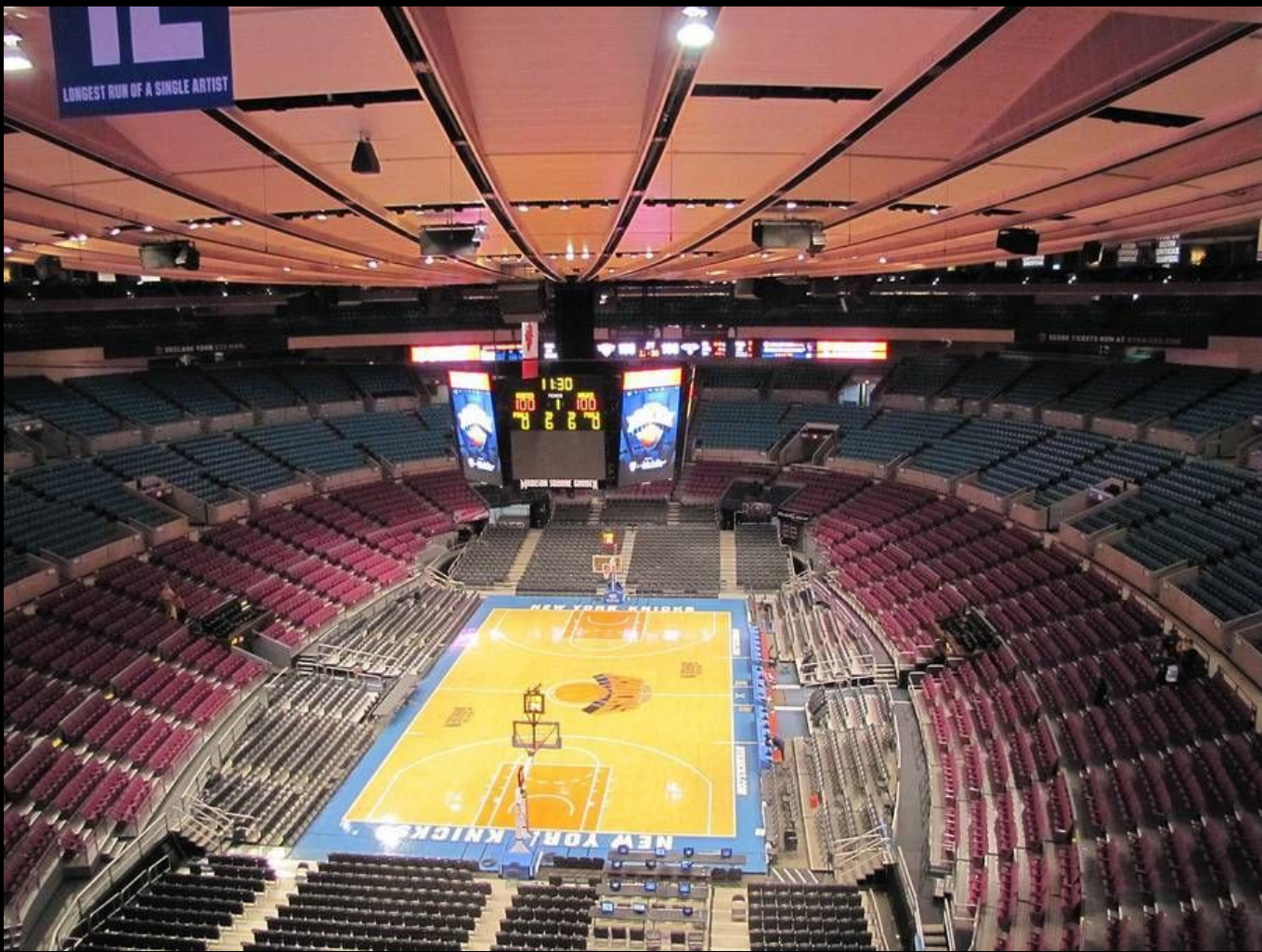


# Chainsaw and Tree Protection Essentials



LONGEST RUN OF A SINGLE ARTIST

1:30  
70 70  
66 66  
NEW YORK KNICKS

NEW YORK KNICKS

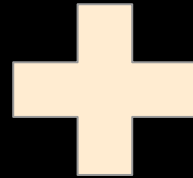
# Human Safety and Tree Safety

## The Saw Itself

- Safety Features
- Maintenance

## Operation

- Personal Protective Equipment (PPE)
