TOWN OF KILL DEVIL HILLS

Land Where Flight Began

PUBLIC NOTICE

NOTICE IS HEREBY GIVEN that the Town of Kill Devil Hills Planning Board will hold its first meeting of the month on Tuesday, June 21, 2016 at 5:30 p.m. in the Meeting Room of the Administration Building, 102 Town Hall Drive, off Colington Road. The items to be discussed are listed below:

AGENDA

Call to Order
Agenda Approval
Approval of the Minutes of March 16, 2016 meeting
Public Comment (Time limit of 3 minutes per person; 5 minutes per group)
Ongoing Business
New Business

1. SITE PLAN REVIEW–Golasa Holdings, LLC—5,300 sf. Retail/Restaurant Development–1900 South Croatan Highway in the Commercial Zone

Public Comment (Time limit of 3 minutes per person; 5 minutes per group)
Response to Public Comment
Board Member Comment
Adjournment

All citizens are cordially invited to attend.

Posted this 16th day of June 2016.

Michael O'Dell
Administrative Specialist

Copies to: *Mayor and Board of Commissioners, Planning Board members in their packet materials; Town Manager; Town bulletin boards; Sunshine List, including all news media; Electronic Distribution List; Town website and social media; file*

Minutes of the March 16, 2016 meeting of the Kill Devil Hills Planning Board held at 5:30 p.m. in the Meeting Room of the Administration Building, 102 Town Hall Drive, off Colington Road.

Members Present: Chair Stan Clough, James Almoney, Howard Buchanan, Skip Jones and Eddie Valdivieso

Members Absent: Pris Shea and Ben Sproul

Others Present: Mike Hogan, Commissioner; Michael Midgette, Commissioner; Greg Loy, Planning Director; Bryan Brightbill, Senior Planner and Michael O'Dell, Administrative Specialist

Call to Order

At 5:30 p.m., Chair Stan Clough called this meeting of the Kill Devil Hills Planning Board to order, and welcomed everyone present.

Agenda Approval

On a motion by Howard Buchanan, seconded by James Almoney, the agenda for this meeting was approved as presented by a unanimous, 4-0, vote.

Approval of the Minutes of February 2, 2016 meeting

On motion by Eddie Valdivieso seconded by Skip Jones, the minutes of the February 2, 2016, Planning Board meeting were approved by a unanimous, 4-0, vote.

Public Comment (Time limit of 3 minutes per person; 5 minutes per group)
Ongoing Business
New Business

1. **Zoning Amendment Request – Ratnam Patel** – 153.180(C)(2) Commercial Zone - Establish Floor Area Ratio (FAR) For Hotel/Motel In The Commercial Zone.

Senior Planner Bryan Brightbill presented a zoning amendment request from Mr. Ratnam Patel to amend Chapter 153, Zoning, §153.180 (C)(2) Commercial Zone, to establish a Floor Area Ratio (FAR) in the Commercial Zone. He stated the proposed amendment would change the density measurement of hotels / motels in the commercial zone from 36 units per acre to a Floor Area Ratio (FAR). He noted the applicant had requested a FAR starting at 0.6 and ranging to 0.7 with increased side-yard setbacks and buffers that could increase the level. However, staff recommends a FAR of 0.5 to 0.6, with the same setback conditions.

Mike Robinson, P.E., appeared before the board, representing the applicant. He shared that he had been approached by developers in the past, who have determined that the density measures in the commercial zone were not adequate. He stated he had met with staff to examine approaches to address density requirements in the commercial zone. Mr. Robinson said staff had recommended a FAR measurement, which he believed is a better way to define the bulk of a structure. After examining other hotel/motel FAR coverage, he had arrived at an average of a 0.7 FAR measurement. His approach was a base Floor Area Ratio of 0.6, with an increase to 0.65 with side setbacks and 0.7 with additional setbacks.

Mr. Jones noted that in the Ocean Impact Residential Zone (OIR), the Floor Area Ratio is from 0.4 to 0.5. Mr. Valdivieso inquired about when the applicant first approached the Town, what the level of units per acre was proposed. Mr. Robinson stated the proposal was 48-50 units per acre; however, he stated he agreed with staff's indication that FAR was a better methodology. Mr. Valdivieso asked if the staff's recommendation was acceptable to the applicant. Mr. Robinson stated in the affirmative and that the applicant would consider the base FAR measurement of 0.5 acceptable. Mr. Almoney stated he considered the FAR measurement a better application rather than units per acre. Chair Clough stated there was a need to attract hotels and motels to the area, but also keep the overly large structures from the oceanfront. He stated that the Floor Area Ratio approach accomplishes both of these.

Mr. Jones moved to follow the staff's recommendation of establishing a Floor Area Ratio (FAR) of 0.5, with a range to 0.6, with an increase in side yard setbacks and buffers in the Commercial Zone, with the consistency statement. Eddie Valdivieso provided a second and the motion passed on a unanimous, 4-0, vote.

2. **Zoning Amendment Request – IG Holding LLC** – 153.177(A) Commercial Zone Conditional Use And 153.076 Table Of Parking Requirements - Add *Small Amusement Rides with Max Capacity of 24 Persons* To Outdoor Recreational Activities In The Commercial Zone And Parking Requirements

Mr. Brightbill presented a proposed amendment by IG Holding, LLC, to amend Chapter 153.177 (A) Commercial Zone Conditional Use and 153.076 Table of Parking Requirements to add Small Amusement Rides with Maximum Capacity of 24 Persons to Outdoor Recreational Activities in the Commercial Zone and Parking Requirements as a permitted use. He said it was originally proposed for a specific ride, but staff had recommended a broader approach so Town Code would not require alteration each time a specific amusement ride was replaced. Mr. Brightbill stated Mike Morway, P.E., of Albemarle Engineering was present to answer any questions the board may have about the proposed amendment. He stated the business was Paradise Golf Course. He said that when the facility was renovated, the group wanted to include an amusement site. Planning Director Greg Loy stated although this proposed amendment was initially going to address one business, the change would affect any outdoor recreational activity and is zone-wide. Mr. Valdivieso inquired whether the staff recommendation was agreeable to the applicant. Mr. Jones stated it was a good recommendation by the staff to broaden the scope.

Mr. Valdivieso moved to recommend forwarding the proposed zoning amendment request submitted by IG Holding LLC., to add small amusement rides with a maximum capacity of 24 persons to outdoor recreational activities in the commercial zone and parking requirements, along with the consistency statement. Mr. Almoney provided a second and the motion passed on a unanimous, 4-0, vote.

3. **Site Plan Review – Captain George's Restaurant** – 705 South Croatan Highway – Addition To The Existing Dining Room And Kitchen Area; Addition Of A 25 Space Parking Area On Adjacent Property With Associated Site Modifications.

Mr. Brightbill presented the site plan for Captain George's Restaurant, which would include an addition to the existing dining room and kitchen area, along with the 25 space parking addition on adjacent property with associated site modifications. He shared that staff recommended five conditions be addressed before the plan moves forward.

Mike Morway, P.E., appeared before the board representing Captain George's Restaurant. He noted the staff's conditions are easily addressed and will be addressed as part of the plan. He also said that the stormwater review was already approved by State. Mr. Valdivieso stated that a standard detail should be provided for the proposed crosswalk.

Mr. Almoney moved to forward the site plan review for Captain George's Restaurant, including the five staff recommendations and condition by Mr. Valdivieso, to the Board of Commissioners with a favorable recommendation. Mr. Jones provided a second and the motion passed with a unanimous, 4-0, vote.

