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INFORMATION BULLETIN NO. 13-02

TO: ADOT Project Managers
Resident Engineers
Consultant Engineering Firms

FROM: Engineering Consultants Section (ECS)

SUBJECT: **STANDARDIZED LABOR CLASSIFICATIONS AND DEFINITIONS FOR ECS CONTRACTS**

A standardized list of Labor Classifications and Definitions has been established for ECS contracts to streamline the cost negotiations between the Consultants and ADOT ECS.

All ECS contracts selected/awarded after **August 1, 2012,** must utilize the labor classifications on the **2012-2013 Labor Classifications and Definitions** list (referred to herein as the "approved list"). The labor classifications on the approved list will be the only labor classifications eligible to be used on ECS contracts during the cost negotiations phase. Existing contracts that require additional labor classifications must also use the labor classifications from the current approved list.

Consultants must use labor classifications on the approved list based on the classification description, regardless of the title/name the firm currently uses for their own staff. The approved list will be updated annually to reflect ADOT and industry requirements, as needed.

Attached is the approved list of the classifications and definitions as well as the guidelines describing how the classifications must be used during the contract negotiations and after contract execution. The approved list, definitions and guidelines are posted on the ECS website. Also posted on the ECS website are the newly revised *Certified Payroll* and *Proposed Rate Forms* to propose straight and average rates, weighed average rates, as well as Unit Prices of Work. The forms require that education, years of experience and any applicable registrations or certifications be listed for all individuals proposed to work on ECS contracts. These materials and forms can be found on the ECS website under the "Forms & Templates" sub-menu in the "Online Cost Proposal Sample Forms" section (http://www.azdot.gov/highways/ecs/SOQ_Materials.asp). These materials are also available in the online Cost Proposal module of the electronic Contract Management System (eCMS)

If you have any questions regarding this bulletin, contact the Engineering Consultants Section at (602) 712-7525.

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ARIZONA DEPARTMENT OF TRANSPORTATION
ENGINEERING CONSULTANTS SECTION
FY 2013 Labor Classifications List
(as of 8/01/2012)

	General/Engineering
1	Administrative
2	Project Administrator
3	Architect
4	Architect - Senior
5	CADD Technician
6	Cost Estimator
7	Cost Estimator - Sr.
8	Designer
9	Designer - Sr.
10	Engineer
11	Engineer - Sr.
12	Project Engineer
13	Project Engineer - Sr.
14	Geologist
15	Geologist - Sr.
16	GIS Analyst / Technician
17	GIS Analyst / Technician - Sr.
18	Graphic Designer
19	Graphic Designer - Sr.
20	Project Principal
21	Project Manager
22	Project Manager - Sr.
23	Arborist
24	Registered Landscape Architect
25	Registered Landscape Architect - Sr.
26	Transportation Planner
27	Transportation Planner - Sr.
	CONSTRUCTION
28	S1 (Inspection Office)
29	S4 (Inspection Office, Lab, Survey, Permits, Traffic Signals)
30	S5 (Inspection Office, Lab, Survey, Permits, Traffic Signals)
31	S6 (Inspection Office, Lab, Survey, Permits, Traffic Signals)
32	S7 (Inspection Office, Lab, Survey, Permits, Traffic Signals)
33	S9 (Inspection Office, Lab, Survey, Permits, Traffic Signals)
34	Resident Engineer
35	Resident Engineer - Sr.
36	Air Quality Specialist
37	Associate Archeologist
38	Archeologist
39	Archeologist - Sr.
40	Architectural Historian / Historian
41	Associate Biologist
42	Biologist
43	Biologist - Sr.
44	Cultural Principal Investigator
45	Cultural Resource / Archeological Technician
46	Environmental Coordinator / Program Manager
47	Associate Environmental Planner / Scientist
48	Environmental Planner / Scientist
49	Environmental Planner / Scientist, Sr.
50	HazMat Specialist
51	Noise Specialist

	SURVEY
52	Aerial Photographer
53	Aircraft Pilot
54	Photogrammertrist
55	Registered Land Surveyor
56	Registered Land Surveyor - Sr.
57	Survey Technician
58	Survey Party Chief
	RIGHT OF WAY (ROW)
59	Acquisition Agent
60	Acquisition Agent - Sr.
61	Relocation Agent
62	Relocation Agent - Sr.
63	Right of Way Plans Technician
64	ROW Project Coordinator
65	ROW Project Coordinator - Sr.
66	Title Examiner
67	Title Examiner - Sr.
	MISCELLANEOUS
68	Technician
69	Supplemental Services Consultant
70	Other/ADOT Pre-Approved:

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2012-2013 Labor Classification and Definitions

