Assistive Technology for Drivers with Disabilities
Improving Driver Safety and Outcomes

Brian P. McLane, President, Paradigm Solutions, LLC
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Mr. McLane is the President and founder of Paradigm Solutions. Mr. McLane, who uses a wheelchair and relies on assistive technology every day, was inducted into the National Hall of Fame for Persons with Disabilities in 2000.

A graduate of Syracuse University, Mr. McLane holds a Master’s Degree in Sports Administration from Ohio University. He is retired from the NYS Education Department as Assistant Commissioner in the Office of Vocational and Educational Services for Individuals with Disabilities.

Previously, Mr. McLane served in the Cuomo Administration as Assistant Commissioner in the NYS Office of Parks, Recreation, and Historic Preservation, and as a Senior Executive Assistant to New York Assemblyman Melvin Zimmer. A longtime advocate and consultant for the rights of persons with disabilities, Mr. McLane has served as a NYS delegate to the 1977 White House Conference on the Disabled, as Chairman of the NYS Council of Mental Retardation and Developmental Disabilities, and as Chairman of the NYS Developmental Disabilities Planning Council.

In 2001, the Brian McLane Scholarship Fund for students with disabilities was established at Syracuse University. The Brian McLane Fellowship at the Maxwell School was established to recognize his career in public service.
Introduction
The number of individuals who require adaptive vehicle modifications to access a motor vehicle has been growing steadily over the past 10 – 20 years. This specialty area of Rehabilitation Technology and Adaptive Driving is poised for major growth as the baby boom of the 1950’s – 60’s enters retirement age and improvements in medical rehabilitation technology continue to hold the promise of a long productive life.

Problem Statement
Vehicle Modifications can range from simple bolt on adaptations to the steering wheel and gas and brake pedal to complex electronic systems that allow a driver with a disability to “fly by wire”. These modified vehicles are covered by few rules and in many instances are designed and or installed by small automotive repair shops. In an unpublished review of records, Paradigm Solutions found that over 80% of vehicles modified with high tech modifications had some form of equipment or user error leading to near misses or crashes.

Incidents reported by the driver can be either mechanical failure of the equipment or judgment or input errors by the driver. Careful evaluation and training in the use of the adaptive equipment is equally devoid of standards of practice. Some drivers with disabilities are never assessed to determine if they have the strength, range of motion or neurosensory skills to resume driving. This can result in re-introducing drivers who may not have sufficient skills to resume driving. This can lead to hazards not only to the driver with a disability but to the general motoring public.
Vehicle modifications are typically delivered to the driver through a group of retail dealers who purchase components through manufacturers. There are no specific Federal requirements for testing or hardening of new designs. The Federal agency that is responsible for assuring vehicle safety is the National Highway Traffic Safety Administration (NHTSA). This industry follows the same self certification requirements as the major auto manufacturers. Additionally NHTSA has granted the adaptive modification industry waivers to several federal standards. Actual automotive testing is expensive and time consuming so many manufacturers develop products and components that are “field tested” by the end user. These products are distributed through a national retail dealer network.

There is little standardization or quality assurance of the retail dealer network. Many dealers are members of a professional trade organization (National Mobility Equipment Dealers Association – NMEDA). NMEDA has a voluntary quality assurance program (QAP) but dealer participation is limited to regions around the country. There are at least 10 states that do not have any NMEDA – QAP representation in their borders. Even larger states have only a few QAP dealers spread across the state.

There is not a single university based program that prepares clinicians to assess and apply uniform training and education methods for drivers with disabilities. The range of persons with disabilities who want to return to independent driving runs across the entire disability spectrum with the largest groups being licensed individuals who want to return to driving due to stroke, brain injury and spinal cord injury.

The primary source of information and networking for clinicians who evaluate and teach drivers with disabilities is the International Association of Driver Rehabilitation Specialists (ADED) and the Rehabilitation Engineering Society of North America (RESNA). ADED and RESNA have both developed entry level certification examinations leading to credentials as a Certified Driver Rehabilitation Specialist (CDRS) and Assistive Technology Practitioner (ATP) respectively.

There are very few CDRS practitioners and many states do not have any certified practitioners working within their borders. It is estimated that there are less than 300 CDRS practitioners in the US and Canada combined. Fewer than 50% of existing CDRS renew their credential during the 5 year practice cycle. Training, research and publication opportunities are very limited and the field lacks consistent, reliable evaluation and training modalities.

