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Field Asset Management Inventory Project: Summer FY 12

Methodology of Data Collection

The Public Space Management Department (PSM) aspired to understand the universe of permanent assets in the DowntownDC BIDôs public spaces. As a result, PSM helped create and develop a mobile application which helps identify, report and track this information much more efficiently. PSM recently began using the newly developed *Field Asset Management Mobile Application,* which is primarily utilized on the iPhone and iPad devices. The mobile appôs modes consist of condition reporting, monthly inventory and GIS inventory, all of which can be utilized during field work. The primary mode used for PSMôs Asset Inventory was the monthly inventory. During the development of the application, both PSM and the Infrastructure & Sustainability Departments came up with a list of permanent assets that were to be surveyed or inventoried on a monthly basis. This included a total of 12 unique assets such as bike racks, recycling receptacles, street poles, and trees, along with areas like alleyways and metro entrances.

A member of the Quality Assurance Team surveys the area around 10th & E St.

The duration of the project was 30 days beginning on July 30th and ending on August 28th. Members from both the PSM and Operations aided in this collection of data, including a total of 10 SAMs who have regularly been a part of the Quality Assurance Team in prior months working on conditional reporting. SAMs were dispatched on every Tuesday and Thursday during data collection period from 10am to 2pm and surveyed nearly 50 of the 138 square blocks. PSM staff wasable to allocate time each day to the project and surveyed over 90 of the 138 blocks within the Downtown BID. The daily average of field time for users was roughly 3 hours and 43 minutes. The average completion of a square block witnessed a range of 45 minutes to an hour and ten minutes. The total number of surveyed assets totaled to nearly 10,000, which on average is exactly 71 assets around one square block.

Findings & Results

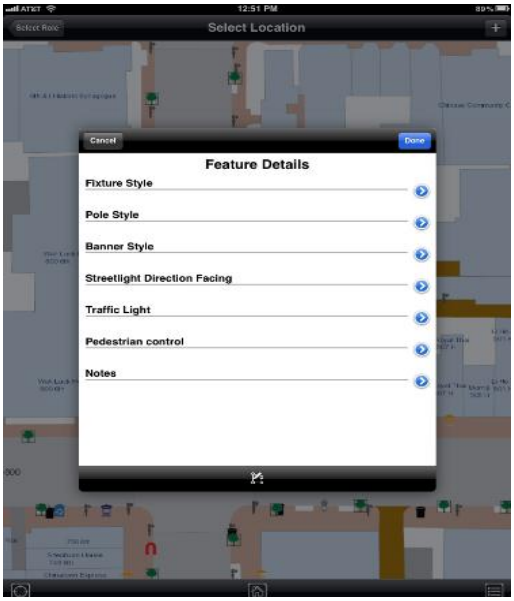
As seen below in the *Table 1.0* staff surveyed 98% of these assets, with the exceptions of areas around CityCenter DC and Reservation 72 (Chinatown Park) both currently under construction, along with locations near I-395 service roads. Of the assets that were surveyed, staff was able to identify various relative conditions and ensure that the asset had no related problem associated with it. After each item was checked the asset icon on the application would then turn green (from its initial red), assuring that it had been properly surveyed (see Images 1.1 and 1.2). While inventorying this set list of items, PSM staff also made numerous GIS edits in the field totaling over 400 during the month of August. Furthermore, PSM staff and SAMs also documented conditions that were not included on the list ensuring that issues still were reported and addressed during the project.

Image 1.1 Non-Inventoried Assets

Image 1.2 Inventoried Assets

The findings of the inventory illustrate that several of the permanent assets are indeed in relatively good condition with nearly 93% of the total number surveyed not having a problem attached to it. Nonetheless, there over 700 unique conditions reported during the project. Of these assets bike racks (2.4%) and catch basins (1.8%) tallied the lowest number of identified conditions, while traffic control boxes had the highest number of documented issues relative to the number of assets inventoried at 20.2%. Also, staff uncovered that over 25% of the permitted sidewalk vendors were not at their assigned locations or missing from the area. This is likely due to a few different variables including time of day, success of business, or poor accuracy of previous permitted locations. Moreover there were nearly 300 tree and tree box issues identified which accounts for 38.2% of the total number of conditions reported, while internally managed conditions like trash and recycling receptacle problems were around 20% of the total number. Several of these receptacle issues have minimal maintenance, such as cleaning or repainting of the canister which attributed to the large number of conditions related to them. Additionally, staff identified many of the conditions regarding street poles to be exposed wiring due to missing base covers, rusting and re-painting needed, or light timing or ñday burnerò issues.

Throughout the project staff discovered that the GIS data was inaccurate, outdated or needed to be moved to properly correlate with other elements in the public space. As seen in Chart 2.0, the highest number of GIS edits involved adding or removing street poles, trees, and tree boxes. Moreover, staff uncovered that many of the traffic control box locations were highly inaccurate and needed edits and updated locations. As a result of this particular project, the BID will have much more accurate GIS data, therefore having the ability to comprehend the full scope of public space assets and their relation to one another. Also, the BID will be able to share this information with public agencies to improve their data supplementing their current data management.



PSM made numerous edits with the GIS Inventory function and were able to specifically document associated feature details as shown above.

