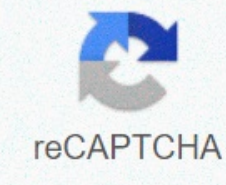I'm not robot

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Cisco chapter 6 exam answers routing and switching

A drilled dam is a deep foundation system under which a large diameter concrete cylinder is used. The cylinder is built with arrangement of fresh concrete and reinforcement steel in a drilled shaft. It is also known as a caisson, drilled shaft, cast-in-drilled-hoiles (CIDH pillars) or cast-in-situ piles. To develop a drilled pier, a large diameter hole is drilled into the ground and filled with concrete later. Normally, bored piles contain diameters below or equal to 0.6m. Trees larger than 0,6 m are normally designated as drilled pillars. A drilled dam belongs to a type of deep foundation, which is built to provide greater axial or lateral loads to a deep layer below the surface of the ground. Construction of drilled levees: Drilled dams are built in the following three phases: Excavation of levees, Provision of supports, Excavation of concrete of levees 1. Normally, the drilled pier is excavated with a hearing drill. In addition, different types of drilling equipment, such as rotary systems, hydraulic power, etc. are also used as per requirements. 2. An auger is connected with a shaft and rotated under pressure to dig into the ground. Once it is filled with soil, it is raised above the ground and released. Read also: Benefits of Pier and Beam Foundation 3. If the soil layer does not contain sufficient bearing strength, bell levees normally apply. To build a bell, the auger is replaced with a sub-reaming tool comprising a cylinder with cutting blades that are pivoted at the top. 4. The cutting blades remain in the folded position when the sub-reamer is lowered into the hole. After touching the bottom of the hole, the blades are externally extended through a mechanism. 5. When the sub-reamer is rotated, a bell is created and the free soil drops inside the cylinder, which is raised & released. The method must be repeated, unless the bell is fully developed. The diameter of the bell remains two to three times the diameter of the shaft. The angle of the bell should be 30o to 45o with vertical. 6. This process is suitable for hard clays if the hole is provided open for a few hours without any support. In soils without cohesion under the water table, a housing is arranged or a drill is made in a manure so that the hole does not collapse. The provision of supports for Piers Supports are supplied with the following two methods: the Chicago Method, the Gow Chicago Method: Within this system, a circular hole is created by excavating to the depth at which the soil will locate unsupported (approximately 0.5m for soft clay and 2m for rigid clay). Vertical plates aka laggings, are then placed in position around the excavated face and kept firmly against with steel rings. The tree is then excavated again for 1 to 2m and the further setting of tiles and rings is done. ReiterateReze method, unless the required level is reached. The base of the tree is then belled out. Gow method: In this system, the excavation of the hole is done physically. By using telescopic steel shells, the soil is supported and expanded because the hole becomes deeper. The shells are removed when the concrete begins. A section of the shell comes off at some point. The smallest diameter of the hole in this method remains about 1.25m. Concretion of the Keys 1. Once the hole is drilled to the desired depth, the shaft is watered and the bottom is cleaned. The housing (if applied) is detached. 2. The reinforcement cage is then laid out and the concrete is completed. As far as possible, concrete should be carried out in a dry hole of the shaft. 3. Concretion is carried out in a dry hole by pouring gravity, since the concrete does not hit the sides. However, when dehydration cannot be done or liquid manure is applied to support the sides of the shaft, the concrete is arranged with a tremie. Benefits of drilled quays: a. A single drilled pier supports the task of a group of piles.b. They contain greater resistance against lateral loads.c. Lighter equipment is required for the drilled pier and does not create any noise throughout construction.d. Grounding is not necessary in the case of drilled levees.e. Inspection of the base and sides of the pier is simple.f. The base of the drilled pier comes with a higher bearing strength and a higher resistance to lifting.g. They are used even when the soil includes boulders. strucguy (Structural) (OP) 7 Oct 08 11:41 I'm looking for some useful references or examples on the design of drilled levees. Any aid in this regard would be highly appreciated. Thanks in advance. Thank you for helping to keep Eng-Tips Forums free from inappropriate posts. Eng-Tips staff will check this and take appropriate action. Page 2 Are you an engineer professional? Join Eng-Tips Forums! Talk to other members be notified of your responsesTo your one-click search keyword messages access to yourFavorite St. SignaturesOn your best messages of all, it's free! *Eng-Tips functionality depends on members receiving e-mail messages. sign up to receive email. 131 CitationsSHOWING 1-10 of 16 REFERENCESSORT BYRevanceThe Most Influential PapersReceiptPage 2131 CitationsSHOWING 1-10 DIN 16 REFERENCESSORT BYRelevanceCemcency Influenced Page 3131 QuotesSHOWING 1-10 of 16 REFERENCESSORT BYRelevanceMost documents influencedReceiptPage 4131 QuotesSHOWING 1-10 of 16 REFERENCESSORT BYRelevanceMost influenced 5131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 6131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 7131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 8131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 9131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 10131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 11131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 12131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 13131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 14131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 15131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 16131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 17131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 18131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecencyPage 19131 CitationsSHOWING 1-10 OF 16 REFERENCESSORT BYRelevanceMost Influenced PapersRecency COMPLETE ANALYSIS & DESIGN OF A DRILLED SHAFT FOUNDATION