GENERAL / ENGINEERING		
1	Administrative	Performs administrative duties specific to a project typically requiring experience, skill and knowledge of business policies and practices. Typical duties include preparing project-related correspondence and reports, scheduling/maintaining calendars of appointments, setting up meetings, making travel arrangements, responding to inquiries, taking meeting minutes, and using standard office equipment and computer software for word processing, spreadsheets, etc. **Qualifications**: A minimum of a High School diploma or equivalent; or a minimum of 2 or more years of relevant experience.
2	Project Administrator	Provides assistance to the project manager for the financial management of the project. Plans work, schedules quality control, coordinates with subs, etc. **Qualifications**: A minimum of an AA degree; or a minimum of 2 or more years of relevant experience.
3	Architect	Prepares detailed drawings and plans of architectural and structural features of buildings or drawings and topographical relief maps for highways, bridges, and public works projects. **Qualifications**: A minimum of a B.S. degree in Architecture or related field and current Arizona Registration.
4	Architect - Senior	Plans, directs, or coordinates the work of junior architectural staff to prepare quality drawings and plans to ensure they meet the scope requirements and project budget. Creates budget estimates for planning and construction purposes, including creating studies and reports. May supervise other Architect or staff. **Qualifications:** A minimum of a B.S. degree in Architecture or related field, 15 years of relevant experience and current Arizona Registration.
5	CADD Technician	Performs routine drafting assignments. Prepares layouts, drawings and designs according to project specifications using CADD software. Retrieves information from files, edits, produces hard copies and updates drawings/designs. **Qualifications**: CADD training required.
6	Cost Estimator	Performs project breakdowns of all expenses including materials, labor, and other resources. Reviews preliminary plans and architectural drawings for the project. Visits the construction site, making notes of the geographical features of the site and access to infrastructure (roads, electricity, sewer, etc.). **Qualifications:** A minimum of a B.S. degree in Civil Engineering, Construction Management, Construction Engineering Technology or related field; or a minimum of 5 years of relevant experience.
7	Cost Estimator - Sr.	Performs the cost estimating of a project and/or is responsible for taking a project and breaking down all expenses including materials, labor, and other resources. Reviews preliminary plans and architectural drawings for the project. Visits the site of the construction, making notes of the geographical features of the site and access to infrastructure (roads, electricity, sewer, etc.). May supervise other Cost Estimators or staff. **Qualifications:** A minimum of a B.S. degree in Civil Engineering, Construction Management, Construction Engineering Technology related field and 10 years of relevant experience; or a minimum of 15 years of relevant experience
8	Designer	Utilizes MicroStation, inroads and other specialized design tools and works under the direction of a registered professional to design a project. May include design in technical disciplines such as Bridge/Structures, Drainage, Environmental, Geotechnical, ITS, Materials, Planning, Survey, Roadway, ROW, Traffic, Utility Designation and Relocation. **Qualifications**: A minimum of a B.S. degree; or 4 years of relevant experience. (This category also includes Engineers-In-Training, Geologist-In-Training, and similar positions.)
9	Designer - Sr.	Utilizes MicroStation, inroads and other specialized design tools and works under the direction of a registered professional to design a project. May include design in technical disciplines such as Bridge/Structures, Drainage, Environmental, Geotechnical, ITS, Materials, Planning, Survey, Roadway, ROW, Traffic, Utility Designation and Relocation. Works with substantial independence with moderate direction and oversight to prepare plans. **Qualifications:** A minimum of a B.S. degree and 10 or more years of relevant experience; or a minimum of 15 years of relevant experience.
10	Engineer	Provides technical analysis or design for a project in a technical discipline such as Bridge/Structures, Drainage, Environmental, Geotechnical, ITS, Materials, Planning, Survey, Roadway, ROW, Traffic, Utility, etc. Exercises considerable and significant independent judgment within established program parameters, policies and procedures. **Qualifications**: Must have current Arizona Registration.
11	Engineer - Sr.	Provides technical analysis or design for a project in a technical discipline such as Bridge/Structures, Drainage, Environmental, Geotechnical, ITS, Materials, Planning, Survey, Roadway, ROW, Traffic, Utility, etc. May provide QA/QC. Exercises considerable and significant independent judgment within established program parameters, policies and procedures. **Qualifications:** A minimum of 15 years of relevant experience and current Arizona Registration.

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GENERAL / ENGINEERING (continued)		
12	Project Engineer	Provides technical performance on projects or designated tasks on large projects. Work requires application of standard engineering techniques and procedures, professional judgment to make modifications or execute complex features or solutions. Directs other engineers and/or technicians assigned to project. Coordinates within or among the technical disciplines of the project. **Qualifications**: A minimum of 10 years of relevant experience and current Arizona Registration.
13	Project Engineer - Sr.	Provides technical performance on complex projects. Possesses diversified knowledge of engineering principles and practices. Applies advanced techniques, modifications and theories and serves as technical liaison on matters pertaining to field of practice. Directs other engineers and/or technicians assigned to a project. May provide QA/QC. Coordinates within or among the technical disciplines of the project. **Qualifications**: A minimum of 15 years of relevant experience and current Arizona Registration.
14	Geologist	Performs technical review and analysis on small to medium projects or designated tasks on large projects. Requires application of standard geological techniques and procedures, professional judgment in making modifications or execute complex features or solutions. **Qualifications**: Must have current Arizona Registration as a Geologist.
15	Geologist - Sr.	Possesses extensive and diversified knowledge of geological principles and practices. Applies advanced techniques, modifications and theories and serves as technical liaison on matters pertaining to field of practice. May supervise other Geologists or staff. **Qualifications:** A minimum of 15 years of relevant experience and current Arizona Registration as a Geologist.
16	GIS Analyst / Technician	Designs, builds, and maintains GIS application including database design, data maintenance, research and mapping analysis and preparation; maintains hardware and software. **Qualifications:** A minimum of a B.S. degree in IT, Geography, GIS; or a minimum of 5 years of relevant experience.
17	GIS Analyst / Technician - Sr.	Designs, builds and maintains GIS application including database design, data maintenance, research and mapping analysis and preparation; maintains hardware and software. May supervise other GIS Analyst or staff. **Qualifications:** A minimum of a B.S. degree in IT, Geography, GIS or related field and 10 years of relevant experience; or a minimum of 15 years of relevant experience.
18	Graphic Designer	Plans the design, layout, photography, visual coordination and production of communication materials for a project. **Qualifications**: A minimum of technical training in visual communications, graphic design or related field; or a minimum of 3 years of relevant experience.
19	Graphic Designer - Sr.	Plans the design, layout, photography, visual coordination and production of communication materials for a project. May supervise the work of other graphic designers. **Qualifications:** A minimum of technical training in visual communications, graphic design or related field and a minimum of 10 years of relevant experience; or a minimum of 15 years of relevant experience.
20	Project Principal	Responsible for the quality and timely delivery of the entire project as stated in the contract. Allocates resources, monitors the project performance, accountable for the entire project. Is also responsible for the quality and timely delivery of the project. May be an Officer of the firm. **Qualifications**: A minimum of a B.A. or B.S. degree or a minimum of 5 years of relevant experience; and must meet applicable Arizona registration requirements for the contract. ***PRIME CONSULTANT ONLY.***
21	Project Manager	Provides leadership and oversight of the technical performance on projects in any discipline, which may include Bridge/Structures, Drainage, Environmental, Geotechnical, ITS, Materials, Planning, Survey, Roadway, ROW, Traffic, Utility, etc. Possesses diversified knowledge of applicable principles and practices. Applies advanced techniques, modifications and theories and serves as technical liaison on matters pertaining to field of practice. May also include QA/QC duties. **Qualifications**: A minimum of 10 years of relevant experience and applicable current Arizona Registration.
22	Project Manager - Sr.	Provides leadership and oversight of the technical performance on the projects in any discipline, which may include technical groups such as Bridge/Structures, Drainage, Environmental, Geotechnical, ITS, Materials, Planning, Survey, Roadway, ROW, Traffic, Utility, etc. Possesses extensive and diversified knowledge of applicable principles and practices. Applies advanced techniques, modifications and theories and serves as technical liaison on matters pertaining to field of practice. May supervise other Project Managers or staff. **Qualifications**: A minimum of 15 years of relevant experience and applicable current Arizona Registration.

