SOUTHOLD PLANNING DEPARTMENT

Site Plan Application Packet

- Planning Board Office Information
- Site Plan Application Requirements Summary
- Site Plan Application Guide - Summary of relevant code sections
- Fee Schedule
- Applicant's Affidavit (1 page)
- Agent Authorization (if applicable)
- Applicant Transactional Disclosure Form
- Architectural Review Committee Information
- Guidelines for Good Exterior Lighting Plans
- LWRP Consistency Assessment Form (five pages)
- Site Plan Application Form

SOUTHOLD PLANNING BOARD

Office Information

Telephone :	631-765-1938
Mailing Address:	PO Box 1179 Southold, NY 11971
Office Location:	Town Hall Annex (Capital One Bank Building) 54375 State Route 25 Southold, NY (in the back of the Capital One Bank Building at the corner of Main Road & Youngs Ave.)
Internet:	http://southoldtownny.gov/119/Planning

Planning Board Members

Donald J. Wilcenski, Chair

James H. Rich III

Martin H. Sidor

Pierce Rafferty

Planning Staff

Heather Lanza, AICP – Planning Director

Mark Terry – Assistant Planning Director

Brian Cummings - Planner

Erica Bufkins – Planner Trainee

– Secretarial Assistant

Jessica Michaelis – Clerk Typist

SOUTHOLD PLANNING DEPARTMENT

SITE PLAN APPLICATION REQUIREMENTS SUMMARY

The following is a summary of the items typically required for a complete site plan application (See the Site Plan Application Guide for further information & relevant Town Code sections):

- ☐ Site Plan Application Form
- ☐ Fee. Check payable to Town of Southold (see Town Code §280-138 for fee schedule)
- ☐ Notice of Disapproval from Building Department
- ☐ Applicant's Affidavit
- ☐ Agent Authorization Letter
- ☐ LWRP Consistency Assessment Form (five pages)
- ☐ Full Environmental Assessment Form (EAF- Part One – digital fillable forms available online at the NYSDEC website)
  (Short Form EAF may be sufficient – this is determined at the pre-submission conference in Planning)
- ☐ Proof of Lot Recognition pursuant to Town Code §280-9 Lot Recognition
- ☐ Survey Prepared by Licensed Surveyor or Civil Engineer (Four copies)
- ☐ Existing site conditions(can be part of Survey required above), including buildings, pavement, drainage structures, utilities and the following natural features:
  - Topography
  - Wetlands, water bodies
  - Woodlands
  - Dunes, beaches, etc.
  - Trees >/= 6" dbh
  - Slopes 20% or greater
  - Flood hazard areas
  - Cultural & historic features within 500' of property boundaries
- ☐ Site Development Plan (Nine copies)
  - Proposed buildings, parking, curbs, sidewalks, driveways, signs, other improvements
  - Location, name & width rights-of-way within 500' of property lines
  - Location and use of all buildings and structures, including curb cuts, within 200' of the property boundary.
  - Show all easements and required setbacks on the plan
  - Describe all covenants or restrictions and/or easements on the property
  - Key map of location & owners of all properties within 500'
- ☐ Grading and Drainage Plan with Calculations (if not included in site plan)
- ☐ Landscape Plan (if not included in site plan)
- ☐ Lighting Plan (see "Guidelines for Good Exterior Lighting Plans")
- ☐ Floor plans
- ☐ Building Elevations & other Architectural Review Materials as necessary - see the Architectural Review Committee Checklist.

SOUTHOLD PLANNING DEPARTMENT

SITE PLAN APPLICATION GUIDE

Refer to the following sections of the Town Code for Site Plan Requirements:

280-77/78	Off-street parking areas
280-79	Off-street loading areas
280-80/90	Signs
280-91/96	Landscaping screening buffering requirements
280-109	Access requirements
280-117	Lighting restrictions
280-127	Site Plan Approval – Applicability
280-129	Objectives
280-130	Approval of site plan required
280-131	Review Procedure
280-132	Duration of a plan
280-133	Application requirements
280-134	Architectural review standards
280-135	Architectural review committee
280-136	Land clearing
280-137	Standards for residential site plans
280-138	Fee Schedule for Site Plan Applications
236	Stormwater Management

The above list is not comprehensive. Please refer to the Town Code, available on the following website, for more details regarding site plan approval:

http://southoldtown.northfork.net

SOUTHOLD PLANNING DEPARTMENT

FEE SCHEDULE - SITE PLAN APPLICATIONS

1. New Site Plan Applications
    a. $500 flat fee
    b. Plus $500 for each acre (or fraction thereof) in excess of the first acre
    c. Plus $0.10 for each gross square foot of proposed construction.

2. Amended Site Plan Applications
    a. $250 flat fee
    b. Plus $0.10 for each gross square foot of proposed construction in excess of the square footage of construction included in the previously approved site plan.

3. Agricultural Site Plan Applications
   (excepting retail winery operations*)
    a. $500 flat fee

Southold Planning Department

Applicant
Transactional Disclosure Form

The Town of Southold's Code of Ethics prohibits conflicts of interest on the part of town officers and employees. The purpose of this form is to provide information which can alert the town of possible conflicts of interest and allow it to take whatever action is necessary to avoid same.

Your Name: _____
Last, First, middle initial
unless you are applying in the name of someone else or other entity, such as a company. If so, indicate the other person's or company's name.

Nature of Application: (Check all that apply)

Subdivision or Re-subdivision _____ Site Plan _____
Other (Please name other activity) _____

Do you personally (or through your company, spouse, sibling, parent or child) have a relationship with any officer or employee of the Town of Southold? "Relationship includes by blood, marriage or business interest. "Business interest" means a business, including a partnership, in which the town officer or employee has even a partial ownership of (or employment by) a corporation in which the town officer or employee owns more than 5% of the shares.

Yes____No____

If you answered "Yes" complete the balance of this form and date and sign where indicated.

Name of the person employed by the Town of Southold _____
Title or position of that person _____

Describe the relationship between yourself (the applicant) and the town officer or employee. Either check the appropriate line A through D and/or describe in the space provided.