- Good Practices
- Training



## Proper Pruning

- When and why

## Root Compaction

- How to avoid it

## Physical Damage

- How to manage it

## Arborist Consultation

- Why it is important

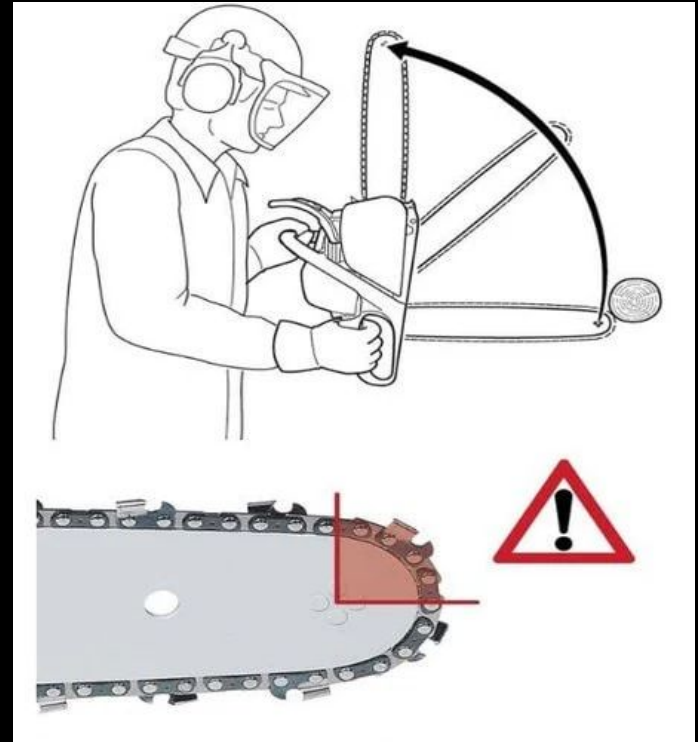
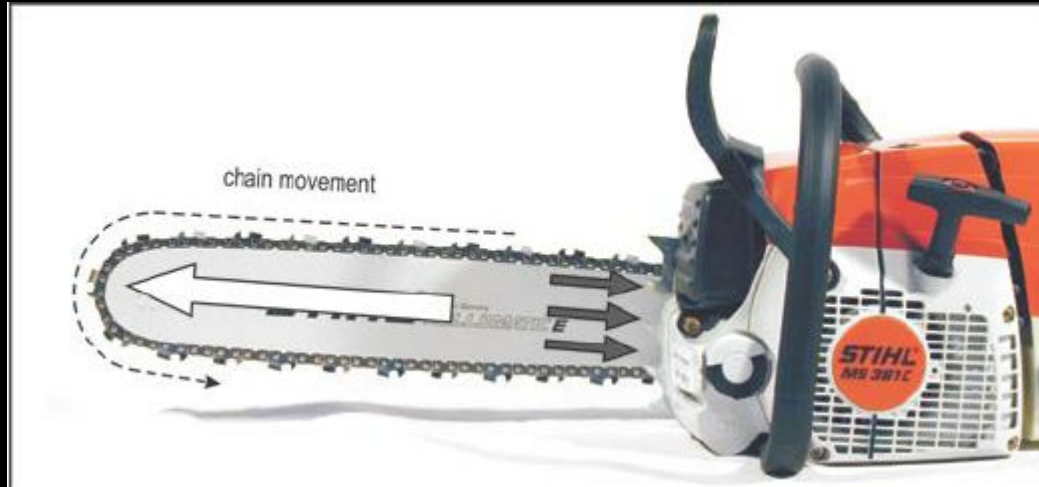
# Personal Protective Equipment

