Iowa's
Clean Air Attainment Program
(ICAAP)

Application Handbook

Iowa Department of Transportation
Office of Systems Planning
October 2001

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NOTE: ICAAP application form and EPA-recognized vehicle emission factors are attached to this handbook as separate items.

Appendices

I. Program Purpose

The purpose of Iowa's Clean Air Attainment Program (ICAAP) is to help finance transportation projects and programs that result in attaining or maintaining the national ambient air quality standards (NAAQS) of the 1990 Clean Air Act Amendments (CAAA) with a focus on volatile organic compounds (VOC) and nitrogen oxides (NOx), carbon monoxide (CO) and, under certain conditions, particulate matter (PM-2.5 and PM-10). VOC and NOx contribute to ground-level ozone (O_3) formation. ICAAP funds are awarded to projects and programs with the highest potential for reducing transportation-related congestion and air pollution, thereby maintaining Iowa's clean air quality.

II. Program History and Description

The Iowa Department of Transportation (Iowa DOT) created the ICAAP in 1994 and modeled it after the federal Congestion Mitigation and Air Quality Improvement (CMAQ) Program. The ICAAP reflects the spirit of the U.S. Congress in its effort to reduce motor vehicle congestion and realize the goals of the 1990 CAAA.

The CMAQ Program was established as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) for the six-year period (1992-1997) of the act. The program was continued in the 1998 Transportation Equity Act for the 21st Century (TEA-21), which covers the six-year period 1998 through 2003.

The primary purpose of the CMAQ program is to provide funds to states for transportation improvement projects and programs that will assist their designated nonattainment areas and maintenance areas attain the NAAQS for O_3, CO and, under certain conditions, PM-2.5 and PM-10. Air quality nonattainment areas are those that do not meet the NAAQS of the CAAA. Air quality maintenance areas are former nonattainment areas that are now in compliance with the NAAQS. Iowa currently has no designated nonattainment or maintenance areas for transportation-related air pollution.

Therefore, the state may use its CMAQ funds for any eligible project or program specified in the CMAQ Program or the Surface Transportation Program (STP). The Iowa DOT encourages applicants to select projects and programs that are eligible under the CMAQ Program, since they more closely meet the objectives of the ICAAP.

Examples of eligible activities under the program are proposals that improve motor vehicle traffic flow, public transit service and intermodal freight movement; reduce traffic congestion and single-occupant vehicle travel; and help finance the purchase of publicly owned alternative fuel vehicles and bicycle and pedestrian facilities and programs.

The Iowa DOT administers the ICAAP on a statewide competitive application basis and awards federal funds to those proposals with the highest potential for reducing transportation-related air pollution and congestion. Applications for ICAAP funding may be submitted by public entities such as cities, counties, public transit agencies, MPOs, RPAs and state and federal agencies. Private non-profit organizations and individuals may also apply for ICAAP funding, but their applications must be co-sponsored by a public entity.

Total national funding authorized for the CMAQ program by ISTEA and TEA-21, was $6.0 billion and $8.1 billion respectively. The CMAQ funds are distributed nationwide based on each state's share of the population of air quality non-attainment areas weighted by the severity of air pollution. A minimum of one-half percent of each annual federal apportionment is guaranteed to each state. Iowa receives the CMAQ funds under this minimum apportionment provision of ISTEA and TEA-21.

The average annual apportionment of these funds to Iowa under ISTEA was about $4.7 million; under TEA-21 they have been approximately $7.0 million.

The annual apportionments vary from year to year due to Congressional budget considerations. Since ISTEA, and under TEA-21, the Iowa DOT has held the ICAAP funding level at $4.7 million per year with the balance of funds ($2.3 million) directed to the state's Intelligent Transportation System (ITS) Program.

III. Program Administration

The Iowa DOT ‘s Office of Systems Planning manages the Iowa Clean Air Attainment Program. The office: (1) determines the eligibility of applicant-proposals; (2) participates in evaluating and ranking the proposals; (3) presents the ranked proposals and funding recommendations to the Iowa Transportation Commission; and (4) disseminates ICAAP-related information to those interested in the program, including prospective applicants and funding recipients.

