IN THE CIRCUIT COURT OF THE TWENTIETH JUDICIAL CIRCUIT IN AND FOR LEE COUNTY, FLORIDA CIVIL ACTION

GRANDEZZA MASTER PROPERTY
OWNERS ASSOCIATION, INC., a
Florida Non-Profit Corporation,
MIROMAR OUTLET WEST, LLC,
a Florida limited liability company,
INTERNATIONAL DESIGN CENTER,
LLC, a Florida limited liability company,
d/b/a MIROMAR DESIGN CENTER,
and WILDCAT RUN COMMUNITY
ASSOCIATION, INC., a Florida Non-Profit
Corporation,

Plaintiffs,

VS.

CASE NO. 13-CA-002807

COLLIER COUNTY, a Political Subdivision of the State of Florida, EASTMAN AGGREGATES, INC., a Florida corporation, and PHILLIPS AND JORDAN, INCORPORATED, a Florida corporation,

\mathbf{T}	efen	ماد	t-
	етеп	กล	nre

NOTICE OF FILING

COMES NOW, the Plaintiffs, Grandezza Master Property Owners Association, Inc., Bella Terra of Southwest Florida, Inc., Urika II, Inc. d/b/a University BP, Miromar Outlet West, LLC, International Design Center, LLC d/b/a Miromar Design Center, and Wildcat Run Community Association, Inc., by and through their undersigned attorneys, and gives notice of filing with the Court in the above-styled cause the Affidavit of Ralph Aronberg, P.E.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing has been served with the Summons, Verified Amended Complaint, and Amended Emergency Verified Motion for Temporary Injunction.

KNOTT EBELINI HART Attorneys for Plaintiffs 1625 Hendry Street, Suite 301 Fort Myers, FL 33901 (239) 334-2722

Primary Email: gknott-law.com
Secondary Email: sbannon@knott-law.com

By: George H. Knott

Florida Bar No. 0375918

IN THE CIRCUIT COURT OF THE TWENTIETH JUDICIAL CIRCUIT IN AND FOR LEE COUNTY, FLORIDA CIVIL ACTION

GRANDEZZA MASTER PROPERTY OWNERS ASSOCIATION, INC., et al.,

Plaintiffs.

VS.

CASE NO. 13-CA-002807

COLLIER COUNTY, a Political Subdivision of the State of Florida, EASTMAN AGGREGATES, INC., a Florida corporation, and PHILLIPS AND JORDAN, INCORPORATED, a Florida corporation,

***		-		
13	efen	ศก	mto.	
-		110	41115	

AFFIDAVIT OF RALPH ARONBERG, P.E.

STATE OF FLORIDA)
ss.
COUNTY OF BROWARD)

BEFORE ME, the undersigned authority, personally appeared Ralph Aronberg, P.E., who, after being first duly sworn, deposes and says:

- 1. I am licensed as a professional engineer by the State of Florida.
- I have been licensed as a professional engineer in the State of Florida for thirty (30) years.
- 3. I concentrate my engineering practice in traffic engineering and safety.
- 4. I am a fellow member of the National Academy of Forensic Engineers and the Institute of Transportation Engineers.

- 5. I am published in fields of pedestrian/bicycle/motorcycle accident reconstruction and three (3) dimensional animation and scientific visualizations through the Society of Automotive Engineers.
- 6. A copy of me curriculum vitae is attached hereto as Exhibit "A" and is current and accurate.
- I have been qualified by Circuit Courts in the State of Florida as an expert in traffic engineering, safety, and accident reconstruction on over one hundred fifty (150) occasions.
- 8. I have specific and specialized knowledge regarding dump trucks by virtue of serving as a safety consultant for Rinker Materials.
- 9. I have personal knowledge of the facts set forth herein.
- 10. Two (2) alternative sand convoy routes from the Stewart Mine to I-75 in Lee County have been proposed by Collier County, Phillips and Jordan, Incorporated, and Eastman Aggregate Enterprises, LLC. These convoy routes are referred to as the "Alico Route" and the "Corkscrew Route."

 An alternative route has been proposed in Collier County which is referred to as the "Immokalee Route."
- 11. I have driven the Corkscrew, Alico, and Immokalee sand convoy routes proposed by Collier County, Phillips and Jordan, Incorporated, and Eastman Aggregate Enterprises, LLC.

