

the ground examined, and lines surveyed on a scale of two inches to the mile. Secondly—A sheet of Profiles marked No. 5. and comprehending profiles of the route surveyed, of the deviations from that route, and of all the Feeder lines belonging to it. Third, A general map on a scale of one inch to the mile, (since engraved,) embracing as well the above route, as all the other routes surveyed this season, in connection.

INSTRUCTIONS.

WASHINGTON, June 20, 1838.

Sir:—The State of Maryland has required surveys to be made in order to ascertain the practicability of a route for a canal between the Chesapeake and Ohio Canal and Baltimore by the most northern of the routes by the vallies of the Monococy and Patapsco, or by a route diverging from the Chesapeake and Ohio Canal at the mouth of Seneca river, exclusively within the State of Maryland. The superintendence of these surveys has been placed under my direction.

“The particular line committed to your care is the one which will pass through the valley of the Seneca, and which crosses the dividing ridge between the waters of that river and those of the Patuxent in the vicinity of Annapolis Rock.

“It is extremely desirable that results sufficient to determine upon the practicability of this route, in reference to its supply of water, should be ascertained in time for a report during the ensuing winter, and as the most interesting part in reference to that supply is the summit section you will repair as soon as practicable to the summit and devote your first attention to that section.

“By the summit section I mean that extent of the canal which will have to depend upon summit water for its supply, together with the lockage required at each extremity, until the line is sufficiently depressed to receive water from secondary sources of supply.

“Your first effort will be therefore to ascertain the best passage through the ridge for the canal, whether by tunnel or open cut, the length of canal at each extremity of the summit pass down to secondary supplies of water, the number of locks required at each extremity of the summit pass to that point, the most favorable position for these locks, avoiding with the greatest care contiguous locks, or locks so adjacent to each other as to interrupt the navigation, on the withdrawing of a lock full of water from the intermediate levels or basins.

“This route will be staked out with stakes sufficiently permanent to admit of a continuation of the survey during the next season and will also be further secured by frequent benchmarks upon permanent objects.

“Your next effort will be to determine the quantity of water which can be commanded for the summit section, the extent and number of reservoirs which will have to be made, the means of all-