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GENERAL / ENGINEERING (continued)		
23	Arborist	Possesses specific knowledge to identify pests and diseases known to affect the health of trees and shrubs. Diagnoses, treats, and maintains trees. Surveys all trees within project limits, monitors and directs excavation work near trees during construction and monitors tree pruning and removal as required by the contract. Surveys existing trees and provides transplanting information during the design and construction of projects. **Qualifications:** An ISA Certification with a minimum of five years of relevant experience after certification.
24	Registered Landscape Architect	Prepares detailed drawings, site plans, specifications and cost estimates for development, coordinating arrangement of existing and proposed land features and structures. Compiles and analyzes data on conditions, such as location, drainage, and location of structures for environmental reports, landscaping plans, etc. Inspects landscape work to ensure compliance with specifications. May supervise construction of landscaping projects. **Qualifications**: Must have current Arizona Registration as a Landscape Architect.
25	Registered Landscape Architect - Sr.	Prepares site plans, specifications and cost estimates for development, coordinating arrangement of existing and proposed land features and structures. Compiles and analyzes data on conditions, such as location, drainage, and location of structures for environmental reports and landscaping plans, etc. Inspects landscape work to ensure compliance with specifications. May supervise construction of landscaping projects. **Qualifications:** Must have a minimum of 15 years of relevant experience and current Arizona Registration as a Landscape Architect.
26	Transportation Planner	Provides technical analysis for predesign projects. Applies planning techniques and serves as technical liaison on matters pertaining to field of expertise. May perform modeling, traffic forecasts, land use, urban planning, statistics or analysis. **Qualifications**: A minimum of a B.A. or B.S. degree in a technical or business discipline and a minimum of 3 years of relevant experience.
27	Transportation Planner - Sr.	Provides technical analysis for predesign projects. Applies planning techniques and serves as technical liaison on matters pertaining to field of expertise. May perform modeling, traffic forecasts, land use, urban planning, statistics or analysis. May supervise other Planners or staff. **Qualifications**: A minimum of a B.A. or B.S. degree in a technical or business discipline and a minimum of 15 years of relevant experience.
CONSTRUCTION		
28	S1 (Inspection Office)	Performs technical/engineering work with progressing responsibility as skills and knowledge increase. Provides knowledge of procedures and techniques of surveying, construction standards, inspection, quality control and/or materials; proper construction documentation, safety practices and procedures. **Qualifications**: A minimum of a High School diploma or equivalent.
29	S4 (Inspection Office, Lab, Survey, Permits, Traffic Signals)	Performs technical/engineering work with progressing responsibility as skills and knowledge increase. Provides knowledge of procedures and techniques of surveying, construction standards, inspection, quality control and/or materials; proper construction documentation, safety practices and procedures. Performs introductory level engineering and construction documentation for verification in a construction field office. **Qualifications**: Must meet the ADOT Training Matrix requirements and have 1 year experience as an S1 or equivalent.
30	S5 (Inspection Office, Lab, Survey, Permits, Traffic Signals)	Performs many tasks in a highway construction environment independent of any direct supervision. Has the authority to recommend rejection of materials or workmanship, which are not in compliance with agency specifications. Knowledge of procedures and techniques of surveying, construction standards, inspection, quality control and/or materials; proper construction documentation, safety practices and procedures. **Qualifications**: Must meet the ADOT Training Matrix requirements and have 2 years as an S4 or equivalent.
31	S6 (Inspection Office, Lab, Survey, Permits, Traffic Signals)	Exercises some independent judgment within established program parameters. Has the authority to determine when project materials and procedures are noncompliant with agency specifications. Knowledge of procedures and techniques of surveying, construction standards, inspection, quality control and/or materials; proper construction documentation, safety practices and procedures. Serves as a journeyman level technician performing a variety of work related to highway construction activities. Analyzes and evaluates a wide variety of technical engineering data; interprets and implements standards, policies, procedures and regulations. **Qualifications**: Must meet the ADOT Training Matrix requirements and have 2 years as an S5 or equivalent.