The town officer or employee or his or her spouse, sibling, parent or child is (check all that apply):

_____ A. the owner of greater than 5% of the shares of the corporate stock of the applicant (when the applicant is a corporation);
_____ B. the legal or beneficial owner of any interest in a noncorporate entity (when the applicant is not a corporation);
_____ C. an officer, director, partner or employee of the applicant; or
_____ D. the actual applicant

Description of Relationship:
_____
_____
_____

Submitted this ____ day of____ 20

Signature_____

Print Name_____

APPLICANT'S AFFIDAVIT

APPLICANT'S AFFIDAVIT
STATE OF NEW YORK
COUNTY OF SUFFOLK

_____being duly sworn, deposes and says that he

resides at _____in the

State of New York, and that he is the owner of property located at

_____, SCTM#_____, or that he is the

_____ of the _____ ,
(Title) (Specify whether Partnership or Corp.)

and said Corporation is the owner of the above property, which is hereby making a Site Plan application; that there are not existing structures or improvements on the land which are not shown on the Site Plan; that the title to the entire parcel, including all rights-of-way, has been clearly established and is shown on said Plan; that no part of the Plan infringes upon any duly filed plan which has not been abandoned both as to lots and as to roads; that he has examined all rules and regulations adopted by the Planning Board for the filing of Site Plans and will comply with same; that the plans submitted, as approved, will not be alter or changed in any manner without the approval of the Planning Board; and that the actual physical improvements will be installed in strict accordance with the plan as approved by the Planning Board.

Signed_____
Owner

Signed_____
(Partner or Corporate Officer and Title)

Sworn to me this

_____day of _____, _____

_____
Notary Public

SOUTHOLD PLANNING DEPARTMENT

Sample Authorization Affidavits

All applications that are submitted by someone other than the owner of the property must include an authorization affidavit authorizing that a subdivision or site plan application may be considered on their property, and naming the applicant.

Applicants, whether the owner or not, must authorize in writing when using an agent to process the subdivision or site plan application.

Owner authorization of an agent

- I, John Smith (President of Southold Company, Inc.) (We, Jane and John Smith), owner(s) of the property identified as SCTM# 1000-100-10-10 in Mattituck, NY, hereby authorize Property Consultants Inc. to act as my agent and handle all necessary work involved with the subdivision/site plan application process for this property with the Southold Planning Board.

  Signature: _____

  Sworn before me this ____ day of _____ 20__, _____
  [Notary Stamp]

Owner authorization of an applicant

- We, John and Jane Smith, owners of the property identified as SCTM# 1000-100-10-10 in Mattituck, NY, hereby authorize Property Consultants Inc. to apply for a subdivision or site plan on our property and hire any agents necessary to complete the work involved in the subdivision/site plan application process with the Southold Planning Board.

  Signature: _____

  Sworn before me this ____ day of _____ 20__, _____
  [Notary Stamp]

Applicant authorization of an agent **(Use this when the applicant is not the owner, and is using an agent to submit the Site Plan or Subdivision application packet)**

- We, John and Jane Smith, authorized applicant for a site plan or subdivision application on the property identified as SCTM# 1000-100-10-10 in Mattituck, NY, hereby authorize John Q. Lawyer, Esq to act as our agent and handle all necessary work involved with the subdivision/site plan application process for this property with the Southold Planning Board.
-

  Signature: _____

  Sworn before me this ____ day of _____ 20__,
  [Notary Stamp]

SOUTHOLD PLANNING DEPARTMENT

Architectural Review Committee
Site Plan Application Supplement

Checklist of Required Items (must be included in the application):

- 2 sets of construction plans including elevations of the buildings

- Site Photographs, including the following:
  - 4 views of existing site as seen from adjacent properties and roads

Checklist of Recommended Items (may be required at the discretion of the Planning Board)*:

- Site plan elements:
  - Site plan specifying grading, drainage, landscaping, parking & loading areas, signage, mechanical equipment, trash containers, retaining walls, and fences
  - Elevations drawn at minimum ¼" scale, specifying siding, windows, doors, roofing, roof mounted mechanical equipment, plumbing wall and roof penetrations, exterior lighting

- Building ornamentation details, including the following:
  - Building trim, awnings, canopies

- Material samples or specification sheets, including the following:
  - Siding, roofing, exterior light fixtures, fencing, masonry, signage types colors & sizes

Design Guidelines for applicants and design professionals:

The ARC has developed **preferences** for the following Architectural details:

- Natural materials rather than synthetic, especially not vinyl siding
- Windows and doors consistent with the design of the building
- Minimal view of parking from the street
- Steel buildings, when proposed, to have a roof pitch of at least 5/12
- Freestanding lighting of minimal height and directed inward
- Building mounted lighting to be shielded
- All exterior lighting compatible with dark sky friendly guidelines. See Lighting Guidelines handout or www.darksky.org
- Roof penetrations including plumbing vents, hidden from road
- Mechanical equipment hidden from view
- Street trees planted at intervals appropriate to the species.
- Maximum use of "Green" building materials in accordance with LEED guidelines. See www.usgbc.org

Recommended Reading: (copies available for review in the Planning Department office)

- Barns of the North Fork by Mary Ann Spencer.
- A Field Guide to American Houses by Virginia & Lee McAllester.

** The Planning Board retains discretion over the level of detail a site plan must contain, to the extent allowable by Town Code.*

GUIDELINES FOR GOOD EXTERIOR LIGHTING PLANS

Prepared by: The Dark Sky Society (http://www.darkskysociety.org/)

These guidelines have been developed in consultation with lighting professionals (with experience in developing good lighting plans), for communities wishing to control light pollution and preserve the star filled night sky.

Lighting should be carefully designed with thought given to placement, intensity, timing, duration, and color.

