



VOLUME 3 – FINAL DRAWINGS FOR
GARBAHAREY DISTRICT STREET LIGHTING
(GEDO REGION)

PROJECT:

FINAL DRAWINGS FOR
GARBAHAREY DISTRICT STREET LIGHTING
(GEDO REGION)

CLIENT:



THE FEDERAL REPUBLIC
OF SOMALIA



Government of Jubaland State
- Garbahaareey District

FINANCED BY:



IMPLEMENTED BY:

SFF SOMALIA
Special Financing Facility

CONSULTANT:



ECOTECH LIMITED

P.O. Box 5527-00100,
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Email: Info@ecotech.co.ke

Web: www.ecotech.co.ke

Location: Ecotech House, Woodlands Road,
off Lenana Road, Nairobi - Kenya

FINAL DRAWINGS FOR GARBAHAREY DISTRICT STREET LIGHTING
(GEDO REGION)

CONTRACT N^o: [MOF/SFF/SERV/08](#)

SFF-LD GRANT N^o: [TFOA1715](#)

OCTOBER 2017

DRAWING INDEX

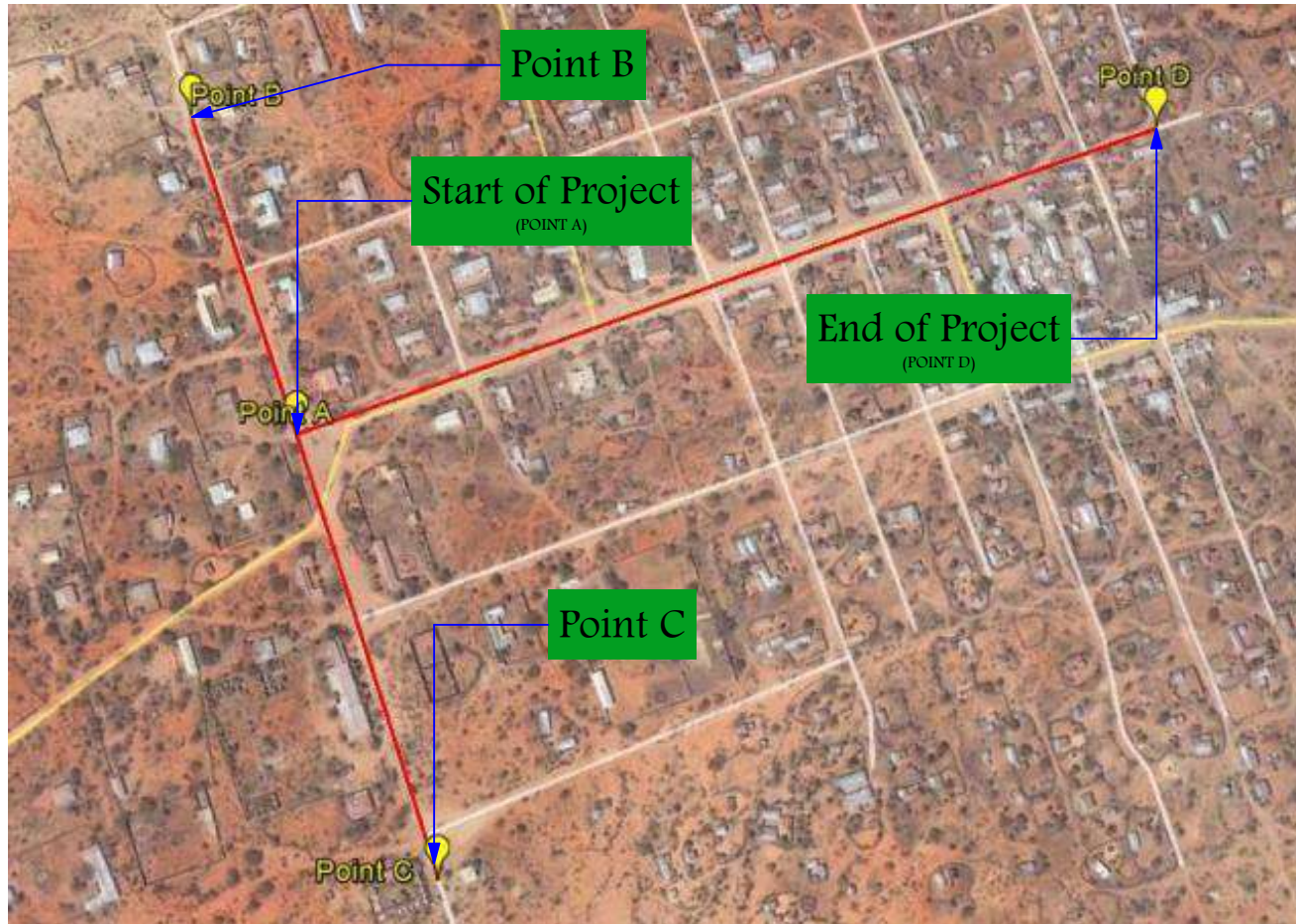
	SHEET N ^o	DRAWING N ^o	DRAWING CONTENT
01.	01/08	31371-553-SITE ANALYSIS-01	Site Analysis
02.	02/08	31371-553-SITE ANALYSIS-02	Site Analysis
03.	03/08	31371-553-SITE PHOTOS-03	Site Photos
04.	04/08	31371-553-TRAVERSE-04	Full-Stretch Traverse Plan
05.	05/08	31371-553-TRAVERSE-05	Traverse Plan From Point A-B-C
06.	06/08	31371-553-TRAVERSE-06	Traverse Plan From Point B-D
07.	07/08	31371-553-SECTION-07	Typical Road Cross-Section
08.	08/08	31371-553-DETAILS-08	Solar Street Light Details and Specifications