Public Comment (Time limit of 3 minutes per person; 5 minutes per group)

Response to Public Comment
Board Member Comment
Adjournment

There being no further business before the Planning Board at this time, Mr. Valdivieso moved to adjourn this meeting. Mr. Jones seconded that motion and approval was unanimous, 4-0. It was 5:54 p.m.

Submitted by:

James Michael O'Dell
Administrative Specialist

Director of
Planning and Inspections
GREG LOY

Chief Building Inspector
MATT LOWCHER

Building Inspector
CAMERON RAY

Code Enforcement Officer
MARTY SHAW

THE TOWN OF KILL DEVIL HILLS
NORTH CAROLINA

PLANNING DEPARTMENT

Assistant Director of
Planning and Inspections
MEREDITH GUNS

Senior Planner
BRYAN BRIGHTBILL

Zoning Administrator
DONNA ELLIOTT

June 21, 2016

Memorandum

To: Planning Board

From: Bryan Brightbill, Planner

Subject: **SITE PLAN REVIEW—Golasa Holdings, LLC—5,300sf Retail/Restaurant Development—1900 South Croatan Highway in the Commercial Zone**

Attached is a site plan to construct a 5,300 square foot building, 39 parking spaces and associated site modifications at 1900 South Croatan Highway in the commercial zoning district. Attached you will find: staff comments, cover letter, commercial site plan review application, stormwater management narrative and calculations, water meter service sizing forms for each of the three units, lighting cut sheets, capacity reservation agreement from KDHWWTP, and a plan set. The following conditions remain to be addressed:

1. Solid Waste: Light pole still shown on C201, C202, and C401 immediately north of the dumpster enclosure, your comments stated this was relocated. Please show relocated position on drawings.

Staff recommends that the Planning Board discuss the plan and forward it to the Board of Commissioners with a favorable recommendation after the above listed condition has been addressed.

TOWN OF KILL DEVIL HILLS
PUBLIC SERVICES

Post Office Box 1719, 107 Town Hall Drive
Kill Devil Hills, NC 27948
Administration (252) 480-4080 Fax (252) 441-6136
Office Hours: 8:00 a.m. – 5:00 p.m. Mon. – Fri.
Water Plant (252) 480-4090
www.kdhnc.com

STEPHEN F. ALBRIGHT
Director

ANTHONY R. PATRICK
Assistant Director

MARCIA K. SCARBOROUGH
Administrative Services

ALFRED W. BURTON
Water Plant

WILLIAM H. WATERFIELD
Water Systems

L. RANDOLPH TURNER
Streets

LYNN E. LINDSEY
Solid Waste

Date: June 15, 2016

To: Bryan Brightbill, Senior Planner

From: Anthony Patrick, Assistant Public Services Director

RE: *SITE PLAN TECHNICAL REVIEW 2--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone*

Please note the following comments for the proposed site plan at the above referenced address:

Streets

- No further comments at this time.

Water

- Water
  - Site Plan proposes meters for each individual unit
    - Proposed 1" meter for 2,500 sq/ft restaurant
    - Proposed 5/8" x 3/4" meter for each 1,400 sq / ft retail unit (2)
  - Fees associated with these services:

    Initial Hook Up (IHF) for Restaurant = 100 seats / 20 seats per IHF = 5IHF x $4,000 per IHF = $20,000.

    Tap Fee 1" = $1,214 (based on proposed budget schedule for 2016 / 2017)

    Surety = $200

    Total Restaurant = $21,414.00

Proposed service with 5/8" x 3/4" meter for retail unit
Initial Hook Up = $4000
Tap Fee = $909 (based on proposed budget fee schedule for 2016/2017)
Surety = $100

Total Per Retail Unit = $5,009
Total Retail (for two units) = $10,018

Grand Total = $31,432

Solid Waste

- Light pole still shown on C201, C202, and C401 immediately north of the dumpster enclosure, your comments stated this was relocated. Please show relocated position on drawings.

Wastewater

- No further comments.

General

- No further comments.

Brightbill, Bryan

From: Elliott, Donna
Sent: Monday, May 23, 2016 5:23 PM
To: Brightbill, Bryan; Guns, Meredith
Subject: RE: SITE PLAN TECHNICAL REVIEW 1--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone

I have reviewed the proposed site plan for the construction of a 5,300 square foot building with parking and associated modifications, located at 1900 S. Croatan Highway, and I have the following comments:

1) One 64 square foot free-standing sign will be permitted.
2) Each unit will be permitted one 36 square foot sign on the building.

From: Brightbill, Bryan
Sent: Wednesday, May 18, 2016 8:41 AM
To: Albright, Steve; Elliott, Donna; Guns, Meredith; Harris, Dana; Lindsey, Lynn Earl; Lowcher, Matt; Loy, Greg; Patrick, Anthony; Pete Burkhimer <PBurkhimer@american-ea.com> (PBurkhimer@american-ea.com); Ray, Cameron; Risoldi, John; Shaw, Marty
Subject: SITE PLAN TECHNICAL REVIEW 1--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone
Importance: High

All,

This proposed site plan calls for the construction of a 5,300 square foot building, 39 parking spaces and associated site modifications at 1900 South Croatan Highway in the commercial zoning district. Attached you will find: cover letter, commercial site plan review application, stormwater management narrative and calculations, water meter service sizing forms for each of the three units, lighting cut sheets, capacity reservation agreement from KDHWWTP, and a plan set.

Please review the plans with respect to your department's responsibilities and submit written comments **to Meredith by NOON on Monday, May 23, 2016.** Your comments are important and will be reviewed by the Planning Board and Board of Commissioners. Thanks in advance for your cooperation.

Hard copy plans have been sent to Dana, Steve, John and Tony. Thanks!

With Appalachian pride,

Bryan Brightbill, CFM
Senior Planner
Town of Kil Devil Hills
(252) 449-5311 (O)
(252) 441-4102 (F)

Guns, Meredith

From: Lowcher, Matt
Sent: Wednesday, May 18, 2016 12:10 PM
To: Guns, Meredith
Subject: FW: SITE PLAN TECHNICAL REVIEW 1--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone

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From: Lowcher, Matt
Sent: Wednesday, May 18, 2016 12:09 PM
To: Brightbill, Bryan
Subject: RE: SITE PLAN TECHNICAL REVIEW 1--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone

After reviewing the proposed site plan I have the following comments:

1) No Building Plans or Appendix B has been submitted for review. (3) sets of complete plans with an Appendix B for each set, will be required, both plans and Appendix B will be required to be sealed by a NC Design Professional.

Matthew Lowcher
Chief Building Inspector
Town of Kill Devil Hills

From: Brightbill, Bryan
Sent: Wednesday, May 18, 2016 8:41 AM
To: Albright, Steve; Elliott, Donna; Guns, Meredith; Harris, Dana; Lindsey, Lynn Earl; Lowcher, Matt; Loy, Greg; Patrick, Anthony; Pete Burkhimer <PBurkhimer@american-ea.com> (PBurkhimer@american-ea.com); Ray, Cameron; Risoldi, John; Shaw, Marty
Subject: SITE PLAN TECHNICAL REVIEW 1--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone
Importance: High

All,

This proposed site plan calls for the construction of a 5,300 square foot building, 39 parking spaces and associated site modifications at 1900 South Croatan Highway in the commercial zoning district. Attached you will find: cover letter, commercial site plan review application, stormwater management narrative and calculations, water meter service sizing forms for each of the three units, lighting cut sheets, capacity reservation agreement from KDHWWTP, and a plan set.

