HMA Designs for Subdivisions
Poor Subdivision Standard

3” HMA

9” STONE

NATURAL SUBGRADE
Extra-Bad Practice

- 2" HMA
- 9" STONE
- NATURAL SUBGRADE
The Alternatives

3” HMA

OR

6” HMA

9” STONE

Construction Platform
Full Depth Profile

HMA

Construction Platform
Figure A-2. Thickness design as a function of IBV, CI, and $Q_u$ for subgrade treatment (granular backfill or modified soil).
## Soil Modification Prices

<table>
<thead>
<tr>
<th>Area</th>
<th>$/SY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 SY</td>
<td>$8.45</td>
</tr>
<tr>
<td>5,000 SY</td>
<td>$4.30</td>
</tr>
<tr>
<td>10,000 SY</td>
<td>$3.20</td>
</tr>
<tr>
<td>Description</td>
<td>Cost</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Excavation</td>
<td>$12,200</td>
</tr>
<tr>
<td>Curb &amp; Gutter</td>
<td>$136,400</td>
</tr>
<tr>
<td>Rock</td>
<td>$67,800</td>
</tr>
<tr>
<td>2” HMA Binder</td>
<td>$41,700</td>
</tr>
<tr>
<td>1” HMA Surface</td>
<td>$22,500</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$280,600</strong></td>
</tr>
</tbody>
</table>
Advantages of Full Depth HMA

- Longer Life
- No Full-Depth Patching
- Rapid/Inexpensive Rehab
- Permanent Elevations
Richard T. Berning, P.E.
Deputy Director/City Engineer
Office of Public Works
City of Springfield
1965

Surface

Crushed Stone

Sub-Grade
1975

Surface

Crushed Stone

Sub-Grade
1988

Surface

Base

Sub-Grade

Full Depth

2"

4"

8
1993

Surface

Base

Sub-Grade

Full Depth

Stability Manual

2"

4"
1998

2"  5"

Surface

Base

Sub-Grade

Full Depth

Stability Manual
HMA Designs for Subdivisions