

## TRANSPORTATION

***PLAN OBJECTIVE: Reduce the carbon-footprint of vehicle-miles travelled (VMT) per resident 50% by 2025***

***STRATEGY: Educate residents to avoid driving more just because their cars are more fuel-efficient***

Corporate Average Fuel Economy regulations -- more commonly known as CAFE standards – are federally mandated fuel efficiency standards for new cars and light trucks sold in the U.S. By requiring automakers to build more fuel-efficient cars, the federal government attempts to reduce greenhouse-gas emissions and save consumers money.

The Energy Policy Act of 2005 and later the Energy Independence and Security Act of 2007 helped set the tone for greater fuel economy legislation. In May 2009, President Barack Obama announced an agreement with auto manufacturers on a nationwide goal of 39 mpg for passenger cars and 30 mpg for trucks by 2016. By 2016, the new standards were projected to save 900 million metric tons of greenhouse gases, the equivalent of “taking 177 million cars off the road or shutting down 194 coal plants”.<sup>1</sup>

In 2011, the national standard was raised from 27.5 miles per gallon (MPG) to 30.2 MPG, the first time fuel efficiency standards had been raised since 1989. President Obama also announced a new long-term agreement with automakers that would increase average fleetwide fuel economy to 54.5 MPG by 2025. Once achieved, the White House predicted a 50% decrease in the national amount of greenhouse gases produced by automobiles.<sup>2</sup>

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<sup>1</sup> Allen & Javers

<sup>2</sup> Cappiello & Krisher

**Table 4: Federal CAFE mpg standards by automotive model type, 2012-2025**

Model Year	Passenger Cars		Light Trucks	
	"footprint": 41 sq ft (3.8 m <sup>2</sup> ) or smaller (e.g. 2011 Honda Fit)	"footprint": 55 sq ft (5.1 m <sup>2</sup> ) or bigger (e.g. Mercedes-Benz S-Class)	"footprint": 41 sq ft (3.8 m <sup>2</sup> ) or smaller (e.g. Nissan Juke)	"footprint": 75 sq ft (7.0 m <sup>2</sup> ) or bigger (e.g. Ford F-150)
	CAFE	CAFE	CAFE	CAFE
2012	36	28	30	22
2013	37	28.5	31	22.5
2014	38	29	32	23
2015	39	30	33	23.5
2016	41	31	34	24.5
2017	44	33	36	25
2018	45	34	37	25
2019	47	35	38	25
2020	49	36	39	25
2021	51	38	42	25
2022	53	40	44	26
2023	56	42	46	27
2024	58	44	48	28.5
2025	61	46	50	30

Source: Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration (NHTSA)

However, there is a large caveat in these projections that North Center should be aware of. A recent study by insurance services company Quality Planning concluded that many owners of hybrid vehicles often drive an average of 2,000 more miles annually than owners of non-hybrids.<sup>3</sup> The researchers point out that drivers negate the long-term ecological impacts of owning a more fuel-efficient car by driving more often. Although their commuting habits were similar to regular car owners, it is suggested that hybrid-vehicle owners drove their cars more on “pleasure trips”. This is likely because they could get more mileage out of one tank of gas before needing to refill.



North Center residents need to be reminded that higher fuel-efficiency in automobiles means cleaner air for everyone, and should not encourage excess driving. Furthermore, the gas-savings of more fuel-efficient cars are somewhat offset by higher initial costs in purchasing those cars. The White House estimates that “a family that purchases a new vehicle in 2025 will save \$8,200 in fuel costs when compared with a similar vehicle in 2010”<sup>4</sup>, and that an average new car will cost at least \$2,000 extra by 2025. However, the \$2,000 figure is a very early estimate and could be much greater if automakers’ research-and-development costs are higher than expected.

Source: [www.whitehouse.gov](http://www.whitehouse.gov)

<sup>3</sup> “Hybrids: Is a Little of the Green Rubbing Off?”

<sup>4</sup> Curtis, Colleen. “President Obama Announces New Fuel Economy Standards.”