- 12. The Alico sand convoy route initially follows Corkscrew Road through a rural environment to Alico Road. The Alico Road segment consists of a rural environment with sporadic mining operations located along the roadway. There is no commercial or residential development except for the small stretch of roadway between Ben Hill Griffin Boulevard and I-75. There is only one (1) traffic signal on the Alico Route. Furthermore, there is existing dump truck traffic on this roadway. Most importantly, the sand truck traffic on this route will not need to make a left hand turn onto I-75; there is a dedicated right turn clover leaf onto I-75. There are minimal points of potential conflicts between sand truck traffic and other vehicular traffic associated with the Alico Route.
- 13. The Corkscrew sand convoy route follows Corkscrew Road all the way to I-75. The stretch of roadway from the Bella Terra subdivision on Corkscrew Road to I-75 is a heavily developed suburban corridor. Corkscrew Road for the first portion of this segment is two (2) lanes with numerous subdivisions emptying vehicular traffic onto Corkscrew Road. As one progresses towards I-75, there are several large commercial/retail developments emptying vehicular traffic onto Corkscrew Road. In addition, there are numerous left turns across the west bound lanes of Corkscrew Road. There are three (3) traffic lights in close proximity with one another starting at the intersection of Ben Hill Griffin Boulevard

- and Corkscrew Road. To access I-75, the sand truck convoys will have to make a left hand turn across the east bound lanes of Corkscrew Road. There are multiple points of potential conflicts between the sand truck traffic and other vehicular traffic associated with the Corkscrew Route.
- 14. The traffic volume is much heavier on that portion of Corkscrew Road approaching I-75 than the portion of Alico Road approaching I-75.
- 15. The interstate interchange is the primary point of constraint for both the Alico and the Corkscrew Routes. The Alico interstate interchange is a superior design and can better accommodate the sand truck convoys and reduce the likelihood of gridlock and accidents.
- I have analyzed both the Corkscrew and Alico Routes as a traffic engineer from a safety perspective.
- 17. I have examined the roadways and road conditions associated with both the Corkscrew and the Alico Routes.
- 18. In performing my analysis, I have considered the equipment that Collier County's haulers intend to use in hauling sand for Collier's beach renourishment project.
- 19. The more opportunities there are for vehicular conflicts on a roadway the greater the probability there is of an accident.
- 20. The large tandem dump trucks to be used for the sand convoys weigh more than twenty (20) times the weight of an average car.

- 21. Large, loaded tandem dump trucks have significantly slower acceleration and deceleration characteristics than normal vehicles. It takes longer for such trucks to move forward and, more importantly, it takes longer for such trucks to slow down.
- 22. These acceleration/deceleration characteristics are exacerbated by the need to stop and start at the traffic signals which line the urbanized section of the Corkscrew Route.
- 23. It is my opinion that the acceleration/deceleration characteristics couples with the traffic conditions associated with the Corkscrew Route will significantly increase the probability of an accident and will lead to the constant blocking of intersections, especially the south bound ramp at the Corkscrew/I-75 interchange.
- 24. Based on the traffic characteristics of the Corkscrew Route and the type of trucks being used to haul the sand, it is my opinion that there is a very high probability of accidents occurring if the Corkscrew Route is used for sand truck convoys.
- 25. Due to the shear mass of large loaded tandem dump trucks, should an accident occur, it is my opinion that it would involve serious bodily injury or death.
- 26. It is my opinion that the use of the Corkscrews Route is against the public's interest because it is significantly more dangerous than the Alico

- Route and there is a significant probability of physical injury or death from the use of the Corkscrew Route.
- 27. The use of the Corkscrew Route by the sand convoy exposes the residents and property owners along Corkscrew Road to an abnormally high safety risk that would not otherwise exist.
- 28. It is my opinion that the Alico Route is appreciably safer for the public than the Corkscrew Route.
- 29. It is my opinion that any cost savings associated with the use of Corkscrew Route is significantly outweighed by the significant risk of accidents resulting from the use of that route.
- 30. It is my opinion that the Alico Route will substantially reduce the risks of accidents and is appreciably safer for the public than the Corkscrew Route.
- 31. The next best option to minimize the potential for conflicts and accidents related to the Lee County routes would be to run the sand truck convoys at night when the volume of traffic is significantly reduced on Corkscrew Road.
- 32. Notwithstanding my analysis of the two (2) routes proposed passing through Lee County, Florida, it is my unqualified opinion that the Immokalee Route in Collier County is the safest. The roadway is better and it keeps the truck convoys off of I-75; a high volume, high speed

thoroughfare.