The ICAAP Project Evaluation Committee evaluates and ranks the proposals. The committee is composed of five members, one appointed representative from each of the following organizations: Iowa Department of Transportation, Iowa Department of Natural Resources (DNR), Iowa Public Transit Association (IPTA), metropolitan planning organizations (MPO), and regional planning affiliations (RPA). The Iowa Association of Regional Councils (IARC) and the Iowa MPO directors appoint the RPA and MPO representatives, respectively.

The deadline for submitting ICAAP funding applications to the Iowa DOT is September 30 of each year. In the spring of the following year, the ranked proposals, with funding recommendations, are presented to the Iowa Transportation Commission for approval. The commission has final project selection authority.

Proposed ICAAP projects or programs must conform to MPO and RPA regional transportation planning processes and plans, and the MPOs and RPAs must certify such conformance. Applications for ICAAP proposals that cross regional boundaries should include certifications from all affected RPAs or MPOs.

Funding agreements between the Iowa DOT and the ICAAP funding recipients shall be prepared and executed by the Iowa DOT’s District Offices or the Office of Systems Planning for highway-related projects and the Office of Public Transit for transit-related projects.

The Iowa DOT, upon request, will provide project sponsors with ICAAP handbooks and applications, as well as, U.S. Environmental Protection Agency (EPA)-approved VOC, CO and NOx vehicle emission factors.

IV. Priority Use of ICAAP Funds

The Iowa DOT will assign the highest priorities to ICAAP proposals that maximize reductions in vehicle emissions (VOC, NOx, CO, PM-2.5 and PM-10) and traffic congestion. Proposals should result from a strong participatory planning process involving close coordination among the Iowa DOT, MPOs, RPAs, and state and local air quality agencies.

ICAAP proposals should be reflected as high priorities in congestion management system programs or long-range transportation plans. They must be included in currently approved MPO or RPA transportation improvement programs (TIPs) and Iowa's Statewide Transportation Improvement Program (STIP).

Deferral: If the EPA designates an area(s) in Iowa as a "nonattainment area(s)" for transportation-related O_3, CO, PM-2.5 and PM-10, the state's un-obligated federal CMAQ funds shall be directed to that area(s) in accordance with the provisions of the current federal transportation statutes, 23 USC. Highest funding priorities will be given to transportation control measures (TCMs) and other projects documented in Iowa's State Implementation Plan (SIP) for air quality. The SIP, and the TCMs it contains, would be needed to assist the state in attaining and maintaining the NAAQS.

The types of projects or programs that are the highest priorities for ICAAP funding are those that:

- demonstrate a direct benefit in reducing or eliminating O_3, CO, PM-2.5 or PM-10 air pollution;
- reduce single occupant vehicle (SOV) trips or vehicle miles of travel (VMT);
- reduce vehicle congestion and improve traffic flow on highways and streets;
- implement the TCMs or other transportation-related projects identified in an approved SIP (if needed); and
- assist in developing management systems for traffic congestion, public transportation, or intermodal facilities.

V. Project Eligibility

Each ICAAP proposal must have a minimum total project cost of $20,000 to be eligible for funding assistance.

ICAAP funds may be used in any area of the state for CMAQ- or STP-eligible projects or programs as described in Sections 1108 and 1110 of TEA-21. Applications for ICAAP funding assistance must demonstrate that proposals will reduce vehicle emissions (VOC, NOx and CO) and, if applicable, reduce traffic congestion or increase transit ridership. Final determination of funding eligibility for individual projects is made by the Iowa DOT based on CMAQ or STP program guidelines.

Sponsors of ICAAP funding applications must calculate emission reduction estimates for each proposal using professional methodology and must document the estimates and methodology in the applications. Estimates of reductions in VMT and travel delays; increases in vehicle speeds; and changes in travel time, time of day, mode choice, trip length, trip frequency, and other relevant factors should also be documented in the applications.

