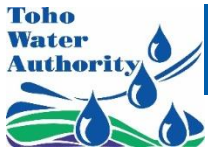


Appendix K

Toho Efficiency Program and Affidavit



Toho Efficiency Program

Program and Checklist Description

This program for all new residential and commercial construction provides water-efficient options for buildings and landscapes. This will also include common areas and multi-family units. The below requirements must be met and validated by a Toho Efficiency Program inspector through use of this document/checklist.

Questions? Call Toho Water Conservation Coordinator at: 407-944-5121 or email: TEPsubmittals@tohowater.com

- All submittals must have Toho project # and name prior to any review.
- All submittals should include all attachments, plans, and pdfs delivered electronically at one time or Toho will not accept.

General Information			
Builder/Developer Information		Project Information	
Name		Project number	
Company		Toho project manager	
Address		Project name	
City/county		Address	
Phone		City/county	
Fax		Project description (Residential units, Commercial type., Common areas, etc)	
Email			
Required Submissions			
	Yes	No	NA
Provide information which verifies total irrigation water use across development meets the criteria provided in Table K.1. Such information can include site plan showing residential units, common and other areas. All areas shall be cross-referenced to a specific landscape and irrigation type.			
Landscape drawing (to scale not hand drawings)			
Irrigation drawing (to scale not hand drawings)			
TEP water budget calculation spreadsheet for common areas and each type of residential unit			
Landscape affidavit			
Irrigation affidavit (if there is a permanent in ground irrigation system)			
Irrigation controller sticker showing approved run times from water budget calculation spreadsheet by zone for each unit type			
Schedule of indoor fixtures and appliances, including performance specifications (PDF Submittal)			
Certificate of occupancy			

Landscape				
		Yes	No	NA
LC 1	No invasive exotic plant species are in the landscaped area.			
LC 2	Root balls are at least 2.5 feet on center from the foundation of structure.			
LC 3	For non-turf areas, 100% of plant selections will be Florida-friendly and 50% native and compatible with site-specific conditions such as sunlight, soil types and salinity. Landscape beds should be planted for 60% coverage at maturity.			
LC 4	A minimum of 100% of plants are grouped with similar moisture and maintenance requirements.			
LC 5	Trees will provide shade to 30% of the total landscaped area at maturity. Include table showing the shade calculation meets the criteria.			
LC 6	Organic mulch is used and applied to a depth of 2 to 4 inches, leaving a 2-inch space around base of plant.			
LC 7	All plants are installed according to the Florida Friendly Best Management Practices for Protection of Water Resources by the Green Industries. The landscape installer must attest to this in an affidavit.			

Table K.1 - Irrigation Limits ¹				
	Average Day Water Use (gpd)	Average Day Water Use (in/yr)	Average Day Water Use (gpd per lot)	Maximum Day Water Use (gpd per lot)
Single Family Residential Lot	184	28 in/yr on irrigable area	184	Not Applicable
Residential Development Common Areas	Not Applicable	28 in/yr on irrigated area	50	100
Residential Development	Not Applicable	Not Applicable	234	284
Single-Parcel Non-Residential Development	Average flowrate of wastewater generated	28 in/yr on irrigated area	Not Applicable	3.5 x Average flowrate of wastewater generated

Note: 1) Exceptions to these limits are subject to approval by Toho's CEO. A variance request should include the following:

- Total wastewater the site will produce in gallons per day (GPD)
- Total irrigation demands for the site. Including an exhibit that shows irrigated and non-irrigable areas.
- Please provide minimum landscaping requirements based upon the appropriate municipalities LDC or other landscaping requirements.
- Highlight conservation methods used on the project. Please ensure you include but are not limited to providing: use of native, Florida friendly landscaping and low flow irrigation methods and areas with no irrigation.
- Discuss any supplemental sources that were considered to meet irrigation demands above wastewater produced but below TEP requirements.
- If no supplemental sources were considered, please look at using a supplemental source including: existing onsite systems, storm water and surficial aquifer wells. The only supplemental source that is generally not acceptable to Toho is the use of a new Upper Floridan Aquifer well.