SIGNED & STAMPED:

Almed Limisu

LOCATION MAP (Total length = 1.28 Kilometer)



SITE PHOTOS

NOTES:

1. All dimensions are to be checked on site. Any discrepancy in dimensions is to be reported to the Ecotech architect before any work commences. The Architect's drawings and specifications override any other.
2. All construction work to comply with the international standards codes protection.
3. All reinforced concrete works to be done according to the Ecotech Structural Engineers detail drawings.

NO.	DATE	DESCRIPTION

REVISIONS.

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Project Title: **FINAL DRAWINGS FOR GARBHAHAYI DISTRICT STREET LIGHTING [GENDI REGION]**

Drawing Title: **SITE ANALYSIS**

Sheet Content: **SITE ANALYSIS**

Scale: **N.T.S (NOT TO SCALE)**

Date: **OCTOBER 2017**

PREPARED BY: **JEFFREY LUTZURIAGA**

REVIEWED & APPROVED BY:

ENG. AHMED KIRISHI ENG. ALI HUSSEIN
Regional Director, Ecotech Ltd. Managing Director, Ecotech Ltd.

Drawing No: **31371-553-SITE ANALYSIS-01**

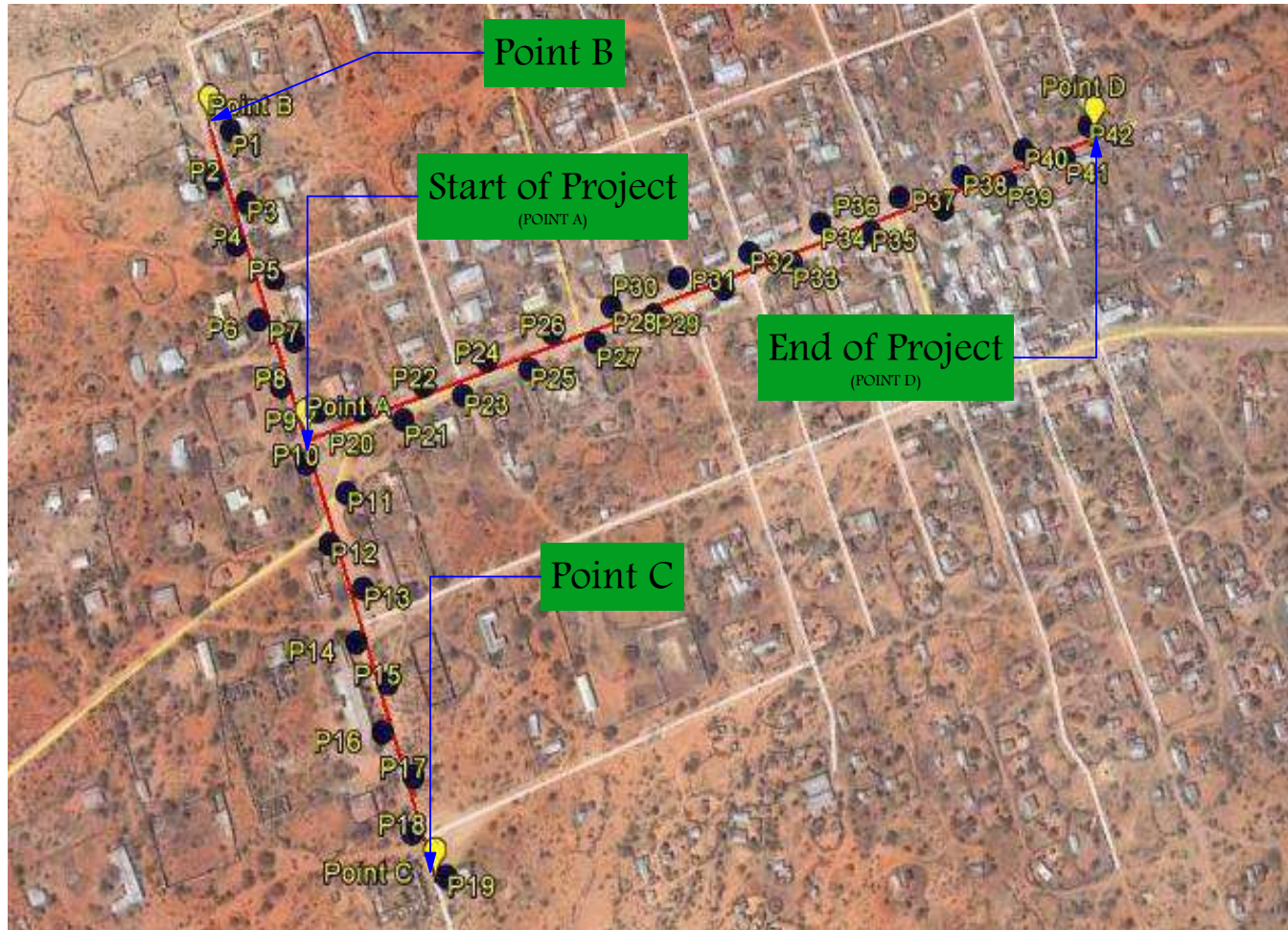
Project No: **MOF/SFF/SERV/08**

Sheet No: **01/08**

LABEL:	LOCATION:
A N 03°19.533' E 42°13.283'	Point A
B N 03°19.491' E 42°13.145'	Point B
C N 03°19.591' E 042°13.440'	Point C
D N 03°19.889' E 42°13.165'	Point D

Proposed Location of Street lighting post

From Point A to Point B to Point C and Point D