Good lighting practices will help to:

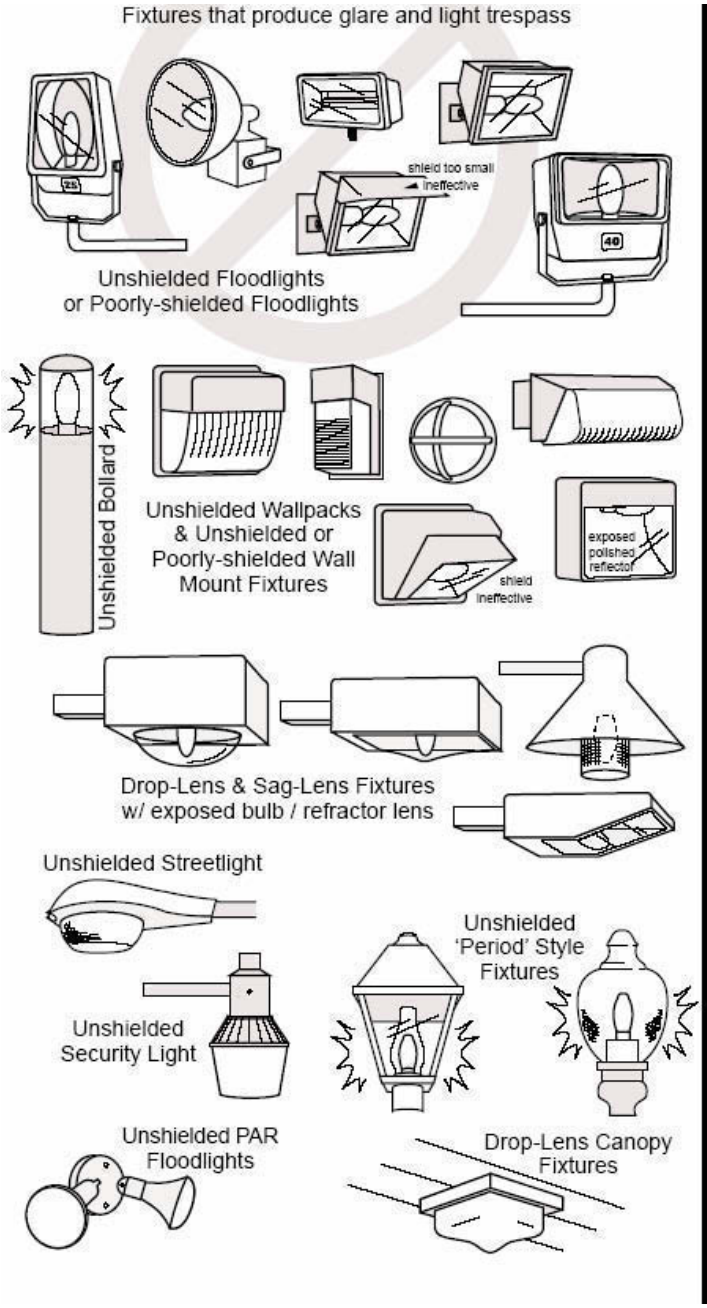
- **Promote Safety**
  More light than what is needed for safety is wasted light and is not necessarily better. If the right fixtures are not designed and installed correctly, unsafe glare can result, reducing the effect of lighting, contributing to accidents by hindering visibility. Lighting that is too bright interferes with the eye's ability to adapt to darker areas.
- **Save Money**
  Adhering to professionally recommended light levels provides adequate illumination. Many of the fixtures recommended for use are much more cost-effective in the long run because they are more energy efficient. See this website for cost comparisons: http://www.netacc.net/~poulsen/lightcost.html
- **Conserve Natural Resources**
  Inappropriate or excessive lighting wastes our limited natural resources and pollutes our air, land, and water by burning fossil fuels for electricity.
- **Be Better Neighbors**
  Excessive or misdirected lighting can intrude on the privacy of others where light or glare trespasses over property lines.
- **Retain Community's Character and Reduce Skyglow**
  Our clear view of the stars in the night sky is a resource to be preserved and protected. Stray and excessive lighting contributes to "light pollution" and unnatural "sky glow".
- **Protect Ecology of Flora and Fauna**
  Research studies indicate that artificial night lighting disrupts the migrating, feeding, and breeding habits of many wildlife species, as well as growth patterns of trees. See references on the website for the International Dark Sky Association:
- **Reduce Health Risks**
  Light at night not only disrupts your sleep but also interferes with your immune system. Recent research has also indicated that intrusive lighting may reduce the production of melatonin, a beneficial hormone.

Included:
1. **Diagrams of Acceptable/Unacceptable Lighting Fixtures**
2. **How to Develop an Acceptable Lighting Plan**
3. **Definitions of Full Cut Off, Shielded, and RLM sign lighting fixtures**
4. **Lighting Plan Submissions**
5. **Recommended Illumination Levels for various tasks**

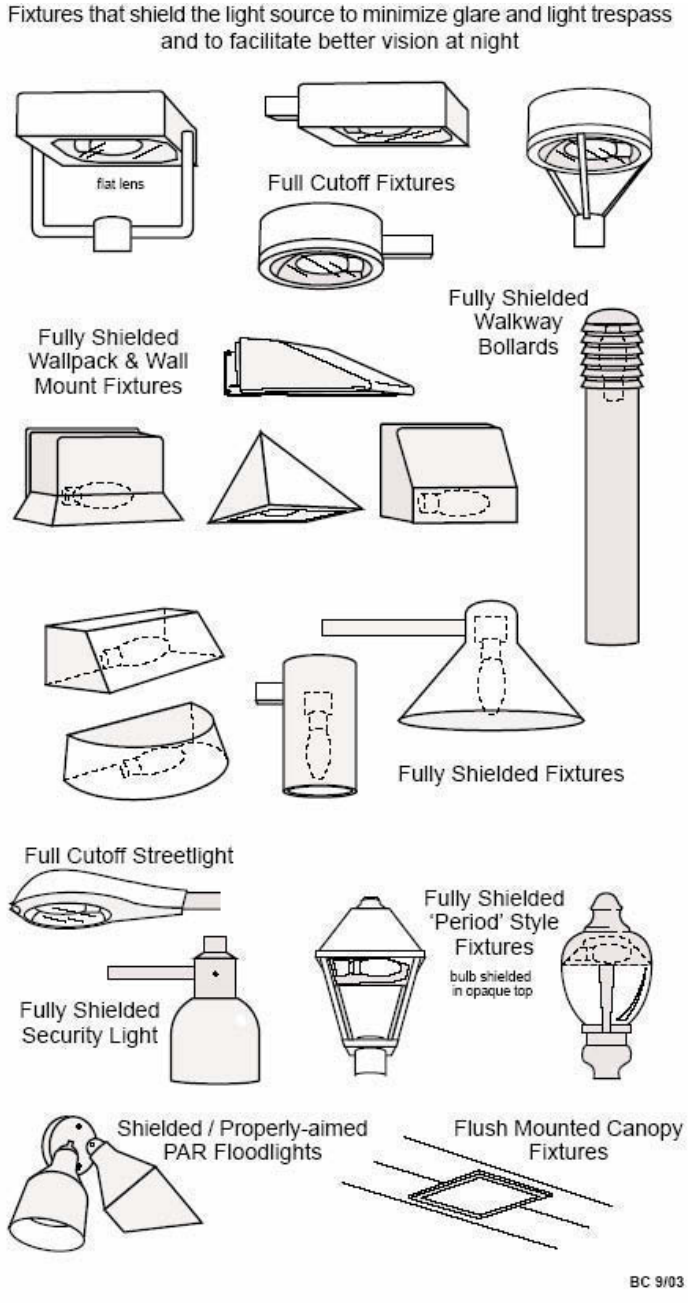
1/2008

Appendix 1:

Unacceptable Fixtures



Acceptable Fixtures



<u>See this website for links to manufacturers:</u>
http://www.darksky.org/mc/page.do?sitePageId=56422&orgId=idsa

Ask your local electrical suppliers for "full-cut off" light fixtures or fixtures with the IDA Seal Of Approval.

