

# Public Works

## D I G E S T

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U.S. ARMY INSTALLATION MANAGEMENT COMMAND

# IMIGOM

An Army lodge (foreground) and a bowling alley (background) are under construction at U.S. Army Garrison Grafenwoehr, Germany — part of efficient basing efforts in Europe. Photo by Andrea Hoesl, Directorate of Public Works, Grafenwoehr. Page 18



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# Form-based codes: a visual guide

by Mark L. Gillem

**S**ustainable planning and development requires installation planners to relook how they are master planning installations. It requires that planners focus on developing great places and then focus on site-specific planning principles. This process is why area development planning is so important to successful planning.

A critical aspect of area development planning is the creation of a set of “form-based codes” that define the criteria for siting and development for an area. Form-based coding, while allowed by current Army master planning policies, is an optional planning technique used by many installations to better manage base development. However, as more and more sustainability initiatives are matured, there will be more use of form-based coding. This article provides a short overview of the principles of form-based codes and their role in achieving great plans.

Form-based coding guides the development of appropriate building densities and building forms needed to support sustainable development and the installation planning vision. Form-based coding also adds flexibility and specificity to the planning process.

The code is designed to support a sustainable building form, which is a form that supports current and future mission requirements, ecological needs and fiscal priorities. The form that the code supports reflects mission needs, program requirements, environmental constraints and opportunities, and other development factors.

The elements of the code include traditional illustrative plans that graphically show potential development that supports the planning vision. These plans show building footprints for short- and long-term requirements, roads, sidewalks, street trees, open spaces and parking areas. Underlying this approach is a regulating plan that provides clear parameters for height, massing and siting requirements for each parcel of land.

The intent is to regulate only the most important elements of the illustrative plan, such as build-to lines, required entry and parking locations, minimum and maximum building heights, and acceptable uses. The regulating plan is a natural evolution of and replacement for the traditional land-use plan, because it addresses land uses and building form together. In addition, the regulating plan provides specific guidance that shapes development to conform to the installation’s planning vision.

Supporting these plans are building standards that specify acceptable massing, height, fenestration and uses; circulation standards that describe and graphically present allowable street types and circulation elements in plan and section; and landscape standards that show, at a minimum, appropriate type and placement of primary landscape elements, which includes natural landscape features like trees and ground cover, and manmade landscape features such as street furniture, signage and lighting. Illustrative renderings may also be used to show the desired character of development.

Planners have tested this approach at Fort Lewis, Wash., and Marine



*This Fort Lewis, Wash., illustrative rendering demonstrates the transition from vacant lot to sustainable neighborhood using form-based coding. Graphic by The Urban Collaborative LLC*



# How to manage change as Army planning policies evolve

by Jerry Zekert

The update to Army Regulation 210-20, *Real Property Master Planning for Army Installations*, is expected to be published in early 2010. The beauty of the update is the recognition that installation plans are not static documents, but rather evolving documents that will change over time. Therefore, while it is appropriate for installations to integrate the requirements of the revised regulation into the next update of their real property master plans, the changes can be done incrementally as resources permit.

What is the best method for updating existing installation master plans? Here are 10 steps that you can use to update installation planning documents —

1. Update vision, goals and objectives.
2. Create the framework plan.
3. Identify districts that require updated area development plans that will meet projected requirements and comply with Army planning tenets.
4. Prepare or update the vision, goals and objectives and analyses in Part 1 of the RPMP digest.
5. Update the installation design guide.
6. Update the long-range component using existing and new area develop-



Jerry Zekert  
Photo by Mary Beth Thompson

ment plans as required.

7. Consolidate existing and new area development plans into the installation development plan. Prepare network plans for street systems, parks and open spaces, pedestrian and bicycle networks, and primary utility networks. Once the installation has completed area development plans for priority districts, it can integrate them into the installation development plan. Note that these area development plans can be from existing work effort or new effort.
8. Integrate area development plans project listings into the installation's capital investment strategy.
9. Complete the RPMP digest.
10. Monitor and amend plan as needed.

Planners need, to the maximum extent possible, to reuse data and graphics from the existing installation master plan and reformat to comply with the requirements of this regulation.

Existing mission statements, visions, goals, objectives and other descriptive data may be current and reusable. Data in the existing capital investment strategy and installation design guide may require minor modification to comply with the new format.

Elements of the existing long-range component can also be reused where they still apply. If area development plans have been established, continue to use them and create new plans as necessary to bring them into compliance with the regulation.

Change always occurs, and you can initiate the journey to creating great installation master planning products. It doesn't take a lot of work. By starting with great visions, goals and objectives for real property development and setting the framework plan, you have set up the process for an exciting planning effort for your installation.

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## Acronyms and Abbreviations

RPMP	real property master plan
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Corps Air Station Iwakuni, Japan, and the results have been very promising. The code gives planners some help in maintaining the vision while flexibly guiding future development.

With a form-based code, planners can rewrite and regulate more effectively the development that occurs on their installations. They can give the code to tenant organizations and contractors. Finally, the code is like a recipe for development that uses the same ingredients, e.g., streets, buildings and

landscape elements, that would normally lead to sprawl and reorganizes those elements to create more sustainable installations.

The Army is in the final process of updating Army Regulation 210-20, *Real Property Master Planning for Army Installations*. Expected in early 2010, the update will transition the Army away from sprawling development to a compact area development planning approach implemented through form-based coding. These techniques enable base development to be consistent while meeting the Army's and the nation's

goals for sustainable development and preserving long-term installation military capabilities.

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