

INCORRECT CUT (TOO CLOSE) RESULTING IN DISCONTINUOUS CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

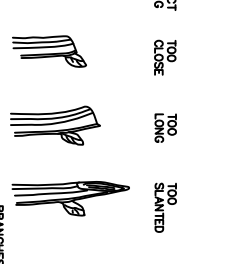
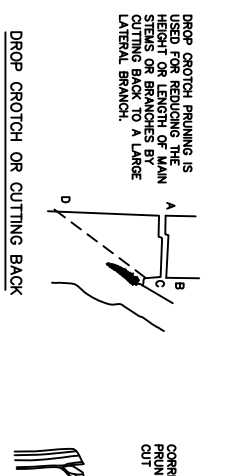
CORRECT CUT (LEAVING BRANCH COLLAR BUT NO STUB) RESULTING IN CONTINUOUS DOUGLASSHAPED CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

STEPS TO PRUNING

1. **PRIST CUT PART WAY THROUGH THE BRANCH AT POINT A.
2. **THEN CUT COMPLETELY THROUGH BRANCH FROM POINT B TO A.
3. **NOW CUT FROM POINT C TO D.
9. **IF D IS HARD TO FIND, PROP A PLUMB LINE VERTICALLY DOWN TO POINT X BE APPROXIMATELY EQUAL TO X-C-E.

PRUNING NOTES:

1. **LEAVE BRANCH COLLAR (C TO D)
2. **DO NOT FLUSH CUT (C TO X)
3. **DO NOT LEAVE STUBS (B TO A)
4. **BEST TIME TO PRUNE IS LATE DORMANT SEASON OR EARLY SPRING.
5. **AVOID PRUNING OAKS IN APRIL, MAY, JUNE OR JULY.
6. **IMMEDIATELY PAINT OAK WOUNDS MADE IN APRIL, MAY, JUNE OR JULY WITH LATEX PAINT OR SHELLAC.



BRANCHES SMALLER THEN 2" IN DIAMETER SHOULD BE CUT JUST BEYOND A LATERAL BUD OR IDEAL CUT SHOULD BE SHARP, CLEAN, AND MADE ON A SLIGHT ANGLE.

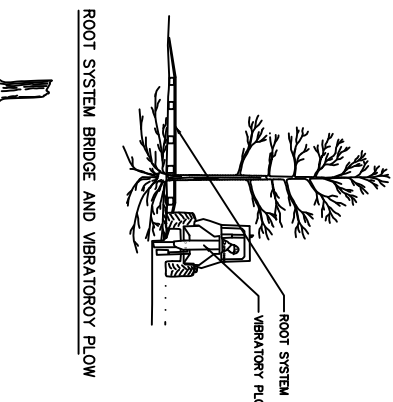
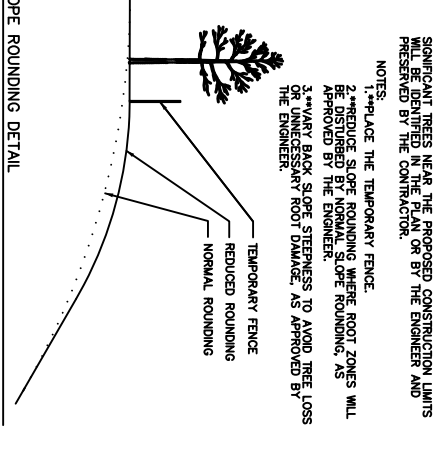
PRUNING SMALL BRANCHES

PRUNING DETAILS (Shigo Method)

SIGNIFICANT TREES NEAR THE PROPOSED CONSTRUCTION LIMITS WILL BE IDENTIFIED IN THE PLAN OR BY THE ENGINEER AND NOTED BY THE CONTRACTOR.

NOTES:

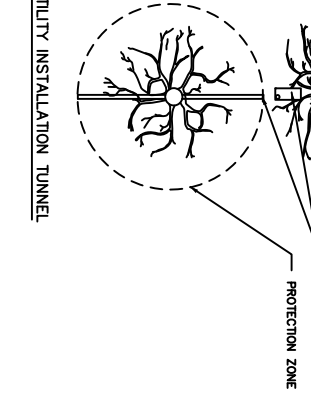
1. **REPLACE THE TEMPORARY FENCE
2. **REDUCE SLOPE ROUNDING WHERE ROOT ZONES WILL BE APPROVED BY THE ENGINEER.
3. **PRIMARY BACK SLOPE STEEPNESS TO AVOID TREE LOSS OR UNNECESSARY ROOT DAMAGE, AS APPROVED BY THE ENGINEER.



