Case Study: Clean Air Zones Project at the Sir John Cass's Foundation Primary School

The City's Pollution Team worked with the Sir John Cass's Foundation Primary School in Aldgate to implement the Clean Air Zones Project.

Planting: Research by Imperial College London has indicated that planting certain types of plants can help trap airborne particles, so the installation of green infrastructure was key to this project. 45m^2 of green ivy screens were installed in the playground and roof garden and pupils planted 170 air quality plants with the help of Friends of City Gardens (a local community group). Six mobile green ivy screens with chalkboards were delivered to create unique play areas within the playground and two sedum roofs were installed**.**

Monitoring and Alerting: The school already had a continuous air quality monitoring system, but the Clean Air Zones project allowed a diffusion tube monitoring network to be set up in the school, which the children are involved with; the pupils are also able to use the results to look at how levels vary in and around the school. Additional particulate monitoring equipment was also installed in the front playground. An air quality reporting and alerting system has been established and using the Defra Daily Air Quality Index the school are notified when pollution levels are predicted to be moderate or above.

Engagement: Over the course of the project various engagement programmes were implemented with the help of Global Action Plan. The year 6 class took part in a six week engagement programme where they:

- found out about the causes and effects of air pollution
- monitored air pollution around the school;
- investigated 'pollution loving' and 'pollution hating' lichen
- produced no engine idling signs, posters and webpages;
- produced a video of the work they'd done

Following this initial engagement, the year 4 eco-club learned about air pollution and monitoring in weekly sessions and helped plant the 170 air quality plants.

In the summer of 2014 all 6 classes took part in quality workshops where the pupils identified ways in which we can all reduce our 'air quality footprint':

- more sustainable transport choices eg public transport and walking;
- more efficient buildings and boilers eg low NOx boilers;
- switching off engines while waiting (which also saves money);
- insisting on lower emissions at your workplace eg low emission vehicles;
- spreading the word by letting friends and family know what they can do to help.

Some of the classes followed the workshop with air quality projects, including using the air quality monitoring results, writing articles and producing artwork for signs and a walking map. Air quality champions were established in the school and the project finished with a whole school assembly. Pupils also found out how to reduce their exposure to poor air quality by travelling via routes with lower pollution. The City of London and King's College London have developed the CityAir App to help plan low pollution routes, see www.cityoflondon/cityair.

Energy saving measures: The school has also improved their lighting system so that lights in certain areas of the school can be isolated and automated, reducing energy consumption. The gymnasium area also has a new, robust LED lights to save energy and create an additional indoor play area during pollution episodes.

Wider Community: Articles were produced for the resident's magazine which is sent to all residents in the City. Also, the area around the Sir John Cass's Foundation Primary School has been identified for green space improvements and highway changes which should lead to an improvement in air quality. More information regarding the proposals and other air quality projects within the City can be seen on the City of London website at: www.cityoflondon/air.

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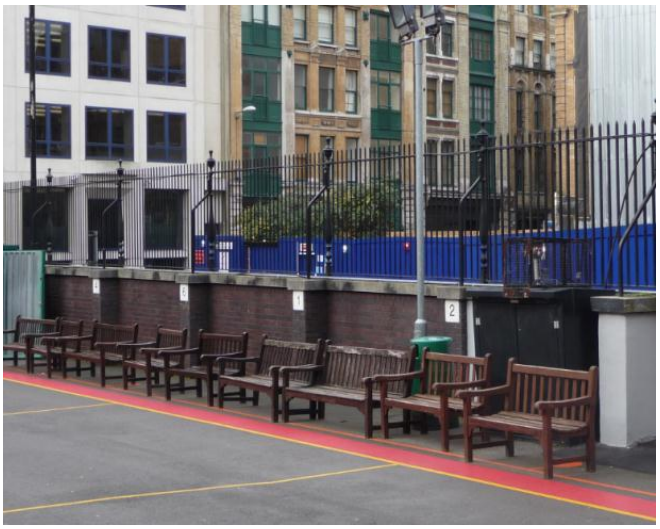
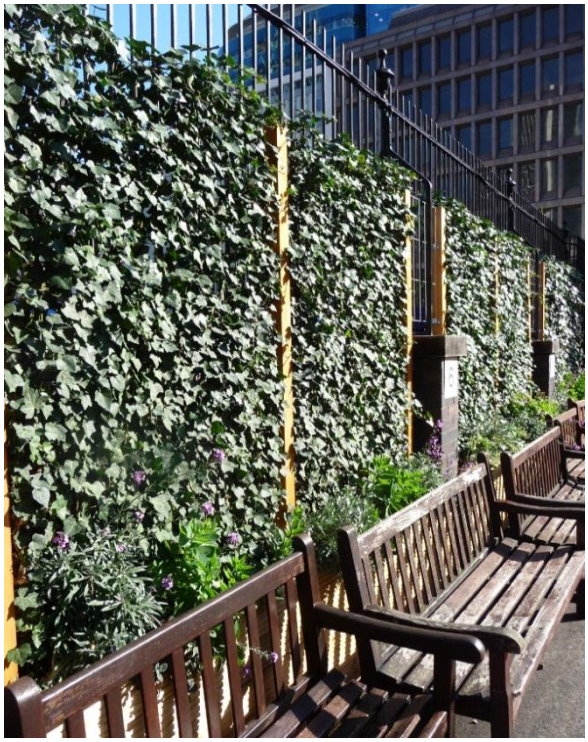
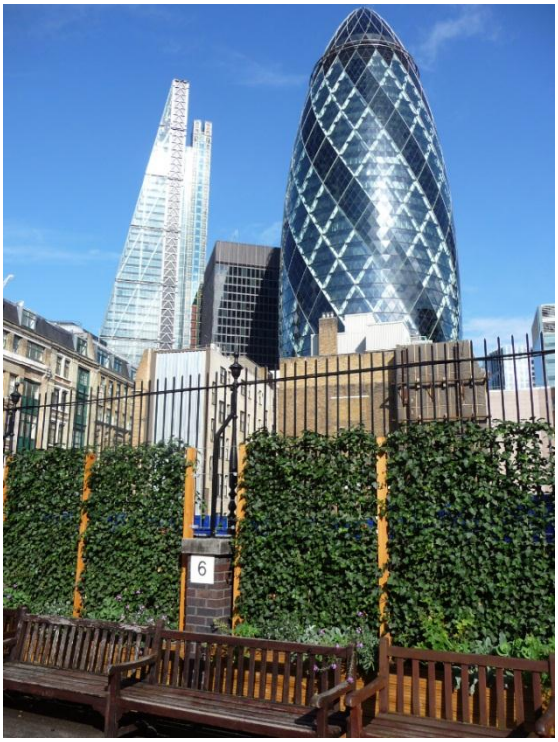
Back Playground

