

Trunk Formula Method SUMMARY

Project # 42348007 Property AutoZone 6365
 Date 4/28/2017

Field Observations

Site Rating 85%

Species	Species Rating*	Replacement Size		Replacement Cost
<i>Quercus virginiana</i>	90%	3	in.	\$250.00
<i>Lagerstroemia indica</i>	80%	2.5	in.	\$125.00
<i>Ficus aurea</i>	70%	3	in.	\$250.00

*Species ratings derived from "Tree Species Ratings for Florida", revised: January 2016. Provided by Florida Chapter International Society of Arboriculture.

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Trunk Formula Method Worksheet

Project #	42348007	Property	AutoZone 6365
Date	4/28/2017	Tree #	1

Field Observations

1. **Species** Quercus virginiana
2. **Condition** 85%
3. **Trunk Circumference** 25 in. **Diameter** 8 in.
4. **Location %** = [**Site** 85% + **Contribution** 75% + **Placement** 50%] ÷ 3 = 70%

Regional Plant Appraisal Committee and/or Appraiser-Developed or -Modified Information

5. **Species rating** 90%
6. **Replacement Tree Size** (diameter) 3 in.
(Trunk Area) 7.07 in² TA_R
7. **Replacement Tree Cost** \$ 250.00
(see Regional Information to use **Cost** selected)
8. **Installation Cost** \$ 500.00
9. **Installed Tree Cost** (#7 + #8) \$ 750.00
10. **Unit Tree Cost** \$ 35.39 per in²
(see Regional Information to use **Cost** selected)

Calculations by Appraiser using Field and Regional Information

11. **Appraised Trunk Area:**
(TA_A or ATA_A; use Tables 4.4-4.7)

$$\begin{aligned} \text{or } c^2 (\#3) \times 0.08 &= \frac{50}{(TA_A)} \\ \text{or } d^2 (\#3) \times 0.785 &= \frac{50}{(TA_A)} \\ \text{or } -.335 d^2 + 69.3d - 1087 &= \frac{(554)}{(ATA_A)} \end{aligned} \quad = \underline{50}$$
12. **Appraised Tree Trunk Increase** (TA_{INCR}) =

$$TA_A \text{ or } ATA_A \frac{50 \text{ in}^2 (\#11)}{7.07 \text{ in}^2 (\#6)} - TA_R = \underline{43.18 \text{ in}^2}$$
13. **Basic Tree Cost** = TA_{INCR} (#12) $\frac{43.18 \text{ in}^2 \times \text{Unit Tree Cost} (\#10)}{\$ 35.39 \text{ per in}^2}$
 + **Installed Tree Cost** (#9) $\frac{\$ 750.00}{\$ 2,277.78} = \underline{\$ 2,277.78}$
14. **Appraised Value** = **Basic Tree Cost** (#13) $\frac{\$ 2,277.78 \times \text{Species rating } 90\% \times \text{Condition} (\#2) \frac{85\% \times \text{Location} (\#4) \frac{70\%}{}}{\$ 1,219.75}}{\$ 1,219.75}$
15. If the **Appraised Value** is \$5,000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10.
16. **Appraised Value** = (#14) \$1,220.00

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Trunk Formula Method Worksheet

Project #	42348007	Property	AutoZone 6365	
Date	4/28/2017	Tree #	2	

Field Observations

- Species** Lagerstroemia indica
- Condition** 80%
- Trunk Circumference** 19 in. **Diameter** 6 in.
- Location %** = [Site 85% + **Contribution** 60% + **Placement** 70%] ÷ 3 = 72%

Regional Plant Appraisal Committee and/or Appraiser-Developed or -Modified Information

- | | |
|--|-------------------------------------|
| 5. Species rating | <u>80%</u> |
| 6. Replacement Tree Size (diameter) | <u>2.5</u> in. |
| (Trunk Area) <u>4.91 in² TA_R</u> | |
| 7. Replacement Tree Cost | <u>\$ 125.00</u> |
| (see Regional Information to use Cost selected) | |
| 8. Installation Cost | <u>\$ 250.00</u> |
| 9. Installed Tree Cost (#7 + #8) | <u>\$ 375.00</u> |
| 10. Unit Tree Cost | <u>\$ 25.48</u> per in ² |
| (see Regional Information to use Cost selected) | |

