**FILE: 51011190.21o OP1620218964957**

**POINT 5001**

NGS OPUS-RS SOLUTION REPORT

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All computed coordinate accuracies are listed as 1-sigma RMS values.

For additional information: <https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: [rick@lighthouselandsurveying.com](mailto:rick@lighthouselandsurveying.com) DATE: May 05, 2021

RINEX FILE: 5101119r.21o TIME: 12:51:45 UTC

SOFTWARE: rsgps 1.38 RS52.prl 1.99.3 START: 2021/04/29 17:50:30

EPHEMERIS: igr21554.eph [rapid] STOP: 2021/04/29 18:26:00

NAV FILE: brdc1190.21n OBS USED: 2808 / 4068 : 69%

ANT NAME: LEIGS14 NONE QUALITY IND. 25.90/ 5.17

ARP HEIGHT: 2.000 NORMALIZED RMS: 0.307

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000) ITRF2014 (EPOCH:2021.32536)

X: 1510407.897(m) 0.006(m) 1510406.942(m) 0.006(m)

Y: -4448765.443(m) 0.020(m) -4448764.026(m) 0.020(m)

Z: 4299284.146(m) 0.011(m) 4299284.155(m) 0.011(m)

LAT: 42 39 11.70857 0.008(m) 42 39 11.74496 0.008(m)

E LON: 288 45 10.62281 0.004(m) 288 45 10.60312 0.004(m)

W LON: 71 14 49.37719 0.004(m) 71 14 49.39688 0.004(m)

EL HGT: 49.340(m) 0.022(m) 48.134(m) 0.022(m)

ORTHO HGT: 76.869(m) 0.029(m) [NAVD88 (Computed using GEOID18)]

**252.194 USFT**

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 19) SPC (2001 MA M)

Northing (Y) [meters] 4724758.031 933661.066 **3063186.347 USFt**Easting (X) [meters] 315816.247 220741.335 **724215.5299 USFt**  
Convergence [degrees] -1.52293611 0.16991389  
Point Scale 1.00001738 0.99999571  
Combined Factor 1.00000964 0.99998797

US NATIONAL GRID DESIGNATOR: 19TCH1581624758(NAD 83)

BASE STATIONS USED

PID DESIGNATION LATITUDE LONGITUDE DISTANCE(m)

DI1075 NHUN U NEW HAMPSHIRE CORS ARP N430833.179 W0705706.862 59461.9

DO9471 MAPL PLYMOUTH CORS ARP N415619.314 W0703918.243 93182.3

DP1961 MAWM WESTMINSTER CORS ARP N423340.621 W0715559.207 57218.7

DL9078 NHCO NHDOT CONCORD CORS ARP N431246.195 W0713111.475 66033.1

DO5451 MEGO GORHAM CORS ARP N434052.067 W0702703.724 131261.4

DO9467 MADA DARTMOUTH CORS ARP N413822.848 W0710141.393 114027.1

DR6402 MAWR MAWR WRENTHAM CORS ARP N420230.133 W0711815.039 68093.9

DP1320 MABN BERNARDSTON CORS ARP N424011.991 W0723228.643 106126.1

DO2056 MESP SOUTH PARIS CORS ARP N441306.196 W0703047.107 183755.2

NEAREST NGS PUBLISHED CONTROL POINT

MY5772 TEWKSBURY BAPTIST CHURCH SPIRE N423835.580 W0711445.234 1118.8

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.