The development of a national integrated network of manufacturers, retail dealers and credentialed practitioners is the goal of this effort.

We propose to develop a strong interdisciplinary system of equipment testing and certification before the devices are field tested by the motorist. One model would be to develop a testing laboratory that would test and certify specific designs of adaptive equipment. The devices would earn a unique certification similar to the Underwriters Laboratories or the TÜV Rheinland test mark.
We also propose to assist in the development of an evidence based examination for a second tier of driver rehabilitation specialist. We also propose to develop a fully funded Certification Board for the recruitment, retention and development of curriculum for practitioners engaged in the evaluation, rehabilitation, and education of drivers with disabilities.

**Benefit 1**
The development of a new UL or TÜV certification system would help to assure that the consumer is purchasing a safe product that has been investigated to particular safety requirements by an accredited third party and is supported by regular surveillance audits.

**Benefit 2**
The development of a unified Certification Board would insure that potential clinical evaluators would have a mechanism to develop their skills through course work, continuing education, and publication opportunities. This would help to codify the discipline and attract more qualified candidates. Centralizing the activity allow existing practitioners access to enhancement, networking and mentoring opportunities. Having well prepared and certified practitioners would strengthen the decision making process on whether a person should continue driving and if so, what type of equipment will they need.

**Benefit 3**
Developing this type of integrated system will allow individuals to maximize their purchasing power by having access to a wide range of tested products that are prescribed by qualified clinical providers.

**Implementation**
Implementation of this proposal would be done through the development of several initiatives.

1. **National Testing Institute:** One initiative would be the development of a National Testing site for adaptive equipment. Staffed by engineers and testing specialists, the Institute would be charged with developing test protocol for specific elements of adaptive driving equipment. Once the item has passed the test it would be obtain the unique certification mark. This would have the added benefit for public purchasers of adaptive equipment such as the state vocational rehabilitation and Medicaid programs and the veteran’s administration.

2. **National Certification Board:** The second initiative would be the development of a full time Certification office. This would be in conjunction with ADED and RESNA with a major recruitment and retention done with these professional associations. Further development of practitioners would come through networking with the American Occupational Therapy Association (AOTA) and The American Driver and Traffic Safety Education Association (ADTSEA) ADTSEA is the professional association which represents traffic safety educators throughout the United States and abroad.

3. **Adaptive Drivers Motoring Club:** A third initiative would be to develop an association of motorists who have disabilities. This group would be a strong lobbying organization for change within the industry. Adding the collective voice of the end users of this technology is seen as a major factor that would lead to competitive pricing of safe
vehicle modifications. This effort would be tailored after a similar group in the UK (Disabled Drivers Motor Club – DDMC)

Summary
The development of several separate but integrated activities fostering the involvement of all stakeholders will lead to better and safer vehicle modifications for persons with disabilities. The establishment of a separate certification board for practitioners in this field will allow for the recruitment and retention qualified evaluators. The collective voice of the consumer will result in a powerful communication tool back to the manufacturers, retail dealers and evaluators and will serve as the most powerful change agent leading to safer vehicle modifications and successful outcomes.
COUDERSPORT, Pa. -- Trapped in his 2000 Dodge Caravan, Joseph A. Brown wrote a note on his Sharp hand-held computer. It began: "I didn't commit suicide."

The 23-year-old quadriplegic had intended to drop off some trash at the dump that October 2003 afternoon before heading to Wal-Mart. His customized van was traveling at about 70 miles per hour when he careened off State Road 49. It bumped through a low-lying corn field and bounced off hay bales before coming to a halt at the base of a crabapple tree, according to a police accident report and a survey of the scene.

Thanks to an airbag, Mr. Brown wasn't badly injured. But the impact broke the harness that secured his motorized wheelchair in place and Mr. Brown found himself sprawled across the van's midsection. He couldn't pull himself back into his chair, the police report says. The Dodge's resting place was a short walk from the nearby
highway, but the van lay obscured under a grove of trees. There is no cellphone service in that remote part of the Allegheny Mountains.

Stuck in the van, Mr. Brown whiled away two hours thinking and listening to the radio. Then, in his hand-held computer, which he often used as a notebook, he wrote a message to his mother describing his accident and its aftermath.

