

ENGINEERING & CONSTRUCTION Bulletin

Issue No. 2018-04

April 24, 2018

Type: Policy

Subject: Categories of Work Classification

Enclosures: Categories of Work Classification Guidelines

Cancellation: ECB 2006-04 Capital Improvements Categories of Work Classification

1. Purpose

This Engineering and Construction Bulletin (ECB) supersedes the issued ECB 2006-04 dated 11 May 2006 which addressed the Categories of Work Classification Policy for the Capital Improvements (CI) and Public Works (PW) Business Lines. This ECB will update and clarify the risk-based criteria process for classifying both in-house and contracted projects based on the level of NAVFAC design and engineering.

NOTE: ECB 2006-04 also addressed the construction oversight aspect which has been removed in this policy. The construction oversight aspect and guidance is currently in many of the Business Management System (BMS) processes, NETOPS and CI Business Operations Plans, which more appropriately address varying performance levels due to available resources.

2. Background

In an effort to improve productivity and reduce production cost to deliver NAVFAC's products and services, there has been a renewed focus to eliminate redundancy and/or unnecessary efforts associated with planning, designing, procuring, and sustaining facilities for Supported Commands. NAVFAC's goal is to safely and responsibly deliver Capital Improvements' products and services with the right amount of engineering through either in-house or contract execution at the optimum life cycle cost.

3. Applicability

This ECB is effective immediately for all projects executed by NAVFAC at US Navy and Marine Corps installations both Continental United States (CONUS) and Outside Continental United States (OCONUS).

4. Policy

A. In conjunction with PW, CI, and Asset Management (AM) the following matrix shall be used to accurately determine which Business Line (BL) is responsible for leading the various phases of the project.

Project Classification Matrix – Four Categories of Work

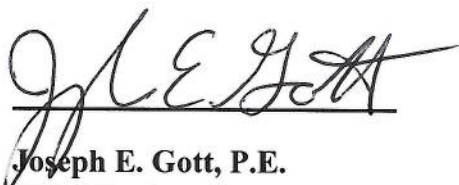
Work Category	Project Development / Requirements	Pre-Award Design/Engineering Effort (BL Responsible*)	Pre-Award Schedule & Tracking
I	Programmatic (AM)	Multi-Discipline Design (CI)	eProjects
II		Tailored Design (CI)	eProjects
III	Scoping (PW)	Limited Engineering/ No Design (PW)	eProjects*
IV		None (PW)	eProjects*

*NOTE: For CAT I/II/III/IV projects, all pre-award schedules and tracking are done in eProjects by both CIBL and PWBL for work executed by contract. If a CAT III/IV project is to be executed by in-house shop forces, the project is managed in Maximo.


- B. For further support of the Project Classification Matrix – Four Categories of Work, please see Enclosure (1).

5. Point of Contact

This policy has been coordinated with NAVFAC HQ Public Works, NAVFAC HQ Asset Management and NAVFAC HQ Capital Improvements. For further guidance and/or instructions, please contact Mr. Trip Fitch, P.E., 757-322-4233, within the Chief Engineer's Office.



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Enclosure 1 - Categories of Work Classification Guidelines

This enclosure is provided as guidance for classifying design and engineering work. The following list of project examples is provided for reference only and is not all-inclusive. Characteristics could result in actual projects being classified differently (for example, a fencing project may not always be classified as Category IV if circumstances dictate a higher level of design/engineering). Projects including any traditional design (full plans, specifications, and cost estimate for DBB projects; or 6-part Request for Proposals (RFP) for DB projects) must be classified as either Category I or Category II, and as such must accrue DIP on an E2 eProjects record and must be executed by CIBL.

DEFINITIONS:

Design is defined as the development of plans and/or specifications to execute a construction or renovation project. Typical design product is construction contract documents such as traditional design documents (full plans, specifications, and cost estimate for DBB projects; or 6-part Request for Proposals (RFP) for DB projects).

Engineering is the analysis and evaluation of alternatives that results in a set of recommendations to solve a problem. Typical engineering output is a report or letter.