Calculations by Appraiser using Field and Regional Information

- Appraised Trunk Area:**
 (TA_A or ATA_A; use Tables 4.4-4.7)
 or c² (#3) x 0.08 = 28 (TA_A)
 or d² (#3) x 0.785 = 28 (TA_A)
 or -.335 d² + 69.3d - 1087 = (683) (ATA_A)
- Appraised Tree Trunk Increase** (TA_{INCR}) =
 TA_A or ATA_A 28 in² (#11) - TA_R 4.91 in² (#6) = 23.35 in²
- Basic Tree Cost** = TA_{INCR} (#12) 23.35 in² × **Unit Tree Cost** (#10) \$ 25.48 per in²
 + **Installed Tree Cost** (#9) \$ 375.00 = \$ 970.00
- Appraised Value** = **Basic Tree Cost** (#13) \$ 970.00 × **Species rating** 80%
 × **Condition** (#2) 80% × **Location** (#4) 72% = \$ 444.91
- If the **Appraised Value** is \$5,000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10.
- Appraised Value** = (#14) \$440.00

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Trunk Formula Method Worksheet

Project #	42348007	Property	AutoZone 6365	
Date	4/28/2017	Tree #	3	

Field Observations

- Species** Lagerstroemia indica
- Condition** 80%
- Trunk Circumference** 19 in. **Diameter** 6 in.
- Location %** = [Site 85% + **Contribution** 60% + **Placement** 70%] ÷ 3 = 72%

Regional Plant Appraisal Committee and/or Appraiser-Developed or -Modified Information

- | | |
|--|-------------------------------------|
| 5. Species rating | <u>80%</u> |
| 6. Replacement Tree Size (diameter) | <u>2.5</u> in. |
| (Trunk Area) <u>4.91 in² TA_R</u> | |
| 7. Replacement Tree Cost | <u>\$ 125.00</u> |
| (see Regional Information to use Cost selected) | |
| 8. Installation Cost | <u>\$ 250.00</u> |
| 9. Installed Tree Cost (#7 + #8) | <u>\$ 375.00</u> |
| 10. Unit Tree Cost | <u>\$ 25.48</u> per in ² |
| (see Regional Information to use Cost selected) | |

Calculations by Appraiser using Field and Regional Information

- Appraised Trunk Area:**
 (TA_A or ATA_A; use Tables 4.4-4.7)
 or c² (#3) x 0.08 = 28 (TA_A)
 or d² (#3) x 0.785 = 28 (TA_A)
 or -.335 d² + 69.3d - 1087 = (683) (ATA_A)
- Appraised Tree Trunk Increase** (TA_{INCR}) =
 TA_A or ATA_A 28 in² (#11) - TA_R 4.91 in² (#6) = 23.35 in²
- Basic Tree Cost** = TA_{INCR} (#12) 23.35 in² × **Unit Tree Cost** (#10) \$ 25.48 per in²
 + **Installed Tree Cost** (#9) \$ 375.00 = \$ 970.00
- Appraised Value** = **Basic Tree Cost** (#13) \$ 970.00 × **Species rating** 80%
 × **Condition** (#2) 80% × **Location** (#4) 72% = \$ 444.91
- If the **Appraised Value** is \$5,000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10.
- Appraised Value** = (#14) \$440.00

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Trunk Formula Method Worksheet

Project #	42348007	Property	AutoZone 6365
Date	4/28/2017	Tree #	4

Field Observations

- Species** Quercus virginiana
- Condition** 80%
- Trunk Circumference** 35 in. **Diameter** 11 in.
- Location %** = [**Site** 85% + **Contribution** 70% + **Placement** 70%] ÷ 3 = 75%

Regional Plant Appraisal Committee and/or Appraiser-Developed or -Modified Information

