

Harnett County Department of Public Health

Improvement Permit

A building permit cannot be issued with only an Improvement Permit

ISSUED TO: KB Home Carolinas PROPERTY LOCATION: 511 Windy Farm Dr. (Christian Light Rd. -)
 SUBDIVISION Highland Grove LOT # 26
 NEW REPAIR EXPANSION
 Type of Structure: 43x56 sfd, 5 beds 3 baths
 Proposed Wastewater System Type: 25% Reduction Sys.
 Projected Daily Flow: 480 (Red.) GPD
 Number of bedrooms: 5 Number of Occupants: 10 max
 Basement Yes No
 Pump Required: Yes No May be required based on final location and elevations of facilities
 Type of Water Supply: Community Public Well Distance from well NA feet
 Permit conditions: Five years No expiration
 Permit valid for:
Flow Reduction: Session law 2014-120 and 2013-413

Authorized State Agent: [Signature] Date: 03/24/2021 SEE ATTACHED SITE SKETCH
 The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This site is subject to revocation if the site plan, plat, or the intended use changes. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit.

Construction Authorization

(Required for Building Permit)

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by references into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

ISSUED TO: KB Home Carolinas PROPERTY LOCATION: 511 Windy Farm Dr. (Christian Light Rd.)
 SUBDIVISION Highland Grove LOT # 26
 Facility Type: 43x56 sfd, 5 beds 3 baths New Expansion Repair
 Basement? Yes No Basement Fixtures? Yes No
 Type of Wastewater System** 25% Reduction System (Initial) Wastewater Flow: 300 ⁴⁸⁰ GPD
 (See note below, if applicable
25% / 50% Reduction Sys. (Repair)

Installation Requirements/Conditions

Septic Tank Size <u>1250</u> gallons	Number of trenches <u>4</u>	Exact length of each trench <u>90</u> feet	Trench Spacing: <u>9</u> Feet on Center
Pump Tank Size _____ gallons	Trenches shall be installed on contour at a	Maximum Trench Depth of: <u>24</u> inches	Soil Cover: <u>12</u> inches
	(Trench bottoms shall be level to +/-1/4"	in all directions)	(Maximum soil cover shall not exceed 36" above the trench bottom)

Pump Requirements: _____ ft. TDH vs. _____ GPM
 Aggregate Depth: NA inches below pipe
NA inches above pipe
NA inches total

Conditions: Gravity to D-Box Equal Distribution

**WATER LINES (INCLUDING IRRIGATION) MUST BE 10FT. FROM ANY PART OF SEPTIC SYSTEM OR REPAIR AREA.
 NO UTILITIES ALLOWED IN INITIAL OR REPAIR DRAIN FIELD AREA.**

**If applicable: I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.
 Owner/Legal Representative Signature: _____ Date: _____

This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be transferred when there is a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit. SEE ATTACHED SITE SKETCH

Authorized State Agent: [Signature] Date: 03/24/2021
ANDREW CORN Construction Authorization Expiration Date: 03/26/2026

Harnett County Department of Public Health Site Sketch

Property Location: 511 Windy Farm Dr. (Christian Light Rd. - SR 1412)