"I didn't commit suicide," he wrote as the afternoon began to draw to a close. "Sorry for the title. But I was afraid that if I didn't make it, that's what people would think."

He continued: "You're probably wondering what happened. Good freakin question!!!...I think this all has something to do with that stupid accel button on the steering wheel."

Within three hours, the sun had set. His khaki pants, T-shirt and blue pullover couldn't keep out the chill. The temperature dropped to about 38 degrees. Mr. Brown's body didn't generate enough heat to stay alive and he died that night of hypothermia, according to the coroner's report. The Pennsylvania State Police found his body two days later.

A Mother's Quest

What actually happened to Mr. Brown sheds light on an overlooked corner of auto-industry regulation. There are almost no rules specifically written for vehicles adapted for disabled drivers. That hole exists, in part, for a curious reason: The people it would ostensibly benefit don't want anything to encumber their freedom to drive.

Nonetheless in the week following the accident, Mr. Brown's mother decided she wanted to campaign for better regulatory oversight. Rebecca Froebel, 46 caseworker for the Pennsylvania Department of Public Welfare, learned that the faulty part responsible for her son's crash had malfunctioned in at least one other previous incident. She began a letter-writing campaign and sent information packets to local and national politicians.
suggesting ways to make vehicles safer. Her recommendation: Modified vehicles should have an engine kill-switch within easy reach of a driver and a Global Positioning System device to broadcast their location in an emergency.

"I want to be an advocate," she said in an interview in July.

Vehicles modified for disabled drivers gained popularity after World War II when the Department of Veterans Affairs gave injured soldiers financial assistance to buy customized cars or vans. The Department of Transportation estimates there are as many as 2.3 million modified vehicles on the road, designed for drivers or passengers who have lost mobility because of injured limbs or spinal-cord injuries.

Regulatory agencies closely track the car industry, but they have paid scant attention to this area. The National Highway Traffic Safety Administration has written just one safety rule, relating to a device that lifts wheelchairs into vehicles. No one knows how many modified vehicles malfunction or crash because regular police records don't contain such detailed information. What little oversight exists comes from veterans' groups and state based rehabilitation programs that pay for customization work.

Among the disabled community, there's little clamor for change. Some interest groups privately fear that a more-intrusive government will conclude these vehicles are unsafe. That could raise their cost and make liability insurance more expensive, crimping one the last vestiges of freedom for disabled people.

"Nobody's going to be against more safety, but it could have a boomerang effect," say James Weisman, general counsel of the United Spinal Association, a disabled-rights group.

The National Organization on Disability, a nonprofit organization, says it doesn't have position on the issue. Neither does the National Council on Disability, an independent federal agency that advises Congress and the White House.

Customized equipment generally isn't installed by auto makers but by a few hundred mostly mom-and-pop shops. The industry formed a national association in 1989 to encourage better training and run an accreditation program. Installers also follow rules set by the Society of Automobile Engineers, an organization that develops standards for automotive equipment.

NHTSA officials say specialized equipment is hard to regulate because it's tailored for specific drivers. Adds Rae Tyson, an NHTSA spokesman, "we aren't getting complaints from users, from the disabled community."

"People with disabilities so want the independence to drive a car, they are willing to get behind the wheel of a car they've lost confidence in," says Brian McLane, a retired New York state vocational-rehabilitation official. Mr. McLane, who is paralyzed, once drove a van that suffered a brake failure after a faulty installation.

Rebecca Froebel was devoted to her son. She had joined the army after graduating from high school and while based in Fayetteville, N.C., she gave
birth to Mr. Brown. They later moved to the area around the Pennsylvania town where she was born. Mr. Brown's biological father lived nearby but Mr. Brown rarely saw him, the family says. In August 2003 his mother married Greg Froebel, 48, a quality-control manager for a local automotive-goods supplier.

In 1997, when Mr. Brown was 16, he sustained severe spinal-cord injuries after a snowboarding accident at a local ski slope. The accident left the boy almost entirely paralyzed, with only limited movement in his arms and some in his head. His ability to talk wasn't impaired, although relatives say he spoke softly after the accident.

Mr. Brown's mother made it her mission to help her son live as normally as possible and became his primary caregiver. The two shared a house and a love of Jimmy Buffett songs.

The first van in which Mr. Brown traveled after his snowboarding accident was a used Ford driven by his mother, which she purchased in 1998. The family nicknamed it "Old Blue." The modifications, including a raised roof, had been made by a previous owner.