Diagrams courtesy of Bob Crelin, http://www.theglarebuster.com/

Appendix 2: How to Develop an Acceptable Lighting Plan

1. **Identify where, as well as when, lighting is needed**. Confine and minimize lighting to the extent necessary to meet safety purposes**.** Plans should define the areas for which illumination is planned. Itemizing each area (e.g. parking lot, doorways, walkways, signage, foliage) with the anticipated hours of use.

2. **Control the direction and spread of light by choosing the correct type of light fixtures.** (See Appendix 3). Specify IES (Illuminating Engineering Society) "Full Cut Off" designated fixtures, so that no light is visible above the lowest light emitting part of the fixture. Top mounted sign lighting is recommended, with "RLM" (dish) type shields, provided that the light falls entirely on the sign and is positioned so that the light source (bulb) is not visible from any point off the property or into the roadway.

3. **Select the correct light source (bulb type).** High Pressure Sodium is recommended unless the light is motion sensor activated, in which case incandescent or the instant start compact fluorescent bulbs can be used. Metal Halide (due to its higher costs, including energy use, impact on the environment, and greater contribution to "sky glow") is discouraged, and outdated Mercury Vapor bulbs are prohibited.

4. **Utilize "shut off" controls such as sensors, timers, motion detectors, etc.** Install automatic controls or turn off lights when not needed for the safe passage of pedestrians. Avoid "dusk-to-dawn" sensors without a middle of the night shut off control. Use motion sensors where lighting for security is needed after business hours. Parking lot lighting should be shut off after business hours.

5. **Limit the height of fixtures.** Locate fixtures no closer to the property line than four times the mounting height of the fixture, and not to exceed the height of adjacent structures. (Exceptions may be made for larger parking areas, commercial zones adjacent to highways, or for fixtures with greater cut off shielding behind the pole mount in commercial zones.)

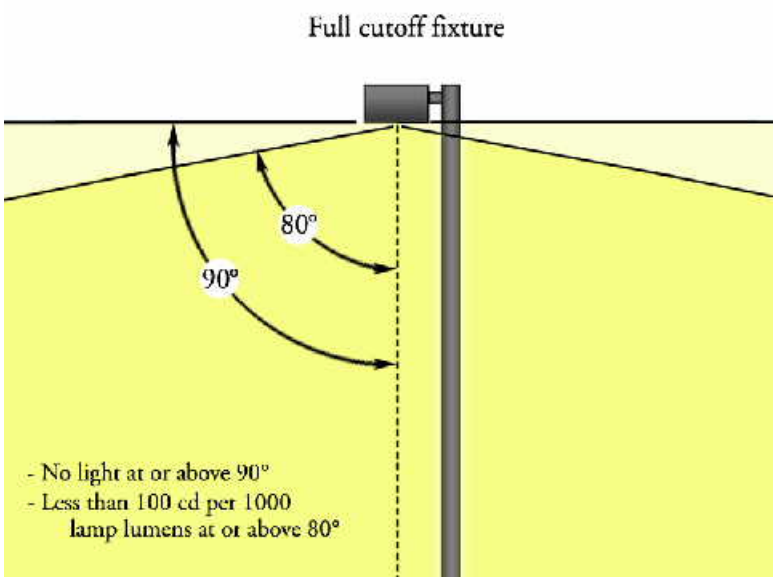
6. **Limit light crossing property lines.** Do not allow light to spill across the property lines. Light levels at the property line should not exceed 0.1 footcandles adjacent to business properties, and 0.05 fc at residential property boundaries.

7. **Use the correct amount of light.** Light levels and uniformity ratios should not exceed recommended values, per IESNA RP-33 or RP 20. (See Appendix 5, Recommended Illumination Levels for various tasks. "Lumen caps" for areas to be illuminated are recommended as follows: for commercial properties in non-urban commercial zones, a lumen cap of 25,000 lumens per acre; and for projects in residential and LBO zones, a lumen cap of 10,000 lumens per acre is recommended.

8. **Ask for Assistance.** Your local lighting sales representatives can assist you in obtaining the necessary information. For large projects over 15,000 lumens: greater energy conservation and control of light pollution, light trespass and glare, may be achieved with the help of a professional lighting designer with "dark sky" lighting installation experience.

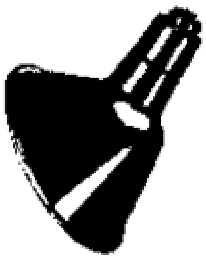
9. **Design interior lighting so that it does not illuminate the outdoors**. After closing, interior lighting that extends outdoors needs to be extinguished.

Appendix 3: Definition of Acceptable Fixtures: "Full Cut Off", "Fully Shielded"*, and RLM shield.



- **"Full Cut Off" fixtures do not allow any light to be emitted above the fixture. The fixture controls glare by limiting the light output at 10 degrees below the horizontal, to less than 10% of the light output in lumens.**
- Manufacturers and their representatives can provide photographs of light fixtures as "cut sheets" as well as literature confirming the independently tested "cut off" characteristics of their products.
- Photometric layouts for different heights, light sources, and wattages, are also available as "IES" files, upon request or through manufacturers' websites.
- "Full cut off" fixtures must be installed properly, so that the bottom of the fixture is level with the ground.
- "Fully Shielded" fixtures do not allow any light to be emitted above the lowest light emitting part, but do not restrict light output in the "glare" zone, 90-80 degrees below horizontal.