The lead BL for execution is determined by the Product & Service (P&S), as defined in the P&S Matrix in NAVFAC NOTICE 7040.5. For Category I and Category II projects, CI is the lead only when the P&S is inducted as an E2 or an E5 eProjects record. Other BLs have the project management lead for their P&S.

Characteristics and examples of the four categories of work are provided on the following pages of this enclosure:

Category I	Multi-Discipline Design
Category II	Tailored Design
Category III	Limited Engineering – No Design
Category IV	No Engineering

A. Category I**a. Characteristics of a Category I Project – Multi-Discipline Design**

1. High financial, schedule, and/or life safety risk
2. Usually MCON, MILCON, BRAC, HSG, large O&M,N or O&M,MC
3. Local, State, Federal, or National Environmental or usage permits required
4. SHPO consultation needed
5. Building and/or site approval required
6. Primarily multi-discipline design requirements
7. New construction or major renovation/repair/restoration
8. Complex design, plans & specs, calculations, site investigation, or studies required
9. Includes equipment/systems installations that incorporate leading-edge technology

b. Examples of Typical Category I Work

1. Air Terminals
2. Aircraft Acoustical Enclosures
3. Aircraft Engine Test Facility
4. Aircraft Hangers*
5. Armories*
6. Bridges
7. Bachelors Enlisted Quarters (BEQs)*
8. Child Development Centers (CDCs)*
9. Computer Systems Facilities
10. Controlled Industrial Facilities
11. Corrosion Control Hanger
12. Detention Facilities
13. Dining Facilities*
14. Dry-docks
15. Electronics Testing Facilities
16. Elevator Installations or Replacements
17. Energy Projects Requiring Plans & Specs, e.g., Multiple Energy Management Control Systems (EMCSs)
18. Entry Control Facilities*
19. Exchanges/Commissaries
20. Exterior Electrical Distribution
21. Fire Stations*
22. Fitness Centers*
23. Fleet Mooring
24. Flight Simulator Facilities
25. Galleys
26. Gas Stations
27. Gymnasiums
28. High Security Facilities
29. Hobby Shops
30. Hospitals
31. Housing Construction/Revitalization, PPV

32. Hyperbaric Facilities
33. Indoor Firing Ranges
34. Jet Engine Test Cells
35. Magazines*
36. Maintenance Facilities
37. Major Renovations/Additions
38. Medical/Dental Clinics
39. Multi Story Transient Lodgings
40. Multi-Story Administrative Facilities
41. Nuclear Handling or Support Facilities
42. Offshore Structures
43. Ordnance Testing and Evaluation Facilities
44. Piers
45. POL Facilities
46. Power Plants
47. Ranges, small arms
48. RDT&E Support Facilities
49. Sea Walls / Bulkheads, Wharves, and Breakwaters
50. Security Engineering, Planning, Design and Construction
51. Sewage Treatment Facilities
52. Tanks, Elevated Water
53. Tanks, Fuel
54. Technology Demonstration, validation, assessment, and Transfer
55. Theaters
56. Towers, Communication
57. Training Buildings
58. Underwater Cable Facilities
59. Water Treatment Facilities

*NOTE: Model DB RFPs templates exist on the Whole Building Design Guide for these facility types. See link below:

http://www.wbdg.org/ndbm/model_rfps.php

B. Category II

a. Characteristics of a Category II – Tailored Design

1. Substantial financial, schedule, and/or life safety risk
2. Usually large O&M,N or O&M,MC/ Special Project, but could be MCON, MILCON, BRAC, HSG
3. Local or State environmental or usage permits may be required
4. Building and/or site approval required
5. Limited number of design disciplines
6. Renovations and/or new construction
7. Design obtained through combination of Designer of Record- and Contractor-furnished documents. Routine design, plans and limited specs (supplemented by contractor furnished shop drawings & submittals), site investigation or studies

