Item No. 15C

TOWN OF LAUDERDALE-BY-THE-SEA

AGENDA ITEM REQUEST FORM

TOWN ENGINEER
Department Submitting Request

JAMES BARTON
Dept Head's Signature

	Commission Meeting Dates	Last date to turn in to Town Clerk's Office		Commission Meeting Dates	Last date to turn in to Town Clerk's Office		Commission Meeting Dates	Last date to turn in to Town Clerk's Office
☐	Nov 10, 2009	Oct. 30 (5:00 p.m.)	☐	Jan 26, 2010	Jan 15 (5:00 p.m.)	☒	March 23, 2010	Mar 12 (5:00 p.m.)
☐	Dec 1, 2009	Nov 20 (5:00 p.m.)	☐	Feb 9, 2010	Jan 29 (5:00 p.m.)	☐	April 13, 2010	April 2 (5:00p.m.)
☐	Dec 8, 2009	Nov 25 (5:00 p.m.)	☐	Feb 23, 2010	Feb 12 (5:00 p.m.)	☐	April 27, 2010	April 16 (5:00p.m.)
☐	Jan 12, 2010	Dec 31 (5:00 p.m.)	☐	Mar 4, 2010	Feb 19 (5:00p.m.)	☐	May 11, 2010	April 30 (5:00p.m.)

NATURE OF AGENDA ITEM

☐ Presentation	☐ Resolution	☐ New Business
☒ Report	☐ Ordinance	☐ Manager's Report
☐ Consent Agenda	☐ Public Hearing	☐ Attorney's Report
☐ Bids	☐ Old Business	☐ Other

EXPLANATION: Tennis Court Lighting

STAFF RECOMMENDATION: **N/A**

BOARD/COMMITTEE RECOMMENDATION: **N/A**

FISCAL IMPACT AND APPROPRIATION OF FUNDS: **TBD**

☐ Amount ☐ Acct #
☐ Transfer of funds required ☐ From Acct #_____
☐ Bid ☐ Grant ☐ Amount represents matching funds

Town Attorney review required
☐ Yes ☒ No

Town Manager's Initials: _____

Revised 1/14/2010

CHEN&ASSOCIATES
Civil and Environmental Engineers

500 West Cypress Creek Road, Suite 410
Fort Lauderdale, FL 33309
954.730.0707 (Phone)
954.737.2030 (Fax)

March 12, 2010

Esther Colon
Town Manager
Town of Lauderdale–By-The-Sea
4501 Ocean Drive
Lauderdale–By-The-Sea, FL 33308

Subject: Tennis Court Lights

The Town requested Chen and Associates investigate the requirements for replacing the lights at the Town tennis courts. This report will provide some background to how the lighting industry functions, technical requirements for replacing lights and how to best proceed with an RFP process. The Town must decide which level of lighting will be required so the process can start.

Background

Chen and Associates gathered background information on lighting standards for tennis courts. Meetings were held with lighting representatives to discuss options. Information was collected from the Town on lighting estimates already provided.

Tennis Court Lighting

Tennis court lighting is standard across the industry. There are many different representatives representing many manufacturers each. All the manufacturers make products that meet similar standards. The lighting representatives typically provide signed and sealed structural drawings for the poles. They also provide photometrics (light intensity models) for determining the light intensity that will be achieved in all parts of the tennis court.

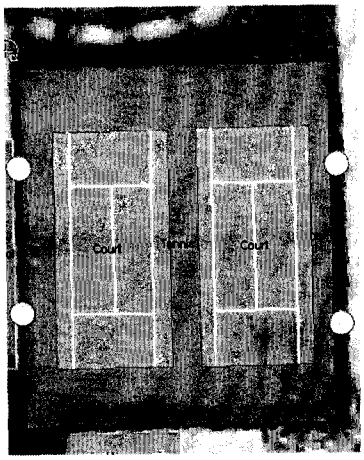
Turtle Friendly Lights

Due to the proximity of the tennis courts to the ocean, the Town may want to consider what lighting options are the most turtle friendly. Baby turtles have an internal instinct to crawl towards the ocean when they hatch because they crawl towards the bright horizon of the rising sun. Man made lights from shore confuse baby turtles and they start inland. They die in the process. Turtle Friendly lights minimize the amount of light that can bee seen from the beach so turtles do not crawl towards them. The town should take this into consideration when selecting lighting options.