Issued To: KB Home Carolinas

Subdivision Highland Grove

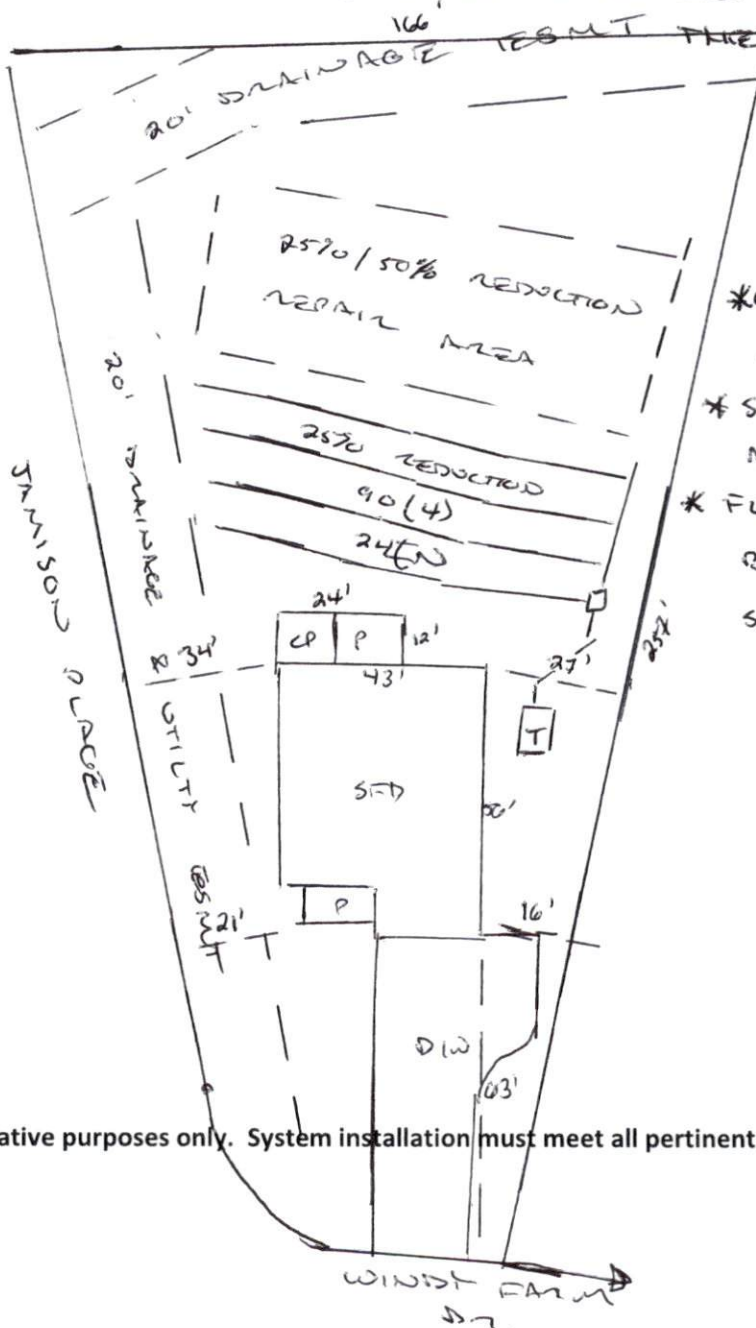
Lot # 26

Authorized State Agent: _____

Andrew Curran
ANDREW CURRAN

Date: 03/26/2021

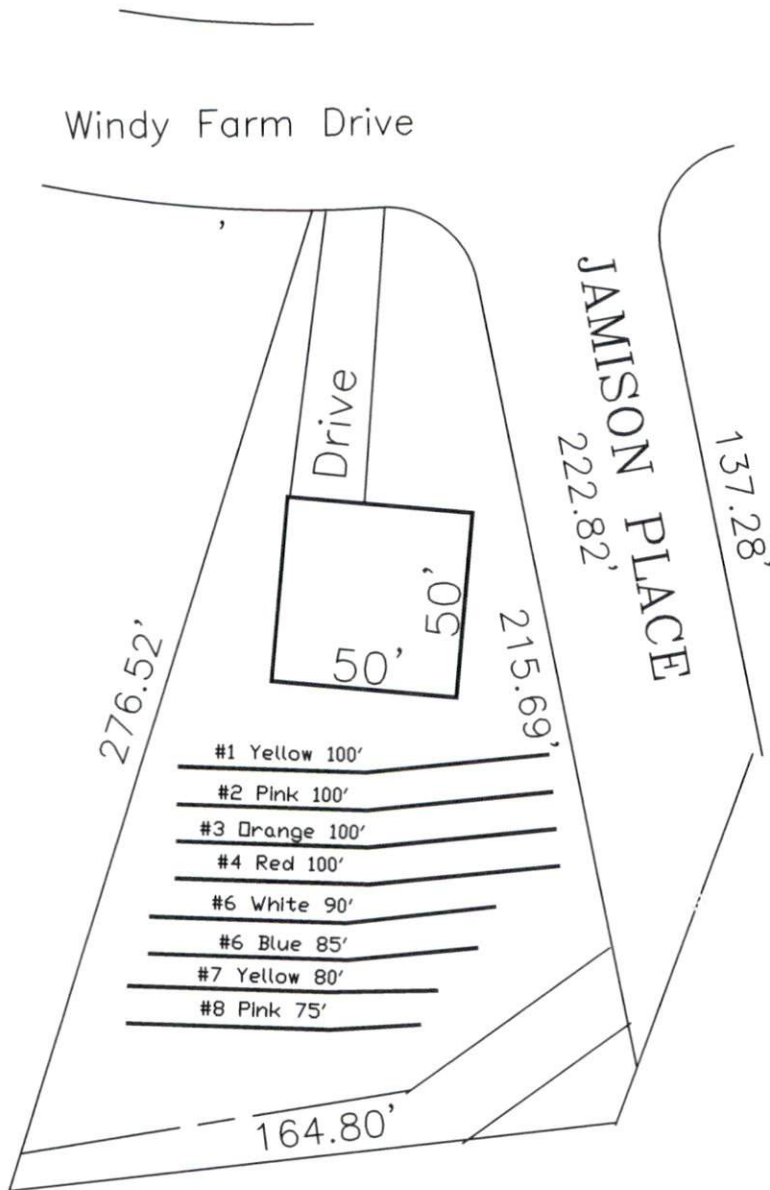
- * SESSION LAW 2014-120 SECTION 53: NEITHER THE STATE NOR ANY LOCAL HEALTH DEPT SHALL BE LIABLE FOR ANY DAMAGES CAUSED BY A SYSTEM APPROVED OR PERMITTED PURSUANT TO THIS SECTION [DUE TO FLOW REDUCTION]
- * SPECIFIED LOW-FLOW FIXTURES, LOW-FLOW TECHNOLOGIES, OR REPLACEMENT WITH EQUAL OR LESS FLOW RATES ARE TO REMAIN IN USE FOR THE LIFE OF THE SEPTIC SYSTEM



- * GRAVITY TO D-BOX EQUAL DISTRIBUTION REQUIRED
- * SEPTIC PROPOSAL BY ADAMS SOIL CONSULTING
- * FLOW REDUCTION PROPOSAL BY CENTRAL CAROLINA SOIL CONSULTING, PLLC

This drawing is for illustrative purposes only. System installation must meet all pertinent laws, rules, and regulations.

Windy Hill 4-Bedroom Septic Proposal Lot #26



*If plumbing is not sufficient a separate pump and tank may be required.

26

26,780 SQ.FT.

System: Pump to D-Box
 Lines: 1-4 (340')
 0.35 LTAR
 24" Trench Bottom
 Accepted Status System
 Repair: Serial Dist.
 Lines: 5-8 (340')
 0.35 LTAR
 24" Trench Bottom
 Accepted Status System

This drawing represents a preliminary septic plan made prior to final construction activities. A revised plan may need to be reworked at time of permitting.

GRAPHIC SCALE
1" = 50'



Adams
 Soil Consulting
 919-414-6761
 Job #561



Central Carolina Soil Consulting, PLLC

1900 South Main Street, Suite 110
Wake Forest, NC 27587
919-569-6704/fax 919-569-6703

March 12, 2021

Harnett County Staff
Harnett County Environmental Health Department
900 S 9th St
Lillington, NC

RE: Flow Reduction Proposal

Highland Grove Lot 26
Jamison Place & Windy Farm Dr, Fuquay Varina, Harnett County, North Carolina
Project # 3700

Dear Harnett County Staff:

Central Carolina Soil Consulting (CCSC) in conjunction with Bateman Civil Survey Company are proposing wastewater daily flow calculations for a single-family home located at Highland Grove Lot 26 pursuant to session law 2014-120 and 2013-413. The proposed home will have 5 bedrooms and under the current flow calculations provided in the state rules would have a daily flow of **600** gallons per day. That would be based on 120 gallons per bedroom.