In 2001, Ms. Froebel purchased a black Dodge Caravan with a gray interior. The state vocational-rehabilitation program paid for it to be equipped with $30,000 of custom equipment. The Dodge had so many electronic controls that Mr. Brown's family dubbed it "robovan." A touch-pad screen turned the engine on and off and operated other functions such as windshield wipers and headlights. A lift helped maneuver Mr. Brown's motorized wheelchair into a spot directly behind the steering wheel -- between two armrests -- where the driver's seat used to be.

At the end of each armrest was a cluster of upright prongs, calibrated for Mr. Brown's touch, on which he would rest his fingers. The prongs on the left controlled braking and accelerating; those on the right controlled a small steering wheel.

Mr. Brown reveled in his new-found freedom, volunteering to pick up groceries and movies from the local video store, says Mr. Froebel. He particularly enjoyed exploring one-lane dirt roads, popular with hunters and amateur astronomers, which wind through this remote, hilly community. "That van was everything," Mr. Froebel says.

In 2001, Mr. Brown began dating Nickol Nicka, a young physical therapist who used to treat him. He moved out of his mother's house and moved in with Ms. Nicka in Bridgewater, Mass., a town with more areas accessible to the disabled. Ms. Nicka recalled that Mr. Brown "wanted his mom to have more of a life, too...He didn't want her to feel like he was holding her back from living."
After Mr. Brown moved, Ms. Froebel visited several times and talked to her son daily by telephone. One Mother's Day, recall Mr. Froebel and Ms. Nicka, Mr. Brown drove eight hours from Bridgewater to the Froebel's Pennsylvania home by himself. He wanted to surprise his mother at dinner.

Mr. Brown and Ms. Nicka were briefly engaged but the relationship didn't last. After breaking up in 2002, they moved back to Coudersport. The pair remained friendly, in part because they attended the same church. Mr. Brown found a job at cable company Adelphia Communications Corp., which was based in the town at the time and despite recent financial scandal is still its largest employer. He lived alone on the first floor of his mother's two-story house. Attendants from a local health-care company stopped by twice a day to get him in and out of bed. Mr. Brown began regularly attending 5 a.m. prayer services at Coudersport Gospel Tabernacle Church and a Monday evening bible-study course, according to the church's minister.

On the day of his accident, Friday, Oct. 3, 2003, Mr. Brown took his mother to lunch at Erway's Family Restaurant in Coudersport before dropping her off at work a few blocks away. He told his mother he intended to drop a few trash bags at the dump in the village of Gold, Mr. Froebel says.

According to the note he later wrote in his Sharp hand-held, Mr. Brown set his cruise control as he left Coudersport. As he took a curve past the house of a local dentist, he noticed the speedometer read 70 mph. Maybe he was going so fast because he was traveling downhill, he wrote.

Quickly, he came up behind a dump truck. His van kept gaining speed, despite his attempts to slow down. Mr. Brown decided to pass the truck. The van was going 85 mph. It was gaining speed even up steep hills.

Mr. Brown tried pulling off the two-lane road onto the narrow dirt shoulder, "hoping the wheels would slow me down," he wrote. "But no luck." Mr. Brown turned off his cruise control, hoping that might do the trick, and caught a whiff of his burning brakes.

He managed to slow enough to allow the dump truck to retake the lead. But there was minivan on his tail. Mr. Brown was veering off the road at times and his van's hazard lights were blinking, the minivan driver later told police. Mr. Brown started worrying he would get sucked under the truck, according to his note. At some point -- it's not clear exactly when -- he sped past the dump.

After passing the crest of another hill, Mr. Brown saw an opening in the gray metal railing running along the right side of the road. A dirt path led into a cornfield. "I saw this turn and took it," he wrote. "Luckily there were some hay bales I could hit. Thank God for airbags. And I've been here ever since."

After the crash, Mr. Brown waited to be rescued. He eventually turned to his computer and ended the note: "Oh Lord, Thank you for my mom. She truly has made many great sacrifices for me, many of which I don't even realize. Oh Lord, Thank You."

