



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Section

Course

Code

Thursday

Master

Date

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(PMG506)

Advanced project Management

Instructions:

- اخر موعد للتسليم هو يوم الخميس ٢٠٢١-٠٥-٨ في تمام الساعة ٩ مساءً.
- الإجابة متاحة باللغة الإنجليزية أو اللغة العربية مع مراعاة أن تكون المصطلحات العلمية باللغة الإنجليزية.
- يتم تسليم المشروع في صيغة ملف pdf مع الالتزام نموذج الجامعة ولن تقبل أي مستندات أخرى.
- يجب مراعاة أقسام البحث الرئيسية (مقدمة Introduction، دراسات علمية سابقة Literature Review، طريقة البحث Methodology، النتائج والمناقشة Results and Discussion، وأخيراً المراجع References. وان كان هناك ملحقات Appendices يتم إضافتها)
- يجب الالتزام بـ Theme موحد كما يلي:
- حجم الخط ١٢.
- نوع الخط Arial.
- لون الخط أسود.
- المسافة بين الأسطر ١,٥ line spacing

• عدد صفحات البحث (لا يقل عن ثلاث صفحات ولا يزيد عن ست صفحات).

Instructor's Name: ~~Eng. Amaal Aburumman~~ **Eng. Dr. Akram M. S. Ali**

Project:

You are required to document your role in administering a project. The project may be set in a business, social, sporting, or family environment but must be of a significant size and scale. If you do not have an actual project to write about you may complete the project hypothetically.

This report will be between three to six pages in length. This is a significant research project.

Your report must address ~~each~~ **ONE** of the following issues:

1. Identify and describe the purpose, scope, and objectives of the project. **Display this information using an appropriate tool.**
2. Describe how the team is given an outline of the project.
3. Describe the strategies that are going to be set up to maintain communication with the team members.
4. Describe the tools that are going to be used to monitor the goals, time frames or milestones.
5. Identify project milestones and activities. **Display this information using an appropriate tool.**
6. Create a budget and link the costs to the key milestones for a project.
7. Describe how you are going to divide tasks and resources amongst a project team. **Display this information using an appropriate tool.**
8. Briefly describe how the progress will be monitored.
9. How are current project records maintained? Who has responsibility for this? provide some recommendations on how this process could be improved.
10. Describe the current procedure for finalizing projects. Create your own procedure and identify how you will evaluate the success of the project.
11. Legislation that may affect the project including health and safety, and anti-discrimination legislation.

Best of luck...

المشروع:

مطلوب منك توثيق دورك في إدارة مشروع. قد يتم تعيين المشروع في بيئة تجارية أو اجتماعية أو رياضية أو عائلية ولكن يجب أن يكون بحجم مناسب. إذا لم يكن لديك مشروع فعلي لتكتب عنه ، فيمكنك إكمال المشروع افتراضياً. سيكون هذا التقرير من ثلاث إلى ست صفحات.

يجب أن يعالج تقريرك ~~كل~~ **احد** القضايا التالية:

١. تحديد ووصف الغرض والنطاق والأهداف من المشروع. اعرض هذه المعلومات باستخدام أداة مناسبة.
٢. صف كيف يتم إعطاء الفريق مخططاً تفصيلياً للمشروع.
٣. وصف الاستراتيجيات التي سيتم وضعها للحفاظ على التواصل مع أعضاء الفريق.
٤. صف الأدوات التي سيتم استخدامها لرصد الأهداف أو الأطر الزمنية أو المعالم.
٥. تحديد معالم المشروع والأنشطة. اعرض هذه المعلومات باستخدام أداة مناسبة.
٦. إنشاء موازنة وربط التكاليف بالمعالم الرئيسية للمشروع.
٧. صف كيف ستقوم بتقسيم المهام والموارد بين فريق المشروع. اعرض هذه المعلومات باستخدام أداة مناسبة.
٨. صف بإيجاز كيف سيتم رصد التقدم.
٩. كيف يتم الاحتفاظ بسجلات المشروع الحالية؟ من المسؤول عن هذا؟ تقديم بعض التوصيات حول كيفية تحسين هذه العملية.
١٠. وصف الإجراء الحالي لإنهاء المشاريع. قم بإنشاء الإجراء الخاص بك وحدد كيفية تقييم نجاح المشروع.
١١. التشريعات التي قد تؤثر على المشروع بما في ذلك الصحة والسلامة ، وتشريعات مكافحة التمييز.

مع تمنياتي بالتوفيق..

1. Introduction:

The client request for Construct a track light for Riyadh station between the two lines along 2km, pole light with 15 meters, height including two arms for lighting fixture each power capacity for the lighting fixture is 1000 watt, the client need a contractor has able to construct this contract as per the following method of work:

- 1- Project design.
- 2- Materials approval
- 3- Material delivery
- 4- Work implementation
- 5- Testing & commissioning
- 6- Hand over project.

- 1. Project design stage: -

The first step for the project is the project design which will be executed by the contractor who will prepare the shop drawing, catalogues and submittals and here below is the specification for the component in the project as follow: -

1.1- Pole light & fixture: -

Included all the drawing with the pole specification of the light which is made of hot dip galvanized and the height will be 15 meters, And the specs of the light (LED LIGHT) 960 W as per the scope of work. And the distribution of the pole light against the given area will be according to calculation via (dialux program) to achieve the required lux.