Household flow rates from the 15 NCAC 18A section of the state rules relied on fixture flow rates from 1982, and calculated the flows for common fixtures to established average flows for the purpose of calculating household daily flows and septic system based on those flows. The data for the historic fixture flows was taken from the EPA 2002 Onsite Wastewater Treatment Systems Manual.

The attached spreadsheet contains the flow reducing fixtures that are proposed for the house. The table includes flow rates for the flow reducing fixtures as well as flow rates from the state rules and the percentage of water savings. On average the proposed fixtures provide a 40% savings.

We are requesting a reduction of 20% for the use of low flow fixtures. This will provide an adjusted daily flow of 96 gallons per bedroom per day and a total flow of **480** gallons per day for the proposed 4-bedroom house.

Should you have any questions or comments please contact Matt Burdette at 919-422-2827.

Sincerely,

CENTRAL CAROLINA SOIL CONSULTING PLLC



Matt Burdette
Environmental Specialist

Attachments

BATEMAN CIVIL SURVEY COMPANY
NCBELS# C-2378.



Tom Speight, P.E.
(seal)



Highland Grove Lot 26						
	Item		Gal/min. or flush	Number of Fixures	Base Flow From 1982	Percent Water Savings
Bath 2	Lavatory Faucet	Moen 6172	1.2 gal/minute	2	3.0 gal/minute	60%
	Shower Head	Moen T2843EP	1.8 gal/minute	1	5.5 gal/minute	67%
Bath 3	Shower Head	Moen T2843EP	1.8 gal/minute	1	5.5 gal/minute	67%
	Lavatory Faucet	Moen 6172	1.2 gal/minute	1	3.0 gal/minute	60%
Master Bath	Lavatory Faucet	Moen 6172	1.2 gal/minute	2	3.0 gal/minute	60%
	Shower Head	Moen T2842EP	1.8 gal/minute	1	5.5 gal/minute	67%
Kitchen	Kitchen Sink Faucet	Moen 7864	1.5 gal/minute	1	3.0 gal/minute	50%
Bath 5	Shower Head	Moen T2842EP	1.8 gal/minute	1	5.5 gal/minute	67%
	Lavatory Faucet	Moen 6172	1.2 gal/minute	1	3.0 gal/minute	60%
Powder	Lavatory Faucet	Moen 6172	1.2 gal/minute	1	3.0 gal/minute	60%
Toilets	Master, Powder, 2, 3, 5	Gerber 21-912	1.28 gal /flush	5	3.5 gal/minute	63%

FIXTURES	TOILET	FAUCET	SHOWER	CLOTHES WASHER	LEAK	BATH	OTHER	DISHWASHER	TOTALS
PERCENT OF HOUSE HOLD WATER USE	24%	20%	20%	16%	12%	3%	3%	2%	100%
GALLONS PER DAY (600 BASE)	144	120	120	96	72	18	18	12	600
PERCENT OF SAVINGS FROM WATER SAVING FIXTURES	63%	59% avg	67%	0	0%	0%	0%	0%	40%
ADJUSTED FLOW (GALLONS)	53	49	40	96	72	18	18	12	358

MOEN®

Specifications

DESCRIPTION

- Metal construction with various finishes identified by suffix
- 1/2" IPS connections
- Hot and cold temperature indicators available
- Installation through 3 holes, 1" min. diameter, and 4" on center
- Includes metal pop-up waste assembly (6172)
- Includes 50% metal/50% plastic waste assembly (66172)

OPERATION

- Lever style handles with optional hot & cold indicators available
- Maximum handle rotation angle is 90° to full on for either handle
- Hot side counterclockwise to open (clockwise to close)
- Cold side clockwise to open (counterclockwise to close)

