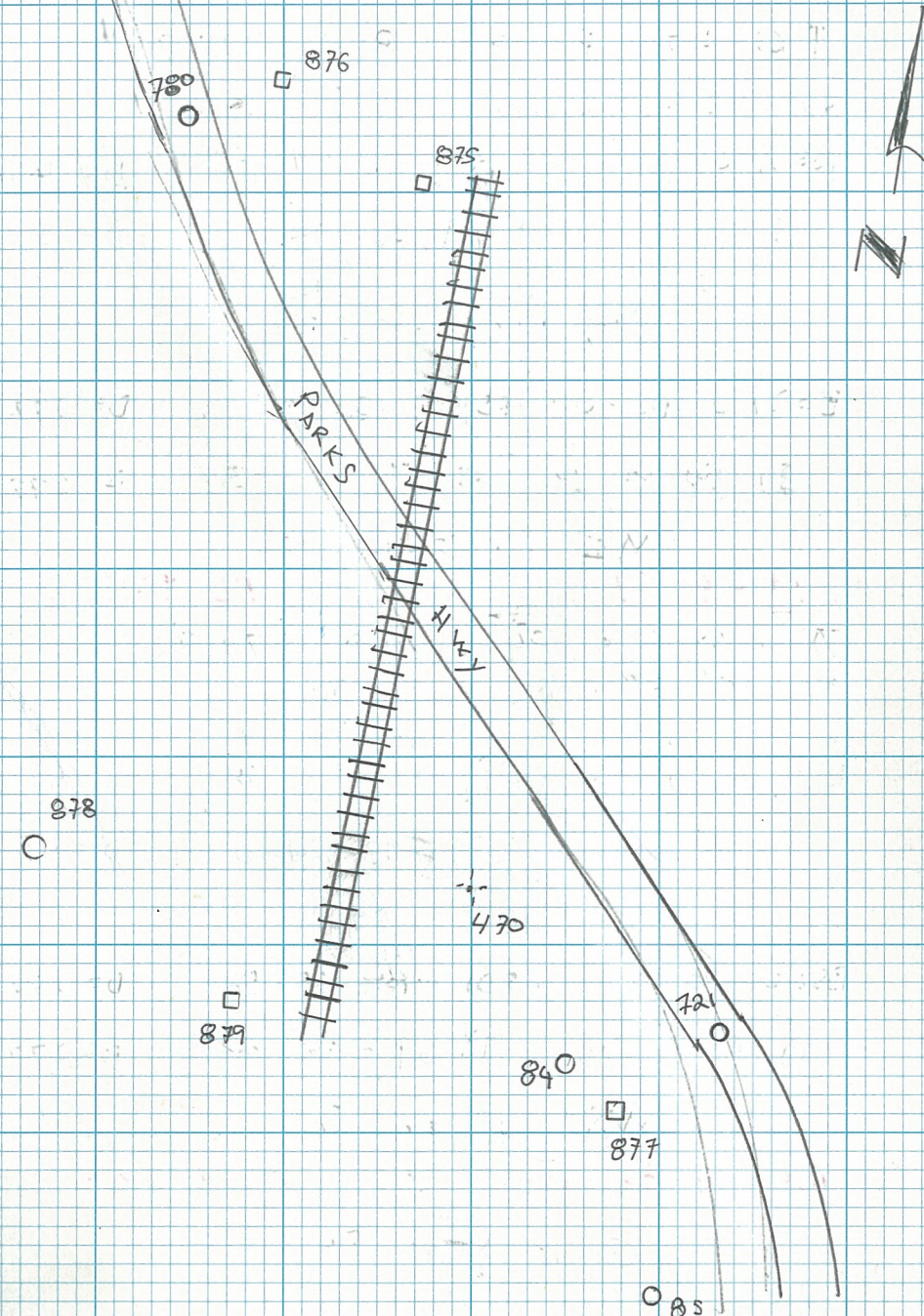
9-29-14

14-SOS-01

BK3 PG12

* SEE PG 11 FOR TYPICAL *
OF 84 + 85

SAME
CREW



SEPERATED GRADE CROSSING

ROW CONTROL

MP 100.5

878 $\pi @$ 470 BS 84 BS D = 277.70
END 3 1/4" AM ~ 10.1' A.G. IN GOOD COND
BSD) 0-00-00 FSD) 147-40-24 D = 488.08'
I) 180-00-00 I) 327-40-27 D = 488.08'

~~MX~~ 147-40-26 25.5

BSD) 0-00-00 FSD) 212-19-31 D = 277.70
I) 180-00-03 I) 32-19-36 D = 277.70

~~MX~~ 212-19-32

~~MX~~ 147-40-27

~~HD~~ 488.08'

879 π 470 BS 84 BSD = 277.70
END 6"X6" CONC ROW MARKER IN GOOD COND.