On Saturday morning, Ms. Froebel received a call from one of her son's nursing attendants: Was Mr. Brown staying with her? He hadn't come home Friday night.
Ms. Froebel telephoned her two sisters in nearby Jonestown, N.Y., but he wasn't there. She called the dump and the Regis hair salon where Mr. Brown had a hair-cut appointment, the sisters say. Calls to friends and the Rev. David Minor Jr. at Couders Gospel Tabernacle church also turned up nothing. She called the Pennsylvania State Police. What followed was "36 hours of hell," Mr. Froebel remembers.

Coudersport's small State Police station didn't have enough manpower to conduct a countywide search. Instead, Mr. Minor, his parishioners and other family friends spread out across the area, focusing on the roads leading to the trash dump, not realizing that Mr. Brown had sped beyond it. At 8:06 p.m., the state police released an alert to local media outlets asking for help from anyone who had seen Mr. Brown's van.

Ms. Froebel sat in her wood-paneled kitchen, waiting by the phone. On Saturday night Mr. Froebel says, his wife couldn't sleep. Around 4 a.m. Sunday morning, she gathered flashlights and left the house with one of her sisters, Linda Sherwood. They slowly drove the stretch of road between Coudersport and Gold, stopping along the road to search nearby woods, Ms. Sherwood recalls.

On Sunday morning, a local woman reported that she had been driving toward the nearby town of Ulysses Friday afternoon in her minivan when the vehicle in front of her drove into a cornfield. She thought it was just a hunter. Trooper Sherman Shadle and colleague found Mr. Brown a few hours later -- and his Sharp hand-held.

The police didn't know how to operate the gadget -- in their official report, they mistakenly referred to it as a Palm Pilot -- and handed it over to the family. Ms. Nicka, who was waiting for news at the Froebel house, recalls turning it on "just for the heck of it." An error message popped up. Ms. Nicka pressed another key and some file names appeared. She saw the subject line referring to suicide and opened up the note.

State police investigators couldn't determine why Mr. Brown's van malfunctioned. In January last year, they asked for help from NHTSA, which sent one of its veteran investigators, Robert Young, to help.

As Mr. Brown had suspected, his accelerator control had jammed. Mr. Young concluded that the fault lay with a device that controlled the throttle, regulating the flow of gas into an engine. A cable had frayed prematurely from regular wear and tear, resulting in a "stuck throttle," according to the NHTSA report.

During his investigation, Mr. Young learned about a similar accident in California that occurred about eight months before Mr. Brown's crash. In that incident, the disabled driver was injured but didn't die. The manufacturer of the device at fault in both instances, closely held Electronic Mobility Controls LLC, of Baton Rouge, La., recalled the cable and a related product in May on NHTSA's request.

"We didn't disagree with [NHTSA] about the probable reason for [Mr. Brown's] crash," says Scott Bolduc, Electronic Mobility's chief executive. He contends it's an open question as to why the cable frayed. NHTSA's report says the cable could have frayed it was compressed between two parts of the accelerator system. Mr. Bolduc says he will do "anything we can do to make the vehicle safer."
Keller Wheelchair Lifts, the company that modified Mr. Brown's van, is one of nine in Pennsylvania accredited under the industry's quality-assurance program. The company was absolved of any responsibility by the NHTSA report but James Keller Sr., the company's owner, says he was so upset he considered getting out of the business. Mr. Keller, who drove more than three hours to Coudersport to teach Mr. Brown how to use the van, says he was unaware of any problem with the throttle cable.

Mr. Brown's accident was recorded in the national traffic-fatality database no differently than thousands of other crashes. Forms completed by local law-enforcement officials don't indicate whether crashed vehicles were equipped with special controls for disabled drivers.

Another source of information is a national database based on randomly sampled reports from accidents in which vehicles were towed. From that data, NHTSA estimates that between 1997 and 2003, an annual average of 3,200 adapted vehicles crashed and were towed, or 0.14% of adapted vehicles in circulation. By comparison, about 3.3 million regular vehicles, which are more heavily regulated -- or 1.6% of the total -- suffered a similar fate. It's still hard to know how many adapted-vehicle crashes were caused by mechanical malfunctions.

Ms. Froebel kept in touch with Mr. Young, the NHTSA investigator, but she thought a recall of the faulty component wasn't sufficient. In June, Ms. Froebel started lobbying to have adapted vehicles fitted with a kill-switch and GPS device. She wrote to the NHTSA official in charge of regulating vehicles adapted for disabled people, among others.

"I am willing to advocate for these changes and to bring awareness," Ms. Froebel wrote, "I appeal to you to please assist me in this quest."