FLOW

- Water usage is limited to these maximum flow rates as indicated by the corresponding product markings
 - 1.2 gpm max (4.5L/min) at 60 psi

CARTRIDGE

- 1234 cartridge design
- Nonmetallic, nonferrous and stainless steel material

STANDARDS

- Third party certified to WaterSense®, ASME A112.18.1/CSA B125.1 and all applicable requirements referenced therein
- Certified to NSF 61/9 & 372
- Products marked with 1.2 gpm are compliant with California water efficiency regulations
- Complies with California Proposition 65 and with the Federal Safe Drinking Water Act
- ADA ♿ for lever handles

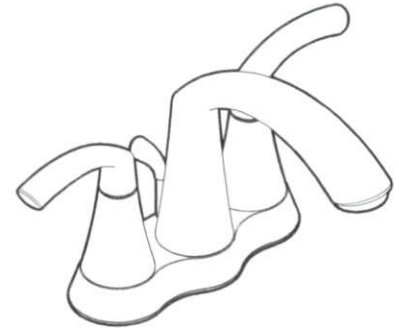
WARRANTY

- Limited lifetime warranty against leaks, drips and finish defects to the original homeowner
- 10 year warranty when used in a multifamily installation
- 5 year warranty when used in a commercial installation

Visit www.moen.com/support for complete details and limitations

OPTIONS (See Illustrated Parts page)

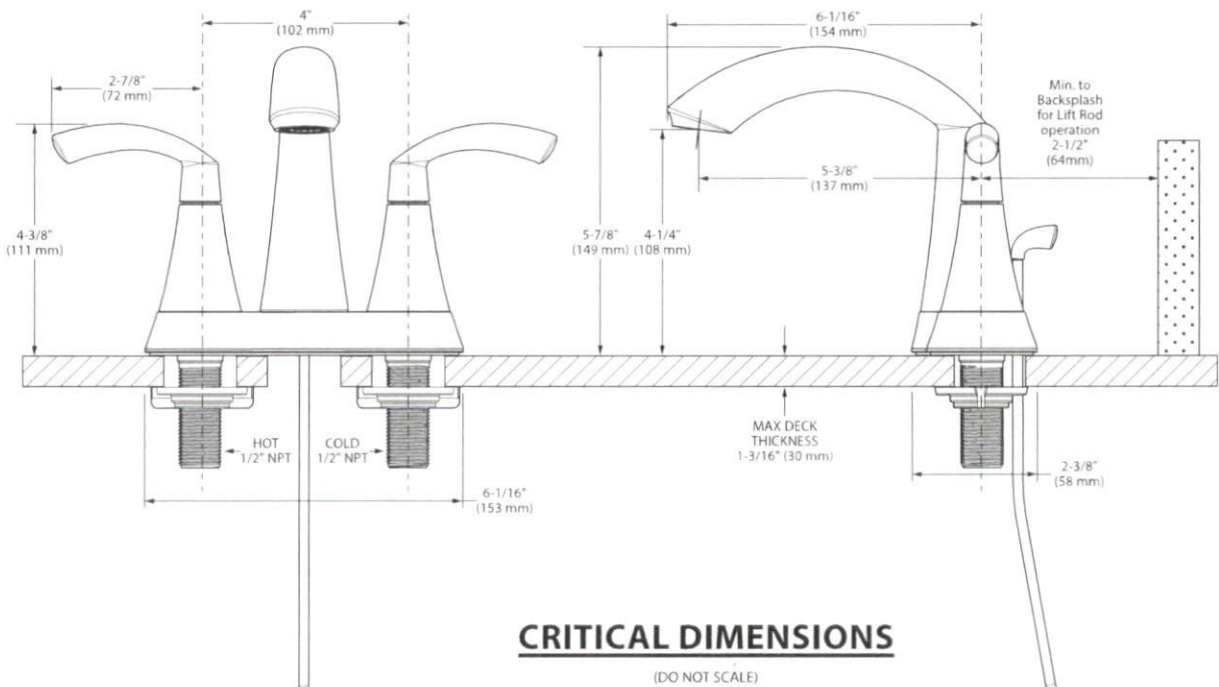
- Thin and thick deck mounting hardware kits available



