Flowchart for Evaluating Freestalls 2008

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**Surface Cushion**
- Does surface pass the "knee" test and supply traction?
  - Yes
    - Is there adequate space for resting body?
      - Yes
        - Can cow successfully "lunge" to front?
          - Yes
          - Brisket locator no higher than 4 inches above surface to allow forward thrust of fore-limb
          - No
          - No more than 12 inches above stall surface for adult Holstein cow
          - No
          - Not less than 38 inches for adult Holstein cow in Michigan dividers
          - No
          - Can cow lunge over the lower divider rail?
            - Yes
            - Can cow "bob" her muzzle at end of lunge?
              - Yes
              - No impediment to head movement in the "bob zone" between 4 and 38 inches above the resting surface.
              - No
            - No
            - Can cow lunge below the lower divider rail?
              - Yes
              - Open the front of stall for forward lunge or replace divider to allow side lunge into adjacent stall
              - No
              - No
            - No
            - Can cow rise without hitting neckrail?
              - Yes
              - Reposition neck rail to recommended height and distance from curb
              - No
              - No
            - No
          - No
        - No
      - No
    - No
  - No

**Body Resting Space**
- Move or modify brisket locator or rebuild stall to provide adequate space

**Lunge Space**
- Can cow lunge over the lower divider rail?
  - Yes
  - Can cow successfully "lunge" to front?
    - Yes
    - Brisket locator no higher than 4 inches above surface to allow forward thrust of fore-limb
    - No
    - No more than 12 inches above stall surface for adult Holstein cow
    - No
    - Not less than 38 inches for adult Holstein cow in Michigan dividers
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        - No impediment to head movement in the "bob zone" between 4 and 38 inches above the resting surface.
        - No
      - No
      - Can cow lunge below the lower divider rail?
        - Yes
        - Open the front of stall for forward lunge or replace divider to allow side lunge into adjacent stall
        - No
        - No
      - No
    - No
  - No

**"Bob" Space**
- Can cow rise without hitting neckrail?
  - Yes
  - Reposition neck rail to recommended height and distance from curb
  - No

**Rising Room**

<table>
<thead>
<tr>
<th>Stall Dimension (inches)</th>
<th>1000</th>
<th>1200</th>
<th>1400</th>
<th>1600</th>
<th>1800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total stall length facing a wall</td>
<td>96</td>
<td>96</td>
<td>108</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Distance from rear curb to brisket locator</td>
<td>64</td>
<td>66</td>
<td>68</td>
<td>70</td>
<td>72</td>
</tr>
<tr>
<td>Stall width (on center)</td>
<td>44</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Height of brisket locator above stall surface</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Upper edge of lower divider rail above stall surface</td>
<td>10</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Height below neck rail</td>
<td>44</td>
<td>46</td>
<td>46</td>
<td>50</td>
<td>52</td>
</tr>
<tr>
<td>Distance from rear edge of neck rail to rear curb</td>
<td>64</td>
<td>66</td>
<td>68</td>
<td>70</td>
<td>72</td>
</tr>
<tr>
<td>Rear curb height</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Body Weight Estimate (lbs)
- 1000
- 1200
- 1400
- 1600
- 1800

Recommend deep bedded sand stalls, or adding cushion to existing mattress