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CONSTRUCTION (continued)		
32	S7 (Inspection Office, Lab, Survey, Permits, Traffic Signals)	Serves as a lead technician under the general supervision of the Engineer-In-Charge or designated representative, coordinating activities on highway construction project(s) including survey, quality control, inspection, lab and office. Inspects and documents the most complex contract items, such as structures and concrete or asphalt pavement; performs related duties as necessary due to staffing requirements. Provides training, coaching and guidance to employees as directed. Knowledge of principles and practices of civil engineering related to the construction of state highway system roadways. Must have the ability to work independently, completes assignments to acceptable standards in a timely manner. **Qualifications**: Must meet the ADOT Training Matrix requirements and have 2 years of experience as an S6 or equivalent.
33	S9 (Inspection Office, Lab, Survey, Permits, Traffic Signals)	Provides technical analysis for a project. Under general supervision, exercises considerable and significant independent judgment within established program parameters, policies and procedures. Possesses extensive knowledge of principles and practices of civil engineering, as applied to the area of assignment. Organizes and prioritizes work assignments. **Qualifications**: Must meet the ADOT Training Matrix requirements, have a BS in Civil Engineering or Construction Management and 2 years relevant experience or 15 years of relevant experience.
34	Resident Engineer	Supervises construction projects, including determining acceptability of materials furnished and work performed, preparing contract supplemental agreements as needed, verifying and documenting adherence with all applicable safety and environmental standards, monitoring and documentation of contractor activities, material testing and documentation, payments to the contractor, tracking project progress schedules, budgets and scope. May include supervision and operations of a field office and staff. **Qualifications**: Must have current Arizona Registration and 5 or more years of relevant experience.
35	Resident Engineer - Sr.	Supervises more complex construction projects, including determining acceptability of materials furnished and work performed, preparing contract supplemental agreements as needed, verifying and documenting adherence with all applicable safety and environmental standards, monitoring and documentation of contractor activities, material testing and documentation, payments to the contractor, tracking project progress schedules, budgets and scope. May include supervision of other Resident Engineers and operations of a field office and staff. **Qualifications:** Must have current Arizona Registration and 15 years of relevant experience.
ENVIRONMENTAL		
36	Air Quality Specialist	Performs air quality analyses for highway development projects as required by federal and state regulation and agency policy. Uses air quality computer models such as MOVES2010b, MOBILE6.2, CAL3QHCR, AERMOD, interprets results in context of existing policy and regulations and prepares reports that present results. **Qualifications**: Knowledge of federal and state regulations relating to air quality, agency policy, and a minimum of 2 years experience performing analysis using FHWA approved air quality models.
37	Associate Archaeologist	Performs cultural resources surveys, testing, monitoring, archaeological excavations, and archival research. Completes plan and profile maps of excavated units, completes standard feature and level forms. Performs laboratory work, data and artifact analyses independently or under appropriate supervision. Prepares or assists with preparation of technical reports. Makes initial evaluations and recommendations for significance, effect, and treatment. Drafts consultation letters and assists in the development of work plans, research designs, and mitigation proposals. Conducts site file searches at federal, state, and private repositories. **Qualifications**: A minimum of a B.A. or B.S. degree and archaeological training and field experience; knowledge of Section 106 compliance, NEPA, and state regulations pertaining to the management of cultural resources.
38	Archaeologist	Provides technical completeness and accuracy of submittals and work performed on small to large projects. Responsible for all aspects of archaeological survey, excavation, and monitoring and subsequent analysis and reporting; AND/OR for specialized analyses (geomorphology, bioarchaeology, faunal analysis; paleobotanical studies, etc.). Prepares technical reports documenting the results of fieldwork and archival research. Performs evaluations and makes recommendations for significance, effect, and treatment. Develops work plans, research designs and mitigation proposals. Prepares project budgets and scopes and assures adherence to them. Conducts site file searches at federal, state, and private repositories. May supervise Associate Archaeologists, other Archaeologists, or other staff. **Qualifications**: A minimum of a B.A. or B.S. degree in archaeology or a related field and a minimum of 5 years relevant experience; and demonstrated knowledge of Arizona prehistory, archaeological method and theory; Section 106 compliance, NEPA, Section 4(f), and state regulations the management of cultural resources.

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ENVIRONMENTAL (continued)		
39	Archaeologist - Sr.	Provides technical completeness and accuracy of submittals and work performed on small to large projects. Responsible for all aspects of archaeological survey, excavation, and monitoring and subsequent analysis and reporting; AND/OR for specialized analyses (geomorphology, bioarchaeology, faunal analysis; paleobotanical studies, etc.). Prepares technical reports documenting the results of fieldwork and archival research. Performs evaluations and makes recommendations for significance, effect, and treatment. Develops work plans, research designs and mitigation proposals. Prepares project budgets and scopes and assures adherence to them. Conducts site file searches at federal, state, and private repositories. May supervise Associate Archaeologists, Archaeologists or other staff. **Qualifications**: A minimum of a B.A. or B.S. degree in archaeology or a related field and a minimum of 15 years relevant experience; AND demonstrated knowledge of Arizona prehistory, archaeological method and theory; Section 106 compliance, NEPA, Section 4(f), and state regulations the management of cultural resources.
40	Architectural Historian / Historian	Conducts historic resource surveys and assessments including site inspections, research, interviews, photography, and evaluation under National/Arizona Registers of Historic Places, and other criteria of significance. Prepares Arizona Historic Property Inventory forms, historic resources technical reports and context statements. Compiles Historic American Buildings Survey and Historic American Engineering Record documentation packages. Analyzes potential impacts to historic resources/built environment under the National Historic Preservation Act, Section 4(f) and other legislation. Develops or contributes to the Historic Preservation and 4(f) Sections of NEPA documents, including categorical exclusions, environmental assessments, and environmental impact statements. **Qualifications**: Must meet Secretary of the Interior standards for architectural history or history. (http://www.cr.nps.gov/local-law/arch_stnds_9.htm).
41	Associate Biologist	Performs field reviews. Writes biological review documents, general Federal threatened and endangered species habitat evaluations, general Federal, State and Tribal Sensitive species habitat evaluations, species surveys (if permitted), native plants surveys, noxious weed surveys and riparian/wetland delineations (with 404 expert oversight, when appropriate). Prepares monitoring reports, “no effect” biological evaluations, “may affect” habitat and species impact evaluations and other duties as determined by ADOT. **Qualifications**: A minimum of a B.S. degree in Biology or related field; OR relevant college-level classes and a minimum of 4 years of relevant experience.
42	Biologist	May be responsible for QA/QC on all documents prepared by Associate Biologist or other Biologists, prepares monitoring reports, completes “may affect" habitat and species impact evaluations; completes “no effect” biological evaluations, species surveys (must be permitted); policy or listing analysis, prepares biology section of environmental documents. May supervise Associate Biologists, other Biologists, or other staff. **Qualifications**: A minimum of a M.A. or M.S. degree in Biology or related field and at least 1 year relevant experience; or a minimum of a B.A. or B.S. degree in Biology or related field and at least 3 years relevant experience. Knowledge of state and federal regulations relating to the protection of plants and wildlife.
43	Biologist - Sr.	Oversees Biologist, QA/QC on all documents prepared by Biologist, prepares monitoring reports, and completes “may affect" habitat and species impact evaluations. Also completes “no effect” biological evaluations, species surveys (must be permitted), policy or listing analysis and prepares biology section of environmental documents. May supervise other Biologists or staff. **Qualifications**: A minimum of B.S. degree in Biology or related field and a minimum of 15 years of relevant experience. Knowledge of state and federal regulations relating to the protection of plants and wildlife.
44	Cultural Principal Investigator	Senior cultural resources professional responsible for oversight and implementation of field work, studies, analyses, and reports. Provides technical leadership in cultural resources and is well-versed in regulatory compliance requirements including Section 106 of the National Historic Preservation Act and Section 4(f) of the U.S. Department of Transportation Act. Provides guidance and is responsible for establishment and/or maintenance of quality control processes and procedures. Coordinates with other staff, agencies, or other involved parties. **Qualifications**: Must meet the Secretary of the Interior's Professional Qualification Standards for Professionals in Archaeology (http://www.cr.nps.gov/local-law/arch_stnds_9.htm), must meet the Arizona State Museum's qualifications for Principal Investigators; must be able to hold a permit from the Arizona State Museum for all levels of archaeological work.

