



Project Plan

Project Title

Author

Lightscape Electrical

Version 1 – 14 September 2020

Document Management

Distribution List

The project plan must be distributed to all members of the project steering committee.

Name	Position	Signature	Date
Mark Allardyce	Project Manager (Lightscape)	MAllardyce	14/9/2020
John Doe	Project Manager (SRC)	JD	14/9/2020
Peter Banana	Director (Lightscape)	Peter Banana	14/9/2020

Version Control

Revision #	Change Description	Approval Date	Author
1	Initial release		

Project Registration

Project Name	Fernvale Sports grounds
Project #	VP200778
Creation Date	14/9/2020
Sponsor/Client	Somerset Regional Council
Project Manager	Mark Allardyce

Executive Summary

Rational

Fernvale Sporting ground was built in 2016 to support a growing need for sporting facilities in the area. Netball courts were constructed along with a clubhouse and lighting was incorporated into this part of the project. Due to budgetary restraints lighting on the AFL field was not incorporated. With the new financial year a new budget has allowed the construction of lighting at the AFL field.

Business Background

Lightscape Electrical

Lightscape Electrical has been established for 6 years, providing a key electrical service to greater Brisbane and the sunshine coast. Specialising in domestic and small commercial projects Lightscape Electrical is ready to venture into the mid tier commercial arena.

Key Objectives

The key objectives of this project are to:

1. Excavate and install cable and cable systems to supply new light poles
2. Install of 4 new galvanised light poles.
3. Supply and installation of new stainless steel switch board
4. Installation of lighting control systems

Benefits

The benefits of this project include:

During the project:

- To use local suppliers and businesses during the construction of the lighting system.

After completion of the project:

- Local clubs will benefit from these lights as they will be able train safely late afternoon and into the night.
- The clubs will also be able to have more teams and therefore a higher amount of revenue.
- The local residents will benefit from this as they can watch games at night.

Organisational Impacts

The business will be required to provide accomadation for the 5 staff mobilised to the project. Plant and equipment will be mobilised to site for the duration of the project and will not be in use for local jobs for the 13 days duration of the project. These impacts on the business are minor and will not affect day to day operations.

Authorisation

Recommendation

Lightscape electrical has submitted this plan to Somerset regional council and has been approved to meet the scope required.

Approval

☒ Approved

☐ Postponed

☐ Cancelled

☐ Review

Sign off

The project plan only becomes valid once signed off by the following members of the project steering committee.

Name	Position	Signature	Date
Mark Allardyce	Project Manager (LSE)	<i>MAllardyce</i>	14/9/2020
John Doe	Project Manager (SRC)	<i>JD</i>	14/09/2020
Peter Banana	Managing director (LSE)	<i>Peter Banana</i>	14/09/2020

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Project Information

1. Integration Management Plan

1.1. Methodology

This Project will be using the PMBOK methodology. This will ensure all project aspects are covered.

Scope: What the project will deliver.

Time: When will the deliverables be delivered

Cost: The project budget and cash flow

Quality: Ensuring all council building and environmental conditions and regulations are met.

Human resources: The staff involved in the management and delivery of the project.

Communication: Ensuring all stakeholders are informed of requirements, progress and issues.

Risk: Ensuring project risks are managed.

Procurement: The project contracts with subcontractors and suppliers.

Integration: Integrating the other project aspects.

1.2. Project Dependencies

The project depends on the application to Energex for a new supply to feed the new switchboard.

1.3. Change Control

The Procedures for change are as follows

1. Any change to the scope of the project shall be submitted via the change request form.
2. The scope change request will then be negotiated between Lightscape project manager and SRC project manager.
3. Once both parties agree to the changes the Lightscape Project manager shall make the changes to the plan crossing out the old and highlighting the change.
4. Any council or building approvals are made at this point.
5. Any Variation to the cost will be charged appropriately.

1.4. Auditing

In House auditing of the project will undertaken after each milestone, such as post excavation or after pole footing pour. Council inspectors will audit post completion of the project. Independent engineers will also audit post project as per tender specification.

1.4. Performance Reporting

Due to the short duration of the project no performance reports will be carried out during works. A performance report shall be made after the project. A lessons learnt report shall also be compiled post project.

1.5. Project Closure

Upon completion of the project.

1. Any outstanding invoices are to be paid

Any outstanding invoices to suppliers, wholesalers or others are to be settled prior to final documentation.

2. Any remaining progress claims are made

Collection of the final progress claim shall be made once the final documentation has been completed.

3. Project completion documentation is to be completed.

The project completion report is to be prepared as well as the site audit, lessons learnt report and final payment summary.

