BACKGROUND:

As part of the Design Development Phase and continued community outreach effort, the design team met with a number of stakeholders to further refine the design of the six tennis courts addition at the T.C. Williams High School site. The attached package contains:

- meeting minutes from the June 27th T.C. Williams Community Meeting
- December 20th School Board memorandum that summarizes staff’s recommendation regarding the tennis courts lighting
- current tennis courts’ site lighting studies showing two options for the light poles: 30’ high vs 50’ high
- City of Alexandria Design Guidelines: Lighting/Athletic Facilities section

CONTACT PERSON:  Monika Szczepaniec 703/461-4168

ATTACHMENTS:  T.C. Williams Six Tennis Courts project update package.
Meeting Minutes

To: Monika Szczepaniec  
From: Kevin Van Hise  
Meeting Date: June 27, 2013  
Meeting Location: TC Williams Auditorium  
Subject: TC Williams Tennis Courts Community Meeting  
KHA Project No.: 110266004

Introduction:

- Monika began with an overview and a history of the TC Williams tennis courts project, and what has happened up until that point.
- Kevin presented on the design of the complex, site lighting, and the timeline for the project.
  - Currently the timeline is as follows: resubmit for completeness review in mid-July, School Board presentation in November, Planning Commission/City Council in December 2013, and starting construction in early spring of 2014.

Comments on TC Williams Presentation:

- Question regarding how long the lights had been a part of the design, stating that when they initially met with the city, the site was chosen assuming that there would be no lights. The team explained that the site B location was much closer to the residential area and therefore lights would be more of an issue on the location.
- A member of Oakland Baptist asked about if there would be restricted usage on Sundays. ACPS responded that they will work this into the Usage Agreement with RPCA.
- There was a comment stating that there had been a radical change in design since the first time it was proposed with no lighting. The team responded that the site is already lit up by not only the street lights, the garage lights but also the neighboring gas station and that the proposed lights will be directed at the courts and the footcandle measure at the property line will have to be zero per the regulations.
- Question regarding what approvals would be needed in order
  - Answer: DSUP already in place, would need to amend the existing conditions.
- Question regarding why they would light the tennis courts and not the football field
  - Answer: There’s already a great amount of lighting present on King (street lights, Shell station), adding the tennis courts lighting would be a minimal impact as compared to lighting the football field. It was also noted that the lights would be at zero footcandles by the property line, and the lights would not be constantly on. Also, ACPS stressed that the project is about constructing new tennis courts not installing lights at the football filed.
  - A parent of a TCW tennis player commented that lighting would be efficient and go down, not out, and that there wouldn’t be that many lights.
- The Parks & Recreation Commission Chairwoman commented on the limited amount of open space available in Alexandria as compared to the population, and the need to cross uses between schools and RPCA.
- Question regarding how much use the courts would get on a yearly basis
  - Answer: They would get a lot of use: during the spring for TCW tennis practice, nights and weekends for adult use and lessons, and for summer camps.
Question regarding why they were proposing taking away a practice athletic field when they could put 8 courts in Chinquapin Park that could be used for full competition
  o Answer: The draft plan for Chinquapin Park does not include tennis courts to make space for the aquatic center and other recreational activities

Comment from parent whose son plays tennis, and has coached girls’ tennis that eight courts would be nice, but not necessary as six courts are ideal. Commented that she hopes that installing these courts would be transforming for the tennis in schools in Alexandria

Comment that the noise that the ball would make hitting the playing surface would be a greater obtrusion than the lights, and asking whether there was a quieter surface.
  o Answer: There’s not a quieter surface available, but the berm surrounding the courts would function as a natural noise barrier

Question regarding the underground stormwater detention and whether the entire courts would need to be torn up if there was a maintenance problem with them
  o Answer: The stormwater system is not pressurized therefore there will be no maintenance required. Putting in the stormwater system would provide a more substantial base for the tennis courts and limit maintenance issues with the playing surface

Question regarding how the user-activated lights would be utilized, and would they turn on for all the courts if only one court was in use. There was a follow-up question as to whether the lights closest to the school could come on first.
  o Answer: The lights wouldn’t light one individual court, but would light up one half of the court at a time. The lights will be able to be controlled at the light pole and only allow for an hour of usage. After an hour, players would have to push the button again. After an agreed upon time, the lights would be switched off without the ability to activate them at the light pole.

