



Dewberry CONTROL POINT DOCUMENTATION REPORT

Date: September 28, 2022 **Time:** 15:25 UTC **Employee:** EH

Job Name: CA Salton Sea **Point ID:** GCP-052X

State: California **Latitude:** 33 49 51.71812 **Longitude:** -116 12 50.94868

Address and/or Intersection: 30th Ave & Sunny Rock Rd

OBSERVATION METHOD

<input type="radio"/>	VRS GNSS	H RMS:	V RMS:	Duration:		
<input checked="" type="radio"/>	STATIC GNSS	Start Time: 15:25 UTC	End Time: 18:09 UTC			
<input type="radio"/>	Conventional Pairs VRS	Point Number: _____	RMS: _____	H: _____	V: _____	Duration: _____
<input type="radio"/>	Conventional Pairs STATIC	Point Number: _____	RMS: _____	H: _____	V: _____	Duration: _____
<input type="radio"/>	Occupied Point	Pt.# / HT: _____ / _____	B.S	Pt.# / HT: _____ / _____	F.S.	Pt.# / HT: _____ / _____
<input type="radio"/>	Back Sight Point	Distance: _____	Vertical Angle: _____	Angle: _____		
<input type="radio"/>	F.S. Point	Angle: _____	Vertical Angle: _____	Slope Dist: _____	Horizontal Dist: _____	