BSD) 0-00-00 FSD) 118-23-58 D = 438.32
I) 180-00-03 I) 298-24-02 D = 438.32

~~MX~~ 118-23-57 58.5

BSD) 0-00-00 FSD) ²⁴¹~~248~~-35-58 D = 277.70
I) 180-00-06 I) 61-36-03 D = 277.70

~~MX~~ 241-35-58 57.5

~~MX~~ 118-24-00.5

~~HD~~ 438.32

CONT NEXT PG

9-29-14

35° CLOUDS

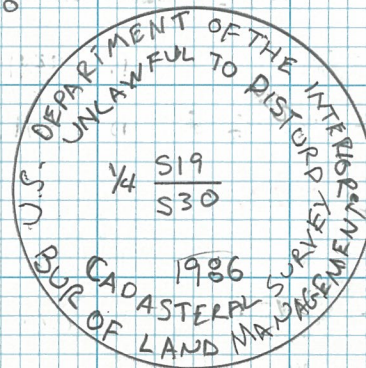
14-505-01

BK3 PG13

SAME

CREW

878



* SEE PG 12 FOR SKETCH

SEPERATED GRADE CROSSING

ROW CONTROL

MP 100.5

At 86 BS 85 BSD = 664.99'

880 END 6"x6" CONC ROW MARKER IN GOOD COND

BSD) 0-00-00 FSD) 78-58-01 D= 311.32

I) 179-59-58 I) 258-58-02 D= 311.32

M~~X~~ 78-58-~~03~~ 02.5

BS D) 0-00-00 FSD) 281-01-55 D= 664.99

I) 180-00-02 I) 101-02-01 D= 664.99

M~~X~~ 281-01-57✓

M~~X~~ 78-58-03

HD 311.32

At 86 BS 85 BSD =

881 END 6"x6" CONC ROW MARKER IN GOOD COND

BSD) 0-00-00 FSD) 189-48-01 D= 668.51

I) 180-00-05 I) 09-48-07 D= 668.51

M~~X~~ 189-48-~~02~~ 01.5

BSD) 0-00-00 FSD) 170-11-57 D= 664.99

I) 180-00-05 I) 350-12-03 D= 664.99

M~~X~~ 170-11-~~58~~ 57.5

M~~X~~ 189-48-02

HD 668.51

CONT NEXT PG.