Legend:

Pole (P) ● (pole no.)

SITE PHOTOS



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Project Title: FINAL DRAWINGS FOR
GARBAHAYEY DISTRICT STREET LIGHTING
[GEDO REGION]

Drawing Title:
SITE ANALYSIS

Sheet Content:
SITE ANALYSIS

Scale: N.T.S (NOT TO SCALE)
Date: OCTOBER 2017
PREPARED BY: JEFFREY LUTZURIAGA
REVIEWED & APPROVED BY:
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Drawing No: 31371-553-
SITE ANALYSIS-
01

Project No: M09/SFF/SERV/08

Sheet No: **02/08** A3

LABEL:	LOCATION:
A N 03°19.533' E 42°13.283'	Point A
B N 03°19.491' E 42°13.145'	Point B
C N 03°19.591' E 042°13.440'	Point C
D N 03°19.889' E 42°13.165'	Point D




NOTES:

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Project Title: **FINAL DRAWINGS FOR
GARBAHANY DISTRICT STREET LIGHTING
(GENO REGION)**

Drawing Title:
SITE PHOTO

Sheet Content:
SITE PHOTO

Scale: **N.T.S (NOT TO SCALE)**
Date: **OCTOBER 2017**

PREPARED BY: **JEFFREY LUTZURIAGA**
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Drawing No: **81371-553-SITE PHOTO-02** Project No: **MOU/SFF/SERV/08**

Sheet No: **03/08** A3

Point B



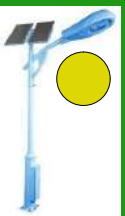
End of Project
(POINT D)

Start of Project
(POINT A)

Point C

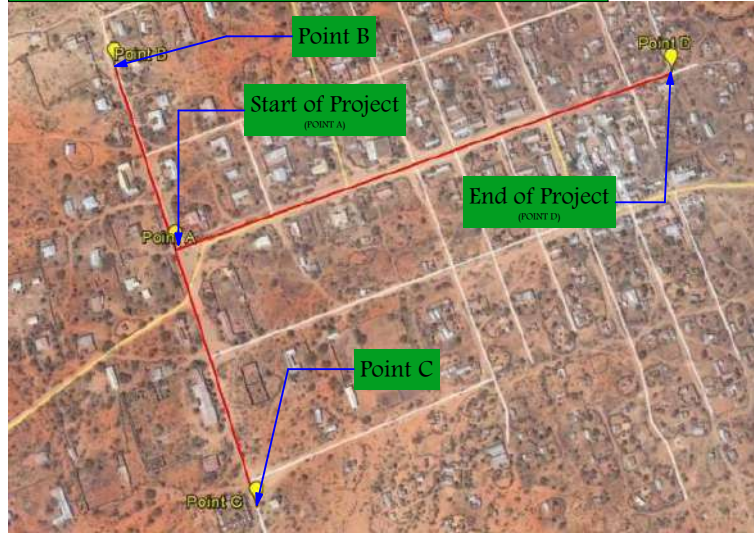
Note:
Standard distance between street lights
should be 30.00 meters.