To be eligible for ICAAP funding, the proposed projects and programs should fit into one or more of the following categories:

Traffic Flow Improvements

- Highway and street projects that focus on reducing traffic congestion, vehicle idling time, stop and go driving and travel delays; enhancing bus transit performance; and improving air quality. Projects may include traffic signal modernization, synchronization or coordination; incident management programs, ramp metering, intersection improvements such as adding turn lanes; and other projects that achieve the objectives of the ICAAP.

Planning and Project Development Activities

- Project development activities that lead to construction of facilities or new services and programs with air quality benefits. Preliminary engineering or project planning studies are eligible. This includes studies for the preparation of environmental or National Environmental Policy Act (NEPA) documents, but only if they directly support projects that improve air quality. (General planning activities such as economic, demographic or similar studies that do not propose or support transportation air quality projects are not eligible.)

Travel Demand Management

- Strategies or programs that discourage single occupancy vehicle (SOV) use. Activities include innovative parking management (parking restrictions and differential parking fees), establishment of auto-free zones, promotion of employee trip reduction programs, and transportation management plans.

Transit Improvements

- Construction of new transit facilities if associated with enhanced or new mass transit service (rehabilitation, reconstruction or maintenance of existing facilities are not eligible). Acquisition of public transit vehicles (bus, rail, van) only if related to new transit service or to expand the vehicle fleet. Emission effects of diesel-powered replacement vehicles must be documented because of their minimal impact on attaining the O_3, CO, and PM standards. Operating assistance to support the start-up of discrete, newly added transit services (this funding assistance is limited to three years and operating costs must be easily identified). Fare or fee subsidies are eligible under certain conditions.

Shared-Ride Activities

- Traditional rideshare (car pool and van pool) programs, including establishment of vehicle parking participants and programs that match drivers and passengers.

Bicycle and Pedestrian Facilities and Programs

- Construction of bicycle and pedestrian facilities. Public education, promotional and safety programs to encourage and facilitate the increased use of non-motorized transportation modes (e.g. bicycling and walking for commuting purposes).

Intermodal Freight

- Capital projects and operating assistance to improve intermodal freight facilities where air quality benefits can be realized.

Alternative Fuels

- Purchase of publicly owned alternative fuel vehicles under certain conditions. Establishment of publicly owned on-site fueling facilities and other infrastructure needed to fuel alternative fuel vehicles.

Vehicle Inspection and Maintenance (I&M) Programs

- Includes one time start-up activities, such as updating quality assurance software or developing a mechanic training curriculum; construction of facilities and purchase of equipment for I/M stations. All eligible I&M projects must meet EPA and NEPA requirements. The I&M programs must constitute new or additional efforts. Existing funding should not be displaced, and operating expenses are eligible for three years.

Outreach Activities

- Public education campaigns involving the linkage between transportation and air quality, advertising of transportation alternatives to SOV travel, and technical assistance to employers and marketing programs for promoting non-SOV travel options.

SIP Transportation Projects and Programs

- Transportation activities in an approved SIP, if applicable.

Transportation Control Measures (TCM)

- Generally, the TCMs specified in Section 108 (f)(1)(A) of the CAAA are eligible (many projects listed in this section are considered as TCMs).

Other Projects and Programs

- Other projects and programs that use promising technologies and feasible approaches to reduce air pollution emissions.
- Establishment of transportation management associations (TMAs) for the specific purpose of developing and implementing transportation-related air quality improvement strategies. Funding for eligible TMA start-up activities is limited to three years.

VI. Project Application Process and Target Dates

1. **April – August**
   The project sponsor (applicant) prepares and submits its ICAAP application to the MPO or RPA in the region. A sponsor submitting multiple applications in a given funding year (cycle) must rank the projects according to priority, from highest to lowest.

   The application must include an official written certification from the sponsor's and any joint sponsor's governing authority (e.g., city, county or state) declaring that the sponsor will upon project completion: (1) properly maintain and operate the proposed project or program for public use during the project's useful life and (2) commit the necessary local matching funds to implement the project.

2. **April – September**
   The MPO or RPA reviews the application for: (1) completeness; (2) financial feasibility of the ICAAP proposal; and (3) conformity of the proposal with the MPO's or RPA's regional transportation planning process and transportation plan and, if applicable, the congestion management plan in TMAs.

