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Willamette River Water Treatment Plant - Wilsonville, Oregon [EDRA / Places Awards, 20004 -- Design]

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Willamette River Water Treatment Plant — Wilsonville, Oregon

Miller/Hull

Public works were once a source of pride in a community, designed with prestige to proclaim the dignity of public needs. But in the last half century such projects have lost much of their pride of place. Stripped of all design expression other than explicit functionality, they are often tucked away in forgotten corners of towns, or hidden behind fences that disguise their important public purpose.

Designed for the utmost economic efficiency, such facilities are today likely to be perfect nonplaces, largely identical across the country, with little to inspire a community or express local identity.

In their design for the Willamette River Drinking Water Treatment Plant in Wilsonville, Oregon, MWH Global teamed up with Miller/Hull and landscape architect Bob Maruse to create a project that attempts to put the "public" back into public works.

Infrastructure as Place

The story of the Wilsonville treatment plant began in routine fashion. Faced with a building moratorium because of an inadequate water supply, the city, located south of Portland, was faced with the need to build a new facility if it was to continue to grow. Following a predictable course, it hired MWH Global, a design/build engineering firm with lots of experience constructing such facilities in the northwest and around the world.

The preliminary design/study for the plant followed the status quo for such projects. It proposed a series of anonymous boxes hidden behind a fence, a design whose very purpose was to be obscure. Yet, considering the Willamette's long history of use for logging and agriculture, the idea of treating its water for municipal use was fairly revolutionary. Furthermore, when the decision was made to go ahead with the project, the city council directed that the plant should become an asset, not a detriment, to the neighborhood in which it would be located. That was when the public works department asked MWH Global to hire Miller/Hull of Seattle as an design partner.

It was under these circumstances that architect Robert Hull, along with landscape architect Bob Maruse, developed the idea of bisecting the site with a "garden wall." In practical terms, such a wall might allow separation of space for current and future water-treatment equipment and a public park and information center. But it would also provide a bold form in the landscape that would proclaim the plant's importance as a source of community pride.

Today the project bears witness to a fruitful collaboration between specialist and nonspecialist, engineer and designer. The site is divided along an 800-ft. cast-in-place concrete wall that runs perpendicular to the Willamette. To the east, between a small berm and the wall, the site houses the 15-million-gallon-per-day drinking-water

EDRA/*Places* Awards 2004

In this issue we present the EDRA/*Places* awards for 2004. These awards, in design, planning and research, highlight the multiple and diverse efforts that are today helping build a basis for our professional and academic endeavors and change the culture of accomplishment. They embody the imaginative, disciplined, persistent thought that will transform our respective fields and improve our environments—not by edict, not in a flash, but with patient meticulous care.

The jury for the 2004 EDRA/*Places* awards was held April 2-3 at the University of Pennsylvania. EDRA and *Places* would like to thank the Graduate School of Fine Arts there, and its dean, Gary Hack, for serving as host, and for continuing to support the awards program. The 2004 jury was composed of:

Ray Gastil, Executive Director, the Van Allen Institute
Roberta Gratz, Author, *The Living City* and other books
Jack Nasar, Professor of Planning, the Ohio State University
Mary Miss, Artist, New York City
Ken Smith, Ken Smith Landscape Architects, Harvard University
James Timberlake, Kieran Timberlake Architects, University of Pennsylvania.

In recognition of the superior quality of design entries in 2004, the jury chose to award three design prizes, two planning prizes, and one research prize. The selection also reflected the jury's view that much good ongoing research was not submitted to the competition in 2004. They pointed to a particular lack of entries from the technological side of architecture, from such areas as low-income housing, and in the area of behavioral research as applied to design.

Asked to sum up the 2004 awards, several jurors commented on the provocative nature of the projects selected. As provocations, they challenge established ways of viewing the built environment and conceiving of changes to it. Their wide geographic location and topical focus also reflected the great range of entries received. EDRA and *Places* would like to thank all who entered their work in the 2004 awards cycle, and encourage future submissions.

facility. Water is pumped up from the river and then flows down behind the wall through a series of filters and purification tanks. At the end of its journey it is stored in an underground tank, where it is pressurized and sent to the homes of Wilsonville.

