WE PREREQUISITE 1: MINIMUM INDOOR PLUMBING FIXTURE AND FITTING EFFICIENCY

Project #[redacted]

All fields and uploads are required unless otherwise noted.

THRESHOLD ATTEMPTED

Points Attempted: 0

ALL OPTIONS

Upload WEp1-1. Provide a copy of the policy mandating an economic assessment of conversion to high-performance plumbing fixtures and fittings as part of any future indoor plumbing renovation.

Upload *Files: 2*

Select one of the following:

- ○ **LEED Design & Construction Streamlined Path:** The project building earned a prerequisite or at least one point for water use reduction under LEED for New Construction, LEED for Core and Shell, or LEED for Schools.
- ○ Initial new construction of the building was completed on or after January 1, 1994.
- ○ All relevant fixtures and fittings installed or replaced after January 1, 1994.
- ◉ **Performance Calculation:** A water use performance calculation will be completed to demonstrate compliance.

Note: To earn WE Credit 2, complete either the LEED Design & Construction Streamlined Path option OR the Performance Calculation option; other streamlined paths are not applicable to WE Credit 2. Content highlighted in yellow above is linked to WE Credit 2.

PERFORMANCE CALCULATION

Refer to the additional guidance document in the Credit Resources section of LEED Online for more information about documenting compliance with WEp1 and WEc2.

Note: Content highlighted in yellow below is linked to WE Credit 2.

Table WEp1-1. Daily Occupancy

Note: Content below is linked from PI Form 3 for reference only. These values should inform, but not necessarily parallel, the numbers entered in Table WEp1-2. Fixture Groups Definition.

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FTE	Average Transients (Visitors)	Average Retail Customers	Residents	Total
620	40	10	0	670

FIXTURE GROUPS INTRODUCTION

Organize project occupants in a way that best represents fixture usage patterns in the project. Occupants may be grouped together or separated into sub-groups. Usage groups must be derived from daily occupancy data for the project building. Accordingly, all project occupants, as documented in the "Occupant Information" section of PI Form 3, must be represented in the Table WEp1-2. Fixture Groups Definition below. All residential occupants should be represented separately from non-residential occupants.

Table WEp1-2. Fixture Groups Definition

Group Name	# of Fixtures Replaced before Jan-94	# of Fixtures Replaced after Jan-94	Annual Days of Operation	FTE	Transients (Visitors)	Retail Customers	Residents	% Female	% Male
Whole Building	228	0	260	620	40	0	0	50	50
Total fixtures	228	0							

+ -

Briefly describe the inputs in the Table WEp1-2 above. Explain the methodology used to define each fixture group, as well as the derivation of data in each row. Additionally, provide a detailed explanation if the default gender ratio is not used.

Plumbing fixtures are uniform across the building and accordingly a single usage group has been applied. Values for FTE are consistent with PIf2 and EAp2 and transient visitors are included based on the average daily transient visitors to the building.

Table WEp1-3. Flush Fixture Data

Enter flush fixture data for each fixture group defined in the Table WEp1-2 above. Click "Calculate" in the summary section of the table to perform the water savings calculations. "Calculate" must be clicked after any or all the data is entered in the table to refresh the calculated values and obtain accurate information.

Fixture Groups							Flush Rate (GPF)		Annual Water Consumption (kGal)			
Select	Display	Fixture ID[1]	Fixture Family	Fixture Type	Default	Total Daily Uses[2]	Baseline	Installed[3]	IPC / UPC Baseline	Perfomance Case		
Whole Buil	Whole Buil	WC	Water Closet	IPC/UPC (Conventi	☒	1,252	1.6	3.5	520.83	1,139.3	+	-
Whole Buil	Whole Buil	Urinal	Urinal	IPC/UPC (Conventi	☒	628	1	0.5	163.28	81.64	+	-
Total calculated flush fixture water use annual volume, baseline case (kGal)								684.11				
Total calculated flush fixture water use annual volume, performance case (kGal)								1220.96	Calculate			
Percent reduction of water use in flush fixtures (%)								-78.47				

1 Define a reference name or descriptor that can be used to identify each fixture family/type.

2 May be modified for special circumstances. Deselect the "Default" checkbox to enter modified Total Daily Uses value. Default assumes urinals are installed. Refer to the additional guidance document in the Credit Resources section which includes information about fixture groups that do not include urinals.