TYPE OF SURFACE

- PAVEMENT
- VEGETATION
- BARE SOIL
- NGS CONTROL

PICTURES

- Photos of area & setup

POINT RE-CHECK

Date: _____
Time: _____
Pt ID: _____
Description:
Pavement

Sketch or Image of Area





POINT ID: GCP-052X
MONUMENT PHOTO





POINT ID: GCP-052X

NORTH PHOTO



**Control
GCP-052X
Pavement**



POINT ID: GCP-052X

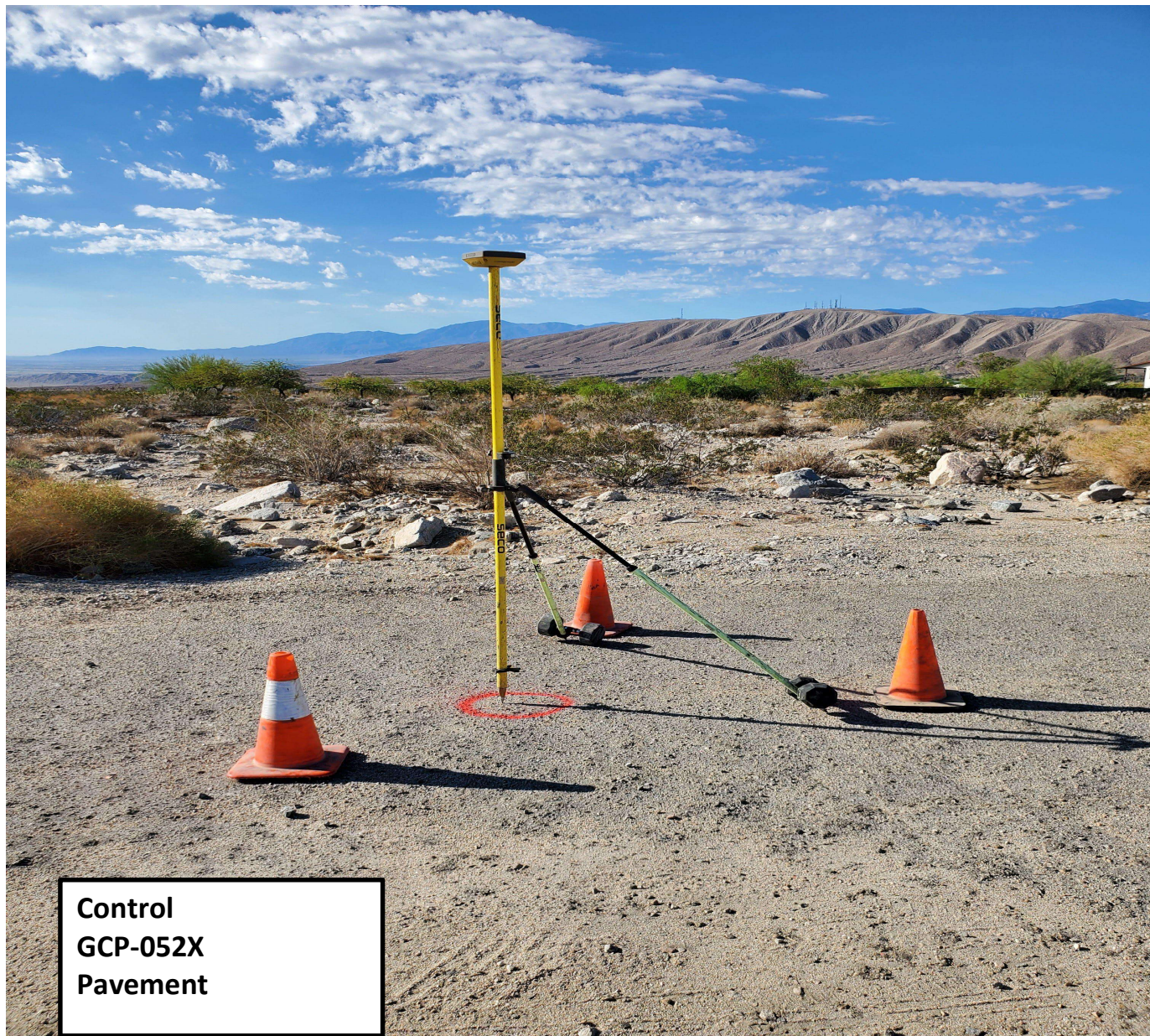
EAST PHOTO



**Control
GCP-052X
Pavement**



POINT ID: GCP-052X
SOUTH PHOTO



**Control
GCP-052X
Pavement**



POINT ID: GCP-052X
WEST PHOTO



**Control
GCP-052X
Pavement**



NGS OPUS SOLUTION REPORT

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All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: <https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: kjensen@aero-graphics.com DATE: September 29, 2022
RINEX FILE: g052271p.22o TIME: 18:31:54 UTC

SOFTWARE: page5 2008.25 master291.pl 160321 START: 2022/09/28 15:25:00
EPHEMERIS: igr22293.eph [rapid] STOP: 2022/09/28 18:10:00
NAV FILE: brdc2710.22n OBS USED: 7286 / 8082 : 90%
ANT NAME: TSPHIPER_SR NONE # FIXED AMB: 58 / 59 : 98%
ARP HEIGHT: 02.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) ITRF2014 (EPOCH:2022.7416)

X: -2342920.782(m) 0.004(m) -2342921.784(m) 0.004(m)
Y: -4758476.363(m) 0.018(m) -4758474.913(m) 0.018(m)
Z: 3531081.217(m) 0.011(m) 3531081.142(m) 0.011(m)

LAT: 33 49 51.71808 0.003(m) 33 49 51.73154 0.003(m)
E LON: 243 47 9.05143 0.012(m) 243 47 8.99156 0.012(m)
W LON: 116 12 50.94857 0.012(m) 116 12 51.00844 0.012(m)
EL HGT: 337.490(m) 0.018(m) 336.736(m) 0.018(m)
ORTHO HGT: 369.895(m) 0.065(m) [NAVD88 (Computed using GEOID18)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 11) SPC (0406 CA 6)

Northing (Y) [meters] 3743699.130 684587.320
Easting (X) [meters] 572715.571 2003318.290
Convergence [degrees] 0.43753611 0.01970000
Point Scale 0.99966518 0.99999168
Combined Factor 0.99961222 0.99993870

US NATIONAL GRID DESIGNATOR: 11SNT7271643699(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM6189	P598 ONYX_PEAK_CS2007	CORS ARP	N341132.848 W1164236.913	60949.1
DM7515	HNPS HNPS_SCGN_CS1999	CORS ARP	N334218.007 W1153807.159	55415.3
DN7434	P600 PUSHWALLA_CS2005	CORS ARP	N335157.032 W1161242.705	3893.9

NEAREST NGS PUBLISHED CONTROL POINT

DX0076 30 M N335014.000 W1161242.000 724.1



NGS OPUS SOLUTION REPORT

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All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: <https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: kjensen@aero-graphics.com DATE: October 24, 2022
RINEX FILE: g052271p.22o TIME: 14:16:20 UTC

SOFTWARE: page5 2008.25 master273.pl 160321 START: 2022/09/28 15:25:00
EPHEMERIS: igs22293.eph [precise] STOP: 2022/09/28 18:10:00
NAV FILE: brdc2710.22n OBS USED: 7374 / 8074 : 91%
ANT NAME: TPSHIPER_SR NONE # FIXED AMB: 63 / 65 : 97%
ARP HEIGHT: 02.000 OVERALL RMS: 0.014(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) ITRF2014 (EPOCH:2022.7416)

X: -2342920.788(m) 0.011(m) -2342921.790(m) 0.011(m)
Y: -4758476.368(m) 0.013(m) -4758474.918(m) 0.013(m)
Z: 3531081.223(m) 0.008(m) 3531081.148(m) 0.008(m)

LAT: 33 49 51.71812 0.002(m) 33 49 51.73158 0.002(m)
E LON: 243 47 9.05132 0.006(m) 243 47 8.99146 0.006(m)
W LON: 116 12 50.94868 0.006(m) 116 12 51.00854 0.006(m)
EL HGT: 337.500(m) 0.017(m) 336.745(m) 0.017(m)
ORTHO HGT: 369.905(m) 0.064(m) [NAVD88 (Computed using GEOID18)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 11) SPC (0406 CA 6)

Northing (Y) [meters] 3743699.131 684587.321
Easting (X) [meters] 572715.568 2003318.287
Convergence [degrees] 0.43753611 0.01970000
Point Scale 0.99966518 0.99999168
Combined Factor 0.99961222 0.99993870

US NATIONAL GRID DESIGNATOR: 11SNT7271643699(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DK6384	BMHL BMHL_SCGN_CS1999 CORS ARP	N341505.188	W1160310.673	48956.1
DM7515	HNPS HNPS_SCGN_CS1999 CORS ARP	N334218.007	W1153807.159	55415.3
DN7434	P600 PUSHWALLA_CS2005 CORS ARP	N335157.032	W1161242.705	3893.9

NEAREST NGS PUBLISHED CONTROL POINT

DX0076 30 M N335014.000 W1161242.000 724.1