Question regarding whether practice walls would be incorporated into the design, stating that those get just as much use as the courts for when the teams practice.
  o Answer: Design team discussed the possibility of having a movable practice wall be attached to the fence.

Comments regarding clarification on if there would be phasing for the project and asking for it to be made clear while the design project was going on whether or not everything would be installed at the beginning
  o Answer: At this point, there is no phasing of the project anticipated.

The member of the Oakland Baptist Church asked if there would be bathroom facilities available so people didn’t come to use the church bathrooms.
  o Answer: School’s facilities will be used.

Closing:
  ▪ Monika concluded the meeting around 7:25 pm
Date: December 13, 2012

For ACTION  X  
For INFORMATION  
Board Agenda: Yes  X  No  

FROM: William E. Finn, Director, Educational Facilities Office
Monika Szczepaniec, Director, Planning, Design and Construction

THROUGH: Morton Sherman, Ed.D., Superintendent of Schools

TO: The Honorable Sheryl Gorsuch, Chairman, and
Members of the Alexandria City School Board

COPY: Executive Staff

TOPIC: T.C. Williams Tennis Courts Project – Lighting

BACKGROUND:
Following the December 6th School Board Meeting discussion regarding addition of lights to the proposed six tennis courts at the T.C. Williams High School site, the Facilities’ staff recommends proceeding with the Design Phase of the project incorporating the tennis court lights. Based on further research, it was confirmed that the regulatory process will require a Major Amendment to the existing T.C. Williams Development Special Use Permit (DSUP), regardless of whether lights are included in the request for the new T.C. Williams tennis courts. This process will take six to eight months. In addition, Facilities’ Staff will ensure additional outreach (school staff, PTA, and community) is factored into the project’s design process in order to prepare for and receive approval by the City Planning Commission and Council required by the permitting process. We believe our project’s target completion date of spring 2014 is achievable.

Furthermore, as discussed at the December 6th School Board meeting, the design and construction aspect of the site lighting has not been factored into the project’s current budget. However, the Facilities’ staff is not requesting additional funding for the project at this time and recommends using existing project funds for the additional lighting design effort. We prefer to allow the design, community engagement, and City Staff coordination proceed which will develop a more detailed cost estimate that can be used to evaluate the final funding requirement and potential scope options for the tennis courts and lighting at a later date.

RECOMMENDATION: Proceed with adding site lighting to the T. C. William Six Tennis Courts Project’s Design Phase.

ACTION REQUESTED: Approval of the Recommendation

CONTACT PERSON: Monika Szczepaniec, (703) 461-4168
T.C. WILLIAMS HIGH SCHOOL
PROPOSED TENNIS COURTS - 50' LIGHT POLES

SECTION KEY

SECTION: NORTH-COURT

SECTION: MID-COURT

SECTION: SOUTH COURT

CONCEPTUAL SCALE 1" = 60'
**Chapter 2: Site Furnishings**

## Lighting | Area

### Purpose

Lighting shall be used to illuminate portions of the park including parking lots and designated areas.

### General Information

Square, down light fixtures shall be installed in park locations subject to historic light guidelines or City of Alexandria small area plan approval may be modified.

Lighting in POS zoned properties requires a Special Use Permit.

### Materials and Finish

The lamp housing shall be die-cast aluminum with a black powder coat finish.

The lens frame shall be die-cast aluminum with a hinge assembly for maintenance. The lens shall be high impact, clear-tempered glass.

The metal pole and fitter shall be finished with a black powder coat finish.

Light fixtures shall be mounted on square aluminum poles with an extended pole mounting arm to offset the fixture.

Light poles shall be 15 feet in height and installed with an anchor base. The anchor bolts shall be recessed into an anchor base casting. Provide tamper resistant covers.

### Features

Light fixtures that require separate ballast boxes are not permitted.

Lamps may include a wire guard.

Lamps shall be metal halide.

