

DETERMINING THE CRITICAL ROOT ZONE

THE CRITICAL ROOT ZONE OF A TREE IS THE ZONE IN WHICH THE MAJORITY OF A TREE'S ROOTS LAY. NINETY-FIVE PERCENT OF THE ROOTS OF MOST TREES WILL BE FOUND IN THE UPPER 24" OF THE SOIL. OF THOSE, THE MAJORITY OF THE ROOTS THAT SUPPLY THE NUTRIENTS AND WATER TO THE TREE ARE FOUND IN THE UPPERMOST LAYER, JUST BELOW THE SOIL SURFACE. THE TOTAL AMOUNT OF A TREE'S ROOTS ARE GENERALLY PROPORTIONAL TO THE VOLUME OF THE TREE'S CAOPY. THEREFORE, IF THE ROOTS ONLY PENETRATE A THIN LAYER OF SOIL, THE ROOTS MUST SPREAD FAR FROM THE TREE, BEYOND THE LIMITS OF THE CANOPY.

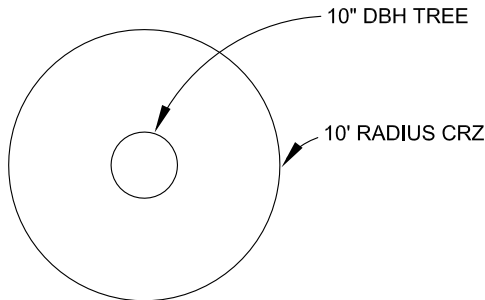
ROOTS ARE VITAL TO THE FUNCTIONING OF ANY TREE. THEY PROVIDE STRUCTURAL SUPPORT AS WELL AS THE MAJOR MECHANISM FOR NUTRIENT AND WATER UPTAKE FOR USE BY THE REST OF THE TREE. DESTROYING A SECTION OF A TREE'S ROOTS WILL ULTIMATELY RESULT IN A PROPORTIONAL LOSS OF THE TREE'S CANOPY.

THE CRITICAL ROOT ZONE OF A TREE TO BE SAVED SHALL BE THE MINIMUM AREA PROTECTED WITH TREE PROTECTION FENCING.

THE FOLLOWING IS THE METHOD USED BY BALTIMORE CITY TO DETERMINE THE SIZE OF THE CRITICAL ROOT ZONE.

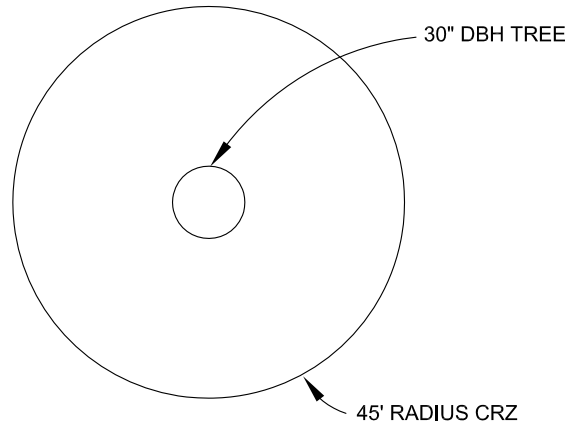
TREES GREATER THAN 8" DBH (DBH=DIAMETER BREAST HEIGHT):

1" DBH OF THE TREE = 1' RADIUS OF THE CRITICAL ROOT ZONE (CRZ)



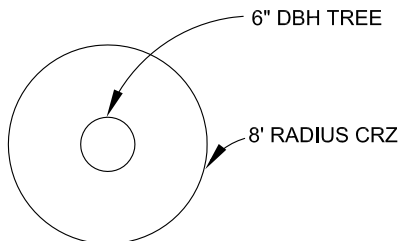
STAND ALONE TREES

1" DBH = 1.5' RADIUS OF THE CRITICAL ROOT ZONE



TREES 8" DBH AND SMALLER:

8 FT RADIUS CIRCLE AROUND THE TRUNK OF THE TREE.



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**TREE PROTECTION DETAIL
 FOR DETERMINATION OF CRITICAL
 ROOT ZONE**

| ISSUED | REVISED | REVISED |
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SCALE : NONE SHEET 1 OF 1