   For each eligible application, the MPO or RPA adopts a formal resolution declaring the sponsor's proposed project or program conforms to the regional transportation planning process and plan and, if applicable, the congestion management plan. The MPO or RPA transmits the resolution to the sponsor.

3. **September**
   The sponsor transmits the application and all required documentation, including the MPO or RPA resolution, to the local Iowa DOT district office (refer to Appendix D). **Applications are due at the district office by October 1 of each ICAAP funding year.** The district transportation planner coordinates the application process with the applicant and MPO or RPA and performs first-level screening of the applications. The district planner forwards all eligible applications to the Office of Systems Planning for processing.

4. **October – March**
   The Office of Systems Planning, in cooperation with the ICAAP Project Evaluation Committee: (1) determines the eligibility of the proposals based on ICAAP guidelines; (2) evaluates them for reasonableness and accuracy; (3) assigns scores to each proposal using Iowa Transportation Commission-adopted project evaluation criteria; and (4) ranks the proposals to help determine funding recommendations.

The Office of Systems Planning presents the ranked proposals, with funding recommendations, to the Iowa Transportation Commission for approval in February or March.

5. **February - March**
   The Iowa Transportation Commission acts on the funding recommendations. The Office of Systems Planning notifies the ICAAP applicants, MPOs and RPAs of the commission action.

6. **April - July**
   The MPO or RPA records the relevant commission-approved ICAAP proposals in its draft TIP and transmits the TIP to the local Iowa DOT district office. **The draft TIP is due at the district office by April 1.**

   The Iowa DOT compiles the draft STIP based on information from the MPO, RPA and Iowa DOT TIPs. The Iowa DOT distributes the STIP to the MPOs, RPAs and other interested parties statewide for public review and comment.

7. **August:**
   The MPO or RPA prepares and submits its final TIP to the local Iowa DOT district office by August 1. The Iowa DOT prepares the final STIP based on input received from public review and the final MPO and RPA TIPs.

8. **September 1**
   The Iowa DOT submits the proposed STIP and the MPO TIPs to the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) for review and approval.

9. **October 1**
   The Iowa DOT receives FHWA and FTA approval of the STIP.

10. **After October 1**
    The Iowa DOT requests the FHWA and FTA to authorize federal funding for the ICAAP projects on a project-by-project basis. Federal funding authorization obligates the project funds and provides a date from which costs can be incurred by the project sponsor.

11. **After October 1**
    The project sponsor implements the project in a timely manner and submits periodical work progress reports to the appropriate Iowa DOT district office or Office of Systems Planning for highway-related projects and the Office of Public Transit for transit-related projects.

VII. Project Rating Criteria

The Project Evaluation Committee will determine the eligibility of all proposed ICAAP projects or programs and evaluate and rank them on a competitive basis, using a range of points associated with the criteria listed below. For each criterion, the applicant must show quantitative analysis of the estimated traffic congestion reduction or air quality improvement benefits that will result from the proposed project or program within the study area. The applicants also must document, in the application, the methodology, assumptions and sources of data used in the analysis.

For the air quality improvement analysis, applicants should use the latest available VOC (HC), NOx, CO, PM-2.5 and PM-10 emission factors provided by the Iowa DOT. Alternative emission estimates prepared with EPA approved factors suitable for Iowa may be substituted for those supplied by the Iowa DOT as long as they are documented.

Points	Criteria
0-25	Traffic flow improvement
0-25	VMT or SOV trip reduction
0-20	Vehicle emission reduction estimates
0-15	Degree of transportation-related air pollution or traffic congestion
0-30	Project cost effectiveness relative to air quality benefits
0-115	Total possible points.

The Project Evaluation Committee may refine the criteria to assist in the project ranking process. The rank of each project, based on total points, will be used to determine the Iowa DOT ‘s staff funding recommendations to the Iowa Transportation Commission. The project rating criteria follow.