LED options may be installed with the approval of the Director of Recreation, Parks and Cultural Activities, and the Director of Transportation and Environmental Services.

Double fixtures are available.

### Installation

Light poles shall be located so as not to be in conflict with vegetation or plantings.

Lights shall be located a minimum of 3 feet from the edge of all shared-use paths or pedestrian walkways.

Light pole foundations shall be flush to finished grade. Top of footing shall be sloped to shed water.

Connections installed beneath paving shall be sleeved.

Installation work shall be performed in conformity with USBC.

Luminaire shall not extend below fixture housing.

### Life Cycle Expectations

A 3 year minimum warranty is required on area light fixtures.

A 3 year minimum warranty is required on poles.

Lights are anticipated to require replacement after 20 years of normal and ordinary use.

### Image Footnotes

(1) [www.sitelighting.com; Philips Gardco lighting.](#)
Area light pole assembly

Not to scale
LIGHTING | ATHLETIC FACILITIES

Chapter 2: Site Furnishings

Purpose
Athletic field and court lighting systems shall be provided to ensure safe play environments where athletic field/court use is desired beyond normal daylight hours.

General Information
Athletic field and court lighting shall be provided as a complete sports lighting system.

The standard system is the Musco Light-Structure Green, or City approved equal.

Lighting levels shall provide safe play for the programed sports. The average foot candle level on a rectangular playing surface shall be 50 fc and the uniformity shall be 2.0:1.0. The average foot candle level on a court playing surface shall be 30 fc and designated uniformity shall be 2.0:1.0.

Lighting in POS zoned properties requires a Special Use Permit.

Materials and Finish
Light poles and cross arms shall be galvanized steel, and shall meet wind loading requirements of the IBC Building Code and AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.

Bases shall be pre-stressed direct burial concrete. Foundations shall be designed by a professional engineer licensed in the Commonwealth of Virginia.

The mounting heights for athletic fields are 60-80 feet above the playing surface. Mounting heights for athletic courts are 20-40 feet above the playing surface.

Wiring shall be contained inside the cross arms and poles.

Light fixtures shall be 1500W or 1000W metal halide lamps with external visors to minimize light glare and spill.

Features
Light system shall include a remote monitoring system for performance tracking.

Lighting system shall include a remote lighting control system that allows operation via web site, phone, fax and email. System shall be programmable up to a year in advance and accept a seven day schedule.

Lighting system shall include an accessible on-off selector switch located on one of the poles.

Lighting shall include pegs on poles for maintenance access.

Ballasts shall be located on each individual pole.

Installation
Light pole installations require separate permits.

Coordinate player-activated switches and timers to minimize additional infrastructure.

Installation work shall be performed in conformity with USBC.

Poles shall include direct burial concrete bases.

Life Cycle Expectations
A 25 year warranty is required on athletic lighting systems.

Lighting systems are anticipated to require replacement after 40 years of normal and ordinary use.


**Lighting | Ground Recessed**

**Purpose**

Ground recessed lights shall be used to illuminate significant park features or items of special interest such as art, flag poles and signs.

**General Information**

Lighting installations require electrical permits.

Lighting in POS zoned properties requires a Special Use Permit.

**Materials and Finish**

The lamp housing shall be composite material, resistant to ultraviolet degradation and corrosion.

The lens shall be ADA compliant, anti-slip material and able to withstand loads up to 200 PSI, with a commercial grade frame.

**Features**

Lens frame material shall be bronze, aluminum or black finish.

Directional shields shall be provided where appropriate.

Lamps shall be metal halide.

LED options may be installed with the approval of the Director of Recreation, Parks and Cultural Activities.

**Installation**

Lights shall be installed in locations with positive drainage away from lights.

Flush light fixtures shall be installed in hardscape surfaces.

Connections installed beneath paving shall be sleeved.

Installation work shall be performed consistent with USBC.

Install manufacturer’s recommended drainage.

**Life Cycle Expectations**

A 1 year minimum warranty is required on ground recessed light fixtures.

Lamps are anticipated to require replacement after 2 years of normal and ordinary use.