***PLAN OBJECTIVE: Increase the number of CTA riders in North Center 20% by 2020***

***STRATEGY: Encourage the City of Chicago and the 47<sup>th</sup>-Ward office to support long-term investments in the CTA and transit-oriented development***

With the nation's second-largest transit system, Chicago supports more than 1.6 million CTA riders on an average weekday.<sup>5</sup> Public transportation is a valuable asset of this community and long-term investments should be encouraged. Many stops along the Brown Line underwent renovations in 2008 and 2009, so measuring ridership over several years can be misleading since so many stops were closed (and at different times.) Nonetheless, annual total entries at the Addison / Irving Park / Montrose Brown Line stops increased almost 9% just between 2010 and 2011.

**Table 5: CTA ridership for Brown Line train stops in North Center neighborhood**

<i>Name of Station</i>	<i>2010 total riders</i>	<i>2011 total riders</i>	<i>Ridership Increase</i>
Addison	673,253	712,228	5.8%
Irving Park	791,724	873,262	10.3%
Montrose	718,056	786,957	9.6%
<b>TOTAL</b>	<b>2,183,033</b>	<b>2,372,447</b>	<b>8.7%</b>

Source: CTA Annual Ridership Report, Calendar Year 2011

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<sup>5</sup> Chicago Climate Action Plan

Likewise, 2011 ridership on bus lines in the neighborhood was also up compared to 2010. The Damen (#50) line saw an 8.3% increase, the Western (#49) line saw a 7.2% increase, the Montrose (#78) line saw a 9.4% increase, the Irving Park (#80) line saw a 4.6% increase, and the Addison (#152) line saw a 4.1% increase.<sup>6</sup>



Source: Center Square Journal

High-density buildings should also be built near transit stations to encourage transit-oriented development. A 2010 report produced by the Center for Neighborhood Technology (CNT) stated that a worker living in a suburb with no access to transit has an average carbon output related to travel of 7.15 tons of CO<sub>2</sub> per year. However, a city worker, living in a walkable neighborhood with easy access to transit, only produces 4.07 tons of CO<sub>2</sub> per year related to travel. The city resident therefore produces 43% less carbon emissions related to travel compared to a suburban resident.<sup>7</sup> Since CTA ridership on the neighborhood Brown Line stops and buses that travel through North Center has increased from 2010-2011, a modest goal of 20% ridership increase by 2020 is suggested.

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<sup>6</sup> CTA Annual Ridership Report, Calendar Year 2011

<sup>7</sup> Haas, Miknaitis, et al.

***PLAN OBJECTIVE: Achieve higher fuel-efficiency standards for vehicles that travel through North Center***

***STRATEGIES: Encourage the CTA to continue the purchase of higher-efficiency buses. Educate on the city's "No Idling" policy.***



Source: Chicago Transit Authority

[http://www.apt.com/mc/sustainability/previous/2010/Documents/CTA\\_Climate\\_Action\\_Planning.pdf](http://www.apt.com/mc/sustainability/previous/2010/Documents/CTA_Climate_Action_Planning.pdf)

According to the CTA, emissions of pollutants from the bus fleet decreased by the following amounts between 2007-2010<sup>8</sup>:

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<sup>8</sup> Chicago Transit Authority. "Going Green: Clean Vehicles."

### **CTA BUSES**

Public transportation in North Center helps offset the carbon emissions associated with transportation. Nearly two-thirds of all CTA rides are on buses. Achieving higher fuel-efficiency for CTA buses that pass through North Center will further reduce the neighborhood's carbon footprint.



- Nitrogen oxides: 36% reduction
- Hydrocarbons: 82% reduction
- Carbon monoxide: 55% reduction
- Particulate matter: 53% reduction

Since 2006, the CTA has introduced 228 hybrid buses, including 20 standard buses and 208 articulated buses. On October 14, 2011, U.S. Senator Dick Durbin also announced \$30 million in federal funding that will procure approximately 30 articulated hybrid buses.<sup>9</sup>

However, the current CTA bus fleet includes almost 1,800 buses, the vast majority of which still have Diesel engines that only average 3-5 mpg.

