# Collision Analysis & Reconstruction Report



Milwaukee Police Department Incident 140890118
Wisconsin DOT Document QQ56BFG
Crash Date: Sunday, March 30<sup>th</sup>, 2014, 5:40 PM

Location: 3350 North 12<sup>th</sup> Street City of Milwaukee Milwaukee County, Wisconsin

Prepared by:

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# **SYNOPSIS**

This crash occurred on Sunday, March 30<sup>th</sup>, 2014, at approximately 5:40 PM, in the City and County of Milwaukee, Wisconsin. The investigation revealed that a 2007 Chrysler Pacifica, operated by Revay Wright, was traveling northbound on North 12<sup>th</sup> Street. At the same time a pedestrian, Jacari C. Maxwell, was crossing North 12<sup>th</sup> Street westbound. The Chrysler then struck Jacari C. Maxwell.

Jacari C. Maxwell suffered severe injuries and died at the scene as a result of the collision.

#### **OBJECTIVE OF ANALYSIS**

The objective of this report is to analyze the evidence collected at the scene of the crash, which was used to create a scale diagram of the incident. Human factors, environmental factors, and vehicle factors will also be reviewed. Should additional information come forward after this report is completed, it would need to be reviewed to determine its effects on the findings.

# INFORMATION REVIEWED FOR REPORT PREPARATION

Printed Material(s) and Police Reports

Numerous police reports and published references were consulted in preparing this analysis. The items of information that were reviewed include the following:

- 1. City of Milwaukee Police Department officer narratives and reports:
  - a. Wisconsin Motor Vehicle Crash Report (MV4000e) completed by Police Officer Jason Kotarak
  - b. Narrative report written by Police Officer William Hanney
  - c. Narrative report written by Police Officer Michael Gasser
  - d. Narrative report written by Police Officer Amanda Grimm
  - e. Narrative report written by Police Officer William Ritch
  - f. Narrative report written by Police Officer Joshua Yang
  - g. Narrative report written by Police Officer Eric Northwood
  - h. Narrative report written by Police Officer William Pamperin
  - i. Narrative report written by Police Officer Timothy Toth
  - j. Narrative report written by Police Officer Russell Barker
  - k. Narrative report written by Forensic Investigator Scott Kempinski
  - I. Narrative report written by Police Detective Donald Ours
  - m. Narrative report written by Police Officer Richard Schnier
  - n. Narrative report written by Police Detective Andrew Farina
  - o. Narrative report written by Police Detective Kenton Burtch
  - p. Narrative report written by Police Officer Karen Regner
- 2. Witness statements:
  - a. Statement of Antionette D. Bentley
  - b. Statement of Shenegua M. Perkins
  - c. Statement of Kenneth R. Johnson
  - d. Statement of Rooevelt K. Johnson
  - e. Statement of Jerry L. Rhodes
  - f. Statement of of Revay Wright
  - g. Statement of Charles A. Perkins
  - h. Statement of Britiana S. Mitchell
- 3. State of Wisconsin Crime Laboratory Report:
  - a. Toxicology report prepared by Toxicologist Bernard Huettl
  - b. Toxicology report prepared by Toxicologist Leah Macans

### Forensic Mapping Data

The following forensic mapping data was used to complete the reconstruction analysis:

1. Trimble S6 robotic total station mapping data of the crash scene by Police Officer William Hanney of the Milwaukee Police Department Crash Reconstruction Unit.

#### 9-1-1 Call Recordings

The following 9-1-1 call recordings were used to complete the reconstruction analysis

 Digital audio file containing 911 calls placed to the Milwaukee Police Department regarding this incident compiled by Police Officer William Hanney.