- Steel-toe Boots
- Chainsaw Chaps or Pants - DISCLAIMER
- Hard Hat equipped with Face Shield, Hearing Protection, & Eye Protection

**MINIMUM**



# Chainsaw Mechanics



# The Saw Itself - Safety Features

- Chain Brake (MOST CRITICAL) + Hand Guard
- Throttle Interlock

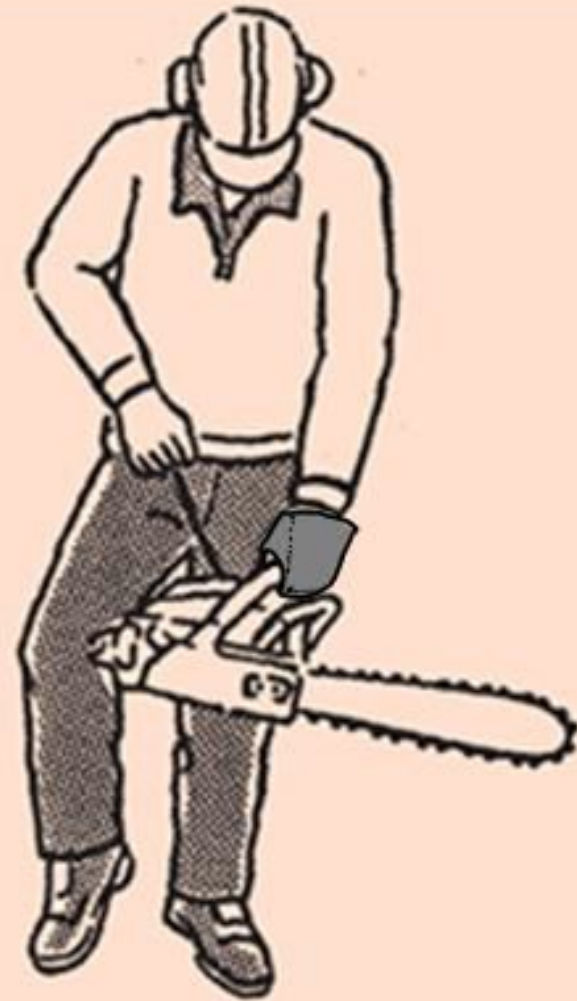
# The Saw Itself - Maintenance

- **Chain Brake** – Ensures it engages and stops the chain properly.
- **Chain Tension** – Prevents derailment and excessive wear; should be snug but still movable by hand.
- **Throttle & Throttle Lock** – Must function smoothly without sticking; ensures proper control of power.
- **Chain Catcher** – Protects against a broken or derailed chain whipping back toward the operator.



# Good Practices

- DON'T "Drop-Start" the Saw
- Engage the chain brake when starting and walking
- Avoid cutting with the "kick-back" zone
- Observe what you're cutting before executing
- Operate the saw with limbs outside the saw's path
- Work on solid ground free of tripping hazards
- Keep both hands on the saw





GET TRAINING



# Tree Health Considerations

Soil compaction from heavy machinery results in a reduction of:

- Water Absorption
- Respiration (Oxygen intake)

Before beginning construction, establish the Critical Root Zone (CRZ) which is approximately 1-1.5" of radius away from the trunk for every inch of DBD.

