

TKO and Manzanita Trails Access Group assessment proposal

Trail Assessment Process:

Trialkeepers of Oregon (TKO) seeks to identify solutions to trail problems and work closely with land managers to follow their direction in design details and project constraints. TKO will make recommendations and ask that the land manager select and approve the final solution based on agency standards and best practices. TKO recommendations are communicated using the work categories below along with photos taken from the site. Time and resource estimates are included in the project plan. When different options are available, TKO uses a "Good - Better - Best" recommendation model - allowing TKO and the land manager to consider cost and resources for the most appropriate solution to be determined.

Categories of Trail Work:

A.) Minor Maintenance - this category includes all work on existing trail segments for tread repair and corridor clearing. Such as:

- 1.) Trimming back vegetation, limbing tree limbs and removing hazards from corridor.
- 2.) Tread repair, such as regrading outslope for cupped trails and/or reestablishing backslope from upper hillside slough.
- 3.) Maintenance of existing structures/features - clearing culverts, replacing decking on bridges, reestablishing drainage ditches or switchback turns, etc.

B.) Major Maintenance - this category includes the addition of more suitable trail features to existing trail segments and/or rerouting sections of trail less than 25 yards in length. Such as:

- 1.) Building up tread with turnpikes or puncheons - recommended practice is debarked, notched logs and backfilled with pitrun rock, then layered with $\frac{3}{4}$ minus and top dressed with $\frac{1}{4}$ minus
- 2.) Adding culverts to existing drainages, creating new ditch lines for water to be directed appropriately - 3-sided rock or corrugated poly plastic are recommended.
- 3.) Rerouting small sections, 25 yards or less, to address grading issues or wet zones.
- 4.) Adding rock and wood crib/retaining walls to stabilize erosion/slide areas or degraded switchbacks.

*Note that this category does not include stand-alone trail structures, e.g. bridges, boardwalks, signs.

C.) Trail Enhancements/New Trail Development - this category includes upgrading trail features with more robust structures, developing large reroutes greater than 25 yards and/or creating new trail connections. Local/regional, state and federal land managers will be responsible to see the project considerations/approvals are obtained. TKO defers to the land manager for the go-ahead to perform the needed trail work. A few things to consider when tackling these types of project work:

- 1.) Land manager approvals - each land manager has different criteria to consider when adding/modifying assets and developing new trails.
- 2.) County permitting - different counties have their own processes and determinations for needed

permitting (building/land use, etc.) of trail construction and structures.

3.) Natural and cultural resource considerations, best practices.

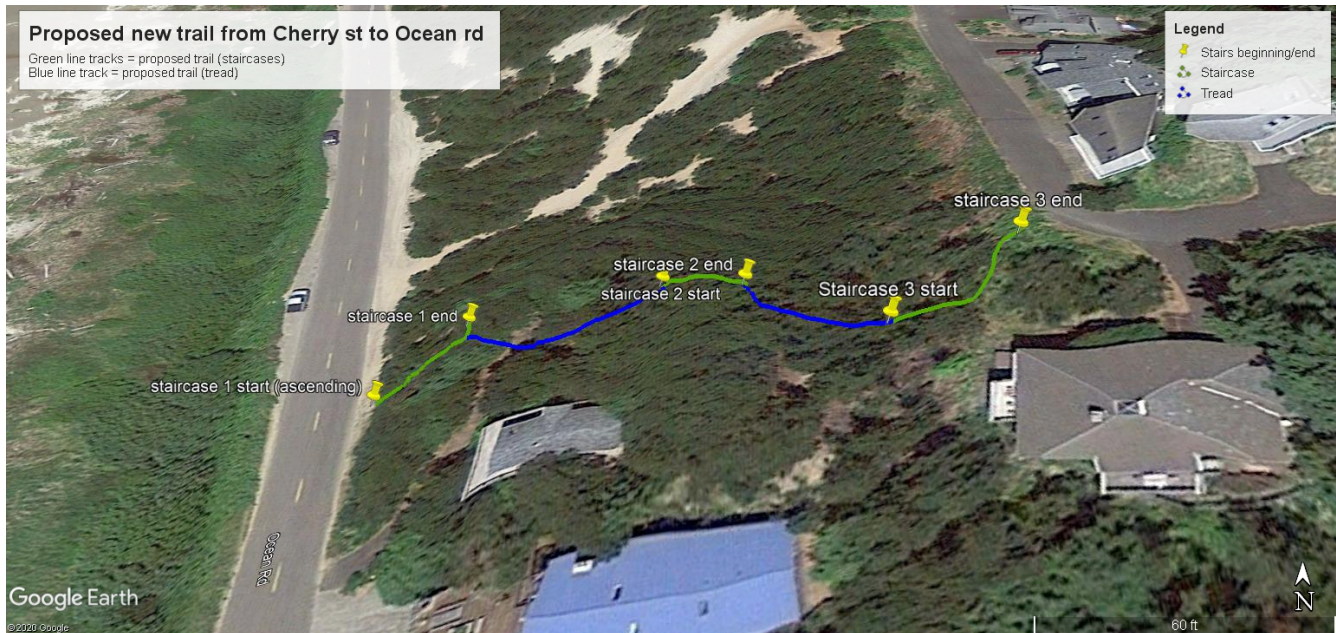
Trail Assessment

Overview To Date:

Initial trail assessment from Cherry Street to Ocean Rd conducted by Stan Myers and Trails access group in April/May 2020. The group proposes a new trail constructed in the city on Manzanita ROW corridor from Cherry street to Ocean rd. This trail will consist of 3 sets of 36" wide box crib steps in steep sections and 24-36" width standard tread construction in the less steep areas (see map).

Maintenance Recommendation Summary

Maintenance Type	Maintenance Category*	Flag# and GPS	Trail length affected (feet)	Recommendation
New Trail	Trail enhancement/ New Trail Staircase #1	Staircase 1 Ocean rd to 45.72261, -123.94117	47	Construct box crib stairs in steep section of trail
New Trail	Trail enhancement/ New trail Staircase #2	Staircase 2 GPS Start 45.72262, -123.94090 End 45.72258, -123.94080	42	Construct box crib stairs in steep section of trail
New trail	Trail enhancement/ New trail Staircase #3	Staircase 3 GPS Start 45.72247, -123.94063 End 45.72253, -123.94047	40	Construct box crib stairs in steep section of trail; this stair will include an erosion control berm at the confluence with Cherry Street so that steps will finish 8-12" higher than street level
New Trail	Trail enhancement/ New trail Tread and corridor construction	Start 45°43'21.22"N 123°56'28.67"W End 45°43'21.11"N 123°56'25.68"W	270	Trim back vegetation without tree removal, prep trail for box steps (green line track); Trim back vegetation without tree removal, prep trail for tread construction (blue line track)



Box Crib Steps Specs and Materials list

Staircase 1 (starting near Ocean Rd and ascending toward Cherry St, stop at GPS 45.72261, -123.94117)

Rise: 16 ft
 Run: 47 ft
 Total steps: 24
 Materials:

- 24- 4x8x10 pressure treated lumber
- 48- ½ inch x 36-inch rebar
- 2.4 cu yd ¾ minus gravel

Staircase 2 (starting at GPS 45.72262, -123.94090 and ascending to GPS 45.72258, -123.94080)

Rise: 10 ft
 Run: 42 ft
 Total steps: 15
 Materials:

- 15- 4x8x10 pressure treated lumber
- 30- ½ inch x 36-inch rebar
- 3 cu yd ¾ minus gravel

Staircase 3 (starting at GPS 45.72247, -123.94063 and ascending to GPS 45.72253, -123.94047)

Rise: 14 ft
 Run: 40 ft
 Total Steps: 21

Materials:

- 21- 4x8x10 pressure treated lumber
- 42- ½ inch x 36-inch rebar
- 3 cu yd ¾ minus gravel