The Gantt chart must show the completion of the project, and the project version controls shall show final. Any issues will have been closed off and the project reports will have been sent out to the appropriate people. The project shall now be archived.

2. Scope Management Plan

2.1. Deliverables

The deliverables for the project include:

- Survey and Services location.
- Excavation of footing for post cages.
- Excavation and installation of pit and pipe
- Installation of cable
- Installation of new Switchboard and controls.
- Installation of light poles and new LED lights.

2.2. Inclusions

The project inclusions for each deliverable include:

- **Survey and services location**
 - Completing the survey for locations of trench and poles
 - Using Ground penetrating radar to locate existing services.
- **Excavation and footing for post cages**
 - Digging post footing and lining with form tube
 - Installation of reinforcing cage and connection bolts.
 - Concrete supply and pour.
 - Soil testing.
- **Excavation and installation of pit and pipe**
 - Excavation of 384m of trench.
 - Supply and Installing conduit and pits
 - Backfilling of trenches.
- **Installation of cable**
 - Winching of cable into conduit network .
- **Installation of new switchboard and controls**
 - Supply and installation of new stainless steel switchboard.
 - Supply and installation of controls system and panel.
- **Installation of light poles and new LED lights**
 - Fitting lights onto poles on the ground.
 - Wiring of lights on the ground
 - Crane lift of poles into position and bolt down.

2.3. Exclusions

The project exclusions for each deliverable include:

- **Survey and services location**
 - Survey of any other components of the ground not in our scope.
 - Services not directly affecting our work area.
- **Excavation and footing for post cages**
 - Engineering of reinforcing cage and bolts
 - Concrete testing.
- **Excavation and installation of pit and pipe**
 - Returning of excavation to playing field specification.
 - Supply of under turf and turf.
 - Camera inspection of pipe.
- **Installation of cable**
 - Non project specific cabling supplies.
- **Installation of new switchboard and controls**
 - Labeling outside of mandatory MSB labeling.
- **Installation of light poles and new LED lights**
 - Extra lighting
 - Readjusting lens from engineering report.
 - Crane damage to turf repair.

2.4. Handover

The project shall be handed over to SRC on the final day of projected works.

The Handover will only happen when the projects deliverables have been met, and the final audit form the independent engineer has taken place.

A final Report will be sent to SRC within 2 weeks of completion housing all of the engineering certificates, warranty and instructional paperwork as well as the final electrical test report.

3. Time Management Plan

3.1. Schedule

The Schedule for the Fernvale project is layed out in the following formats

Appendix 1: Gantt Chart

Appendix 2: WBS

3.2. Milestones

The Key milestones are the start and finish dates. Due to the short duration of the project there is no need to break up the job into smaller phases.

Start: 23/11/2020

Finish 7/12/2020

4. Cost Management Plan

4.1. Budget

The Project costing total is:

\$259997.20 materials.

\$39000 total labour.

\$2000 Crane Hire

\$325076.97 Total with 8% profit margin (\$24079.77)

4.2. Estimating methodology

Project material costing have been supplied via a Quotation from suppliers through our electrical wholesaler.

Crane hire was a set figure for the day.

Labour has been calculated at \$60 per hour for the 650 man hours allowed for the project.

4.3. Confidence level

There is a high level of confidence on this project. The Hours allowed have been calculated with a small margin for error. The Material prices are also negotiable throughout the project.

4.4. Contingency

The SRC have agreed to a 50% start up cost of \$150,498.60, With the short project time of 13 days, and a final payment due 7 working days post completion, any material cost shall be coved within the 30 day deadline.

4.5. Source of Funds

The SRC shall pay a 50% start-up cost. This payment will cover all start-up cost and labour for the duration of the project. The SRC shall pay the remaining 7 days post completion, allowing invoices of 30 days to be paid on time.

4.6. Cash Flow

Labour Shall be paid on the Monday of the following week. Labour costs have been calculated by the staff rate with overheads multiplied by the number of hours calculated for the project.

Materials invoices will be paid at the end of the month. (30 days)

Purchasing shall be made in the first week of the month. Any purchasing made outside this week will need PM approval.