Photography

The following digital photographs were reviewed while completing the reconstruction analysis:

 Eighty (80) digital photographs taken at the crash scene by Forensic Investigator Scott Kempinski

#### COMPUTER SOFTWARE/DATA USED

The following computer software programs or professional websites were utilized or consulted in preparing this collision analysis:

- 1. Computer Programs
  - A. Crash Zone version 9
  - B. Trimble Access version 2013.20
  - C. Microsoft Word 2000
  - D. Bosch Crash Data Retrieval (CDR) version 12.2
- 2. Professional Websites and Resources
  - A. Historical weather data for nearby Milwaukee, Wisconsin on November 4, 2012, as catalogued by the Weather Underground in Ann Arbor, Michigan (www.weatherunderground.com).
  - B. Carfax Vehicle History Reports (www.carfax.com)
  - C. National Highway Traffic Safety Administration (NHTSA) Office of Defects Investigation Safety Recall Information. (<a href="https://www.nhtsa.dot.gov">www.nhtsa.dot.gov</a>)
  - D. NHTSA Drugs and Human Performance Fact Sheets (www.nhtsa.gov/people/injury/research/job185drugs/index.htm)
  - E. Wisconsin State Statutes (http://legis.wisconsin.gov/rsb/stats.html)
  - F. Fricke, Lynn B., *Traffic Crash Reconstruction*, second edition, Northwestern University, 2010

#### PRE-INCIDENT SCENE DESCRIPTION

The scene of the crash was located in the 3300 block of North 12<sup>th</sup> Street at approximately 3350 North 12<sup>th</sup> Street. North 12<sup>th</sup> Street is a public roadway (highway) with a primarily north/south orientation on which traffic is allowed to travel north and south. The roadway surface is constructed of bituminous blacktop (asphalt) that is in fair condition. Raised concrete curbs define the roadway. There are no roadway markings separating the two directions of travel and parking is allowed along the curb. Several vehicles were parked on the roadway surrounding the crash scene. The roadway is bordered by a mixture of single family and duplex homes that are in relatively close proximity to each other and the roadway.

North 12<sup>th</sup> Street is approximately 28 feet 10 inches wide and has a non-posted speed limit of 25 miles per hour. The roadway is relatively straight through the collision area. There is a slight uphill (positive) grade to the north of 0.5% to 1.0%. Figure 1 illustrates the approximate location of the crash upon the map.



**Figure 1.** This aerial photo obtained from Google Maps via CrashZone shows an overview of the 3300 block of N. 12<sup>th</sup> St. The photo illustrates the general design and setting of the roadway. The photograph was not taken on the day of the crash and is not intended to depict the conditions at that time.

#### POST-INCIDENT SCENE DESCRIPTION

Following the collision, several citizens called 9-1-1 and notified authorities of the crash. A short time later, officers from the Milwaukee Police Department's Fifth District arrived on scene. Officers reported observing a black 2007 Chrysler Pacifica in the middle of the street with a subject later identified as Revay Wright leaning against the front. Officer Russell Barker reported he observed a male juvenile, identified as Jacari C. Maxwell, lying in the street in front of the Chrysler. Officer Barker reported that Jacari Maxwell was bleeding from the mouth and nose, did not have a pulse, and wasn't breathing.

A pair of white children's shoes were located in the roadway; one in front of the Chrysler and one underneath the Chrysler near the driver's door. Parallel tire marks were located on the roadway leading up to the Chrysler.

A legally parked Chevrolet Astro van was located directly east of where the parallel tire marks began. A Nissan SUV and Hyundai SUV were observed legally parked directly south of the Chevrolet Astro.



Figure 3. View of the scene looking north in the 3300 block of N 12th St

# EVIDENCE COLLECTION AND SCENE DOCUMENTATION

On Sunday, March 30th, 2014, I, Officer William Hanney, used a Trimble S6 robotic total station to forensically map the given roadway and terrain. The S6 is an electronic instrument composed of a theodolite (angle measuring system), an EDM (electronic distance measuring system), a data collector, and a prism. When data points are collected, they are stored electronically and later downloaded for transfer and creation of scaled scene drawings. These instruments allow for data points to be measured in three dimensions, thereby mapping roadways, evidence locations, and contiguous terrain with a high degree of accuracy. During the mapping operation, visible evidence, roadways, and contiguous terrain were documented.

I, Officer Hanney, collected two white shoes and a pair of broken glasses from the crash scene and placed them on inventory.