Please review the plans with respect to your department's responsibilities and submit written comments **to Meredith by NOON on Monday, May 23, 2016.** Your comments are important and will be reviewed by the Planning Board and Board of Commissioners. Thanks in advance for your cooperation.

Hard copy plans have been sent to Dana, Steve, John and Tony. Thanks!

With Appalachian pride,

Guns, Meredith

From: Harris, Dana
Sent: Wednesday, May 18, 2016 9:34 AM
To: Guns, Meredith
Subject: FW: SITE PLAN TECHNICAL REVIEW 1--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone
Attachments: 08127A - Site Plan Submittal Drawings - 2016-05-17.pdf; 08127A - Site Plan Submittal Documents - 2016-05-17.pdf

Importance: High

Meredith,

I do not see anything that negatively affects the responsibilities of the police department or the safety of the public at this time.

Dana

From: Brightbill, Bryan
Sent: Wednesday, May 18, 2016 8:41 AM
To: Albright, Steve; Elliott, Donna; Guns, Meredith; Harris, Dana; Lindsey, Lynn Earl; Lowcher, Matt; Loy, Greg; Patrick, Anthony; Pete Burkhimer <PBurkhimer@american-ea.com> (PBurkhimer@american-ea.com); Ray, Cameron; Risoldi, John; Shaw, Marty
Subject: SITE PLAN TECHNICAL REVIEW 1--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone
Importance: High

All,

This proposed site plan calls for the construction of a 5,300 square foot building, 39 parking spaces and associated site modifications at 1900 South Croatan Highway in the commercial zoning district. Attached you will find: cover letter, commercial site plan review application, stormwater management narrative and calculations, water meter service sizing forms for each of the three units, lighting cut sheets, capacity reservation agreement from KDHWWTP, and a plan set.

Please review the plans with respect to your department's responsibilities and submit written comments **to Meredith by NOON on Monday, May 23, 2016.** Your comments are important and will be reviewed by the Planning Board and Board of Commissioners. Thanks in advance for your cooperation.

Hard copy plans have been sent to Dana, Steve, John and Tony. Thanks!

With Appalachian pride,

Bryan Brightbill, CFM
Senior Planner
Town of Kil Devil Hills
(252) 449-5311 (O)
(252) 441-4102 (F)

Brightbill, Bryan

From: Risoldi, John
Sent: Tuesday, June 14, 2016 1:10 PM
To: Brightbill, Bryan
Subject: RE: SITE PLAN TECHNICAL REVIEW 2--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway

No comments at this time.

John L. Risoldi, Sr.
Fire Marshal
Town of Kill Devil Hills
1634 N. Croatan Highway, P. O. Box 1719
Kill Devil Hills, NC 27948
252-480-4060 – Phone
252-480-4069 – Fax
johnr@kdhnc.com

"Everyday is a Fire Prevention Day"

From: Brightbill, Bryan
Sent: Tuesday, June 14, 2016 11:16 AM
To: Pete Burkhimer <PBurkhimer@american-ea.com> (PBurkhimer@american-ea.com); Risoldi, John
Subject: FW: SITE PLAN TECHNICAL REVIEW 2--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway

Comments?

From: Brightbill, Bryan
Sent: Wednesday, June 08, 2016 10:06 AM
To: Shaw, Marty; Albright, Steve; Elliott, Donna; Guns, Meredith; Harris, Dana; 'Hunt, Carl'; Lindsey, Lynn Earl; Lowcher, Matt; Loy, Greg; Patrick, Anthony; Pete Burkhimer <PBurkhimer@american-ea.com> (PBurkhimer@american-ea.com); Ray, Cameron; Risoldi, John
Subject: SITE PLAN TECHNICAL REVIEW 2--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway

All,

This proposed site plan calls for the construction of a 5,300 square foot building, 39 parking spaces and associated site modifications at 1900 South Croatan Highway in the commercial zoning district. In addition to the revised plans,

Guns, Meredith

From: Shaw, Marty
Sent: Wednesday, May 18, 2016 8:52 AM
To: Guns, Meredith
Subject: RE: SITE PLAN TECHNICAL REVIEW 1--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone

No comments.

Marty Shaw
Code Enforcement Officer
Town of Kill Devil Hills
marty@kdhnc.com
252-449-5316

From: Brightbill, Bryan
Sent: Wednesday, May 18, 2016 8:41 AM
To: Albright, Steve; Elliott, Donna; Guns, Meredith; Harris, Dana; Lindsey, Lynn Earl; Lowcher, Matt; Loy, Greg; Patrick, Anthony; Pete Burkhimer <PBurkhimer@american-ea.com> (PBurkhimer@american-ea.com); Ray, Cameron; Risoldi, John; Shaw, Marty
Subject: SITE PLAN TECHNICAL REVIEW 1--Golasa Holdings, LLC--5300sf Retail/Restaurant Development--1900 South Croatan Highway in the Commercial Zone
Importance: High

All,

This proposed site plan calls for the construction of a 5,300 square foot building, 39 parking spaces and associated site modifications at 1900 South Croatan Highway in the commercial zoning district. Attached you will find: cover letter, commercial site plan review application, stormwater management narrative and calculations, water meter service sizing forms for each of the three units, lighting cut sheets, capacity reservation agreement from KDHWWTP, and a plan set.

Please review the plans with respect to your department's responsibilities and submit written comments **to Meredith by NOON on Monday, May 23, 2016.** Your comments are important and will be reviewed by the Planning Board and Board of Commissioners. Thanks in advance for your cooperation.

Hard copy plans have been sent to Dana, Steve, John and Tony. Thanks!

With Appalachian pride,

Bryan Brightbill, CFM
Senior Planner
Town of Kil Devil Hills
(252) 449-5311 (O)
(252) 441-4102 (F)

Albemarle & ASSOCIATES, LTD.

March 17, 2016

Mr. Bryan Brightbill
Town of Kill Devil Hills Planning Department
P.O. Box 1719
Kill Devil Hills, NC 2794

RE: Lake Drive Shops

Dear Mr. Brightbill:

Please find attached submittal for the Lake Drive Shops. Property is owned and being developed by Golasa Holdings, L.L.C. The project consists of a 5,300 sf building that will include a 2,500 sf restaurant and two (2) 1,400 sf retail units. Each unit will have a separate water service and sewage will be conveyed to the KDHWWTP via a new on-site lift station that will be connected to the KDHWWTP forcemain on the east side of US-158. The project is being submitted for review by the Kill Devil Hills Technical Review Committee. Included within this submittal are the following items:

- Site Plan Application
- Site Plan Review Fee ($3,430)
- Stormwater Management Narrative and Calculations
- Site Lighting Fixture Specification Sheet
- Water Service Sizing Forms (3)
- KDHWWTP Reservation Agreement
- Plans (5 copies)
  - C101 Demolition and Erosion Control Plan (dated 5/17/16)
  - C201 Site Plan & Buffer Plan (dated 5/17/16)
  - C202 Site Lighting Plan & Details (dated 5/17/16)
  - C301 Grading and Drainage Plan (dated 5/17/16)
  - C401 Utility Plan (dated 5/17/16)
  - A201 Building Elevations (dated 5/17/16)
  - A202 Window Façade Calculations (dated 5/17/16)

If I can provide any additional information, please do not hesitate to call me.