Traffic congestion reduction and traffic flow improvement projects

(0-25 Points): Traffic flow improvement. The project applicant must document how the proposed project or program will increase travel speed relative to roadway capacity improvements and/or reduce travel delay in the project area. The applicant also must describe all assumptions and list the data sources used in calculating travel speeds and vehicle delays.

VMT and SOV reduction projects

(0-25 points): VMT or SOV trip reduction. The project applicant must document how the proposed project or program reduces the total number of SOV trips or the VMT in the project area.

All ICAAP projects

(0-20 points): Vehicle emission reduction estimates in the project area. The applicant must document how many kilograms per day of VOC (HCs), NOx, CO, PM-2.5 or PM-10 vehicle emissions will be reduced. Ozone is a secondary air pollutant formed when precursor vehicle exhaust emissions – VOCs (hydrocarbons) and NOx—react with sunlight.

(0-15 points): Degree of transportation-related air pollution or traffic congestion in the project area. An area with a higher degree of transportation-related air pollution or traffic congestion will receive higher priority for assistance. Air quality for the targeted pollutant(s) should be continually monitored, and the measurements documented.

(0-30 points): Project cost-effectiveness relative to associated air quality benefits. Project applicant must calculate the cost-effectiveness of the proposed project by dividing the average annual total cost of the project (total project cost divided by expected project life in years) by the total annual vehicle emissions reduction in kilograms per year for each target pollutant. [Average annual total project cost (dollars)] divided by [emissions reduction (kilograms per year)].

Note: The total cost of an ICAAP proposal includes all costs necessary to complete the project or program, consistent with the estimated benefits related to the proposal. A proposal's annualized cost should be determined by using the "useful life" of individual cost items as in the economic evaluation of highway and transit projects.

VIII. Project Sponsor Responsibilities

Sponsors may be: (1) public entities such as MPOs, RPAs, public transit operators, and state and local governments; (2) private-nonprofit organizations (other than designated public transit agencies); and/or (3) individuals. Applications by private nonprofit groups and individuals must be co-sponsored by public entities.

Sponsors and joint sponsors must provide the following certifications with their applications: (1) MPO or RPA certification that the proposed project or program conforms with their region's transportation planning process and plan and congestion management plan in TMAs; and (2) governing authority certification that it will properly maintain and operate the proposed project or program for public use during the project's useful life and commit the necessary local matching funds for the project. If a sponsor submits applications for multiple projects, the sponsor must rank the projects according to priority, from highest to lowest.

Sponsors should indicate in the application whether the proposal is a resubmittal (provide dates of previous submittals) or a new project. *Sponsors must provide progress reports by July 1 of each year for all their previous Iowa DOT -approved ICAAP projects.*

Sponsors must provide narrative descriptions of proposals and explain how they will have positive impacts on air quality and/or traffic congestion. They must show, by quantitative analysis, the estimated traffic congestion reduction and/or air quality improvement benefits that will result from the proposed project or program within the study area.

Sponsors must describe in the application the methodology, assumptions, and sources of data used in the analysis. For air quality improvement analysis, applicants should use the latest available VOC (HC), NOx, and CO, PM-2.5 and PM-10 emission factors provided by the Iowa DOT. For the traffic congestion reduction analysis, applicants should use travel demand (e.g. average daily traffic volumes) anticipated to occur when the project is implemented. Sponsors may need to provide additional information upon request by the Iowa DOT during its review of applications.

The ICAAP is a cost-reimbursable program, therefore, project costs must be initially borne by the sponsors prior to requesting reimbursement from the Iowa DOT. Any and all costs incurred by the sponsor prior to the: (1) execution of an agreement with the Iowa DOT, (2) completion of federal environmental process documentation and/or (3) federal funding authorization for the project and/or the phase of work are not eligible for reimbursement.

The federal funding share for most projects is 80% of the proposed cost of eligible projects (The federal funding share for eligible projects on the interstate highway system is 90% or 100%). Sponsors must provide local matching funds. Local matching funds cannot be in the form of volunteer or in-kind services or federal funds. However, state funds may be used as the local share unless prohibited by law. Sponsors are responsible for project cost overruns.