Revay Wright was read the Informing the Accused form and consented to have his blood collected. Officer Russell Barker conveyed Revay Wright to St. Mary's hospital where an evidentiary blood sample was obtained. The blood was placed on inventory and later transmitted to the State Crime Laboratory – Milwaukee.

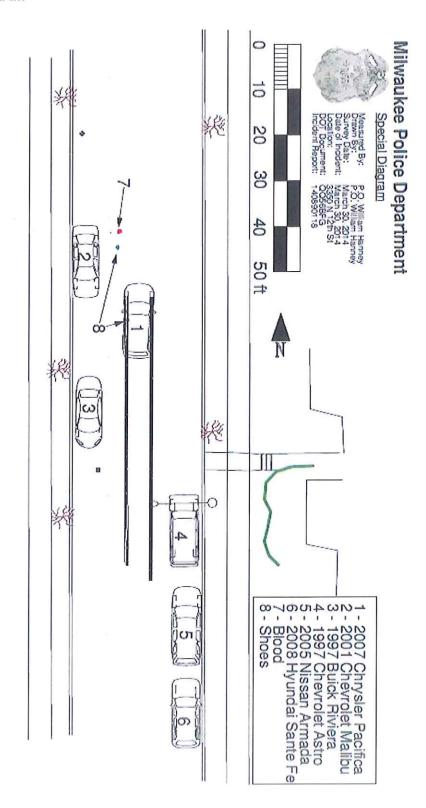


Figure 4. Scaled scene diagram

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#### CITIZEN INTERVIEWS/STATEMENTS

Citizens provided oral statements to Officers & Detectives from the Milwaukee Police Department. The following section summarizes the information obtained in these interviews and is not presented in any particular order.

Antionette D. Bentley - witness to the crash

Bentley stated she had just driven onto N. 12<sup>th</sup> St. a few moments prior to the crash to visit a friend. Bentley observed her friend standing on the sidewalk and parked in front of 3355 N 12th ST to talk to him. Bentley was still sitting in her vehicle when she observed Revay Wright's vehicle traveling north on N 12th ST from W Concordia AV. Bentley stated as the vehicle (Wright's) was coming north, she observed two small children running in the yard of 3350 N 12th ST. Bentley stated the two children came running from the gangway south of 3350 N 12th ST, from between the residences of 3350 and 3346. The children were running west towards N 12th ST.

Bentley pointed out to a green van (Chevrolet Astro) that was parked in front of 3346 N 12th ST, on the east side of the street facing north. Bentley stated as the two children got close to the street, the child that was further behind stopped and did not run into the street. Bentley stated the first child, who was in front, ran directly in front of the parked green van and into the street. Bentley stated that Wright's vehicle was still traveling north. Bentley stated the child ran into the street, directly in front of Wright's vehicle. Bentley stated the child saw the vehicle, stopped and made a step backwards to try and get out of the way. Bentley stated Wright's vehicle then struck the child. When the child was hit, he went underneath of the front of Wright's vehicle, and was dragged while the vehicle was still moving. Bentley stated that when Wright's vehicle came to a stop, the child slid out from underneath of the vehicle.

Bentley stated that Wright exited his vehicle and came to the front of it to try and help the child. Bentley stated numerous people came running over and she wasn't able to see much after that. Officer Michael Gasser asked Bentley how fast she thought Wright was traveling. Bentley stated the vehicle was going "kind of fast". Officer Gasser asked Bentley if she thought the vehicle was traveling recklessly. Bentley stated "no, but it looked faster than the speed limit".

Roosevelt K. Johnson – witness to the crash

Roosevelt K. Johnson stated he was in the backyard of 3405 N 12<sup>th</sup> St having a beer when he heard what he believed to be brakes screeching followed by loud screams. Roosevelt stated he walked around to his front yard and observed a young boy's body in the street.

Britiana S Mitchell – witness to the crash

Mitchell stated that she drove her boyfriend, Charles Perkins, to his house, located at 3401 N 12th St., from her house, at approximately 5:30pm. Mitchell stated that they were sitting in her green Pontiac Sunfire, which she parked facing southbound in front of 3401 N 12th St.