Sincerely,

Michael J. Morway, PE

cc: Golasa Holdings, L.L.C.
file 08127 (301

Town of Kill Devil Hills Planning and Inspections
Commercial Site Plan Review Application*

Applicant

Name: Albemarle & Associates, Ltd

Address: PO Box 3989
Kill Devil Hills, NC, 27948

Phone: 252-441-2113

Fax: 252-441-0965

Cell: _____

Property Owner

Name: Golasa Holdings, L.L.C.

Address: 2229 S. Croatan Hwy
Nags Head, NC, 27959

Phone: 252-480-0009

Fax: 252-480-0889

Cell: _____

Property Location

Address: _____ Lot, Block: 42, 44, 46, 48, 50, 52 & 54

Subdivision: Lake Drive Developement Pin#: 989313035962

Zoning District: ☐Commercial ☐LI-1 ☐LI-2 ☐OIR

Total Lot Size: _____ Sq. Ft. Disturbed Area: _____ Sq. Ft.

Contractor

Company Name: not available at this time License Number: _____

Name: _____ Phone: _____

Address: _____ Cell: _____

_____ Fax: _____

Town Privilege License Number: _____

Construction Information

Type of Construction: _____

☐Assembly ☐Business ☐Educational ☐Factory/Industrial ☐High Hazard

☐Institutional ☐Mercantile ☐Residential ☐Storage ☐Utility/Misc.

☒New Construction ☐Addition ☐Repair/Replace ☐Remodel ☐Other: _____

Square Footage Proposed:

Interior Space: 5,300 Sq. Ft. Covered Deck(s): 0 Sq. Ft. Storage: 0 Sq. Ft.

Garage: 0 Sq. Ft. # of Bedrooms: 0 # of Open Deck(s): 0

Proposed Square Footage: 5,300 + Existing Square Footage: 0 = 5,300 Total Sq. Ft.

% Impervious Coverage: 64.9 + % Pervious Coverage: 0 = 64.9 Total % Coverage

# of Parking Spaces: *Existing*: 0 *Proposed*: 39 *Total*: 39

Septic Tank Permit #: N/A Construction Type: Pump to KDHWWTP

Estimated Construction Cost (including labor and materials): _____

Flood Information

Flood Zone: ☐ VE ☑ AE ☐ X Base Flood Elevation: 9

Proposed First Floor Elevation: 11.9 Sq. Ft Below Base Flood Elevation: 0

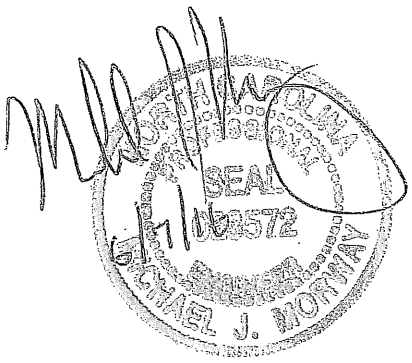
**This form is designed as a guide for Commercial Site Plan Review.*
Additional plans and information will be required prior to building permits.

- ☐ Proposed First Floor Elevation
- ☐ Dumpster Pad Location
- ☐ Proposed Sign Location
- ☐ Sight triangle shown
- ☐ Commercial Building Plans showing architectural compliance
- ☐ Plans to N.C.D.O.T. (if required)
- ☐ NC Engineer/Land Surveyor Seal on Site Plan

*** The items listed in the Site Plan portion of the above checklist represent information that must be indicated on any site plan submitted for review by the Kill Devil Hills Planning Department, Planning Board, and Board of Commissioners. All of the above required documents shall be submitted on or before the 3rd Tuesday of each month. Upon completion of review, the Planning Board shall transmit its recommendations to the Board of Commissioners. The Board of Commissioners shall review site plans on the second Monday of each month.

Signature of Applicant: _____ **(Date)** 5/17/16

Albemarle & ASSOCIATES, LTD.



Lake Drive Shops
Stormwater Management Narrative

Revised June 7, 2016

Existing Conditions: Golasa Holdings L.L.C. owns a 0.97 acre site at the intersection of US-158 and West Lake Drive in Kill Devil Hills in Dare County. The site is currently undeveloped and is mostly wooded. The Natural Resource Conservation Service Soil Survey for Dare County has mapped the soils on the site to consist primarily of Corolla Fine Sand (CoB). The majority of the site is (elevation) feet above sea level (NAVD 1988). The property is within a flood zone AE-9 and X.

Proposed Development: Golasa Holdings intends to construct a new +/- 5,300 sf retail plaza and parking lot. The retail plaza will include 3 individual units for lease. Water supply for the facility will be served by the Town of Kill Devil Hills municipal water system. Sewage from the plaza will be directed to the Kill Devil Hills Wastewater Treatment Plant via a new lift station that will be installed on the site and connected to the existing KDHWWTP owned forcemain.

Stormwater Management: Development plans for the site originally proposed two independent basins. However, upon close review & survey of existing trees, it was found that the a stand of cluster of oaks along the east side of the site could potentially be preserved. For this reason, the west basin was expanded and the collection system extended to manage the entire site in a single basin designed to meet the stormwater management requirements of the North Carolina Department of Environmental Quality (NCDEQ) as well as the Town of Kill Devil Hills (KDH). The basin is located within sandy soil and are at or near two feet above the ESHWT.

Infiltration Basin (West Basin): Runoff from the site is directed to a basin on the southwest quadrant of the site. Runoff from the parking areas and building canopy sheet flows to a series of drop inlets and is conveyed via a closed collection system to the basin. Runoff from the building roof is collected via roof drains and also conveyed to the basin by pipe. Post-development runoff from the site resulting from the 10-year / 2-hour event (4.3") is calculated to be 9,549 cf. The top and bottom of the basin is set at 10.2 and 7.9 and provides 5,142 cf of storage including pipe volume (54% of the design event). In addition, the infiltrative capability of the basin is calculated to be 5,787 cf based upon a permeability rate of 10 inches/hour, which is half the published permeability rate for Corolla Fine Sand. The resulting management capacity for a 2-hour event is 10,929 cf, which is 114% of the required volume for the Town of Kill Devil Hills. An overflow drop inlet has been provided at the storage elevation of 10.2 and will direct volume in excess of the basin storage capacity to the existing ditch along the south side of West Lake Drive and ultimately discharge into the Atlantic Ocean.

Land Planning – Engineering – Surveying – Environmental – Construction Management
P.O. Box 3989, 115 W. Saint Clair St., Kill Devil Hills, North Carolina 27948
Phone: 252-441-2113 www.AlbemarleAssociates.com Fax: 252-441-0965

Volumetric Runoff Calculations
Simple Method

Project Name : Lake Drive Shops

Project Area Description - DRAINAGE AREA # 1 (west basin)					
Basin Information					
Receiving Stream Name					
Receiving Stream Class & Index Number					
Drainage Area	42,070	SF			
Existing Impervious Area	0	SF			
Proposed Impervious Area	27,272	SF			
% Impervious Area (total)	64.8%				
Impervious Surface Area			*existing*	*existing (to remain)*	*proposed (additional)*
On-site Buildings or Lot BUA	5,300	SF	*0*	*0*	*5,300*
On-site Streets	0	SF	*0*	*0*	*0*
On-site Parking	19,068	SF	*0*	*0*	*19,068*
On-site Sidewalks	2,795	SF	*0*	*0*	*2,795*
Other on-site	109	SF	*0*	*0*	*109*
Future	0	SF	*0*	*0*	*0*
Off-site	0	SF	*0*	*0*	*0*
Total:	27,272	SF	*0*	*0*	*27,272*