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ENVIRONMENTAL (continued)		
45	Cultural Resource / Archaeological Technician	Performs cultural resource surveys, testing, monitoring, archaeological excavations, lab work, and research under appropriate supervision. **Qualifications**: College level classes in relevant field; or relevant experience.
46	Environmental Coordinator / Program Manager	Senior environmental planner responsible for project oversight and coordinating staff resources. Provides ongoing guidance to team members and is responsible for establishment and/or maintenance of quality control processes and procedures. Reviews technical documents for accuracy and completeness. Has ultimate responsibility for all environmental products delivered under contracts. **Qualifications**: A minimum of a B.S. degree in a relevant environmental field and a minimum of 10 years of relevant experience, including supervisory experience. Knowledge and experience working with NEPA, Section 4(f), and other federal and state environmental regulations.
47	Associate Environmental Planner / Scientist	Prepares categorical exclusions and assists with environmental assessments and environmental impact statements. Prepares scope of work and cost estimates for various environmental studies. Prepares project schedules that incorporate the entire environmental review process (all technical disciplines). Requires working knowledge of agency NEPA requirements and various federal, state, and local environmental laws and regulations. Conducts or assists with technical studies such as jurisdictional delineations, wetland delineations, land use studies, socio-economic studies, GIS, and documenting results. **Qualifications**: A minimum of a B.S. degree in related field and a minimum of 1 year of relevant experience; or a minimum of 5 years of relevant experience.
48	Environmental Planner / Scientist	Prepares environmental documents, both as a primary or contributing author, including NEPA and non-NEPA documents, and various client-specific deliverables. Works on an as-needed basis for technical sub-disciplines within the group, including report preparation and/or field work, GIS, and QA/QC of deliverables. May supervise or assist staff with document preparation (content and format) to meet client-specific standards. Provides management assistance to group and contract managers. Prepares scope of work and cost estimates for various environmental studies. Prepares project schedules that incorporate the entire environmental clearance process (all technical disciplines). Coordinates with other technical leads to complete sections of environmental documents and track project. Requires strong knowledge of agency NEPA requirements and/or various other federal, state, and local environmental laws and regulations. **Qualifications**: A minimum of a M.A. or M.S. degree in a related field and minimum of 3 years relevant experience; or a minimum of a B.A. or B.S. degree in a related field and 7 years of relevant experience.
49	Environmental Planner / Scientist, Sr.	Prepares environmental documents, both as a primary or contributing author, including NEPA and non-NEPA documents and various client-specific deliverables. Works on an as-needed basis for technical sub-disciplines within the group, including report preparation and/or field work, GIS, and QA/QC of deliverables. Supervises or assists staff with document preparation (content and format) to meet client-specific standards. Provides management assistance to group and contract managers. Prepares scope of work and cost estimates for various environmental studies. Prepares project schedules that incorporate the entire environmental clearance process (all technical disciplines). Coordinates with other technical leads to complete sections of environmental documents and track project. Requires extensive knowledge of agency NEPA requirements and/or various other federal, state, and local environmental laws and regulations. **Qualifications**: A minimum of a B.S. degree in related field and a minimum of 15 years relevant experience; or a minimum of 15 years of relevant experience.
50	HazMat Specialist	Conducts hazardous material preliminary, Phase I and Phase II site reviews in compliance with ASTM & EPA standards to support NEPA documentation. **Qualifications**: Must meet the qualifications of an Environmental Professional as defined by EPA/AAI. (http://www.epa.gov/brownfields/aai/ep_deffactsheet.pdf)
51	Noise Specialist	Analyzes potential noise impacts created by highway projects using the latest FHWA-approved Traffic Noise Model (TNM). Recommends appropriate noise mitigation, including noise walls using FHWA and ADOT criteria. Performs noise monitoring and responds to noise complaints. Must be familiar with FHWA regulations and ADOT's noise policy. Occasional public meeting attendance and presentations related to noise issues. **Qualifications**: Knowledge of federal and state regulations relating to highway traffic noise, and a minimum of 2 years of experience using the FHWA Traffic Noise Model.
SURVEY		
52	Aerial Photographer	Exercises the ability to locate the mapping area and identify the flight lines for aerial photography. Operates aerial camera or Airborn LIDAR from the airplane to provide quality photography to be used in photogrammetry applications. Operates high precision photoscanner, photographic reproduction equipment and maintains equipment in the laboratory. Produces mosaic for photogrammetry supervisors to create flight-line designs. **Qualifications**: A minimum of a B.A. degree in Fine Arts or related field and a minimum of 1 year of relevant experience; or on-the-job training and a minimum of 1 year of relevant experience.

