Joint Publication Project by members of three organizations:

Operational Guidelines for Grounds Management

Professional Grounds Management Society

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- Step 1: Inventory All Maintained Facilities / Amenities
- Step 2: Determine the Level of Maintenance Desired
- Step 3: Analyze
- Step 4: Calculate
  - Step 5 Benchmark!
Step 1: Inventory All
Maintained Facilities / Amenities

- Measure:
  - Planting Areas
  - Turf Areas
  - Roadways
  - Parking lots
  - Sidewalks
    - Note Different types of Walks

Count -

- Trash Cans
- Picnic Tables
- Play sets
- Bicycle Racks
- # Trees
- ??? All Site Amenities

Staff Participation

- Benefits
  - Staff buy-in
  - Staff development
  - Familiarity with areas and maintenance
### Additional Inventory Methods

- Volunteers – Park Boards
- As Built Plans – Scale Rulers, Digital Measuring Wheels
- Aerial photos – Great for Large Open Areas
- Summer Helper / College Students

### Step 2: Determine the Level of Maintenance Desired

- Select From Prewritten Levels of Attention
  OR
- Write Custom Descriptions

### Description for Maintenance Levels:

**Level II**

- High – Level Maintenance. Associated with Well Developed Public Areas, Malls, Government Ground, or College Campuses.
- Recommended Level For Most Organizations
Description for Maintenance Levels:

- Turf Care
- Fertilizer
- Irrigation
- Litter Patrol
- Pruning
- Snow Removal
- Surfaces (cleaning etc.)

Description for Turf Care Level II:

- “Turf Care - Grass cut once every five days. Aeration as required but not less than twice per year. Aeration after every major event on turf. Reseeding when bare spots are present and over seeding each fall. Weed control when weeds present visible problem or weeds represent >5% of turf area …

Description for Turf Care Level II:

- Aeration = > 2 times per yr
- Reseeding = per inspection
- Resod = ASAP as required
- Fertilization = 3 times per yr @ 3.5-4lbs N
- Overseeding = Spring and Fall as required
- Weed control = < 1% weed coverage
Description for Pruning
Level II:

• “Usually done at Least once per season unless species planted dictate more frequent attention. Sculpted hedges or high growth species may dictate a more frequent requirement than most trees and shrubs in natural growth plantings…

Step 3: Analyze

• From Standards determine weekly/monthly/annual frequency

  • Turf Example:
    • Level II = weekly mowing
    • Level III = twice per month

  • Pruning:
    • Level II = Annually
    • Level III = Safety Pruning

Step 4: Calculate

• Labor Hours for each maintenance task / by unit
• Multiply labor hours x Total Area
• Multiply by frequency = Total Labor Hours
• Develop Equipment costs
• Multiply equipment rate x Area
### Tally Sheet For Labor

**Mondauk Common Park: Open fields**

<table>
<thead>
<tr>
<th>Task</th>
<th>Units</th>
<th>Min/Unit</th>
<th>Area</th>
<th>Time</th>
<th>Frequency/YR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mowing</td>
<td>AC</td>
<td>20</td>
<td>3</td>
<td>60</td>
<td>30</td>
</tr>
</tbody>
</table>

= Labor Hours Per Year **30** Labor Hours

<table>
<thead>
<tr>
<th>Task</th>
<th>Units</th>
<th>Min/Unit</th>
<th>Area</th>
<th>Time</th>
<th>Frequency/YR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimming</td>
<td>L Ft.</td>
<td>.5</td>
<td>175</td>
<td>88</td>
<td>17</td>
</tr>
</tbody>
</table>

= Labor Hours Per Year **47** Labor Hours

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### Tabulate Total Labor Costs

- **Pay Rate + Benefits**
  - Hourly Rate
  - Vacations & Sick Time Allocation
  - Costs of Insurance, Retirement Etc.
- **Divide Above Total by 2080 Hrs. =** Hourly Labor Rate
- **Total Labor Hours X Hourly Labor Rate**
Development of Equipment Costs

- Annual Ownership Costs =
  - Purchase Cost, Minus Salvage Costs
  - Divide Above Total by Years of Use
- Fixed Costs, including Licenses, Insurance
- Variable or Operating Costs =
  - Fuel, Oil, Grease, Anti-Freeze, Etc.
  - Repairs

Annual Operating Costs

\[
\text{Annual Operating Costs} = \frac{\text{Total Equipment Costs} + \text{Total Labor Costs} + \text{Total Maintenance Costs}}{\text{Hours Operation}}
\]

= Hourly Operating Rates

Translating Data to Dollars

Total Labor Costs
+ Total Equipment Costs
\[
\text{Total Maintenance Costs} \quad \text{Per Site}
\]
Step 5: Benchmarking -

- Tool for gaining improved performance
- Be sure levels are comparable
- Compare your actual times with Reference times
- Work with neighboring municipalities and your local APWA Chapter

Some Suggestions –

- Make The Commitment to Start

  - Start Small – Simple Space, Limited Scope
  - Train Staff – Why It is of Value
  - Share Progress With Stake Holders
    Staff, Elected Officials, Park Boards
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