Lighting Options

There are three levels of tennis court lighting. The town must decide on which level will be used.

- Option 1 – Existing Lighting
- Option 2 – Recreational Level Lighting
- Option 3 – (Close to) Tournament Level Lighting

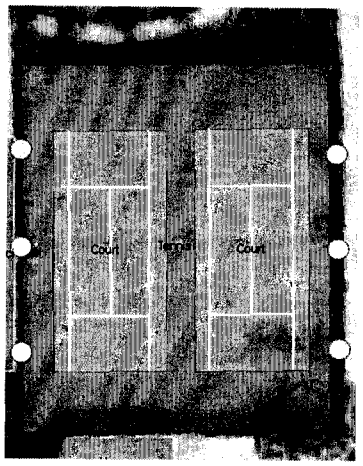


Option 1 – Existing Lighting

Currently there are 4 poles at 35 ft height with 1000 Watt heads. These can be replaced with new poles and fixtures. Heads will be large ceramic / metal halides.

The light intensity ranges from 14 - 66 foot candles. This lighting is below recreational standards and has poor uniformity. It is especially poor for elder players who are more affected by poor light uniformity. It is very difficult to make turtle friendly lighting on top of 35 ft poles. Keeping the light restricted to the court is difficult as the poles are so high. For these reasons, Option 1 is not recommended.

Option 2 – Recreational Level Lighting

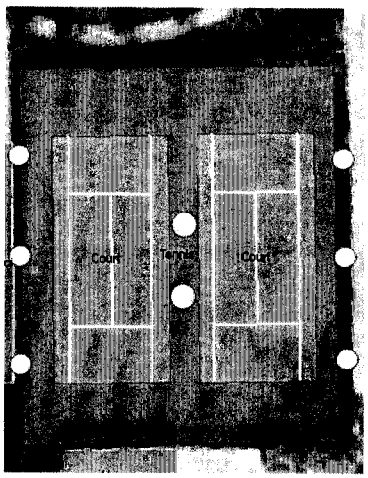


In order to bring the tennis court lights up to recreational standards, 6 poles will be installed at 20 foot height with double 750 Watt heads. These will be placed around the court. Heads will be large ceramic / metal halides. The light intensity will be 30 – 50 foot candles. This will provide better light uniformity around the court.

Since the height of the poles is significantly less than the existing poles, it is easier to make these pole turtle friendly by adding shields to the light fixtures. These will minimize the amount of light escaping towards the beach.

As this is a standard across the industry, there is good uniformity, turtle friendly and minimal restoration costs, option 2 is recommended.

Option 3 – (Close to) Tournament Level Lighting



A scenario closer to Tournament Level lighting can be achieved with the installation of an additional 2 poles in the middle of the courts. This will provide closer to 70 foot candles across the courts.

Placing additional poles in the center of the courts will require cutting the existing court to add electrical service to the poles and additional restoration to repair the cuts. This additional expense makes Option 3 not recommended.

LED Lighting

Using LED lights is an option instead of halides. LED Lights are fairly new to the industry and prices are still high. However there are savings that can be realized through:

- Reduced maintenance – 10 year life span (this is significant since changing a light bulb at 35ft requires a crane and a crew)
- Reduced Energy Costs – they use less wattage and are less expensive to run
- Reduced carbon footprint – There may be rebates available

An analysis of the cost savings can be made between traditional lights and LEDs.

RFP Process

After several discussions with town staff and light representatives, the following is a possible and least expensive way to proceed with the RFP Process.