Runoff Calculations (Simple Method)				
	NCDENR	10yr / 2hr (pre)	10yr / 2hr (post)	10yr / 24hr (post)
Design Runoff (in)	1.5	4.3	4.3	6.24
Total Area (sf)	*42,070*	*42,070*	*42,070*	*42,070*
Coverage	*64.8%*	*0.0%*	*64.8%*	*64.8%*
R(v)	*0.633*	*0.050*	*0.633*	*0.633*
Rainfall Volume	*3,331*	***754***	*9,549*	*13,857*

NCDENR 1.5" : **3,331**
10 yr / 2 hr : **9,549**
10 yr / 24 hr : **13,857**

STORMWATER MANAGEMENT CALCULATIONS - INFILTRATION BASIN DESIGN

Project	Lake Drive Shops	By : mjm
Drainage Area	1	Date : 06/02/16
Infiltration Basin	1 (west basin)	

Infiltration Basin Information

	elevation (msl)	area (sf)
Storage Elevation:	10.2	2,928
Bottom of basin:	7.9	1,398

ESHWT Elev.:	6.0	(msl)
Permeability:	10.0	(in/hr)
Basin Storage Volume:	4,975	(cf)
10" Storm Sewer:	118	(cf)
12" Storm Sewer:	49	(cf)
Total: Storage Volume:	**5,142**	**(cf)**

NCDEQ Drawdown Calculations (full basin)		
Average Hydraulic Gradient:	1.6	(ft/ft)
Drawdown Rate:	0.804	(cfs)
NCDEQ Drawdown Time (1.5" rainfall):	0.07	Days

10 yr, 24 hr Infiltrative Capabilities		
Permeability (1/2 rate):	5.0	(in/hr)
Average Hydraulic Gradient:	1.6	(ft/ft)
Drawdown Rate:	0.260	(cfs)
10 yr / 24 hr Runoff Volume:	13,857	(cf)
NCDEQ Drawdown Time (10yr/24hr):	0.62	Days

Town of Kill Devil Hills 10 yr, 2 hr management capabilities		
10 yr, 2 hr rainfall:	4.3	(inches)
Runoff Volume:	9,549	(cf)
Storage Volume:	5,142	(cf)
2-hr Infiltration Volume:	5,787	(cf)
Total Volume Managed:	10,929	(cf)
	(114%)	

Soil Boring Log
Lake Drive Shops

Soil Boring		
Depth	**B-1**	**B-2**
0" to 6"	tan fine sand	topsoil / organics
6" to 12"	tan fine sand	tan fine sand
12" to 18"	tan fine sand	tan fine sand
18" to 24"	tan fine sand	tan fine sand
24" to 30"	tan fine sand	tan fine sand
30" to 36"	tan fine sand (moist)	tan fine sand (moist)
36" to 42"	tan fine sand (wet)	tan fine sand (wet)
42" to 48"	grey fine sand (wet)	tan fine sand (wet)
48" to 54"	grey fine sand (saturated with mottles)	tan fine sand (saturated, trace of mottling)
Soil Type	Corolla Fine Sand	Corolla Fine Sand
Date of Boring	5/5/16	5/5/16
Ex. Ground Elevation (ft. above MSL)	10.3	9.8
Depth to ESHWT (in)	48	48
ESHWT Elevation	6.3	5.8
Depth to Water table (in)	48	48
Estimated Water table Elevation (ft)	6.3	5.8

Prepared by Albemarle and Associates, Ltd.

Town of Kill Devil Hills

Water Meter Service Sizing Forms – Water Customer data Sheet

Customer: Golasa Holdings, LLC Address: PO Box 120, Kitty Hawk, NC, 27949

Building Address: N/A Zip Code: _____

Lot: 42,44,46,48 Block: _____ Section: _____ Subdivision: Lake Drive Development

Type of Occupancy: Restaurant

Fixture	Fixture Value 35 P.S.I.	=	# of Fixtures	=	Fixture Value
Bathtub	8	=		=	
Bedpan Washers	10	=		=	
Combination Sink & Tray	3	=		=	
Dental Unit	1	=		=	
Dental Lavatory	2	=		=	
Drinking Fountain – Cooler	1	=		=	
Drinking Fountain – Public	2	=		=	
Kitchen Sink – ½" Connection	3	=		=	
Kitchen Sink – ¾" Connection	7	=	3	=	21
Lavatory – 3/8" Connection	2	=	4	=	8
Lavatory – ½" connection	4	=		=	
Laundry Tray – ½" Connection	3	=		=	
Laundry Tray – ¾" Connection	7	=		=	
Shower Head (Shower Only)	4	=		=	
Service Sink – ½" Connection	3	=	1	=	3
Service Sink – ¾" Connection	7	=		=	
Urinal – Pedestal Flush Valve	35	=		=	
Urinal – Wall Flush Valve	12	=		=	
Urinal – Trough (2 ft. unit)	2	=		=	
Wash Sink (each set of faucets)	4	=		=	
Water Closet – Flush Valve	35	=		=	
Water Closet – Tank Type	3	=	2	=	6
Dishwasher – ½" Connection	5	=		=	
Dishwasher – ¾" Connection	10	=	1	=	10
Washing Machine – ½" Connection	5	=		=	
Washing Machine – ¾" Connection	12	=		=	
Washing Machine - 1" Connection	25	=		=	
Hose Connection (Wash Down) – ½"	6	=	2	=	12
Hose Connection (Wash Down) – ¾"	10	=		=	
Hose (50ft Wash Down) – ½"	6	=		=	
Hose (50ft Wash Down) 5/8"	9	=		=	
Hose (50ft Wash Down) – ¾"	12	=		=	

COMBINED FIXTURE TOTAL	60

Swimming Pool – size/water Connection _____	Total GPM	=	
Ornamental Sprinkler - # of Heads _____	Total GPM	=	
Fire Suppression Sprinklers - # of Heads _____	Total GPM	=	
Other uses such as Saunas, Whirlpools, Etc,:	Total GPM	=	
	Total GPM	=	
	Total GPM	=	
Customer Peak Demand from sizing book by Press.	Total GPM	=	
TOTAL FIXTURE DEMAND IN GALLONS PER MINUTE	Total GPM	=	

NOTE: THIS FORM MUST BE COMPLETED BEFORE SERVICE IS PURCHASED!

Michael J. Morway 5/17/16

Person Completing Form Date

Town of Kill Devil Hills

Water Meter Service Sizing Forms – Water Customer data Sheet

Customer: Golden Holdings, LLC Address: PO Box 120, Kitty Hawk, NC, 27949

Building Address: n/a Zip Code: n/a

Lot: 42,44,46,48 50,52,54 Block: _____ Section: _____ Subdivision: LAKE DRIVE DEVELOPMENT

