CERTIFIED
Past Weather Reports

STANDARD REPORT

Prepared By:
Zachary Chabala
Forensic Meteorologist
WeatherWorks, LLC

Prepared For:
John Doe
Doe, Doe & Reilly, LLC

Reference:
Joseph Barry v. John Lee Enterprises
Summit, NJ | February 6, 2019

Submitted on:
Wednesday, January 25, 2023

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Wednesday, January 25, 2023

Mr. John Doe
Doe, Doe & Reilly, LLC
377 Anywhere Avenue
Everywhere, NJ 00000

RE: Joseph Barry v. John Lee Enterprises
Summit, NJ | February 6, 2019

Dear Mr. Doe,

As you requested, I have reviewed the weather conditions for 190 River Road in Summit, NJ for February 1 - 6, 2019. Enclosed is our Certified Past Weather Report based on the weather data examined.

If you have any further questions or comments regarding our report, please do not hesitate to give me a call. Should courtroom testimony be required, I would appreciate whatever advance notice is possible.

Sincerely,

Zachary Chabala
Forensic Meteorologist
WeatherWorks, LLC

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INTRODUCTION

The following report was requested by John Doe from Doe, Doe & Reilly, LLC. At the request of Mr. Doe, I have examined the weather conditions for 190 River Road in Summit, NJ for February 1 - 6, 2019.

In order to determine the weather conditions for 190 River Road in Summit, NJ (elevation approximately 194 feet) within a reasonable degree of meteorological and scientific certainty, I utilized data from the following systems and networks: Automated Surface Observing System (ASOS), Automated Weather Observing System (AWOS), Meteorological Assimilation Data Ingest System (MADIS), Cooperative Observer Network (COOP), Community Collaborative Rain, Hail And Snow Network (CoCoRaHS) and Doppler Radar Images.

Supplemental products reviewed include: National Weather Service daily zone forecasts, watches, warnings, advisories, special weather statements, and public information statements.

Weather data was accessed from the following sources and official webpages: NOAA's National Centers for Environmental Information (NCEI), The Office of The New Jersey State Climatologist and the Community Collaborative Rain, Hail And Snow Network (CoCoRaHS). Descriptions of these systems, networks, products, and access pages can be found in the Data Sources and Other References section near the end of my report.

My report of the actual weather conditions as well as expert opinions and appropriate conclusions within a reasonable degree of Meteorological and scientific certainty follows. They are based on the aforementioned weather data and years of professional experience in forecasting and preparing weather reconstruction reports for law firms and the insurance industry.

It is my understanding that on February 6, 2019 at approximately 7:30 AM, Plaintiff Joseph Barry, allegedly slipped and fell on ice on the blacktop portion of the ground level of the parking garage at the subject property.

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TABULAR WEATHER OVERVIEW

WEATHER TABLES

Table 1 below contains the daily weather conditions for 190 River Road in Summit, NJ from February 1 - 6, 2019. **Temperatures** are in degrees Fahrenheit. **Weather** is a general description of the predominant weather conditions during the day. **Precipitation (Precip)** is the amount of rain, melted snow, and/or ice that occurred during the day and is reported in inches. A trace of precipitation is an amount less than 0.01 inches. **Snow/Sleet** is the 24-hour snow/sleet accumulation reported in inches. A trace of snow/sleet is less than 0.1 inches. **Ground Conditions** refer to the average amount of snow and/or ice cover, in inches, on exposed, undisturbed, and untreated ground surfaces. The measurement is normally taken at 7 AM, and any amount less than 0.5 inches is considered a Trace

Table 1. Daily Weather Table – February 1 - 6, 2019

Day	Temperature High	Low	Weather	Precip	Snow | Sleet	Ground Conditions
2/1	21–22	2–3	Mix of clouds & some sun. Cold	0.00	0.0	0.0
2/2	33–34	8–9	Mostly sunny	0.00	0.0	0.0
2/3	51–52	22–23	Partly sunny	0.00	0.0	0.0
2/4	61–62	23–24	Mostly sunny	0.00	0.0	0.0
2/5	65–66	28–29	Partly sunny with brief AM sprinkles	Trace	0.0	0.0
2/6	45–46	31–32	Increasing clouds with late day rain	0.57	0.0	0.0

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DETAILED WEATHER ANALYSIS

WEATHER SUMMARY

February 4, 2019

Under a mainly clear pre-dawn sky, the temperature fell to a low of 23–24 degrees. At 7 AM, exposed, undisturbed and untreated ground surfaces were clear of any naturally precipitated snow and ice from all prior storms. A mostly sunny sky was prevalent during the day as the temperature moderated to an afternoon high of 61–62 degrees. A mainly clear sky continued into the evening as the temperature dropped to near 30 degrees towards Midnight.