Engineering drawings will be made for Site Plan, Electrical Drawings, Landscape and Restoration

Contractor will be responsible for structural wind load calculations and photometric studies to be approved by Engineer (typically provided by lighting manufacturers)

Specifications will refer to 3 manufacturer assemblies ***or approved equal***. They will include pole material, height, fixture and lamping

Bidding, Permitting and Construction Administration will be done by Engineer

Budgeting

For purposes of budgeting, a breakdown of estimated design and construction costs for new tennis court lights provided below. The costs are estimates based on costs from manufactures, contractor quotes and other information and should be used for discussion purposes only. A detailed investigation of the existing court facilities has not been made for this report so costs for preparing the area may not be fully accounted for. None of these costs include additional amenities such as lighting, fencing or seating facilities.

Engineering Costs

Item	Estimated Cost
Engineering Site Plan	$ 1,500
Electrical Engineering	$ 3,000
Specifications	$ 1,500
Permitting	$ 500
Bidding	$ 1,000
Construction Admin	$ 1,500
Total Engineering	**$ 9,000**

Construction Costs

Option	Specifics	Construction
Construction Option 1	4 poles at 35ft	$ 20,000
Construction Option 2 *	**6 poles at 20ft**	**$ 30,000**
Construction Option 2 LED Lights	6 poles at 20 ft with LED	$ 42,000
Construction Option 3	8 poles at 20ft	$ 40,000

* Option 2 is recommended. These values are based on the above assumptions and do not constitute a final quote. This cost estimate is provided as a guideline only.

Please review this information and call me if you have any questions.

Respectfully submitted

CHEN AND ASSOCIATES
James Barton P.E.

Proposals Received

Municipal Services

Memo

Date: 03/12/2010

To: Esther Colon

CC: John Olinzock

From: Don Prince, Director of Municipal Services

Re: Tennis Court Lighting

I currently have two quotes to replace the poles and fixtures at the tennis court one from Imperial with additional electric circuit included ($22,000) and one from Scotts ($19,000) no additional circuit included. I will have to obtain a third quote and determine if additional circuit is necessary. If the Commission desires this to go out for RFP construction documents will be required.

Please see attached report from the Town Engineer

Thank You

Don Prince

Municipal Services

Memo

To: Esther Colon, Town Manager

From: Don Prince, Director Municipal Services

CC: John Olinzock, Assistant Town Manager

Date: March 9, 2010

Re: 2/12/10 Emails

After receiving an email notice dated 2/12/10 from Mayor Minnet stating that the Town should provide specs for Tennis Court Lighting, we have requested the Town Engineer Chen and Associates to provide specifications so that we can move forward with an RFP for the installation of Tennis Court Lights.

Don Prince/tw

Town of Lauderdale-by-the-Sea

OFFICE OF THE TOWN MANAGER

Memorandum

Date: **February 16, 2010**

To: Mayor Roseann Minnet

From: Esther Colon, Town Manager

Subject: **2/12/2010 E-Mails**

I contacted the Town Engineer and they will work with staff so that a RFP can be issued.

Thank you.

EC

cc:

Vice Mayor Jerry McIntee
Commissioner Birute Clottey
Commissioner Stuart Dodd
Commissioner Jim Silverstone
John Olinzock, Assistant Town Manager
Don Prince, Director of Municipal Services
Jeff Bowman, Director of Development Services
June White, Town Clerk

Marta Isla

From: Roseann Minnet **Sent:** Fri 2/12/2010 11:29 AM
To: Marta Isla
Cc:
Subject: FW:
Attachments:

Town Manager,

After consideration, the town should take care of this,

Thank you

From: Esther Colon
Sent: Wed 2/10/2010 5:15 PM
To: Roseann Minnet
Cc: John Olinzock; Don Prince
Subject:

Mayor,

Please provide specs for tennis court lights so that process for RFP can begin.

Thanks

****

Esther Colon, Town Manager **Town of Lauderdale By The Sea** **(954) 776-0576**

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Don Prince

From: Esther Colon **Sent:** Wed 2/10/2010 5:15 PM
To: Roseann Minnet
Cc: John Olinzock; Don Prince
Subject:
Attachments:

Mayor,

Please provide specs for tennis court lights so that process for RFP can begin.