8. Includes installation, replacement or repair of equipment/systems that incorporate conventional technology

b. **Examples of Typical Category II Work**

1. Airfield Paving repair, Asphalt or Concrete
2. Alarms, Fire Protection, new installations/replacements/relocations
3. Bridges, Pedestrian
4. Building structural systems, single story and/or modifications
5. Building, Pre-engineered
6. Control Systems, new installations & system replacements/upgrades requiring design or engineering
7. Conveying Systems
8. Conversion of Space
9. Demolition, only if analysis or design is required (partial structure to remain) or follow-on construction is involved
10. Dredging
11. Electrical, Standby Generator Systems/UPS
12. Energy Projects for Single EMCS System
13. Erosion Control
14. Equipment, Playground
15. Exterior Insulation Finish System
16. Fences, Security, ATFP (analysis may be required to design system for threat, i.e. deadman spacing, cable diameter, etc.)
17. Fire Protection System, installation/replacement
18. Foundations, reinforced
19. HVAC System Replacements/Upgrades, > 5 Tons
20. Ocean Construction
21. Paving, Asphalt, Overlay, large repair
22. Paving, Concrete, Replacement, large repair
23. Plumbing, multi-story
24. Renovations (analysis of existing structure may be required)
25. Residential Housing
26. Road Construction
27. Runway/Taxiway Lighting
28. Signals, Traffic
29. Skylight, roof
30. Specialty Engineered Products and Systems
31. Stairs, multi-story or not pre-engineered single story
32. Storm Drainage
33. Sports/ Athletic Fields e.g., baseball field, running track
34. Sprinklers, Fire Protection Warehouse, General Storage
35. Utility Upgrades
36. Walls, partition, no ingress/egress issues
37. Waterfront Facilities, Inspection, Maintenance and Repair
38. Windows, replacement

C. Category III

a. Characteristics of a Category III Project – Limited Engineering – No Design

1. **NO DESIGN:** Any project requiring design shall be inducted as an E-2 eProjects record (accruing DIP) and classified as a Category I or II effort.
2. Moderate financial, schedule, and/or limited/very low life safety risk
3. Local environmental or usage permits required (No State or Federal)
4. Building and/or Site approval typically not required (exceptions may elevate work to Category II)
5. No plans and specs; Execute from PWBL Planner and Estimator Scope of work – supplemented by Professional Engineering staff (including Registered Architects) from CIBL (in the Project Management & Engineering Branch of the PWD or via reachback to the CI Core) as needed with catalog cuts and/or narrative descriptions. Primarily minor renovation or repair
6. Basic measurements and limited technical calculations required
7. Includes (in kind) replacement or repair of fixtures, hardware and non-technical equipment

b. Examples of Typical Category III Work

1. Alarms, Fire Protection, replacement in kind, (if replacement triggers analysis by Fire Protection Engineer, project could become Cat II)
2. Carport, prefabricated
3. Control Systems, replace in kind
4. Conveyors, replacement
5. Coolers, Water
6. Doors, Overhead Garage, >100 sf (may require analysis/ study by CIBL via N20, but does not necessarily require an E2; if design is required involving full plans and specifications that would make project a Cat II effort via E2)
7. Doors, Personnel, non-load bearing wall
8. Electrical, receptacles, 120/240v
9. Equipment, Food Service
10. Equipment, Loading Dock
11. Equipment, Security Vault, small stand-alone (large built in security vault triggers design and engineering)
12. Excavation, scoping required
13. Fence, chain link, > 8' high, requires site approval
14. Fence, ornamental, > 6' high
15. Housing Repairs, replace in kind
16. HVAC Package Units, replace in kind, < 5 Tons, ground level
17. Plumbing, replace in kind, single story, residential or administrative
18. Minor Renovation
19. Roof repair, structural repair in-kind (may trigger analysis/ study by CIBL via N20, but does not necessarily require an E2 if merely replacing in-kind; if design is required involving full plans and specifications that would make project a Cat II effort via E2)**
20. Selective Demolition, non-structural building elements