Word of Ms. Froebel's campaign began slowly spreading through the industry. The response was sympathetic -- Ms. Froebel began receiving condolence letters from several groups she contacted -- but few immediately jumped to her aid. She told her husband she feared she was getting a bureaucratic runaround.

Her luck seemed to turn when Mr. McLane, the retired state vocational-rehabilitation official, learned of Mr. Brown's accident from a friend. He decided to help her campaign although concedes he was wary about pushing the issue too far. Disabled drivers are "fearful that if we raise the issue too much, [the authorities will] conclude we shouldn't driving at all," he says.

Mr. McLane contacted a friend who works as a Washington lobbyist, who agreed to help without charging a fee. The lobbyist contacted several congressional staffers. In May Oklahoma Rep. Ernest Istook Jr., a Republican who chairs a subcommittee overseeing NHTSA's budget, sent a letter to the agency asking what it had done about this safety issue.

That small opening also marked the end of the campaign for Ms. Froebel. On the afternoon of July 12, Mr. Froebel came home and discovered his wife was dead. She hanged herself. He called the police and waited outside on the porch. Trooper Shadle the Pennsylvania State Police, who was again dispatched to the Froebel house, says that unlike her son, Ms. Froebel didn't leave a note.
The suicide came as a shock to Ms. Froebel's friends and family. They knew she was devastated by Mr. Brown's accident but say she made a brave attempt to continue life normal. A few hours before her death, Ms. Froebel had chatted amiably with Kelly Valdez, a caseworker at Life and Independence for Today, a local disability nonprofit. They had discussed plans for an August memorial fund-raiser. Ms. Valdez says Ms. Froebel didn't sound despondent.

"She never talked about herself or any of her problems," Ms. Froebel's sister, Ms. Sherwood, recalls. Adds Mr. Froebel: Her despair "didn't show on the outside."

On July 23, Ms. Froebel was buried in Eulalia Cemetery next to her son. A few days after the funeral, a letter dated July 22 arrived from Keith Brewer, director of NHTSA's Office of Crash Avoidance Standards. He didn't know Ms. Froebel was dead.

"We are considering rulemaking to prevent the problem your son experienced," Mr. Brewer wrote. "The solution may be a kill switch or may be other equipment that would allow design flexibility but still prevent a stuck throttle problem."

Since then, NHTSA rulemakers haven't proposed new regulations for adapted vehicles. The agency's report listing rules likely to be proposed or finalized in the coming year contains no reference to them.

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Easter trip all about freedom

Wednesday, March 30, 2005

BY THERESA D. Mcclellan AND JOHN AGAR

THE GRAND RAPIDS PRESS

WYOMING -- Before Susan Borgman drove to Indiana for Easter weekend, she took her new, specially equipped vehicle for a two-hour practice jaunt.

Then she sent her son a note, explaining why this holiday trip -- which once was impossible because of her disability -- meant everything to her.

"For her to have the freedom to drive to see us was something she wanted to do for the seven years of my marriage," said her 27-year-old son, James Moulton, of Indiana. He drove to Grand Rapids to be with his family following his mother's death Monday night in a crash that also killed an East Grand Rapids teacher, injured two others and closed a section of U.S. 131 for hours.

State police say Borgman's northbound van went across the median near 84th Street and struck a southbound van driven by Susan Nolan, 38. Nolan's two children, ages 5 and 2, remained hospitalized today in fair condition. Borgman's guide dog also was killed.

"I still don't know why she went across the median," Moulton said.

Police continue to investigate the cause of the accident. Results of an autopsy on Borgman were not available.

Borgman's recent return to the road was a source of pride for the 50-year-old Wyoming woman, who used a wheelchair and served on the board of directors of Disability Advocates of Kent County (DAKC). After driving independently for nearly 30 years, Borman suffered a degenerative muscle disorder that left her without the use of her legs, she noted in her Web site, www.notdriving.com.

Putting her back in the driver's seat was a hand-controlled system featuring an electronic steering wheel to ease turns, and a lever that controlled the van's accelerator and brakes.

Borgman drove her van to Lansing last week to testify before state legislators about mobility for all.

The first leg of her trip to Indiana also went well, family and friends said. She arrived in Indianapolis after a six-hour drive last Friday to visit her son, James, his wife and two daughters. While there, she gave her grandchildren rides in her wheelchair, painted Easter eggs with them and reveled in the love of her family, her son said.