Mitchell said that she had observed Jacari Maxwell playing with Tayshawn back and forth across the street. Mitchell said that when she went into the house she also saw him (Jacari) playing inside for a period of time. Mitchell said that she had gone back outside and was sitting with Perkins, when she saw Jacari come outside. Jacari then went across the street with his cousin Tayshawn and they were playing outside of their friend's house, which she believed was 3346 N 12th St.

Mitchell said that Jacari and Tayshawn were then playing near a vacant lot, located across from 3401 N 12th St. and both boys ran in front of a large van, which was parked facing north on the east side of the street.

Mitchell said that Tayshawn stopped right next to the van to look for oncoming cars, but that Jacari didn't and ran right out into traffic. Mitchell said Jacari ran right out into the street, not being able to see over the van and was struck immediately by an SUV type vehicle. Mitchell said the SUV hit Jacari's head and he (Jacari) slid across the street. Mitchell said Jacari didn't move after being struck and that her boyfriend, Perkins, then ran into the house and said to call 911.

Charles A. Perkins – witness to the crash

Perkins said that on Sunday, March 30th, 2014, he rode over to his house, 3401 N 12<sup>th</sup> St, at approximately 5:30pm with his girlfriend, Britiana Mitchell. Perkins said that when they arrived they sat in Mitchell's vehicle, a Green Pontiac Sunfire, which she had parked in front of 3401 N 12th St. (facing southbound) Perkins said that he observed his nephew, Jacari Maxwell running back and forth across the street playing. He said that Maxwell was with his other nephew, Tayshawn Manns, and that the boys were also playing with a neighborhood friend. Perkins said that when he was sitting in the car he heard a "boom" and looked up. He said that he saw a car hit Maxwell so he (Perkins) ran into the house and told his sister, Shanequa.

Revay Wright – driver involved in the crash

When Officer Michael Gasser arrived at the crash scene Wright told Officer Gasser that he (Wright) owned and had been driving the vehicle involved in the crash.

Wright stated, "the little boy came out of nowhere," while speaking with Officer Russell Barker. Wright also stated "I can't believe I killed that little boy." Wright went on to say that while he was driving northbound on N 12th St in the 3300

block he observed two small children running and the one little child stopped while the other continued the road and he could not stop.

In a custodial interview with Detective Donald Ours, Wright stated that he was driving northbound on N 12<sup>th</sup> St at about 25 miles per hour when a young boy ran out from between some parked cars and he (Wright) did not see him (Jacari) in time to avoid hitting him. When asked about alcohol and drug use Wright stated that he had smoked one marijuana cigarette while watching college basketball on TV around noon and that he (Wright) did not feel impaired.

#### VEHICLE EXAMINATION

The 2007 Chrysler Pacifica is a four-door vehicle powered by a 4.0 Liter, V-6 engine. The engine's power is delivered to the road through an automatic transmission. The vehicle is equipped with four-wheel anti-lock disk brakes. There was an area of minor contact damage to the middle of the front bumper. This area appeared to contain damage from a prior crash. The front tires had poor tread depth. The rest of the Chrysler Pacifica appeared relatively normal.



Figure 5. 2007 Chrysler Pacifica used in this offense

# **COLLISION SEQUENCE**

Based on the physical evidence collected at the scene, the vehicle examinations, and witness statements, the following collision sequence is offered.

The Chrysler Pacifica traveling north on North 12<sup>th</sup> Street collided with a pedestrian who ran west into the roadway at approximately 3350 North 12<sup>th</sup> Street. The Chrysler was braking when it collided with the pedestrian and came to a controlled final rest. The pedestrian came to rest in the roadway approximately 10 feet north of the Chrysler. The pedestrian's shoes were located in the roadway, one in front of the Chrysler and one underneath the Chrysler.

#### STATE CRIME LABORATORY ANALYSIS OF EVIDENCE

Two vials of blood collected from Revay Wright after the crash were submitted to the Wisconsin Department of Justice State Crime Laboratory – Milwaukee for analysis. The purpose of submitting these items to the State Crime Laboratory was to determine if there was any alcohol or drugs present in Revay Wright's blood at the time of the crash.

