2-22-2019

Integrated Design and Engineering Solution at the Yards in the Future-Proofing of It's Infrastructure

Claire Bedat

Follow this and additional works at: https://digitalcommons.odu.edu/hraforum_23
THE STREET

YARDS WEST DISTRICT

Infrastructure

Resiliency

Social Space
Existing Condition: Parking and service vehicle lots surrounded by up and coming neighborhoods with active public spaces and amenities
The Washington Navy Yard during the 1947-50

Photo # NH 91945  Washington Navy Yard, D.C., and vicinity, looking westward, circa 1947-50

Proposed Yards District

Image Source: D.C. office of the Deputy Mayor for Planning and Economic Development

Site History  Analysis and Planning
Under RCRA Section 3013, EPA ordered GSA and the US Navy to abate the site contaminants through corrective actions.
1. Add metro entrance to existing station on the south side of M Street and connect to water.

2. Give the main axis a 70’ right-of-way and 2:1 height-to-width ratio for a well defined environment.

3. Connect the street grid concentrating major utilities and service drives on the cross streets freeing up the main axis for amenities.

4. Anchor the axis with public space on each end: plaza along M Street, Park along the river.

5. Activate retail frontage along axis and major cross axis connecting to main entrance of stadium.

6. Grow a dense shade tree canopy along the main axis for micro-climatic cooling in the hot summer months of Washington DC.
Programming and Activities

*THE STREET*--- the 1,800 ft long central spine provides a strong urban linkage from vibrant urban/retail environment to riverfront/leisure atmosphere.
The cross streets do the heavy lifting of the infrastructure and service drives freeing up THE STREET for pedestrian oriented design and unencumbered soil for tree growth.
Safety and Traffic Calming Elements of THE STREET

- Bollards
- Tactile warning bands
- Speed table
- Different color + texture at crosswalks
- Planting and site elements
- Median at ends of street
- Narrow traffic lanes

Standard DDOT Street in the District

THE STREET Typical Section

Curbless THE STREET and Vision Zero
Infrastructure
THE STREET is envisioned as a pedestrian centric experience while at the same time taking into account all forms of mobility. Being truly curbless with lush planting, granite paving, and rich retail activation will create a unique urban experience.
Future Scenario of Transportation -- Smart Tech + Autonomous Driving Scene
Proposed

Condition After 100 Year and 500 Year Storm Events

Existing

Resiliency

Flooding and Adaptation
Storm water runoff from road

Storm water flows off of road to trench drain

Trench drain distributes water into suspended soil for tree and plant root uptake

Treated overflow runs into perforated pipes and is released to storm drain after holding period

Storm water runoff from sidewalk

Storm water drains to bioretention planter and permeable pavement

Storm water infiltrates into suspended soil for tree and plant root uptake

Treated overflow runs into perforated pipes and is released to storm drain after holding period

Resiliency

Storm Water Management

Resiliency
Park setting created in median of THE STREET
Everyday Use

Street Closed to Vehicle Traffic for Event

Adaptive Street

Social Space
THE STREET creates a new place for the communities of Southwest and Southeast DC, drawing a diverse group of residents from the surrounding neighborhoods to a street that they may not use as their address, but that they can call their own.