- Species rating** 90%
- Replacement Tree Size** (diameter) 3 in.
(Trunk Area) 7.07 in² TA_R
- Replacement Tree Cost** \$ 250.00
(see Regional Information to use **Cost** selected)
- Installation Cost** \$ 500.00
- Installed Tree Cost** (#7 + #8) \$ 750.00
- Unit Tree Cost** \$ 35.39 per in²
(see Regional Information to use **Cost** selected)

Calculations by Appraiser using Field and Regional Information

- Appraised Trunk Area:**
(TA_A or ATA_A; use Tables 4.4-4.7)

$$\begin{aligned} \text{or } c^2 (\#3) \times 0.08 &= \frac{95}{36} (TA_A) \\ \text{or } d^2 (\#3) \times 0.785 &= \frac{95}{36} (TA_A) \\ \text{or } -.335 d^2 + 69.3d - 1087 &= \frac{(365)}{36} (ATA_A) \end{aligned}$$
- Appraised Tree Trunk Increase** (TA_{INCR}) =

$$TA_A \text{ or } ATA_A \frac{95}{36} \text{ in}^2 (\#11) - TA_R \frac{7.07}{36} \text{ in}^2 (\#6) = \frac{87.92}{36} \text{ in}^2$$
- Basic Tree Cost** = TA_{INCR} (#12) $\frac{87.92}{36} \text{ in}^2 \times \text{Unit Tree Cost} (\#10) \frac{\$ 35.39}{36} \text{ per in}^2$
+ **Installed Tree Cost** (#9) $\frac{\$ 750.00}{36} = \frac{\$ 3,861.11}{36}$
- Appraised Value** = **Basic Tree Cost** (#13) $\frac{\$ 3,861.11}{36} \times \text{Species rating } 90\%$
× **Condition** (#2) $\frac{80\%}{36} \times \text{Location} (\#4) \frac{75\%}{36} = \frac{\$ 2,085.00}{36}$
- If the **Appraised Value** is \$5,000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10.
- Appraised Value** = (#14) \$2,090.00

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Trunk Formula Method Worksheet

Project # 42348007 Property AutoZone 6365
 Date 4/28/2017 Tree # 6

Field Observations

1. **Species** Ficus aurea
2. **Condition** 50%
3. **Trunk Circumference** 151 in. **Diameter** 48 in.
4. **Location %** = [Site 85% + **Contribution** 60% + **Placement** 70%] ÷ 3 = 72%

Regional Plant Appraisal Committee and/or Appraiser-Developed or -Modified Information

5. **Species rating** 70%
6. **Replacement Tree Size** (diameter) 3 in.
 (Trunk Area) 7.07 in² TA_R
7. **Replacement Tree Cost** \$ 250.00
 (see Regional Information to use **Cost** selected)
8. **Installation Cost** \$ 500.00
9. **Installed Tree Cost** (#7 + #8) \$ 750.00
10. **Unit Tree Cost** \$ 35.39 per in²
 (see Regional Information to use **Cost** selected)

Calculations by Appraiser using Field and Regional Information

11. **Appraised Trunk Area:**
 (TA_A or ATA_A; use Tables 4.4-4.7)

$$\left. \begin{aligned} \text{or } c^2 (\#3) \times 0.08 &= \frac{1,817}{\text{TA}_A} \\ \text{or } d^2 (\#3) \times 0.785 &= \frac{1,809}{\text{TA}_A} \\ \text{or } -.335 d^2 + 69.3d - 1087 &= \frac{1,468}{\text{ATA}_A} \end{aligned} \right\} = \underline{1468}$$
12. **Appraised Tree Trunk Increase** (TA_{INCR}) =
 TA_A or ATA_A 1468 in² (#11) - TA_R 7.07 in² (#6) = 1,460.50 in²
13. **Basic Tree Cost** = TA_{INCR} (#12) 1460.50 in² × **Unit Tree Cost** (#10) \$ 35.39 per in²
 + **Installed Tree Cost** (#9) \$ 750.00 = \$ 52,430.64
14. **Appraised Value** = **Basic Tree Cost** (#13) \$ 52,430.64 × **Species rating** 70%
 × **Condition** (#2) 50% × **Location** (#4) 72% = \$ 13,151.35
15. If the **Appraised Value** is \$5,000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10.
16. **Appraised Value** = (#14) \$13,200.00

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