LEGEND:



PROPOSED LOCATION OF
SOLAR STREET LIGHT (42 Units)

FULL - STRETCH TRAVERSE PLAN
(Length = 1.28 Kilometer)
From Point A to Point B to Point C And Point D



NOTES:

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Project Title: **FINAL DRAWINGS FOR
GARRAHABY DISTRICT STREET LIGHTING
(GENO REGION)**

Drawing Title: **TRAVERSE PLAN**

Sheet Content: **TRAVERSE PLAN**

Scale: **N.T.S (NOT TO SCALE)**

Date: **OCTOBER 2017**

PREPARED BY: **JEFFREY LUTZURIAGA**

REVIEWED & APPROVED BY:

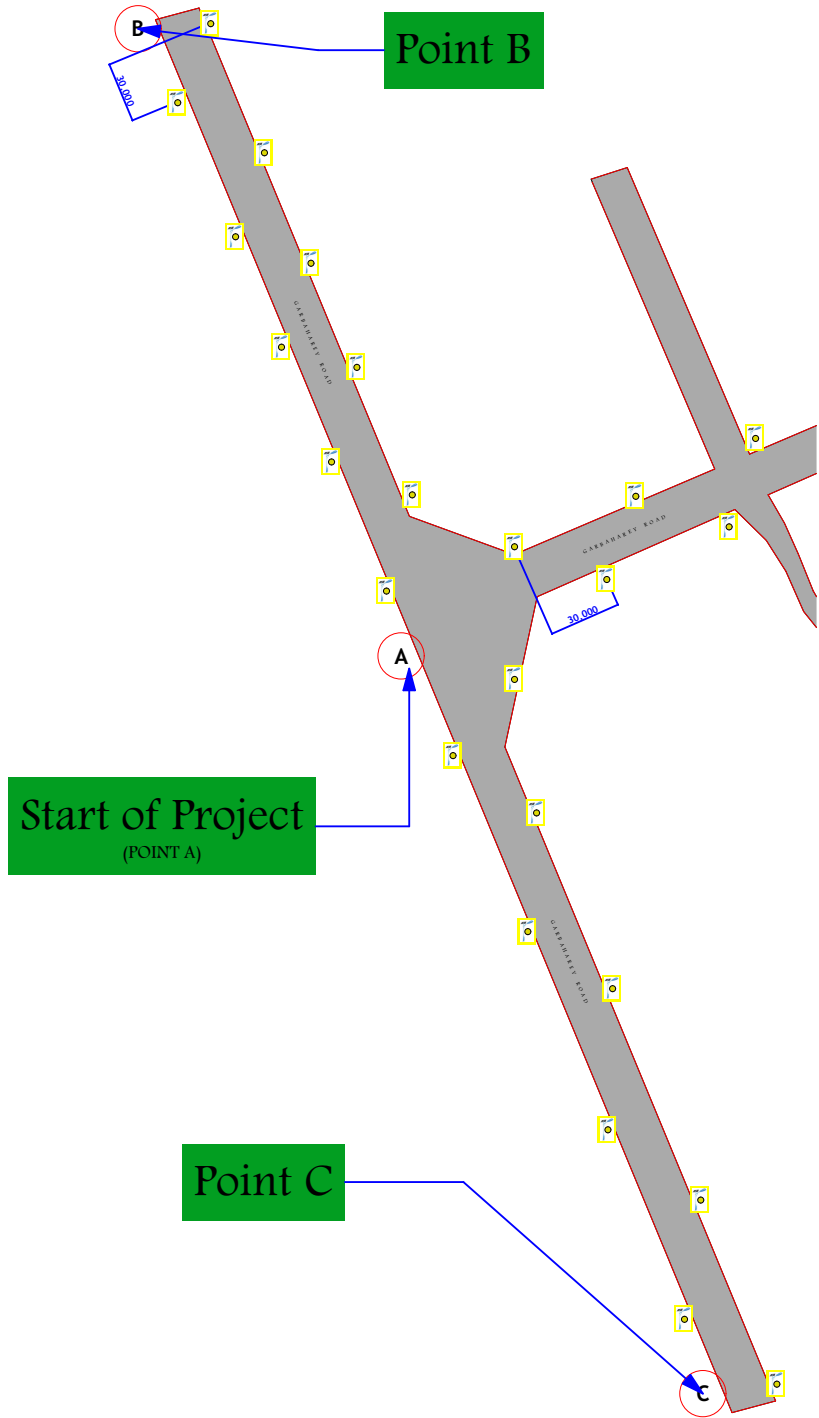
ENG. AHMED KIRISHI
Regional Director, Ecotech Ltd.

