

*Red cells can be edited; everything else is locked*

Cost estimates to use  
(inflate 5%/year to 2018 \$)

**Capital:**

Stations:

|                                               |    |          |
|-----------------------------------------------|----|----------|
| 12-dock (no bikes)                            | \$ | 36,500   |
| 15-dock (no bikes)                            | \$ | 41,400   |
| 12-dock (6 bikes)                             | \$ | 43,500   |
| 15-dock (8 bikes)                             | \$ | 50,800   |
| Station Installation <28 docks (per station): | \$ | 3,600    |
| <b># of 12-dock stations</b>                  |    | <b>4</b> |
| <b># of 15-dock stations</b>                  |    | <b>0</b> |

|                            |    |          |
|----------------------------|----|----------|
| Bikes only (ea):           | \$ | 1,300    |
| Bikes (x6 per station)     | \$ | 7,800    |
| Bikes (x8 per station)     | \$ | 10,400   |
| <b># individual bikes:</b> |    | <b>0</b> |

|                                       |    |                |
|---------------------------------------|----|----------------|
| <b>Misc. Construction per station</b> | \$ | <b>5,000</b>   |
| <b>Total Capital per station:</b>     | \$ | <b>208,400</b> |

Spare Parts:

|                                      |    |                |
|--------------------------------------|----|----------------|
| Bike dispenser key (x1)              |    |                |
| Printer Kit (x1)                     |    |                |
| Station battery (x1)                 |    |                |
| Customer key (x 1000)                |    |                |
| Avg spare part                       | \$ | 1,000          |
| <b># Spare Parts (est. required)</b> |    | <b>10</b>      |
| <b>Avg spare parts total cost</b>    | \$ | <b>10,000</b>  |
| <b>Total Capital:</b>                | \$ | <b>218,400</b> |
| Total number of docks:               |    | 48             |
| Total number of bikes:               |    | 24             |

**Operating:**

|                                       |    |     |
|---------------------------------------|----|-----|
| 2-hour Rebalancing per dock per month | \$ | 109 |
| 3-hour Rebalancing per dock per month | \$ | 106 |
| As-needed Admin (hourly)              | \$ | 72  |
| As-needed Field (hourly)              | \$ | 51  |

*Monthly operating per 15-dock station*

|                                         |    |        |
|-----------------------------------------|----|--------|
| Monthly 3-hr rebalancing, all stations  | \$ | 5,100  |
| Annual 3-hour rebalancing, all stations | \$ | 61,200 |

|                                         |    |          |
|-----------------------------------------|----|----------|
| <b>As-needed Admin, Hours per Month</b> |    | <b>3</b> |
| <b>As-needed Field, Hours per Month</b> |    | <b>6</b> |
| As-needed Admin per month               | \$ | 220      |
| As-needed Field per month               | \$ | 310      |
| Admin per Year                          | \$ | 2,640    |

|                |    |       |
|----------------|----|-------|
| Field per Year | \$ | 3,720 |
|----------------|----|-------|

|                                    |    |        |
|------------------------------------|----|--------|
| Est monthly Staff Support (.5 FTE) | \$ | 4,170  |
| Est Annual Staff Support (.5 FTE)  | \$ | 50,000 |

|                                   |    |        |
|-----------------------------------|----|--------|
| Est Operating per Month           | \$ | 5,700  |
| Est Operating per Year            | \$ | 67,600 |
| Est. Annual Operating per station | \$ | 16,900 |

#### Revenue / Operating Subsidy:

Est. Cost recovery per Year

Est Cost Recovery, Year 1 #REF!

Est Cost Recovery, Year 2 #REF!

Est Cost Recovery, Year 3 #REF!

# bikes in system 24

Est. revenue per bike per month

Est. Revenue per bike per month, year 1 #REF!

Est. Revenue per bike per month, year 2 #REF!

Est. Revenue per bike per month, years 3-n #REF!

Est revenue per month, year 1 #REF!

Est revenue per month, year 2 #REF!

Est revenue per month, year 3-n #REF!

Est revenue per year, year 1 #REF!

Est revenue per year, year 2 #REF!

Est revenue per year, year 3-n #REF!

|                                  | all stations | per station |
|----------------------------------|--------------|-------------|
| Est. operating subsidy, year 1   | #REF!        | #REF!       |
| Est. operating subsidy, year 2   | #REF!        | #REF!       |
| Est. operating subsidy, year 3   | #REF!        | #REF!       |
| Est. operating subsidy, year 4   | #REF!        | #REF!       |
| Est. operating subsidy, year 5-n | #REF!        | #REF!       |

|                         |              |
|-------------------------|--------------|
| <b>Total operating:</b> | <b>#REF!</b> |
|-------------------------|--------------|