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SURVEY (continued)		
53	Aircraft Pilot	Responsible for the safe and lawful operation of the aircraft, safety of the passengers and crew members, and all flight decisions. **Qualifications**: Current Pilot's license.
54	Photogrammetrist	Performs work in computerized aerial mapping, utilizing photogrammetric instruments and in the collection of photogrammetric data from aerial photography to produce orthophotos, topographic maps and engineering data. Inputs, reviews, and verifies a variety of survey records and technical documents to ensure completeness and accuracy in the development of photogrammetric data. **Qualifications**: A minimum of CADD training or relevant experience.
55	Registered Land Surveyor	May plan, manage, and direct surveying, mapping activities and related projects. Applies standard surveying techniques and procedures and professional judgment to make modifications. May require knowledge of the principles and practices of civil engineering as applied to the construction of state highways. **Qualifications**: Current Arizona Registration as a Land Surveyor.
56	Registered Land Surveyor - Sr.	May plan, manage, and direct surveying, mapping activities and related projects. May supervise professional surveyors and technicians. Establishes and maintains project priorities, budgets, and staff assignments. Possesses extensive knowledge of the principles and practices of civil engineering as applied to the construction of state highways. Applies standard surveying techniques and procedures and professional judgment to make modifications. **Qualifications**: A minimum of 15 years of relevant experience and a current Arizona Registration as a Land Surveyor.
57	Survey Technician	Performs fieldwork under the direction of a Survey Party Chief on a variety of project types. Has operational knowledge of survey instruments such as (but not limited to) theodolites, total stations and GPS. **Qualifications**: A minimum of 3 years of relevant experience. (Survey Technicians with less than 3 years experience are classified as a Technician under the Miscellaneous Category) *NOTE: 2 and 3 Person Survey Crews are no longer valid classifications for ECS contracts. Firm must determine and propose classifications for individual members of a crew based on the work to be performed by each crew member. Crews may be comprised of various combinations of Technician, Survey Technician, Designer, and Survey Party Chief, etc.).*
58	Survey Party Chief	Supervises, assigns and reviews the work of staff responsible for technical survey services. Oversees and participates in office and/or fieldwork activities and performs a variety of related technical tasks. May prepare legal descriptions, control points, Results of Survey, etc. **Qualifications**: Land Surveyor-in Training (LSIT) or a minimum of 10 years of relevant experience.
RIGHT OF WAY (ROW)		
59	Acquisition Agent	Performs work involving ROW and property acquisition. Possesses a working knowledge of escrow, title work, real estate, and eminent domain laws. **Qualifications**: Current Arizona Real Estate License and a minimum of 2 or more years of college or technical school and 2 years of experience; or a current Arizona Real Estate License and 5 or more years of relevant experience.
60	Acquisition Agent - Sr.	Performs work involving ROW and property acquisition, escrow, title work, real estate and eminent domain laws. May supervise the work of Acquisition Agents. **Qualifications**: Current Arizona Real Estate License and a minimum of 2 or more years of college or technical school and 10 or more years of relevant experience; or a current Arizona Real Estate License and 15 years of relevant experience.
61	Relocation Agent	Provides relocation assistance and complex relocation determinations for individuals and businesses. Knowledge of Federal and State Laws, City Ordinances and ADOT regulations and policies. **Qualifications**: Current Arizona Real Estate License and a minimum of 2 or more years of college or technical school and 2 years of experience; or current Arizona Real Estate License and 5 or more years of relevant experience.
62	Relocation Agent - Sr.	Provides relocation assistance and complex relocation determinations for individuals and businesses, knowledge of Federal and State Laws, City Ordinances and ADOT regulations and policies. May supervise the work of Relocation Agents. Qualifications: Current Arizona Real Estate License and a minimum of 2 or more years of college or technical school and 10 years of experience; or current Arizona Real Estate License and a minimum of 15 years of relevant experience.

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ENGINEERING CONSULTANTS SECTION
2012-2013 Labor Classification and Definitions