Before:



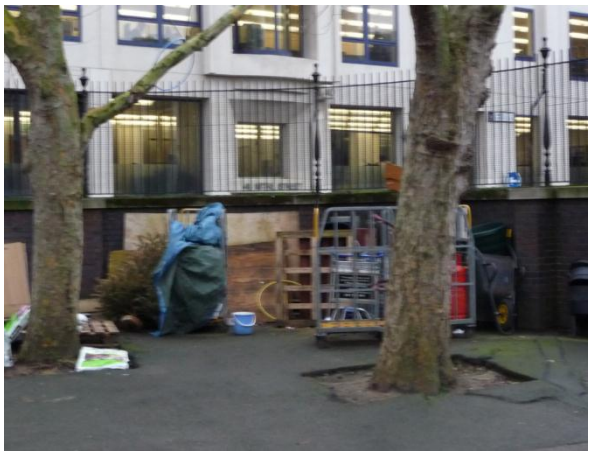
After:





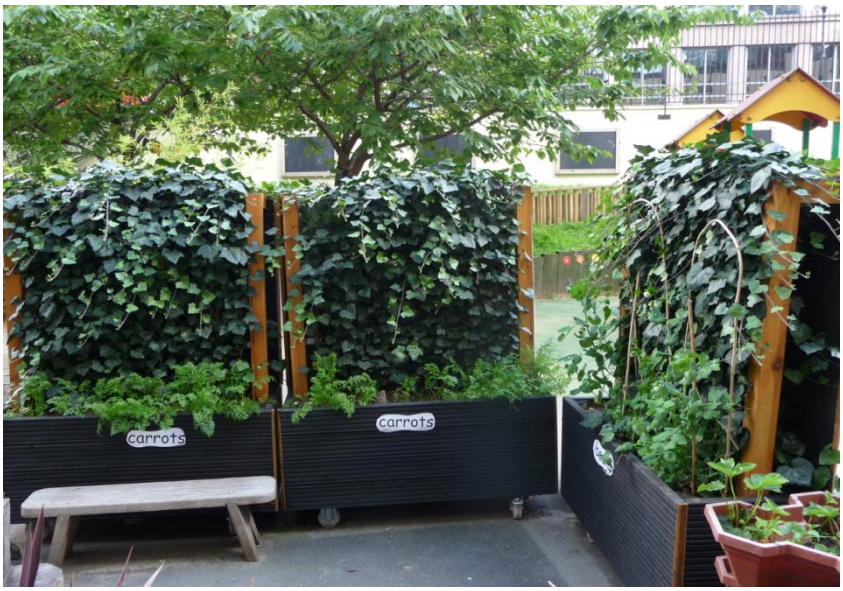
Under the Trees

Before:



After:

Movable Screens



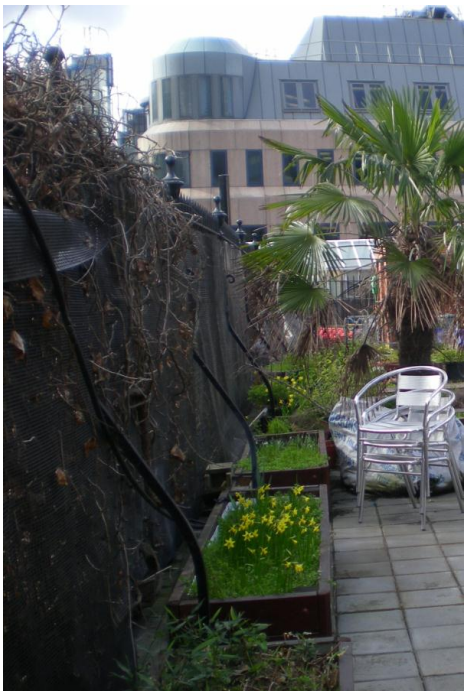
Sedum Roof

Before:

After:

Roof Garden

Before:



After: