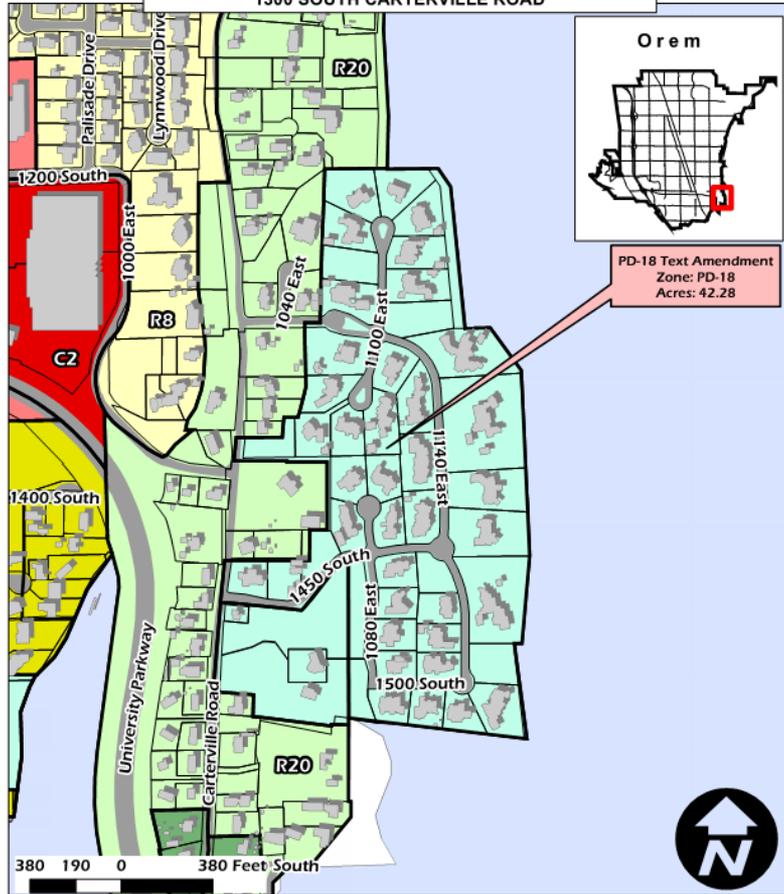


PUBLIC HEARING – Amending Section 22-11-30 of the Orem City Code by enacting subsection (Q) pertaining to grading requirements in the PD-18 zone at 1300 South Carterville Road and enacting Appendix PP of the Orem City Code.



PD-18 Zone Text Amendment

1300 SOUTH CARTERVILLE ROAD

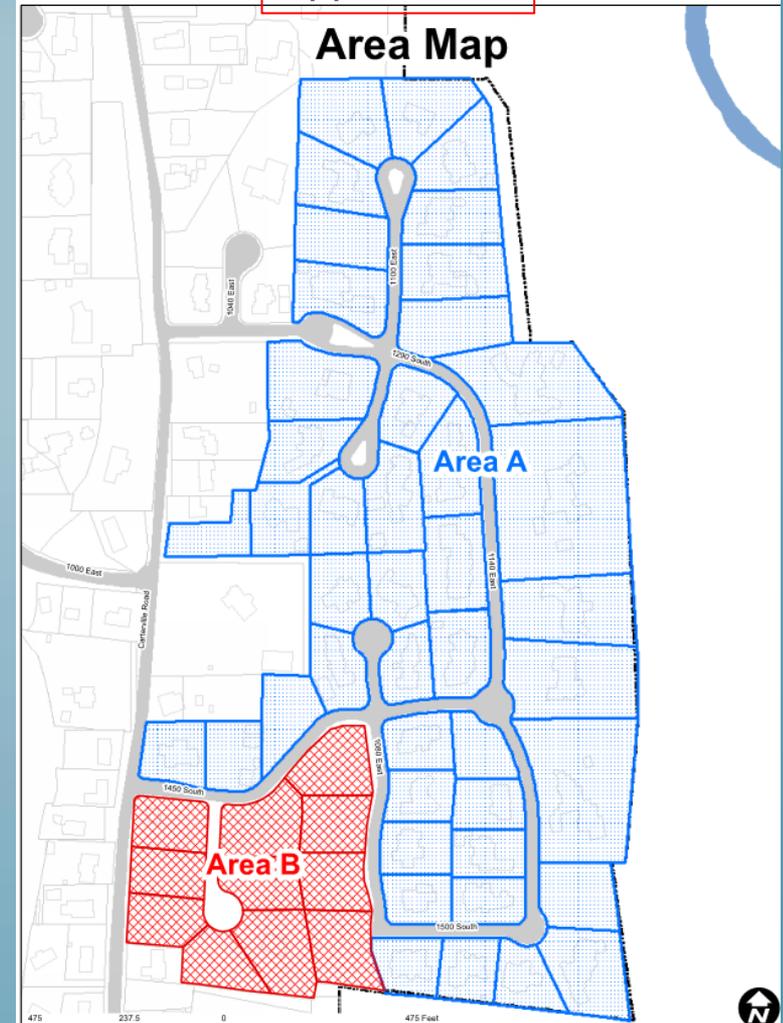


NIA CONTACT:
Devon Holt
Hillcrest Neighborhood

Legend
Buildings
Parcels

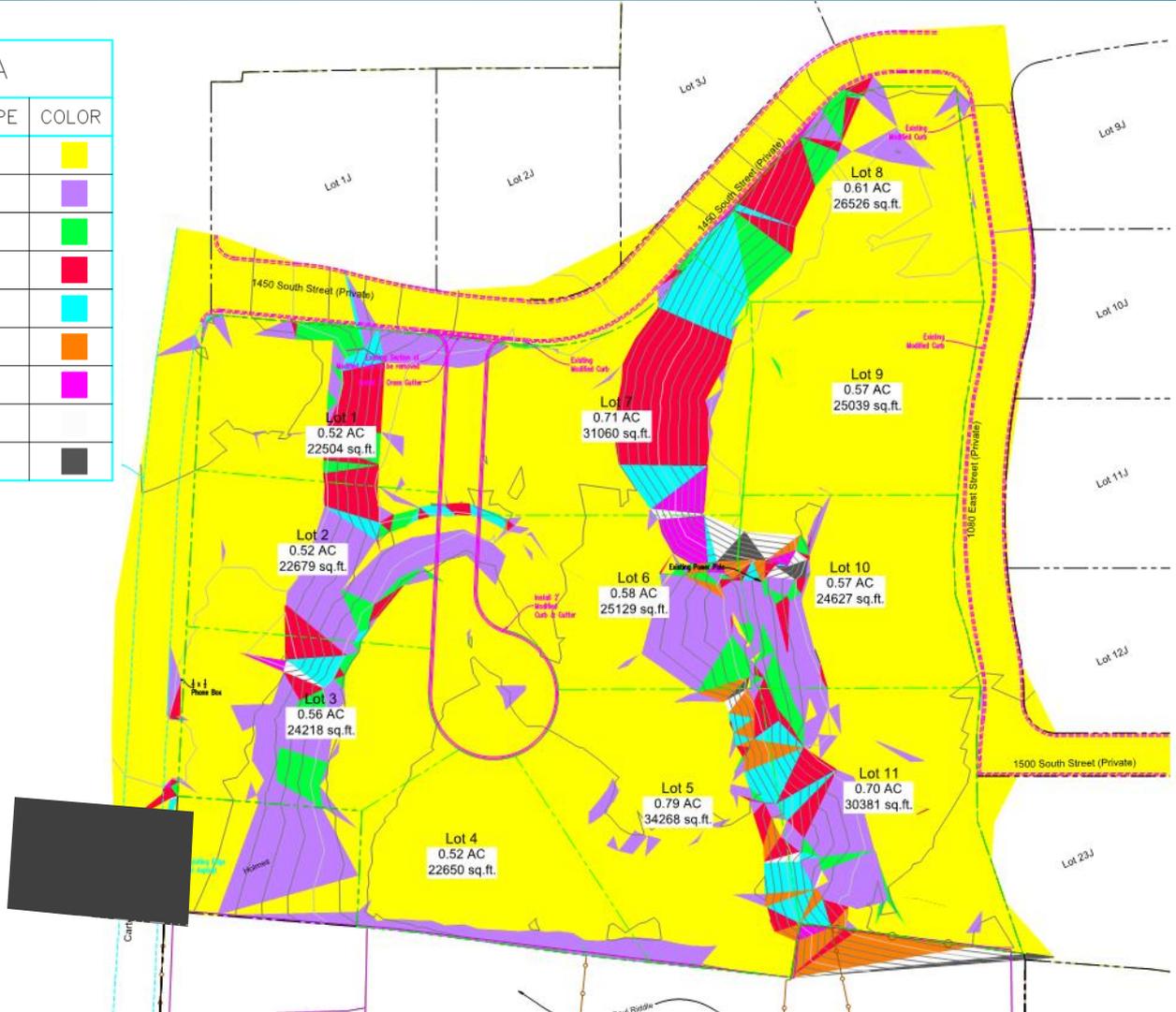
Code Changes

- Proposed changes apply to Area B only
- Slopes over 25% require a geologic and geotechnical report pertaining to the relevant slope area by a qualified licensed engineer; and meets all the technical requirements outlined in the ordinance which includes slope stability analysis, seismic slope stability and measures taken to effectively build/grade on an affected site
- Grading may be done on slopes greater than 25% subject to the requirements outlined in the code.
- Requires City Engineer approval



SURFACE SLOPE DATA

NUMBER	MINIMUM SLOPE	MAXIMUM SLOPE	COLOR
1	0.000%	10.000%	Yellow
2	10.000%	20.000%	Purple
3	20.000%	25.000%	Green
4	25.000%	30.000%	Red
5	30.000%	35.000%	Cyan
6	35.000%	40.000%	Orange
7	40.000%	45.000%	Magenta
8	45.000%	50.000%	White
9	50.000%	60.000%	Black



Q. Lot Grading.

1. **Definition of Grading.** For the purposes of this Section, grading shall be defined as any work including filling, cutting, excavation or relocation of material which affects the contour, slope, elevation or drainage features of a parcel of property.
2. **No Grading of Land With 25% Slope or Greater Without Permit from City Engineer.** No person shall be permitted to grade, cut, excavate, fill, or to erect any structure on any land with a slope equal to or greater than twenty-five percent (25%) without first obtaining a permit therefor from the City Engineer.
3. **Application for Permit.** Any person proposing to grade, cut, excavate, fill or to erect any structure on any land with a slope equal to or greater than 25% shall submit a geologic and geotechnical report pertaining to the relevant slope area that meets the following requirements:
 - a. The report shall be prepared by a qualified, licensed engineer.
 - b. The report shall include boring logs, geologic cross sections, trench and test pit logs, laboratory data (particularly shear strength test results including individual stress- deformation plots from direct shear tests), discussions pertaining to how idealized subsurface conditions and shear strength parameters used for analyses were developed, analytical results, and summaries of the slope stability analyses and conclusions regarding slope stability.
 - c. Subsurface geologic and groundwater conditions must be illustrated on geologic cross sections and must be utilized by the geotechnical engineer for the slope stability analyses. If on-site sewage or storm water disposal exists or is proposed, the slope stability analyses shall include the effects of the effluent plume on slope stability
 - d. The results of any slope stability analyses must be submitted with pertinent backup documentation (i.e., calculations, computer output, etc.). Printouts of input data, output data (if requested), and graphical plots must be submitted for each computer-aided slope stability analysis. Stability shall be analyzed along cross sections depicting the most adverse conditions (e.g., highest slope, most adverse bedding planes, shallowest likely ground water table, and steepest slope). In addition to static slope stability analyses, slopes shall also be evaluated for seismic slope stability.
 - e. Design ground motion parameters for seismic slope stability analyses shall be based on the peak accelerations with a 2.0 percent probability for a M>7 surface faulting earthquake in 50 years (2,500-year return period). Peak bedrock ground motions can be readily obtained via the internet from the United States Geological Survey (USGS) National Seismic Hazard Maps, Data and Documentation web page (USGS, 2002), which is based on Frankel et al., 2002. PGAs (peak ground acceleration) obtained from the USGS (2002) web page should be adjusted for effects of soil/rock (site-class) conditions in accordance with Seed et al. (2001). Site specific response analysis may also be used to develop PGA values as long as the procedures, input data, and results are thoroughly documented, and deemed acceptable by the city.
4. **Conditions for Granting of Permit.** The City Engineer shall grant a grading permit if the following requirements are met:
 - a. A complete application containing all of the information required above is provided to the City Engineer.
 - b. The geologic and geotechnical report clearly demonstrates that the following requirements are met:
 - (i) The minimum acceptable static factor of safety is 1.5 for both gross and surficial slope stability. The minimum acceptable factor of safety for a calibrated pseudostatic analysis is 1.0 using the method of Stewart, J.P., Blake, T.M., and Hollingsworth, R.A. (2003), Development of a Screen Analysis Procedure for Seismic Slope Stability: Earthquake Spectra, 19 (3), pp. 697-712.
 - (ii) The proposed grading of the slope area will not negatively affect adjacent property and will not limit the ability of adjacent property owners to develop their property.
5. **Applicability.** This section (Lot Grading) shall only apply to “Area B” of the PD-18 zone as shown in Appendix “PP.”

RECOMMENDATION: The Planning Commission recommends the City Council, by ordinance, amend Appendix of the Orem City Code by enacting Appendix PP and amend Section 22-11-30 of the Orem City Code by enacting subsection (Q) as it relates to grading requirements in the PD-18 zone at 1300 South Carterville Road. Staff supports the recommendation of the Planning Commission.