Meanwhile, the west side of the site is open to the public as a park, and incorporates a number of community facilities and interpretive elements. These include a meeting room attached to a 6,000-sq.ft. laboratory and administrative building that is available for public use in the evenings. Then, moving toward the river, a series of small windows allow residents to look into the treatment facility, and display boards explain the processes that make the river water safe to drink: ozone generation, sedimentation, ozonation, filtration, and clear water storage.

The public side of the wall also houses two shaded picnic pavilions with tables large enough to be used by student groups. These are linked by a path that terminates in a viewpoint over the river, from where a trail through a natural area also provides public access to the river. The city has designated the banks of the Willamette as public green space, and trails link the water-treatment park to other parks and community spaces in the city.

Along the garden wall are also a series of plant-filled ponds that collect stormwater from the site, and which expand the river's riparian zone and wildlife corridor. As in the purification area, water is pumped to the top of this area. It then flows down through a series of ponds and waterfalls to provide a natural metaphor for the artificial processes on the other side of the wall. Jeff Bauman, Public Works Director, says the water feature has also been a big hit among local residents because it drowns out noise from the nearby Interstate highway bridge.

The Future of Public Works

As a public works project that both teaches and entertains, Wilsonville residents today recognize their treatment plant as a special place. It celebrates the link between the town and the river, and the quality of its details and site design are a source of community pride. Furthermore, according to MWH, perceptions of the water quality in the town have risen now that the public can see where its water is coming from.

In an era when such facilities are seen as possible terrorist targets, it is curious that the first inclination of many cities would be to make them even more anonymous. Should the possibility of terrorism threaten the relationship between the public and its public works? Or should it rally public agencies to want to strengthen this relationship? Greater awareness of public works can be seen as an attribute because it brings them more into the public eye.

The Willamette River Treatment Plant is typical of a new trend in infrastructure design that seeks to give presence to the hidden processes of public life. As evident here, the best of such facilities are also allowing residents to become more aware and knowledgeable of the dichotomy between the artificial technologies and natural processes that make their common life possible.

—*Chris Sensenig*

Above Left: View from the bottom of the park to the glassed conference room in the facility's administrative building. The room is also used as a site for after-hours community meetings.

Above Right: The 800-foot-long concrete wall defines the slope of the site by keeping a constant datum line. It begins 4 feet high and grows to 20 feet. The wall is 10 inches thick and capped with a galvanized plate to prevent rain from staining the concrete, an important detail in the northwest climate.

Previous: Pools and cascades of water are used in the public park area to refer to the artificial purification processes taking place on the other side of the wall. The picnic shelter is at the left.

JURY COMMENTS

GRATZ I think this is fabulous. It's a great design. It's involving the public. It's turning a sow's ear into a silk purse, if that can be said to be done.

SMITH It's not cutesy. It doesn't do trick stuff. It's infrastructure.

MISS I think it's too designy. But I do like making the wall into a constant with the river alongside it. I'd be more interested in what it would be like to just walk along the wall.

SMITH The comment I made in my notes is that the photographs didn't do it justice. They are all architecture magazine photographs, and there wasn't a single one that really captured that experience of seeing through the windows into the plant. There wasn't a single photograph that actually did what the project was about.

GRATZ I wouldn't penalize it for having the wrong photographs. If we can see what an experience is going to be, then the project is speaking for itself.