Thanks

****

Esther Colon, Town Manager **Town of Lauderdale By The Sea** **(954) 776-0576**

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Scott's Electrical & Lighting, LLC

Electrical Contractor
EC-13003783

Tennis Court Lighting

3/4/2010

This proposal is for removal of the four existing 35ft fiberglass poles and installing four new 35ft fiberglass poles. Mounting bracket and two fixtures on each pole. Wiring each pole using existing feed from box at base of pole. We will pull new wire from box at base of pole to new fixtures on top. This will take 3 working days start to finish to complete this project.

Material

4- 35ft Fiberglass Poles or Concrete Poles
8- 1000Watt Sports Field Lighting Fixtures
4- Bull horn Brackets
Wiring

***Labor, Material and Permits included

Price: $ 19,600.00

Thank you,

Tracy Scott
President
Scott's Electrical & Lighting, LLC

16751 SW 62nd Street - Southwest Ranches - Florida - 33331 - PH.954-325-7959 - Fax. 954-252-1688 - E-Mail - Scottselect22@aol.com

PROPOSAL

IMPERIAL ELECTRICAL INC,

11821 NW 11 STREET-PLANTATION, FL 33323

SINCE 1969

(954)325-2133 FAX (954)938-0530

Submitted To		**Project Location**	
Name	Lauderdale By The Sea	**Name**	Police Office
Street		**Street**	
City/State		**City/State**	
Tele Num.		**Plans Date**	
Date	2/3/2010		

We hereby propose to furnish the following materials and perform the labor necessary for the completion of:

Replace Poles at Tennis Court With Fiberglass to match existing

PRICE INCLUDES:

4 37' poles
Crane
Auger Truck
Wind Load Calcs
Permit
Dispose old poles

DOES NOT INCLUDE

FPL or Bell South charges
Patch
Overtime wages

Material			$ 8,050.00
Mark-up		15%	$ 1,207.50
Crane w/operator			$ 760.00
Auger Truck w/operator			$ 760.00
Labor	32 hrs		$ 1,120.00

All materials guaranteed to be specified, and the above work to be performed in accordance with the drawings and specifications submitted for above work completed in a substantial workmanlike manner for the sum of:

TOTAL QUOTE	**$ 11,897.50**
Alternate Concrete poles	$ (2,850.00)

Respectfully submitted_____

IMPERIAL ELECTRICAL INC.

Any alteration or deviation from the above specifications involving extra costs will be executed only upon written order and will become an extra charge over and above the estimate. All agreements contingent upon strikes accidents or delays beyond our control. Owner to carry fire, wind, storm and other necessary insurance upon above work.

Note: This proposal may be withdrawn by us if not accepted within_____days.

ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payments will be made as outlined above.

Date **Signature**

PROPOSAL

IMPERIAL ELECTRICAL INC,

11821 NW 11 STREET-PLANTATION, FL 33323

SINCE 1969

(954)325-2133 FAX (954)938-0530

Submitted To		**Project Location**	
Name	City of Lauderdale by The Sea	**Name**	Same
Street		**Street**	
City/State		**City/State**	
Tele Num.		**Plans Date**	
Date	2/2/2010		

We hereby propose to furnish the following materials and perform the labor necessary for the completion of:

Replace Tennis court Lights on existing poles

PRICE INCLUDES:

4 dual 1000 watt fixtures

Additional circuit and wiring

		Material	$ 6,280.00
		Material Mark-up	$ 942.00
	JW	40 hrs	$ 1,400.00
DOES NOT INCLUDE	Helper	40 hrs	$ 1,000.00
FPL or Bell South charges	Bucket	16 hrs	$ 480.00

Patch

Overtime wages

Pole wind load calc's

All materials guaranteed to be specified, and the above work to be performed in accordance with the drawings and specifications submitted for above work completed in a substantial workmanlike manner for the sum of:

TOTAL QUOTE **$ 10,102.00**

Respectfully submitted_____

IMPERIAL ELECTRICAL INC.