FURTHER YOUR AFFIANT SAYETH NAUGHT. RAPPH ARONBERG, P.E.
STATE OF FLORIDA) COUNTY OF BROWARD)
The foregoing instrument was acknowledged before me on this \(\frac{1}{2} \) day of October, 2013 by Ralph Aronberg, P.E. LORA GAY NOTARY PUBLIC STATE OF FLORIDA Comment FF046438 Explices 8/18/2017 Signature of Notary Public - State of Florida
(Print, Type, or Stamp Commissioned Name of Notary Public) Personally Known □ − OR − Produced Identification ☑
Type of Identification Produced: Driver's license

CURRICULUM VITAE

RALPH ARONBERG, P.E.

President

Aronberg & Associates Consulting Engineers, Inc. 1304 SW 160th Avenue, Suite 220 Fort Lauderdale, FL 33326 (954) 236-6605

RESPONSIBILITIES: (Since founding firm in 1983)

Traffic accident reconstruction and expert witness service for private parties, insurance companies and governmental agencies. Expert witness services provided in the areas of

- Traffic accident reconstruction (cars, trucks, motorcycles and pedestrians).
- Vehicle occupant kinematics (seatbelts).
- Biomechanics.
- Traffic engineering design (geometrics, signing, markings, signals and lighting).
- Sight distance analysis.
- Traffic impacts.
- Hazardous roadway conditions.
- Work Zone Traffic Control evaluation.
- Evaluation of roadway curvature.
- Traffic signal operations.
- Pedestrian safety (includes slip/trip and full analysis).
- Computerized accident reconstruction and simulation.
- Vehicle "black box" data retrieval (certified).

All avenues of transportation and traffic studies, planning, design and analysis.

Coordination and management of full service land development projects, Development of Regional Impact studies and

PROFESSIONAL REGISTRATION:

Registered Professional Engineer with the Florida Board of Professional Engineers.

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES:

National Academy of Forensic Engineers - (Fellow member) Certified by NAFE as a Diplomat in Forensic Engineering in accordance with the guidelines of the Council of Engineering Specialty Boards (CESB).

Florida Engineering Society - Past President of Broward Chapter.

Institute of Transportation Engineers - (Fellow member) Serve on Expert Witness Counsel.

Society of Automotive Engineers - Serve on Crash Data Collection and Analysis Steering Committee.

American Society of Civil Engineers

National Society of Professional Engineers

Association For the Advancement of Automotive Medicine

National Association of Professional Accident Reconstruction Specialists - current officer

American Society of Testing and Materials - Serve on Committee on Pedestrian/Walkway Safety and Footwear.

AWARDS:

Young Engineer of The Year award received February 21, 1987 from the Broward Chapter of the Florida Engineering

Stapp Car Crash Conference:

1985 Twenty-Ninth, 1988 Thirty-Second, 1989 Thirty-Third, 1991 Thirty-Fifth, 1994 Thirty-Eighth.

Workshops on Human Subjects for Biomechanical Research: (1985, 1988, 1989, 1991, 1994)

Society of Automotive Engineers International Congresses: Detroit, MI

Each congress includes one week of seminars on state-of-the-art techniques in accident reconstruction and occupant kinematics. Attended in 1987, 1989, 1990, 1991, 1992, 1995, 1997, 1998, 1999, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2011, 2012, and 2013. Speaker in 1990 and 1992, presenting published papers.

Annual Conferences of the Association for the Advancement of Automotive Medicine: 1987 Thirty-First, 1989 Thirty-Third, 1997 Forty-First, 1998 Forty-Second.

Florida Department of Transportation:

Project Managers Conference (1987). Site Impact Handbook Workshop (1998).

Symposium on Head Injury Mechanisms, An Angular Acceleration Criterion: Washington, DC (1989)

60th Annual Meeting of Institute of Transportation Engineers: (1990)

Featured speaker on Geometric Design, Truffic Safety Engineering.

