

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
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CECW-EC

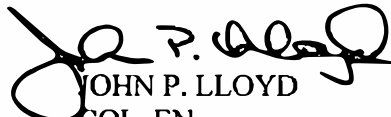
Manual
No. 1110-2-1304

31 March 2021

Engineering and Design
CIVIL WORKS CONSTRUCTION COST INDEX SYSTEM (CWCCIS)

1. Purpose. The purpose of this engineer manual (EM) is to provide historical and forecasted cost indices for use in escalating U.S. Army Corps of Engineers (USACE) Civil Works (CW) project costs.
2. Applicability. This EM applies to all USACE commands having CW design cost responsibilities.
3. Distribution Statement. Approved for public release; distribution is unlimited.

FOR THE COMMANDER:



JOHN P. LLOYD
COL, EN
Chief of Staff

*This manual supersedes EM 1110-2-1304, dated 30 September 2019.

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4. References.

a. Engineer Regulation (ER) 1105-2-100, Planning Guidance Notebook. https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1105-2-100.pdf

b. ER 1110-2-1302, Civil Works Cost Engineering. https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1110-2-1302.pdf

c. Engineer Pamphlet (EP) 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule. <https://www.publications.usace.army.mil/USACE-Publications/Engineer-Pamphlets/u43545q/313131302D312D38/>

5. Records Management (Recordkeeping) Requirements. The records management requirement for all record numbers, associated forms, and reports required by this manual are addressed in the Army's Records Retention Schedule – Army (RRS-A). Detailed information for all related record numbers are located in ARIMS/RRS-A at <https://www.arims.army.mil>. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS-A, see Department of the Army Pamphlet 25-403, Guide to Recordkeeping in the Army.

6. Availability. Cost index and state adjustment tables are available for download at <https://www.usace.army.mil/Cost-Engineering/CWCCIS-Indices/>. An explanation of each index table and an example of how to use the indices are included with the tables on the USACE Headquarters (HQUSACE) website.

7. Policy. ERs, specifically ER 1110-2-1302, CW Cost Engineering, and ER 1105-2-100, Planning Guidance Notebook, require this EM be used to update unit prices and various other project costs to current or forecasted price levels. Before using cost indices to update project costs, check to ensure there have been no changes in the project design, schedule, or USACE policy. The procedure is to re-estimate project costs using current labor, equipment, and material rates at least every two years and use indexed values to escalate for inflation during the interim. Using index values to update project costs more than two consecutive years is not recommended.

8. Use. The indices presented in this manual are specifically designed for CW construction and are specific to each of the major CW features. Only indices for construction costs have been developed. The indices are used to escalate or inflate various project cost features to current or future price levels. State adjustment factors can also be found at the HQUSACE website and allow a project estimated in one state to be adjusted to a project in another state.

9. Basis. A cost index is a normalized average for a given collection of goods and/or services for a given period of time. Cost indices collected over time can be compared to indicate the change in cost between the compared time periods. The base year and initial index value used by this manual is 1967 and 100.00 respectively.

10. Escalation of Project Costs. For programming and budget preparation purposes, project costs are escalated for inflation. Indices used to escalate costs from the past to the present are developed from actual historic data. Indices for future escalation are developed using the “Updating Factors” in table 1 of the EC, CW Direct Program Development Policy Guidance, which are based on the current annual Office of Management and Budget (OMB) inflation factors.

11. Index Tables and Examples. The cost index tables, which are located at <https://www.usace.army.mil/Cost-Engineering/CWCCIS-Indices/>, will be updated each year at the end of both March and September. An explanation of each index table and an example of how to use the indices are included with the tables on the HQUSACE website.

12. Reliability. The user is cautioned that these index tables are made of historic indices and projected indices based on OMB inflation factors. While the historic projections are reliable to update project costs, forecasting beyond two years may be unreliable.

13. Development of Cost Indices and State Adjustment Factors.

a. Historical Basis. The basis for the development of these indices was derived from over 80 detailed Government estimates. These estimates were used in developing the weighted relationship of labor, equipment, and material costs for various types of projects. This weighted relationship was used to develop a composite index for the various projects.

b. Civil Works Work Breakdown Structure Feature Code. The CW Work Breakdown Structure Feature Code can be found in ER 1110-2-1302, CW Cost Engineering. CW cost estimates are summarized by the feature code levels listed in this EM and supporting documents. The feature code indices listed in this manual were developed using the weighted relative costs taken from the 80 cost estimates. However, feature 12, Navigation Ports and Harbors, was prepared using a weighted composite of marine equipment cost, diesel fuel cost, operating labor cost, and Facilities Capital Cost of Money only—and did not use historical cost estimates.

14. Sources Used for Cost Indices and State Adjustment Factors.

a. Office of Management and Budget Updating Factors. The yearly and quarterly projected cost indices are forecasted several years into the future based on the updating factors provided by OMB. They are published each year in table 1 of EC, CW Direct Program Development Policy Guidance.

b. Producer Price Indices. These historic indices are the basis of the equipment and material resource portion of the cost indices. The Bureau of Labor Statistics prepares these indices.

c. RSMMeans, Labor Rates for the Construction Industry and Building Construction Cost Data. The construction labor rate portion of the cost indices is based on the “Average Historical

Labor Rates for 30 Major Cities” for building construction trades wage rates. This data is published annually by RSMeans.

d. Engineering News-Record, Quarterly Cost Reports. The “20-City: Construction Cost Index” is used to calculate the combined dredging index and “20-City: Builders Construction Index” is used to calculate the cost indices. The indices are published monthly by Engineering News-Record magazine.

e. Bureau of Reclamation Construction Cost Trends. The “Turbines and Generators” index in this publication is one of the elements used to calculate the cost indices for Feature Code 07, Power Plants. This index is published quarterly by the Bureau of Reclamation.

f. Engineer Pamphlet 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule. The equipment costs from this publication are used to develop the equipment element part of the state adjustment factors. The USACE updates data for this publication every two years.

g. RSMeans, Heavy Construction Cost Data. The “City Cost Index” installation labor index and materials index are used for the labor and materials portion of the cost indices. This data is published annually by RSMeans.

h. Cost of Money Rate. The Cost of Money Rate (CMR) is used to develop the interest rate in the calculation of the cost indices for Feature Code 12, Navigation Ports & Harbors. The Department of the Treasury adjusts the CMR (Prompt Payment Interest Rate) on or about 1 January and 1 July each year; these revisions are printed in the Federal Register.

15. Assistance. If assistance is required in understanding the methodology or in obtaining updates to the cost index tables at their location on the HQUSACE website, <https://www.usace.army.mil/Cost-Engineering/CWCCIS-Indices/>, contact the Cost Engineering Branch, USACE, Walla Walla District, (509) 527-7510.