Any alteration or deviation from the above specifications involving extra costs will be executed only upon written order and will become an extra charge over and above the estimate. All agreements contingent upon strikes accidents or delays beyond our control. Owner to carry fire, wind, storm and other necessary insurance upon above work.

Note: This proposal may be withdrawn by us if not accepted within_____days.

ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payments will be made as outlined above.

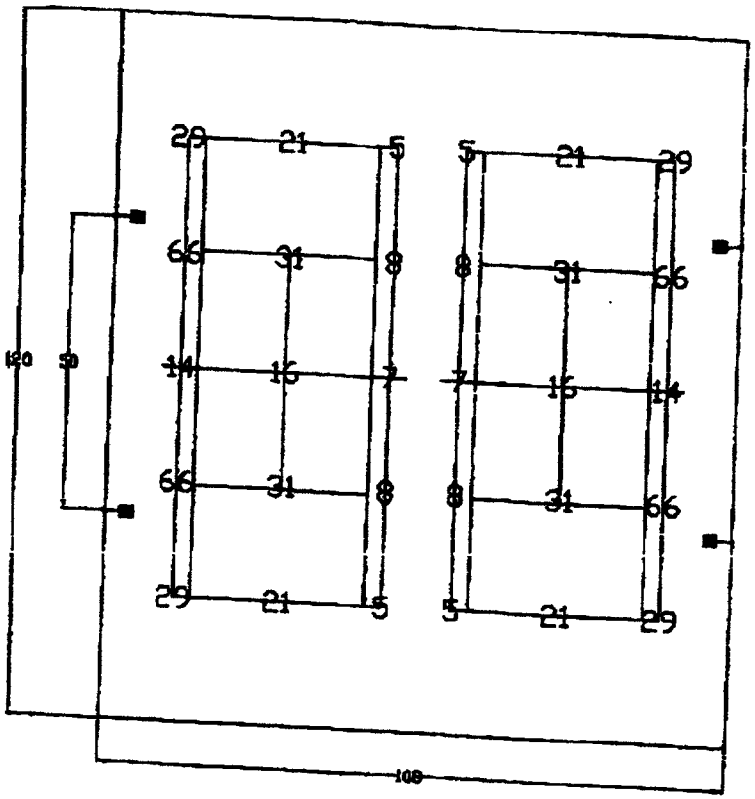
Date **Signature**

LIGHTING, INC.

MANUFACTURERS OF QUALITY LIGHTING

Mark Flanders
954-354-7547
754-244-7205 c.

Why spend the money to have a system only a little better than you have?



RLS-TE1000 E.C. ITL # 45909 21' MOUNTING HT. 0° TILT 4 LOCATIONS FILE: ALX3077	ILLUMINANCE (FC)	
	Average	24
	Maximum	66
	Minimum	5
	Avg:Min	4.76
	Max:Min	13.20
	Coef Var	0.80
	UnifGrad	4.71