Table 1.0 Permanent Assets Inventoried

Asset Type	Amount	Number Inventoried	Reported Conditions	GIS Edits	Percentage Damaged
Alleyway (AW)	49	49	8	0	16%
Bike Rack (BR)	370	368	9	34	2.4%
Catch Basin (CB)	117	111	2	0	1.8%
Metro Entrances (ME)	15	15	12**	0	53.3%
Recycling Receptacle (RR)	360	357	18	7	5%
Sidewalk Vendor (SV)	89	89	23	21	25.8%
Street Pole (SP)	2677	2564	213	84	8.3%
Traffic Control Box (TCB)	100	99	20	6	20.2%
Trash Receptacle (TR)	665	663	120	8	18.1%
Tree (T)	2555	2532	129	146	5.1%
Tree Box (TB)	2728	2700	140	90	5.2%
Wayfinding Sign (WS)	128	110	7	13	6.4%
Totals	9853	9657	701	409	7.3%
*Other Conditions (OC)	64	N/A	64	N/A	N/A

*Other Conditions: Abandoned Bike (2), Abandoned Property (2), Abandoned Vehicle (1), Brick Issue (5), Construction (3), Curb & Gutter (3), Fire Hydrant (17), Other (8), Parking Meter (3), Paver Issue (6), Pothole (2), Publisher Box (2), U-Pole (2), Vandalism (2), Vault Damage (2)
**Included 12 conditions reported on 8 different Metro Station entrances

Chart 1.0 Number of Conditions By Type of Asset

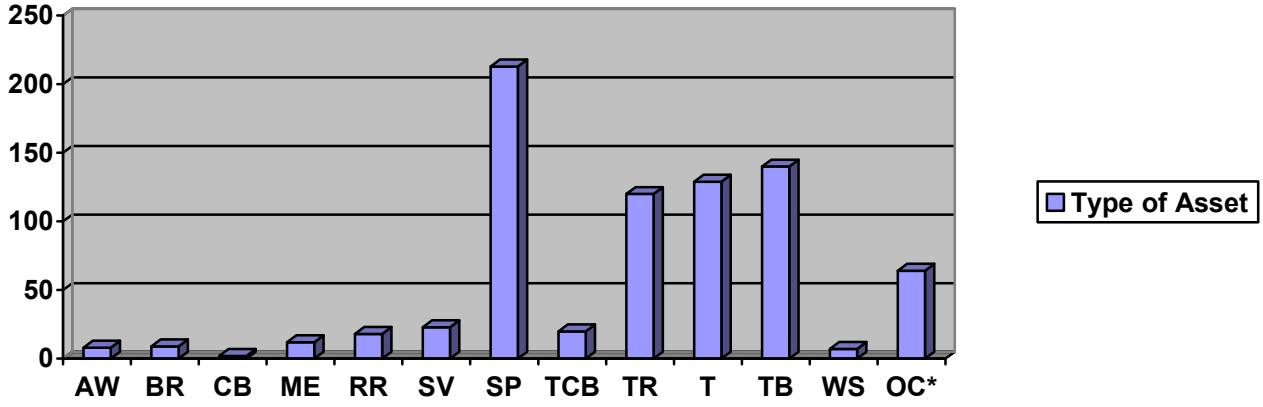
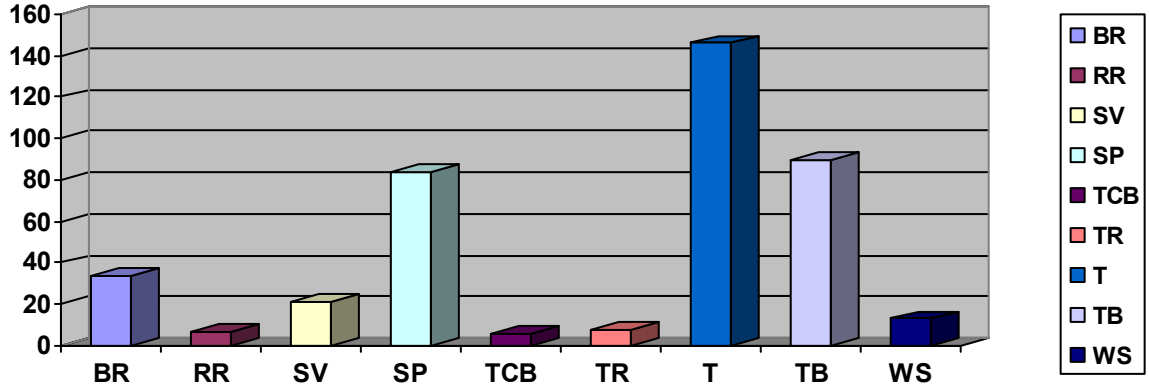


Chart 2.0 Number of GIS Edits By Type of Asset



Recommendations & Conclusions

PSM staff recognized the arduous and extensive process of inventorying these assets. An average field user spends 45 minutes to an hour per square block surveying each of the determined items, including identifying conditions. As a result, the previously estimated time to complete the entire BID was well underestimated. Also, many of the items identified with conditions do not warrant multiple visits within a window of one or two months such as trees. Furthermore, PSM is looking to add elements to this inventory, such as fire hydrants and parking meters, along with enhancing the application for FY ô13. This will improve an already vital part of public space related information. We have recommended making some changes such as conducting these inventories on a quarterly basis. In conclusion, the assets examined during project displayed good condition overall.

Moving forward PSM staff seeks to improve the mobile application as well and has generated a list of 11 items that can be changed, enhanced, or added to improve the overall functionality. The normal process of surveying ñreporting areasò such as sidewalks, alleyways, streets, and parks will resume over the next few months, with the likelihood of an asset inventory to take place during the next quarter. PSM has also been able to refine its own standard operating procedures based in part to this project on such things like dealing with methods of reporting and deployment for the Quality Assurance Team. With improved information, accurate data on assets and conditions, and a strong relationship with public agencies PSM foresees a vast improvement on issues in the public space here in Downtown.