February 5, 2019

The early morning hours were mainly clear as the temperature bottomed out at a low of 28–29 degrees. Clouds increased during the pre-dawn as the temperature climbed to the freezing point. Exposed, undisturbed, and untreated ground surfaces were clear of any naturally precipitated snow and ice from all prior storms. Between 6:15 and 7:00 AM, a few sprinkles passed over Summit, NJ at a temperature of 32–34 degrees. **These sprinkles only produced a trace, less than, 0.01 inches of precipitation**.

The daylight hours were partly sunny and mild with a high temperature that climbed to 65–66 degrees. The sky became mainly clear during the evening as the temperature settled into the low to mid-40s towards Midnight.

February 6, 2019 (Day of Alleged Incident)

The pre-dawn was mainly clear. A temperature in the 40s around Midnight dopped into the 30s during the early morning hours. Around 6:30 AM, the temperature fell to a low of 31–32 degrees and leveled off.

Around the time of the alleged slip and fall incident, approximately 7:30 AM, it was mainly clear and 31–32 degrees. Winds were north-northeast at 5–10 mph and the visibility was unrestricted. **Exposed, undisturbed and untreated ground surfaces were clear of any naturally precipitated snow and ice from all prior storms.**

After the alleged slip and fall, the temperature climbed above freezing between 8 and 8:45 AM and eventually reached a daytime high of 45–46 degrees. Please refer to Table 2 on the following page for the hourly weather conditions between 1 AM and 9 AM.

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Table 2 below provides an estimate of the hourly weather conditions for 190 River Road in Summit, NJ on February 6, 2019. **Temperatures (Temp)** are in degrees Fahrenheit. **Weather** is the present weather observed at the time shown, unless otherwise indicated. **Hourly Precip** is the amount of precipitation (rain, melted snow and/or ice), in inches, that fell during the previous hour. A trace is less than 0.01 inches. **Hourly Snow** is the amount of snow, in inches, that fell during the previous hour. A trace of snow is less than 0.1 inches. **Ground Conditions** refer to the average amount of snow and/or ice cover, in inches, on exposed, undisturbed, and untreated ground surfaces at the time shown.

Table 2. Hourly Weather Table – February 6, 2019

Time	Temp	Weather	Hourly Precip	Hourly Snow	Ground Conditions
1 AM	40–41	Mainly clear	0.00	0.0	0.0
2 AM	37–38	Mainly clear	0.00	0.0	0.0
3 AM	35–36	Mainly clear	0.00	0.0	0.0
4 AM	35–36	Mainly clear	0.00	0.0	0.0
5 AM	32–33	Mainly clear	0.00	0.0	0.0
6 AM	33–34	Mainly clear	0.00	0.0	0.0
7 AM	31–32	Mainly clear	0.00	0.0	0.0
8 AM	31–32	Mostly sunny	0.00	0.0	0.0
9 AM	36–37	Mostly sunny	0.00	0.0	0.0

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DATA SOURCES AND OTHER REFERENCES

The following descriptions provide a review of each source and reference utilized in this report. Please refer to Figure 1 at the end of the section for a map of weather stations.

AUTOMATED SURFACE OBSERVING SYSTEM (ASOS)

The ASOS program serves as the nation's primary surface weather observing network, and is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA) and the Department of Defense (DOD). Weather observations from ASOS include: air temperature, dew point, relative humidity, precipitation type and amounts, cloud coverage, wind speed and direction, visibility, air pressure, etc. In general, these stations report once per hour; however, special and more frequent observations are reported in the event of rapidly changing conditions which meet specific thresholds. NOAA's National Centers for Environmental Information (NCEI) provides access to the data online in the form of Local Climatological Observations (LCD).

AUTOMATED WEATHER OBSERVING SYSTEM (AWOS)

AWOS stations are similar to ASOS stations; however, they are operated and controlled by the Federal Aviation Administration (FAA). Unlike ASOS, AWOS systems generally report in 20-minute increments and do no report observations for rapidly changing weather conditions. These systems are among the longest running automated weather stations and predate the ASOS. NOAA's National Centers for Environmental Information (NCEI) provides access to the data online in the form of Local Climatological Observations (LCD).

METEOROLOGICAL ASSIMILATION DATA INGEST SYSTEM (MADIS)

Meteorological Assimilation Data Ingest System (MADIS) incorporates data from NOAA data sources and non-NOAA providers. Quality control checks are conducted. Some of the common data sets are: Citizens Weather Observer Program (CWOP), Hydrometeorological Automated Data System (HADS), Integrated Mesonet, private firms, state DOT'S and Federal Agencies. These observations are utilized as a supplement to the more reliable and comprehensive ASOS and AWOS data to aid in meteorological analysis.