The sponsor must provide a resolution declaring the sponsor's commitment to provide the required local funding match and to assume responsibility for maintaining the project during its useful life. The resolution must accompany the ICAAP application.

APPENDIX A

ICAAP Application Process
Flow Diagram

APPENDIX B

MPO and RPA Executive Directors

APPENDIX C

Iowa Dept of Transportation
ICAAP Support Staff

Questions about the ICAAP application process may be directed to the Iowa DOT's Office of Systems Planning or to the following Iowa DOT district offices

Office of Systems Planning
800 Lincoln Way
Ames, IA 50010
Wendele Maysent
Wendele.Maysent@dot.state.ia.us
Craig Markley

Phone: 515-239-1669
FAX: 515-233-7857
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District 1 Office
1020 S. Fourth Street
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Phone: 515-239-1635
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District 2 Office
1420 Fourth St. SE
P.O. Box 741
Mason City, IA 50402-0741

Phone: 515-423-7584
Fax: 515-423-0246

District 3 Office
2800 E. Gordon Drive
P.O. Box 987
Sioux City, IA 51102-0987

Phone: 712-276-1451
Fax: 712-276-2822

District 4 Office
U.S. 71 and U.S. 6
P.O. Box 406
Atlantic, IA 50022

Phone: 712-243-3355
Fax: 712-243-6788

District 5 Office
307 W. Briggs
P.O. Box 587
Fairfield, IA 52556-0587

Phone: 515-472-4171
Fax: 515-472-3622

District 6 Office
430 16th St. SW
P.O. Box 3150
Cedar Rapids, IA 52406-3150

Phone: 319-364-0235
Fax: 319-364-9614

APPENDIX D

MAP

Iowa Department of Transportation
District Office Transportation Planners'
Areas of Responsibility

APPENDIX E

Acronyms

ADA	**Americans with Disabilities Act**
CAAA	**Clean Air Act Amendments**
CE	**Categorical exclusion**
CMAQ	**Congestion Management and Air Quality Improvement Program**
CO	**Carbon monoxide**
DBE	**Disadvantaged Business Enterprises**
DNR	**Department of Natural Resources (Iowa)**
EIS	**Environmental impact statement**
EPA	**Environmental Protection Agency**
FHWA	**Federal Highway Administration**
4R	**Reconstruction, rehabilitation, restoration and resurfacing**
FTA	**Federal Transit Administration**
IARC	**Iowa Association of Regional Councils**
HC	**Hydrocarbons**
ICAAP	**Iowa Clean Air Attainment Program**
ISTEA	**Intermodal Surface Transportation Efficiency Act of 1991**
IPTA	**Iowa Public Transportation Association**
ITS	**Intelligent transportation system**
MPO	**Metropolitan Planning Organization**
NAAQS	**National Ambient Air Quality Standards**
NEPA	**National Environmental Policy Act**
NOx	**Nitrogen oxides**
OSP	**Office of Systems Planning (Iowa Department of Transportation)**
O_3	**Ozone (ground-level)**
PM	**Particulate matter**
RPA	**Regional planning affiliation (Transportation)**
SIP	**State Implementation Plan**
SOV	**Single occupant vehicle**
STP	**Surface Transportation Program**
STIP	**State Transportation Improvement Program**
TEA-21	**Transportation Equity Act for the 21st Century**
TCM	**Transportation control measure**
TMA	**Transportation management association**
TIP	**Transportation improvement program**
VMT	**Vehicle miles of travel**
VOC	**Volatile organic compounds**

APPENDIX F

Federal Funding Requirements

Sponsors of ICAAP proposals to be implemented are responsible for complying with all relevant federal statutes and requirements, some of which are summarized below:

- **Public involvement** – The public, including directly affected groups or individuals such as adjacent property owners, must be involved during development of the proposed project or program.