Type of Occupancy: RETAIL

Fixture	Fixture Value 35 P.S.I.	=	# of Fixtures	=	Fixture Value
Bathtub	8	=		=	
Bedpan Washers	10	=		=	
Combination Sink & Tray	3	=		=	
Dental Unit	1	=		=	
Dental Lavatory	2	=		=	
Drinking Fountain – Cooler	1	=		=	
Drinking Fountain – Public	2	=		=	
Kitchen Sink – ½" Connection	3	=		=	
Kitchen Sink – ¾" Connection	7	=		=	
Lavatory – 3/8" Connection	2	=	1	=	2
Lavatory – ½" connection	4	=		=	
Laundry Tray – ½" Connection	3	=		=	
Laundry Tray – ¾" Connection	7	=		=	
Shower Head (Shower Only)	4	=		=	
Service Sink – ½" Connection	3	=		=	
Service Sink – ¾" Connection	7	=		=	
Urinal – Pedestal Flush Valve	35	=		=	
Urinal – Wall Flush Valve	12	=		=	
Urinal – Trough (2 ft. unit)	2	=		=	
Wash Sink (each set of faucets)	4	=		=	
Water Closet – Flush Valve	35	=		=	
Water Closet – Tank Type	3	=	1	=	3
Dishwasher – ½" Connection	5	=		=	
Dishwasher – ¾" Connection	10	=		=	
Washing Machine – ½" Connection	5	=		=	
Washing Machine – ¾" Connection	12	=		=	
Washing Machine - 1" Connection	25	=		=	
Hose Connection (Wash Down) – ½"	6	=		=	
Hose Connection (Wash Down) – ¾"	10	=		=	
Hose (50ft Wash Down) – ½"	6	=		=	
Hose (50ft Wash Down) 5/8"	9	=		=	
Hose (50ft Wash Down) – ¾"	12	=		=	

COMBINED FIXTURE TOTAL	5

Swimming Pool – size/water Connection _____	Total GPM	=	
Ornamental Sprinkler - # of Heads _____	Total GPM	=	
Fire Suppression Sprinklers - # of Heads _____	Total GPM	=	
Other uses such as Saunas, Whirlpools, Etc,:	Total GPM	=	
	Total GPM	=	
	Total GPM	=	
Customer Peak Demand from sizing book by Press.	Total GPM	=	
TOTAL FIXTURE DEMAND IN GALLONS PER MINUTE	Total GPM	=	

NOTE: THIS FORM MUST BE COMPLETED BEFORE SERVICE IS PURCHASED!

MICHAEL S. MORWAY 5/17/16

Person Completing Form Date

Town of Kill Devil Hills

Water Meter Service Sizing Forms – Water Customer data Sheet

Customer: Golasa Holdings, LLC Address: PO Box 120, Kitty Hawk, NC, 27949

Building Address: N/A Zip Code: N/A

Lot: 42,43,46,47 50,53,54 Block: _____ Section: _____ Subdivision: Lake Drive Development

Type of Occupancy: Retail

Fixture	Fixture Value 35 P.S.I.	=	# of Fixtures	=	Fixture Value
Bathtub	8	=		=	
Bedpan Washers	10	=		=	
Combination Sink & Tray	3	=		=	
Dental Unit	1	=		=	
Dental Lavatory	2	=		=	
Drinking Fountain – Cooler	1	=		=	
Drinking Fountain – Public	2	=		=	
Kitchen Sink – ½" Connection	3	=		=	
Kitchen Sink – ¾" Connection	7	=		=	
Lavatory – 3/8" Connection	2	=	1	=	2
Lavatory – ½" connection	4	=		=	
Laundry Tray – ½" Connection	3	=		=	
Laundry Tray – ¾" Connection	7	=		=	
Shower Head (Shower Only)	4	=		=	
Service Sink – ½" Connection	3	=		=	
Service Sink – ¾" Connection	7	=		=	
Urinal – Pedestal Flush Valve	35	=		=	
Urinal – Wall Flush Valve	12	=		=	
Urinal – Trough (2 ft. unit)	2	=		=	
Wash Sink (each set of faucets)	4	=		=	
Water Closet – Flush Valve	35	=		=	
Water Closet – Tank Type	3	=	1	=	3
Dishwasher – ½" Connection	5	=		=	
Dishwasher – ¾" Connection	10	=		=	
Washing Machine – ½" Connection	5	=		=	
Washing Machine – ¾" Connection	12	=		=	
Washing Machine - 1" Connection	25	=		=	
Hose Connection (Wash Down) – ½"	6	=		=	
Hose Connection (Wash Down) – ¾"	10	=		=	
Hose (50ft Wash Down) – ½"	6	=		=	
Hose (50ft Wash Down) 5/8"	9	=		=	
Hose (50ft Wash Down) – ¾"	12	=		=	

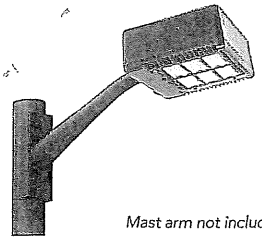
COMBINED FIXTURE TOTAL	5

Swimming Pool – size/water Connection _____	Total GPM	=	
Ornamental Sprinkler - # of Heads _____	Total GPM	=	
Fire Suppression Sprinklers - # of Heads _____	Total GPM	=	
Other uses such as Saunas, Whirlpools, Etc,:	Total GPM	=	
	Total GPM	=	
	Total GPM	=	
Customer Peak Demand from sizing book by Press.	Total GPM	=	
TOTAL FIXTURE DEMAND IN GALLONS PER MINUTE	Total GPM	=	

NOTE: THIS FORM MUST BE COMPLETED BEFORE SERVICE IS PURCHASED!

Michael J. Mobley 5/17/16

Person Completing Form Date



Mast arm not included

KAD LED
LED Area Luminaire with Mast Arm Mount

NIGHTTIME FRIENDLY

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements

Specifications

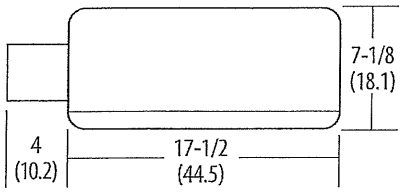
EPA: 1.2 ft² (0.11 m²)

Length: 17-1/2" (44.5 cm)

Width: 17-1/2" (44.5 cm)

Height: 7-1/8" (18.1 cm)

Weight (max): 36 lbs. (16.4 kg)



Introduction

The Contour® Series luminaires offer traditional square dayforms with softened edges for a versatile look that complements many applications. The KAD LED combines the latest in LED technology with the familiar aesthetic of the Contour® Series for stylish, high-performance illumination that lasts. It is ideal for replacing 100- 400W metal halide in area lighting applications with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: KAD LED 40C 1000 40K R5 MVOLT KMA DDBXD

KAD LED

Series	LEDs	Drive current	CCT	Distribution	Voltage	Mounting[4]
KAD LED	20C 20 LEDs	530 530 mA	30K 3000 K	R2 Type II	MVOLT 277[1]	**Shipped separately**
	30C 30 LEDs	700 700 mA	40K 4000 K	R3 Type III	120[1] 347[2]	KMA Mast arm external fitter[3,4]
	40C 40 LEDs	1000 1000 mA	50K 5000 K	R4 Type IV	208[1] 480[2]	
	60C 60 LEDs			R5 Type V	240[1]	

Options

Shipped installed

PER5	NEMA twist-lock five-wire receptacle only (no controls)[5]
PER7	Seven-wire receptacle only (no controls)[5]
SF	Single fuse (120, 277, 347V)[1]
DF	Double fuse (208, 240, 480V)[1]
PIR	Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[6]
PIRH	Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[6]
PIR1FC3V	Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[6]
PIRH1FC3V	Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[6]
BL30	Bi-level switched dimming, 30%[7,8]
BL50	Bi-level switched dimming, 50%[7,8]
PNMTDD3	Part night, dim till dawn[9]
PNMT5D3	Part night, dim 5 hrs[9]
PNMT6D3	Part night, dim 6 hrs[9]
PNMT7D3	Part night, dim 7 hrs[9]
HS	Houseside shield[10]

Shipped separately[10]

WG	Wire guard

Finish (required)

DDBXD	Dark bronze	DDBTXD	Textured dark bronze
DBLXD	Black	DBLBXD	Textured black
DNAXD	Natural aluminum	DNATXD	Textured natural aluminum
DWHXD	White	DWHGXD	Textured white

