



ADT Sustainability Project: Austin High Carpooling

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Problem Statement and Original Idea

Original Idea: Build skylights into the third-story roof to improve natural lighting and cut down on energy consumption. **Problem:** Construction costs would not be offset for decades.

Problem Statements

1. Austin high needs to create eye catching, discounted parking passes for carpooling in order to reduce its largest source of emissions, vehicles, in order to be more eco friendly and have less congestion at the start and end of school days.
2. Austin high needs to create discounted parking passes for carpooling with QR codes to verify use in order to reduce its largest source of emissions, vehicles, in order to be more sustainable and have less congestion at the start and end of school days.

Motivation: We want to protect the environment by reducing air pollution and reducing traffic in the Austin High area.

Carpooling

What is Carpooling?

- Multiple people use one vehicle to go to a shared destination
- Reduces the amount of vehicles used, decreasing greenhouse gas emissions and traffic
- Saves money on gas prices for everyone inside the car

People Affected

- 11th and 12th graders who drive to school
- Teachers who drive to school
- School buses
- Parents who drive their kids to school
- Gas stations within the school district
- People who do activities on the trails and lake

How to Incentivize the Community

Students (drivers and people driven)

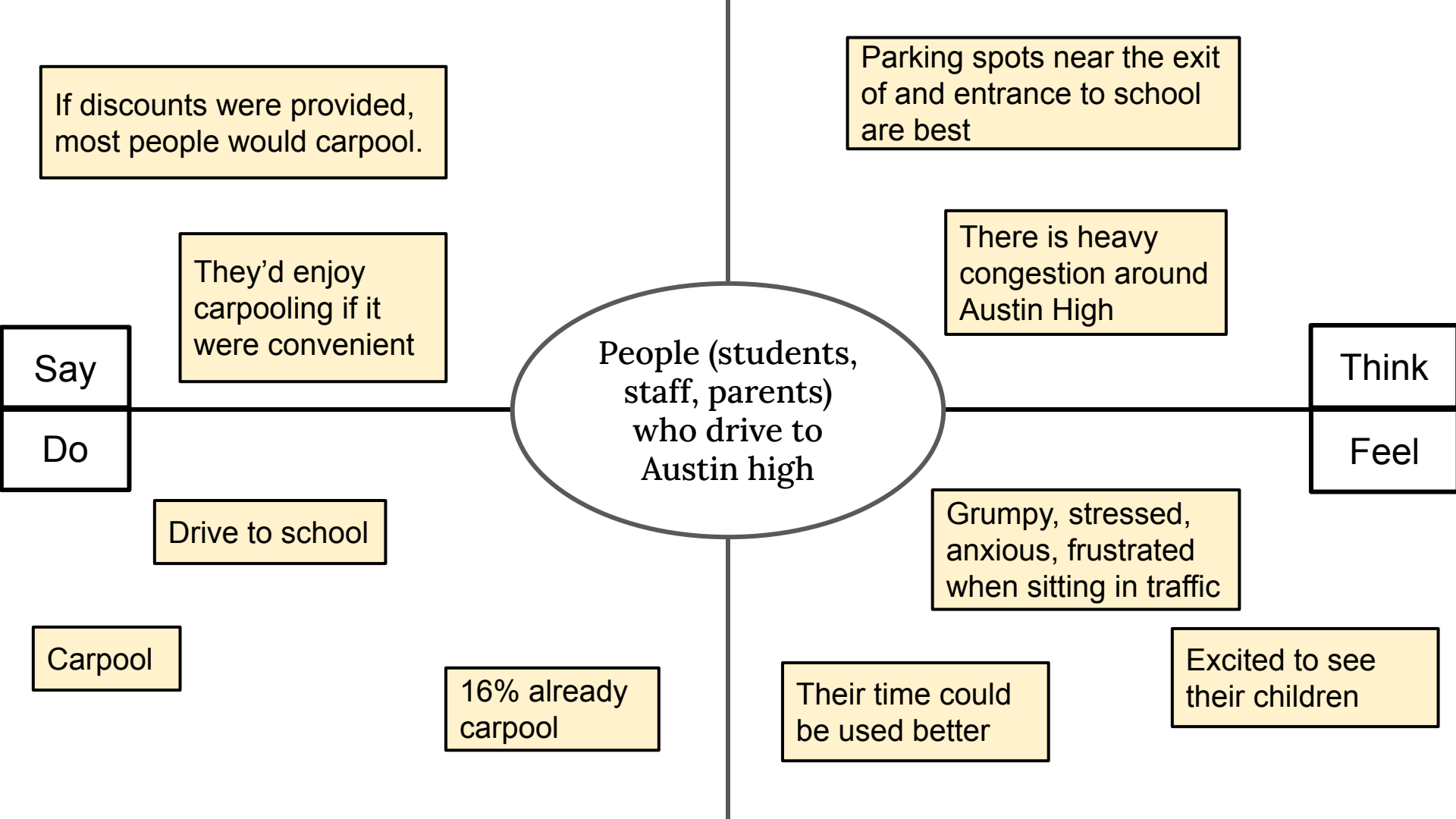
- Preferred parking spots reserved for carpooling (close to the school and close to the exit in the green lot)
- 50% discount on parking permits
- Lunch price reduced 25%

Parents

- Assistance finding and coordinating with other parents

Preferred Parking

- The preferred parking will act similarly to the senior lot
- Admins will be posted on each lot to make sure everyone that parks there has their carpooling parking pass and that multiple people are in the car
- Students that park in the carpooling lots and do not meet the requirement will face disciplinary action



If discounts were provided, most people would carpool.