ENG. AH HUSSEIN
Managing Director, Ecotech Ltd.

Drawing No: **31371-553-
TRAVERSE-03**

Project No: **MOF/SFF/SERV/08**

Sheet No: **04/08**
A3



TRAVERSE PLAN FROM POINT A-B-C



Note:
 Standard distance between street lights should be 30.00 meters.
 Total Length from Point B, A to C:
0.58 km Starting to point B, A end point to C

LEGEND:

PROPOSED LOCATION OF SOLAR STREET LIGHT(42 Units)

NOTES:

- All dimensions are to be checked on site. Any discrepancy in dimensions is to be reported to the Ecotech architect before any work commences. The Architect's drawings and specifications overrule any other.
- All construction work to comply with the international standards codes protection.
- All reinforced concrete works to be done according to the Ecotech Structural Engineers detail drawings.

NO.	DATE:	DESCRIPTION:

REVISIONS.

FINANCED BY:

The World Bank

CLIENT:

IMPLEMENTED BY:

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Project Title: **FINAL DRAWINGS FOR
 GARBHAREY DISTRICT STREET LIGHTING
 (GENO REGION)**

Drawing Title: **TRAVERSE PLAN**

Sheet Content: **TRAVERSE PLAN**

Scale: **N.T.S (NOT TO SCALE)**

Date: **OCTOBER 2017**

PREPARED BY: **JEFFREY LITZURIAGA**

REVIEWED & APPROVED BY:

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Drawing No:
**31371-553-
TRAVERSE-04**

Project No:
MOF/SFF/SERV/08

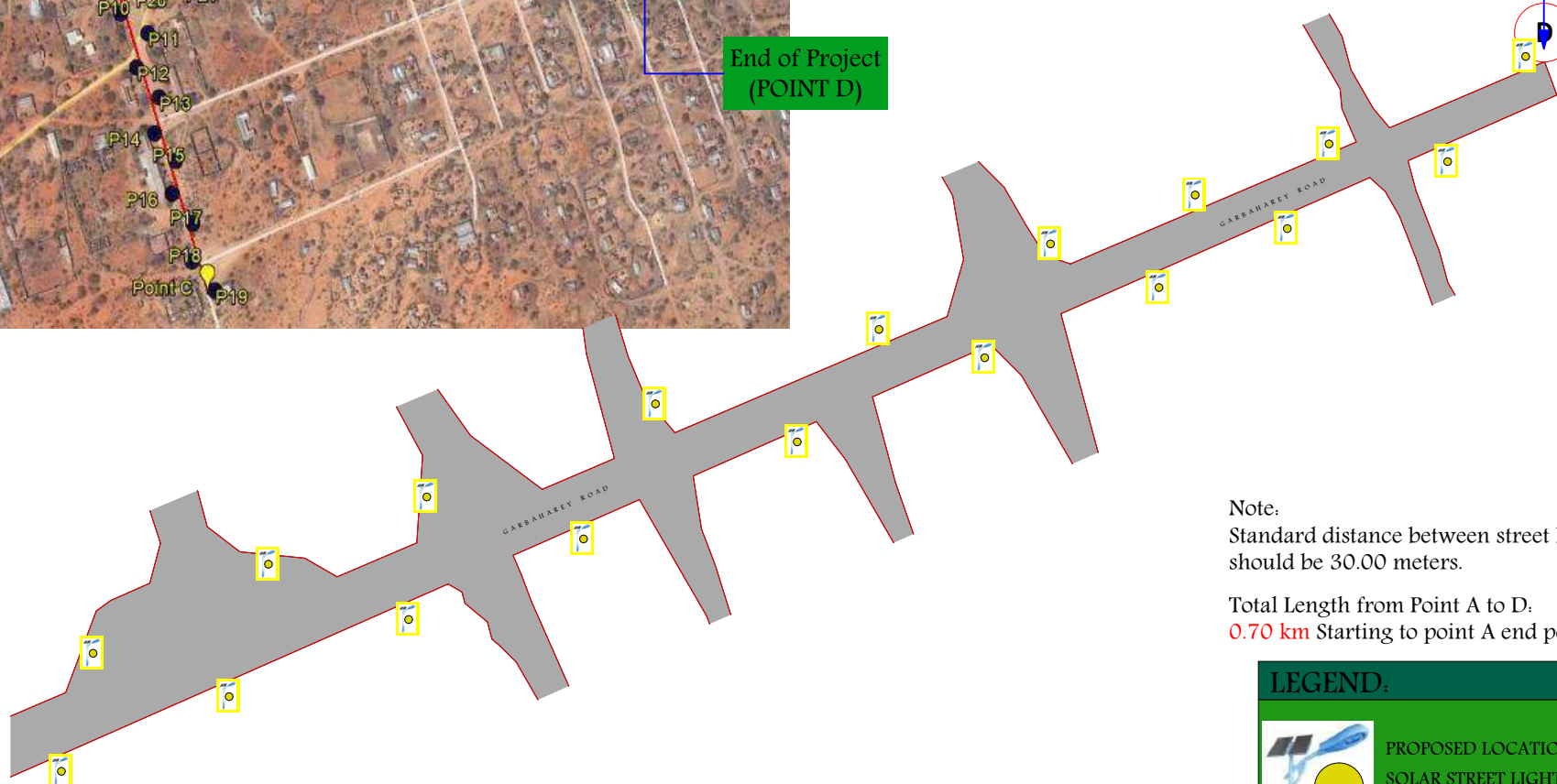
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05/08
A3