NOTES

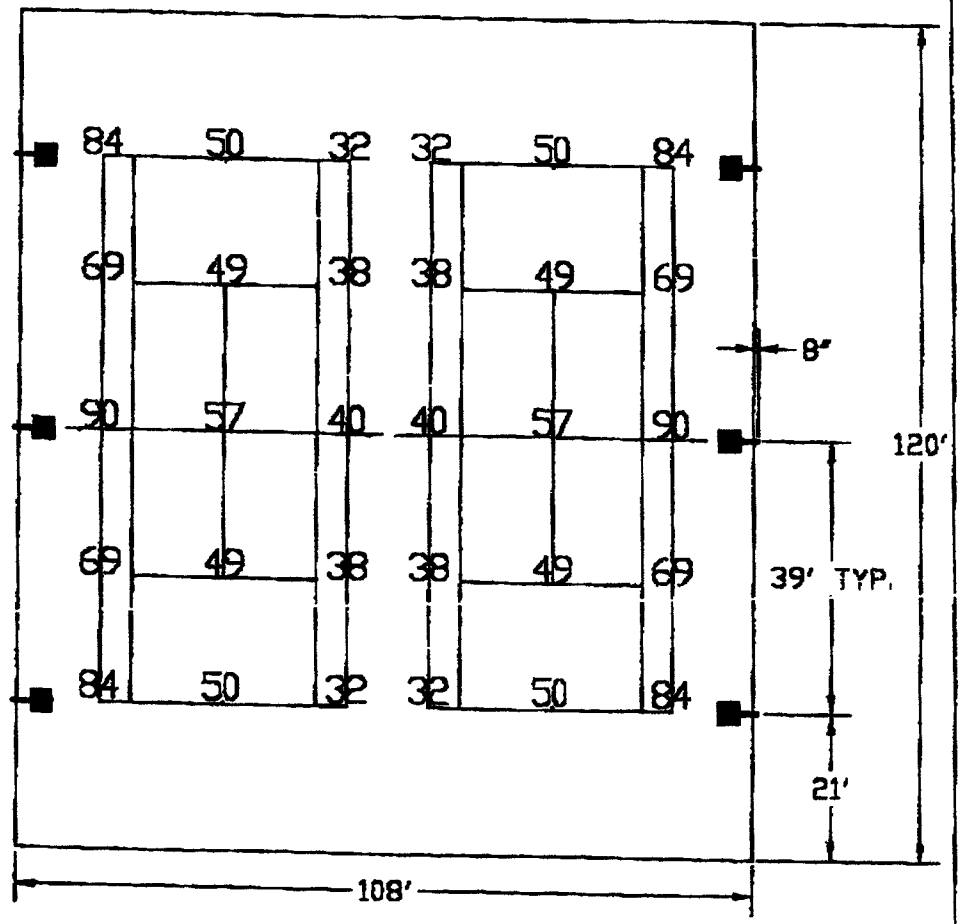
1. ILLUMINATION LEVELS ARE INITIAL FOOTCANDLES CALCULATED 3' ABOVE PLAYING SURFACE AND COMPUTED FROM ITL45909.
2. BASED ON 100 HOURS OF USE, COMPUTER CALCULATIONS ARE PREPARED WITH A BALLAST FACTOR OF 1.00 AND A LAMP LUMEN FACTOR OF 107,800 AS PER LAMP MANUFACTURERS SPECIFICATIONS. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.
3. TO MAINTAIN OPTIMUM ILLUMINATION LEVELS LAMP REPLACEMENT AND CLEANING OF GLASS LENS AND REFLECTORS AT REGULAR INTERVALS IS REQUIRED. ALSO ILLUMINATION READINGS MUST BE TAKEN EVERY SIX MONTHS.
4. ANY CHANGES IN LOCATION, ORIENTATION OR ILLUMINATION OBSTRUCTIONS (ie: LANDSCAPING, SIGNS, STRUCTURES) WILL VOID PHOTOMETRIC DATA AS PER DRAWING ALX3077

203 ANSIN BLVD. • HALLANDALE BEACH, FLORIDA 33009 U.S.A. • 954-458-0345 • FAX 954-458-0223 • 800-226-1757

LIGHTING, INC.

MANUFACTURERS OF QUALITY LIGHTING

RLS-TE-8000 ITL45764 27' MOUNTING HT. 5° TILT FILE: ALX1931	
ILLUMINANCE (FC)	
AVERAGE	55.5
MAXIMUM	89.6
MINIMUM	32.3
AVG/MIN	1.72
MAX/MIN	2.77



NOTES

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2. BASED ON 100 HOURS OF USE, COMPUTER CALCULATIONS ARE PREPARED WITH A BALLAST FACTOR OF 1.00 AND A LAMP LUMEN FACTOR OF 107,800 AS PER LAMP MANUFACTURERS SPECIFICATIONS. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.
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2160 S.W. 58th WAY • HOLLYWOOD, FLORIDA 33023 U.S.A. • (954)983-4340 • FAX (954)983-3691 • 800-226-1757