- **Right-of-way acquisition** – Acquisition of needed right-of-way for a Federal-aid project must comply with the requirements of the Uniform Relocation Acquisition and Real Property Acquisition Policies Act of 1970 (as amended by Title VI of the Surface Transportation and Uniform Relocation Assistance Act of 1987). Every eligible resident who is displaced because of the project must be offered a comparable replacement dwelling that is decent, safe, sanitary and adequate to accommodate the displaced person. Relocation advisory services are furnished and payments are made to cover costs incurred for moving, replacement housing, and certain incidental costs. Businesses, farms and nonprofit organizations are also reimbursed for moving and related expenses.

- **Environmental review** – A project must comply with the National Environmental Policy Act (NEPA). This requires each project be evaluated to determine its impact on the environment. For projects that will have major impacts on the environment, a draft environmental impact statement (EIS) must be prepared. Some projects involving rehabilitation or safety upgrades may have minor environmental impacts and are considered categorical exclusions (CE) not requiring preparation of an EIS or an environmental assessment (EA).

  For those projects that are not CE, an EA is usually prepared. If the EA reveals that the impacts are not significant, then a "Finding of No Significant Impact" (FONSI) is prepared. The environmental review must address project impacts for the following environmental categories:

  - **Noise** – the significance of noise impacts during construction and after the project is completed.
  - **Air quality** – Compliance with Iowa's SIP for attaining and maintaining the NAAQS of the CAAA must be verified.

  - **Cultural resources** – The proposed project site must be examined for disturbances of areas of archeological or historical significance.
  - **Water quality** – The significance of impacts to water quality must be determined.
  - **Wetlands** – The significance of impacts to wetlands must be determined.
  - **Flood plains** – The significance of impacts to regulatory flood ways or 100-year flood plains must be determined.
  - **Farmland protection** – Impacts to surround farmland must be determined.
  - **Hazardous waste sites** – The location of any hazardous waste sites and a determination of the project's impact on them must be established.

- **Americans with Disabilities Act (ADA) –** Project sponsors must provide verification that their ICAAP proposals conform with the ADA, which requires projects be fully accessible to persons with disabilities.

- **Disadvantaged Business Enterprises (DBE) –** Sponsors of federal-aid projects must provide verification that all efforts have been made to ensure that DBE firms have an opportunity to participate in the bidding for federal funded contracts.

- **Davis-Bacon wage rate requirements –** The Davis-Bacon Act requires the payment of predetermined minimum wage rates on certain federal funded contracts. It applies to all federal-aid highway contracts exceeding $2,000 for work by consultants or other contractors on federal-aid highways.

- **Competitive bidding –** The implementation of a federal-aid project is to be done by a contract awarded by competitive bidding unless some other more cost-effective method, such as force account, is approved by the FHWA or FTA. The Iowa DOT assures there is an opportunity for free, open, competitive bidding, including adequate publicity of the advertisement or call for bids.

- **Use of Engineering Consultants –** Consultant engineering and design related services contracts might be financed with federal-aid highway funds. When this occurs, these contracts must result from negotiations that utilize qualifications-based selection procedures, commonly referred to as the Brooks Act requirements. Qualification-based selection procedures do not allow price to be used as a factor in the selection process.

The Iowa DOT uses the Brooks Act requirements to govern consultant selection in Iowa. Local governments must employ the same procedures used by the Iowa DOT. For details on consultant selection, see the Iowa DOT's Web site, www.prof-tech-consultant.dot.state.ia.us.

- **Maintenance –** Federal highway law requires all federal-aid projects be properly maintained.

- **Design-build contracting –** This is an alternative to the traditional design-bid-build contracting method. The contracting agency identifies the end result parameters and establishes the design criteria. The prospective bidders then develop proposals that optimize their construction abilities. Submitted proposals may be rated by the contracting agency on factors such as design quality, timeliness, management capability and cost.

  These factors may be used to adjust the bids for the purpose of awarding the contract. FHWA approval and competitive bidding procedures are required if federal funds are to be used in design-build contracting.

- **Buy America** – This provision requires the use of domestic steel and iron in federal-aid highway construction projects. However, waivers may be granted by FHWA. All public transportation vehicles and equipment purchased for the project must meet the "Buy America" provisions.

- **13C Labor Protection** – For public mass transportation proposals, labor protection must be provided to any transit worker whose job may be adversely affected by the project.