GLYDE™
Two-Handle 4" Centerset
Lavatory Faucet

Models: 6172 series and 66172
(bulk) includes
pop-up waste

NOTE: THIS FAUCET IS DESIGNED TO
BE INSTALLED THROUGH
3 HOLES, 1" MIN. DIA.



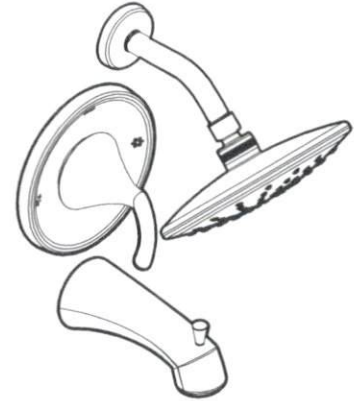
CRITICAL DIMENSIONS

(DO NOT SCALE)



Buy it for looks. Buy it for life.®

Specifications



Glyde™

Single-Handle Tub/Shower Trim Kit with Rainshower

Models: T2842EP series - shower trim only
T2843EP series - tub/shower trim

Valves: 62300 series
2500 series



DESCRIPTION

- Metal construction with various finishes identified by suffix
- Includes showerhead, arm, flange and diverter tub spout

OPERATION

- Handle operates counterclockwise through a 270° arc with off at 6 o'clock and maximum hot at the 9 o'clock position. Shut off in clockwise direction
- Adjustable temperature limit stop to control maximum hot water temperature
- Pressure balancing mechanism maintains selected discharge temperature to ± 3°

FLOW

- EP suffix models are limited to 2.0 gpm (7.6 L/min) max for products manufactured prior to June 30, 2018. EP suffix models manufactured after June 30, 2018 are limited to 1.75 gpm (6.7 L/min) max.

CARTRIDGE

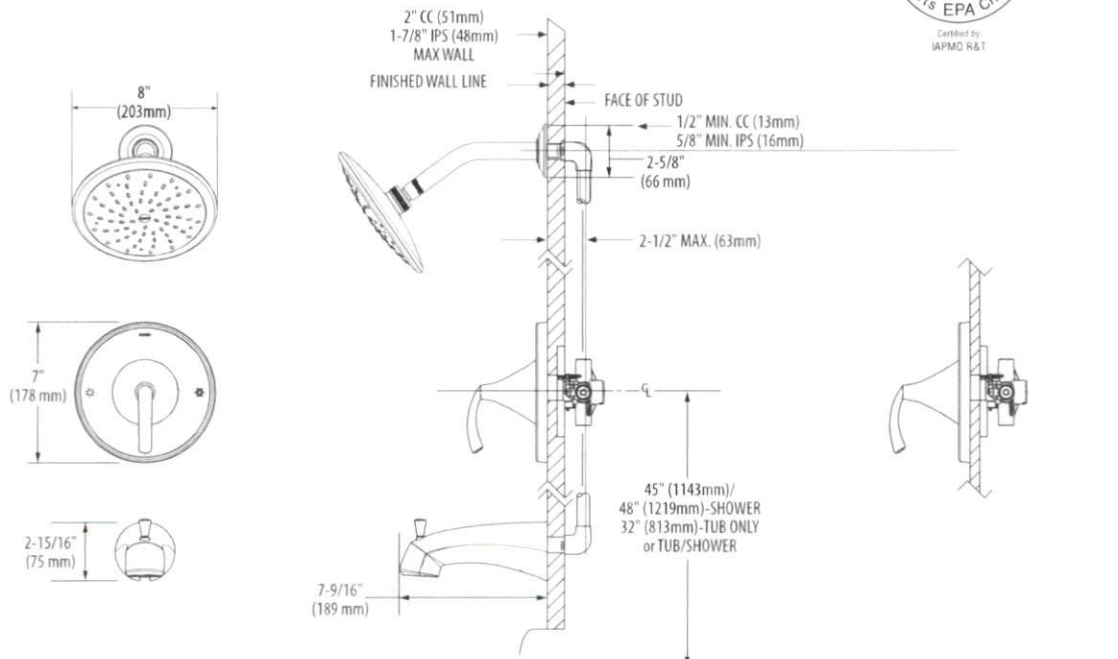
- 1222 cartridge design
- Accommodates back to back installations
- Nonmetallic, nonferrous and stainless steel material