***** If the manufacturer is unable to provide the "cut off" characteristics for a fixture (also called a "luminaire"), the following definition needs to be met: "Fully Shielded", which is a fixture constructed and installed in such a manner that all light emitted by it, either directly from the lamp (bulb) or a diffusing element, or indirectly by reflection or refraction from any part of the fixture, is projected below the horizontal. This can be determined by a "field test": a visual assessment of an operating sample.



This is a "RLM" sign lighting shield:

Appendix 4:
Lighting Plan Submissions

Provide your municipality's reviewing board with the following information, which will enable them to evaluate the Site Plan for proper exterior lighting:

The Lighting Plan should be depicted on a site plan, indicating the location of each current and proposed outdoor lighting fixture. This plan will need to be stamped and certified by a licensed professional, such as an architect or engineer. Many lighting manufacturers can provide photometric layouts on prepared site plans, to conform to your local requirements.

(1) A lighting plan with a KEY to the proposed lighting that provides the following information:

- Type and number of luminaire equipment (fixtures), including the "cut off characteristics", indicating manufacturer and model number(s).
- Lamp source type (bulb type, i.e. high pressure sodium), lumen output, and wattage.
- Mounting height indicated, with distance noted to nearest property line for each luminaire.
- Types of timing devices used to control on/off and the hours set for illumination, as well as the proposed hours when each fixture will be operated.
- Total Lumens for all fixtures, and total square footage of areas to be illuminated. For projects that are in commercial zones, the lumens per net acre to be lit, should not exceed 25,000 lumens. For projects in residential or LBO zones: 10,000 lumens.
- For all plans of three or more fixtures: A Calculation Summary indicating all footcandle levels on the lighting plan, noting the maximum, average and minimum, as well as the uniformity ratio of maximum to minimum, and average to minimum levels*.

(2) Lighting manufacturer-supplied specifications ("cut sheets") that include photographs of the fixtures, indicating the certified "cut off characteristics" of the fixture.

(3) Isometric Footcandle Distribution Diagram* plotting the light levels for the fixtures at the designated mounting heights. Maximum illuminance levels should be expressed in footcandle measurements on a grid of the site showing footcandle readings in every ten-foot square. The grid shall include light contributions from all sources (i.e. pole mounted, wall mounted, sign, and street lights.)

(4) If requested by the reviewing agency, a statement from a lighting professional that a plan, other than that set forth, is needed to meet the intent of these standards.

(5) An environmental impact statement may be required as to the impact of the exterior lighting proposed on flora, fauna, and the night sky. Location of species sensitive to light at night or the proximity to nature preserves or astronomical observatories or "Dark Sky Parks", needs to be indicated.

* This information can be obtained from the manufacturer, your lighting supplier, or the manufacturer's representative.

Appendix 5:
Recommended Illumination Levels for various tasks*

I. Table of Limits of Illumination, measured in footcandles (fc) at ground level, unless noted:

Task Area	Avg.	Not to exceed:
1. Active Building Entrance	2. fc	5. fc
Approach	0 .2 fc	
2. Gas Station Approach		2. fc
3. Gas Station Pump Area		avg: 5. fc
4. Gas Station Service Area		avg. 3. fc
5. Sidewalks	0 .5 fc	5. fc
6. Surface of signs		2. fc

II. Average/Minimum/Uniformity Ratio Limits for Parking Lots:

I. Public Parking Lots -- not to exceed:

Average	Minimum	Uniformity Ratio (Max to Min/Avg to Min)
0.8	0.2	20:1 / 4:1

II. Private Parking Lots -- not to exceed:

Average	Minimum	Uniformity Ratio (Max to Min / Avg to Min)
0.5	.13	20:1 / 4:1

OR:

III. If illuminace grid lighting plans cannot be reviewed or if fixtures do not provide photometrics and bulbs are under 1800 lumens, use this guideline:

Pole height no greater than four times the distance to the property line and maximum Lumen Levels, for different fixture heights:

Mounting Height (Feet)	Recommended Lumen Maximums
6	500 - 1000 lumens
8	600 - 1,600 lumens
10	1,000 - 2,000 lumens
12	1,600 - 2,400 lumens
16	2,400 - 6,000 lumens

FOOTCANDLE: ("FC") – Is the basic unit of illuminance (the amount of light falling on a surface). Footcandle measurement is taken with a light meter. One footcandle is equivalent to the illuminance produced on one square foot of surface area by a source of one candle at a distance of one foot. Horizontal footcandles measure the illumination striking a horizontal plane. Footcandle values can be measured with certain handheld incident light meters.

LUMEN – A unit used to measure the actual amount of light that is produced by a light source (bulb or "lamp"). The lumen quantifies the amount of light energy produced by a lamp, not by the energy input, which is indicated by the "wattage". For example, a 75-watt incandescent lamp can produce 1000 lumens while a 70-watt high-pressure sodium lamp produces 6000 lumens. Lumen output is listed by the manufacturer on the packaging.

*** IES, Recommended Practices, (RP-33-99): Lighting for Exterior Environments and (RP-20) Parking Lots.** The Illuminating Engineering Society of North America (IES or IESNA), is an organization that establishes updated standards and illumination guidelines for the lighting industry.

WHITE PAPER: Metal Halide (MH) vs High Pressure Sodium (HPS)

Prepared by Susan Harder January 2007

HPS is a better choice for outdoor lighting applications than MH for the following reasons:

1. Efficiency
2. Vision
3. Health
4. Environmental effects (flora and fauna)
5. Toxins
6. Financial costs

HPS provides better quality lighting at a lower cost and with less damage to the environment. Metal halide is much less efficient than high pressure sodium--MH produces much less light per watt; MH produces more glare due to the blue light component and increases adaptation time; MH more effectively shuts off melatonin production which can trigger tumor growth; MH contains more mercury within the bulbs; MH bulbs need to be changed more frequently; and MH costs more, overall.

For example, at 250 watts, mean lumen output per watt over the useful life of the lamp is 58 for MH vs. 87 for HPS; in other words, HPS produces 50% more mean lumens per watt. Even at 70 watts, mean lumen output is 45 for MH and 64 for HPS; in other words, HPS produces 42% more mean lumens per watt. 274% higher long term operating costs of MH as opposed to HPS not only because of lumen depreciation requiring more watts, but also because lamp replacement frequency is nearly twice as high.

