Group Project Ideas

Name_____________________________________________

Discipline:  Civil general ______  Structural ______  Geotech _______  Transportation _______  Environ ______

Put a 1 for first choice, 2 for second, 3 for third, 4 for fourth and 5 for fifth choice.

________  structural cost analysis - new mall, I-235 Des Moines project
________  geothermal insulation
________  power plant pollution control alternatives
________  bridges - environmental aspects, animals, water ways, life expectancy, structural deficiencies
________  water systems/water purification system
________  evaluation of alternative energies (bioethanol, biodiesel, wind, solar)
________  retaining walls
________  effectiveness of tolls on highways
________  high speed transportation system
________  cost of education and time to pay off debt, estimate how big your paycheck is going to be in 15 years
________  evaluating the cost of road maintenance
________  environmental concerns through the effects that roads and bridges cause to surroundings
________  the cost of materials used for a building
________  sports stadium structure
________  benefit/cost of removing OWI related facilities from Iowa roadways
________  railroad construction versus road construction
________  mountain tunneling
________  culvert design
________  concrete and road material mixing
________  bridge repair
________  how to establish pollution laws/regulations
________  appropriate water well/ hand pump technology for developing countries

Big Project ideas (see: http://www.icivilengineer.com/Big_Project_Watch/):

________  Big Dig (Central Artery/Tunnel Project): Big Dig is the largest single civil construction project ever undertaken in the US.
________  Central Japan International Airport: Central Japan International Airport is an offshore airport. When completed, it will be the third largest airport in Japan.
________  China River Diversion: The river diversion mega-project is the largest ever planned.
________  Melbourne City Link: This urban toll brings together the biggest infrastructure project in Australia.
________  Channel Tunnel Rail Link: The UK’s biggest civil engineering project.
________  Egnatia Highway: This project is a 680 kilometres highway with 11.25 km of tunnels and 105 bridges.
________  US 82 Greenville Bridge: The bridge with the main span of 1378 feet/420 meters will be the longest cable stayed span in the United States.
________  Heathrow Terminal Airport Expansion (Terminal 5): New airport terminal building.
________  Strait of Messina Bridge Project: The bridge will link the island of Sicily and the Italian mainland. When completed, it would be the longest suspension bridge ever built.
________  Pisa Tower Restoration: The leaning Tower of Pisa, closed for repairs for more than 10 years, costs $25 million in restoration.
________  Rion-Antirion Bridge: It will be the longest cable-stayed bridge in the world.
________  West Coast Router Modernization (UK): Upgrading the West Coast rail line linking London and Edinburgh in Scotland.
________  Singapore Deep Sewerage Station: Deep tunnel sewerage system consists of 90 km of deep tunnels and 170 km of link sewers and two treatment plants.
________  South Valley Development Project (Toshka & East Oweinat): South Valley Development Project is one of the world’s biggest irrigation pumping stations which will drive water into the desert for one of the most ambitious, comprehensive desert reclamation projects ever.
________  The Three Gorges Dam: When completed, the Three Gorges Dam on the Yangtze River will be the largest hydroelectric dam in the world.
________  T-REX project: I-25 freeway reconstruction and light-rail extension project undertaken in Denver, Colorado.
________  Venice Tide Barrier Project (The Modulo Sperimentale Elettromeccanico project): The project designed to protect Venice from flooding and erosion involves using a string of 79 inflatable gates to stem the flow of water through Venice’s three inlets into its lagoon.
________  Yucca Mountain Nuclear Waste Repository Project: The purpose of the Yucca Mountain Site Characterization Project is to determine if Yucca Mountain, Nevada, is a suitable site for a spent nuclear fuel and high-level radioactive waste repository.