Not only does this help with soil compaction, but it also reduces the risk of physical damage to the stem/branches

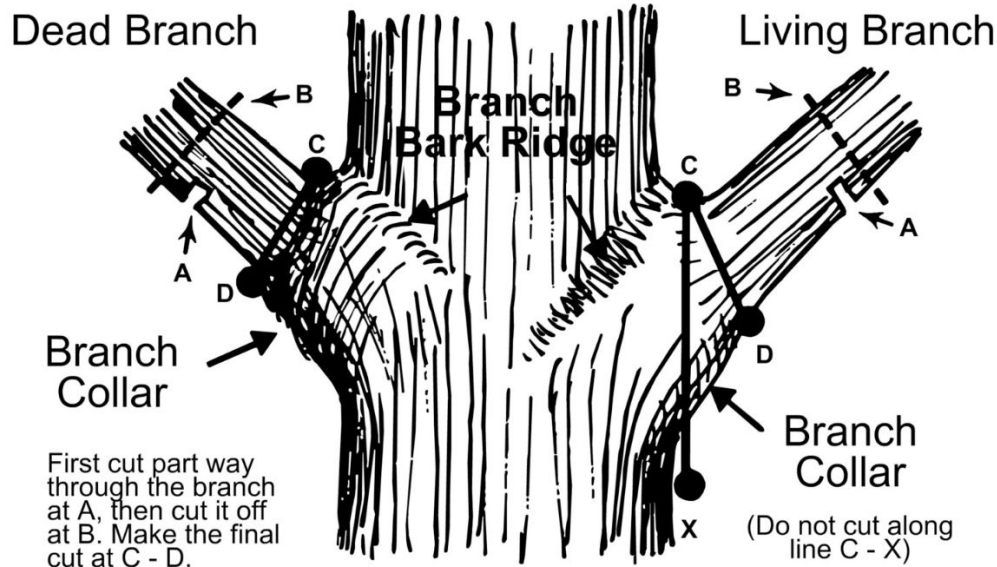
# Proper Pruning

Trees Heal Differently than We DO!

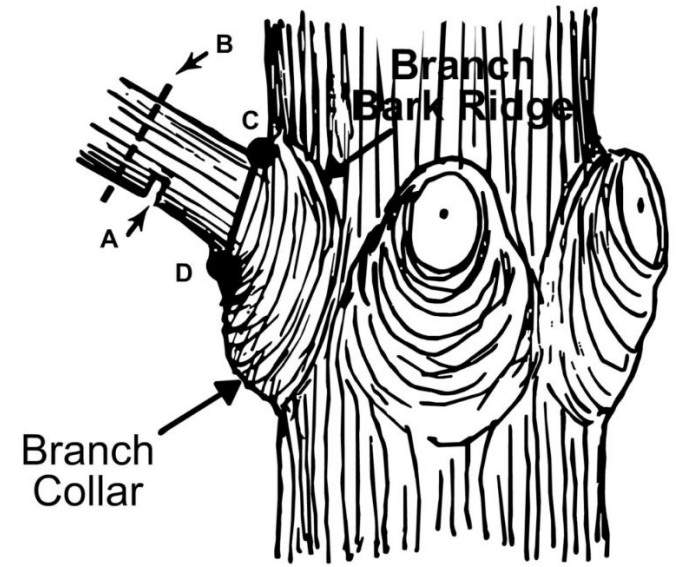
- Compartmentalization of Decay in Trees (CODIT)
- 25 Sq Inches is enough to introduce decay
- If possible prune during the dormant season
- Certain species react more poorly than others



# Proper Pruning Principles



Hardwoods



Conifers



Arbor Day Foundation<sup>®</sup>

# Mechanical Wounds

Not much can be done about the wound itself

- “Wound dressings” are largely frowned upon
- Wound tracing
- Keep wound clean
- Reduce Stress on tree
  - Mulch
  - Water
  - Fertilize
  - Remove damaged or hazardous branches
  - Monitor for insects and disease, specifically fungal growths

# Contact an Arborist

- Conservation Districts typically have lists for the area for tree-care professionals
- Look for certifications such as International Society of Arboriculture (ISA)
  
- Most importantly: schedule a consultation BEFORE construction