9-29-14

14-SOS-01

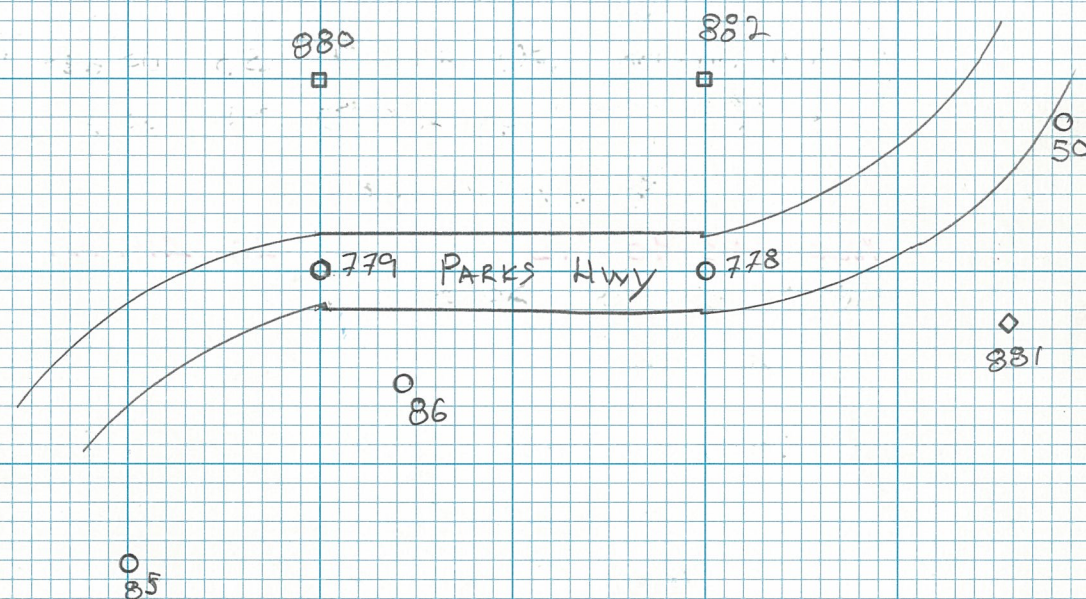
BK3 PG14

40° CLOUDS

SAME

CREW

*SEE PG 11 FOR TYPICAL
OF 86



SEPERATED GRADE CROSSING

ROW CONTROL

MP 100.5

AE 86 BS 85 BSD = 664.99

882 FND 6"x6" CONC ROW MARKER IN GOOD COND

BSD) 0-00-00 FSD) 143-40-44 DI 415.09

I) 180-00-01 I) 323-40-48 D = 415.09

M~~X~~ 143-40-~~46~~ 45.5

BSD) 0-00-00 FSD) 216-19-15 D = 664.99

I) 180-00-03 I) 36-19-19 D = 664.99

M~~X~~ 216-19-~~18~~ 15.5

M~~X~~ 143-40-45

HD 415.09'

END OF DAY

9-29-14

40° RAIN

14-505-01

BK3 PG15

SAME

CREW

X SEE PG 14 FOR SKETCH

SEPERATED GRADE CROSSING

ROW CONTROL

MP 100.5

① @ 78 BS 9 BSD = 1272.25'

883 FND 6"x6" CONC ROW MARKER LEANING
EASTERLY SHOT AT PIN

BS D) 0-00-00 FSD) 36-56-13 D = 366.93

I) 180-00-06 I) 216-56-18 D = 366.93

MX 36-56-13 12.5

BS D) 0-00-00 FSD) 323-03-48 D = 1272.25

I) 180-00-02 I) 143-03-54 D = 1272.25

MX 323-03-50

MX 36-56-11 HD 336.93'

① @ 78 BS 9 BSD =

471 SET MAG NAIL

BS D) 0-00-00 FSD) 179-42-29 D = 769.78

I) 180-00-06 I) 359-42-35 D = 769.78

MX 179-42-29

BS D) 0-00-00 FSD) 180-17-20 D = 1272.25

I) 180-00-05 I) 00-17-26 D = 1272.25

MX 180-17-21 20.5

10.5" SPLIT - RETURN

CONT NEXT PG.

9-30-14

14-505-01

BK3 PG16

30' CLEAR

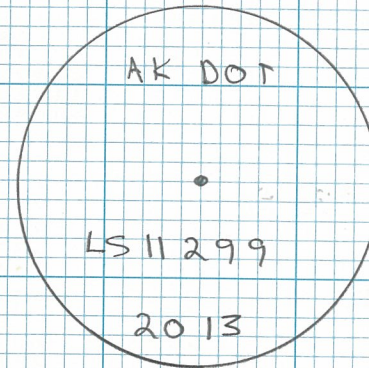
D. BURKE

M. DANIEL

EQUIP

TCR 803

9



2" AC ~ -0.2' BG IN GOOD

COND. ~ 200' E. OF LUTMAN
RD ON THE N. EDGE OF HWY

SEE PG 11 FOR TYPICAL OF CP 78

SEE PG 17 FOR SKETCH

SEPERATED GRADE CROSSINGS

ROW CONTROL

MP 100.5

NE 471 BS 9 BSD = 2042.01

884 FND 6"X6" CONC ROW MARKER IN GOOD COND

BSD) 0-00-00 PSD) 90-31-25 D = 217.07

I) 180-00-03 II) 270-31-31 D = 217.07

M~~X~~ 90-31-27 26.5

BSD) 0-00-00 PSD) 269-28-26 D = 2042.01

I) 180-00-02 II) 89-28-32 D = 2042.01

M~~X~~ 269-28-28 ✓

M~~X~~ 90-31-29

HD 217.07'