Institute of Police Technology and Management: Jacksonville, FL

1990, 1992 (as speaker), and 2002 annual updates of "Special Problems in Traffic Accident Reconstruction". 1993 "Concept of Night Visibility for Traffic Accident Investigators".

1998 "Inspection/Investigation of Commercial Vehicle Accidents".

Florida Institute of Consulting Engineers: (1990)

Work Zone Traffic Control.

University of California, San Diego: (1991)

Accidental Injury: Biomechanics & Prevention.

Society of Automotive Engineers: Phoenix, AZ (1992)

Vehicle Rollovers Workshop.

Bob Bondurant School of High Performance Driving: Phoenix, AZ (1992)

Advanced Highway Driving,

Society of Automotive Engineers: Los Angeles, CA (1994)

Low Speed Rear Impact Collision Workshop.

Association for the Advancement of Automotive Medicine: Philadelphia, PA (1994)

Biomechanics of Impact and Current Occupant Restraint Issues.

Transportation Research Center, Inc.: East Liberty, OH (1995)

Pole side Impact Testing.

Heavy Vehicle Braking Performance Seminar.

Truck and Bus Emergency Braking Testing.

Association for the Advancement of Automotive Medicine and University of Miami School of Medicine William

Lehman Injury Research Center: Miami, FL (2000)

Car Crashes and Occupant Injuries: A Team Approach to Crash Investigation

World Reconstruction Exposition, WREX 2000: College Station, TX (2000)

Instrumented and documented crashes of 17 motorcycles; sponsor and contributor.

Vericom Computers, Inc.: Miramar, FL (2001)

Acceleration and VC2000 familiarization.

VC2000PC Advanced training.

RALPH ARONBERG, P.E. - Curriculum Vitae

Page Four

Steensland Center for Professional Development: (2003)

Americans with Disabilities Act (ADA): Impact on Design Professionals.

Collision Safety Institute:

Crash Data Retrieval System Operator's Certification Course (2004).

CDR Users Conference (2008).

Macinnis Engineering Associates: (2004)

PC Crash Training Workshop.

Florida State University (online): (2005)

Florida Building Code Core Course.

Society of Automotive Engineers: BenveRun Motorsports Complex, PA (2006)

Applied Vehicle Dynamics.

Society of Automotive Engineers: Washington, D.C. (2007)

Highway Event Data Recorder Symposium.

National Academy of Forensic Engineers: Orlando, FL (2010)

Featured speaker on Truck Accident Simulation and Animation.

National Crash Analysis Center; Federal Outdoor Impact Laboratory: George Washington Univ., VA (2010) High Speed Instrumented Testing. Advanced Topics in Automotive Safety and Accident Reconstruction.

Aras 360 Technologies Inc.: (2011)

Advanced 3D Computer Diagramming.

New York Statewide Traffic Accident Reconstruction Society: Fishkill, NY (2012)

Investigating Motorcycle Collisions.

Macinnis Engineering Associates: (2012)

PC Crosh Expert Skills Workshop.

PUBLICATIONS:

Served on Society of Automotive Engineers Review Committee for Publication of Accident Reconstruction 1993, 1995, 2004, 2008, 2010 & 2013.

- "Seventeen Motorcycle Crash Tests into Vehicles and a Barrier", Society of Automotive Engineers Technical Paper #2002-01-0551, contained within <u>Accident Reconstruction 2002.</u>
- "Reconstruction of Automobile/Pedestrian Accidents Using CATAPULT", Society of Automotive Engineers Technical Paper #940924, contained within Accident Reconstruction: Technology and Animation IV.
- "PC Based Accident Reconstruction Animation using Autodesk 3D Studio", Society of Automotive Engineers Technical Paper #920756, contained within <u>Accident Reconstruction: Technology and Animation 11.</u>
- "Airborne Trajectory Analysis Derivation for use in Accident Reconstruction", Society of Automotive Engineers Technology Paper #900367, contained within Accident Reconstruction: Human, Vehicle and Environmental Factors.
- "Motivating and Managing Engineers", American Society of Civil Engineers, Journal of Professional Issues In Engineering, January, 1985.

OTHER FIRM ACTIVITIES:

3-D Computer Animations.

Computer-aided Design, preparation of trial exhibit graphics.

Coordination of aerial photography.

Coordination of land surveying.

Nighttime photography.

Video photography.

Illumination evaluation and analysis.

Vehicular mechanical systems analysis.