TRAVERSE PLAN FROM POINT A-D



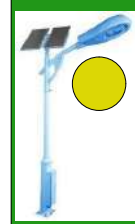
End of Project
(POINT D)

End of Project
(POINT D)



Note:
Standard distance between street lights should be 30.00 meters.
Total Length from Point A to D:
0.70 km Starting to point A end point to D

LEGEND:



PROPOSED LOCATION OF SOLAR STREET LIGHT (34 Units)

NOTES:

- All dimensions are to be checked on site. Any discrepancy in dimensions is to be reported to the Ecotech architect before any work commences. The Architect's drawings and specifications overrule any other.
- All construction work to comply with the international standards codes protection.
- All reinforced concrete works to be done according to the Ecotech Structural Engineers detail drawings.

NO.	DATE	DESCRIPTION

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IMPLEMENTED BY:
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Project Title: **FINAL DRAWINGS FOR GARBAHAREY DISTRICT STREET LIGHTING (GENO REGION)**

Drawing Title: **TRAVERSE PLAN**

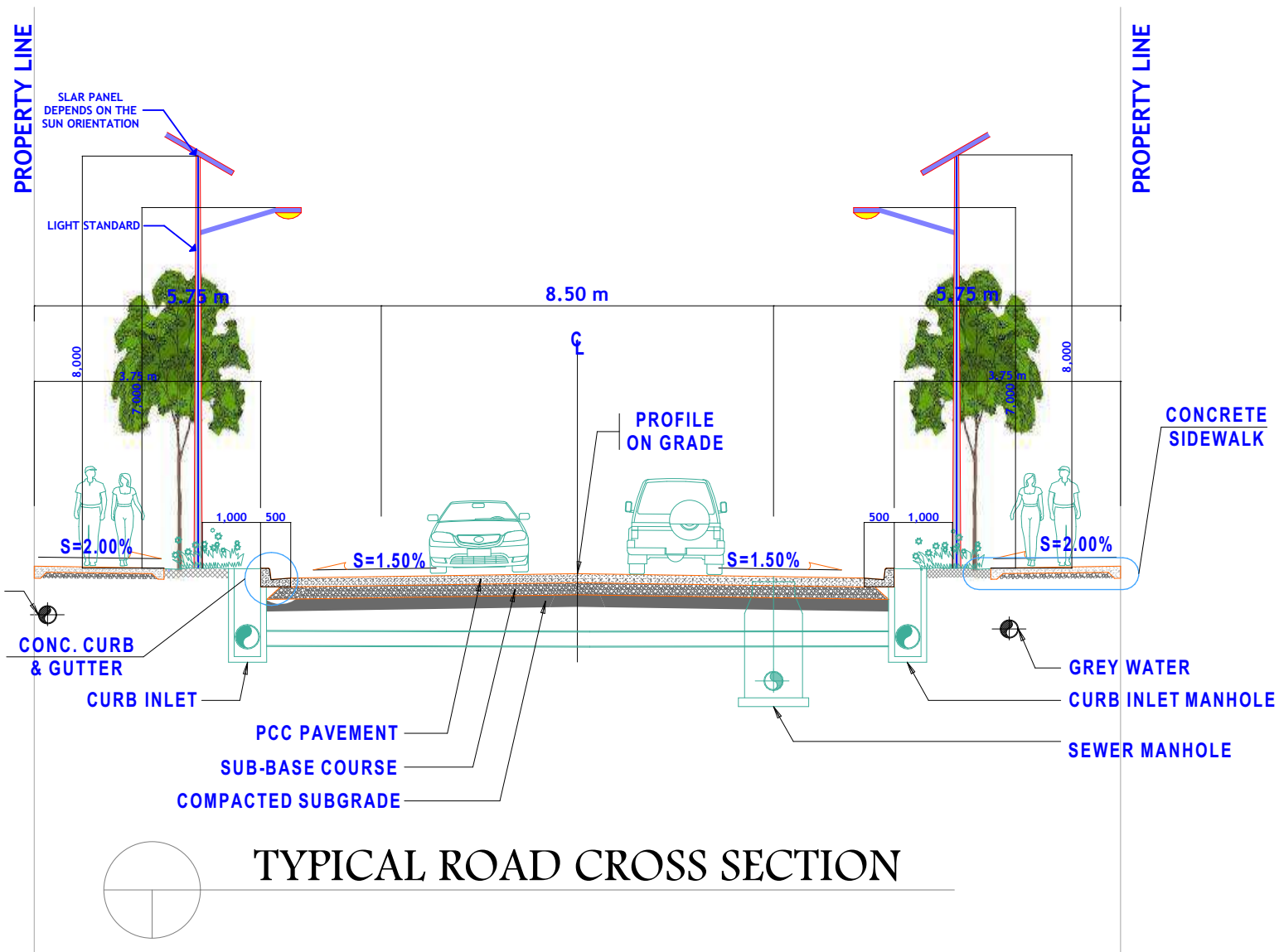