"She arrived Friday and didn't seem remotely tired," he said.

But for some reason, her trip home Monday took 12 hours. She told her son she took the back roads to Michigan until she got to U.S. 131.

"She said she stopped and took a long break," said her son, who spoke to her on her cell
phone about 5 p.m.

Dave Bulkowski, DAKC executive director and a friend of Borgman's, said it's important to wait for police to determine the cause of the crash, and people should not jump to conclusions because of Borgman's disability, or the fact she was driving a specially-equipped van.

"In some ways, there is a no-win situation for people with disability. If it was the fault of the vehicle, they will say the technology is not safe, and if it's Susan, they will say disabled is not safe. It's a tough situation most definitely," Bulkowski said.

He remembers Borgman as a woman who held everyone accountable, and who challenged his association to ensure that the disabled were not portrayed as people to be pitied.

Borgman's son said he hopes people don't rush to place blame. He said it pained him to think of what Nolan's family was going through.

"I've got the exact same age kids and it would be my worst nightmare, too," he said.
Teacher, disability activist die in crash

Tuesday, March 29, 2005 By John Agar

The Grand Rapids Press

GRAND RAPIDS -- An East Grand Rapids school teacher and an advocate for the disabled were killed Monday night in a two-vehicle crash on U.S. 131 that also injured two children.

Susan Ann Nolan, 37, a third-grade teacher at Wealthy Elementary, was killed, along with Susan Marie Borgman, 50, of Wyoming, who served on the board of directors of Disability Advocates of Kent County.

Nolan's children, Matthew, 5, and Carley, 2, were listed in fair condition today at DeVos Children's Hospital.

Her husband was following behind in another vehicle.

Both women were members of prominent local families. Borgman was part of the family that owns Borgman Ford Mazda. Nolan was a member of the family of David Mehney, a businessman and former East Grand Rapids city commissioner.

Police said the crash happened when Borgman's northbound van went across the U.S. 131 median near 84th Street and struck Nolan's southbound van. Police closed lanes in both directions while investigating.

Borgman, who used a wheelchair, was driving a specially equipped van. She demonstrated it for a state lawmaker last week after testifying before a legislative transportation committee.

She said then that she was fortunate to recently acquire a costly van that allowed her to return to the road despite the loss of the use of her legs.

Borgman gave up her license about four years ago, but got it back with the purchase of her van about a month ago, according to David Bulkowski, Borgman's friend and an advocate for the disabled.

"She didn't drive all the time," he said.

State police are investigating what the cause of the crash.

The deaths touched many in the community. East Grand Rapids administrators sent e-mails to parents about Nolan's death and met with students this morning as they arrived at school.

East Grand Rapids resident Mehney said his family met Nolan when she was in eighth grade, living in Florida in borderline poverty, with five children in a two-bedroom house. After her mother died, Nolan moved in with the Mehneys the summer before her ninth-grade year at East Grand Rapids.
Mehney said there was something inside Nolan that made her want to rise above the circumstances of her life. "She was just one of those people that wanted a better life for herself. Somehow we just connected with her," Mehney said.

Nolan taught at East Grand Rapids for 10 years. Administrators knew right away she would be a good teacher, Principal Mark Tomkins said.

"When we first interviewed her and watched her teach, she was just incredible. She was the only one who got down and shook the kids' hands, and listened to the children. It was a rare thing. People are used to talking at children. She listened."

That's how fourth-grader Meric Bissell, 10 remembers his teacher from last year.

"She would explain stuff really well. She was just really good at teaching."

"She was such a wonderful, wonderful teacher," said his mother, Kathy.

Cathy Meiresonne's son, Matt, also had Nolan as a teacher last year.

"She didn't want to let any child slip through the cracks," she said. "She looked at each individual and said, 'How can I make most of this child and their future years in education'?"

Nolan's death was the second tragedy in a week for Wealthy Elementary School. Students were sorrowed last week when another third-grader teacher, Cynthia Bischoff, experienced the unexpected death of her husband.

Borgman was a long-time advocate for the disabled -- especially for public transit.

She used wheelchair, and had a Paws with a Cause dog. Police said that a dog in her van was also killed.

She started a Web site, notdriving.com, to give people who can't drive or choose not to drive advice on how to get places.