ROOT SYSTEM BRIDGE AND VIBRATORY FLOW

NOTES:

1. **REDUCE COMPACTION ON ROOT SYSTEMS WHERE IT OCCURS BY DRILLING 50 mm (2") DIA. HOLES IN 150 mm (6") DIA. TRUNKS AT 450 mm (18") INTERVALS FROM THE TREE TRUNK AND CONTINUE AT 2' INTERVALS IN CONCENTRIC RINGS OUT TO THE PROTECTION ZONE.
2. **WATERING OF ROOT DAMAGED TREES WILL BE REQUIRED TO MAINTAIN ADEQUATE BUT NOT EXCESSIVE MOISTURE. WATERING SHOULD BE STOPPED WHEN THE UNIMPACTED PORTION OF THE IMPACTED TREE DRIPLINE.
3. **A 6" THICK LAYER OF WOODCHIP MULCH PLACED OVER THE ROOT SYSTEM SHALL BE REQUIRED TO MAINTAIN ADEQUATE BUT NOT EXCESSIVE MOISTURE. WATERING SHOULD BE STOPPED WHEN THE UNIMPACTED PORTION OF THE IMPACTED TREE DRIPLINE.
4. **WHEN DESIGNATED IN THE PLAN OR WHEN DIRECTED BY THE ENGINEER, ALL TREE ROOTS CLEFT AND CONSTANTLY DAMAGED SHALL BE CUT NECESSARILY FOR CONSTRUCTION) WITH A VIBRATORY FLOW OR OTHER APPROVED ROOT CUTTING METHOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ROOT ENDS EXPOSED BY EXCAVATION ACTIVITIES. ROOT ENDS SHALL BE IMMEDIATELY COVERED WITH A 6" LAYER OF MULCH. MULCH SHALL BE REAPPLIED ON THE PLAN OR WHEN DIRECTED BY THE ENGINEER.
5. **IF CONSTRUCTION VEHICLES MUST PASS OVER ROOT ZONES, CONSTRUCT ROOT SYSTEM BRIDGES WITH STEEL PLATE SUPPORTED ON TREE TRUNKS.

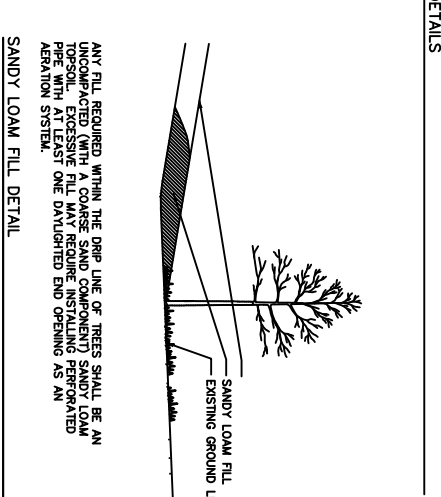
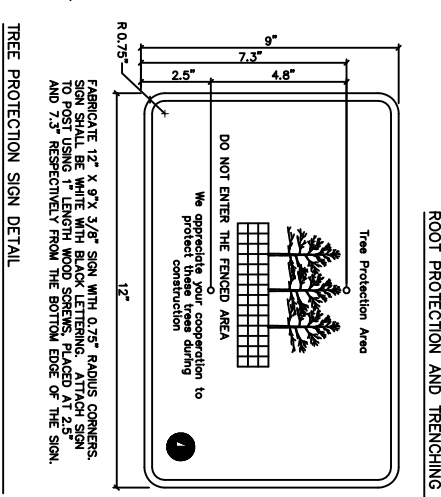
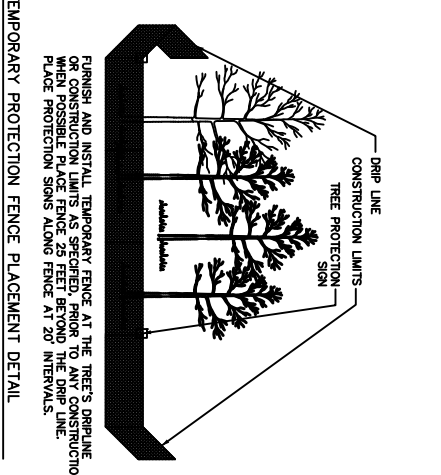


UTILITY INSTALLATION TUNNEL

ROOT PROTECTION AND TRENCHING DETAILS

WHEN UTILITY INSTALLATIONS MUST OCCUR WITHIN THE TREE PROTECTION ZONE, AS DEFINED BY THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE TREE. THE CONTRACTOR SHALL BORE AT A MINIMUM DEPTH OF 24" BELOW THE GROUND SURFACE WITHIN THIS ZONE.

TREE PROTECTION ZONE	* MINIMUM DISTANCE FROM TREE DIAMETER AT FACE OF TREE TRUNK ABOVE GROUND
0'-2"	2'
2'-4"	6'
4'-6"	10'
6'-8"	12'
8'-10"	15'
10'-12"	15'
12'-14"	15'
14'-16"	15'
16'-18"	15'
18'-20"	15'
20'-22"	15'
22'-24"	15'
24'-26"	15'
26'-28"	15'
28'-30"	15'
30'-32"	15'
32'-34"	15'
34'-36"	15'
36'-38"	15'
38'-40"	15'
40'-42"	15'
42'-44"	15'
44'-46"	15'
46'-48"	15'
48'-50"	15'
50'-52"	15'
52'-54"	15'
54'-56"	15'
56'-58"	15'
58'-60"	15'
60'-62"	15'
62'-64"	15'
64'-66"	15'
66'-68"	15'
68'-70"	15'
70'-72"	15'
72'-74"	15'
74'-76"	15'
76'-78"	15'
78'-80"	15'
80'-82"	15'
82'-84"	15'
84'-86"	15'
86'-88"	15'
88'-90"	15'
90'-92"	15'
92'-94"	15'
94'-96"	15'
96'-98"	15'
98'-100"	15'



REVISED: 2-10

FILE NAME: G:\ENG\SPCS\5312

ENGINEERING DEPARTMENT

PLATE: 5312

VEGETATION PROTECTION DETAIL