

# Chinatown B.I.D. Site Survey

NYC Mesh conducted a site survey of possible Chinatown wifi installs on November 22nd, 2016. NYC Mesh has a large sector antenna at 375 Pearl St. that overlooks Chinatown and could provide internet access at all locations within line-of-sight.

The initial survey covered five locations:

1. Chinatown B.I.D. 60 St James Pl.
2. Kimlau Sq. Chatham Sq.
3. Columbus Park
4. Information Kiosk
5. 75 East Broadway

The first three locations had line-of-sight to the 375 Pearl St. antenna. For the kiosk an adjacent building could act as a repeater node with one small antenna facing down to street level. Another location, 75 East Broadway would require a repeater along along the street .

The line-of-sight installs would need a directional antenna towards 375 Pearl St and an omni-directional antenna as the local access point. The cost for these antennas would be between \$200 and \$300 per site.

The directional “LiteBeam” antenna is 14” wide x 10.5” high (about 1 square foot), while the omni is only an inch wide and 16” tall. Both include radios. “Omni” antennas broadcast in all directions.



The “LiteBeam”



The 2.4GHz omni antenna

The bandwidth received should be around 200Mbps and the omni access point transmission should be around 100 to 200Mbps.

These antennas include radios that use power over ethernet (POE). This means only a single run of ethernet cable from an adapter is required for power.

## Chinatown B.I.D.

60 St James Pl.



Internet could be provided for the B.I.D. office by placing one LiteBeam antenna on the roof and running an ethernet cable down to the office. NYC Mesh antenna is visible on the roof in the background.



## Kimlau Sq. Chatham Sq.

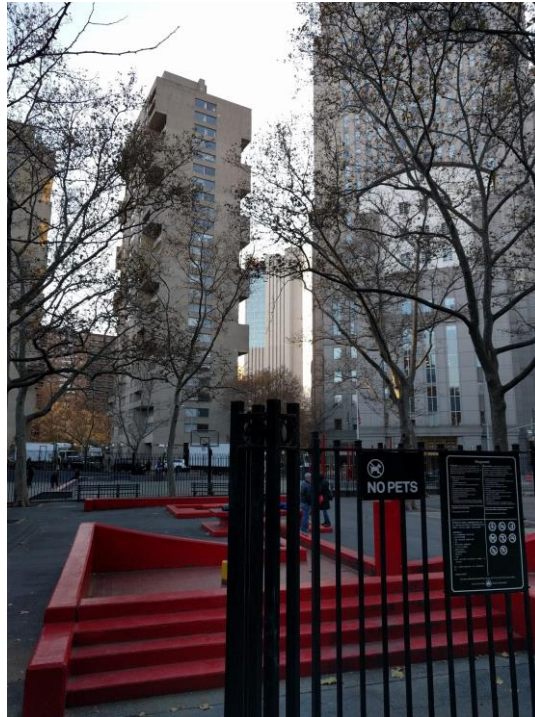


Kimlau Square has four light posts and three have good views of our antenna. With city permission we should be able to install there. The omni antenna should provide an access point for all of the street area around Chatham Square.

## Columbus Park



Park House



View of Pearl St from House

Columbus Park could have a LiteBeam installed in the window or roof of the park house, or any other place that can see our sector antenna pictured in the distance. It would be good to have a few omni antennas installed at other points in the park to provide coverage for the whole park.



## Information Kiosk



The Chinatown information kiosk is at street level and obviously has no view of our sector antenna. We discussed the possibility of a repeater antenna on a building above. The top of the building to the left of this photo (Sun Say Kai Restaurant) might be a good position. The building on the right does not have line-of-sight to our antenna.

## 75 East Broadway



This location has no obvious place for an install. Perhaps we could have a repeater on lamp posts aimed along East Broadway.

## General notes and cost

NYC Mesh charges \$680 for a rooftop install. This includes simple mounting hardware and up to 100' of ethernet, but does not include the antennas which are typically around \$90 each.

Light posts would be an ideal install place for parks but we would need to research further on the best way to do this and how to get city approval.

\$200/month would cover maintenance of up to 10 installs, and to help cover our costs for the sector antenna.





NYC Mesh

