| From: | Jonathan R. Earle |
| :--- | :--- |
| Sent: | Tuesday, March 07, 2017 3:01 PM |
| To: | Amanda L. Lessard |
| Cc: | Ben Smith |
| Subject: | Cost Per Linear Foot To Construct Major/Minor Private Roads |
| Attachments: | March 2017 Cost Per Foot Private Road Construction.xlsx |
|  |  |
| Follow Up Flag: | Follow up |
| Flag Status: | Flagged |

Amanda,

My estimate to construct a minor private road from scratch is approximately $\$ 100$ per linear foot..

Assumptions are:

- No pavement
- $18^{\prime \prime}$ D Gravel, $3^{\prime \prime}$ A Gravel, $18^{\prime}$ Width
- Box cut and assumes road grade generally matches existing topography (i.e. no cuts/fills included)
- Open drainage with ditching and cross culverts every 300'
- Assumes underground power. Does not include costs for water, gas, sewer, etc.
- Does not include ledge or removal of unsuitable subgrade material

My estimate to construct a major private road from scratch is $\$ 150$ per linear foot.

Assumptions are:

- 2.5" Base Pavement, 1.5" Surface Pavement, 20' Width
- 21" D Gravel, 3" A Gravel
- Box cut and assumes road grade generally matches existing topography (i.e. no cuts/fills included)
- Open drainage with ditching and cross culverts every 300'
- Assumes underground power. Does not include costs for water, gas, sewer, etc.
- Does not include ledge or removal of unsuitable subgrade material

Jon

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| Item | Unit | Weighted Average Unit Price | Total Quantity | Total Cost |
| :---: | :---: | :---: | :---: | ---: |
| Clear, Grub, \& Site Prep | AC | $\$ 7,140.06$ | 0.6 | $\$ 4,069.84$ |
| Common Excavation | CY | $\$ 10.32$ | 583.3 | $\$ 6,020.93$ |
| Base Gravel MDOT Type A | CY | $\$ 18.58$ | 83.3 | $\$ 1,547.65$ |
| Subbase Gravel MDOT Type D | CY | $\$ 18.22$ | 500.0 | $\$ 9,107.54$ |
| Loam | CY | $\$ 17.32$ | 123.5 | $\$ 2,138.56$ |
| Seed | UNIT | $\$ 42.92$ | 10.0 | $\$ 429.20$ |
| Mulch | SY | $\$ 3.50$ | $1,111.1$ | $\$ 3,888.85$ |
| 15" Stormdrain | LF | $\$ 38.23$ | 50.0 | $\$ 1,911.72$ |
| 6" Underdrain | LF | $\$ 1.00$ | $1,000.0$ | $\$ 1,000.00$ |
| Signage | EACH | $\$ 230.00$ | 1.0 | $\$ 230.00$ |
| Silt Fence | LF | $\$ 3.64$ | $1,000.0$ | $\$ 3,636.38$ |
| Riprap | SY | $\$ 31.95$ | 10.0 | $\$ 319.50$ |
| Construction Entrance | EACH | $\$ 1,372.22$ | 1.0 | $\$ 1,372.22$ |
| Underground Electric | LF | $\$ 15.28$ | 500.0 | $\$ 7,642.10$ |
| Transformer Pads | EACH | $\$ 630.95$ | 1.0 | $\$ 630.95$ |
| Level Spreaders | LF | $\$ 68.15$ | $\$ 136.31$ |  |
| Trees | EACH | $\$ 214.29$ | 10 | $\$ 2,142.86$ |
| Check Dams | EACH | $\$ 50.00$ | 10.0 | $\$ 500.00$ |
|  | Total Cost To Construct 500 |  | $\$ 46,724.61$ |  |


| Item | Unit | Weighted Average Unit Price | Total Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Clear, Grub, \& Site Prep | AC | \$7,140.06 | 0.6 | \$4,069.84 |
| Common Excavation | CY | \$10.32 | 864.2 | \$8,919.87 |
| Base Gravel MDOT Type A | CY | \$18.58 | 92.6 | \$1,720.25 |
| Subbase Gravel MDOT Type D | CY | \$18.22 | 648.1 | \$11,805.92 |
| Hot Mix Asphalt, 19.0 mm Binder | TON | \$98.23 | 152.8 | \$15,006.51 |
| Hot Mix Asphalt, 12.5 mm Surface | TON | \$86.24 | 91.7 | \$7,905.24 |
| Loam | CY | \$17.32 | 123.5 | \$2,138.56 |
| Seed | UNIT | \$42.92 | 10.0 | \$429.20 |
| Mulch | SY | \$3.50 | 1,111.1 | \$3,888.85 |
| 15" Stormdrain | LF | \$38.23 | 50.0 | \$1,911.72 |
| 6" Underdrain | LF | \$1.00 | 1,000.0 | \$1,000.00 |
| Signage | EACH | \$230.00 | 1.0 | \$230.00 |
| Silt Fence | LF | \$3.64 | 1,000.0 | \$3,636.38 |
| Riprap | SY | \$31.95 | 10.0 | \$319.50 |
| Construction Entrance | EACH | \$1,372.22 | 1.0 | \$1,372.22 |
| Underground Electric | LF | \$15.28 | 500.0 | \$7,642.10 |
| Transformer Pads | EACH | \$630.95 | 1.0 | \$630.95 |
| Level Spreaders | LF | \$68.15 | 2.0 | \$136.31 |
| Trees | EACH | \$214.29 | 10.0 | \$2,142.86 |
| Check Dams | EACH | \$50.00 | 10.0 | \$500.00 |
| Total Cost To Construct 500' |  |  |  | \$75,406.29 |
| Cost Per Linear Foot |  |  |  | \$150.81 |


[^0]:    Jon Earle, PE
    Town Engineer
    Town of Windham