**Table 6: CTA Bus Fleet, Diesel vs. Non-Diesel**

<b>Builder / Model</b>	<b>Year</b>	<b>Type</b>	<b>Quantity</b>
NovaBus LFS	2000-2002	DIESEL	480
Optima Opus	2006-2007	DIESEL	45
New Flyer D40LF	2006-2009	DIESEL	1,030
			<b><i>1,555 (DIESEL TOTAL)</i></b>
New Flyer DE40LF	2006-2007	HYBRID	20
New Flyer DE60LF	2008-2009	HYBRID	208
			<b><i>228 (HYBRID TOTAL)</i></b>

Source: Chicago Transit Authority

<sup>9</sup> Zolkiewicz, Kevin. [www.chicagobus.org](http://www.chicagobus.org)

The CTA estimates that hybrid buses “achieve at least 20% greater fuel efficiency than standard diesel buses....saving fuel dollars while promoting cleaner air”.<sup>10</sup> Replacing the remaining Diesel engine-powered buses with more fuel-efficient models is a long-term solution that helps reduce the greenhouse-gas emissions associated with transportation.

CTA President Forrest Claypool’s 2012 Budget proposed retiring buses first placed in service in 2000 and spending \$166.2 million between 2012-2016 to replace them with hybrid models. Additionally, the CTA received a TIGGER (Transit Investments for Greenhouse Gas and Energy Reduction) grant in 2011 from the Federal Transit Authority to purchase 2 all-electric, battery-powered buses and chargers.<sup>11</sup> In 2012, these buses will continue to be tested for their cost-efficiency and to see how well they handle weight loads and weather conditions in Chicago.

Given the funding problems the CTA has faced over the last few years, long-term capital-improvement costs have continually had to be used to shore up operating-expenses costs. North Center should continue to advocate for more fuel-efficient buses that travel through the neighborhood, despite financing obstacles the CTA may continue to face.

### **NO-IDLING POLICY**

Additionally, “idling” – when the driver of a vehicle leaves the engine running even though the vehicle is parked – has been voiced by the NNA Environment Committee as a local concern. It is estimated that idling in the U.S. costs more than \$20 billion and uses 6 billion gallons of fuel each year.<sup>12</sup> Reducing idling in the neighborhood would help car / truck / bus drivers save fuel and improves local air quality.

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<sup>10</sup> “Reform and Renewal: Improving Mass Transit in a New Economy.” Chicago Transit Authority.

<sup>11</sup> Sfondeles, Tina.

<sup>12</sup> Argonne National Laboratory

Some may say that frequently restarting a vehicle's engine actually uses more fuel than idling for a few minutes at a time. However, this myth has been disproven by the American Society of Mechanical Engineers Florida Section. Through field testing, they showed that restarting a car with a V6-engine uses approximately the same fuel as idling for 5 seconds.<sup>13</sup> Chicago Public Schools officials should monitor parking pickups and dropoffs to ensure parents are not running their engines excessively, and North Center should work to educate its residents on the cost-savings available from avoiding idling.

The Illinois Clean School Bus program, through the Illinois E.P.A., offers guidelines and instructions for how local school districts can apply for funding to help reduce emissions caused by school buses. If any buses that serve schools within North Center's neighborhood boundary were manufactured before 2007, they may have subject to the less strict emissions standards of that time. North Center should liaise with local Chicago Public Schools officials for this information and if necessary, can apply for Illinois Clean School Bus grant funding:

Fact Sheet & Guidelines: <http://www.illinoisgreenfleets.org/clean-diesel-grant/bus-fact-sheet.pdf>

Application Instructions: <http://www.illinoisgreenfleets.org/clean-diesel-grant/bus-application-instructions.pdf>

Diesel-powered vehicles release pollutants such as nitrogen oxides, carbon monoxide, carbon dioxide, and particulate matter, and unnecessary idling also contributes to the exacerbation of respiratory ailments. It is estimated that a typical diesel-powered truck burns "almost a gallon of fuel per hour" when idling.<sup>14</sup> The City of Chicago recently updated the city's traffic code that forbids idling of on-road, diesel-powered vehicles to 3 minutes within a 60-minute period (*see Appendix B*). The penalty for excessive idling is \$250 per violation, and the law can

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<sup>13</sup> "Virtual Mythbusters by American Society of Mechanical Engineers Florida Section" [online]

<sup>14</sup> Chicago Department of Transportation

be enforced by the Department of Environment (DOE), traffic aides for the Office of Emergency Management and Communications (OEMC), parking enforcement aides for the Department of Revenue (DOR), and the Chicago Police Department.

The North Center neighborhood should also support the efforts of organizations like Clear Air Counts, a public-private partnership initiative to improve air quality in the Chicago metropolitan region. Where necessary, signs should be posted that encourage drivers of all vehicles to respect a “no-idling” neighborhood policy.



***PLAN OBJECTIVE: Support improvements to existing bicycling infrastructure and expansion of bicycle lanes, in accordance with the city’s “Bike 2015 Plan.”***

***STRATEGY: Petition the 47<sup>th</sup>-Ward office to use annual outlays to improve the condition of current bicycle lanes and expand facilities within the neighborhood boundaries.***

Bicycling increases public health, mitigates car traffic, and helps the environment as a carbon-neutral activity. It is also an activity clearly on the rise in Chicago. By 2009, the percentage of Chicagoans commuting by bicycle was 1.1%, a 120% increase compared to 2000.<sup>15</sup>

The City of Chicago’s “Bike 2015 Plan” seeks to install 100 miles of protected bike lanes and a 500-mile bikeway network, and decrease cyclist accidents 50% by the end of Mayor Emanuel’s first term in 3 years.<sup>16</sup> The Plan also promotes installation of an additional 5,000 bike racks, improvements in transit connectivity, crash analysis, and educating and marketing public health benefits.<sup>17</sup>

Reception to “Bike 2015” has been very positive. The Congress for New Urbanism (CNU) endorses the Plan’s goal of increasing bicycle usage to 5% for all short trips in the city, and the Active Transportation Alliance (ATA) was very involved in writing the Plan.

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<sup>15</sup> Byrnes, Mark.

<sup>16</sup> Lepeska, David.

<sup>17</sup> “Bike 2015 Plan.” City of Chicago.

As previously outlined, North Center as a neighborhood has existing bicycle lanes on Damen Ave. and Lincoln Ave, between Addison and Montrose.

### Bicycle Lanes – In and Around North Center



Source: Chicago Department of Transportation, North Center  
<http://www.cityofchicago.org/cityinfo/cdot/bikemap/usemap/8-N.html>

However, the white lane-markings in many locations are very badly faded, which can cause bicycle riders to feel unsafe and/or unprotected from adjacent car traffic.

North Center should encourage Alderman Pawar's office to use 47<sup>th</sup>-Ward funds to keep existing bicycle lanes in good condition.

Additionally, Bill Higgins on the 47<sup>th</sup>-Ward staff has proposed building a neighborhood "bike boulevard" in the ward on Berteau Ave. (4200 N.) between Lincoln Avenue and Clark St. Much of this greenway would fall within North Center's neighborhood boundary and would be the first of its kind in the city.<sup>18</sup> North Center should continue to monitor this greenway as a possible "best practice" installation, since construction is scheduled to start in 2012 and be completed in 2013.

Finally, although the "Lawrence Avenue Streetscape" does not fall within the neighborhood boundary, it is a 47<sup>th</sup>-Ward capitol improvement project that deserves attention (*see Appendix C*). A street beautification project on Lawrence from the Chicago River (2900 W. Lawrence) to Clark St. (1500 W. Lawrence), it would include wider sidewalks, pedestrian refuge islands in the median, curb bumpouts with bioswales, and a full bicycle lane. The proposal was awarded funds from the local TIF Task Force in Nov. 2011 and will likely start construction by late-2012.<sup>19</sup>

Source: [www.thechainlink.org](http://www.thechainlink.org)



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<sup>18</sup> Greenfield, John.

<sup>19</sup> Wetli, Patty. "Lawrence Avenue Streetscape Moves Forward."

North Center stakeholders that wish to review the proposal in full can go to:

[http://chicago47.org/wp-content/uploads/08.29.11\\_Lawrence-Streetscape\\_RCC-Presentation1.pdf](http://chicago47.org/wp-content/uploads/08.29.11_Lawrence-Streetscape_RCC-Presentation1.pdf)

*Before*



*After*



Sources: Grid Chicago, 47<sup>th</sup>-Ward Alderman's Office

<http://gridchicago.com/2012/talking-transportation-with-47th-ward-alderman-ameya-pawar/>