

Food trucks locations

**Finding Optimal Locations for
Food Truck Operators in San
Francisco during Covid-19
Pandemic**

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Food truck operation during Covid-19

- The Covid-19 pandemic continues to cause widespread economic disruption
- Food trucks are services that provide meals from motorized vehicles or carts.
- They continuing to operate because unlike restaurants they can quickly change location, menu and market.
- Adapted by branching out into residential areas or nearby essential businesses.
- Food truck sales heavily depends on location.
- Generate promising neighborhoods for food truck operation in San Francisco.

Data acquisition and cleaning

- Location candidates in the allowed zones from the latest [Mobile Food Facility Permits data](#) provided by San Francisco Department of Public Works on DataSF.
- Type and location of nearby venues using Foursquare API.
- List of essential businesses as defined by [sf.gov](#).
- Geocoder API to get latitude and longitude coordinates of locations.
- 653 rows and 24 features in raw dataset
- Missing, mislabeled or unrelated features were dropped.
- Cleaned data contains 4 features.

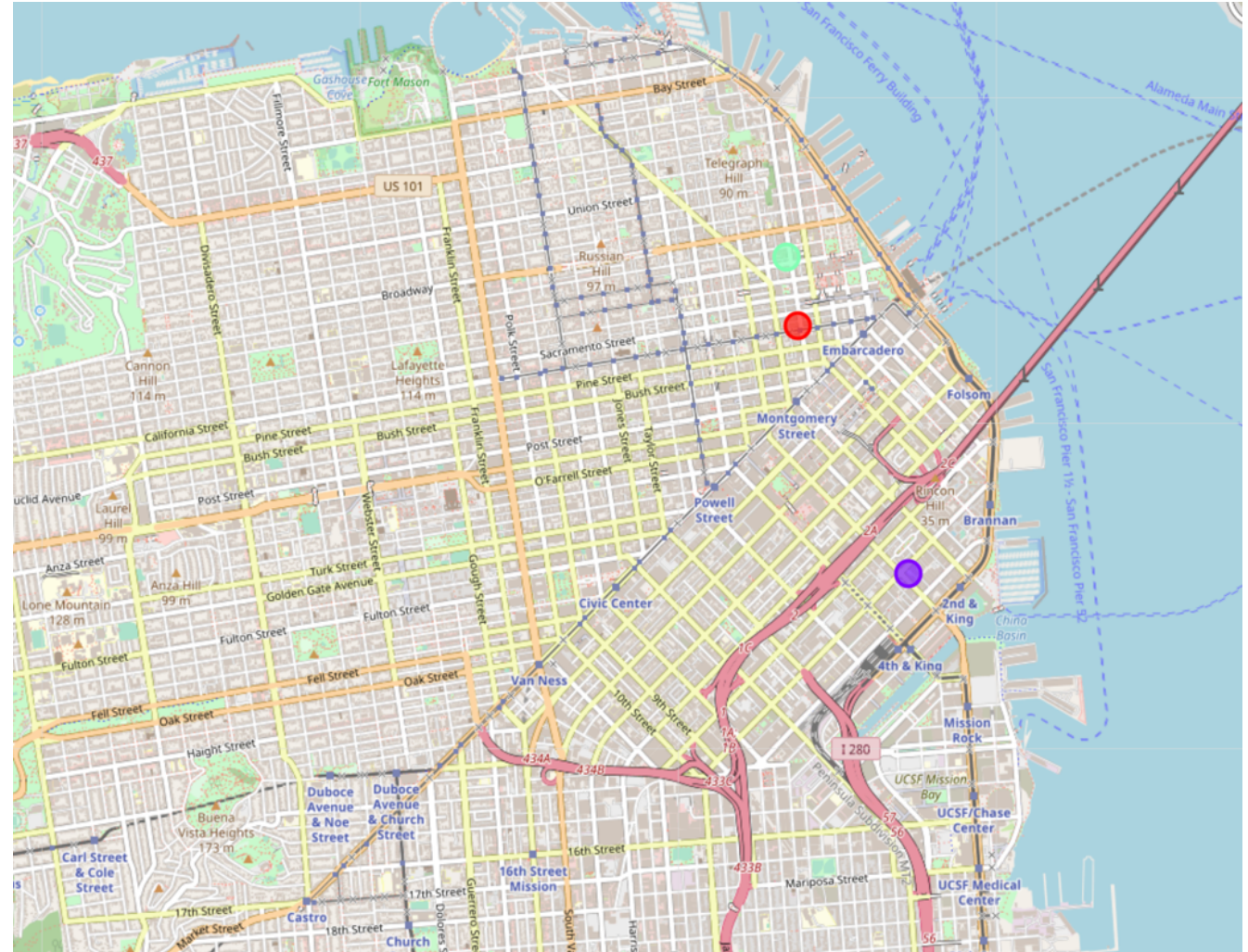
1st most common venue for each neighborhood.

- Address 0 and 2 are near essential businesses open during Covid-19 pandemic.
- Address 1 is near residential buildings.

	Neighborhood	1st Most Common Venue
0	400 CALIFORNIA ST	Convenience Store
1	601 03RD ST	Residential Building (Apartment / Condo)
2	727 SANSOME ST	Optical Shop

Folium map of clusters of Food truck locations in San Francisco

- Two clusters closer to each other
- One is farther away
- All on the east edge of the city and near the harbour.



Addresses of areas recommended for further analysis

- 601;605, 3rd Street, South Beach, San Francisco, San Francisco City and County, California, 94017, United States
- 400;410, California Street, Financial District, San Francisco, San Francisco City and County, California, 90104, United States
- 705;727;729, Sansome Street, Northeast Waterfront Historic District, San Francisco, San Francisco City and County, California, 94133, United States

Discussion and Conclusion

- K-means clustering to show 3 zones for potential food truck locations.
- Data is limited because not a lot of food truck permits are approved during the pandemic.
- Further analysis is required by taking into consideration of additional factors such as street traffic, enough space for social distancing etc.

Works cited

- City and County of San Francisco. “Check if a business can be opened.” Sf.gov. Jan 21, 2021. <https://sf.gov/check-if-business-essential> Accessed Jan 21 2021.
- DataSF. *Mobile Food Facility Permit*. San Francisco: San Francisco Department of Public Works. Jan 23 2021. <https://data.sfgov.org/Economy-and-Community/Mobile-Food-Facility-Permit/rqzj-sfat> Accessed Jan 23 2021.
- *DPW Order No: 182101*. San Francisco Department of Public Works. Jan 22 2014. https://www.sfpublishworks.org/sites/default/files/3858-DPW%20Order_182101-MFF.pdf Accessed Jan 21 2021.