I reviewed a report of laboratory findings written by Senior Toxicologist Leah Macans. The report indicates that Revay Wright had cocaine in his blood with a concentration of 27 ug/L.

#### **CDR ANALYSIS**

A vehicle's safety restraint system is generally monitored and controlled by dedicated electronic module. In Chrysler Pacifica vehicles, this unit is referred to as the Airbag Control Module (ACM) This electronic instrument "senses" a crash and makes the "decision" as to whether or not the airbags should deploy. The module, which utilizes an internal accelerometer to analyze and interpret sudden speed changes, may also record data surrounding a collision event. In most Chrysler vehicles, this data may include pre-crash data such as vehicle speed, throttle position, engine RPMs, brake switch activation, longitudinal velocity change information, as well as seat belt use and general airbag deployment command parameters. It is noted that this information is recorded by the ACM from several sources, including the Powertrain Control Module (PCM), the Anti-Lock Brake System (ABS) Module or other systems wired directly to the ACM. Following a collision event the ACM can store events. If the event commands the airbag to deploy, the event is locked into the ACM and cannot be overwritten. If the event does not command the airbag to deploy, the event can be overwritten.

On April 2<sup>nd</sup>, 2014, I conducted a download of the ACM in the Chrysler Pacifica involved in this crash via the on board diagnostic (OBD-II) port. The download was successful and the Bosch Crash Data Retrieval (CDR) software generated a

report. The report indicated that there were no events stored in the Chrysler's ACM.

#### SPEED ANALYSIS

After review of the police crash reports, examination of the vehicle involved, a direct site examination of the roadway at the time of the crash and based on my training and experience in Traffic Crash Reconstruction, the investigation revealed:

1. The speed of the Chrysler Pacifica when it began to leave tire marks was calculated to be in the range of **35 - 38 mph.** 

This calculation was determined using several factors. Friction values of 0.7 to 0.8g were used based on published data and previous skid tests conducted elsewhere in the City of Milwaukee. No skid tests were preformed on the roadway in the area of the crash. It would not have been safe to conduct such tests due to the narrow road, parked vehicles, and dense population in the area.

In addition to calculating the speed of the Chrysler at the time of impact, a time-distance analysis was conducted to determine how far from the area of impact the Chrysler was when the pedestrian emerged. For this analysis the front bumper of the parked 1997 Chevrolet Astro van was used as a reference for where the pedestrian emerged. Two eyewitnesses to the crash stated that the child pedestrian ran into the street directly in front of the parked Astro. The Astro has an overall height of approximately 6.2 feet so it is unlikely the driver of the Chrysler saw the pedestrian until he emerged from behind the Astro van.

Using the aforementioned information, and a perception/reaction time of 1.5 seconds, it was calculated that the Chrysler would have been between 135 to 146 feet from measured final rest when the pedestrian emerged.

This crash occurred in the 3300 block of North 12<sup>th</sup> Street, which is a non-posted 25 miles per hour speed limit zone. Given that information I then calculated the distance it would take to stop the Chrysler had it been traveling at the legal limit of 25 miles per hour.

Had the Chrysler been traveling at 25 miles per hour, using the parameters listed above, it would have traveled between 81 and 85 feet from perception to final rest. This indicates that had the Chrysler been traveling at 25 miles per hour prior to the crash it would have stopped before the front bumper of the parked Astro van and it is likely the collision would not have occurred.

#### **HUMAN FACTORS**

Decisions drivers make while operating a motor vehicle can contribute greatly to the probability that they will be involved in a crash. Decisions made by drivers can include driving while under the influence of drugs or alcohol, driving too fast for conditions, driving inattentively, or failing to yield the right of way.

According to a toxicology report generated by the State Crime Laboratory – Milwaukee the operator of the Chrysler, Revay Wright, had 27 ug/L of cocaine in his blood following the collision.

Cocaine, and cocaine metabolites, are defined as restricted controlled substances by Wisconsin State Statute 939.22(33)(c)(c). Additionally Wisconsin State Statute 346.63(1)(am) prohibits any person from driving/operating a motor vehicle with a detectable about of a restricted controlled substance in their blood.

