"The goal of the program is to make it easier for the highest impacted homeowners surrounding Midway to talk on the phone, watch TV, listen to music, sleep, or have a conversation in their own homes. By properly sound-insulating these homes, homeowners not only gain a quieter interior, but may also benefit from long-lasting improvements and increased efficiency in their heating and cooling systems." – says Midway Airport website.

SOUND INSULATION PROGRAM

80% PAID BY FEDERAL AVIATION ADMINISTRATION

20% PAID BY THE CITY OF CHICAGO

$ 345,000,000
Chicago region inbound and outbound growth in tonnage by mode, 2012 and projected 2040

<table>
<thead>
<tr>
<th>Inbound</th>
<th>Projected Percent Growth by 2040</th>
<th>Outbound</th>
<th>Projected Percent Growth by 2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck</td>
<td>58%</td>
<td>Truck</td>
<td>38%</td>
</tr>
<tr>
<td>Rail</td>
<td>55%</td>
<td>Rail</td>
<td>147%</td>
</tr>
<tr>
<td>Air</td>
<td>190%</td>
<td>Air</td>
<td>301%</td>
</tr>
</tbody>
</table>
BOARDING 16 MIN

BOARDING 16 MIN

BOARDING 16 MIN
BLUE LINE EXTENTION
Seamless link to waterfront

Public space with view on Lake Michigan

Active waterfront:
Natural swimming pools in summer
Ice-hockey fields in winter
Cafés
Sauna, spa
Wakeboarding calbe park
...
GRID DISPLACEMENT: 50 CM
GRID DISPLACEMENT: 100 CM
GRID DISPLACEMENT: 150 CM
GRID DISPLACEMENT: 200 CM
Terminal heating

Blue Line train tunnel
Constant mean annual temperature

Heat Pump
Exhaust air

Ventilation
exhaust air
Terminal cooling

Cool water from Lake Michigan

Heat Exchanger

To other buildings

To water treatment plant for further use as domestic water
Layer of comfortable climate

Radiant underfloor heating
Lightweight soil 450 mm
Filter
Drainage and root barrier 100 mm
Waterproof membrane
Insulation 200 mm
Vapor barrier
Concrete 250 mm

Walkable glass sandwich 3x10 mm
Cavity 42 mm
Insulating glass 6-12-6 mm
Walkable glass sandwich 3x10 mm
Cavity 42 mm
Insulating glass 6-12-6 mm

Concrete slabs
Filter
Drainage and root barrier 100 mm
Waterproof membrane
Insulation 200 mm
Vapor barrier
Concrete 250 mm

Roof terrace pedestal
Walkable glass sandwich 3x10 mm
Cavity 42 mm
Insulating glass 6-12-6 mm

Roof terrace pedestal

Concrete slabs
Permeable and root barrier 100 mm
Permeable and root barrier
Perforated barrier
Concrete 250 mm
Walkable glass sandwich 3x10 mm
Cavity 42 mm
Insulating glass 6-12-6 mm

Lightweight soil 450 mm
Filter
Drainage and root barrier 100 mm
Waterproof membrane
Insulation 200 mm
Vapor barrier
Concrete 250 mm