STANDARDS

- Third party certified to meet ASME A112.18.1/CSA B125.1 and all applicable requirements referenced therein
- EP suffix models are third party certified to WaterSense®
- **ADA** for lever handles

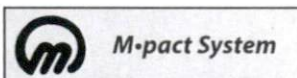
WARRANTY

- Lifetime limited warranty against leaks, drips and finish defects to the original homeowner
 - 10 year limited warranty when used in a multifamily installation
 - 5 year limited warranty when used in a commercial installation
- Visit www.moen.com/support for complete details and limitations



CRITICAL DIMENSIONS

(DO NOT SCALE)



DESCRIPTION

- Reflex™ pulldown system offers smoother operation, easy movement and secure docking
- PowerBoost™ Spray Technology
- Duralock™ quick connect installation
- Metal construction with various finishes identified by suffix
- Pulldown spray with 68" braided hose
- High arc spout provides height and reach to fill or clean large pots while pullout wand provides the maneuverability for cleaning or rinsing
- 360° rotating spout
- Flexible supply lines with 3/8" compression fittings

OPERATION

- Lever style handle
- Operates with less than 5 lbs. of force
- Operates in stream or spray mode in the pulldown or retracted position
- Temperature controlled by 100° arc of handle travel

FLOW

- Flow is limited to 1.5 gpm (5.7 L/min) at 60 psi

CARTRIDGE

- 1255™ Duralast™ cartridge for Single-Handle Faucets
- Engineered polymers, non-ferrous and stainless steel materials

STANDARDS

- Third party certified to IAPMO Green, ASME A112.18.1/CSA B-125.1 and all applicable requirements referenced therein including NSF 61/9 & 372
- Meets CalGreen and Georgia SB370 requirements
- Complies with California Proposition 65 and with the Federal Safe Drinking Water Act
- ADA ♿ for lever handle
- The backflow protection system in this device consists of two independently operating check valves, a primary and a secondary which prevent backflow

WARRANTY

- Lifetime limited warranty against leaks, drips and finish defects to the original homeowner
- 10 year limited warranty when used in a multifamily installation
- 5 year limited warranty when used in a commercial installation