Irrigation				
General Design		Yes	No	NA
IRC 1	High-volume irrigation does not irrigate more than 40% of the total landscaped area. Include table showing the irrigation meets this criteria.			
IRC 2	If irrigation is used for landscaped beds, micro irrigation is used and is correctly installed.			
IRC 3	Irrigation zones for turf grass and landscaped beds are separate. Side yard zones shall also be separate regardless of landscape type.			
IRC 4	Irrigated areas less than four feet wide are irrigated with correctly designed and installed micro irrigation.			
IRC 5	Sprinklers and emitters are located at a minimum of two feet from structures.			
IRC 6	Irrigation system is free from leaks.			
IRC 7	Sprinklers in low-lying areas have check valves.			
IRC 8	Smart irrigation controller, based on soil moisture or weather. Minimum of one per residential lot. Requirements for common areas to be discussed with Toho Conservation staff.			
Distribution Uniformity		Yes	No	NA
IRC 9	Sprinklers rise above turf grass height: <ul style="list-style-type: none"> • A minimum of 6-inch pop-up for spray heads and 4-inch pop-up for rotor heads for St. Augustine, Zoysia and Bahiagrasses • A minimum of 4-inch pop-up for spray and rotor heads for Centipede, Bermuda and Seashore Paspalum grasses 			
IRC 10	Application occurs in proper spray patterns, minimizing overspray on impervious surfaces.			
IRC 11	Pipes are sized to prevent velocities greater than five feet/second.			
IRC 12	Precipitation rates for all sprinklers within a zone are matched.			
IRC 13	Pressure regulation at each zone valve. Installation shall be in a box and allow for visual inspection.			
IRC 14	Head spacing does not exceed 50% of the nozzle throw diameter.			
Scheduling		Yes	No	NA
IRC 15	A device with rain shut-off capabilities is installed in an operable location and is functioning.			
IRC 16	Each of the following items has been provided to the homeowner: <ul style="list-style-type: none"> • Controller handbook/operating instructions • As-built zone diagram, including location and size of components, and soil moisture sensor probe location, if applicable • Precipitation rates for each zone • Schedule run times, winter and summer 			
IRC 17	If the home is owner-occupied, the homeowner has been trained in how to change the controller schedule for maintenance and for changes in local water rules.			
IRC 18	A Toho-approved sticker, or other permanently fastened device, which indicates scheduled zone run times in winter and summer, has been affixed to the irrigation controller box.			

Indoor				
		Yes	No	NA
INC 1	All fixture and appliance water supply connections are reinforced.			
INC 2	A quarter turn or push-pull valve is used for all fixture and appliance supply lines.			
INC 3	All toilets are high-efficiency (1.28 gallons/flush with a UNAR MaP rating above 350 grams/flush). WaterSense®-labeled toilets comply.			
INC 4	Single showerhead with flow rate of 2 gallons/minute or less, or WaterSense®-labeled.			
INC 5	All lavatory sink faucets have flow rates of 1.5 gallons/minute or less, or WaterSense®-labeled.			
INC 6	If the applicant chooses to install clothes washers and dishwashers, they must meet current ENERGY STAR performance criteria.			

Criteria Met by Applicant		
	Yes	No
Landscape		
Irrigation		
Indoor		

Toho Efficiency Program

Irrigation Affidavit

To Be Reviewed and Signed by Owner, Developer or Irrigation Contractor

If a permanent in ground irrigation system will be installed, it will be installed per the design drawings and in accordance with the irrigation criteria. The owner, developer or irrigation contractor must attest and confirm by signing this document that the following items will be successfully completed. In the event that the installation does not conform to the design drawings and irrigation criteria then the signer will be held accountable for any and all changes to bring the system into accordance of the submitted plans.

Item	Completed
Sprinklers in low-lying areas (heads that are lower than the valve box) have check valves.	
Pressure regulation at each zone valve. Installation shall be in a box and allow for visual inspection.	
Pipes have been sized to prevent velocities greater than 5 feet per second.	
Precipitation rates for all sprinklers within a zone are matched.	
A smart controller based on soil moisture or weather with rain shut-off scheduling capabilities has been installed in an operable location and is functioning.	
Each of the following items has been provided to the homeowner: <ul style="list-style-type: none">• Controller handbook/operating instructions• As-built zone diagram, including location and size of components, and soil moisture sensor probe location if applicable• Precipitation rates for each zone• Schedule run times, winter and summer	
If the home is owner-occupied, the homeowner has been trained in how to change the controller schedule for maintenance and for changes in local water rules.	
A Toho-approved sticker, or other permanently fastened device, which indicates scheduled zone run times in winter and summer, has been affixed to the irrigation controller box.	

I hereby attest that all of the above items will be completed by the undersigned or under the supervision of the undersigned person.

Signature:	Date:
Company Name:	Phone:
Project Address:	

Toho Efficiency Program

Landscape Affidavit

To Be Reviewed and Signed by Owner, Developer or Landscape Contractor

Landscape materials must be installed in accordance with the *Florida Friendly Best Management Practices for Protection of Water Resources by the Green Industries*. The owner, developer or landscape contractor must attest and confirm by signing this document that the following practices will be followed. In the event that the installation does not conform to the design drawings and landscape criteria then the signer will be held accountable for any and all changes to bring the landscape into accordance of the submitted plans.

Practice	Completed
Organic mulch was used and applied to a depth of 2 to 4 inches, leaving a 2-inch space around the base of plant.	
Site evaluation was conducted.	
Right plant, right place — Florida-friendly plants were selected with attributes specific to site conditions.	
Plants were chosen that will not outgrow their allotted space.	
Soil was properly prepared before planting to ensure establishment.	
If compacted, soil was tilled.	
LC 6 (if selected), organic soil amendments have been added into the top 8 inches of soil.	
When planting trees and shrubs, each root ball was inspected and all soil removed from above the topmost root.	
When planting trees and shrubs, each planting hole was properly prepared.	

I hereby attest that all of the above items will be completed by the undersigned or under the supervision of the undersigned person.

Signature:	Date:
Company Name:	Phone:
Project Address:	