CMG GardenNotes #117

Homework: Diagnosing Abiotic Tree Disorders

Answer the following questions

1. In your own words, list the steps to systematically evaluate a tree.

    1.

    2.

    3.

    4.

    5.

    6.

    7.

2. Evaluate the soil compaction issues in your own yard? What can be done about it for your situation?

3. For a tree in your yard, mark the following rooting areas:

    a.   Root plate – Root plate radius = 6 times DSH (diameter at 4.5 feet)

        1. Simplifying the math, measure the circumference of the tree at DSH (4.5 feet) <u>in inches.</u>
        2. Multiple the number to 2.
        3. This is the estimated radius of the root plate <u>in inches</u>. Mark it with one color of flags in 4 directions.

        This is the area where damage to the root system could lead to tree failure in a wind storm. In this area, avoid routine cultivation and hardscape features that impact root spread and health. Avoid cutting or other damage to roots in this area.

    b.   Tree Protection Zone by Trunk Circumference Method – Circumference, in inches / 2 = radius in feet of TPZ

        1. Measure the circumference of the tree at DSH (4.5 feet) <u>in inches</u>.
        2. Divide the number to 2.
        3. This is the estimated radius of the TPZ <u>in feet</u>. Mark it with a second color of flags in 4 directions.

        This is the area where damage to the root system could directly influence tree health and vigor. In tree care this is the rooting area to focus on with watering, fertilizer, and minimizing soil compaction. Total area estimated here is rather accurate, but the shape of the area may not be round.

    c.   Total Root Spread – 5+ times tree height and/or canopy spread

        1. Measure the radius of the drip line, <u>to the nearest foot</u>.
        2. Multiple the number by 5
        3. This is the estimated radius of total root spread. Mark it with the remaining flags in 4 directions.

        This area represents the total spread of the tree's rooting system. Within this area, roots may be concentrated in sections and void in other sections. The actual shape of this area may not be round.

    e.   Based on soil conditions, hardscape features, and buildings, how might these circles actually adjust to fit the available rooting space?