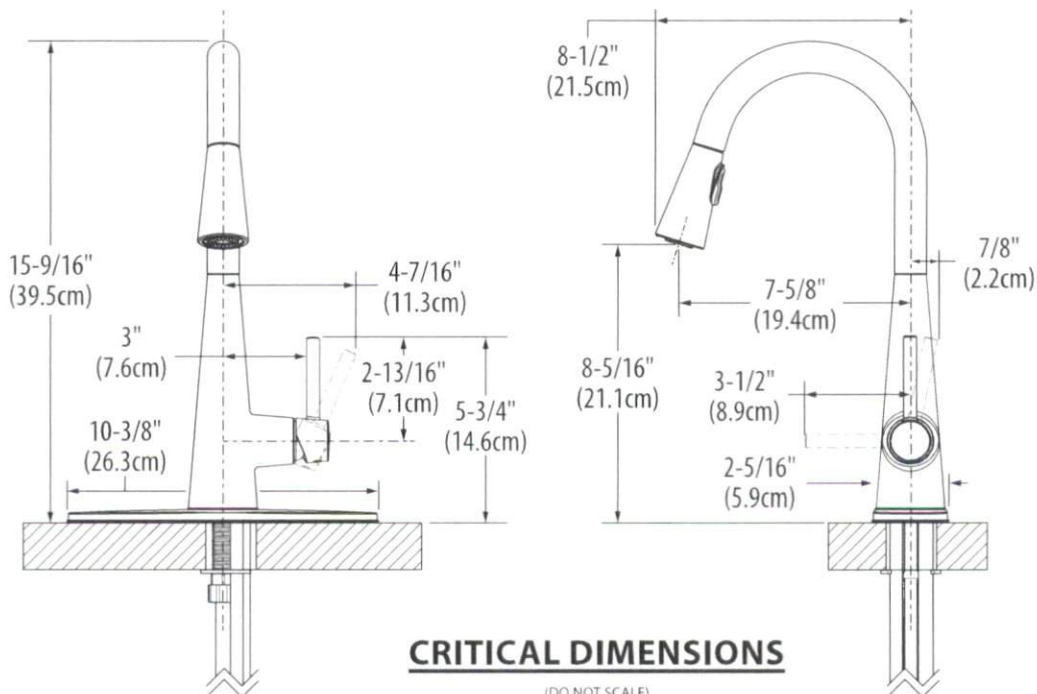
Visit www.moen.com/support for complete details and limitations



Sleek™
Single-Handle High Arc
Pulldown Kitchen Faucet

Models: 7864 series

NOTE: THIS FAUCET IS DESIGNED TO BE INSTALLED THROUGH 1 OR 3 HOLES, 1-1/2" (38mm) MIN. DIA.





VITREOUS CHINA

TOILET
21-912

LAVATORIES

TOILETS

BIDETS / URINALS

CAST IRON

**MAXWELL® 1.28
Elongated Toilet**

12" Rough-in

Features:

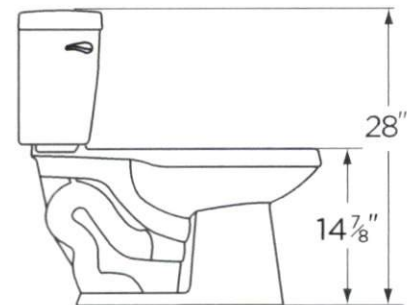
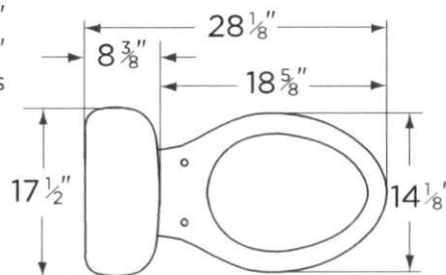
- 1.28 gpf/4.8 Lpf high efficiency two-piece toilet
- Elongated bowl
- Dual-fed siphon jet
- Pilot fill valve
- 3" flush valve
- 2" glazed trapway
- Color matched front tank lever (white only)
- Optional insulated non-sweating tank
- Optional right-handed trip lever
- Available in White, Bone and Biscuit
- 2 bolt caps



Specifications: Bowl—#21-962 Elongated Bowl Tank—#28-990
Seat not included

Dimensions:

- Height 28"
- Width 17 1/2"
- Depth 28 1/8"
- Rough-in 12"
- Water Surface from Rim 5 7/8"
- Trapway 2"
- Water Surface 10 7/8" x 7 1/2"
- Water Seal 2 3/8"
- Shipping Weight 79.5 lbs



THIS FIXTURE QUALIFIES ACCORDING TO ASME TEST PROCEDURES AS A HIGH EFFICIENCY WATER CLOSET WITH AN AVERAGE CONSUMPTION OF 1.28 gpf (4.8 Lpf) OR LESS.

HIGH EFFICIENCY TOILET
HET

www.gerberonline.com

Job Name	
Date	
Model Specified	
Quantity	
Customer	
Contractor	
Architect/engineer	