RIGHT OF WAY (ROW) (continued)		
63	Right of Way Plans Technician	Performs work involving land surveying, plans development, CADD drafting, right of way calculations and research. May prepare legal descriptions, Results of Survey, etc. **Qualifications**: A minimum of 2 or more years of relevant experience.
64	ROW Project Coordinator	Provides leadership and monitors the ROW performance on all projects. Possesses extensive and diversified knowledge of applicable principles and practices. Applies advanced techniques, modifications and theories and serves as technical liaison on matters pertaining to field of practice. Performs coordination, monitoring and reviewing of ROW products and processes of all ROW Group Sections and external agencies to ensure project development schedules are met. **Qualifications**: A minimum of 2 or more years of college or technical school and 3 years of relevant experience; or 5 or more years of relevant experience.
65	ROW Project Coordinator - Sr.	Provides leadership and monitors the ROW performance on all projects. Possesses extensive and diversified knowledge of applicable principles and practices. Applies advanced techniques, modifications and theories and serves as technical liaison on matters pertaining to field of practice. Performs coordination, monitoring and reviewing of advanced and technical ROW products and processes of all ROW Group Sections and external agencies to ensure project development schedules are met. May supervise other ROW staff. **Qualifications**: A minimum of 2 or more years of college or technical school and 10 or more years of relevant experience; or 15 years of relevant experience.
66	Title Examiner	Performs detailed examinations of real property interest to be acquired or disposed by ADOT for transportation projects. Determinations as to ownership holdings, easements, liens and underlying fee interest of existing state, county and city roadways. Researches land under the ownership of the Bureau of Land Management, Bureau of Reclamation, Arizona State Land Department, various National Forests, Indian Reservations, Railroads, Canals and any other state and federal agencies. Skilled in reading and plotting metes and bounds legal descriptions and reading as-built and right of way plans. Analyzes complete data gathered and prepares reports utilized by the other ROW components. Given responsibility for projects of moderate complexity. **Qualifications**: A minimum of 2 or more years of college or technical school and 3 years of experience; or 5 years of relevant experience.
67	Title Examiner - Sr.	Performs technical and complex examinations of real property interest to be acquired or disposed by ADOT for transportation projects. Determinations as to ownership holdings, easements, liens and underlying fee interest of existing state, county and city roadways. Researches land under the ownership of the Bureau of Land Management, Bureau of Reclamation, Arizona State Land Department, various National Forests, Indian Reservations, Railroads, Canals and any other state and federal agencies. Skilled in reading and plotting metes and bounds legal descriptions and reading as-built and right of way plans. Analyzes complete data gathered and prepares reports utilized by the other Right of Way components. May act as a Team Lead and reviews subordinates work. Given responsibility for projects of challenging and technical complexity. May supervise other Title Examiners or staff. **Qualifications:** A minimum of 2 or more years of college or technical school and 10 years of experience; or 15 years of relevant experience.
MISCELLANEOUS		
68	Technician	This classification is an ENTRY LEVEL position not defined in other classifications. Individuals in this classification generally perform non-technical or field work under supervision. May include technical disciplines such as Materials, Geotechnical, Traffic, Bridge/Structures, Roadway, ROW, Utility, Drainage, Planning, Survey, Environmental, etc. **Qualifications:** Formal education or experience is not required.
69	Supplemental Services Consultant	Performs Supplemental Services responsibilities for ADOT staff as defined in the contract, SOQ and Scope of Work. **Qualifications:** Must meet specified education and qualifications outlined in the Submittal of Qualifications (SOQ).
70	Other/ADOT Pre-Approved:	A classification that describes an individual with a recognized expertise in a specialized discipline of engineering or related field that is not covered by any other classification/definition. The proposed individual in this classification may or may not have a degree, but must meet the accepted industry standard for education, registration or certification in the specialized field. Firms using this category, must provide a definition of duties to be performed and/or independent justification outlining industry standards and hourly rates for the specialization. Firms must receive pre-approval from the ADOT PM and ECS before submitting this classification in an initial cost proposal and will be approved only in very rare circumstances. **Qualifications:** Must be provided with the proposed definitions.

ARIZONA DEPARTMENT OF TRANSPORTATION
Engineering Consultants Section

Consultant Labor Classifications and Definitions Guidelines
Effective August 1, 2012

A standardized list of Labor Classifications and Definitions has been established for ECS contracts to streamline the Cost Negotiations between the Consultants and ADOT ECS.

All ECS contracts selected/awarded after **August 1, 2012,** must utilize labor classifications on the **2012-2013 Labor Classifications and Definitions** list (**Appendix A** and herein referred to as the "approved list"). Labor Classifications on the approved list will be the only labor classifications eligible to be used on ECS contracts during cost negotiations. Existing contracts that require additional labor classifications must also use labor classifications from the current approved list.

Consultants must use one of the labor classifications on the approved list based on the classification description, regardless of the title/name the firm currently uses for their own staff to describe the classification. The approved list will be updated annually to reflect ADOT and industry requirements, as needed.

Overview of Classifications & Definitions List

1. The approved list is divided into **six (6) categories**: (1) General/Engineering, (2) Construction, (3) Environmental, (4) Survey, (5) Right-of-Way, and (6) Miscellaneous.

2. Minimum education and/or work experience requirements are included in the definition for each classification.

3. Many labor classifications on the list include a regular and senior position (e.g., Project Manager and Project Manager, Sr.). Primary differences between "regular" and "senior" positions are often reflected in the duties to be performed, education and/or years of experience required for the position. The "Senior" positions generally include leadership/supervisory duties and require 15 or more years of experience.

4. A general "Technician" classification is listed under the "Miscellaneous" section of the approved list for individuals in any discipline that do not have any formal education or previous work experience.

5. Classifications are often listed in order of progression with other similar classifications (e.g., Associate Biologist, Biologist, Biologist, Sr.) or cluster of classifications (e.g., Designer, Engineer, Project Engineer, Project Manager).

6. The Designer, Engineer and Project Manager classifications encompass Designers, Engineers and Project Managers in all disciplines/ADOT Technical Groups (Bridge, Traffic, Roadway, Geotechnical, etc).

7. While every effort was made to match labor classifications that were used in the past with the approved list, some matches were not possible. For example: 2 and 3-Survey Crew classifications are no longer applicable and must be proposed based on specific work to be performed by each crew member in various combinations comprised of Technician, Survey Technician, Designer and Survey Party Chief, etc.

ARIZONA DEPARTMENT OF TRANSPORTATION
Engineering Consultants Section

Consultant Labor Classifications and Definitions Guidelines
Effective August 1, 2012

Procedures and Guidelines

The general cost negotiation guidelines for using the approved list is detailed below:

A. During Cost Negotiations

1. Each Statements of Qualifications' (SOQs) Scope of Work (SOW) will include a list of projected labor classifications that the ADOT Project Manager (ADOT PM) anticipates to use in the contract.

2. The projected labor classifications from the approved list identified by the ADOT PM will be pre-populated by ADOT in the eCMS Online Cost Proposal module for the winning firm to use when completing its Cost Proposal.

