EXAM PLAN FOR CIVIL ENGINEER III / EXAM #1410-1814-001

Analyst: Lindsey O'Connor / Date: 10/31/2014

Purpose of the selection procedure:	New Hire	Transfer/Promotional Opportunity	
Method(s) used to analyze the job:	Questionnaire	Interview	servation
	Other:		
Notes:			
Job Analysis Study completion date:	10/4/2014 (LO)		
Recruiting Strategy:			
Notes: see recruiting plan			

Knowledge, Skills, & Abilities (KSAs) to be Assessed Based on the Job Analysis:

- 1. Knowledge of practical application of engineering science and technology.
- 2. Knowledge of transportation engineering.
- 3. Knowledge of design techniques, tools and principles involved in the repair of the construction roads.
- 4. Knowledge of materials, methods and tools involved in the construction and repair of roads.
- 5. Knowledge of state and federal aid for streets and bridges program process and construction related issues.
- 6. Knowledge of computer software programs including CADD, Microstation, Microsoft Excel, Word and Outlook and Adobe Acrobat Professional.
- 7. Knowledge of the structure and content of the English language including meaning of words, spelling of words, rules of composition and grammar.
- 8. Knowledge of business management principles such as leadership techniques and coordination of people.
- 9. Knowledge of project management principles.
- 10. Skill in providing customer service to internal and external customers.
- 11. Skill in identifying complete problems, reviewing information, evaluating options and implementing solutions.
- 12. Skill in exercising good judgment and decision making by considering costs and benefits of potential actions.
- 13. Skill in using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- 14. Ability to listen and understand information and ideas through spoken words.
- 15. Ability to communicate information and ideas in writing clearly so others will understand.
- 16. Ability to evaluate information to determine compliance with standards.
- 17. Ability to read and comprehend technical documents such as survey reports, maps, drawings, blueprints, aerial photography.
- 18. Ability to communicate orally with supervisors, peers, elected officials, the public and vendors.
- 19. Ability to explain technical concepts and documents to others.
- 20. Ability to prepare technical reports.
- 21. Ability to plan and coordinate work.
- 22. Ability to manage time efficiently to accomplish work.
- 23. Ability to manage simultaneously multiple projects with various stages.

Types of	Types of Instruments:							
KSAs:	T&E Rating	Oral Board	Written Test* *Include Q. #s for each KSA tested.	Performance Exam	Written Exercise	Other:		
1.		X						
2.		X						
3.								
4.	X							
5.	Х	X						
6.	X							
7.		X						
8.		X						
9.		X						
10.		X						
11.								
12.								
13.								
14.		X						
15.		X						
16.		X						
17.					X			
18.		X						
19.					X			
20.		X			X			
21.		X						
22.		X						
23.		X						
%	% or	% or Q	% or O	% or Q	% or Q	% or Q		
KSAs:	Q	/0 01 @	/0 51 @	/0 OI Q	/0 01 @	/0 01 @		

Sc	Scoring Model:				
	Compensatory Model (A high score on one predictor* can substitute for or compensate for a low score on another predictor*.)				
	Non-compensatory Model (A minimal level of competency is required on each predictor, e.g., a failing score on one predictor*				
	cannot be offset by a high score on another predictor*.)				
	Multiple Hurdles Model (Two or more exam instruments are used in the exam plan. A candidate must receive a passing score on				
	one instrument before advancing to the next instrument. A candidate's score is based upon the score earned in the last hurdle.)				
	Combined Model (Two or more exam instruments are used in the exam plan. A candidate must receive a passing score on one				
	instrument before advancing to the next instrument. A candidate's final score is a <u>weighted combination</u> of the scores from each of				
	the individual exam instruments.)				
	*Predictor = Exam question, exam subtest, or exam instrument				