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COOPERATIVE OBSERVER NETWORK (COOP)

Through the National Weather Service (NWS) Cooperative Observer Program (COOP), more than 10,000 volunteers take daily weather observations in varying geographic regions of the country. Daily observations include some or all of the following information: 24-hour maximum and minimum temperature, temperature at observation time, 24-hour precipitation amounts (rain and snow), and the snow/ice depth on the ground. NOAA's National Centers for Environmental Information (NCEI) provides access to the NWS COOP data sheets online.

COMMUNITY COLLABORATIVE RAIN, HAIL AND SNOW NETWORK

The Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS) is a community-based network of volunteers who measure precipitation (rain, sleet, hail, and snow). Standard daily observations include some or all of the following information: rainfall, snowfall, snow/ice depth, and water content of the snow. The National Oceanic and Atmospheric Administration (NOAA) and the National Science Foundation (NSF) are major sponsors of CoCoRaHS. The data from CoCoRaHS is available through their online web page and the National Centers for Environmental Information's GHCN-Daily database.

DOPPLER RADAR IMAGES

Doppler RADAR is used to detect where precipitation is falling in the atmosphere. There are 160 operational high-resolution Doppler weather RADAR sites across the United States. Radar images were accessed from the National Centers for Environmental Information's (NCEI) NEXRAD Data Archive. The RADAR site used in this report was KDIX, which is located in Fort Dix, NJ. Short Range Base Reflectivity images depict the intensity and location of precipitation from approximately 143 miles outward from the Radar site. The resolution of Short Range Base Reflectivity images is approximately 0.16 miles by 0.5 azimuth degree. Depending on the mode of operation used, images are typically available every 4 to 10 minutes.

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NATIONAL WEATHER SERVICE (NWS) PRODUCTS

The National Weather Service Forecast Office is responsible for issuing daily zone forecasts, most watches, warnings, advisories, and special weather statements. Daily zone forecasts are issued several times a day, sometimes more if updates are needed. These forecasts are immediately made available to the public on the internet, local radio, and/or television stations. The watches, warnings, advisories, and special weather statements are issued when impending weather meets certain criteria set by the National Weather Service. Products are available through the NCEI Service Records Retention System (SRRS).

NWS PUBLIC INFORMATION STATEMENTS

The National Weather Service Forecast Office may issue Public Information Statements during and after a weather event that has been affecting their region. Public information statements come from highway departments, hourly weather observation stations, cooperative observers, law enforcement officials, the general public, skywarn spotters, and the media. Some types of weather phenomenon reported are: snow and ice accumulations, peak wind speeds and rainfall amounts. In addition, each individual forecast office may use Public Information Statements for storm damage surveys, climate records, or other miscellaneous weather information. Statements are available through the NCEI Service Records Retention System (SRRS).

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HOURLY & SUB-HOURLY OBSERVATIONS

- **KCDW: Caldwell Essex County Airport, NJ (ASOS)**
  Elevation 171 feet; Located 10.6 miles north-northeast
- **KEWR: Newark Liberty International Airport (ASOS)**
  Elevation 7 feet; Located 11.2 miles east-southeast
- **KMMU: Morristown, NJ (AWOS)**
  Elevation 187 feet; Located 4.9 miles north-northwest
- **KSMQ: Somerset Airport, NJ (ASOS)**
  Elevation 105 feet; Located 17.6 miles west-southwest
- **Summit, NJ (NJ Weather and Climate Network)**
  Elevation 207 feet; Located 0.1 miles northeast

DAILY OBSERVATIONS

- **Canoe Brook, NJ (COOP)**
  Elevation 180 feet; Located 0.9 miles east-northeast
- **NJ-ES-18: Maplewood Twp 0.9 SE, NJ (CoCoRaHS)**
  Elevation 238 feet; Located 5.8 miles east
- **NJ-MS-40: Chatham 0.6 NW, NJ (CoCoRaHS)**
  Elevation 193 feet; Located 1.3 miles west-northwest
- **NJ-UN-10: New Providence 0.8 ESE, NJ (CoCoRaHS)**
  Elevation 371 feet; Located 3.2 miles south-southwest

