MINNESOTA DEPARTMENT OF TRANSPORTION CERTIFICATE OF LOCATION OF GOVERNMENT CORNER

NORTHEAST CORNER , Section 31, Township 29 North, Range 22 West, 4th Principal Meridian Survey, Ramsey County, Minnesota. At the corner location shown on the sketch: On JULY 10-13, 2006 found 8" CONCRETE MONUMENT WITH REBAR \boxtimes ☑ left monument as found, ☐ lowered monument, ☐ removed monument (explain) 3/4" IRON PIN WITH AN ALUMINUM CAP STAMPED On FEBRUARY 3, 2011 placed an \bowtie MN/DOT DISTRICT SURVEYS NE 31 29 22 Corner reference ties measured on FEBRUARY 3, 2011 Statement of evidence relative to this corner location is on back of page. IRON PIN AND ALUMINUM CAP AT EAST QUARTER CORNER SECTION 30 T29N R22W CORNER OF RAILROAD TUNNEL ABUTMENT COPING CIM AT NORTH QUARTER CORNER SECTION 32 T29N R22W S79'45'42"W 0.99 FT CORNER 8" CONCRETE MON. WITH REBAR N89*57'19"W N89º11'20"E 2621.27 FT 2621.39 FT CIM AT NORTH QUARTER SECTION 31 T29N R22W CORNER OF RAILROAD TUNNEL ABUTMENT COPING OF TRANS CIM AT EAST QUARTER CORNER SECTION 31 T29N R22W Tie distances are horizontal distances measured with a temperature corrected steel tape except PLS lines. Bearings are based on Ramsey County NAD 83 (1996) coordinates.

I hereby certify that this document and the data contained herein was prepared by me or under my direct supervision. I further certify that this document conforms to applicable portions of Minnesota State Statute 381.12.

Matthew J. Wernet, Mn/DOT Surveys

Minnesota License No. 41888

02/02/2012

Northeast Corner, Section 31, T. 29 N. - R. 22 W.

Statement of Evidence

- 1847 Unknown date Nov__, 1847. Isaac N Higbee deputy surveyor set post. Tied to 2 BTs. See IH p.208-209 2922
- 1890? Unknown date about, 189? Placed ties. See JBI 23 p.67-68 & FB 290 p.12
- 19XX Unknown dates, multiple surveys identify a stone monument at NE 31-29-22. See FB 198 p. 48, FB 234 p. 43-45 & 53, FB 283 p. 1 & 19
- 1926 May 12, The Common Council of the City of St. Paul completes condemnation of lands for construction of Trout Brook sewer and records as doc. no. A-711814. The easements for said sewer are tied to the monument at NE 31-29-22. Maps accompanying doc. no. 711814 and common council files identify a granite monument at NE 31-29-22.
- 1930 March ??, Great Northern Railway R/W map "ST. PAUL NO. 3" identifies a stone monument at NE 31-29-22.
- 1939 Unknown date, MHD survey personnel could not find the granite monument at NE 31-29-22. They set a temporary corner by chaining from the stone at Minnehaha & L'Orient, and from the stone at Minnehaha & Desota. After chaining along the east line of the northeast quarter, from the east quarter corner, that they established, thru a Soo Line r/w monument, they moved the temporary corner 0.8 foot west and set a stake. See control section 6280 land tie notes, on file at Mn/DOT Metro Surveys, Oakdale office.
- 1963 February 28, Iron set and ties taken by Irv Forsberg. See FB 293CPY p.32 See cogo point 3574
- 1972 February 16, Monument out (FB 293CPY p.32). See FB 1689A p.7
- 1972 Unknown date March__, 1972. Concrete monument with iron pin set 0.4' above grade, 2 green fence posts on sides.
- 1972 April 12, Found 6' x 3" diameter cast iron pipe 6 feet below the surface. Set concrete monument with rebar in center to grade. See FB 1689A p.11
- 1972 April 14, Ties taken. See FB 1689A p.11
- 1999 Unknown date Feb__, 1999. Elev 97.21 ft on concrete monument, Topo with Set 5E.
- 2001 Unknown date Aug___, 2001. In place concrete monument does not check with ties in JBI Book 23 p.68. See JBI 23 p.67-68

Statement of Evidence Continued

- 2001 Unknown date Aug__,2001. See Mike Murphy's report dated 12/04/2001.
- 2002 March 27, Found concrete monument. Photos taken.
- 2003 February 5, Located concrete monument with GPS RTK-VRS.
- 2003 February 26, See report/opinion by Jeff Grosso, Chief Surveyor and David Claypool, Ramsey County Surveyor dated Feb 26 and Feb 28 2003
- 2004 March 22, Found concrete monument. Photos taken.
- 2006 July 10-13, Mn/DOT survey personnel locate and establish Ramsey County NAD 83 (1996) coordinates on the concrete monument (City Mon 97) and adjacent PLS corners.
- 2011 February 3, Mn/DOT Survey personnel set an iron pin with an aluminum cap using the ties from J.B. Irvine's notes, Book 23, P. 68. Distances were measured with a steel tape and were corrected for temperature & slope. The distance from the concrete monument to Mn/DOT's monument is 0.99 foot; Mike Murphy computed 1.02 feet in between the concrete monument and the intersection of the ties.

Summary and Conclusion

Please note that most of the history for EQ 30-29-22 was obtained from the St. Paul Surveyor's Office. The concrete monument near NE 31-29-22 does not fit well with the older subdivision plats in Section 30-29-22, recovered granite monuments that were set in the late 1800's or St. Paul's standard surveys of PLS lines and street centerlines. At Mike Murphy's (former Chief Surveyor, City of St. Paul) suggestion, I used John B. Irvine's ties to the BNSF Rail Road tunnel (JBI Book 23, Pages 67-68) to re-establish the corner position and gathered as much evidence as possible to verify which of the two locations is correct, if either.

The corner position defined by John B. Irvine's ties to the RR tunnel fits the standard surveys of the PLS corners nearly right on or well within survey tolerances, and better than the concrete monument (City Monumant 97).

PLS Comparisons

NE 31-29-22 to Iron Pin & Cap at EQ 30-29-22 (See cert dated 02/02/2012)

Standard Survey 2622.56' Irvine

2011 Iron Pin & Cap 2622.62' 1972 Concrete Mon 2622.80'

Summary & Conclusion Continued

NE 31-29-22 to NQ 32-29-22

Standard Survey 2621.94' Irvine

2011 Iron Pin & Cap 2621.39' 1972 Concrete Mon 2622.39'

NE 31-29-22 to NE corner of the NWQ of the NWQ 32-29-22 (City Monument 2782)

Standard Survey 1310.97' Irvine

2011 Iron Pin & Cap 1310.97' 1972 Concrete Mon 1311.97'

NE 31-29-22 to EQ 31-29-22

Standard Survey 2612.6' Fuller 2011 Iron Pin & Cap 2612.87'

1972 Concrete Mon 2612.70'

NE 31-29-22 to NQ 31-29-22

Standard Survey 2621.46' Irvine

2011 Iron Pin & Cap 2621.27' 1972 Concrete Mon 2620.27'

Angle formed by Iron Pin & Cap at EQ30-NE31-NQ32

Standard Survey 89^20' Irvine 2011 Iron Pin & Cap 89^19'40" 1972 Concrete Mon 89^18'08"

Angle formed by NQ32-NE31-EQ31

Standard Survey 90^21' Irvine 2011 Iron Pin & Cap 90^21'04" 1972 Concrete Mon 90^19'59"

Angle formed by EQ31-NE31-NQ31

Standard Survey 90^29' Irvine 2011 Iron Pin & Cap 90^30'17" 1972 Concrete Mon 90^31'50"

Angle formed by NQ31-NE31-Iron Pin & Cap at EQ30

 Standard Survey
 90^49' Irvine

 2011 Iron Pin & Cap
 89^48'59"

 1972 Concrete Mon
 89^50'03"

Note that Irvine's angles add up to 360^59'. I speculate that the above angle, measured by Irvine, was written incorrectly and should be 89^49'. The missing minute of angle could be due to lack of precision in the instrument used.

Standard Survey Comparisons

Summary & Conclusion Continued

Westminster Street is re-established with four recovered granite monuments, city monuments numbered 3563, 3742, 3743, & 3597. Monuments 3563 & 3597 are held as they are plumb and undisturbed. Monument 3743 is leaning slightly westerly (downhill) and monument 3742 is under a retaining wall, so it is difficult to access; said monuments are used as checks. Westminster Street, thus defined, intersects the north line of Section 32 at a distance of 165.28 feet east of the iron pin and 166.28 feet east of the concrete monument. John B. Irvine measured 165.14 feet. The length of Westminster Street from the north line of Section 32 to the east and west quarter line of Section 29 is 2623.43 feet. John B. Irvine measured 2623.42 feet.

The retracement of Mississippi Street is critical to retracing the plats of *BROOKSIDE* ADDITION, *BROOKVALE ADDITION*, *BROOKVALE 2ND ADDITION*, *ED RICE'S 2ND ADDITION*, *ED RICE'S TROUT BROOK ADDITION*, *ED RICE'S 4TH ADDITION*, *MCMENEMY'S SUBDIVISION A*, *SOO LINE PLAT NO.* 6., and *WESTMINSTER ADDITION*. The centerline of old Mississippi Street has been retraced from Grove Street to Maryland Avenue with record and field evidence, including the following:

- 1. A recovered granite monument, 55 feet north of the intersection of Mississippi Street & Broadway, as shown on *AUDITOR'S SUBDIVISION NO.* 23 and John B. Irvine's survey of said Aud. Sub (JBI bk. 46, p.13).
- 2. Mn/DOT's centerline for r/w takings along Mississippi Street for I35E (Parcel 136 C.S. 6280-904 dated 02/12/1963).
- 3. A recovered granite monument (City Monument 5541) at the southeast corner of Block 1, $ED\ RICE$ 'S $2^{ND}\ ADDITION$.
- 4. A recovered Soo Line RR CIM at the northwest corner of Lot 15, Block 15, ED RICE'S TROUT BROOK ADDITION.
- 5. The centerline of York Street, established by three recovered granite monuments (City Monuments numbered 3741, 3743 & 3865).
- 6. St. Paul's standard survey notes by Irvine & Forsberg
- 7. The plat of *ED RICE'S 2ND ADDITION*, retraced with 9 recovered granite monuments (City Monuments numbered 2427, 2430, 2845, 3873, 3874, 3875, 4116, 4117, & 5541), railroad r/w maps and John B. Irvine's notes.

Mississippi Street is tied to Minnehaha Street (north line of Section 31-29-22). Irvine's distance along Minnehaha from NE 31-29-22 to the centerline of Mississippi Street is 985.00 feet and his intersect angle in the northwest quadrant is 89^46'. Retraced Mississippi Street intersects the north line of Section 31-29-22 at a distance of 984.80 feet west of the iron pin and cap at NE 31-29-22, at an angle of 89^46'12.5" (measured from north to west). Said intersection point is only 983.80 feet west of the concrete monument.

Conclusion

The location of the granite monument at NE 31-29-22 has been restored using John B. Irvine's ties, and monumented with an iron pin and aluminum cap. This is the oldest known location of NE 31-29-22, re-established using the oldest remaining ties.

Summary & Conclusion Continued

Moreover, in retracing St. Paul's standard surveys, the iron pin and aluminum cap fit well with the adjoining PLS corners, the subdivisions that were platted in the 1800's, and granite block corners that were set in the same era. It is clear that this position for the corner was used to define property lines and make improvements.

In the late 1800's the position of NE 31-29-22 was fixed by a granite monument. This is true of nearly all the PLS corners in the City of St. Paul. The chain of evidence suggests that the granite monument was destroyed by Trout Brook Sewer construction in the late 1920's. In 1963, Forsberg set an iron monument and changed the ties to this corner. The reason why he did this is unknown. Perhaps, he found the stake set by MHD in 1939 and chose to perpetuate the location with a more permanent monument. Maybe, he had some other, unknown evidence. It is also unclear as to whether the 6' X 3" cast iron pipe was the "iron" set by Forsberg. Given the lack of evidence as to why Forsberg set his iron where he did, and why he changed the ties to the corner, there is no reason to presume that he would have moved the granite monument if it had not been destroyed by construction. It is my opinion, therefore, that the iron pin and aluminum cap are as close to the true position of the corner as can be obtained from the available evidence.