"She wasn't afraid to speak the truth and work for justice," said Bulkowski, executive director of Disability Advocates of Kent County.

"Her passion was that no person is a second-class citizen," he said. "People like to see the wheelchair before they see the (person). She had friends and colleagues who were much more disabled. She treated everyone with utmost respect. She demanded that. She had very little tolerance for people's inability to treat people like people. She's be sorely missed."

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A car driven by a 75-year-old disabled man went out of control in a Tiburon parking lot Friday, seriously injuring a pedestrian and hurting five other people as it hit speeds of 70 mph and crashed through the front window of a hair salon, authorities said.

The driver of the Cadillac sedan, which was equipped with hand controls, was among the injured. His wife, a passenger in the car, also was hurt. Authorities did not release their names or those of the other victims.

Witnesses said the car had pulled into a parking lot on Main Street at 1:19 p.m., glanced off a wall of the Tiburon Playhouse movie theater and shot forward toward two women walking in the lot.

One of the women was hit and carried on top of the Cadillac for 200 feet, police said. She was airlifted to John Muir Medical Center in Walnut Creek, where she was listed in serious condition. The other woman also was hit but was not badly injured.

"I got a flash of the car coming through here, and it went so fast that I didn't even notice the woman on the hood," said Michael Silberberg, a contractor from Kentfield, who was walking in the parking lot when the accident happened. "It was unbelievable."

The car continued on, hitting a champagne-colored Mercedes-Benz and about five other parked cars before hurtling through the plate glass window of Lanser's Hairstyling. It pushed one the parked cars, a BMW, inside the salon.

Randy McDonald, who runs a business development company, was inside his office across from the hair salon when he heard the breaking glass and screeching tires and one last crash. He ran outside and saw the Cadillac sticking out of the salon and the BMW inside.

He and another neighborhood businessman, physical therapist Eric Nelson, climbed inside the broken entrance and pulled debris off the woman who had been carried through the parking lot. She lay pinned between a cupboard and the BMW, McDonald said.

"She was saying, 'Please help me,' " McDonald said. "The Fire Department showed up, and they brought in chainsaws to get her out and (took) her to the hospital."

McDonald and Nelson also helped a customer at the salon, who'd been sitting under a hairdryer, and the salon's former owner, who both appeared to have minor injuries, McDonald said.

The former owner "had been on the phone with her husband," he said. "If they had been at a normal workstation, they would have both been taken out. It was the perfect storm, in terms of a catastrophe. It could have been a lot worse."
The parking lot was covered with broken glass and pieces of metal. A woman's red shoes were on the pavement, outlined in orange police spray paint.

Police said they were looking into whether the car had suffered mechanical difficulties or whether the driver might have done something wrong. Although police described the driver as disabled, Capt. Dave Hutton said he did not know the nature of his disability.

"I've been here going on 25 years, and we have had maybe five or six occasions where someone actually had to be airlifted to the hospital," Hutton said. "Witnesses said the car was going full throttle, but it definitely could have been worse."

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Two killed in head-on accident

Two LaPorte County women were killed Monday on Ind. 2 in Washington Township when the driver of a van crossed the center line and hit their car head on, police said.

The driver of the car, Cheryl A. Weaver, 57, of Westville, was killed on impact. The passenger in the car, Charlotte E. Kolasinski, 80, of rural LaPorte County, was taken to the hospital, where she later died.

Police said a 1998 Ford Econoline van crossed the center line about 4 p.m. and struck an westbound silver 2000 Honda Accord LX head on. The van was driven by Angela M. Manahan, 34, of Walkerton, Ind. Manahan suffered internal injuries and was taken to the hospital, where she was listed Monday night in critical condition.

Police said Manahan was unable to provide a statement because of her injuries.

Police said Manahan is disabled and was driving her van with hand controls as she sat in a wheelchair secured in the van. A medical assistance dog in the van was taken to Purdue University North Central, where it was to be checked by veterinarians. The condition of the dog is not known.

Witnesses told police the van was rounding the curve in front of Washington Township Middle School when it suddenly crossed into the oncoming lane and struck the Honda. Witnesses said the driver of the car had no time to swerve out of the way.

Ind. 2 was closed for several hours after the crash.

The crash is the third fatal crash in Porter County within the past week, and the second double-fatal crash within the same time period. A Michigan City couple were killed Aug. 29 in Pine Township on U.S. 20.