Traveling from an area lit with MH will take the eyes longer to adapt to lower light levels, affecting night vision. Night vision is also more sensitive to the HPS spectrum due to the greater number of rods in the eye.

HPS lamps last longer than MH, which means fewer lamps heading for disposal (HID bulbs can be, but are often not recycled for their mercury content). In general the average lamp life for MH is 10,000-15,000 hours vs. 12,000-24,000 for HPS.

MH produces more sky glow, lumen for lumen, than HPS for the same quantity of radiant energy from each source, due to higher blue light component and the Rayleigh scatter effect. The paper at *http://resodance.com/ali/bluskies.html* suggests MH produces at least three times more sky glow than HPS due to the higher blue spectrum content and has a greater impact on dark-adapted astronomers.

MH lamps contain significantly more mercury than HPS lamps. For example, a 250W MH lamp contains about 38 mg of mercury vs. about 15 mg for an HPS lamp of the same wattage. Mercury is a potent neuro-toxin that persists indefinitely in the environment. The bluish light emitted by MH is much more of a threat to human health than the amber-to-gold light from HPS. From Science News *http://www.sciencenews.org/articles/20060107/bob9.asp* describing some of the research on this issue. Whenever MH is within close proximity to housing units, MH lighting will only increase the health risks.

High Pressure Sodium vs. Metal Halide
Mean Lumens, Average Life, and Mercury Content
Data courtesy Long Island Power Authority

	High Pressure Sodium		Metal Halide	
	400W	250W	400W	250W
Mean lumens	45,000	26,100	20,500	14,100
Average rated life (hours)	24,000+	24,000+	15,000	10,000
Mercury content (mg)	15	15	81	38

The financial costs of cleaning up mercury in the environment (ground water) and for increased recycling facilities need to be factored into all costs. MH has a higher lumen depreciation rate for the bulbs which need to be changed more often.

The higher blue light component of MH is useful only during the day to "set" our hormonal clocks, which helps with Seasonal Affective Disorder.

Metal Halide exposure (in the studies conducted thus far in interior environments) has been determined to contribute to macular degeneration.

Coating MH with a "ceramic" coating to "change" the color is only partially effective; but further reduces it's efficiency. Ceramics are better than "quartz" MH, but do not offset the negatives.

If "white" light sources are necessary, the use of compact fluorescent in 2300K will produce the desired results and more efficiently. The "need" for "white" light is not substantiated for exterior lighting situations, except in very rare circumstances, e.g. outdoor dining areas (rendering food colors better) and need only be used when those areas are being occupied. Fluorescent light sources are more efficient than MH.

Blue light affects hormone secretions. Blue light turns off melatonin production very successfully and thus raises the incidence of cancer tumor growth. Blue light is the trigger that shuts off the pineal gland; a gland which produces melatonin.

MH causes increased disturbances for plants and animals, changing their "signals" for nighttime behaviors and biological responses, especially in the "high" doses contained in High Intensity Discharge lamps. There are also "non-visual" (skin and eye receptors not used for vision) effects of optical radiation triggered with blue light at a higher rate. See: "The Ecological Effects of Artificial Night Lighting", Feb 23-24, 2002 hosted by the Urban Wildlands Group.

Regarding vision and glare, a fact that has not been fully studied, is that blue-rich white light literally forces the iris to constrict involuntarily as a defense mechanism to prevent retinal damage. Think about the "hurt" experienced when passing HID type headlights. Glare is greater with MH. The "dark adapted" eye is more sensitive to blue light. The blue aspect of MH produces a more debilitating "glare" problem than HPS, incandescent, or cf in 2300K. Consider how "painful" it feels when you are headed toward a car with the Xenox headlights, and how much longer it takes for your vision to "return" for you to be able to see with your own headlights. Additionally, the elderly are more prone to suffer profound disability from glare,

since their pupils contract and open much slower as the eyes age. Rensselear's Lighting Research Center also believes people with older eyes can't see well in the blue spectrum.

Driving vehicles under MH street lights and parking lot lighting allows less net light to enter the eye because of a constricted iris, while providing marginally greater “depth perception”.

To learn more about the controversial issues relating to spectral distribution, current design standards, and how the eye reacts to different visible wavelengths check out the following papers online:

http://luxbright.com/data/lumeneff.pdf
http://luxbright.com/lem/
http://www.iesna.org/LDA_3-99/members_feature_3-99roadscholar.htm
http://www.dmdeng.com/learning_center_docs/Lewin_lamp_color_outdoor.pdf
http://www.dot.state.az.us/ABOUT/atrc/Publications/SPR/AZ522.pdf

"Blue light waves are very short and scatter easily, so a great deal of the glare we experience from sunlight comes from blue light." (from "Macular Degeneration--The Complete Guide To Saving And Maximizing Your Sight," by Lylas G. Mogk, M.D. and Marja Mogk

Mercury is contained inside all HID and, to a lesser extent in fluorescent bulbs, and should be recycled and reclaimed, not discarded in landfills. The reason there was toxic mercury poisoning of the workers at the World Trade Tower site is because of the millions of fluorescent tube lights that were broken in the collapse.

From the US EPA/Purdue University site:

When liquid mercury is exposed to air, harmful, invisible vapors are emitted. Spilling even a small amount of mercury can threaten the health of anyone who is present, and lead to an expensive cleanup. Moreover, when mercury gets into the environment, it concentrates in fish in a highly toxic organic form. Eating contaminated fish damages the neurological development of children, and especially of fetuses exposed when their mothers eat fish. It also can cause kidney damage.

When wastes such as fluorescent bulbs, broken mercury switches, batteries, or thermostats end up in landfills, the chemicals may escape into the groundwater or into the air. Mercury is particularly prone to volatilizing to air. Thus, many landfills do not accept this type of waste. Federal and state agencies regulate disposal of mercury-containing devices, even common small devices that are typically found in buildings.

A more extensive comparison of HPS and MH is available at

http://resodance.com/ali/compcost.html

Seasonal confusion is greater with MH in trees and plants, not allowing the plant to go into dormancy when necessary to reduce winter stress.

When the proper calculations are made (not the simplified ones using "lamp lumens") the color of signs on the roadways (red and yellow STOP, construction, and warning signs) is as good or better with HPS than with MH. The reason is that HPS makes the red, orange and yellow sign materials brighter - for stop signs the red is about twice as bright under HPS as under MH. The Kelvin measurement of MH are highly questionable, too. The metric to determine validity of the

CRI calculation is called DC (for chromaticity difference) and MH exceeds the recommended tolerance (see CIE pub. 13.3-1995) by about 50%.