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[11]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[11]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[11]
SC U	Shorting cap[11]
KADLEDHS 20C U	Houseside shield for 20 LED unit
KADLEDHS 30C U	Houseside shield for 30 LED unit
KADLEDHS 40C U	Houseside shield for 40 LED unit
KADLEDHS 60C U	Houseside shield for 60 LED unit
KMA DDBXD U	Mast arm adapter (specify finish)
KADWG U	Wire guard accessory

For more control options, visit DTL and ROAM online.
**Round pole top must be 3.25" O.D. minimum.*

NOTES

1. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
2. Maximum ambient temperature with 347V or 480V is 30°C.
3. Must be ordered as a separate accessory. Specify finish when ordering.
4. Mast arm not included.
5. Mounting must be restricted to ±45° from horizontal aim per ANSI C136.10-2010.
6. PIR and PIR1FC3V specify the SensorSwitch SBGR-10-ODP control; PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard.
7. Requires an additional switched circuit with same phase as main luminaire power. Supply circuit and control circuit are required to be in the same phase.
8. Dimming driver standard. MVOLT only. Not available with 347V, 480V, PER5, PER7 or PNMT options.
9. Dimming driver standard. MVOLT only. Not available with 347V, 480V, PER5, PER7, BL30 or BL50.
10. Also available as a separate accessory; see Accessories information.
11. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.

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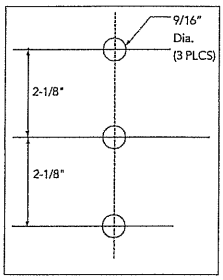
Drilling

Template #5 Top of Pole



Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C (20 LEDs)	530 mA	35 W	R2	3,615	1	0	1	95	3,846	1	0	1	101	3,860	1	0	1	102
			R3	3,600	1	0	1	95	3,830	1	0	1	101	3,844	1	0	1	101
			R4	3,605	1	0	1	95	3,835	1	0	1	101	3,849	1	0	1	101
			R5	3,826	2	0	1	101	4,070	3	0	1	107	4,084	3	0	1	107
	700 mA	46 W	R2	4,537	1	0	1	95	4,827	1	0	1	101	4,844	1	0	2	101
			R3	4,519	1	0	2	94	4,807	1	0	2	100	4,825	1	0	2	101
			R4	4,524	1	0	2	94	4,813	1	0	2	100	4,830	1	0	2	101
			R5	4,802	3	0	1	100	5,108	3	0	1	106	5,126	3	0	1	107
	1000 mA	73 W	R2	6,203	1	0	2	86	6,598	2	0	2	92	6,622	2	0	2	92
			R3	6,177	1	0	2	86	6,571	1	0	2	91	6,595	1	0	2	92
			R4	6,185	1	0	2	86	6,579	1	0	2	91	6,603	1	0	2	92
			R5	6,564	3	0	1	91	6,983	3	0	1	97	7,008	3	0	1	97
30C (30 LEDs)	530 mA	53 W	R2	5,328	1	0	2	99	5,669	1	0	2	105	5,689	1	0	2	105
			R3	5,307	1	0	2	98	5,645	1	0	2	105	5,666	1	0	2	105
			R4	5,313	1	0	2	98	5,652	1	0	2	105	5,672	1	0	2	105
			R5	5,639	3	0	1	104	5,999	3	0	1	111	6,020	3	0	1	111
	700 mA	69 W	R2	6,674	2	0	2	95	7,100	2	0	2	101	7,126	2	0	2	102
			R3	6,647	1	0	2	95	7,071	2	0	2	101	7,097	2	0	2	101
			R4	6,655	1	0	2	95	7,080	1	0	2	101	7,105	1	0	2	102
			R5	7,063	3	0	2	101	7,514	3	0	2	107	7,541	3	0	2	108
	1000 mA	108 W	R2	8,881	2	0	2	84	9,448	2	0	2	89	9,482	2	0	2	89
			R3	8,844	2	0	2	83	9,409	2	0	2	89	9,443	2	0	2	89
			R4	8,855	2	0	2	84	9,420	2	0	2	89	9,454	2	0	2	89
			R5	9,398	3	0	2	89	9,998	4	0	2	94	10,034	4	0	2	95
40C (40 LEDs)	530 mA	71 W	R2	7,034	2	0	2	102	7,483	2	0	2	108	7,510	2	0	2	109
			R3	7,005	2	0	2	102	7,453	2	0	2	108	7,479	2	0	2	108
			R4	7,014	1	0	2	102	7,462	1	0	2	108	7,488	1	0	2	109
			R5	7,444	3	0	2	108	7,919	3	0	2	115	7,947	3	0	2	115
	700 mA	94 W	R2	8,737	2	0	2	96	9,295	2	0	2	102	9,329	2	0	2	103
			R3	8,701	2	0	2	96	9,257	2	0	2	102	9,290	2	0	2	102
			R4	8,712	2	0	2	96	9,268	2	0	2	102	9,301	2	0	2	102
			R5	9,246	3	0	2	102	9,836	4	0	2	108	9,871	4	0	2	108
	1000 mA	141 W	R2	11,537	2	0	2	82	12,273	2	0	2	88	12,322	2	0	2	88
			R3	11,489	2	0	3	82	12,223	2	0	3	87	12,272	2	0	3	88
			R4	11,503	2	0	3	82	12,237	2	0	3	87	12,286	2	0	3	88
			R5	12,208	4	0	2	87	12,988	4	0	2	93	13,039	4	0	2	93
60C (60 LEDs)	530 mA	103 W	R2	10,334	2	0	2	102	10,993	2	0	2	109	11,033	2	0	2	109
			R3	10,291	2	0	2	102	10,948	2	0	2	108	10,988	2	0	2	109
			R4	10,304	2	0	2	102	10,961	2	0	2	109	11,001	2	0	2	109
			R5	10,935	4	0	2	108	11,633	4	0	2	115	11,675	4	0	2	116
	700 mA	137 W	R2	12,871	2	0	2	96	13,692	3	0	3	102	13,742	3	0	3	103
			R3	12,818	2	0	3	96	13,636	2	0	3	102	13,685	2	0	3	102
			R4	12,833	2	0	3	96	13,653	2	0	3	102	13,702	2	0	3	102
			R5	13,620	4	0	2	102	14,489	4	0	2	108	14,541	4	0	2	109
	1000 mA	216 W	R2	16,336	3	0	3	76	17,379	3	0	3	80	17,440	3	0	3	81
			R3	16,268	3	0	3	75	17,307	3	0	4	80	17,368	3	0	4	80
			R4	16,288	3	0	3	75	17,328	3	0	4	80	17,389	3	0	4	81
			R5	17,286	4	0	2	80	18,390	4	0	2	85	18,455	4	0	2	85

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **KAD LED** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	KAD LED 60C 1000			
	1.0	0.91	0.86	0.76
	KAD LED 40C 1000			
	1.0	0.93	0.88	0.79
	KAD LED 60C 700			
	1.0	0.98	0.97	0.94