3. If the pre-populated labor classifications in eCMS do not match with a position/title in your firm, carefully review the approved list and its corresponding definitions and match the responsibilities to be performed by each person to the closest labor classification that applies. The definition does not need to be an exact match to the job description of your personnel. It just needs to be the best fit for the work the individual will perform on a particular contract. In addition, the credentials of the individual(s) being proposed must match the qualifications stated for the classification. Consultants are encouraged to contact the appropriate ADOT PM or assigned ECS Specialist with any questions regarding the most suitable labor classifications to use.

4. Labor classifications not included in the pre-populated list in the eCMS online Cost Proposal module may be added from the approved list of labor classifications, if the Consultants determine that the SOW requires additional labor classifications that are not included in the pre-populated list. However, any additional proposed labor classifications are subject to ADOT's review and approval. Do not delete any labor classifications pre-populated by ADOT, just add and justify any new ones being proposed.

5. The approved labor classifications are located in the top portion of the eCMS Labor Class drop-down menu in eCMS and are delineated with an "*****" in front of them. The lower portion of the drop-down menu contains the old list of labor classifications and will be deleted when all contracts under negotiations prior to August 1, 2012, are completed. Therefore, **if your firm is completing an initial Cost Proposal after August 1, 2012, USE THE TOP PORTION OF THE APPROVED LIST ONLY (the classifications with the "*" in front of them).** DO NOT USE THE CLASSIFICATIONS FROM THE LOWER PORTION OF THE DROP-DOWN MENU (the classifications without the "*", unless you are completing a Cost Proposal that was submitted before the approved list was published).

6. In most cases, minimum education and/or work experience requirements are included in the definition for each classification. A general "Technician" classification is listed under the "Miscellaneous" section of the approved list for individuals in any discipline that do not have any formal education or previous work experience.

7. Consultants are required to use labor classifications on the approved list only. In very rare cases, the ADOT PM and ECS may approve the use of a labor classification not on the list. The use of any such classifications must be pre-approved by the ADOT PM and ECS and must be submitted with the initial Cost Proposal. If approved, Consultants may use the "Other-Pre-Approved by ADOT" classification from the drop-down menu to propose these rare, pre-approved contract-specific classifications. The proposed labor classification must be properly and sufficiently defined and

justified with supporting documentation uploaded into eCMS. The individual being proposed must meet the accepted industry standard for education, registration or certification in the specialized field. Firms using this classification must also provide a definition of duties to be performed, independent justification that outline industry standards, and hourly rates for the specialization.

ADOT Office of Audit & Analysis (A&A) will contact the firm to request submission of information to determine fairness and reasonableness of rates for all proposed **"Other-Pre-Approved by ADOT"** classifications.

8. Use of additional classifications will be rare and approved on a case-by-case and contract-by-contract basis. A new classification approved for one contract will not automatically be approved for use on future contracts. ECS will track all additional classifications approved on contracts to determine if these classifications should be added to the "approved list" for the next fiscal year.

9. **Unauthorized use** (i.e., not pre-approved by the ADOT PM and ECS) **of the "Other-Pre-Approved by ADOT" classification by the Consultants will result in the rejection of the proposed labor classification and rate.**

10. Keep in mind that this is a new process. While ADOT has made every effort to match labor classifications and rates that were used in the past with the new Labor Classification and Definition list, some matches were not possible. Similarly, it will not be possible to compare rates received for the same or similar classifications on old contracts with rates approved on new contracts using the new system being implemented. Justification for proposed rates on new contracts must include detailed explanation without references to past contracts. Justification such as *"this rate was approved on an old contract"* is not sufficient by itself.

10. Consultants will be required to provide the qualifications for all personnel listed in the SOQs and proposed on a contract, on revised ***Certified Payroll and Proposed Rate Forms*** (**Appendix B-D**) to ensure the required qualifications are met for each labor classification in the contract. Select the appropriate form for your firm and for the contract type (for straight, averaged or weighted rates or for Unit Prices of Work). Required information on these forms include the following:

    a. Education
    b. Number of years of relevant experience
    c. Technical Registration/Certification number, as applicable
    d. Actual hourly rate for individual being proposed at the time of the initial Cost Proposal submission

The form must be signed by the Project Principal or Officer of the Firm. ADOT reserves the right to request documentation (e.g., payroll registers, pay stubs, resumes, etc.) to verify qualifications, hourly rates and other information submitted on the ***Certified Payroll and Proposed Rate Form***. Subconsultants may submit the ***Certified Payroll and Proposed Rate Form*** directly to ECS, if desired.

Falsification of the Certified Payroll and Proposed Rate Form or any documents submitted during contract negotiations by the Consultant shall result in ADOT declaring failed negotiations and ADOT may proceed to negotiate with the next highest ranked firm in accordance with 40 USC §1104. Falsification of the Certified Payroll and Proposed Rate Form or any documents submitted during contract negotiations by the Subconsultant shall result in that Subconsultant being rejected from participation on the contract. Falsification by either

Consultant or Subconsultant may also result in disqualification from submitting SOQs for future ECS contracts and the firm may be subject to civil or criminal prosecution and severe penalties under state or federal law.

11. Labor rates for each classification must be within the Range of Reasonableness (ROR) determined by A&A for the classification.

B. After Contract Execution

1. Classifications and rates not negotiated as part of the original contract or via Modification cannot be used on contracts and will not be approved for payments.

2. If a Consultant wishes to add a new classification to any existing contract (executed before or after August 1, 2012), the labor classification requested must be from the current approved list.

3. The Consultant must submit an email request (with justification and applicable Certified Payroll and Proposed Rate Form) to the ADOT PM and ECS Contract Specialist prior to submitting the Contract Modification or Task Order request.

4. The ADOT PM must review and approve, deny or recommend a substitute classification from the approved list. If, approved, the ADOT PM will notify the ECS Contract Specialist and the Consultant by email.

5. ECS will negotiate the rate for the approved new classification with the Consultant and execute a Contract Modification to add the new classification to the contract.

6. The approved labor classification can then be used on future Modifications or Task Orders for the contract.