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STATION MAP

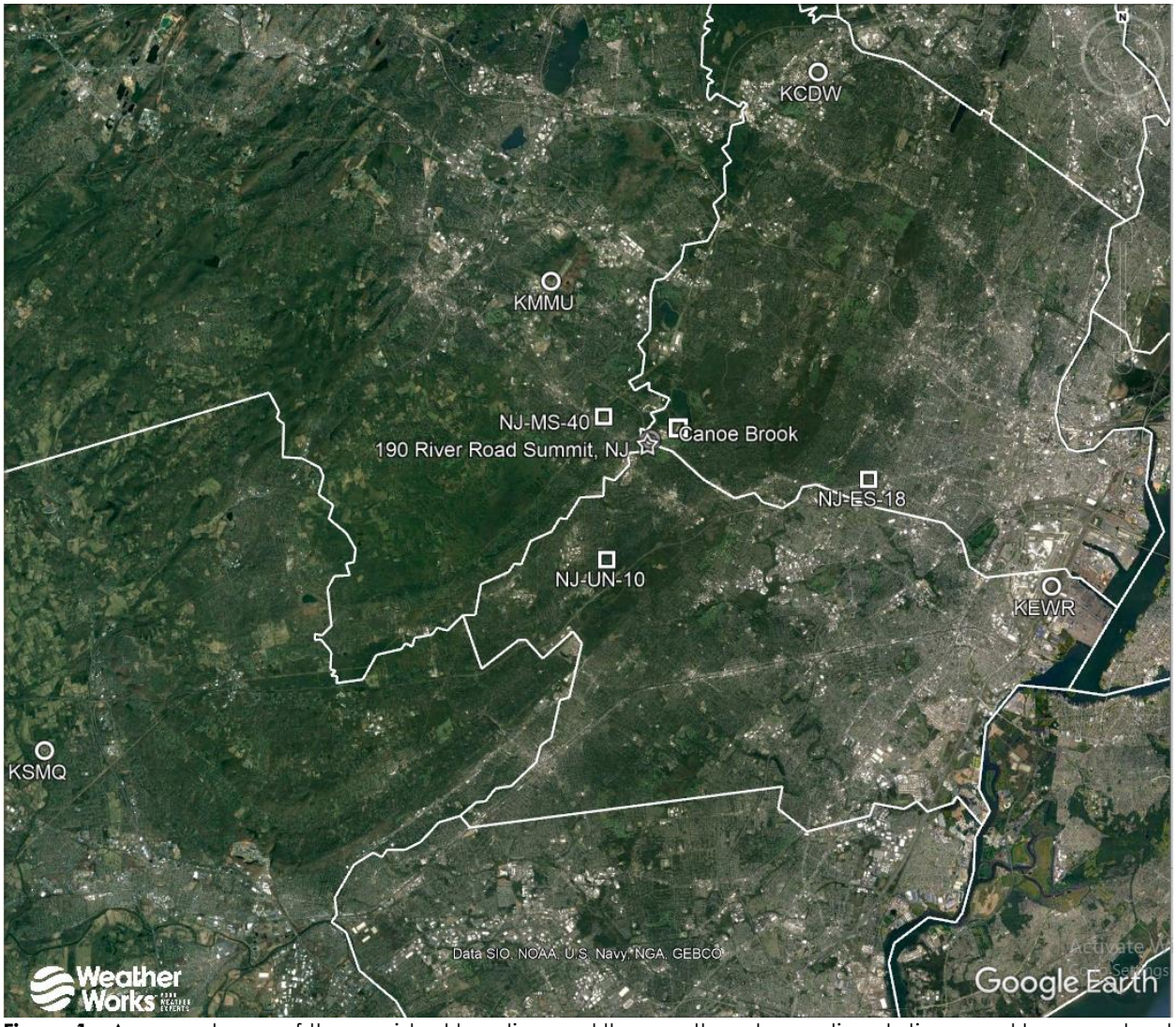

Figure 1 - A general map of the accident location and the weather observation stations used to reconstruct the weather for 190 River Road in Summit, NJ (elevation approximately 194 feet) from February 1 - 6, 2019 (Source: Google Earth). Please note, the Summit NJ Weather and Climate Station is covered by the incident location due to their proximity.

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CERTIFICATION

I certify that the information in this report is true and accurate, and that any estimations, interpolations, or assumptions that have been made were done so by a professional meteorologist with expert accuracy within a reasonable degree of meteorological and scientific certainty. Any conclusions are based on the interpretation of the best available information at the time of the issuance of my report as well as my education, training, and experience. I certify that the analysis provided within this report represents my unbiased opinion as to the weather conditions at the subject property during the stated timeframe. I reserve the right to amend the conclusions made herein upon further discovery of additional meteorological data or other relevant materials. Use of any information within this report is intended for the referenced matter only and should not be utilized for any other purpose.

Zachary Chabala
Forensic Meteorologist
WeatherWorks, LLC

ABOUT WEATHERWORKS

Since 1986, WeatherWorks has provided dependable meteorological services to thousands of clients in the private and public sectors by understanding the core principles and complexities of meteorology in addition to utilizing technological advances. For over 30 years, WeatherWorks has prepared detailed, site specific, and easy to understand past weather reports for all types of cases and claims. The professional meteorologists at WeatherWorks have performed site specific analysis on over 3500 plaintiff and defense cases across the United States. Our sound meteorological advice and customized services relating to past, present, and future weather conditions remain vital in each of our client's decision making process, and provide our staff with the continued knowledge of the weather's impact on the spectrum of weather related cases and incidents.