Light fixtures are anticipated to require replacement after 7-10 years of normal and ordinary use.
LIGHTING | HISTORIC POLE

CHAPTER 2: SITE FURNISHINGS

PURPOSE
The historic pole light shall be used as a street or park road light in the City’s Historic Districts to illuminate portions of public land or right-of-way.

GENERAL INFORMATION
Gadsby light fixtures shall be installed in the Gadsby Light District within the Old and Historic District of Alexandria.

Lighting in POS zoned properties requires a Special Use Permit.

MATERIALS AND FINISH
Lights shall be mounted on fiberglass or aluminum poles.

Poles and fitters shall be finished with a black UV-resistant catalyzed urethane coating.

Light poles/fixtures/luminaires shall be 14 feet total height from finished grade and installed with an anchor base.

The ornamental base cover shall be designed to cover the anchor bolts with one or two pieces, be vandal resistant, and finished to match the post.

The pole top shall meet the requirements of the Department of Transportation and Environmental Services.

No cage, band, or finial shall be installed.

Fixture metal finishing shall be a high-quality, permanently affixed powder coating, done through a heat-finished process.

FEATURES
Light fixtures that require separate ballast boxes are not permitted.

Globes/post tops shall include full top reflectors.

LED options may be installed with the approval of the Director of the Department of Recreation, Parks and Cultural Activities, and the Director of the Department of Transportation and Environmental Services.

INSTALLATION
Light poles shall be located so as not to be in conflict with vegetation or plantings.

Lights shall be located a minimum of 3 feet from the edge of all shared-use paths or pedestrian walkways.

Light pole foundations shall be flush to finished grade. Top of footing shall be sloped to shed water.

Connections installed beneath paving shall be sleeved.

Installation work shall be performed in conformity with USBC.

Lights shall be installed on a GFI circuit and switch.

LIFE CYCLE EXPECTATIONS
A 3 year minimum warranty is required on historic light fixtures.

A 3 year minimum warranty is required on poles.

Lights are anticipated to require replacement after 20 years of normal and ordinary use.
Lighting | Historic Pole

Gadsby historic pole light

Historic light fixtures (1)

Image Footnotes

(1) http://www.hadco.com
**Chapter 2: Site Furnishings**

**Lighting | Street Pole**

**Purpose**
The street pole light shall be used to illuminate portions of the park system, including streets, park roads and trails.

**General Information**
Light fixtures shall be installed as a street or park road light in areas not guided by historic light fixture requirements or small area plan requirements.

Lighting in POS zoned properties requires a Special Use Permit.

The standard light fixture is Hadco, Inc., R53, or City approved equal.

**Materials and Finish**
The globe/post top shall be Type V, clear stabilized acrylic with a Victorian style roof.

No cage, band, or finial shall be installed.

The pole and fitter shall be finished with a black UV-resistant catalyzed urethane coating.

Lights shall be mounted on fiberglass, fluted and tapered decorative poles for post top lights.

Light poles/fixtures/luminaires shall be 14 feet total height from finished grade and installed with an anchor base.

The ornamental base cover shall be designed to cover the anchor bolts in one or two pieces, be vandal resistant and finished to match the post.

**Features**
Light fixtures that require separate ballast boxes are not permitted.

Post tops shall include full top reflectors and may include a house side shield if warranted by the pole location.

LED options may be installed with the approval of the Director of Recreation, Parks and Cultural Activities, and the Director of Transportation and Environmental Services.

**Installation**
Light poles shall be located so as not to be in conflict with vegetation or plantings.

Lights shall be located a minimum of 3 feet from the edge of all shared-use paths or pedestrian walkways.

Light pole foundations shall be flush to finished grade. Top of footing shall be sloped to shed water.

Connections installed beneath paving shall be sleeved.

Installation work shall be performed in conformity with USBC.

**Life Cycle Expectations**
A 5 year minimum warranty is required on street pole light fixtures.

A 3 year minimum warranty is required on poles.

Lights are anticipated to require replacement after 20 years of normal and ordinary use.
LIGHTING | STREET POLE

Street light fixture (1)

Virginia Dominion Power - Fiberglass fluted street pole (2)

IMAGE FOOTNOTES

(1) http://www.hadco.com

(2) http://www.hadco.com