Download Free DEMO Updated November 4 , 2019 $320.00 – $960.00 Calculator Return on Investment (ROI) Bored Pile Software is compatible with Australian AS 2159-2009 & American ACI 318-14. So far, you need one program for axial capacity, another for lateral load analysis and another third program for reinforcement design. SoilStructure Drilled Pier Software performs all three of the above calculations. In addition, it calculates the capacity of the torsion moment, vertical placement and lateral deformation. Others may also refer this to the drilled shaft, bored pile or caisson. It also makes negative skin rubbing and uplift analysis. SEE Drilled Pier Video Program calculates the capacity of a single foundation pier drilled (Bored Pile) subject to: Lateral load Bending Axial Moment down load Uplift (Tension) load torsional moment and Downdrag load (negative skin rubbing) Site soils are often layered, so the Drilled Pier software can handle up to 20 layers of soil, 250 ft embedding (75 m) and maximum 12 ft diameter pier (4 m). The analysis can be done in SI units or in English units. The analysis applies to both the CAP FIX condition and the CAP LIBER condition. Supports Windows XP/Vista/Windows 7 & Windows 8. As a result, Drilled Pier software can analyze: Solar Foundations Building Foundations sign support foundations foundations wind turbines Retaining bridge bridge wall piers Secant / Tangent Piles Landslide Piers Soldier Beams (King Post) encased in Concrete WHAT ARE NEW USERS INSTUND: Drilled Pier Software has provided ease of data entry for all aspects of the program, especially regarding geotechnical properties. The graphics of the solution were excellent, with remarkable consolidation details, only the Forleted Pier software used in my structural/geotechnical practice. Gregory P. Wilson, PhD, P.E., Sulphur Springs, TX. On a particular project, you may have axial and lateral load analysis and then, in a different case, have a bored bunch with shear and torsion time. There is no need to check the torsion time of the hand threshold or delegate the settlement analysis of the geotechnical consultant. Below are drilled pier details that support a retaining wall. This structural engineering software refers to the work of Reese & O'Neil (FHWA), as well as Budhu for geotechnical axial capacity. Hetenyi, Poulos, R.F. Scott, Kezdi, Bowles, Hull, Young, Budynas and Azizi are mentioned for lateral loading capacity. Briaud/Tucker, Terzaghi & Peck and Zeevaert are mentioned for downdrag tasks. University of Florida reports, IDOT, Barg, & ACI 318-11 report are referenced for torsion moment capacity, and Fanella, Barg & ACI 318-11 are referred to for column reinforcement design. DrillEd Pier software can be used by structural engineers because geotechnical properties can be imported from a soil ratio (alternatively, most values are pre-filled for you). However, an experienced co-involvement of the experienced geotechnical engineer & structural engineer is recommended. Drilled Pier Software will be the ally of a geotechnical engineer, as structural loads can be introduced along with soil layers. Furthermore, the program performs an effective analysis of stress and stress to calculate limiting geotechnical capacity and vertical placement. Unique for Forlered Pier software only are five features: The only software currently available to perform the geotechnical & structural torsion moment capability of a pier drilled foundation. So if you have a lateral load with eccentricity or a cantilever sign foundation, among other things, Drill Eder (Bored Pile) Software will calculate the capabilities of the torsional moment. Ability to have up to 20 layers of soil, 250 ft (75 m) deep and 12 ft (4 m) dam diameter, so you can analyze just about any building or earth retention foundation in a layered soil environment. The calculation of limiting geotechnical and structural capacities is shown side by side. For example, Torsional Moment is often limited by structural capacity, while the load down is often limited by geotechnical capacity. The option of having a bell bottom to increase the geotechnical capacity of the user has entered the final bearing pressure. The reinforcement design with The P-M chart can manage the Shear (Vu), Axial (Pu), Moment (Mu), Torsional Moment (You) and Torsional Moment & Shear (T & V) ratios. Enter the tasks considered. The anchoring design is outside the scope of this software. The program assumes that the engineer who uses this software is experienced in hand calculations & has a broad technical judgment in the analysis of the drilled pier & design. This is the price of being a profitable & convenient all in one design tool on the desktop. You will like the ease of entry and use of standard units. The comprehensive report can be printed on paper or in PDF format. An upgrade from manual methods that do not check short- and long-term geotechnical capabilities, nor reinforcement design. The download version will unlock to a full license once purchased. For those in Australia, we comply with the Australian code, Piling – Design and Installation, AS 2159-2009. For those in Canada, we comply with the Canadian Code, .Concrete Structure Design, A23.3-2014. For those in the U.S., we comply with the construction code requirements for ACI 318-14 & The 2015 International Building Code, IBC 2015. We may only have about 4 updates throughout the year. Drilled Pier software is so intuitive that we only get 1 question support per month (from all users combined)! And when you contact us, we'll respond within 24 hours. If you leave us a voicemail, we'll call you on the same day. And if you're working on a deep foundation, this Bored Pile/Drided Pier program is all you need for geotechnical analysis and structural design. You will get a USB key that is good until the next version of the Building Code and you don't pay a dime on the annual fees. It is currently used by engineers in: Australia, Canada, Dubai, Saudi Arabia, Mexico, Malaysia & USA. From CRSI Drilled Pier Design Guide Publishing: The Drilled Pier program was used to run the p-y analysis on all the tabulated drilled pier design presented in this guide. The results were also compared with actual field tests and were found to be conservative in all cases examined, the CrSI Design Guide for drilled Piers, 1st Ed., 2016, Page 3-2. Examples of reports and checks Sample #1 #1 sample check #2 check #2 screenshots Download free demo demo