5. Quality Management Plan

5.1. Overview of Quality Requirements

Quality assurance shall be provided by the following:

- SRC Regulations
- AS3000 Standard Electrical wiring rules
- AS61439 Low Voltage switchgear and control Gear
- AS3008 Wiring selection
- AS2293 Exit and emergency lighting
- AS1680 Minimum Illuminance Task
- AS3080 Telecommunications
- AS3084 Telecommunication installation
- AS/CA S008 Requirements for Customer Cabling Products
- AS/CA 2009 Administration of communications cabling systems – Basic requirements
- AS2560.1-2002 Sport Lighting General principles
- AS2560.2.3 -2007 Lighting for football
- AS4282 -2019 Control of the obtrusive effects of outdoor lighting

5.3. Quality Assurance

All Quality Assurance checks are to be made weekly by the project manager.

5.6. Quality Control

Quality control will be made by an independent engineer following completion of the project but before handover.

6. Human Resource Management Plan

6.1. Stakeholders

The stakeholders for the project include the following:

- Somerset regional council.
- Fernvale Sports association.
- Lightscape Electrical.

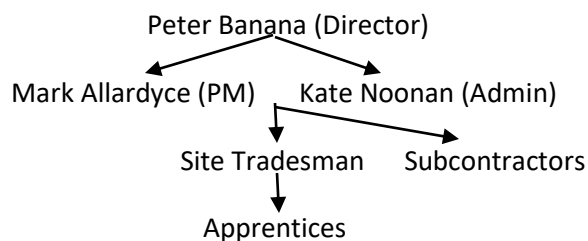
6.2. Resource Capability

Lightscape employs 10 full time electricians and 4 full time apprentices, as site staff with 1 project Manager. There will be 3 full time employees assigned to the Fernvale project with the Project Manager overseeing.

7. Communications Management Plan

7.1. Organisational Structure

Lightscape's organisational structure is as follows:



7.2. Escalation

All conflicts will drive up the chain of command, to the next appropriate level.

All Staff issues will be handled by the project manager, who in turn will notify the director of the issue and resolution. If a resolution cannot be made with the project manager, then the issues will be handled by the director.

Any problems with the client or major stakeholders shall be handled by the director.

8. Risk Management Plan

8.1. Constraints

The playing fields must be preserved, all excavation is to take place outside the playing surface.
The project must be completed by the set handover date, as games have been booked.
There is a fixed budget of \$250000.00.

8.2. Assumptions

All council approvals are in place prior to the start date.
All Electricity supplier approvals and fees have been made prior to start date.
Free and clear access to the site.

8.3. Potential Issues

Weather issues, rain causing problems with excavation and therefore delays.
Any breakdown of machinery and equipment.
Staff sickness.
Material delivery delays.

8.4. Risk

See attached Appendices 1

9. Procurement Management Plan

9.1. Procurement Planning and Solicitation Planning

This project will only use one subcontractor, this contractor has worked alongside Lightscape on similar projects in the past and has been chosen again for the knowledge and experience they already have proven.

Supplier procurements have been determined by the clients, want for specific parts.

9.2. Contract Administration

Contract administration will be handled by the project manager and director throughout.

Tasks such as, ensuring the schedule is kept, purchase orders and invoicing, and payroll.

9.3. Contract Close-out

At the close out for the project (or Subcontractors Part of Project) the Project Manager shall complete the quality assurance paperwork for the Lightscape staff and subcontractors.

The collection of all reports, Testing and QA Forms shall occur at this point.

Appendices

1 Risk Management

Risk	Risk Rating	Solution Method	Residual risk	Person Responsible
Weather Delays	Likely (4) Moderate(3) = Moderate (12)	Allow movement of tasks to suit small weather problems. Long range forecast shows no problematic weather.	Unlikely (2) Minor (2) = Moderate (4)	Project Manager/ Site supervisor.
Product delivery delays	Unlikely (2) Moderate(3) = Moderate (6)	Small products can be collected by site staff directly. Any major products (i.e. Poles) backup manufacturer. Discuss with client if the project can be completed with the delay.	Unlikely (2) Minor (2) = Moderate (4)	Project Manager
Procurement Problems	Possible (3) Moderate(3) = Moderate (9)	All small electrical products shall be sourced from another backup wholesaler. Poles will incur a delay from the backup, but are available.	Rare (1) Minor(2) = Low (2)	Project Manager
Staffing	Unlikely (2) Minor(2) = Moderate (4)	Staff holidays are known 4 weeks out from the start of project date. There are no foreseeable redundancies. Labour hire staff are available for any staff that choose to leave.	Rare (1) Insignificant(1) = Low(1)	Project Manager/ HR
Budget Blowout	Possible (3) Major(4) = High (12)	Close monitoring of the budget during the project.	Unlikely (2) Moderate(3) = Moderate (6)	Project Manager/ Site supervisor.

		A small risk margin built into the project budget to allow for any unforeseeable problems.		
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