Sheet Content: **TRAVERSE PLAN**

Scale: **N.T.S (NOT TO SCALE)**
Date: **OCTOBER 2017**

PREPARED BY: **JEFFREY LUTZURIAGA**
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Drawing No: **31371-553-TRAVERSE-05** Project No: **MOF/SFF/SERV/08**

Sheet No: **06/08** A3



TYPICAL ROAD CROSS SECTION

NOTES:

1. All dimensions are to be checked on site. Any discrepancy in dimensions is to be reported to the Ecotech architect before any work commences. The Architect's drawings and specifications overrule any other.
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3. All reinforced concrete works to be done according to the Ecotech Structural Engineers detail drawings.

NO.	DATE	DESCRIPTION

REVISIONS.

FINANCED BY:



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Project Title: FINAL DRAWINGS FOR
GARBHAHAYI DISTRICT STREET LIGHTING
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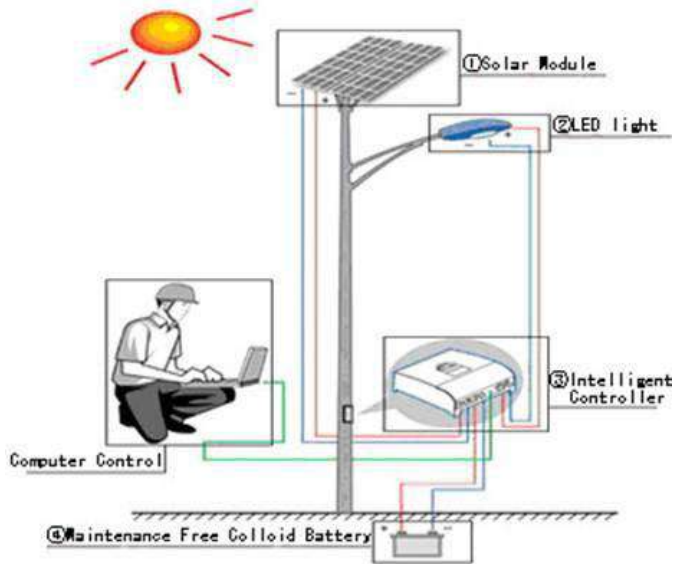
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ROAD CROSS-SECTION