Cocaine is a central nervous system (CNS) stimulant and it affects the body in many ways. The Drugs and Human Performance Facts Sheets published by the National Highway Traffic Safety Administration (NHTSA) state that cocaine could have the following effects on driving:

Observed signs of impairment in driving performance have included subjects speeding, losing control of their vehicle, causing collisions, turning in front of other vehicles, high-risk behavior, inattentive driving, and poor impulse control. As the effects of cocaine wear off subjects may suffer from fatigue, depression, sleepiness, and inattention.

Two witnesses to the crash and the driver of the Chrysler stated that the child, Jacari Maxwell, ran west into the street in front of the moving Chrysler. Wisconsin State Statute 346.25 states that every pedestrian crossing a roadway at any point other than within a marked or unmarked crosswalk shall yield the right-of-way to all vehicles upon the roadway.

#### **VEHICLE FACTORS**

In an effort to thoroughly examine any possible contributing factors to this collision, the National Highway Traffic Safety Administration's Office of Defects Investigation (ODI) database on vehicle recalls and campaigns was researched in regards to 2007 Chrysler Pacifica vehicles.

It was found that no recalls and 2 investigations existed that were related to the 2007 Chrysler Pacifica line of vehicles, none of which would have affected the vehicles ability to function at the time of the crash. One investigation involved vehicle emission levels and the other was in regards to power steering fluid levels.

A subsequent search with CARFAX.com and a vehicle history report on the vehicle identification number (2A8GM68X87R226271) for the 2007 Chrysler Pacifica revealed the Chrysler had one previous owner. There were no issues reported relating to total loss, structural damage, airbag deployment, odometer check, accident damage, or manufacturer recall of this particular vehicle, prior to the crash being investigated.

# HIGHWAY AND ENVIRONMENTAL FACTORS

# Highway Factors

According to reports and personal observations, the roadway appeared to be regularly maintained. There was no debris or defect present on the roadway. No highway factors have been identified that would have been a contributor to this crash.

#### Environmental Factors

Historical weather data for Milwaukee compiled by the National Weather Service and archived by the website <a href="www.weatherunderground.com">www.weatherunderground.com</a> in Ann Arbor, MI, indicated that conditions in Milwaukee about the time of the crash on Sunday, March 30, 2014, were as follows: temperature 48.9°F, dew point 30°F, relative humidity 48%, winds were SE at 9.2 MPH, barometric pressure 30.05 in., with scattered clouds. As of this report, no environmental factors have been identified that would have contributed to the collision.

#### INVESTIGATIVE SUMMARY

The following statements are the opinions of the author and are based on all of the information included in this report. These opinions are based on my training and experience in the field of crash investigation/reconstruction. These statements are accurate to a reasonable degree of scientific certainty and are based on sound scientific principles.

- This crash occurred on Sunday, March 30<sup>th</sup>, 2014 at approximately 5:40 PM, a 2007 Chrysler Pacifica was traveling northbound in the 3300 block of North 12<sup>th</sup> Street.
- A pedestrian ran westbound into the street at approximately 3350 N 12<sup>th</sup>
- The Chrysler collided with the pedestrian and was brought to a controlled stop by the operator.
- The pedestrian was fatally injured as a result of this crash.
- No vehicle factors have been identified that would have contributed to the collision.
- No environmental or highway factors have been identified that would have contributed to the collision.
- No active recalls and/or campaigns existed that were related to the function of the vehicle.
- The speed of the 2007 Chrysler Pacifica prior to the crash was calculated to be in the range of 35 to 38 miles per hour
- The speed limit on North 12<sup>th</sup> Street is 25 miles per hour
- Had the Chrysler been traveling at 25 miles per hour it is likely the crash would not have occurred
- Revay Wright, the operator of the 2007 Chrysler Pacifica, had 27 ug/L of cocaine in his blood stream

Respectfully Submitted,

Police Officer William Hanney Neighborhood Task Force Crash Reconstruction Unit