3 To account for dual-flush fixtures, enter a weighted average flush rate.

Select one of the following:

- (●) Manufacturer or supplier data was available to verify flow rates for each flush fixture type that differs from UPC/IPC efficiency requirements.
- ( ) Manufacturer or supplier data was not available for each flush fixture type that differs from UPC/IPC efficiency requirements, so measured flush rates for at least 20% (by number of fixtures) of each type were used.
- ( ) All flush fixtures are listed as UPC/IPC (Conventional) fixture type in table above.

Upload WEp1-3. Provide manufacturer or supplier data verifying flow rates for each flush fixture type that differs from UPC/IPC efficiency requirements.

Upload *Files: 3*

Table WEp1-4. Flow Fixture Data

Enter flow fixture data for each fixture group defined in the Table WEp1-2 above. Click "Calculate" in the summary section of the table to perform the water savings calculations. "Calculate" must be clicked after any or all the data is entered in the table to refresh the calculated values and obtain accurate information.

Fixture Groups								Flow Rate (GPM / GPC)		Annual Water Consumption (kGal)			
Select	Display	Fixture ID[1]	Fixture Family	Fixture Type	Default	Total Daily Uses [2]	Duration (Secs) [3]	Baseline	Installed [4]	IPC / UPC Baseline	Performance Case		
Whole B	Whole Buil	Lavatory	Public Lavatory	IPC/UPC (Conv	☒	1880	30	0.5	0.5	122.2	122.2	+	-
Whole B	Whole Buil	Kitchen	Kitchen Sink	IPC/UPC (Conv	☒	620	15	2.2	1.5	88.66	60.45	+	-
Whole B	Whole Buil	Shower	Shower	IPC/UPC (Conv	☒	62	300	2.5	1.79	201.5	144.27	+	-
Total calculated flow fixture water use annual volume, baseline case (kGal)									412.36	Calculate			
Total calculated flow fixture water use annual volume, performance case (kGal)									326.92				
Percent reduction of water use in flow fixtures (%)									20.72				

1 Define a reference name or descriptor that can be used to identify each fixture family/type.
2 May be modified for special circumstances. Deselect the "Default" checkbox in order to insert the modified Total Daily Uses value.
3 May be modified for special circumstances. Provide a narrative in the Special Circumstances section below to justify modifications.
4 For public metering/autocontrol lavatory faucets, convert all flow rates in gallons per minute (GPM) to gallons per cycle (GPC) using a default 12 second duration of flow.

Select one of the following:

- ○ Manufacturer or supplier data was available to verify flow rates for each flush fixture type that differs from UPC/IPC efficiency requirements.
- ○ Manufacturer or supplier data was not available for each flush fixture type that differs from UPC/IPC efficiency requirements, so measured flush rates for at least 20% (by number of fixtures) of each type were used.
- ◉ All flow fixtures are listed as UPC/IPC (Conventional) fixture type in table above.

SUMMARY

Table WEp1-5. Flush & Flow Summary Statistics

IPC/UPC baseline annual water use (kGal)	1096.47
Number of fixtures substantially completed before 1994	228
Number of fixtures substantially completed in 1994 or later	0
LEED-EB: O&M baseline multiplier (%)	160
LEED-EB: O&M annual water use, baseline case (kGal)	1754.35
Calculated annual water use, performance case (kGal)	1547.88
Percent water use reduction in all fixtures (%)	11.77

Note: The total calculated performance case must less than or equal to the LEED-EB: O&M baseline case to document compliance with WE Prerequisite 1.

ADDITIONAL DETAILS

☐ Special circumstances preclude documentation of credit compliance with the submittal requirements outlined in this form.

☐ The project team is using an alternative compliance approach in lieu of standard submittal paths.

SUMMARY

WE Prerequisite 1: Minimum Indoor Plumbing Fixture and Fitting Efficiency Compliance Documented:	N	Check Compliance

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