1.2- Power Panel Boards: -

The shop drawing also will indicate the location of the main power panel boards and the distribution panel boards the main panel boards will be set in the middle of the 2KM approximately 1 km from the generator in the middle of the project length this will be reduce the voltage drop on the cable connected to the pole light, distributed power panel boards, these panel boards will be distributed every 250 meters and will be connected through cables to the main panel boards, also the panel boards will contain the photocell the shop drawing will be delivered to the owner with power load calculation for all panel boards with schedule panel boards along with power single line diagram for the complete project.

1.3- Electrical power cables: -

Electrical power cables the shop drawing also will mark & indicate the power cable paths, before any excavation or starting work the contractor should visit the site to make sure the power cables paths are free of other utilities and the contractor should support with the other department regarding any utilities in the area or crossing or intersect with the new power cables.

1.4- Diesel Genset: -

The shop drawing will determine the generator location along with the genset complete specification such as the generator capacity according to The scope requirements and the generator type will be prime generator, Also, the shop drawing and design will indicate all the materials delivered with genset exhaust fan, start up battery, battery charger, diesel fuel tank, the control panel board, and the diesel pump, the design will put every component in its location with dimension. The delivered generator will be 5 years warranty as per the required from SAR and the generator will operate and will be enough for the required light load.

2. Materials Approvals:

Before to deliver any material to the site The contractor should submit all the materials first for approval, the contractor should prepare the catalogues that comprises all the complete specification for the materials which meet the project requirements and the owner specifications, the contractor should select the best supplier and the best materials for the project to submit for approval To be sure that the materials will be delivered on time to avoid any delay for the project.

3. Material delivery & storage: -

The contractor should provide the site with a complete and save a store for materials to save the materials from any damage or lost and keep the materials new as it received recently for the factory.

3.1- Material factory Test:

Before any materials deliver to the site and after approval, all the materials will be tested in the factory and get the certificated for all equipment's and these certificates will be delivered to the owner during installation to be sure that the devices are working properly.

4. Work Implementation:

This stage is the most important step in the project which all the above work will be simulated to the actual site

4.1- work permit & approval:

Before starting the works in the site the contractor should submit the to take the work permit from the concerned sectors, also the contractor support to the other departments like security department and the sectors for the utilities to take the approval before any work,

4.2- Site Preparation:

Site Clearing and Grubbing will includes but is not necessarily limited to removal of top soil and disposal of all vegetation, debris, abandoned pavements and structures, unsuitable soil materials and any other obstructions to construction, which is not listed elsewhere in the schedule of quantities and prices but shown on drawings all in accordance with the contract drawings and specifications.

Bulk earthworks for roadway construction will generate several types of material that will be unsuitable for immediate use, or may not be suitable for any use, thus necessitating temporary storage or permanent disposal. The development of the following materials requiring storage or disposal is anticipated:

- Colluvium – the excavated colluvium materials may be suitable for re-use as general grading fill provided, they do not contain deleterious materials, such as organic inclusions ...etc.

4.3 Soil Excavation:

The Contractor will bring the machine and tools to do the job, will bring the excavator and jack hammer,

- Contractor will determine and make the boundary and take precautions around the excavation path including all safety tools to start the work
- Contractor will start the excavation path for branches cables where these cables between the columns and the distribution panel boards
- Contractor will excavate to the required depth for every column after the surveyor fix all the points for the columns
- Contractor will excavate the cable path between the main distribution power panel and the submain distribution boards

- Contractor will excavate the path between the generator and the main distribution power panel board.

The depth of the excavation is 1000mm depth as per the standard.

4.4 Pulling Low Voltage Power Cables:

After the excavation finished, now it is coming up to the cable pulling Using pulling machines, rollers, soft sand and warning tape

- Pulling the cables between the generator and the main distribution power panel board
- Pulling the cables between the main distribution panel board and the submain distribution panel boards
- Pulling the cables between the submain and the poles light.

4.5 Equipment Installations:

- Electrical panel boards
- Poles light
- Prime Generator

The next step is to install the equipment like the pole light with lighting fixture using the man lift and crane suitable to the pole height and weight

Starting to install the electrical panel boards in its locations, also installing the genset beside the TSMG building and all the details will be submitted with the shop drawing.

4.6 L.V Power Cable Termination: -

After low voltage cable pulling and equipment installation now cable termination to the equipment must start in this stage and contractor will use Cable lugs, crumbing machine, cable scissors, and cable surround and cable marker

In this stage contractor will clean the cables from its ends and clean the copper at the ends of each cables to start putting the lugs for the cables which be suitable for each cable then put the cables on the poles from one end and on the panel board from the other end.

4.7 Pole Earthing Works:

As per specification, standard and safety the pole must be connected to the earthing system to prevent from lightning protection and short circuit current Beside every lighting pole will be install steel copper earth rod 3 meter length and will putted inside earth pit 50x50cm with earth bar copper the earth bar connected between the earth rod and the body of the lighting pole.

4.8 Backfilling:

After finished the equipment installation and the cable pulling and cable termination now coming up to the excavation.

- Use the soft sand on the cable this layer will be 30 cm above the cable
- Put 30 cm normal sand above the soft sand along with the cable's paths
- Warning tape then be added on the above two layers
- And normal sand will be added on the warning tape and make leveling to the project land.

5. Testing & commissioning

Before the project hand over the testing and commissioning will be done the contractor should test all the project and all the materials to be sure that the materials and the project working properly as per the specification, standard and the goal of the project.

6. Project Handover:

After testing and commissioning success, MADAF will invite the owner to receive the project completely working as per the requirements.

The contractor should provide the owner with the following documents:

- 1- As built drawing for the project (soft & hard copy)
- 2- Warranty and certificate for all the project equipment's