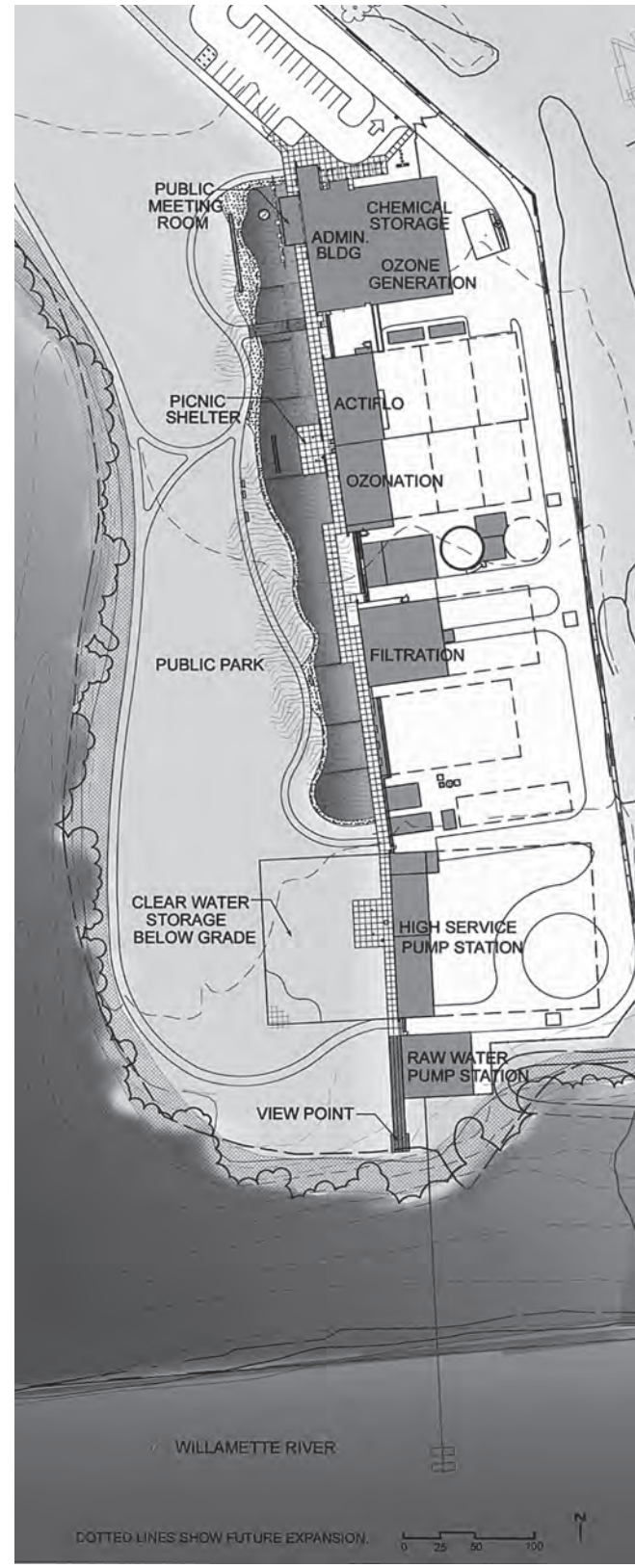
MISS I think they have really made that point clearly.

TIMBERLAKE You can see the dichotomy of what happens to the water. I think that's striking.

GRATZ The whole idea of being able to design well the transformation of a water treatment plant into a real place where they are obviously holding meetings, as well as a place for different experiences…it's an incredible lesson.

SMITH They're not hiding it, they're not redecorating it. They're revealing it. It may be a bit overdesigned, but basically they do all the right things.

GRATZ It's a direction that's very useful for all sorts of infrastructure. A redesign of negative infrastructure into positive places.



Right: The site plan shows how the wall divides the project between park and treatment plant. To the east, future expansion of the facility is possible by adding new equipment perpendicular to the wall.

Project Credits

Architect: Miller/Hull, Seattle, WA
Robert Hull, FAIA
Joyce Too, Project Manager
Engineers: Montgomery Watson Harza, Portland, OR
Landscape Architect: Murase Associates, Portland OR
General Contractor: Montgomery Watson Harza, Portland, OR
Photographers: Eckert & Eckert, Portland, OR