The Mercury Content of all MH bulbs is higher than HPS:

- Metal Halide lamps (all)
  - 39-50W = 1-10mg
  - 70-250W = 5-50mg
  - 350-400W = 30-100mg
  - 400-1500W = 100-150mg
- High Pressure Sodium standard (non-ECO)
  - 35-1000W = 10-50mg
- High Pressure Sodium ECO
  - 50-400W = 1-15mg
- High Pressure Sodium Plus ECO (30,000 hour non-cycling works on standard ballasts)
  - 50-400W = <1-6mg
- High Pressure Sodium Hg-Free ECO
  - ZERO

For all these reasons: many “dark sky” lighting codes and guidelines prohibit the use of MH, including East Hampton Village, Riverhead, Brookhaven, Amherst (MA), Hailey and Sun Valley (ID), Flagstaff, Tucson, Phoenix, etc.

SKYGLOW

Skyglow is much greater with MH than HPS when used in the same quantities needed to meet IES light level requirements, some say as much as three to fifteen times as much.

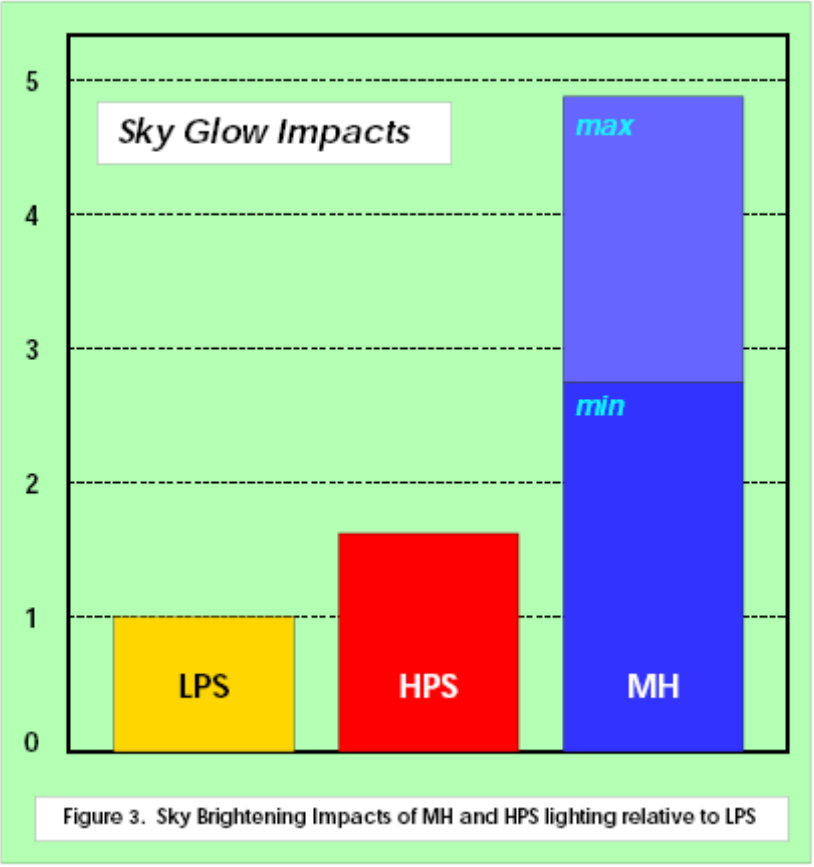


Figure 3. Sky Brightening Impacts of MH and HPS lighting relative to LPS

MH is advocated by those in the “lighting industry” since it increases their profit margin. Unfortunately the “end costs” of the consumers are not a factor in the initial cost and design.

Along with research showing that MH lighting systems use 150%-170% of the energy, resources, equipment and (a substantially higher ratio of) maintenance costs compared to HPS, we also find that “uplight” from MH scatters in the atmosphere about twice as much as from HPS - for the same number of lumens. The same phenomenon (Raleigh scatter) that makes the sky blue and sunsets/sunrises colored makes MH contribute twice as much to skyglow under clear sky conditions as HPS. This is not some esoteric concept but a long understood phenomenon (since 1871) that also doesn't get discussed during design discussions.

Consider this: a greener Earth, darker skies, cleaner landfills, cleaner water, air, land, brighter vision for the aged, improved traffic safety and reduced health impact VS "I like the way it makes colors look" and "I can see what-I-am-not-looking-at slightly better". people might wonder if 'pleasing' colors is enough justification to outweigh many other severely negative consequences that metal halide imposes on municipal infrastructures, business owners annual profit margins, and also upon the environment as a whole?

Town of Southold

LWRP CONSISTENCY ASSESSMENT FORM

A. INSTRUCTIONS

1. All applicants for permits* including Town of Southold agencies, shall complete this CCAF for proposed actions that are subject to the Town of Southold Waterfront Consistency Review Law. This assessment is intended to supplement other information used by a Town of Southold agency in making a determination of consistency. **Except minor exempt actions including Building Permits and other ministerial permits not located within the Coastal Erosion Hazard Area.*

2. Before answering the questions in Section C, the preparer of this form should review the exempt minor action list, policies and explanations of each policy contained in the Town of Southold Local Waterfront Revitalization Program. A proposed action will be evaluated as to its significant beneficial and adverse effects upon the coastal area (which includes all of Southold Town).

3. If any question in Section C on this form is answered "yes" or "no", then the proposed action will affect the achievement of the LWRP policy standards and conditions contained in the consistency review law. **Thus, each answer must be explained in detail, listing both supporting and non-supporting facts.** If an action cannot be certified as consistent with the LWRP policy standards and conditions, it shall not be undertaken.

   A copy of the LWRP is available in the following places: online at the Town of Southold's website (southoldtown.northfork.net), the Board of Trustees Office, the Planning Department, all local libraries and the Town Clerk's office.