21. Sprinkler Heads, fire protection, replacement in kind, <21 (if replacement triggers analysis by Fire Protection Engineer, project could become Cat II)
22. Stairs, interior or exterior, single flight, pre-engineered
23. Utilities, connect to existing with provider consultation
24. Windows, interior non-load bearing wall

D. Category IV

a. Characteristics of a Category IV Projects – No Engineering

1. Very low financial, schedule, and very low life safety risk
2. No Permits required
3. Execute from client requirements
4. Only minor renovation or repair
5. No structural, electrical (primary distribution system), mechanical (HVAC), fire protection, intrusion detection, anti-terrorism force protection, environmental remediation, or hazard abatement (lead, asbestos) elements
6. May include replacement or repair of fixtures, hardware, and finishes
7. Client works directly with vendor/contractor

b. Examples of Typical Category IV Work

1. Bollards, Protective, Not on Piers or for ATRP Purposes
2. Bumpers, Parking lot (concrete and synthetic)
3. Bus Stop shelter, pre-designed, pre-engineered, no utilities
4. Cabinets, Floor
5. Cabinets, Wall
6. Cable TV receptacles
7. Carpet, Floor
8. Coolers, Water, replacement
9. Countertop, Laminate
10. Countertop, Solid Surface
11. Disposer, Under Sink Waste
12. Doors, Overhead Garage, <100 sf, replacement
13. Doors, Personnel, replacement; applies to non-fire rated doors in non-fire rated walls
14. Driveway, Asphalt, repair or replace
15. Driveway, Concrete, repair or replace
16. Enclosure, Dumpster
17. Fans, Ceiling, replacement in kind
18. Fans, Exhaust, replacement in kind
19. Fence, Chain link, <8' high, requires site approval/fire
20. Fence, Ornamental, < 6' high
21. Fixtures, Lighting, replacement in kind
22. Fixtures, Plumbing, replacement in kind
23. Floor, Ceramic Tile
24. Floor, Hardwood
25. Floor, Vinyl

26. Garage Door Electric Openers
27. GFCI Electrical Receptacles
28. Gutters and Downspouts
29. Handicap Ramp at curbs
30. Handrails/Guardrails, replacement in kind
31. Hardware, Doors
32. Hardware, Windows
33. Heater, Baseboard Electric, replacement in kind
34. Insulation, Duct
35. Insulation, Pipe
36. Insulation, Wall
37. Landscape Sprinkler System
38. Landscaping, <5,000 sf (no change to storm drainage, LID requirements)
39. Mirrors, Wall
40. Motion Detectors (depending on kind/type, if tied into lighting system then should be Cat II)
41. Painting, Exterior, no lead paint removal
42. Painting, Interior, no lead paint removal
43. Parking Lot Line Striping
44. Pavers, Landscaping
45. Paving, Asphalt, Repair in kind (airfield paving repair is Cat II)
46. Paving, Non-structural Concrete, Repair in kind (airfield paving repair or structural concrete repair is Cat II)
47. Roof, Built-Up, repairs with no structural**
48. Roof, Fiberglass Shingle, repair by replacement with no structural**
49. Roof, Standing Seam Metal, repair, no structural**
50. Shelving, light duty
51. Sidewalk, concrete
52. Siding, repair
53. Signage, Architectural
54. Site Preparation, clearing and grubbing, <1.0 ac
55. Stairs, Wood exterior, replacement in kind
56. Ventilators, Roof, replacement in kind
57. Wainscot, interior wall
58. Wall, Ceramic Tile
59. Wall, Vinyl Base
60. Wall, Vinyl Covering
61. Windows, film tint
62. Windows, Storm

**NOTE: Roofing projects may trigger analysis/ study by CIBL via N20 (if at least 51% of the roof is replaced), but may not necessarily require design (E2). If study finds that roof fails to meet 75% of the current code capacity, then an E2 project would be necessary for structural roof repair design, which would make it a Cat II effort. Please contact the Structural Criteria Manager (Mr. Curtis Craven, Telephone 757-322-8143 or E-mail Curtis.Craven@navy.mil) for questions related to the Interim Technical Guidance (ITG 2017-04) on roofing.