They'd enjoy carpooling if it were convenient

Drive to school

Carpool

16% already carpool

Parking spots near the exit of and entrance to school are best

There is heavy congestion around Austin High

Grumpy, stressed, anxious, frustrated when sitting in traffic

Excited to see their children

Their time could be used better

People (students, staff, parents) who drive to Austin high

Say

Do

Think

Feel

Do

Feel

Prototype ideas:

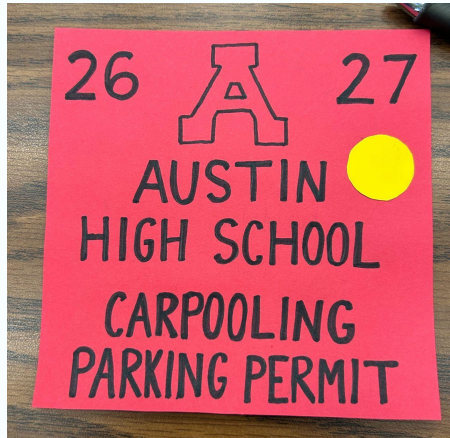


Car stickers made of Vinyl



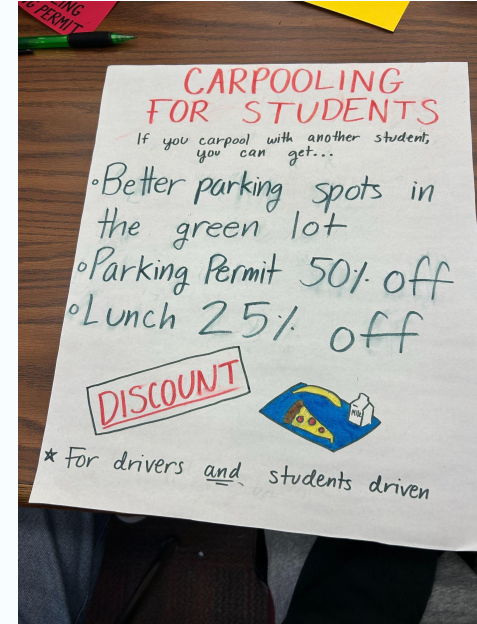
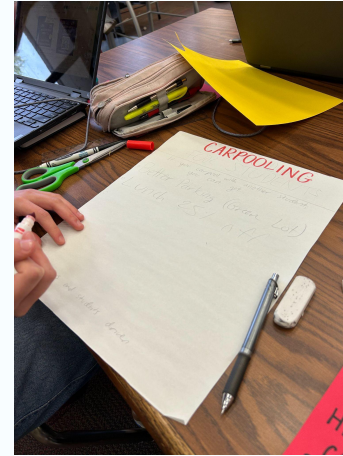
Our Prototypes:

Permit sticker:



Materials for prototype: Paper and marker
Materials for real Sticker: Vinyl, Ink

Advertising Poster:



Materials for prototype: Paper and marker
Materials for real poster: Paper, Lamination

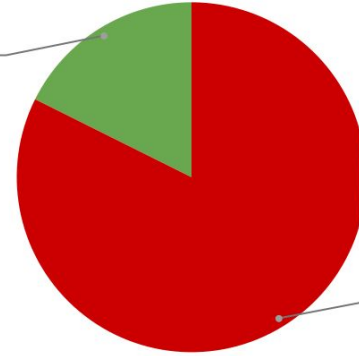
Data

100% of parents surveyed would allow their kids to carpool

Students who already carpool

Yes

17.6%



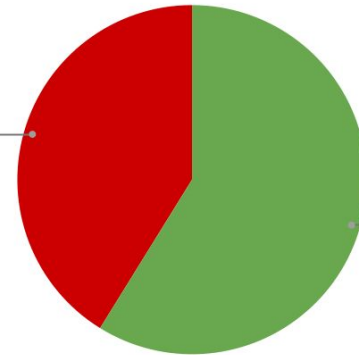
No

82.4%

Students who would carpool if incentivised

No

41.2%



Yes

58.8%

Sources

- Ayoola Azzan. “How Much Does a Skylight Cost in 2026?” *Lawnstarter*, 21 Oct. 2022, www.lawnstarter.com/blog/cost/skylight-price/. Accessed 12 Jan. 2026.
- “How Carpooling Can Help You and Your Community | Choose Your Way Bellevue.” *Chooseyourwaybellevue.org*, 2023. chooseyourwaybellevue.org/blog/2023/how-carpooling-can-help-you-and-your-community.
- “How Much Does Concrete Removal Cost? [2023 Data].” *Angi*, www.angi.com/articles/how-much-should-concrete-demo-cost-square-foot.htm.
- Monthly Use and Cost Aus N Independent School District Ac ve Buildings: Ac ve Buildings --3/2025 to 3/2025 Facility Electricity Use (KWh) Electricity Cost Natural Gas Use (Mcf) Natural Gas Cost Water Use (Gallons) Water Cost Wastewater Use (Gallons). <https://www.austinisd.org/sites/default/files/dept/service-center/docs/utility-reports/2025/3-2025.pdf>
- Safrina, Rika. “Carpooling for the Climate - ACCEPT Perspectives.” *ASEAN Climate Change and Energy Project (ACCEPT)*, 28 Jan. 2020, accept.aseanenergy.org/carpooling-for-the-climate/.