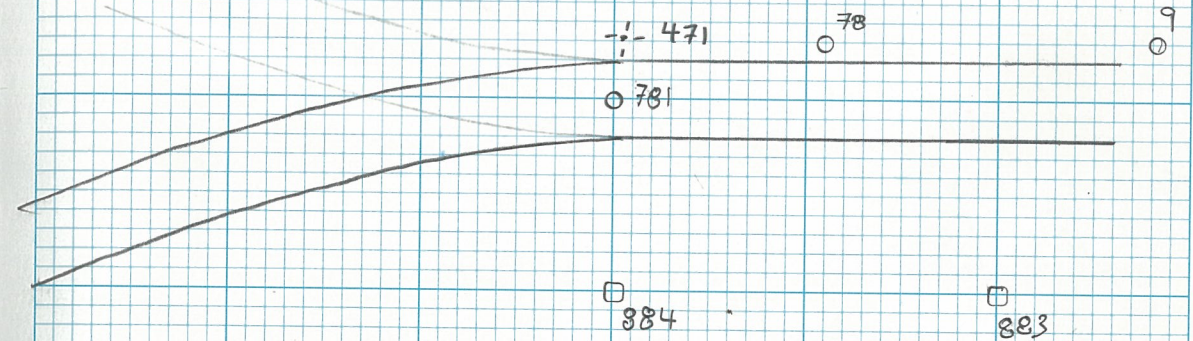
9-30-14

30° CLEAR

14-505-01

BIC 3 PG 17

SAME
CREW



SEPARATED GRADE CROSSINGS
ROW CONTROL MP 100.5

RE-TURN PT #471

K@78 BS 9 BS D=1272.21

471 BSD) 0-00-00 RSD) 179-42-32 D=769.80
I) 180-00-01 I) 359-42-31 D=769.79
M& 179-42-31

BSD) 0-00-00 RSD) 180-17-26 D=1272.21
I) 179-59-55 I) 0-17-21 D=1272.21
M& 180-17-26

M& 179-42-32.5

AD=769.795

10/1/14
23°
CLEAR

14-505-01

BOOK 3 PAGE 18
M DANIEL
D BURKE

EQUIP: TCR 803

SEPARATED GRADE CROSSING

LOCATES

MP 100.5

$\Delta @ 80 HA = 1.375M = 4.52'$

ROVER V2 $HA = 2.000M = 6.562'$

BEG PT# 51600

<u>PT#</u>	<u>CODE</u>	<u>DESC</u>
51600	9710	CK SHOT CP 79
51601	9710	CK SHOT CP 81
51602-03	5670	56704 TO 56716
51604-09	5670	56716 TO 56717
51610-11	5670	56717 TO 56703
51612-14	5670	56717 TO 56718
51615-16	5670	56718 TO SHED
51617-18	5670	56718 TO 56719
51619-42	6240/6245	← TO →
51643-66	6240/6245	← TO →
51667-90	6240/6245	← TO →
51691	9710	CK SHOT CP 79
51692	9710	CK SHOT CP 81

CONT NEXT PG

10-02-14
35° PC

14-505-01

BK 3 PG 19

D. BURKE
T. TUIK

EQUIP	LEICA Sys 1200 GPS	(BASE B1) S/N 06370154
	LEICA GS 14 VIVA GPS	(ROVER V2) S/N 2811139
FILE	1450501 BASE 80	(BASE B1)
	1450501M 14102 V2A	(ROVER V2)

SEPARATED GRADE CROSSING

LOCATED

MP 91.5

$\pi @ 41$ $H_A = 1.296 M = 4.25'$

ROVER V2 $H_A = 2.000 M = 6.562'$

BEG PT # 15701

<u>PT #</u>	<u>CODE</u>	<u>DESC</u>
51701	9710	CK SHOT CP8
51702	9710	CK SHOT CP7
51703-20	6240/6245	← TO →
51721-38	6240/6245	← TO →
51739-56	6240/6245	← TO →
51757	9710	CK SHOT CP7
51758	9710	CK SHOT CP8

END OF DAY

10-02-14

45° PC

14-505-01

BK 3 PG 20

D. BURKE

T. TUK

EQUIP LEICA SYS 1200 GPS (BASE B1)
LEICA GS14 VIVA GPS (ROVER V2)

FILE 1303202 BASE 41 (BASE B1)
1450501M 14102V2B (ROVER V2)

SEPARATED GRADE CROSSINGS
LEVEL LOOP - LINE 3 MP 91.5

STA	+	HI	-	ELEV	ADJ ELEV
TBM 604				255.614	255.614
CP07	2.145		4.359	253.400	253.400
TP1	6.184		6.268	253.316	
	4.703				
CP88			6.407	251.612	251.611
TP2	3.695		6.187	249.120	
TP3	3.708		1.671	251.157	
	4.607				
CP89			3.133	252.631	252.630
TP4	3.328		4.802	251.157	
	1.823				
TP5			3.860	249.120	
	6.411				
TP6			3.916	251.615	
	7.609				
TBM 604			3.108	255.616	255.614
TBM 605				252.422	252.422
CP90	6.675		7.959	251.138	251.138
	6.892				
TP1			6.431	251.599	
	4.486				
CP91			3.764	252.321	252.322
TP2	4.087		4.811	251.597	
	6.490				
TP3			6.951	251.136	
	7.865				
TBM 605			6.581	252.420	252.422

10/3/14
26
CLOUDY

14-505-01

BOOK 3 PAGE 21
M DANIEL
R SCHWABER

EQUIP: LEICA DNA 10 SN 341151
JOB 14505
LINE 0005
EXPORT FILE 1450SL5

TBM 604 IS FROM PARKS HWY MP 90-99 REHAB

EOC 0.002

TBM 605 IS FROM PARKS HWY MP 90-99 REHAB

EOC -0.002