Sheet Content:
ROAD CROSS-SECTION

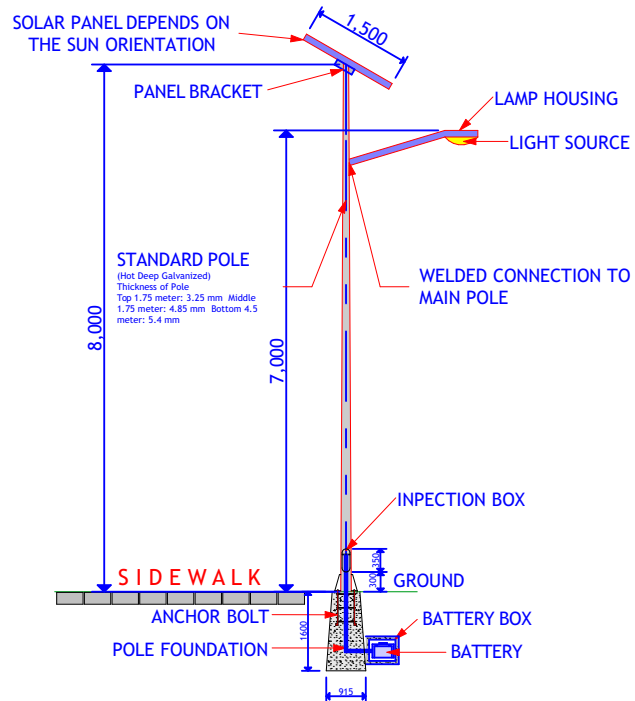
Scale: **N.T.S (NOT TO SCALE)**
Date: **OCTOBER 2017**
PREPARED BY: **JEFFREY LUTZURIAGA**
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Drawing No: **31871-553-SECTION-06**
Project No: **MOF/SFF/SERV/08**

Sheet No: **07/08**
A3

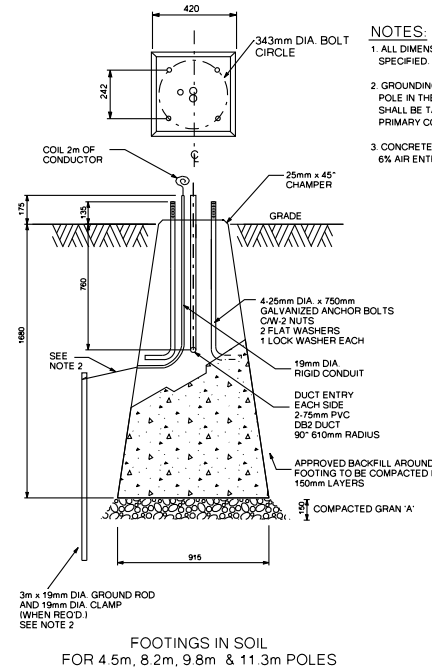


**SOLAR STREET LIGHT
(DIAGRAM)**



**SOLAR STREET LIGHT
(AS PER MANUFACTURER'S DETAILS)**

SOLAR LAMP		60W SINGLE LED SOLAR STREET LIGHT SYSTEM SPECIFICATION
ORDINAL NUMBER	COMPONENTS	PARAMETER GENERAL SITUATION
01	SOLAR PANEL	200W*1PC. MONO/POLYCRYSTALLINE SILICON
02	BATTERY	12V/250AH*1-PC. GEL STORAGE BATTERY
03	LIGHT SOURCE SOCKET	60WATTS IP65 (LED LIGHT) * ONE(1) PC.
04	CONTROLLER	24VOLTS/20AMPERES
05	TEMPERATURE	-40 - 50 DEGREE CELSIUS
06	LIGHTING TIME	3 RAINY DAYS, EVERYDAY 12 HOURS
07	STREET LIGHT POLE SPECIFICATION	8 MTRS HEIGHT HOT DEEP GALVANIZED STEEL WITH THICKNESS OF 3.25MM TOP (1.75 M), 4.85MM MIDDLE (1.75 M), BOTTOM 5.4MM (4.5 M)
08	BATTERY BOX (PLASTIC)	ONE(1) SET (TO BE PUT UNDERGROUND)
09	ACCESSORIES,CABLE,ETC.	ONE(1) SET



**STREET LIGHTING
PYRAMID CONCRETE FOOTING**

- NOTES:**
1. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 2. GROUNDING TO BE PROVIDED AT EVERY FIFTH AND LAST POLE IN THE CIRCUIT WITH #8 AWG IGRD. SPECIAL PROVISIONS SHALL BE TAKEN WHEN IN THE VICINITY OF OVERHEAD PRIMARY CONDUCTORS.
 3. CONCRETE TO BE 30MPa-20mm AGGREGATE 80mm SLUMP 6% AIR ENTRAINMENT.

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Project Title: **FINAL DRAWINGS FOR
GARBARANYI DISTRICT STREET LIGHTING
(GARDI REGION)**

Drawing Title: **DETAILS & SPECS**

Sheet Content: **DETAILS & SPECS**

Scale: **N.T.S (NOT TO SCALE)**

Date: **OCTOBER 2017**

PREPARED BY: **JEFFREY LUTZURIAGA**

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Drawing No: **81371-553-
DETAILS-07**

Project No: **MOF/SFF/SERV/08**

Sheet No: **08/08**