



## *GREENVALE TREE COMPANY*

### **Arborist Report – August 14, 2017**

For: Chris Mathys  
Oro Financial

Site: 3300 Panorama  
Morro Bay

Plant ID Cupressus macrocarpa (Monterey Cypress)

Task Determine Tree Protection Zone

#### **Background**

At the site (3300 Panorama) construction to remove an old pipeline is to occur below the driplines of a grove of Monterey Cypress. Options have been discussed in the arborist report. Regardless of the options, construction of any type usually leads to vehicles, foot traffic and storage in areas that may not be good for trees. These recommendations must be followed. Deviations from this plan must be reviewed and approved by the arborist of record.

#### **Tree observations**

Trees have all been measured and evaluated (please see tree matrix) by the arborist. When this area was surveyed the surveyor measured the diameter (DBH) of the trees. However, please use the arborist measurements for determining the Tree Protection Zone (TPZ) as only these will be considered accurate.

#### **Tree protection Zones (TPZ)**

ISA standard to determine the critical root zone that needs protecting during construction is one foot for every inch DBH. Therefore, each tree will have a different Critical Root Zone (CRZ). The aforementioned pipeline removal is within the critical root zone (CRZ) of most trees. A Tree Protection Zone (TPZ) is established at this measurement preventing certain activities from occurring and taking measures within this area to lessen construction impacts. Some municipalities may require the TPZ to be established at the dripline but this is a less accurate measure and is not reliable if the tree has lost branches or has been trimmed.

A certified arborist shall examine any area that may be impacted within the TPZ. Much of the disturbance and construction will take place within this zone. Fencing can be moved for work

within the zone but only for the immediate work area. If the construction can accommodate less severe root impacts such as less soil movement, hand digging or slurry injection then the minimal impact construction must be considered.

Tree Protection Zones (TPZ) shall be established around all trees or groups of trees within a construction site. Construction site can be determined as the area where work is to take place and the area needed to support activities of construction. Typically the area includes fifty feet off structures, pavements, utility trenches etc allowing for maneuvering equipment, stockpiling supplies and access to construction. TPZ will protect trees from equipment, storage, traffic, trenching or grading within the construction area. A TPZ is always bordered with fencing.

Before fencing is put up, 4-6 inches of mulch shall be placed below the tree canopies. This will act as a cushion if the area must be used during construction and act as soil mulch for retaining moisture during stress from construction.

Use plastic construction fence or chain link fencing. Fence shall be installed at the measurements listed above and around the entire tree, or, groups of trees. Trees that have some trenching or grading around them can have the TPZ moved when during construction and replaced after the work is completed.

Signage declaring that the fenced zone is off limits shall be posted frequently enough so signs are visible from any approach.

Use metal fence posts (stakes) driven into the ground to a depth of at least two foot. Fencing can be attached with wire, zip ties or fence hardware. No access point shall be available and the fencing shall be secure from sagging (people crossing at a low point) or being too high (people climbing underneath). Fence shall be a minimum of 4 feet from ground to top of fence.

### **Recommendations:**

All trees are close to construction which will have some impact on the trees so care shall be taken to preserve as much root and branch structure as possible. Any trimming shall be done by a certified arborist and with approval of the City of Morro Bay. Any trenching or soil movement (within the CRZ) shall be done by hand unless otherwise approved by a certified arborist. Any trenching, grading or soil movement done from trunk to 10 feet (super critical root zone area) must be approved and supervised by a certified arborist. Protection plan shall be followed exactly and any deviation from the plan shall be approved by certified arborist of record.

Tree care pre-and post-construction is vital especially since we have had five years of drought. Water the tree with soaker hoses every three weeks to a depth of 12 inches. When construction is complete it is recommended that Mycorrhizae and beneficial micro-organisms be injected into the soil to restore the soil flora.

ESHA rules and regulations will also apply since this area is shared or close by an ESHA. Apply the rule that is strictest. If a slurry is used then minimal impact to the area is anticipated along with minimal access. Even with minimal impact and access these guidelines are to always be in effect. Failure to apply guidelines or abide by the rules of protecting the trees can result in the job being shut down by the city, or arborist of record. Penalties and mitigation measures can be assessed if a violation occurs.

The following are general guidelines:

- Roots that are over 1½ inch that must be severed shall be cut with a clean blade using a reciprocal or pruning saw. Roots shall not be broken or torn. Roots that are pruned shall be examined by a certified arborist before backfilling.
- Severed (cut) roots shall be drenched with a root rot preventing fungicide as a precaution.
- Do not let exposed roots dry. Cover exposed roots with dampened carpets or canvas until trenches can be backfilled.
- The preferred method of bringing utilities through a TPZ is to use boring methods that will limit damage as opposed to trenching.
- Never build up soil under the canopies of trees. Even building up soil an inch can lead to a tree's decline.
- Tree roots are very fragile and can easily be damaged due to vibration, pressure or through compaction of soil. Do not store overburden, fill materials, construction materials or equipment below tree canopies. Do not drive, walk or move equipment below tree canopies.
- Do not change the runoff patterns of slopes or close in (make a basin or low point) around a tree. The trees should be slightly higher than the grade to prevent water retention below the canopy and around the tree's base.
- Monterey Cypress trees shall not have landscape below them after construction and should not have tilling, grading or change of grade in any form. Monterey Cypress are sensitive to change and may begin to decline within 5-7 years of changes.
- Supplemental water shall be available as trees can use more water in the stress of construction. Watering guidelines can be obtained from an arborist.

Sincerely  
Chris Stier,  
ISA Certified Arborist, #WE 9262-A

\*Diagnosis was made with observation, history and sound arboricultural and horticultural knowledge. It is always possible that other, or different problems exist that may contribute to the decline and death of plants. Further evaluation may be warranted if the steps above do not work. Pathology tests and other lab analysis are available.



12" STANDARD SIGN DIMENSION

18" STANDARD SIGN DIMENSION

NO

ENTRY

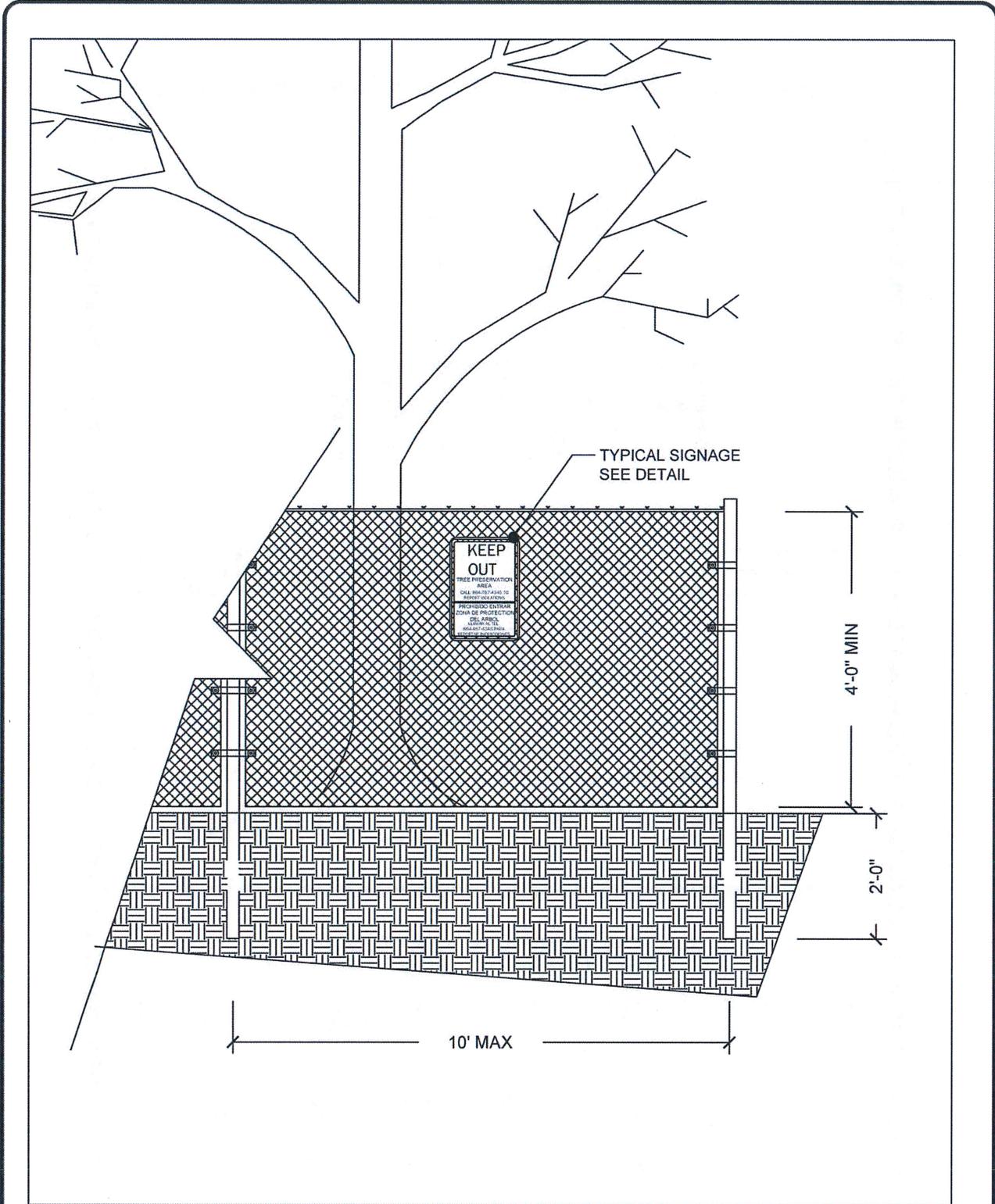
TREE PRESERVATION  
AREA

CALL: (XXX) XXX-XXXX  
TO REPORT VIOLATIONS

PROHIBIDO ENTRAR  
ZONA DE PROTECTION DEL ARBOL

LLAMAR AL TEL. (XXX) XXX-XXXX  
PARA REPORTAR INFRACCIONES

**TREE PROTECTION ZONE (TPZ) SIGNAGE EXAMPLE**



TREE PROTECTION  
FENCE ELEVATION

**TREE FENCE DETAIL**

## Arborist Assessment Matrix

### Oro Financial

### 3300 Panorama Morro Bay

Key:

ID# - All trees are identified with a numbered medallion at approximately eye level.

DBH – diameter at breast height (4½ ft.)

Type of trunk – (S) Single, (M) Multiple

Removal – (R) Remove, Reason *for removal is that tree is dead or very damaged and should be removed for safety so as not to damage the ESHA.*

Health 1 tree is nearly dead – 5 tree is in excellent health

Structural integrity – 1 tree may be an imminent hazard of failing – 5 no structural defects

ID#	DBH (inch)	Type of Trunk	Removal (R)	Health/ Structural Integrity	Comments
340	31	S		3/3	Fair health. Some oozing lesions on trunk. Fairly sound. Some cracked branches noted in canopy. Weight at ends of branches could cause more cracking and breakage. Deadwood. Attachments are good.
341	36	S		4/3	Good health. Some minor flagging of twigs but excellent color and vigor. Fairly sound. Weight at ends of branches could cause more cracking and breakage. Deadwood. Attachments are good.
342	13	S	R	1/2	Tree is dead. Still has some structural strength but will become more unstable as wood dries.
343	24	S		3/4	Fair health. Some oozing lesions on trunk. Some flagging twigs throughout canopy. Good color and vigor. Good structure with well angled branches and good attachments. Weight on limbs appears reasonable.
344	25	S	R	2/2	Tree is badly damaged due to tree next to it falling. This tree will not recover and thrive due to extensive damage. While it is in no danger of falling now it will decline rapidly and eventually fail.
345	20	S		3/3	Fair health. Some oozing lesions on trunk. Fair structurally. Tree is mostly one sided. Weak heavy deadwood on lower canopy.
346	20	S	R	1/2	Dead. Still has some structural strength but will become more unstable as wood dries.

ID#	DBH (inch)	Type of Trunk	Removal (R)	Health/ Structural Integrity	Comments
347	29	S	R	2/2	Tree is nearly dead. Lots of borers on trunk. Oozing lesions. Structurally this tree could fail especially in a storm. The top is dead and it is loaded with deadwood. Windthrow candidate due to height and weight.
348	23	S	R	1/1	Tree is dead. Structurally unsound. The tree is extremely dry and could begin to break apart or topple.
349	23	S		3/3	Fair health. Some flagging twigs throughout the canopy. Fair color and vigor. Fairly sound. Has a definite one-sidedness to its structure. Poor attachment on one main stem about five feet from ground. Deadwood.
350	27	S		4/3	Good health. Good color and vigor. Fairly sound. Has a lean to entire trunk although not extreme. Deadwood.
351	24	S		4/3	Good health. Good color and vigor. Fairly sound. Weight at ends of branches could cause more cracking and breakage. Deadwood.
352	9	S		4/3	Good health. Good color and vigor. Fairly sound. Somewhat curved trunk due to overcrowded grove.
353	10	S		3/4	Fair health. Oozing lesions on trunk. This is an understory tree so growth is mostly at the very top of the tree. Good color and vigor. Good structure. Straight trunk.
354	13	S		3/3	Fair health. Oozing lesions on trunk. Good color and vigor. Fairly sound. At about twenty feet the stem creates a double leader that could split in maturity.
355	9	S	R	1/1	Tree is severely declined and nearly dead. Has potential to fail due to lean and that the tree is drying out due to decline.
356	11 & 10	M (2)	Remove one stem	3/3	One stem has good health and the other not. Large canker at base of stem nearest berm likely will cause slower growth and decline. Other stem unaffected. Color and vigor is good. Fairly sound but as the tree grows the trunks could push on each other causing a tear. The stem with the canker has a considerable lean. Remove the cankered stem closest to the berm.
357	28	S		3/3	Fair health. Some oozing on trunk. Two cankers noted on trunk and ooze is coming from this area. Good color and vigor. Slight twig flagging. Fairly sound. Tree has a slight lean. Deadwood.
358	near Whidbey	S	R	1/1	Pine has imminent danger of failing. Dead and extremely brittle.

All trees unless otherwise indicated are Monterey Cypress