B. DESCRIPTION OF SITE AND PROPOSED ACTION

SCTM# _____ -_____-_____

PROJECT NAME _____

The Application has been submitted to (check appropriate response)**:**

Town Board ☐ **Planning Board** ☐ **Building Dept.** ☐ **Board of Trustees** ☐

1. Category of Town of Southold agency action (check appropriate response):

   (a) Action undertaken directly by Town agency (e.g. capital construction, planning activity, agency regulation, land transaction) ☐

   (b) Financial assistance (e.g. grant, loan, subsidy) ☐

   (c) Permit, approval, license, certification: ☐

Nature and extent of action:

_____

_____

_____

Location of action:_____

Site acreage:_____

Present land use:_____

Present zoning classification:_____

2. If an application for the proposed action has been filed with the Town of Southold agency, the following information shall be provided:

(a) Name of applicant:_____

(b) Mailing address:_____

_____

(c) Telephone number: Area Code ( )_____

(d) Application number, if any:_____

Will the action be directly undertaken, require funding, or approval by a state or federal agency?

Yes ☐ No ☐ If yes, which state or federal agency?_____

C. Evaluate the project to the following policies by analyzing how the project will further support or not support the policies. Provide all proposed Best Management Practices that will further each policy. Incomplete answers will require that the form be returned for completion.

DEVELOPED COAST POLICY

Policy 1. Foster a pattern of development in the Town of Southold that enhances community character, preserves open space, makes efficient use of infrastructure, makes beneficial use of a coastal location, and minimizes adverse effects of development. See LWRP Section III – Policies; Page 2 for evaluation criteria.

☐ **Yes** ☐ **No** ☐ **Not Applicable**

_____

_____

_____

_____

_____

_____

Attach additional sheets if necessary

Policy 2. Protect and preserve historic and archaeological resources of the Town of Southold. See LWRP Section III – Policies Pages 3 through 6 for evaluation criteria

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

Policy 3. Enhance visual quality and protect scenic resources throughout the Town of Southold. See LWRP Section III – Policies Pages 6 through 7 for evaluation criteria

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

NATURAL COAST POLICIES

Policy 4. Minimize loss of life, structures, and natural resources from flooding and erosion. See LWRP Section III – Policies Pages 8 through 16 for evaluation criteria

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

Policy 5. Protect and improve water quality and supply in the Town of Southold. See LWRP Section III – Policies Pages 16 through 21 for evaluation criteria

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

Policy 6. Protect and restore the quality and function of the Town of Southold ecosystems including Significant Coastal Fish and Wildlife Habitats and wetlands. See LWRP Section III – Policies; Pages 22 through 32 for evaluation criteria.

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

Policy 7. Protect and improve air quality in the Town of Southold. See LWRP Section III – Policies Pages 32 through 34 for evaluation criteria.

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

Policy 8. Minimize environmental degradation in Town of Southold from solid waste and hazardous substances and wastes. See LWRP Section III – Policies; Pages 34 through 38 for evaluation criteria.

☐ **Yes** ☐ **No** ☐ **Not Applicable**

PUBLIC COAST POLICIES

Policy 9. Provide for public access to, and recreational use of, coastal waters, public lands, and public resources of the Town of Southold. See LWRP Section III – Policies; Pages 38 through 46 for evaluation criteria.

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

WORKING COAST POLICIES

Policy 10. Protect Southold's water-dependent uses and promote siting of new water-dependent uses in suitable locations. See LWRP Section III – Policies; Pages 47 through 56 for evaluation criteria.

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

Policy 11. Promote sustainable use of living marine resources in Long Island Sound, the Peconic Estuary and Town waters. See LWRP Section III – Policies; Pages 57 through 62 for evaluation criteria.

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

Policy 12. Protect agricultural lands in the Town of Southold. See LWRP Section III – Policies; Pages 62 through 65 for evaluation criteria.

☐ **Yes** ☐ **No** ☐ **Not Applicable**

Attach additional sheets if necessary

Policy 13. Promote appropriate use and development of energy and mineral resources. See LWRP Section III – Policies; Pages 65 through 68 for evaluation criteria.

☐ **Yes** ☐ **No** ☐ **Not Applicable**

PREPARED BY_____ **TITLE**_____ **DATE**_____

SOUTHOLD PLANNING BOARD
SITE PLAN APPLICATION FORM

Site Plan Name and Location

Site Plan Name: _____ **Application Date**: _____/_____/_____

Suffolk County Tax Map #1000-_____ - _____ - _____ **Other SCTM #s**_____

Street Address: _____ **Hamlet**: _____

Distance to nearest intersection: _____

Type of Site Plan: ____New ____Amended ___ Residential **Zoning District** _____

Owners/Agent Contact Information

Please list name, mailing address, and phone number for the people below:

Property Owner_____

Street_____

City_____State_____Zip_____

Home Telephone _____ Other_____

Applicant_____

Street_____

City_____State_____Zip_____

Home Telephone_____Other_____

Applicant's Agent or Representative:

Contact Person(s)*_____

Street_____

City_____State_____Zip_____

Office Telephone_____Other_____

*Unless otherwise requested, correspondence will be sent only to the contact person noted here.

Site Data

Proposed construction type: _____New _____Modification of Existing Structure ____Agricultural _____Change of use

Property total acreage or square footage: _____ac./sq. ft.

Site Plan build-out acreage or square footage: _____ac./sq. ft.

Is there an existing or proposed Sale of Development Rights on the property? Yes ____ No ____

If yes, explain:_____

Does the parcel(s) meet the Lot Recognition standard in Town Code §280-9 Lot Recognition? Y___N___.
If "yes", explain (and attach any necessary documentation – title report, subdivision approval, etc.)

_____

Building Department Notice of Disapproval Date: _____/____/____

Is an application to the Southold Town Zoning Board of Appeals required? Yes _____ No ____
If yes, have you submitted an application to the ZBA? Yes _____ No ____
If yes, attach a copy of the application packet.

Show all uses proposed and existing. Indicate which building will have which use. If more then one use is proposed per building, indicate square footage of floor area per use.

List all existing property uses:_____

List all proposed property uses:_____

Other accessory uses:_____

Existing lot coverage: _____% Proposed lot coverage:_____%

Gross floor area of existing structure(s):_____sq. ft. Gross floor area of proposed structure(s):_____

Parking Space Data: # of existing spaces:____ # of proposed spaces: ____ Loading Berth: Yes___ No___

Landscaping Details: Existing landscape coverage: _____% Proposed landscape coverage:_____%

Wetlands: Is this property within 500' of a wetland area? Yes ___ No ____ Maybe____

I, the undersigned, certify that all the above information is true.

Signature of Preparer: _____ Date:_____