Electrical Load

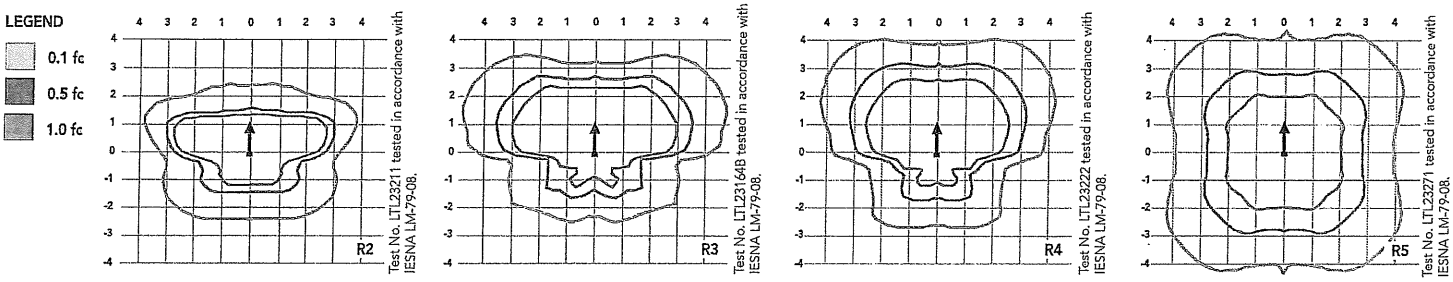
Number of LEDs	Drive Current (mA)	System Watts	Current (A) 120	208	240	277	347	480
20	530	35	0.30	0.18	0.16	0.15	-	-
	700	46	0.39	0.23	0.20	0.18	0.15	0.12
	1000	73	0.61	0.35	0.31	0.27	0.22	0.17
30	530	53	0.44	0.26	0.23	0.20	-	-
	700	69	0.58	0.34	0.29	0.26	0.21	0.16
	1000	108	0.90	0.52	0.46	0.40	0.32	0.24
40	530	71	0.60	0.35	0.32	0.29	0.21	0.16
	700	94	0.79	0.46	0.41	0.36	0.27	0.20
	1000	141	1.18	0.68	0.59	0.52	0.42	0.30
60	530	103	0.87	0.50	0.44	0.39	0.29	0.22
	700	137	1.15	0.66	0.58	0.51	0.40	0.29
	1000	216	1.81	1.04	0.92	0.81	0.63	0.47

NOTE: All ratings in this table are for a nominal system operated at 25°C ambient temperature. Current and power specifications in this table do not include branch circuit derating specified in the National Electrical Code. Please observe all applicable electrical codes and ratings.

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's KAD LED homepage.

Isofootcandle plots for the KAD LED 60C 1000 40K. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

INTENDED USE
The energy savings and long life of the KAD LED area luminaire make it a reliable choice for illuminating streets, walkways, parking lots, and surrounding areas.

CONSTRUCTION
Single-piece die-cast, aluminum housing with contoured edges has a 0.12" nominal wall thickness. Die-cast door frame has an impact-resistant, tempered glass lens that is fully gasketed with one piece tubular silicone.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
Precision-molded refractive acrylic lenses are available in four distributions. Light engines are available in standard 4000K, 3000K or 5000K (70 CRI) configurations.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to a metal-core circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION
Included universal mounting block and extruded aluminum arm facilitate quick and easy installation using nearly any existing drilling pattern. Stainless steel bolts fasten the luminaire to the mounting block securing it to poles or walls. The KAD LED can withstand up to a 1.5 G vibration load rating per ANSI C136.31. The KAD LED also utilizes the standard K-Series (Template #5) for pole drilling.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

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CAPACITY RESERVATION AGREEMENT

NORTH CAROLINA

DARE COUNTY

This Capacity Reservation Agreement ("Agreement") is made and entered into this 9th day of December, 2015, by and between KDHWWTP, LLC, a North Carolina Limited Liability Company ("KDH") and Golasa Holdings, LLC, a North Carolina Limited Liability Company("Reserving Party") and is the owner of Dare County Parcel Number 008323042 located in the Town of Kill Devil Hills, NC.

WHEREAS, KDH is a North Carolina regulated public utility providing wastewater (sewer treatment) utility service to a variety of customers in Kill Devil Hills, North Carolina; and

WHEREAS, KDH currently has no additional sewer treatment capacity available for sale at its wastewater treatment plant located in Kill Devil Hills, North Carolina; and

WHEREAS, KDH has filed an Application and intends to submit Plans in support of the Application which would increase the capacity available in the wastewater treatment plant by a finite additional amount of gallons per day ("gpd") in treatment capacity; and

WHEREAS, KDH believes that approval from the North Carolina Department of Water Resources ("DWR") may reasonably be expected within the near future (estimated to be approximately 12 months), and, upon such approval, KDH will be in a position to sell additional treatment capacity to interested purchasers, and by execution of this Agreement hereby agrees to sell the amount of capacity stated in this Reservation Agreement to the Reserving Party named in this Agreement and the Reserving Party agrees to purchase said capacity.

NOW, THEREFORE, based upon Ten and No/100 Dollars ($10.00) and other good and valuable considerations noted hereafter, the parties to this Agreement have contracted and agreed as follows.

1. Reserving Party, when new capacity in the KDH wastewater treatment plant becomes available, desires to purchase and acquire 4000 gpd of the new capacity to be made available.

2. As evidence of its intent to purchase said capacity, Reserving Party is making a cash deposit herewith, at the time of execution of this document, in the total amount of $12,980.00. This amount of deposit is 25% of the total purchase price for the amount of capacity being reserved at the existing tariffed rate of KDH, as approved by the North Carolina Utilities Commission ("the Commission"). The parties agree that, in the event the Commission changes the KDH capacity sale rate (Tap On Fee), then at the time of final sale of capacity, KDH will apply the rate then effective and approved by the Commission.

3. If the Reserving Party's needs and plans change after the execution of this Agreement, it may so notify KDH and KDH will accept either an additional payment (if additional capacity is requested and is available) or will make a refund, without interest, of any amounts of capacity which the Reserving Party is relinquishing.

4. At the time capacity becomes available and a purchase is made, the Reserving Party's deposit will be applied to the total purchase price. Reserving Party agrees to complete the full purchase of the capacity reserved herein within sixty (60) days of receipt of written notification of approval of the new capacity by North Carolina DWR.

5. Reserving Party further agrees to connect its load and become a user of KDH's wastewater treatment utility system within two (2) years of the purchase of the reserved capacity.

Otherwise, Reserving Party agrees to pay an Availability Charge as determined by the North Carolina Utilities Commission.

6. Reserving Party agrees that if the capacity purchase is not completed within the sixty (60) day notification period provided in this Agreement, then KDH, upon refund of the down payment provided in this Agreement, may sell the capacity to any other willing purchaser.

7. It shall be the Reserving Party's responsibility to construct the necessary collection pipe and associated equipment, including any required lift stations, which are required in order to connect the Reserving Party's premises with Seller's existing plant facilities. Such construction shall meet standards prescribed by the North Carolina Division of Water Quality and must be approved by KDH. Upon completion and upon request of KDH all such pipes, lift stations, other equipment, easements and rights-of-way associated with the sewer lines and facilities, and any facility plans and specifications including as-built surveys shall be conveyed at no cost by the Reserving Party to KDH, or to any successor-in-interest of KDH. Reserving Party and KDH may convey their rights and obligations hereunder to third-parties upon giving written notice to the other party.

8. This Capacity Reservation Agreement may be signed in multiple originals or counterparts, all of which together shall constitute one and the same instrument.

9. This Agreement shall be construed in accordance with the laws of the State of North Carolina.

IN WITNESS WHEREOF, KDH and Reserving Party have executed this Agreement on the day and year first above written.

KDHWWTP, LLC

By: _____
Managing Member

RESERVING PARTY

By: _____