## YOU THINK YOU HAVE PROBLEMS!

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Dedication, perseverance and originality helped Portland's parks department overcome almost insurmountable problems in building the Delta Park course

by Robert Trent Jones, who has the reputation of being one of the top golf course architects in the world. The course was designed so that it would be playable to the average golfer and yet be of championship quality for the professional.

The natural topography was completely flat with less than three feet elevation between the highest and lowest points. To help give the course shape and character, 350,000 cubic yards of earth were moved to build tees and mounds for the fairway, gallery and greens. The natural ponds and sloughs were deepened and shaped to provide six lakes totaling 21 acres with gracefully sculptured shorelines. A significant reduction in cost was realized by using, as part of the drainage system, the sanitary sewers remaining after the demise of Vanport City. Good drainage is absolutely necessary because Portland gets 40 to 50 inches of rain each winter.

When a park bureau organization, which is usually involved only in maintenance, takes on a construction job such as this one, it is bound to have many problems, and building Portland's Delta Park course has proved this to be true.

Because of the lack of actual golf course construction experience of the men, many of the difficulties encountered required solutions that, as far as the people involved were concerned, were original and unique. This problem was solved by keeping very close contact among the project supervisor, the foreman and the men, and maintaining a two-way flow of information so that all involved would be aware of both progress and setbacks. The goal-oriented team effort was also successfully used.

Debris and rock left after the flood, which swept away the city of Vanport, was a continual irritant. Just when a fairway was leveled and ready for seeding, the equipment would hook a water pipe, bedspring or building foundation. Removing the offending object would expose rocks, dirt clods and other debris and the seed bed preparations would again have to begin.

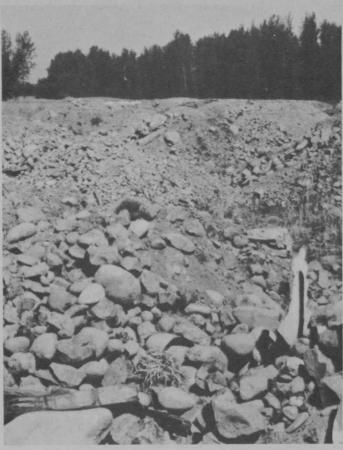
In spite of the unusual problems, this project was completed on schedule and will be one of the finest golf courses in the Northwest.



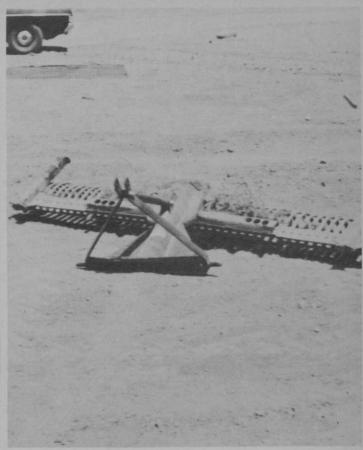
Metal and concrete were all that was left of the city of Vanport, the site on which Delta Park was built. The city housed 40,000 shippard employees and their families during World War II. In 1948 it was obliterated by flooding from the Columbia River.

Senior engineer Allyn Staley, who headed up construction, examines the remains of a materials storage building burned by vandals.





for the streets, foundations and driveways of Vanport City.



Rocks were everywhere. They had been originally brought in as a base One of the most invaluable pieces of machinery that was used on the construction site was this rock rake.

Another piece of machinery that was used extensively during construction was a rock picker. It is estimated that 30,000 tons of rock and concrete have been removed in preparation for planting greens and fairways.