*Ise is input, cross-reference, or formula*

Cost examples / sources:

| Falls Church (2017) | Fairfax County (2017) | Motivate / 8D (2016) |
|---------------------|-----------------------|----------------------|
|                     |                       | \$ 32,830            |
|                     |                       | \$ 37,279            |
| \$ 42,212           | \$ 39,580             | \$ 39,496            |
| \$ 47,786           | \$ 46,279             | \$ 46,167            |
| \$ 3,200            |                       | \$ 3,200             |
|                     |                       |                      |
| \$ 1,125            |                       | \$ 1,111             |
|                     |                       |                      |
|                     | \$ 60,000             |                      |
|                     |                       |                      |
| \$ 917              |                       | \$ 917               |
| \$ 590              |                       | \$ 590               |
|                     |                       | \$ 216               |
|                     |                       | \$ 302               |
|                     |                       |                      |
|                     |                       |                      |
|                     |                       | \$ 99                |
|                     |                       | \$ 96                |
|                     |                       | \$ 65                |
|                     |                       | \$ 46                |
|                     |                       |                      |
|                     |                       | \$ 1,154             |

30%

Bay Area (TDG est, 2019)

Potential for bulk pricing if coordinating purchases with other jurisdic

Talk to Motivate - are installation costs going up?

\$

58,842

Pad installation, furniture relocation, etc. (depending on station local  
TDG estimate includes 15-docks, installation, but not misc. constructi

Spare bikes, printer kits, key dispensers, etc.

\$

1,941

*TDG estimate is probably a little high*

\$ 50,000

Falls Church estimate is conservative?

\$ 110

Est. number of bikes purchased with stations; number may be higher  
TDG estimate based on Fairfax County year 3. Probably need to plan  
Also, revenue may be slightly higher or lower depending where static

Conservative estimate of cost recovery (before sponsorships) - expect

Subsidy estimates do not include potential sponsorships

All numbers in 2018 dollars; assume operating and revenue will both

All numbers in 2018 dollars; assume operating and revenue will both

All numbers in 2018 dollars; assume operating and revenue will both

ctions?

tion / layout); County estimate for VDOT work  
ion / spare parts

· / lower as bikes are used and redistributed in and outside of the City  
for ramp up.  
ons / bikes / use / members are located

st City to be lower than system as a whole

inflate over time?  
inflate over time?  
inflate over time?



Numbers in red are changeable assumptions. See "cost assumptions" for unit cost details

| City of Fairfax Bikeshare Connection to I-66 Corridor |                                                                                                                    |            |          |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------|----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Phase                                                 |                                                                                                                    |            |          | Cost       | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1                                                     | PRELIMINARY ENGINEERING (PE) & FINAL DESIGN                                                                        |            |          | \$ 50,000  | Assume lump sum for any design required for station site planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                       | Environmental, Preliminary Design, Survey, Final Design                                                            |            |          | \$ 50,000  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2                                                     | RIGHT-OF-WAY (ROW) & EASEMENTS                                                                                     |            |          | \$ -       | Assume stations will be located in public ROW or on private property via agreement (no cost to City)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                       | Right of Way and easement acquisition                                                                              |            |          | \$ -       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 3                                                     | CAPITAL ASSET ACQUISITION                                                                                          |            |          | \$ 184,000 | <div>- Assumes 10 stations in the City of Fairfax, exact locations to be determined based on on-going feasibility study and public input</div> <div>- Assumes mostly smaller stations for initial system, though may determine need for slightly larger stations at some sites</div> <div>- Project cost does not include stations outside of the City (on the Mason campus, at Vienna Metrorail, in the Town of Vienna, or at other locations in the County); project assumes that station installation at these locations will occur in coordination with the City's project</div> <div>- Unit cost estimates based on Capital Bikeshare vendor pricing, inflated 5% per year to estimate 2018 prices</div> |
|                                                       | Description                                                                                                        | Unit Price | Quantity | Total Cost |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Purchase of stations with included bicycles                                                                        |            |          |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | 12-dock station, 6 bikes included with each                                                                        | \$ 43,500  | 4        | \$ 174,000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | 15-dock station, 8 bikes included with each                                                                        | \$ 50,800  |          | \$ -       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Spare parts                                                                                                        |            |          |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Average cost \$1,000 per item (additional bicycles / bicycle parts, tool kits, printer kits, key dispensers, etc.) | \$ 1,000   | 10       | \$ 10,000  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4                                                     | CONSTRUCTION                                                                                                       |            |          | \$ 48,400  | <div>- Station installation estimates based on Capital Bikeshare pricing</div> <div>- Other construction costs associated with installation based on construction estimates for bus stop shelters; costs may be more ore less for some bikeshare stations depending on site conditions</div>                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                       | Description                                                                                                        | Unit Price | Quantity | Total Cost |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Station Installation                                                                                               |            |          |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Installation per station (<28 docks)                                                                               | \$ 3,600   | 4        | \$ 14,400  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Other Construction                                                                                                 |            |          |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Pad installation, relocation of street furniture, etc.                                                             | \$ 5,000   | 4        | \$ 20,000  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Construction Subtotal                                                                                              |            |          | \$ 34,400  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Mobilization                                                                                                       |            | 5%       | \$ 2,000   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Construction Contingency                                                                                           |            | 25%      | \$ 9,000   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | Construction administration                                                                                        |            | 10%      | \$ 3,000   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4                                                     | MARKETING & PROMOTION                                                                                              |            |          | \$ 15,000  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                       | One-time marketing campaign to launch system                                                                       |            |          | \$ 15,000  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| TOTAL COST (2018 Dollars)                             |                                                                                                                    |            |          | \$         | 297,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |