



Chairman
Ed Lynch

TOWN OF LEDYARD CONNECTICUT

741 Colonel Ledyard Highway
Ledyard, Connecticut 06339

Water Pollution Control Authority

~ AGENDA ~

Regular Meeting

Tuesday, July 28, 2026

7:00 PM

Council Chambers - Hybrid

REMOTE MEETING INFORMATION

<https://ledyardct.zoom.us/j/87690209406?pwd=9uGVWS5jVuV4vXb8selE41LqgNxSvl.1>

Meeting ID: 876 9020 9406

Passcode: 948689

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I. CALL TO ORDER

II. ROLL CALL

III. APPOINTMENT OF ALTERNATES

IV. PLEDGE OF ALLEGIANCE

V. RESIDENTS & PROPERTY OWNERS COMMENTS

VI. REVIEW AND APPROVAL OF MINUTES

1. Motion to APPROVE the Regular Meeting Minutes from June 23, 2026, as written.

Attachments: [WPCA Regular Meeting Minutes 06.23.2026](#)

VII. PRESENTATIONS / INFORMATIONAL ITEMS

1. Aquia Providence from Connecticut Rural Water & Waste Water Association presenting on USDA Funding Options for sewer pipe lining and water lead and copper rule.

VIII. COMMUNICATIONS AND CORRESPONDENCE

1. Operations Report.

Attachments: [Ledyard water systems report 20260715](#)

[GU-WPCA_pre_mtg_july_2006](#)

[Water Main Break Map Highlands REV.07152026](#)

2. Service Correspondence.

Attachments: [DPH_Circular Letter 2026-14_Fluoridation_Supply_Shortage](#)

3. Aged Reports/Finance.

Attachments: [WPCA AGED A-R SUMMARY TREND JANUARY 2026 - JUNE 2026](#)

4. Year to Date Water/Sewer Report.

Attachments: [Sewer YTD](#)
[Water YTD](#)

5. PSR - Steve Banks.

Attachments: [July 2026 PSR](#)

6. Town Council Action Letter from Roxanne Maher dated July 29, 2026.

Attachments: [ACTION LTR-WPCA-MOU-LEAD & COPPER SURVEY - TOWN COUNCIL MTG-2026-07-09](#)

7. Discussion and possible action on SCWA's rejection of proposed water rate.

IX. OLD BUSINESS

1. 740 Colonel Ledyard Highway Discussion

Attachments: [740 Colonel Ledyard Highway GU Discussion](#)
[Pressure Testing 740 Colonel Ledyard Hwy](#)
[MCWANE Ductile Iron Pipe](#)
[20260721102021140](#)

2. 1947 Center Groton Road

Attachments: [1947 Center Groton Rd_WIP02_1867_GU Water & Watershed](#)
[Comments_072026](#)
[Katherine Comments_07202026](#)
[Water and Sewer Extension Agreement](#)

3. Any Other Old Business to Come Before the Authority.

4. Lead Survey Update

Attachments: [Status Arcadis part time](#)

X. NEW BUSINESS

1. MOTION to approve Groton Utilities Invoice# 29159 dated June 30, 2026 in the amount of \$470.00 for Diversion Permits-DEEP FY26.

Attachments: [GU Inv. 29159](#)

2. MOTION to approve Groton Utilities Invoice # 29160 dated June 30, 2026 in the amount of \$2,000 for Ledyard Meter Purchases FY2023- FY2025.

Attachments: [GU Inv. 29160](#)

3. MOTION to approve Groton Utilities Invoice # 29161 dated June 30, 2026 in the amount of

\$2,234.68 for Ledyard Hydraulic Model 2025.

Attachments: [GU Inv.29161](#)

4. MOTION to approve PKF O'Connor Davies Accountants and Advisors Invoice #1068090 dated May 31, 2026, in the amount of \$500.00 for services rendered.

Attachments: [PKF O'Connor Davies Inv. 1068090](#)

5. MOTION to approve PKF O'Connor Davies Accountants and Advisors Invoice #1075257 dated June 30, 2026 in the amount of \$500.00 for services rendered.

Attachments: [PKF O'Connor Davies Inv. 1075257](#)

7. MOTION to approve Ledyard WPCA Water & Sewer Rate Schedules effective July 1, 2026, for public posting.

Attachments: [Ledyard WPCA Water & Sewer Rate Schedules Effective 7-1-26](#)

8. Any Other New Business to Come Before the Authority.

XI. ADJOURNMENT

DISCLAIMER: Although we try to be timely and accurate these are not official records of the Town.



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1085

Agenda Date: 7/28/2026

Agenda #: 1.

MINUTES

Minutes:

Motion to APPROVE the Regular Meeting Minutes from June 23, 2026, as written.



Chairman
Ed Lynch

TOWN OF LEDYARD

Water Pollution Control Authority

Meeting Minutes

741 Colonel Ledyard Highway
Ledyard, Connecticut 06339

Regular Meeting

Tuesday, June 23, 2026

7:00 PM

Council Chambers - Hybrid

I. CALL TO ORDER

Chairman Lynch called the meeting to order at 7:00 p.m.

II. ROLL CALL

Present Board Member Monir Tewfik
Board Member Sharon Wadecki
Chairman Edmond Lynch
Alternate Member James A. Ball
Board Member Terry Jones
Excused Board Member Stanley Juber
Alternate Alternate Member Tony Capon
Alternate Member Jeremy Norris

Also in attendance:

Ian Stammel-Treasurer
Vince Bartelli-Groton Utilities
Jessica Michaud- WPCA support person

III. APPOINTMENT OF ALTERNATES

James Ball appointed a voting member.

IV. PLEDGE OF ALLEGIANCE

V. RESIDENTS & PROPERTY OWNERS COMMENTS

VI. REVIEW AND APPROVAL OF MINUTES

1. APPROVE the WPCA Regular Meeting Minutes dated May 26, 2026.

RESULT: APPROVED AND SO DECLARED

2. APPROVE the WPCA Public Hearing Minutes dated May 26, 2026.

RESULT: APPROVED AND SO DECLARED

3. APPROVE the WPCA Special Meeting minutes dated June 9, 2026.

RESULT: APPROVED AND SO DECLARED

VII. COMMUNICATIONS AND CORRESPONDENCE

1. Operations Report.

Mr. Lynch expressed concern that DPH has not notified SCWA customers of the recent testing showing elevated PFA's. Mr. Ball suggested having a protocol in case the WPCA ever encounters abnormal water tests. My Capon noted that water testing is reported in the Operations report.

Mr. Lynch stated that Mr. Steve Banks will be responsible for Call Before you Dig, and is working on creating a registry with them.

Mr. Jones asked if there is list of infrastructure issues including breaks, failures, and other issues, that can be used to prioritize replacement projects on infrastructure.

Mr. Vince Bartelli from GU stated that there is a list and suggested prioritizing Chestnut or Old Fort. Mr. Jones asked if GU could provide the list so that the WPCA could coordinate road work being done with public works director Steve Masalin. Mr. Lynch stated costs to WPCA are reduced when they work with in conjunction with the repaving being done by public works.

2. Service Correspondence.

Mr. Jones asked why there isn't a service contract for Arcadia yet. Mr. Stammel stated that a BID waiver was needed by Town Council. Mr. Lynch stated that the WPCA will formally request a BID waiver for the lead survey from the Town Council.

3. Aged Reports/Finance.

4. Year to Date Water/Sewer Report.

Mr. Lynch stated that he has a meeting with the USDA on July 15th at 11a.m. to get additional information on a grant to line the sewers.

5. PSR - Steve Banks.

6. Correspondence from Steve D on TMC violations

7. Correspondence from Roxanne Maher on approval of water rates.

VIII. OLD BUSINESS

1. MOTION to grant a bid waiver to CorrTech Inc., in the amount of up-to \$7,500 for the inspection of the underground Holmberg Surge Tank.

RESULT: NO ACTION

- 2.

MOTION to request a BID waiver from the Town Council for the inspection of the Holmberg System 5000 gallon underground tank.

This was Approved and so declared.

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch

SECONDER: James A. Ball

AYE 5 Tewfik Wadecki Lynch Ball Jones

EXCUSED 1 Juber

3. Discussion and possible action pertaining to EG Homes Presentation and Revised Commitment Letter

Chris Oliveira, VP Land Development at EG Shoreline reviewed the commitment letter regarding the sewer and water agreement for the 76-unit town home application that has been submitted for 1947 Center Groton Road. Mr. Oliveira stated there will be 76 meters, one for each unit.

The authority raised the concern that if there was to be a leak on the private property who would be responsible, as there was an issue previously where an owner refused to fix the leak, costing the WPCA money. Mr. Oliveira explained that there will be 76 curb stops and it would be written in the HOA bylaws that the WPCA has the authority to shut the water off until the problem is fixed.

Mr. Jones stated that he wants to ensure that there is language in the bylaws stating the HOA is responsible for any issues downstream of the isolation between the 16" main and the 6" main and anything from the isolation valve into the home is the responsibility of the homeowner. Mr. Oliveira stated that he can put that in writing and has a similar agreement with Westerly Water.

Mr. Lynch asked if they only have one hydrant, Mr. Oliveira answered there are 4, and it had been approved with the fire chief. Mr. Lynch stated that there is a Hydrant fee and the HOA will be responsible for flagging the hydrant location during the winter.

Mr. Ball asked who owned the meters, Mr. Oliveira answered the WPCA owns the meters. Mr. Lynch explained if there is an issue with the meter, that would be the responsibility of the WPCA.

Mr. Lynch asked if there was a correction to the plan to ensure the separation of water and sewer. Mr. Oliveira stated that there will be a grinder pump station in the back and the water will come in through the front of the building. Mr. Lynch stated if there were issues with the grinder pump it would be the responsibility of the HOA.

Mr. Ball stated that it should be in writing that the WPCA has the authority to shut off water for non-payment, Mr. Oliveira stated that could be added to the commitment letter.

The authority agreed to have Mr. Lynch sign the E.G. Shoreline Commitment letter with the following updates; add that WPCA has the authority to shut off water due to non-payment,

change the meter size from 6" to 8", and change the language "most efficient cost effective to EG Shoreline" to language that is inclusive of the best interest of both EG Shoreline and WPCA.

MOTION to approve the water extension agreement with E.G. Shoreline with the 3 edits noted.

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch

SECONDER: Sharon Wadecki

AYE 5 Tewfik Wadecki Lynch Ball Jones

EXCUSED 1 Juber

4. MOTION to approve a proposed "Memorandum of Understanding Between the Town of Ledyard And the Ledyard Water Pollution Control Authority Regarding Financial Commitments for the Federally Mandated Lead and Copper Service Line Survey" as presented in the draft dated July1, 2026.

Ms. Wadecki asked how the loan from the town would be paid as it hasn't been budgeted for. Mr. Lynch stated that it would have to come out of the miscellaneous line. Mr. Stammel stated that he would recommend making a motion to create a line in next year's budget for this project and requesting funds from accounts that are underutilized.

Mr. Lynch stated the loan is for \$216,000, however it may be less if grant funding from the state is awarded.

Ms. Wadecki suggested an action item for next month's meeting naming the line to be added to next year's budget.

5. Any Other Old Business to Come Before the Authority.

None.

IX. NEW BUSINESS

1. Discussion and possible action regarding the water rate structure to be proposed to SCWA.

Mr. Lynch stated that SCWA stated if the rate the WPCA proposes to SCWA is too high, then SCWA will turn customers over to WPCA. The authority discussed the pros and cons of taking over the SCWA customers.

Ms. Wadecki expressed the importance of thinking of the costs to WPCA associated with providing water to the SCWA customers when proposing a rate to SCWA.

A discussion was had about the need to upgrade the meter. Mr. Stamel stated that WPCA could work with Groton Utilities on that and then charge the cost to SCWA.

After a lengthy decision the authority agreed on charging SCWA 20% above the rate WPCA pays Groton Utilities for water which will provide approximately \$20,000 of revenue per year for WPCA.

MOTION to propose to SCWA a fixed water rate of 20% over the cost WPCA pays Groton Utilities per gallon.

RESULT: APPROVED AND SO DECLARED

MOVER: Sharon Wadecki

SECONDER: Edmond Lynch

AYE 5 Tewfik Wadecki Lynch Ball Jones

EXCUSED 1 Juber

2.

MOTION to upgrade the SCWA meter from 2" to 6" to be billed to SCWA at cost.

This was Approved and so declared.

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch

SECONDER: Sharon Wadecki

3. MOTION to approve The Day invoice #d01116485 dated May 15, 2026, in the amount of \$365.55 for the publication of the legal notice for the WPCA public hearing.

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch

SECONDER: Sharon Wadecki

AYE 5 Tewfik Wadecki Lynch Ball Jones

EXCUSED 1 Juber

4. Any Other New Business to Come Before the Authority.

None

X. ADJOURNMENT

MOTION to adjourn at 8:22 p.m.

This was Approved and so declared.

RESULT: APPROVED AND SO DECLARED

MOVER: Sharon Wadecki

SECONDER: Edmond Lynch

EXCUSED 1 Juber

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TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1077

Agenda Date: 7/28/2026

Agenda #: 6.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

Aquia Providence from Connecticut Rural Water & Waste Water Association presenting on USDA Funding Options for sewer pipe lining and water lead and copper rule.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1078

Agenda Date: 7/28/2026

Agenda #: 1.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

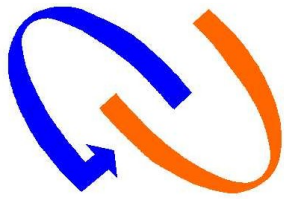
Operations Report.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



GROTON UTILITIES

**Subject: Ledyard Water Systems
Monthly Report: June/July 2026**

To: Ed Lynch, WPCA Chairman

From: Joseph Pratt, Manager Water & Wastewater

Date: July 15, 2026

Water Operations and Maintenance Monthly Report and Updates 6/15/2026 to 7/15/2026.

Operations:

- Daily rounds of all systems
- Operation and maintenance
- Manage water storage tanks

Laboratory & Treatment:

- Distribution system sampling and analyses continue per CTDPH schedule (microbiological & physical analyses). All results met CTDPH standards.
- Submitted results of monthly microbiological & physical analyses to CTDPH via CMDP (Compliance Monitoring Data Portal) as required. All monthly forms submitted via e-mail as required.
- Lead and copper testing has been reduced to once a year by CTDPH; preparations are work-in-progress for both the Ledyard Center and Gales Ferry systems, and sampling will be conducted in the July/August timeframe. Annual Pb/Cu testing must be conducted during the June to September timeframe.
- We continue to respond to customer concerns and questions on a routine basis.
- Both Ledyard Center and Gales Ferry remain in compliance with the Stage 2 Disinfectants and Disinfection Byproducts Rule. Efforts were made to prepare the mailing of the NOV notice (for Q2 2025 TTHM exceedance) to all Ledyard Center customers prior to publication of the 2025 CCR, at this time the customer mailing is anticipated to go out in July 2026.

- The 2025 Annual Water Quality Reports (aka CCRs) for the Ledyard Center and Gales Ferry water systems were completed prior to the June 30th deadline, and Justin Dube (Ledyard MIS director) posted both CCRs to the Town of Ledyard website by June 30th, as required. The NOV notice (for Q2 2025 THMs) for Ledyard Center was included in the 2025 CCR (for Ledyard Center).
- Q3 2026 THM/HAA5 samples for Ledyard Center will be collected in July, as required. Groton Utilities, as contract operator for LWPCA, continues to use all available means to reduce water age in Ledyard Center and Gales Ferry, to keep THMs as low as possible. This constitutes a significant investment of time and effort by the GU Water Division.
- Routine flushing is being conducted in the Village Drive neighborhood to reduce water age, in order to reduce TTHMs there.

Distribution:

- **Meter and ERT Box Repair**
Routine monthly repairs were completed for various meters and ERT boxes. Trouble sheets were addressed for both the Ledyard and Gales Ferry service areas.
- **General Maintenance / Housekeeping**
Groton Utilities is waiting for a waiver from the Ledyard Town Council. to award the contract for the inspection of the 5,000-gallon steel hydro tank, at the Water Treatment Plant, to CorrTech.
- **Water Main Breaks**
There were no water main breaks reported during the period of June 15th to July 15th.
- **Hydrants**
There were no hydrant repairs or hydrant flushing during this reporting period.

Project Management:

- **Site Plan Reviews - Developments**

740 Colonel Ledyard Highway – Ledyard Center LLC -7/16/26

The contractor proceeded without approval, installed water mains, operated system valving to cut into the water main. GU was notified after the 200+ feet of 8" pipe was installed. At the request of Ed Lynch GU will document the events and remain in communication with contractor to address the situation.

1947 Center Groton Road – EG Homes

GU is providing written comments to the Town Planner and verbal comments directly to the developer, in accordance with Ledyard's written policy. GU respectfully requests to be kept informed of any verbal guidance the WPCA provides to the developer when it

differs from established policy. In this case, GU understands the developer was informed that individual meter pits would not be required. Instead, each building could be equipped with a utility cabinet containing a multi-meter manifold with four meters.

GU requests written clarification from Ledyard confirming whether this is the official requirement for the project. This will help ensure GU provides accurate and consistent comments to both the Town and the developer.

- **Project note:** The estimated cost for 72 residential meters, which will need to be budgeted, is \$23,000 - \$26,000. This information is shared for WPCA budgetary planning.
- **Water Services & Temporary Meters**
Three customer call-ins were received regarding water service tie-ins.
- **Water Call Before You Dig Tickets:**
During the month of June there were 83 water CBYD tickets received and responses completed.
- **Sewer Call Before You Dig Discussion**
Groton Utilities is supporting Ledyard in setting up an account for Ledyard Sewer infrastructure to be registered with Call Before You Dig (CBYD) clearing house. Through this registration the Ledyard designee will receive CBYD tickets to mark-out sewer gravity main, force mains, laterals, etc.
- **Exclusive Water Service Areas (ESA) & Ledyard Center Development**
On July 16, Ed Lynch provided an update that SCWA would like to meet with Ledyard and GU to discuss interconnection to the public water system. Ed offered to set up meeting.
- **Water Main Replacement Planning in the Highlands**
Groton Utilities encourages continued efforts and planning by the WPCA for future replacement of water mains in the Highlands. These efforts can be coordinated with paving projects or as stand alone. The map of break locations was updated.
- **Thompson Street and Meeting House Lane Valve Project**
Only records-work remain to be completed on this project.
- **Hydrant Flags**
Groton Utilities proposes to replace the missing hydrant flags during the hydrant winterization, at the end of the season. Per Ledyard Finance, this would require an official WPCA vote, GU would schedule this work once the WPCA vote is documented. The GU estimate is \$180 for installation, quoted for a maximum time of one hour.

Monthly GU & WPCA Pre-Meeting -July 2026

Date: July. 16, 2026

Time: 2-3 pm

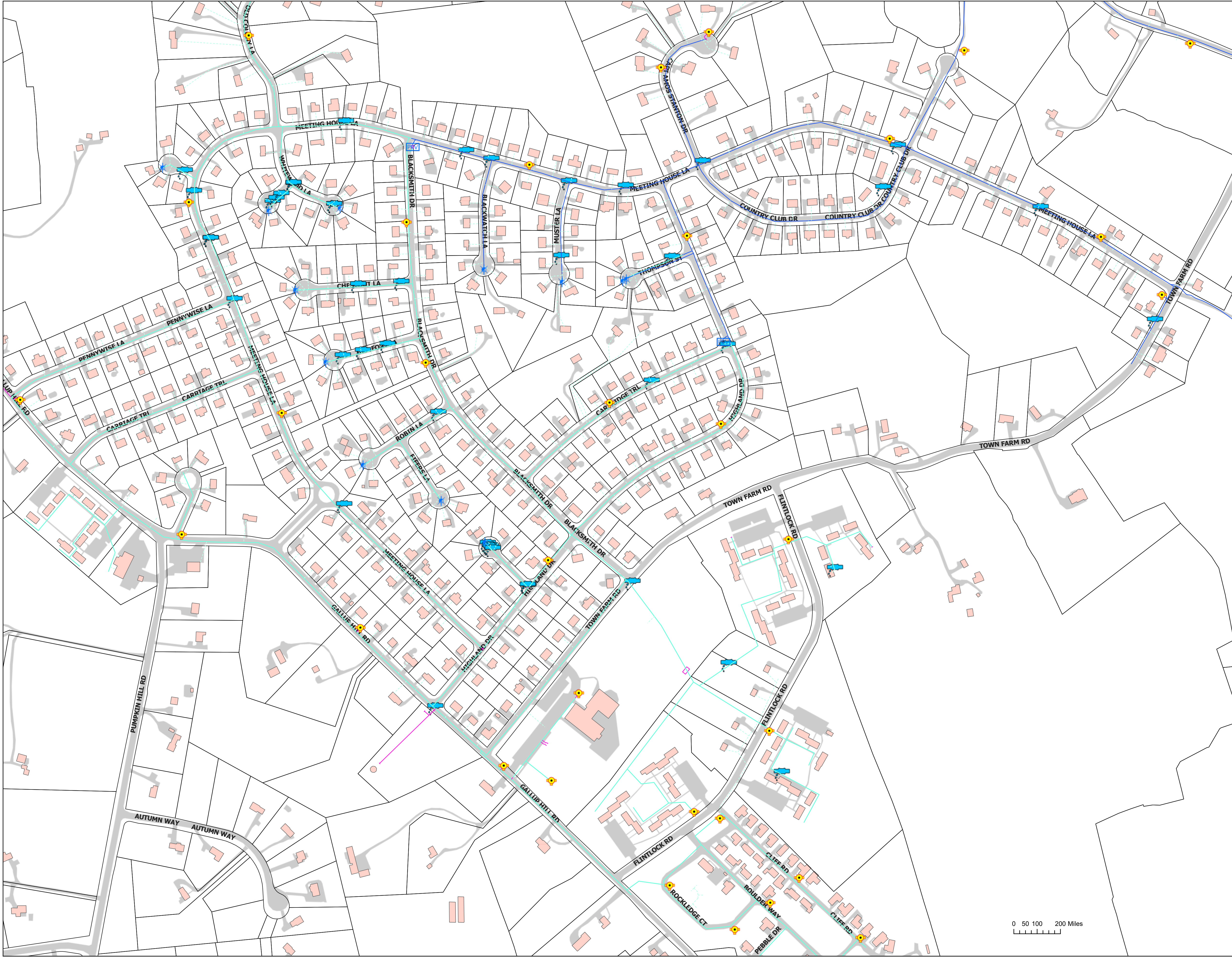
Location: GU Operations Conference Room

In Attendance: Ledyard WPCA Chair: Ed Lynch, Groton Utilities Water: Mike Weber, Joe Pratt, Vince Bartelli, Steve Dietrich, Doug LaFontaine, Kate Blacker, Joe Allyn

1. Status of Ledyard **Hydraulic Model** (Doug LaFontaine, Manager Water Engineering)
 - a. Wright Pierce completed Fire Flows. Water Age & Quality Analysis is in progress. GU will email the WPCA Commissioners when complete
2. **Water Quality** Discussion (Steve Dietrich, Water Quality Manager)
 - a. Current considerations –
 - i. Notice of Violation (NOV) letter (Q2 2025 TTHMs, in Village Dr. neighborhood) will be sent to Ledyard Center residents shortly (Total trihalomethanes, disinfection by-products); The notice was also included in the 2025 Ledyard Center Annual Water Quality Report (CCR) issued recently.
 - ii. Fluoride (water treatment plant chemical) delivery delay, which has caused the GU WTP to temporarily reduce the fluoride dose until the delivery is received.
 - b. Upcoming Regulations 2031– relating to Chlorine & THM's: DPH has shared, most recently at the March 2026 ATCAVE conference, that water companies will need to be in compliance with revisions to the Microbial/Disinfection By Products Rule **by** 2031; regulations currently state that a detectable residual must be maintained throughout a water system. The future regulation is anticipated to require a minimum free chlorine residual of 0.2 mg/L throughout a water system. This change has the potential to negatively impact THM formation at the far ends of both the Gales Ferry and Ledyard Center systems. GU recommends WPCA and Mayor consider an Engineering Study of both water systems to determine best approaches for strategies to balance Chlorine residuals with THMs. With the known challenges of water age/quality and residuals currently in both Ledyard systems, GU recommends starting these efforts (and their budgetary considerations) as soon as possible. Ed asked if chlorine injection stations would be helpful – Steve indicated that the crux of this new regulation will pose a challenge of balance of increased chlorine residual required by DPH but while still managing to keep THMs (disinfection by-products) within the established limits; an engineering study will be best to address this for the specific nature of each consecutive system. GU will provide hydraulic model information. It was later noted in discussion that interconnection with SWCA (increased water usage) would be beneficial to reduce water age.

Monthly GU & WPCA Pre-Meeting -July 2026

- c. GU has vendor product demonstration of automatic flushing and blow-off equipment scheduled for early August to evaluate potential implementation. Wright-Pierce Engineers to consult based on Hydraulic Modeling results – TBD.
- 3. Site Plan Review Process with Ledyard Planning & Zoning
 - a. 740 Colonel Ledyard Highway – **Ledyard Center LLC** (Joe Allyn) -7/16/26
Contractor proceeded without approval, installing water mains, also operated system valving to cut into the water main. GU notified after the 200+ feet of 8” pipe installed. At Ed’s request, GU will document the events and GU is in communication with contractor about addressing this situation.
 - i. Ed will reach out to Planning and Zoning with an update and questions about their approvals
 - b. Habitat for Humanity – **ECHO Homes** – no update
 - c. 1947 Center Groton Road - **EG Shoreline Homes** (Kate)
 - i. Meter Location -revised plan shows individual services, rather than a utility cabinet outside the building
 - 1. Recommendation for WPCA to consider the upcoming Cost of 72 Residential Meters (for future WPCA budgeting)
- 4. Water Main Breaks – (Vince Bartelli)
 - i. Paper Map of Water Main Breaks in Highlands provided at WPCA’s request re: Water Main Replacement Planning Efforts with Steve Maslin
 - ii. GU completed Muster Lane Blow-off repair complete
 - iii. No water main breaks this month
- 5. Lead Service Line Project – 2027 DPH/EPA Deadline approaching;
 - a. Ed indicated that Town funding was recently approved. He will coordinate with Arcadis to proceed.
 - i. Ed will request Arcadis contact CT DPH about Ledyard’s grant application for LSLI project funding
- 6. CBYD Sewer Area – Doug LaFontaine Resent email on 7/16/26 to Steve Banks with information on signing up for separate CBYD Account for Sewer Service Area. Offered GU assistance with any mapping that is required by CBYD for setting up service territory boundary polyline.
 - a. Ed shared the entire Highlands neighborhood sewer main system will be relined in effort to increase system capacity
 - b. Question of whether WPCA will participate in UCONN’s PFAS wastewater study (GU was contacted) Per Steve Banks on 7/17/26: To his knowledge they have not been contacted regarding this.
- 7. Exclusive Water Service Area – Ed indicated that SCWA would like to meet with GU & Ledyard to discuss water rates and provisions, etc. Ed will facilitate meeting.



Streets within the Highlands	Water Main Breaks	Houses Served by street Water Main
	2012- July 2026	
ASPEN LANE	4	5
WHITEWOOD LANE	3	9
BLACKSMITH LANE	0	35
BLACKWATCH LANE	0	12
CAPT AMOS STANTON DRIVE	0	10
CARRIAGE TRAIL	0	13
CARRIDGE TRAIL	1	22
CHESNUT LANE	2	13
COUNTRY CLUB DRIVE	1	26
FIFERS LANE	0	9
ROBIN LANE	1	9
FLINTLOCK DRIVE (PRIVATE)	2	29
GALLUP HILL ROAD (PARTIAL)	1	35
HIGHLAND DRIVE	1	46
MEETINGHOUSE LANE	10	108
MODEL PARK ROAD	0	6
MUSTER LANE	1	12
OLD COLONY LANE	0	19
OLD FORT LANE	3	12
PENNYWISE LANE	0	15
POWDER HORN LANE	6	5
SACHEM LANE	1	4
THOMPSON STREET (WM Replaced)	1	8
TOWN FARM ROAD* (homes w/WM frontage)	2	15
	24	477
Streets	Breaks	Residences

WWCS Manholes

Asset type

- Lamp Hole
- Manhole
- Junction Manhole
- Diversion Manhole
- WWCS Sewer Gravity Mains
- WWCS Sewer Force Mains
- WDS Regional Meters
- WDS Pressure Relief Valves
- WDS Hydrants
- WDS Blow Offs
- WDS Vaults
- WDS Water Service Lines

- Lamp Hole
- Manhole
- Junction Manhole
- Diversion Manhole

WDS Water Main

Service System

- High Service System
- Low Service System
- One Zone

- REF Water Main Breaks and Service Interruptions
- Pole

Conductor

ClassId,Franchise

- HV Transmission,GWE;
- Three Phase OH,BLP;
- Three Phase OH,GWE;
- Two Phase OH,BLP; Two Phase OH,GWE; Single Phase OH,BLP; Single Phase OH,GWE; HV Transmission UG,BLP; Single Phase UG,BLP; Three Phase UG,BLP

- UGE

07/15/2026	KMB	REV. THROUGH JULY 2026
DATE	BY	REVISION
 GROTON UTILITIES		
LEDYARD WATER MAIN BREAKS IN HIGHLANDS NEIGHBORHOOD 2012-2026		
BASE PLAN BY: GWE	DATE: 07/15/2026	SCALE: X:YZ
DRAWN BY:	DATE:	DWG. NO.
DESIGN BY:	DATE:	SHEET 1 OF 1



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1079

Agenda Date: 7/28/2026

Agenda #: 2.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

Service Correspondence.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)

Circular Letter #2026- 14

TO: Public Water Systems Subject to Conn. Gen. Stat. § 19a-38

FROM: Lisa Michelle Morrissey, MPH, Deputy Commissioner

DATE: July 20, 2026

Subject: Fluoridation Chemical Supply Shortage

The Department of Public Health is aware that a national shortage of hydrofluorosilicic acid and related fluoridation chemicals, resulting from disruptions to global supply chains, is affecting the ability of some Connecticut public water systems to maintain required fluoridation levels. Several systems have reported to the Drinking Water Section that their supply is exhausted or is projected to last fewer than 30 days. This memorandum states the Department's position for the duration of the supply disruption.

Statutory Requirement

Conn. Gen. Stat. § 19a-38 requires a water company, as defined in Conn. Gen. Stat. § 25-32a, to add fluoride to any water system it owns and operates that serves 20,000 or more persons, so as to maintain an average monthly fluoride content of 0.7 mg/L, deviating no more than 0.15 mg/L above or below that level. The Department has no authority to waive this requirement or to alter the required levels. The statute remains in full effect, and this memorandum does not relieve any system of its legal obligation to fluoridate.

Department Enforcement Position

The Department recognizes that a system cannot procure a chemical that is unavailable on the market. Accordingly, until October 30, 2026, the Department will not initiate enforcement action under § 19a-38 against a system that is unable to maintain the required fluoride levels because of the shortage.

Any system that believes it will not be able to comply with this requirement should notify the Drinking Water Section in writing as soon as possible.

This position applies only to the current supply disruption and may be modified or withdrawn at any time. A system whose inability to fluoridate is attributable to causes other than the supply shortage remains subject to enforcement.

Dose Reduction

The Department encourages systems that retain partial supply to reduce fluoride dosing in order to extend that supply, rather than ceasing fluoridation abruptly. Major water systems in Maryland and Pennsylvania have taken this approach, reducing dosing from 0.7 mg/L to 0.4 mg/L to maintain consistent fluoridation through the disruption. Any change in dosing should be implemented under the direction of your certified operator. Routine fluoride monitoring and reporting requirements continue to apply, and systems should report actual measured levels.

Questions

Questions regarding this memorandum should be directed to Chris Roy, Drinking Water Section Chief at (860) 509-7333 or dwdcompliance@ct.gov. The Department will continue to monitor the national supply situation and will communicate further guidance as conditions change.



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1080

Agenda Date: 7/28/2026

Agenda #: 3.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

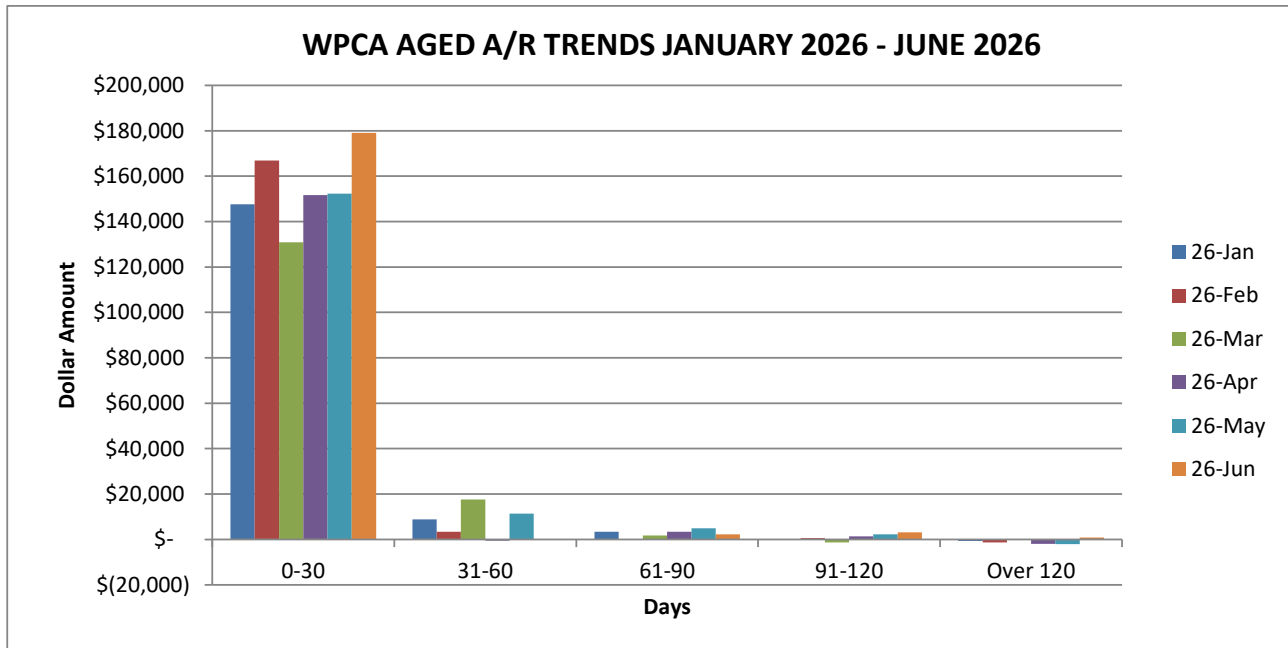
Aged Reports/Finance.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



JAN	JAN	JAN	JAN	JAN	
0-30	31-60	61-90	91-120	OVER 120	
\$ 147,589	\$ 8,846	\$ 3,423	\$ 164	\$ (607)	\$ 159,416

FEB	FEB	FEB	FEB	FEB	
0-30	31-60	61-90	91-120	OVER 120	
\$ 166,928	\$ 3,349	\$ 67	\$ 599	\$ (1,245)	\$ 169,698

MAR	MAR	MAR	MAR	MAR	
0-30	31-60	61-90	91-120	OVER 120	
\$ 130,831	\$ 17,668	\$ 1,797	\$ (1,261)	\$ 250	\$ 149,285

APR	APR	APR	APR	APR	
0-30	31-60	61-90	91-120	OVER 120	
\$ 151,656	\$ (535)	\$ 3,444	\$ 1,419	\$ (1,910)	\$ 154,074

MAY	MAY	MAY	MAY	MAY	
0-30	31-60	61-90	91-120	OVER 120	
\$ 152,326	\$ 11,349	\$ 4,956	\$ 2,207	\$ (1,997)	\$ 168,841

JUN	JUN	JUN	JUN	JUN	
0-30	31-60	61-90	91-120	OVER 120	
\$ 179,147	\$ (44)	\$ 2,239	\$ 3,129	\$ 845	\$ 185,318

Foot Notes:

Cash Collected in the month of June 2026: \$149,285.24



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1081

Agenda Date: 7/28/2026

Agenda #: 4.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

Year to Date Water/Sewer Report.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12							
ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED	
5019001 OTHER-GEN - GRANTS/CONTR							
5019001 49002	TRANSERS IN:						
-100,670.00	0.00	-100,670.00	-100,670.38	0.00	0.38	100.0%	
TOTAL OTHER-GEN - GRANTS/CONTR							
-100,670.00	0.00	-100,670.00	-100,670.38	0.00	0.38	100.0%	
TOTAL REVENUES							
-100,670.00	0.00	-100,670.00	-100,670.38	0.00	0.38		
50190603 SOURCE OF SUPPLY							
50190603 54225	SLUDGE HAULING						
17,300.00	-1,350.00	15,950.00	14,016.11	1,936.95	-3.06	100.0%	
50190603 58100	DUES & FEES						
5,000.00	0.00	5,000.00	2,414.23	0.00	2,585.77	48.3%	
TOTAL SOURCE OF SUPPLY							
22,300.00	-1,350.00	20,950.00	16,430.34	1,936.95	2,582.71	87.7%	
TOTAL EXPENSES							
22,300.00	-1,350.00	20,950.00	16,430.34	1,936.95	2,582.71		
50190611 MAINTENANCE OF STRUCTURE							
50190611 54510	ELECTRICIAN						
3,000.00	0.00	3,000.00	2,378.18	0.00	621.82	79.3%	
TOTAL MAINTENANCE OF STRUCTURE							
3,000.00	0.00	3,000.00	2,378.18	0.00	621.82	79.3%	
TOTAL EXPENSES							
3,000.00	0.00	3,000.00	2,378.18	0.00	621.82		
50190620 WAGES (SEWER)							
50190620 51305	OVERTIME/SEASONAL HELP						
17,500.00	0.00	17,500.00	25,887.48	0.00	-8,387.48	147.9%	

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12								
50190620 WAGES (SEWER)								
	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED	
50190620 51705		LONGEVITY						
	500.00	0.00	500.00	0.00	0.00	500.00	.0%	
TOTAL WAGES (SEWER)	18,000.00	0.00	18,000.00	25,887.48	0.00	-7,887.48	143.8%	
TOTAL EXPENSES	18,000.00	0.00	18,000.00	25,887.48	0.00	-7,887.48		
50190621 EMPLOYEE UNIFORMS								
50190621 52160		EMPLOYEE UNIFORMS						
	1,000.00	0.00	1,000.00	562.29	0.00	437.71	56.2%	
TOTAL EMPLOYEE UNIFORMS	1,000.00	0.00	1,000.00	562.29	0.00	437.71	56.2%	
TOTAL EXPENSES	1,000.00	0.00	1,000.00	562.29	0.00	437.71		
50190623 POWER PURCHASED								
50190623 56200		HEATING OIL/PROPANE						
	3,000.00	0.00	3,000.00	2,410.50	0.00	589.50	80.4%	
50190623 56220		ELECTRICITY						
	50,000.00	-4,100.00	45,900.00	42,086.60	2,863.39	950.01	97.9%	
50190623 56261		GASOLINE/DESIEL						
	4,500.00	0.00	4,500.00	3,940.54	32.00	527.46	88.3%	
TOTAL POWER PURCHASED	57,500.00	-4,100.00	53,400.00	48,437.64	2,895.39	2,066.97	96.1%	
TOTAL EXPENSES	57,500.00	-4,100.00	53,400.00	48,437.64	2,895.39	2,066.97		
50190624 PUMPING SUPPLY & EXPENSE								
50190624 56914		PUMPING SUPPLY & EXPENSE						
	3,300.00	0.00	3,300.00	1,645.40	0.00	1,654.60	49.9%	
TOTAL PUMPING SUPPLY & EXPENSE	3,300.00	0.00	3,300.00	1,645.40	0.00	1,654.60	49.9%	
TOTAL EXPENSES	3,300.00	0.00	3,300.00	1,645.40	0.00	1,654.60		

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12							
50190641 CHEMICALS	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
50190641 CHEMICALS							
50190641 56912	CHEMICALS						
	23,000.00	11,081.10	34,081.10	33,554.53	0.00	526.57	98.5%
TOTAL CHEMICALS							
	23,000.00	11,081.10	34,081.10	33,554.53	0.00	526.57	98.5%
TOTAL EXPENSES							
	23,000.00	11,081.10	34,081.10	33,554.53	0.00	526.57	
50190643 TREATMENT EXPENSE							
50190643 56916	TREATMENT EXPENSE						
	5,000.00	-4,021.00	979.00	979.00	0.00	0.00	100.0%
TOTAL TREATMENT EXPENSE							
	5,000.00	-4,021.00	979.00	979.00	0.00	0.00	100.0%
TOTAL EXPENSES							
	5,000.00	-4,021.00	979.00	979.00	0.00	0.00	
50190663 METER EXPENSE							
50190663 53710	METER CALIBRATION EXPENSE						
	950.00	0.00	950.00	950.00	0.00	0.00	100.0%
TOTAL METER EXPENSE							
	950.00	0.00	950.00	950.00	0.00	0.00	100.0%
TOTAL EXPENSES							
	950.00	0.00	950.00	950.00	0.00	0.00	
50190673 MAINTENANCE OF MAINS							
50190673 54515	MAINTENANCE OF MAINS						
	3,000.00	0.00	3,000.00	574.77	0.00	2,425.23	19.2%
TOTAL MAINTENANCE OF MAINS							
	3,000.00	0.00	3,000.00	574.77	0.00	2,425.23	19.2%
TOTAL EXPENSES							
	3,000.00	0.00	3,000.00	574.77	0.00	2,425.23	

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12								
50190678 MAINTENANCE OF MISC. PLANT		ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
50190678 MAINTENANCE OF MISC. PLANT								
50190678 54505	MAINTENANCE OF MISC. PLA	12,000.00	6,100.00	18,100.00	15,334.98	1,581.95	1,183.07	93.5%
50190678 56802	SAFETY EQUIPMENT	1,000.00	0.00	1,000.00	495.00	0.00	505.00	49.5%
50190678 56804	LAB EQUIPMENT	2,900.00	-1,410.10	1,489.90	1,453.50	0.00	36.40	97.6%
TOTAL MAINTENANCE OF MISC. PLANT		15,900.00	4,689.90	20,589.90	17,283.48	1,581.95	1,724.47	91.6%
TOTAL EXPENSES		15,900.00	4,689.90	20,589.90	17,283.48	1,581.95	1,724.47	
50190920 PLANT OPERATIONS WAGES								
50190920 51610	SUPERVISORS	97,666.00	0.00	97,666.00	93,641.64	0.00	4,024.36	95.9%
50190920 51635	SHIFT OPERATOR	76,940.00	0.00	76,940.00	69,143.42	0.00	7,796.58	89.9%
50190920 51640	LAB TECHNICIAN	57,408.00	0.00	57,408.00	50,506.99	0.00	6,901.01	88.0%
TOTAL PLANT OPERATIONS WAGES		232,014.00	0.00	232,014.00	213,292.05	0.00	18,721.95	91.9%
TOTAL EXPENSES		232,014.00	0.00	232,014.00	213,292.05	0.00	18,721.95	
50190921 MISC								
50190921 54150	LAKESIDE MAINTENANCE	3,000.00	0.00	3,000.00	500.00	0.00	2,500.00	16.7%
50190921 54420	FINANCE DEPT SERVICES	7,000.00	0.00	7,000.00	17,500.00	0.00	-10,500.00	250.0%
50190921 56100	OPERATING EXPENSES	11,000.00	-2,300.00	8,700.00	5,033.40	822.99	2,843.61	67.3%
50190921 58810	GEN OBLIGATION BOND PRINCIPAL	72,682.00	0.00	72,682.00	0.00	0.00	72,682.00	.0%

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12								
50190921 MISC								
	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED	
50190921 58811	27,988.00	GEN OBLIGATION BOND INTEREST 0.00	27,988.00	14,308.87	0.00	13,679.13	51.1%	
50190921 59300	0.00	TRANSFERRED FUNDS 0.00	0.00	62,500.00	0.00	-62,500.00	100.0%	
TOTAL MISC	121,670.00	-2,300.00	119,370.00	99,842.27	822.99	18,704.74	84.3%	
	121,670.00	TOTAL EXPENSES -2,300.00	119,370.00	99,842.27	822.99	18,704.74		
50190923 PROFESSIONAL FEES								
50190923 53600	3,000.00	ACCOUNTING SERVICES/AUDIT 0.00	3,000.00	1,470.00	30.00	1,500.00	50.0%	
50190923 53705	8,200.00	LABORATORY TESTS 2,300.00	10,500.00	9,474.00	1,026.00	0.00	100.0%	
50190923 58110	1,500.00	TRAINING/MTGS/DUES/SUBSCRIP 0.00	1,500.00	1,165.63	0.00	334.37	77.7%	
TOTAL PROFESSIONAL FEES	12,700.00	2,300.00	15,000.00	12,109.63	1,056.00	1,834.37	87.8%	
	12,700.00	TOTAL EXPENSES 2,300.00	15,000.00	12,109.63	1,056.00	1,834.37		
50190926 BENEFITS								
50190926 52000	75,106.00	HEALTH CARE 0.00	75,106.00	0.00	0.00	75,106.00	.0%	
50190926 52300	21,243.00	RETIREMENT 0.00	21,243.00	0.00	0.00	21,243.00	.0%	
50190926 52500	17,768.00	SOCIAL SECURITY 0.00	17,768.00	0.00	0.00	17,768.00	.0%	
50190926 52900	8,979.00	WORKER'S COMP GEN GOV 0.00	8,979.00	0.00	0.00	8,979.00	.0%	
TOTAL BENEFITS	123,096.00	0.00	123,096.00	0.00	0.00	123,096.00	.0%	
	123,096.00	TOTAL EXPENSES 0.00	123,096.00	0.00	0.00	123,096.00		
50190933 TRANSPORTATION EXPENSE								
50190933 54305		VEHICLE MAINTENANCE						

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12							
50190933	TRANSPORTATION EXPENSE						
	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
	2,000.00	1,200.00	3,200.00	2,801.38	0.00	398.62	87.5%
TOTAL TRANSPORTATION EXPENSE	2,000.00	1,200.00	3,200.00	2,801.38	0.00	398.62	87.5%
TOTAL EXPENSES	2,000.00	1,200.00	3,200.00	2,801.38	0.00	398.62	
50190990 CAPITAL							
50190990 57505	SEWER TIE IN						
	1,000.00	0.00	1,000.00	0.00	0.00	1,000.00	.0%
TOTAL CAPITAL	1,000.00	0.00	1,000.00	0.00	0.00	1,000.00	.0%
TOTAL EXPENSES	1,000.00	0.00	1,000.00	0.00	0.00	1,000.00	
50190991 CONTINGENCY							
50190991 58910	CONTINGENCY						
	10,000.00	-7,500.00	2,500.00	2,335.00	0.00	165.00	93.4%
50190991 59305	CONTRIBUTION TO CNR						
	20,000.00	0.00	20,000.00	0.00	0.00	20,000.00	.0%
TOTAL CONTINGENCY	30,000.00	-7,500.00	22,500.00	2,335.00	0.00	20,165.00	10.4%
TOTAL EXPENSES	30,000.00	-7,500.00	22,500.00	2,335.00	0.00	20,165.00	
50191627 GU OPERATING AGREEMENT							
50191627 53726	GU CUSTOMER SERVICE						
	18,585.86	0.00	18,585.86	17,037.07	1,548.83	-0.04	100.0%
TOTAL GU OPERATING AGREEMENT	18,585.86	0.00	18,585.86	17,037.07	1,548.83	-0.04	100.0%
TOTAL EXPENSES	18,585.86	0.00	18,585.86	17,037.07	1,548.83	-0.04	
5019701 SEWER-CHARGE / SERVICE							

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12							
5019701 SEWER-CHARGE / SERVICE	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
5019701 46020	SEWER USAGE CHARGES						
	-592,845.86	0.00	-592,845.86	-550,827.45	0.00	-42,018.41	92.9%
5019701 46021	SEWER LATE FEE						
	-500.00	0.00	-500.00	-138.67	0.00	-361.33	27.7%
5019701 46024	SEWER MISC						
	0.00	0.00	0.00	-170.36	0.00	170.36	100.0%
5019701 46044	WPCA REV NON CUSI						
	0.00	0.00	0.00	-540.00	0.00	540.00	100.0%
TOTAL SEWER-CHARGE / SERVICE							
	-593,345.86	0.00	-593,345.86	-551,676.48	0.00	-41,669.38	93.0%
TOTAL REVENUES							
	-593,345.86	0.00	-593,345.86	-551,676.48	0.00	-41,669.38	
5019702 SEWER-GRANTS/CONTR							
5019702 42029	STATE GRANTS - SEWER						
	0.00	0.00	0.00	-479.00	0.00	479.00	100.0%
TOTAL SEWER-GRANTS/CONTR							
	0.00	0.00	0.00	-479.00	0.00	479.00	100.0%
TOTAL REVENUES							
	0.00	0.00	0.00	-479.00	0.00	479.00	
GRAND TOTAL							
	0.00	0.00	0.00	-156,725.35	9,842.11	146,883.24	100.0%

** END OF REPORT - Generated by Ian Stammel **

YEAR-TO-DATE BUDGET REPORT

REPORT OPTIONS

Sequence	Field #	Total	Page Break
Sequence 1	9	Y	N
Sequence 2	0	N	N
Sequence 3	0	N	N
Sequence 4	0	N	N

Report title:
YEAR-TO-DATE BUDGET REPORT

Includes accounts exceeding 0% of budget.

Print totals only: N

Print Full or Short description: F

Print full GL account: N

Format type: 1

Double space: N

Suppress zero bal accts: Y

Include requisition amount: N

Print Revenues-Version headings: N

Print revenue as credit: Y

Print revenue budgets as zero: N

Include Fund Balance: N

Print journal detail: N

From Yr/Per: 2026/ 1

To Yr/Per: 2026/13

Include budget entries: Y

Incl encumb/liq entries: Y

Sort by JE # or PO #: J

Detail format option: 1

Include additional JE comments: N

Multiyear view: D

Amounts/totals exceed 999 million dollars: N

Year/Period: 2026/12

Print MTD Version: N

Roll projects to object: N

Carry forward code: 1

Find Criteria
Field Name Field value

Fund 0501

TWN FUNCTION

DEPT / LOCAT

SDEP/BOEFUNC

Character Code

Org

Object

Project

Account type

Account status

Rollup code

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12							
ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED	
5059001 OTHER-GEN - GRANTS/CONTR							
5059001 49002	TRANSERS IN:						
-321,250.00	0.00	-321,250.00	-296,447.18	0.00	-24,802.82	92.3%	
TOTAL OTHER-GEN - GRANTS/CONTR							
-321,250.00	0.00	-321,250.00	-296,447.18	0.00	-24,802.82	92.3%	
TOTAL REVENUES							
-321,250.00	0.00	-321,250.00	-296,447.18	0.00	-24,802.82		
50590991 CONTRIBUTION TO CNR							
50590991 59305	CONTRIBUTION TO CNR						
130,000.00	0.00	130,000.00	0.00	0.00	130,000.00	.0%	
TOTAL CONTRIBUTION TO CNR							
130,000.00	0.00	130,000.00	0.00	0.00	130,000.00	.0%	
TOTAL EXPENSES							
130,000.00	0.00	130,000.00	0.00	0.00	130,000.00		
50591603 SOURCE OF SUPPLY							
50591603 58100	DUES & FEES						
3,100.00	0.00	3,100.00	1,063.01	470.00	1,566.99	49.5%	
TOTAL SOURCE OF SUPPLY							
3,100.00	0.00	3,100.00	1,063.01	470.00	1,566.99	49.5%	
TOTAL EXPENSES							
3,100.00	0.00	3,100.00	1,063.01	470.00	1,566.99		
50591623 POWER PURCHASED							
50591623 56225	POWER PURCHASED						
10,000.00	0.00	10,000.00	13,866.78	1,133.22	-5,000.00	150.0%	
TOTAL POWER PURCHASED							
10,000.00	0.00	10,000.00	13,866.78	1,133.22	-5,000.00	150.0%	
TOTAL EXPENSES							
10,000.00	0.00	10,000.00	13,866.78	1,133.22	-5,000.00		

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12							
50591626 GU OPERATION-EMERGENCY	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
50591626 GU OPERATION-EMERGENCY							
50591626 53720	9,000.00	GU OPERATING--EMERGENCY 0.00	9,000.00	24,059.19	1,401.13	-16,460.32	282.9%
TOTAL GU OPERATION-EMERGENCY	9,000.00	0.00	9,000.00	24,059.19	1,401.13	-16,460.32	282.9%
TOTAL EXPENSES	9,000.00	0.00	9,000.00	24,059.19	1,401.13	-16,460.32	
50591627 GU OPERATING AGREEMENT ANNUAL							
50591627 53725	330,986.00	GU OPERATING AGREEMENT ANNUAL 0.00	330,986.00	303,403.87	27,582.13	0.00	100.0%
50591627 53726	105,319.85	GU CUSTOMER SERVICE 0.00	105,319.85	96,543.43	8,776.67	-0.25	100.0%
TOTAL GU OPERATING AGREEMENT ANNUAL	436,305.85	0.00	436,305.85	399,947.30	36,358.80	-0.25	100.0%
TOTAL EXPENSES	436,305.85	0.00	436,305.85	399,947.30	36,358.80	-0.25	
50591663 METER/SYSTEMS EXPENSE							
50591663 54110	350,000.00	RTE 12 WATER PURCHASED USED 0.00	350,000.00	294,097.16	55,902.84	0.00	100.0%
50591663 54115	400,000.00	ROUTE 117 WATER PURCHASED USED 0.00	400,000.00	323,724.94	41,669.00	34,606.06	91.3%
50591663 54120	16,000.00	METER EQUIPMENT 0.00	16,000.00	1,016.96	3,983.04	11,000.00	31.3%
TOTAL METER/SYSTEMS EXPENSE	766,000.00	0.00	766,000.00	618,839.06	101,554.88	45,606.06	94.0%
TOTAL EXPENSES	766,000.00	0.00	766,000.00	618,839.06	101,554.88	45,606.06	
50591921 MISC							
50591921 54420	26,000.00	FINANCE DEPT SERVICES 0.00	26,000.00	32,500.00	0.00	-6,500.00	125.0%

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12								
50591921 MISC								
	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED	
50591921 54506 FIRE HYDRANT MAINTENANCE								
	14,400.00	0.00	14,400.00	-8,175.00	0.00	22,575.00	-56.8%	
50591921 58810 GEN OBLIGATION BOND PRINCIPAL								
	20,799.00	0.00	20,799.00	0.00	0.00	20,799.00	.0%	
50591921 58811 GEN OBLIGATION BOND INTEREST								
	2,829.00	0.00	2,829.00	1,206.32	0.00	1,622.68	42.6%	
50591921 58820 CWF/DWSRF LOAN PRINCIPAL								
	260,920.00	0.00	260,920.00	0.00	0.00	260,920.00	.0%	
50591921 58821 CWF/DWSRF LOAN INTEREST								
	36,702.00	0.00	36,702.00	33,844.62	0.00	2,857.38	92.2%	
50591921 59300 TRANSFERRED FUNDS								
	0.00	0.00	0.00	187,500.00	0.00	-187,500.00	100.0%	
TOTAL MISC								
	361,650.00	0.00	361,650.00	246,875.94	0.00	114,774.06	68.3%	
TOTAL EXPENSES								
	361,650.00	0.00	361,650.00	246,875.94	0.00	114,774.06		
50591923 PROFESSIONAL FEES								
50591923 53600 ACCOUNTING SERVICES/AUDIT								
	9,738.00	0.00	9,738.00	8,330.00	170.00	1,238.00	87.3%	
TOTAL PROFESSIONAL FEES								
	9,738.00	0.00	9,738.00	8,330.00	170.00	1,238.00	87.3%	
TOTAL EXPENSES								
	9,738.00	0.00	9,738.00	8,330.00	170.00	1,238.00		
50591926 BENEFITS								
50591926 52300 RETIREMENT								
	4,261.50	0.00	4,261.50	0.00	0.00	4,261.50	.0%	
TOTAL BENEFITS								
	4,261.50	0.00	4,261.50	0.00	0.00	4,261.50	.0%	
TOTAL EXPENSES								
	4,261.50	0.00	4,261.50	0.00	0.00	4,261.50		
50591991 CONTINGENCY								
50591991 58910 CONTINGENCY								
	20,476.45	0.00	20,476.45	0.00	0.00	20,476.45	.0%	

Town and Schools of Ledyard

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12								
50591991	CONTINGENCY							
	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED	
50591991 58911	15,000.00	LEAK TEST 0.00	15,000.00	7,658.60	0.00	7,341.40	51.1%	
	TOTAL CONTINGENCY							
	35,476.45	0.00	35,476.45	7,658.60	0.00	27,817.85	21.6%	
	TOTAL EXPENSES							
	35,476.45	0.00	35,476.45	7,658.60	0.00	27,817.85		
50591999 MISC REFUNDS								
50591999 58505	0.00	MISC REFUNDS 0.00	0.00	754.45	0.00	-754.45	100.0%	
	TOTAL MISC REFUNDS							
	0.00	0.00	0.00	754.45	0.00	-754.45	100.0%	
	TOTAL EXPENSES							
	0.00	0.00	0.00	754.45	0.00	-754.45		
5059801 WATER-CHARGE / SERVICE								
5059801 46045	-5,000.00	NEW METER CHARGE 0.00	-5,000.00	0.00	0.00	-5,000.00	.0%	
5059801 46046	-3,000.00	WATER MISC 0.00	-3,000.00	-15,568.45	0.00	12,568.45	518.9%	
5059801 46048	-5,000.00	NEW CONNECTION REVENUE 0.00	-5,000.00	-4,300.00	0.00	-700.00	86.0%	
5059801 46049	-21,000.00	TRANSMISSION FEE MONTVILLE WAT 0.00	-21,000.00	-10,347.08	0.00	-10,652.92	49.3%	
5059801 46050	-1,395,881.80	WATER USAGE CHARGE 0.00	-1,395,881.80	-1,289,618.55	0.00	-106,263.25	92.4%	
5059801 46051	0.00	WATER LATE FEE 0.00	0.00	-1,477.02	0.00	1,477.02	100.0%	
5059801 46053	0.00	WATER ASSESSMENT 0.00	0.00	-11,283.73	0.00	11,283.73	100.0%	
5059801 46054	-14,400.00	HYDRANT MAINTENANCE 0.00	-14,400.00	0.00	0.00	-14,400.00	.0%	
	TOTAL WATER-CHARGE / SERVICE							
	-1,444,281.80	0.00	-1,444,281.80	-1,332,594.83	0.00	-111,686.97	92.3%	
	TOTAL REVENUES							
	-1,444,281.80	0.00	-1,444,281.80	-1,332,594.83	0.00	-111,686.97		
	GRAND TOTAL							
	0.00	0.00	0.00	-307,647.68	141,088.03	166,559.65	100.0%	

YEAR-TO-DATE BUDGET REPORT

FOR 2026 12

5059801	WATER-CHARGE / SERVICE							
	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED	

** END OF REPORT - Generated by Ian Stammel **

YEAR-TO-DATE BUDGET REPORT

REPORT OPTIONS

Sequence	Field #	Total	Page Break
Sequence 1	9	Y	N
Sequence 2	0	N	N
Sequence 3	0	N	N
Sequence 4	0	N	N

Report title:
YEAR-TO-DATE BUDGET REPORT

Includes accounts exceeding 0% of budget.

Print totals only: N

Print Full or Short description: F

Print full GL account: N

Format type: 1

Double space: N

Suppress zero bal accts: Y

Include requisition amount: N

Print Revenues-Version headings: N

Print revenue as credit: Y

Print revenue budgets as zero: N

Include Fund Balance: N

Print journal detail: N

From Yr/Per: 2026/ 1

To Yr/Per: 2026/13

Include budget entries: Y

Incl encumb/liq entries: Y

Sort by JE # or PO #: J

Detail format option: 1

Include additional JE comments: N

Multiyear view: D

Amounts/totals exceed 999 million dollars: N

Year/Period: 2026/12

Print MTD Version: N

Roll projects to object: N

Carry forward code: 1

Find Criteria
Field Name Field value

Fund 0505

TWN FUNCTION

DEPT / LOCAT

SDEP/BOEFUNC

Character Code

Org

Object

Project

Account type

Account status

Rollup code



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1082

Agenda Date: 7/28/2026

Agenda #: 5.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

PSR - Steve Banks.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)

**Town of Ledyard
Highlands W.W.T.F.
Plant Supervisor's Report
Meeting July 28, 2026**

The goal of the plant staff is to efficiently collect and treat the wastewater and to produce the best quality effluent possible while maintaining the equipment and protecting the Town's assets.

- Aquia Providence from CTRWWA will be giving a presentation on USDA funding and lead /copper rule at the next WPCA meeting.
- Closed out most of the PO's for FY 2026. Opened new PO's for FY 2027.
- Purchased new odor control system for solids thickening room. (Jim Seiler).
- Clow valve on backwash filters # 1 has been repaired. Valve is back in service.
- Trying to re-register the e-Catcher system for our mobile phones. The original registration through Xylem has expired. This allows us to see the SCADA system of the facility on our phones.
- Scheduling a date with CT DEEP for sanitary sewer collection inspection.
- Need to replace hose on Truck loading truck (thickened sludge) pump.
- Recent rain events caused high influent flow alarms at the plant.

Respectfully,

Stephen W.
Banks



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1086

Agenda Date: 7/28/2026

Agenda #: 6.

AGENDA ITEM
CORRESPONDENCE

Subject:

Town Council Action Letter from Roxanne Maher dated July 29, 2026.

Correspondence List:

(type text here)



Chairman Gary St. Vil

TOWN OF LEDYARD CONNECTICUT TOWN COUNCIL

741 Colonel Ledyard Highway
Ledyard, CT 06339-1551
(860) 464-3203
council@ledyardct.org

July 9, 2026

Chairman Ed Lynch
Ledyard Water Pollution Control Authority
11 Red Brook Lane
Ledyard, Connecticut 06339

Dear Chairman Lynch:

At its Regular Meeting held on July 8, 2026 the Town Council took the following actions:

- Granted a bid waiver to CorrTech Inc., in the amount of up-to \$7,500 for the inspection of the Holmberg Underground Surge Tank.
- Approved a proposed "*Memorandum of Understanding Between the Town of Ledyard And the Ledyard Water Pollution Control Authority Regarding Financial Commitments for the Federally Mandated Lead and Copper Service Line Survey*" as presented in the draft dated July 1, 2026.

Please make arrangements with the Mayor's Office to sign the Memorandum of Understanding at your earliest convenience.

Please feel free to contact Chairman St. Vil should you have any questions regarding this meeting.

Respectfully submitted,

Roxanne M. Maher
Administrative Assistant
to the Ledyard Town Council

Attachment

MEMORANDUM OF UNDERSTANDING
BETWEEN THE TOWN OF LEDYARD AND
THE LEDYARD WATER POLLUTION CONTROL AUTHORITY
REGARDING FINANCIAL COMMITMENTS
FOR THE FEDERALLY MANDATED
LEAD AND COPPER SERVICE LINE SURVEY

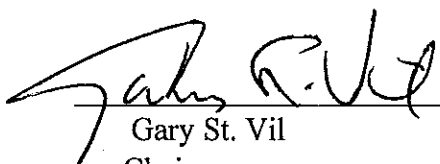
The purpose of this Memorandum of Understanding is to establish the financial commitments between the Town of Ledyard (The "Town") and the Ledyard Water Pollution Control Authority (The "WPCA") for funding of the required lead and copper service line survey.

- The Town will commit funding up to \$215,000 to fund the cost of the conducting a lead and copper service line survey of the water system under the WPCA's authority.
- The WPCA shall repay the loan to the Town of up to \$215,000, amortized over a Ten (10) year term, with an interest rate of Two (2%) PERCENT and a semi-annual payment of up-to Eleven Thousand Nine Hundred and Fourteen (\$11,914.29) DOLLARS and Twenty Nine cents.
- Semi-Annual payments shall commence on _____, 2026 and continue until paid in full.
- The WPCA shall set their rates to accurately incorporate the cost of said loan principal and interest payments.
- Any grants or other payments received to offset said cost of the lead and copper service line study shall be directly applied to the loan to offset debt reduction in each fiscal year.
- The loan shall be carried as a long-term liability in the WPCA budget and represented in the Town budget as a revenue (interest portion) and receivable (loan portion).
- The WPCA shall continue to submit to the Town Council its annual budget for inclusion in the Town Budget. The Town Council may advise with WPCA on individual line items but final budgetary approval will rest with the WPCA.
- This Agreement shall be binding upon the approval of the Town Council and the WPCA.

Water Pollution Control Authority Approved on: June 9, 2026

Town Council Approved on July 8, 2026

Mayor Approved on: July 14, 2026



Gary St. Vil
Chairman
Ledyard Town Council

Fred B. Allyn III
Mayor
Town of Ledyard

Ed Lynch
Chairman
Ledyard WPCA



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1096

Agenda Date: 7/28/2026

Agenda #: 7.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

Discussion and possible action on SCWA's rejection of proposed water rate.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1094

Agenda Date: 7/28/2026

Agenda #: 1.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

740 Colonel Ledyard Highway Discussion

Background:

(type text here)

Department Comment/Recommendation:

(type text here)

water pollution control authority

Elizabeth Burdick

Blacker, Katherine <blackerk@grotonutilities.com>

Hi Liz! In my meeting last week with GU it was revealed that Sal's contractor hooked up water to their fire suppression system in the old school building without any formal prior approval from GU. This is a serious issue because we don't know what they did (no pre-approval, no inspection before back fill and no sanitization protocol followed!) and now there is a risk of contaminating the whole Ledyard / Groton water system!

So, no developer / application should be approved until you see a formal utility site plan that has been signed off by GU and eventually ALL work needs to be inspected, and sanitization protocols followed after construction.

Of course, Ledyard WPCA should signoff too but our signature just means we understand and agree to what GU the experts recommend!

Thanks!

Ed Lynch, WPCA
Mobile 646-732-9224

Discussion regarding the now-existing condition of 740 Colonel Ledyard Highway fire service.

1. What are next steps for getting this leg of service approved and operational?
2. How doe this affect the PZ#26-1SITE application?
3. Making sure all parties are aligned moving forward with this project.

Sal and Normand,

Please make sure all associated contractors and designers are involved in this discussion.

If an alternate time needs to be proposed, or there are any questions, please email me!

Thanks,

Joe

Underground Fire Line Installation Clarification

Joseph,

I apologize if there was any misunderstanding. I was explaining the work based on how it had been described to me following our meeting with you, Rich (the sprinkler contractor), and my colleague Bruno.

Our understanding was that we were to tie into the existing line at the location shown on the attached drawing and run the line to the building as indicated. At the time, there was no indication that we were to wait or that any additional steps or approvals were required before proceeding with the installation.

I have attached the submittal package for the materials that were used, along with the hydrostatic test results. We contacted you to perform the final inspection, and it was at that time that we learned we were not to proceed any further.

At this point, we will remove the backfill that was placed over the Secure Pipe so that the entire installation is 100% exposed for your review.

If an as-built drawing is required, we can have our engineer prepare and provide one.

I see that a meeting has been scheduled for the 27th. I will coordinate with all parties to ensure everyone is available to attend.

Again, I apologize for the misunderstanding, and we appreciate your time and cooperation. We look forward to resolving this matter.

Thank you,

Sal Monarca II

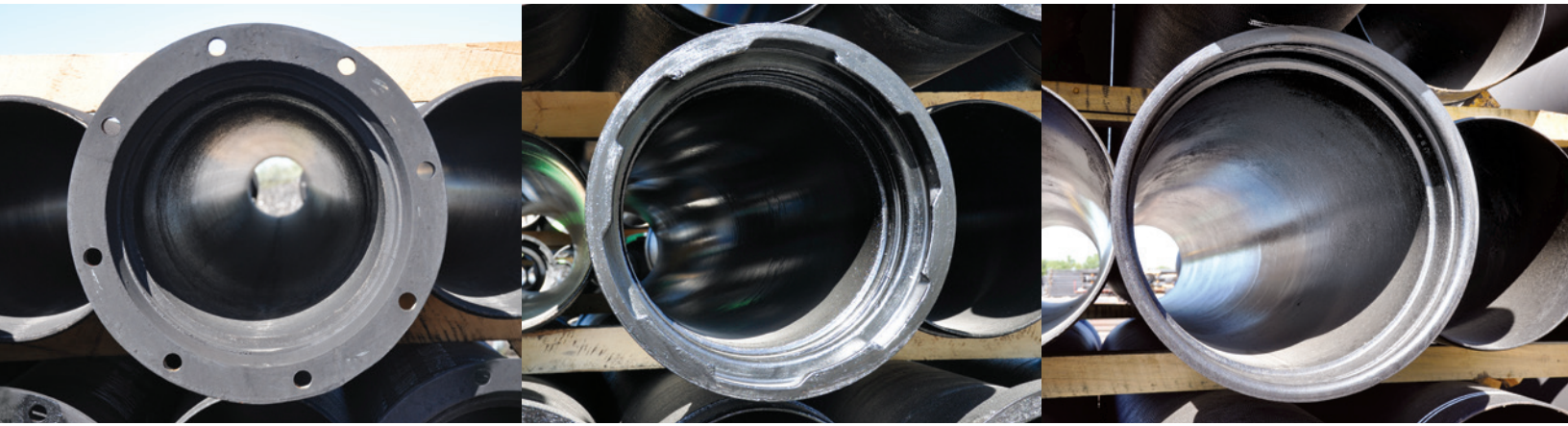


SPECIAL SERVICES

Large Wet Taps

[illegible]

MCWANE DUCTILE IRON PIPE



Boltless restrained joint systems • Multiple design options available from 3"–36" •
Fast and easy installation • 350 psi pressure rating • Independently tested



IRON STRONG

mcwaneductile.com

SURE STOP® GASKET FOR TYTON® JOINT

Size In.	Rating psi	Deflection Degrees
3	350	5
4	350	5
6	350	5
8	350	5
10	350	5
12	350	5
14	350	4
16	350	4
18	350	4
20	350	2.5
24	350	2.5

SURE STOP 350® GASKETS are available in sizes 3 in. – 24 in., and with a rating of 350 psi they will meet or exceed the capabilities of ductile iron pipe, valves, and fittings.

SURE STOP 350® GASKETS are NSF 61 approved, UL listed, and FM approved.

FM Rating: 4 in. – 6 in. = 250 psi
18 in. – 24 in. = 200 psi

APPLICATION NOTES

- For ductile iron applications utilizing TYTON® pipe, vales, and fittings made to AWWA specifications.
- In cold weather assembly maintain the temperature of the gasket above 40° F.
- The socket of the joint should be clean and free of debris or significant corrosion.
- Gasket should be properly seated in the bell socket.
- Keep the pipe and joint in alignment during assembly. If installed out of alignment, the gasket can be pushed out of position, creating the potential for leaks or failure.
- If deflection is wanted in the joint, deflect before fully inserting the joint.
- Some extension of the joint will occur when pressurized. To avoid this, the joint should be pulled out after assembly to “set” the stainless steel teeth in the inserted pipe.
- Once assembled, the joint can be disassembled using steel shims.
- When cut pipe is used, the following steps are required:
 - Ensure that the spigot end is properly beveled
 - Mark the joint depth on the spigot so it is clear when the joint is fully inserted.
 - Ensure that the pipe meets the required dimensional tolerances.
- Do not reuse SURE STOP 350® GASKETS, as they may have been damaged during any previous installation or during removal.
- Do not use SURE STOP 350® GASKETS to conduct electricity through the pipe joint, as they could be damaged and fail.
- Do not use SURE STOP 350® GASKETS in above ground applications.
- Do not use SURE STOP 350® GASKETS with thick coating on the pipe exterior.
- If SURE STOP 350® GASKETS are used in straight casings, you must pull the pipe through the casing. Do not push the pipe.

FIELD CUT PIPE

When pipe is cut in the field, the cut end may be readily conditioned so that it can be used to make up the next joint. The outside of the cut end should be beveled about 1/4-inch at an angle of about 30 degrees (Figure 1). This can be quite easily done with a coarse file or a portable grinder. The operation removes any sharp, rough edges which otherwise might damage the gasket.

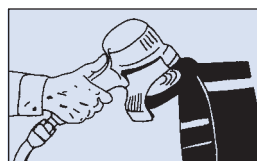
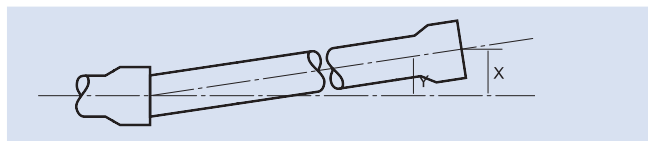


Figure 1

When ductile iron pipe 14 in. and larger is to be cut in the field, the material should be ordered as “GAUGED FULL LENGTH”. Pipe that is “gauged full length” is specially marked to avoid confusion. The ANSI/AWWA standard for ductile iron pipe requires factory gauging of the spigot end. Accordingly, pipe selected for field cutting should also be field gauged in the location of the cut and found to be within the tolerances shown in Table 1. In the field, a mechanical joint gland can be used as a gauging device.

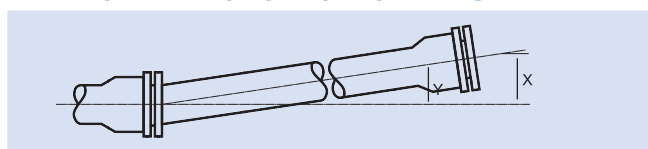
JOINT DEFLECTION CHART



PUSH-ON JOINT PIPE Maximum Allowable Joint Deflection

Pipe Size In.	Y-Maximum Joint Deflection in Degrees	X Deflection in Inches 18 ft. Length	Approximate Radius in ft. of Curve Produced by Succession of Joints 18 ft. Length
3	5°	19	205
4	5°	19	205
6	5°	19	205
8	5°	19	205
10	5°	19	205
12	5°	19	205
14	5°	19	205
16	5°	19	205
18	5°	19	205
20	5°	19	205
24	5°	19	205
30	5°	19	205
36	4°	15	260

MAXIMUM DEFLECTION FOR FULL LENGTH PIPE



MECHANICAL JOINT PIPE Maximum Allowable Joint Deflection

Pipe Size In.	Y-Maximum Joint Deflection in Degrees	X Deflection in Inches 18 ft. Length	Approximate Radius in ft. of Curve Produced by Succession of Joints 18 ft. Length
6	7°–7'	27	145
8	5°–21'	20	195
10	5°–21'	20	195
12	5°–21'	20	195
14	3°–35'	13.5	285
16	3°–35'	13.5	285
18	3°–0'	11	340
20	3°–0'	11	340
24	2°–23'	9	450

TABLE 1: SUITABLE PIPE DIAMETERS FOR FIELD CUTS AND RESTRAINED JOINT FIELD FABRICATION

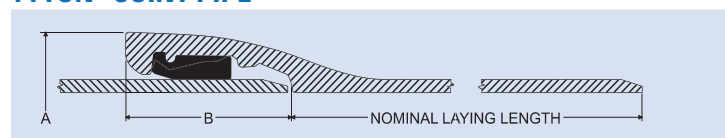
Pipe Size In.	Min. Pipe Diameter In.	Max. Pipe Diameter In.	Min. Pipe Circumference In.	Max. Pipe Circumference In.
3	3.9	4.02	12-1/4	12-5/8
4	4.74	4.86	14-29/32	15-9/32
6	6.84	6.96	21-1/2	21-7/8
8	8.99	9.11	28-1/4	28-5/8
10	11.04	11.16	34-11/16	35-1/16
12	13.14	13.26	41-9/32	41-21/32
14	15.22	15.35	47-13/16	48-7/32
16	17.32	17.45	54-13/32	54-13/16
18	19.42	19.55	61	61-13/32
20	21.52	21.65	67-19/32	68
24	25.72	25.85	80-13/16	81-7/32
30	31.94	32.08	100-11/32	100-25/32
36	38.24	38.38	120-1/8	120-9/16

Above Table Based on ANSI/AWWA C151/A21.51 Guidelines for Push-On Joints.

THE BACKHOE METHOD OF ASSEMBLY

A backhoe may be used to assemble pipe of intermediate and larger sizes. The plain end of the pipe should be carefully guided by hand into the bell of the previously assembled pipe. The bucket of the backhoe may then be used to push the pipe until fully seated. A timber header should be used between the pipe and backhoe bucket to avoid damage to the pipe.

TYTON® JOINT PIPE

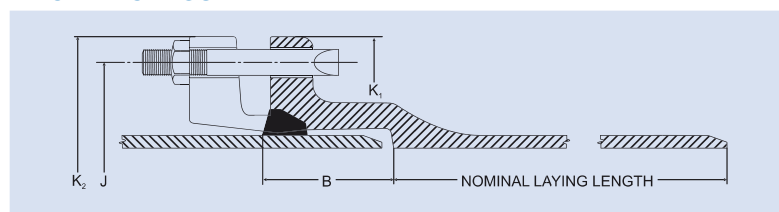


Tyton® Joint

Pipe Size In.	Pipe Thickness In.		Outside Diameter	*Dimensions In.	
	From	To		A	B
3	.25	.40	3.96	5.80	3.00
4	.25	.41	4.80	7.10	3.15
6	.25	.43	6.90	8.63	3.38
8	.25	.45	9.05	10.94	3.69
10	.26	.47	11.10	13.32	3.75
12	.28	.49	13.20	15.06	3.75
14	.28	.51	15.30	17.80	5.00
16	.30	.52	17.40	19.98	5.00
18	.31	.53	19.50	22.00	5.00
20	.33	.54	21.60	24.12	5.25
24	.33	.56	25.80	28.43	5.50
30	.34	.63	32.00	35.40	6.55
36	.38	.73	38.30	41.84	7.00

*Nominal laying length is 18 ft.

MECHANICAL JOINT PIPE

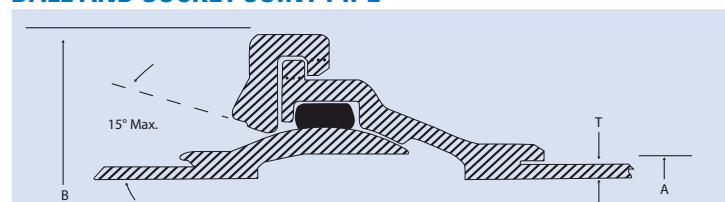


Pipe Size In.	Pipe Thickness In.		Outside Diameter	*Dimensions In.						Bolts		Bell Weight Lb.	Gland** Bolts Gasket Weight Lb.
	From	To		In.	B	J	K1	K2	No.	Size In.	Length In.		
3	.25	.40	3.96	2.50	6.19	7.62	7.69	4	5/8	3	11	7	
4	.26	.41	4.80	2.50	7.50	9.06	9.12	4	3/4	3-1/2	16	10	
6	.25	.43	6.90	2.50	9.50	11.06	11.12	6	3/4	3-1/2	18	16	
8	.27	.45	9.05	2.50	11.75	13.31	13.37	6	3/4	4	24	25	
10	.29	.47	11.10	2.50	14.00	15.62	15.62	8	3/4	4	31	30	
12	.31	.49	13.20	2.50	16.25	17.88	17.88	8	3/4	4	37	40	
14	.33	.51	15.30	3.50	18.75	20.25	20.25	10	3/4	4-1/2	61	45	
16	.34	.52	17.40	3.50	21.00	22.50	22.50	12	3/4	4-1/2	74	55	
18	.35	.53	19.50	3.50	23.25	24.75	24.75	12	3/4	4-1/2	85	65	
20	.36	.54	21.60	3.50	25.50	27.00	27.00	14	3/4	4-1/2	98	85	
24	.38	.56	25.80	3.50	30.00	31.50	31.50	16	3/4	5	123	105	

* Nominal laying length is 18 ft.

** Weight shown for regular grey cast iron follower gland, corton bolts and rubber gasket.

BALL AND SOCKET JOINT PIPE



Pipe Size In.	Thickness		A Pipe O.D.	B Retainer O.D.	Full Length Weight - Lb.**			Safe End Pull Lb.
	Class (A21.51)	T			As Shipped	Under Water		
						Full of Air	Full of Water	
6	55	.40	6.90	13.88	545	240	465	50,000
8	55	.42	9.05	16.63	770	240	655	70,000
10	55	.44	11.10	19.13	1005	220	860	95,000
12	55	.46	13.20	22.00	1270	155	1080	120,000
14	56	.51	15.30	24.50	1655	160	1410	145,000
16	56	.52	17.40	27.00	1990	45	1685	165,000
18	56	.53	19.50	30.00	2375	-70	2015	195,000
	58*	.59			2560	110	2170	
20	56	.54	21.60	32.75	2810	-200	2375	210,000
	59*	.63			3110	100	2635	
24	56	.56	25.80	38.25	3700	-620	3110	260,000
	62*	.74			4415	95	3715	
30	58	.71	32.00	46.25	5855	-900	4920	335,000
	61*	.83			6435	-180	5360	
36	57	.78	38.30	54.25	8145	-1300	6880	400,000
	59*	.88			8725	-725	7330	

* Thickness required to overcome buoyancy.

** Weights listed are for 18'-0" laying lengths. Nominal full lengths vary by size.

Pipe, Bell, Ball and Retainer are ductile iron.

Dimensions and weights are subject to manufacturing tolerances.

6 in. - 24 in. pressure rating: 350 psi

30 in. - 36 in. pressure rating: 250 psi

STANDARD DIMENSIONS AND WEIGHTS OF 3" THROUGH 36" PUSH-ON JOINT DUCTILE IRON PIPE

Pipe Size In.	Pressure Class psi	Nominal Thickness In.	OD* In.	Wt. of Barrel Per Ft. † Lb.	Tyton® Joint		
					Wt. of Bell Lb.	Wt. Per Lgh. ‡ Lb.	Avg. Wt. Per Ft. ‡ Lb.
3	350	0.25	3.96	8.90	7.00	185	9.20
4	350	0.25	4.80	10.90	9.00	225	11.30
6	350	0.25	6.90	16.00	11.00	300	16.60
8	350	0.25	9.05	21.10	17.00	395	22.00
10	350	0.26	11.10	27.10	24.00	510	28.40
12	350	0.28	13.20	34.80	29.00	655	36.40
14	250	0.28	15.30	40.40	45.00	770	42.90
	300	0.30	15.30	43.30	45.00	825	45.80
	350	0.31	15.30	44.70	45.00	850	47.20
16	250	0.30	17.40	49.30	54.00	940	52.30
	300	0.32	17.40	52.50	54.00	1000	55.50
	350	0.34	17.40	55.80	54.00	1060	58.80
18	250	0.31	19.50	57.20	59.00	1090	60.50
	300	0.34	19.50	62.60	59.00	1185	65.90
	350	0.36	19.50	66.20	59.00	1250	69.50
20	250	0.33	21.60	67.50	74.00	1290	71.60
	300	0.36	21.60	73.50	74.00	1395	77.60
	350	0.38	21.60	77.50	74.00	1470	81.60
24	200	0.33	25.80	80.80	95.00	1550	86.10
	250	0.37	25.80	90.50	95.00	1725	95.80
	300	0.40	25.80	97.70	95.00	1855	103.00
	350	0.43	25.80	104.90	95.00	1985	110.20
30**	150	0.34	32.00	103.50	139.00	2000	111.20
	200	0.38	32.00	115.50	139.00	2220	123.20
	250	0.42	32.00	127.50	139.00	2435	135.20
	300	0.45	32.00	136.50	139.00	2595	144.20
	350	0.49	32.00	148.40	139.00	2810	156.10
36**	150	0.38	38.30	138.50	184.00	2675	148.70
	200	0.42	38.30	152.90	184.00	2935	163.10
	250	0.47	38.30	170.90	184.00	3260	181.10
	300	0.51	38.30	185.30	184.00	3520	195.50
	350	0.56	38.30	203.20	184.00	3840	213.40

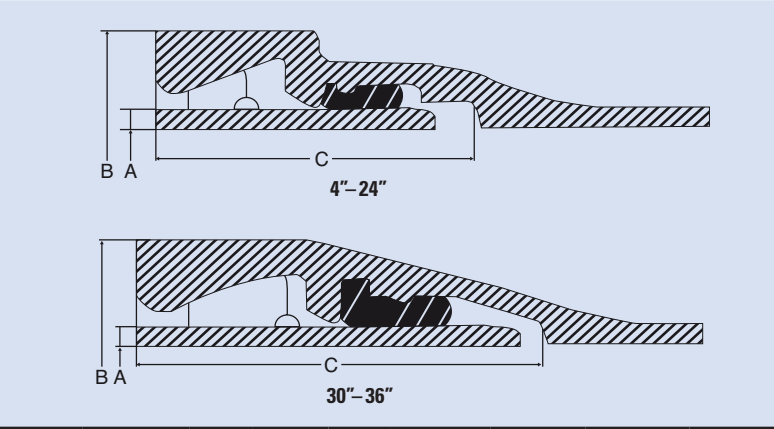
† Including bell; calculated weight of pipe rounded off to the nearest 5 lb.

‡ Including bell; average weight per foot, based on calculated weight of pipe before rounding.

* Tolerances of OD of spigot end: 3-12 in. = +0.06 in. & -0.06 in.; 14-24 in. = +0.05 in. & -0.08 in.; 30-36 in. = +0.08 in. & -0.06 in.

** Fastite® Joint

TR FLEX® RESTRAINED JOINT PIPE

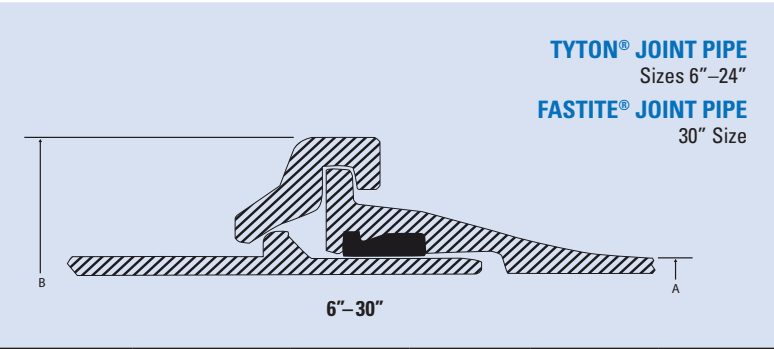


Pipe Size In.	*Pressure Rating psi	A	B	C	# of D.I. Locking Segments	# of Rubber Segments Retainers	Max Deflection Degrees	Pullout
		In.	PIPE In.	In.				
4	350	4.80	7.25	4.84	2	1	5	0.03
6	350	6.90	9.52	5.27	2	1	5	0.04
8	350	9.05	11.93	5.82	2	1	5	0.04
10	350	11.10	14.37	6.03	2	1	5	0.05
12	350	13.20	16.68	6.30	4	2	5	0.06
14	350	15.30	19.16	7.75	4	2	3-1/4	0.05
16	350	17.40	21.46	7.95	4	2	3-1/4	0.05
18	350	19.50	23.76	8.19	4	2	3	0.05
20	350	21.60	26.04	8.40	4	2	2-1/2	0.05
24	350	25.80	30.61	8.86	8	4	2-1/4	0.05
30	250	32.00	36.88	10.28	8	4	1-3/4	0.05
36	250	38.30	43.85	10.87	8	4	1-1/2	0.05

*The TR FLEX® Restrained Joint has a working pressure rating equivalent to the working pressure rating of the parent pipe with a maximum working pressure rating of 350 psi for 4 in. through 24 in. and 250 psi for 30 in. through 36 in.

NOTE: These deflections are based on joints with nominal dimensions.

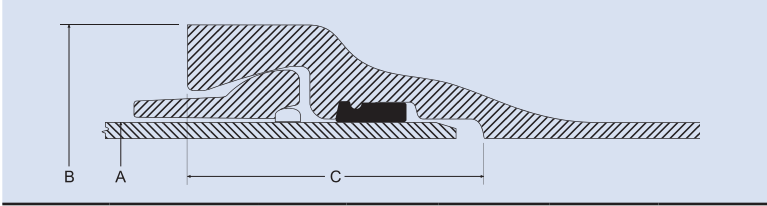
SUPER-LOCK® RESTRAINED JOINT PIPE



Pipe Size In.	*Pressure Rating psi	Deflection		A	B
		Degrees	Inches in 18ft	Pipe O.D.	Retainer O.D.
6	350	4	15	6.90	11.75
8	350	4	15	9.05	14.38
10	350	4	15	11.10	16.75
12	350	4	15	13.20	19.13
14	350	3	11	15.30	21.75
16	350	3	11	17.40	24.00
18	350	3	11	19.50	26.38
20	350	3	11	21.60	28.63
24	350	3	11	25.80	33.75
30	250	3	11	32.00	40.13

* In the 14 in. and larger sizes, pressure rating is limited to the rating of the pipe barrel thickness selected.
Dimensions subject to manufacturing tolerances.

THRUST-LOCK™ BOLTLESS RESTRAINED JOINT PIPE



Thrust-Lock™ Boltless Restrained Joint

Pipe Size In.	*Pressure Rating psi	Deflection		A	B	C
		Degrees	Inches in 18ft	Pipe O.D.	Bell O.D.	Spigot Socket
6	350	4	15	6.90	10.187	5.01
8	350	4	15	9.05	13.187	5.57
10	350	4	15	11.10	15.187	5.88
12	350	4	15	13.20	17.250	6.13
14	350	4	15	15.30	20.625	7.63
16	350	4	15	17.40	22.375	7.88
18	350	4	15	19.50	25.125	8.13
20	350	4	15	21.60	27.250	8.38
24	350	4	15	25.80	31.562	8.63
30	250	2	7	32.00	39.06	10.53

*The THRUST-LOCK™ Restrained Joint has a working pressure rating equivalent to the working pressure rating of the parent pipe with a maximum working pressure rating of 350 psi for 6 in. through 24 in. and 250 psi for 30 in.

NOTE: These deflections are based on joints with nominal dimensions.

RATED WORKING PRESSURE AND MAXIMUM DEPTH OF COVER

Pipe Size In.	*Pressure Rating psi	Nominal Thickness In.	Laying Conditions				
			Type 1 Trench	Type 2 Trench	Type 3 Trench	Type 4 Trench	Type 5 Trench
			Maximum depth of cover ±-ft				
3	350	0.25	78	88	99	100\$	100\$
4	350	0.25	53	61	69	85	100\$
6	350	0.25	26	31	37	47	65
8	350	0.25	16	20	25	34	50
10	350	0.26	11**	15	19	28	45
12	350	0.28	10**	15	19	28	44
14	250	0.28	††	11**	15	23	36
	300	0.30	††	13	17	26	42
	350	0.31	††	14	19	27	44
16	250	0.30	††	11**	15	24	34
	300	0.32	††	13	17	26	39
	350	0.34	††	15	20	28	44
18	250	0.31	††	10**	14	22	31
	300	0.34	††	13	17	26	36
	350	0.36	††	15	19	28	41
20	250	0.33	††	10	14	22	30
	300	0.36	††	13	17	26	35
	350	0.38	††	15	19	28	38
24	200	0.33	††	8**	12	17	25
	250	0.37	††	11	15	20	29
	300	0.40	††	13	17	24	32
	350	0.43	††	15	19	28	37
30	150	0.34	††	--	9	14	22
	200	0.38	††	8**	12	16	24
	250	0.42	††	11	15	19	27
	300	0.45	††	12	16	21	29
36	350	0.49	††	15	19	25	33
	150	0.38	††	--	9	14	21
	200	0.42	††	8**	12	15	23
	250	0.47	††	10	14	18	25
	300	0.51	††	12	16	20	28
	350	0.56	††	15	19	24	32

‡ An allowance for a single H-20 truck with 1.5 impact factor is included for all depths of cover.
\$ Calculated maximum depth of cover exceeds 100 ft. (30.5 m).
** Minimum allowable depth of cover is 3 ft. (0.9 m).
†† For pipe 14 in. (350 mm) and larger, consideration should be given to the use of laying conditions other than Type 1.

TYTON® AND FASTITE® PUSH-ON JOINTS

ASSEMBLY INSTRUCTIONS

- Step 1.** Thoroughly clean out the bell with special attention to the gasket recess. Remove any foreign material or excess paint. Clean the spigot or beveled plain end and remove any sharp edges with a standard file.
- Step 2.** After making sure that the correct gasket is being used, insert it into the recess in the bell with the small end of the gasket facing the bell face.
- Step 3.** Apply lubricant to the inside surface of the gasket, making sure that the entire surface is coated. Apply a generous coating of lubricant to the beveled portion of the plain end.
- Step 4.** Guide the plain end into the bell and, while maintaining straight alignment, push the plain end into the bell socket. Once the joint is assembled, necessary deflection can be accomplished. When assembly is complete, the bell face should be aligned between the two white depth rings, for Tyton® Joints. Fastite® Joints have only 1 assembly stripe.

MECHANICAL JOINT

ASSEMBLY INSTRUCTIONS

- Step 1.** Clean the bell socket and spigot or plain end. Lubricate both the gasket and plain end by brushing an approved pipe lubricant.
- Step 2.** Place the gland on the plain end with the lip extension toward the plain end. Place the gasket on the plain end with the narrow edge facing the plain end.
- Step 3.** Insert the plain end into the bell and press the gasket into the bell recess. Push the gland toward the socket and center it around the pipe with the gland lip against the gasket.
- Step 4.** Insert and tighten the bolts. It is important to maintain the same distance between the gland and the bell face at all times. This is best done by alternating side to side and top to bottom, while tightening the bolts.

Note: Achieving the recommended bolt torque, particularly with large diameter pipe, may require repeating the process up to 5 times or more. Recommended bolt torque ranges are as follows:

Pipe Size In.	Bolt Diameter In.	Nut Across Flats In.	Wrench Length In.	Torque Range Foot Lbs.
3	5/8	1-1/16	8	45 to 60
4–24	3/4	1-1/4	10	75 to 90

NOMINAL THICKNESS FOR STANDARD PRESSURE CLASSES OF DUCTILE IRON PIPE

Size In.	Outside Diameter In.	Pressure Class*				
		150	200	250	300	350
		Normal Thickness — in.				
3	3.96	—	—	—	—	0.25**
4	4.80	—	—	—	—	0.25**
6	6.90	—	—	—	—	0.25**
8	9.05	—	—	—	—	0.25**
10	11.10	—	—	—	—	0.26
12	13.20	—	—	—	—	0.28
14	15.30	—	—	0.28	0.30	0.31
16	17.40	—	—	0.30	0.32	0.34
18	19.5	—	—	0.31	0.34	0.36
20	21.60	—	—	0.33	0.36	0.38
24	25.80	—	0.33	0.37	0.40	0.43
30	32.00	0.34	0.38	0.42	0.45	0.49
36	38.30	0.38	0.42	0.47	0.51	0.56

* Pressure Classes are defined as the rated water pressure of the pipe in psi. The thicknesses shown are adequate for the rated water working pressure plus a surge allowance of 100 psi. Calculations are based on a minimum yield strength of 42,000 and a 2.0 safety factor times the sum of the working pressure and 100 psi surge allowance.

**Calculated thicknesses for these sizes and pressure ratings are less than those shown above. Presently, these are the lowest nominal thicknesses available in these sizes.

NOTE: Per ANSI/AWWA C150/A21.50 the thicknesses above include the 0.08 in. service allowance and the casting tolerance listed below by size ranges:

SIZE (Inches)	CASTING TOLERANCES (Inches)
3–8	-0.05
10–12	-0.06
14–36	-0.07

TR FLEX® RESTRAINED JOINT

ASSEMBLY INSTRUCTIONS

- Step 1.** (4"–10") Lay pipe such that one of the bell slots is accessible.
(12"–20") Lay pipe such that both of the bell slots are accessible, in the horizontal position if possible.
(24"–36") Lay pipe such that all four of the bell slots are accessible, in the diagonal position if possible.
- Step 2.** Clean the bell socket and insert gasket.
- Step 3.** Clean the spigot end to the assembly stripes.
- Step 4.** Lubricate the exposed surface of the gasket and pipe spigot end back to the weld bead.
- Step 5.** Make a normal push-on joint assembly, completely homing the pipe until the first assembly strip is in the bell socket. Keeping the joint in straight alignment during the assembly process.
- Step 6.** (4"–10") Insert the right-hand locking segment into a bell slot and slide the segment clockwise around the pipe.
(12"–36") Insert lower locking segment into a bell slot and slide the segment around the pipe.
- Step 7.** (4"–10") Insert left-hand locking segment into the bell slot and slide the segment counter-clockwise around the pipe.
(12"–36") Insert upper locking segment into the same bell slot and rotate around the pipe.
- Step 8.** (4"–10") Hold the segments apart and wedge the rubber retainer into the slot between the two locking segments.
(12"–36") Hold the upper segment in place and wedge the rubber retainer into the slot between the two locking segments.
- Step 9.** (4"–10") None.
(12"–20") Repeat steps 6–8 for other slot. Make sure that all 4 locking segments and 2 rubber retainers are securely in place.
(24"–36") Repeat steps 6–8 for other slot. Make sure that all 8 locking segments and 4 rubber retainers are securely in place.
- Step 10.** Extend the joint to remove the slack in the locking segment cavity. Joint extension is necessary to attain the marked laying length on the pipe and to minimize growth or extension of the line as it is pressurized.
- Step 11.** Set the joint deflection as required.

THRUST-LOCK™ RESTRAINED JOINT

ASSEMBLY INSTRUCTIONS

- Step 1.** Ring Installation. Put lock ring on the spigot end of the pipe. Pry the lock ring over the weldment. Use the hammer to tap the cover. Lock ring installation is complete.
- Step 2.** Clean the Bell and Spigot. Thoroughly clean out the bell with special attention to the gasket recess. Remove any foreign material or excess paint. Clean the spigot end and remove any sharp edges.
- Step 3.** Insert the gasket into the recess in the bell with the small end of the gasket facing the bell face.
- Step 4.** Lubricate the Bell and Spigot. Apply lubricant to the inside surface of the gasket. Apply a generous coating of lubricant to the spigot end.
- Step 5.** Insert Pipe. Guide the spigot end into the bell and, while maintaining straight alignment, push the pipe into the bell socket.
- Step 6.** Insert Lock Ring. Push lock ring into the bell.
- Step 7.** Rotate the lock ring until the lugs align. Use a hammer to tap the ring if required. Install the anti-rotation wedges at 3 and 9 o'clock if the pipe is being used inside of a casing. Deflect the joint if desired.

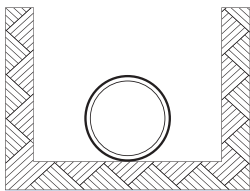
SUPER-LOCK®

ASSEMBLY INSTRUCTIONS

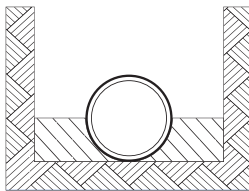
- Step 1.** Remove hook bolts securing retainer to plain end. Clean plain end of pipe. Clean out any dirt behind retainer lugs. Lubricant should be applied to the beveled nose.
- Step 2.** Assemble the joint in accordance with Clow Assembly Instructions (See Table A on page 13). Make certain that the bell is clean prior to gasket insertion. Be sure that the correct gasket is used.
- Step 3.** Guide plain end into Super-Lock® bell and provide reasonably straight alignment. "Make" joint by pushing the plain end into the bell. A jack or come-a-long may also be used to pull the plain end into the bell. Position retainer so that the recesses line up with the lugs on the bell. Slide retainer over bell and rotate until the lugs on the bell and the retainer line up.
- Step 4.** At drilled hole on retainer O.D., insert retainer lock in recess formed by lugs on bell and retainer. Insert roll pin in drilled hole and drive flush with retainer O.D.
- Step 5.** Take any necessary deflection after joint is completely assembled.

Caution: do not over deflect the joint beyond the maximum deflection column specified on page 2 or subject the joint to bending stress to obtain additional deflection.

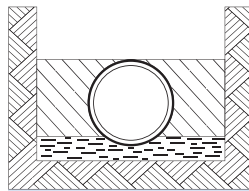
LAYING CONDITIONS



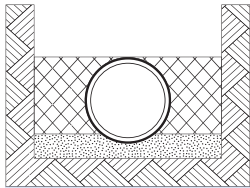
Type 1*
Flat-bottom trench.† Loose backfill.



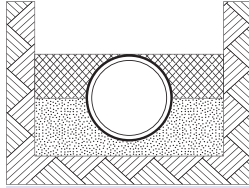
Type 2
Flat-bottom trench.† Backfill lightly consolidated to centerline of pipe.



Type 3
Pipe bedded in 4 in. (100 mm) minimum of loose soil.++ Backfill lightly consolidated to top of pipe.



Type 4
Pipe bedded in sand, gravel, or crushed stone to depth of 1/8 pipe diameter, 4 in. (100 mm) minimum. Backfill compacted to top of pipe. (Approximately 80 percent Standard Proctor, AASHTO T-99.)



Type 5
Pipe bedded in compacted granular material to centerline of pipe. Compacted granular or select material++ to top of pipe. (Approximately 90 percent Standard Proctor, AASHTO T-99.)

* For 14 in. (355-mm) and larger pipe, consideration should be given to the use of laying conditions other than Type 1.

† "Flat-bottom" is defined as undisturbed earth.

++ "Loose soil" or "select material" is defined as native soil excavated from the trench, free of rocks, foreign materials, and frozen earth.

Notes:

Consideration of the pipe-zone embedment conditions included in this figure may be influenced by factors other than pipe strength. For additional information on pipe bedding and backfill, see ANSI/AWWA C600.

American Association of State Highway and Transportation Officials, 444 N. Capitol St. N.W., Suite 225, Washington, DC 20001.

STANDARDS APPLICABLE TO DUCTILE IRON PIPE AND FITTINGS

THICKNESS DESIGN OF DUCTILE IRON PIPE	ANSI/AWWA C150/A21.50
DUCTILE IRON PIPE FOR WATER AND OTHER LIQUIDS	ANSI/AWWA C151/A21.51
	FEDERAL WWP421D, Grade C
DUCTILE IRON PIPE FOR GRAVITY FLOW SERVICE	ANSI/ASTM A746
DUCTILE IRON FITTINGS FOR WATER AND OTHER LIQUIDS	
3 in. through 36 in.	ANSI/AWWA C110/A21.10
DUCTILE IRON COMPACT FITTINGS	
3 in. through 24 in.	ANSI/AWWA C153/A21.53
FLANGED FITTINGS	ANSI/AWWA C110/A21.10
	ANSI B16.1
DUCTILE IRON PIPE WITH THREADED FLANGES	ANSI/AWWA C115/21.15
COATINGS AND LININGS	
Asphaltic	Double Bit Int. Seal
	ANSI/AWWA C151/A21.51
	ANSI/AWWA C110/A21.10
	ANSI/AWWA C153/A21.53
	ANSI/AWWA C104/A21.4
Various Epoxy Linings and Coatings	MANUFACTURER'S STANDARD
Exterior Polyethylene Encasement	ANSI/AWWA C105/A21.5
JOINTS – PIPE AND FITTINGS	
Push-On and Mechanical Rubber-Gasket Joints	ANSI/AWWA C111/A21.11
	FEDERAL WWP421D
Flanged	ANSI/AWWA C115/A21.15
	ANSI B16.1
	ANSI/AWWA C606
Grooved and Shouldered	
PIPE THREADS	ANSI B2.1
INSTALLATION	ANSI/AWWA C600



IRON STRONG

NEW JERSEY
183 Sitgreaves St.
Phillipsburg, NJ 08865
908-454-1161
mcwaneductile.com

OHIO
2266 S. 6th St.
Coshocton, OH 43812
740-622-6651
mcwaneductile.com

UTAH
1401 E 2000 S.
Provo, UT 84603
801-373-6910
mcwaneductile.com



Canada Pipe
Company ULC

CANADA
1757 Burlington St. E
Hamilton, ON L8N-3R5
905-547-3251
canadapipe.com

DIMENSIONS AND WEIGHTS FOR SPECIAL CLASSES OF PUSH-ON DUCTILE IRON PIPE

Pipe Size In.	Thickness Class	Nominal Thickness In.	OD* In.	Wt. of Barrel Per Ft. † Lb.	Tyton® Joint		
					Wt. of Bell Lb.	Wt. Per Lgth.† Lb.	Avg. Wt. Per Ft.± Lb.
3	52	0.28	3.96	9.9	7	185	10.3
3	54	0.34	3.96	11.8	7	220	12.2
3	56	0.40	3.96	13.7	7	255	14.1
4	51	0.26	4.80	11.3	9	210	11.8
4	52	0.29	4.80	12.6	9	235	13.1
4	53	0.32	4.80	13.8	9	255	14.3
4	54	0.35	4.80	15	9	280	15.5
4	56	0.41	4.80	17.3	9	320	17.8
6	50	0.25	6.90	16	11	300	16.6
6	51	0.28	6.90	17.8	11	330	18.4
6	52	0.31	6.90	19.6	11	365	20.2
6	53	0.34	6.90	21.4	11	395	22.0
6	54	0.37	6.90	23.2	11	430	23.8
6	55	0.40	6.90	25	11	460	25.6
6	56	0.43	6.90	26.7	11	490	27.3
8	50	0.27	9.05	22.8	17	425	23.7
8	51	0.30	9.05	25.2	17	470	26.1
8	52	0.33	9.05	27.7	17	515	28.6
8	53	0.36	9.05	30.1	17	560	31.0
8	54	0.39	9.05	32.5	17	600	33.4
8	55	0.42	9.05	34.8	17	645	35.7
8	56	0.45	9.05	37.2	17	685	38.1
10	50	0.29	11.10	30.1	24	565	31.4
10	51	0.32	11.10	33.2	24	620	34.5
10	52	0.35	11.10	36.2	24	675	37.5
10	53	0.38	11.10	39.2	24	730	40.5
10	54	0.41	11.10	42.1	24	780	43.4
10	55	0.44	11.10	45.1	24	835	46.4
10	56	0.47	11.10	48	24	890	49.3
12	50	0.31	13.20	38.4	29	720	40.0
12	51	0.34	13.20	42	29	785	43.6
12	52	0.37	13.20	45.6	29	850	47.2
12	53	0.40	13.20	49.2	29	915	50.8
12	54	0.43	13.20	52.8	29	980	54.4
12	55	0.46	13.20	56.3	29	1040	57.9
12	56	0.49	13.20	59.9	29	1105	61.5
14	50	0.33	15.30	47.5	45	900	50.0
14	51	0.36	15.30	51.7	45	975	54.2
14	52	0.39	15.30	55.9	45	1050	58.4
14	53	0.42	15.30	60.1	45	1125	62.6
14	54	0.45	15.30	64.2	45	1200	66.7
14	55	0.48	15.30	68.4	45	1275	70.9
14	56	0.51	15.30	72.5	45	1350	75.0
16	50	0.34	17.40	55.8	54	1060	58.8
16	51	0.37	17.40	60.6	54	1145	63.6
16	52	0.40	17.40	65.4	54	1230	68.4
16	53	0.43	17.40	70.1	54	1315	73.1
16	54	0.46	17.40	74.9	54	1400	77.9
16	55	0.49	17.40	79.7	54	1490	82.7
16	56	0.52	17.40	84.4	54	1575	87.4
18	50	0.35	19.50	64.4	59	1220	67.7
18	51	0.38	19.50	69.8	59	1315	73.1
18	52	0.41	19.50	75.2	59	1415	78.5
18	53	0.44	19.50	80.6	59	1510	83.9
18	54	0.47	19.50	86	59	1605	89.3
18	55	0.50	19.50	91.3	59	1700	94.6
18	56	0.53	19.50	96.7	59	1800	100.0
20	50	0.36	21.60	73.5	74	1395	77.6
20	51	0.39	21.60	79.5	74	1505	83.6
20	52	0.42	21.60	85.5	74	1615	89.6
20	53	0.45	21.60	91.5	74	1720	95.6
20	54	0.48	21.60	97.5	74	1830	101.6
20	55	0.51	21.60	103.4	74	1935	107.5
20	56	0.54	21.60	109.3	74	2040	113.4
24	50	0.38	25.80	92.9	95	1765	98.2
24	51	0.41	25.80	100.1	95	1895	105.4
24	52	0.44	25.80	107.3	95	2025	112.6
24	53	0.47	25.80	114.4	95	2155	119.7
24	54	0.50	25.80	121.6	95	2285	126.9
24	55	0.53	25.80	128.8	95	2415	134.1
24	56	0.56	25.80	135.9	95	2540	141.2
30	50	0.39	32.00	118.5	139	2270	126.2
30	51	0.43	32.00	130.5	139	2490	138.2
30	52	0.47	32.00	142.5	139	2705	150.2
30	53	0.51	32.00	154.4	139	2920	162.1
30	54	0.55	32.00	166.3	139	3130	174.0
30	55	0.59	32.00	178.2	139	3345	185.9
30	56	0.63	32.00	190.0	139	3560	197.7
36	50	0.43	38.30	156.5	184	3000	166.7
36	51	0.48	38.30	174.5	184	3325	184.7
36	52	0.53	38.30	192.4	184	3645	202.6
36	53	0.58	38.30	210.3	184	3970	220.5
36	54	0.63	38.30	228.1	184	4290	238.3
36	55	0.68	38.30	245.9	184	4610	256.1
36	56	0.73	38.30	263.7	184	4930	273.9

†Including bell; calculated weight of pipe rounded off to the nearest 5 lb.

‡Including bell; average weight per foot, based on calculated weight of pipe before rounding.

*Tolerances of OD of spigot end; 3–12 in. ±0.06 in., 14–24 in. ±0.05 in., 30–36 in. ±0.08 in., 42 in. ±0.09 in.



IRON STRONG

McWaneDuctile.com

SURE STOP 350[®] GASKET

3"-24"



McWane Ductile is a division of McWane, Inc.

For Generations

SURE STOP 350® GASKET FOR TYTON® JOINT FROM MCWANE DUCTILE

Sure Stop 350® Gaskets are available from 3" through 24" to provide instant and easy joint restraint for Tyton Joint® pipe.

Sure Stop 350 Gaskets are rated for 350 psi working pressure with a 2:1 safety factor and allow up to a 5-degree deflection at each joint. McWane Ductile's Sure Stop 350 Gaskets are boltless,

allowing quick, simple installation without special wrenches or tools, and are Underwriters Lab (UL) listed and Factory Mutual (FM) approved. McWane Ductile's Sure Stop 350 Gaskets can

be furnished with various gasket compounds, including the standard SBR, Neoprene, EPDM, Nitrile and Viton. Please contact your local sales representative for more information.

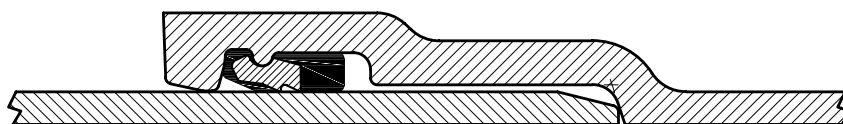


APPLICATION NOTES

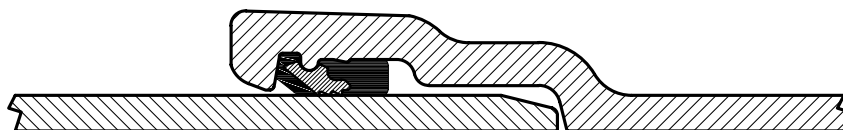
1. For Ductile iron applications utilizing Tyton pipe, valves and fittings are made to AWWA specifications.
2. In cold weather assembly, maintain the temperature of the gasket above 40° F.
3. The socket of the joint should be clean and free of debris or significant corrosion.
4. Gasket should be properly seated in the bell socket.
5. Keep the pipe and joint in alignment during assembly. If installed out of alignment, the gasket can be pushed out of position, creating the potential for leaks or failure.
6. If deflection is wanted in the joint, deflect before fully inserting the joint.
7. Some extension of the joint will occur when pressurized. To avoid this, the joint should be pulled out after assembly to "set" the stainless steel teeth in the inserted pipe.
8. Once assembled, the joint can be disassembled using steel shims.
9. When cut pipe is used, the following steps are required:
 - a. Ensure that the spigot end is properly beveled.
 - b. Mark the joint depth on the spigot so it is clear when the joint is fully inserted.
 - c. Ensure that the pipe meets the required dimensional tolerances.
10. Do not reuse Sure Stop 350 Gaskets, as they may have been damaged during any previous installation or during removal.
11. Do not use Sure Stop 350 Gaskets to conduct electricity through the pipe joint, as they could be damaged and fail.
12. Do not use Sure Stop 350 Gaskets in above-ground applications.
13. Do not use Sure Stop 350 Gaskets with thick coating on the pipe exterior.
14. If Sure Stop 350 Gaskets are used in straight casings, you must pull the pipe through the casing. Do not push the pipe.

BELL DETAILS

3"-12"



14"-24"



DETAILS & DIMENSIONS

SIZE IN.	RATING PSI	DEFLECTION DEGREES
3	350	5
4	350	5
6	350	5
8	350	5
10	350	5
12	350	5
14	350	4
16	350	4
18	350	4
20	350	2.5
24	350	2.5

Sure Stop 350® Gaskets are available in sizes 3-24 inches, and with a rating of 350 psi, they will meet or exceed the capabilities of Ductile iron pipe, valves and fittings.

Sure Stop 350 Gaskets are NSF 61 approved, UL listed and FM approved.

FM Rating: 3-16 in. = 250 psi | 18-24 in. = 200 psi

PIPE SIZE NOMINAL IN.	CIRCUMFERENCE		DIAMETER	
	MIN.	MAX.	MIN.	MAX.
3	12-1/4"	12-5/8"	3.90"	4.02"
4	14-29/32"	15-9/32"	4.74"	4.86"
6	21-1/2"	21-7/8"	6.84"	6.96"
8	28-1/4"	28-5/8"	8.99"	9.11"
10	34-11/16"	35-1/16"	11.04"	11.16"
12	41-9/32"	41-21/32"	13.14"	13.26"
14	47-13/16"	48-7/32"	15.22"	15.35"
16	54-13/32"	54-13/16"	17.32"	17.45"
18	61"	61-13/32"	19.42"	19.55"
20	67-19/32"	68"	21.52"	21.65"
24	80-13/16"	81-7/32"	25.72"	25.85"

COMPATIBILITY NOTE

McWane Ductile's Sure Stop 350® Gasket is designed for use in Tyton Joint Ductile iron pipe products manufactured by McWane Ductile to conform to the latest licensed Tyton Joint drawings and parameters. Sure Stop 350 Gaskets may also be used in any other Tyton Joint provided it conforms to the latest licensed Tyton Joint drawings and

parameters. Sure Stop 350 Gaskets are not warrantied for use in any other products or non-licensed push-on joints. Additionally, gaskets not provided by McWane Ductile, whether restrained or non-restrained, are not warrantied for use in McWane Ductile products.

STANDARDS APPLICABLE TO DUCTILE IRON PIPE AND FITTINGS

THICKNESS DESIGN OF DUCTILE IRON PIPE	ANSI/AWWA C150/A21.50
DUCTILE IRON PIPE FOR WATER AND OTHER LIQUIDS	ANSI/AWWA C151/A21.51, FEDERAL WWP421D, GRADE C
DUCTILE IRON PIPE FOR GRAVITY FLOW SERVICE	ANSI/ASTM A746
DUCTILE IRON FITTINGS FOR WATER AND OTHER LIQUIDS (3 in. through 36 in.)	ANSI/AWWA C110/A21.10
DUCTILE IRON COMPACT FITTINGS (3 in. through 24 in.)	ANSI/AWWA C153/A21.53
FLANGED FITTINGS	ANSI/AWWA C110/A21.10, ANSI B16.1
DUCTILE IRON PIPE WITH THREADED FLANGES	ANSI/AWWA C115/21.15
COATINGS AND LININGS	
Asphaltic	ANSI/AWWA C151/A21.51, ANSI/AWWA C110/A21.10, ANSI/AWWA C153/A21.53
Cement Lining	ANSI/AWWA C104/A21.4
Various Epoxy Linings and Coatings	MANUFACTURER'S STANDARD
Exterior Polyethylene Encasement	ANSI/AWWA C105/A21.5
JOINTS — PIPE AND FITTINGS	
Push-On and Mechanical Rubber-Gasket Joints	ANSI/AWWA C111/A21.11, FEDERAL WWP421D
Flanged	ANSI/AWWA C115/A21.15, ANSI B16.1
Grooved and Shouldered	ANSI/AWWA C606
PIPE THREADS	ANSI B2.1
INSTALLATION	ANSI/AWWA C600

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740-622-6651

UTAH

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Provo, UT 84606
801-373-6910



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CANADA

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Hamilton, Ontario, Canada
L8P 4M3

Rev. June 2021



COMMITTED TO ENVIRONMENTAL RESPONSIBILITY

KENNEDY VALVE COMPANY IS COMMITTED TO PROTECTING OUR NATURAL RESOURCES THROUGH ENVIRONMENTALLY RESPONSIBLE MANUFACTURING PRACTICES, INCLUDING THE USE OF 80+% RECYCLED CONTENT IN OUR HYDRANTS AND VALVES.

To learn more about our commitment to the environment, call 800-782-5831.

RECOMMENDED SPECIFICATIONS

1. Valves shall conform to the latest revision of **AWWA Standard C509** covering resilient seated gate valves for water supply service.
2. The valves shall have an iron body, bonnet, and O-ring plate. The wedge shall be totally encapsulated with rubber.
3. The sealing rubber shall be permanently bonded to the wedge per ASTM D429.
4. Valves shall be supplied with O-ring seals at all pressure retaining joints. No flat gaskets shall be allowed.
5. The valves shall be either non-rising stem or rising stem **opening by turning left** or right, and provided with 2" square operating nut or a handwheel with the word "Open" and an arrow to indicate the direction to open.
6. Stems shall be cast copper alloy with integral collars in full compliance with AWWA. All stems shall operate with copper alloy stem nuts independent of wedge and of stem (in NRS valves).
7. All stems shall have two O-rings located above thrust collar and one O-ring below. Stem O-rings shall be replaceable with valve fully opened and subjected to full pressure. The stems on 2" – 12" shall also have a low torque thrust bearing located above and below the stem collar to reduce friction during operation.
8. Waterway shall be smooth, unobstructed and free of all pockets, cavities and depressions in the seat area. Valves 2" and larger shall accept a full size tapping cutter.
9. The body, bonnet and O-ring plate shall be fusion-bonded epoxy coated, both interior and exterior on body and bonnet. Epoxy shall be applied in accordance with AWWA C550 and be NSF 61 Certified.
10. Each valve shall have maker's name, pressure rating, and year in which it was manufactured cast in the body. Prior to shipment from the factory, each valve shall be tested by hydrostatic pressure equal to the requirements of AWWA C509 (and UL/FM where applicable).
11. Valves shall have all component parts cast and assembled in the USA and shall be manufactured by the Kennedy Valve Company.

The original, and the definitive standard.

RESILIENT WEDGE GATE VALVES

**2" THROUGH 12"
MODEL KS-FW**



ISO 9001



www.kennedyvalve.com

AWWA C509 250 PSI • UL/FM Approved 200 PSI • NSF 61 Certified • Full Water Way • Fusion Bond Epoxy Coated • 10 Year Limited Warranty



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PHONE 607-734-2211 FAX 1-800-952-4771

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For Generations

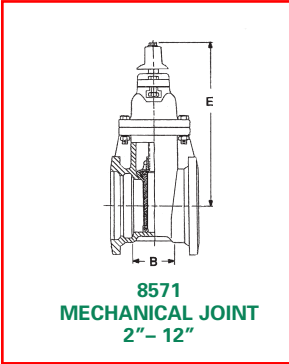
RESILIENT WEDGE VALVE

In 1975, Kennedy recognized the increased requirements and escalating maintenance cost of water systems in the United States.

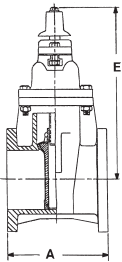
Kennedy responded by introducing the first R/W (Resilient Wedge) Valve in America. This introduction revolutionized the valve market in the U.S.

Kennedy was the first to introduce, and still leads in the design and technical development, of the bubble-tight resilient seating valve.

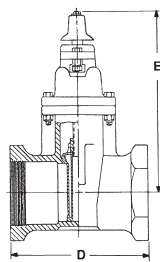
The Kennedy Resilient Wedge Valve, with its unique features and benefits, were the first to be manufactured with both AWWA and UL/FM approval for all water system requirements.



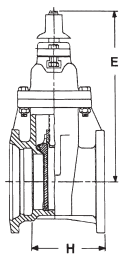
8571
MECHANICAL JOINT
2"– 12"



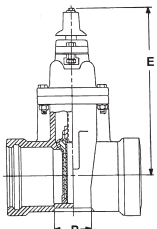
8561
FLANGED
2"– 12"



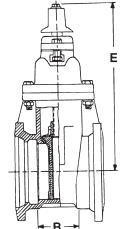
8057
THREADED ENDS
2"– 3"



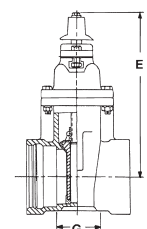
8572
FLANGED X MJ
3"– 12"



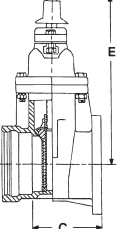
8597
PUSH ON FOR
SDR PVC
2"– 12"



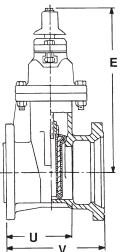
8576
MECHANICAL
CUTTING IN JOINT
4"– 12"



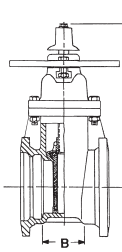
8901
TYTON ENDS FOR DUCTILE
IRON AND C900 PVC PIPE
4"– 12"



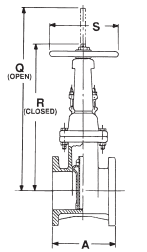
8902
FLANGED X TYTON
4"– 12"



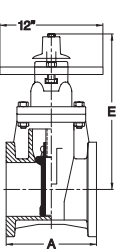
8950
MECHANICAL JOINT
FOR TAPPING
3"– 12"



8071
MECHANICAL JOINT
POST INDICATOR VALVE
2"– 12"



8068A
FLANGED OS & Y
CONSTRUCTION
2"– 12"



8701A
FLANGED POST
INDICATOR VALVE

NOTE:
It is recommended that valves be installed with stems vertical when used in raw sewage or sludge applications or in water with excessive sediment. Flanged end connections not recommended for buried service.

VALVE SIZE	A	B	C	D	E	G	H	P	Q	R	S	U	V	NO. OF TURNS TO FULL OPEN
2"	7	3-1/4	—	5-3/8	10-7/8	—	—	3	10	12	7-1/4	—	—	6-1/2
2-1/2"	7-1/2	—	—	7-1/8	11-3/8	—	—	3-1/4	16-3/8	13-7/8	7-1/4	—	—	8
3"	8	3-1/2	—	7-1/8	12-3/8	—	5-3/4	3-1/2	18-7/8	15-5/8	10	5-3/4	8-1/4	10
4"	9	4-1/2	6-3/4	—	14-3/4	4-5/8	6-3/4	4-1/2	22-3/4	18-1/4	10	6-3/4	9-1/4	13-1/2
6"	10-1/2	5-1/2	7-7/8	—	19	5-1/4	8	5	30-1/8	23-3/4	12	8	10-1/2	19-1/2
8"	11-1/2	8-1/8	8-1/2	—	22-1/2	5-5/8	9-3/4	5-1/2	37-3/4	29-1/4	14	10-3/4	13-1/4	25-1/2
10"	13	10-1/2	10	—	26-1/2	7	11-3/4	7	45-3/4	35-3/8	18	12-1/2	14-7/8	31-1/2
12"	14	10-3/4	11-1/4	—	30	8-1/2	12	8-1/2	53-1/8	40-5/8	18	12-1/2	15	37-3/4

ENGINEERING FEATURES

THRUST BEARINGS

Delrin thrust bearings above and below the thrust collar reduce friction and minimize operating torques.

COPPER ALLOY STEM

Long, trouble-free life with high strength, non-corrosive copper alloy stem and stem nut.

STAINLESS STEEL HARDWARE

304 stainless steel nuts and bolts provide long-life corrosion protection.

100% COATED WEDGE

100% coated wedge ensures bubble-tight seal every time up to 250 PSI. With twin seal design.

ELLIPTICAL BOLT HOLES

Hole design on MJ connection eliminates the need for anti-rotation bolts.

MINIMAL FLOW LOSS

Smooth, unobstructed waterway is free of pockets, cavities and depressions, allowing for minimal flow loss and lower pumping costs. All valves accept full-size tapping cutter.

REPLACEABLE O-RINGS

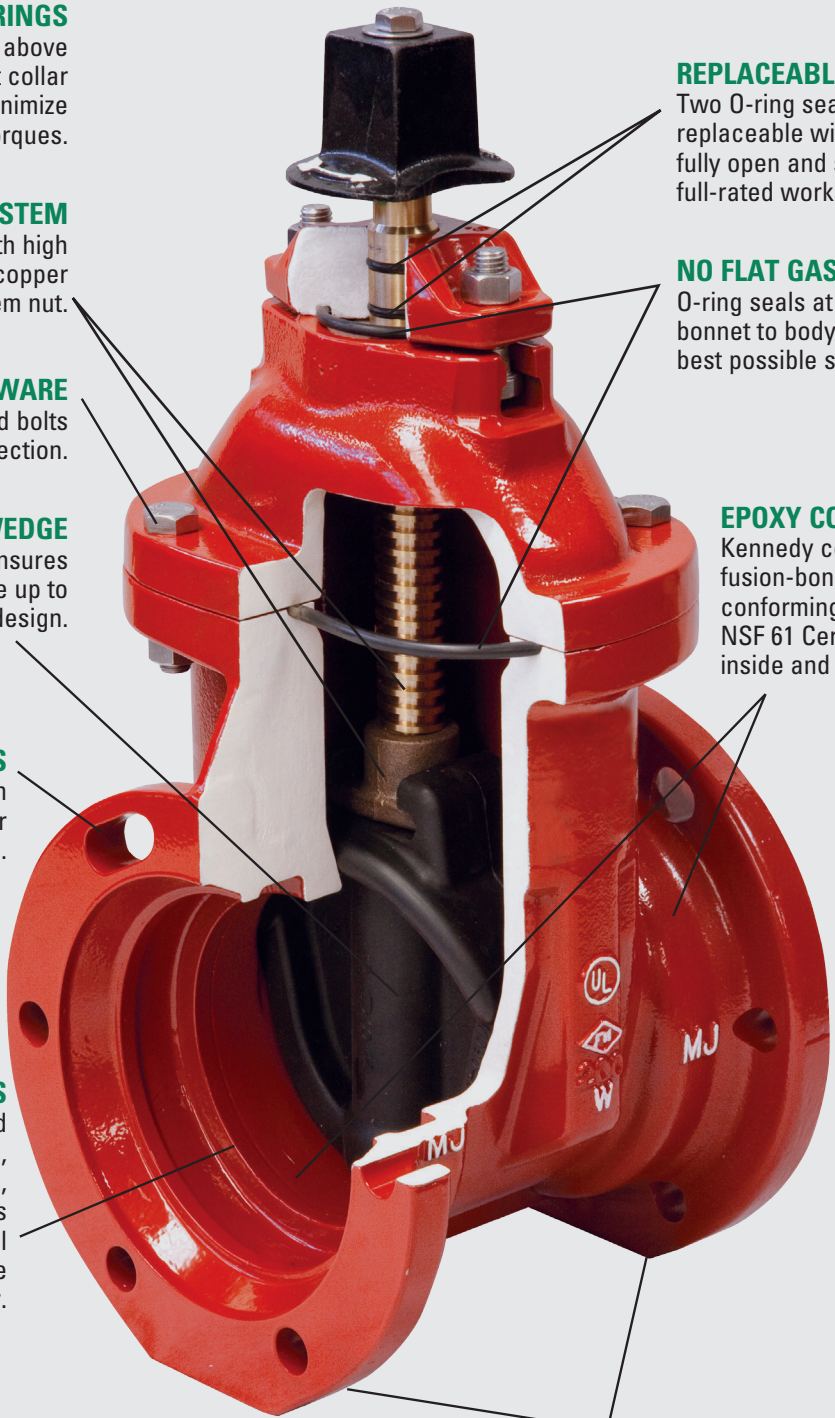
Two O-ring seals are replaceable with the valve fully open and subjected to full-rated working pressure.

NO FLAT GASKETS

O-ring seals at stuffing box and bonnet to body flanges to ensure the best possible seal. No flat gaskets.

EPOXY COATING

Kennedy corrosion resistant fusion-bonded epoxy coating, conforming to AWWA C550 and NSF 61 Certified, protects both inside and outside of valve.



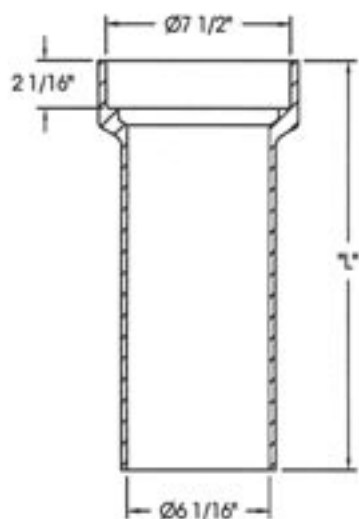
EASY STORAGE

Pads on the bottom of all valves keep valve in upright position for easier storage and protection from the elements.

VALVE RATING: All valves are rated at 250 PSI for AWWA service and 200 PSI for UL/FM service. All valves are hydrostatically tested to 500 PSI.

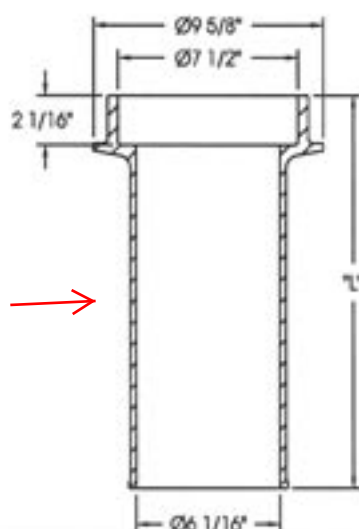
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**SLIDE TOP
NO FLANGE**



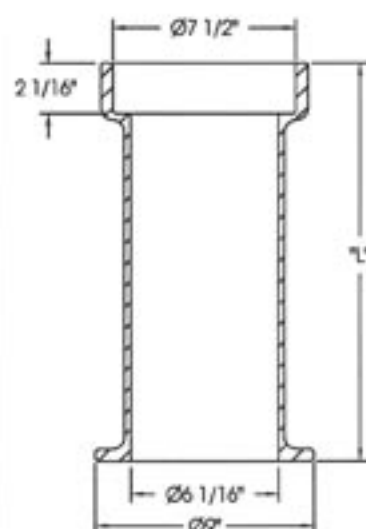
CODE	L (IN.)	Weight (Lb)
V738	10	19
V739	16	26
V744	26	41
V749	36	51

**SLIDE TOP
TOP FLANGE**



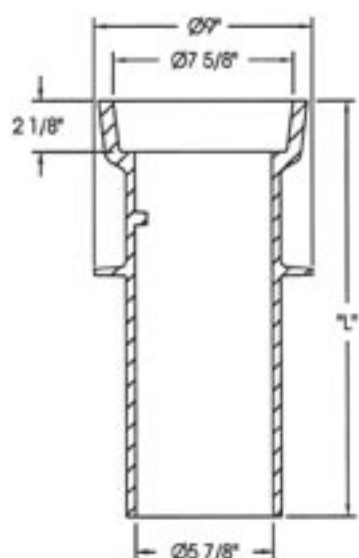
CODE	L (IN.)	Weight (Lb)
V737	10	22
V741	16	27
V747	26	38
V750	36	53

**SLIDE TOP
BOTTOM FLANGE**



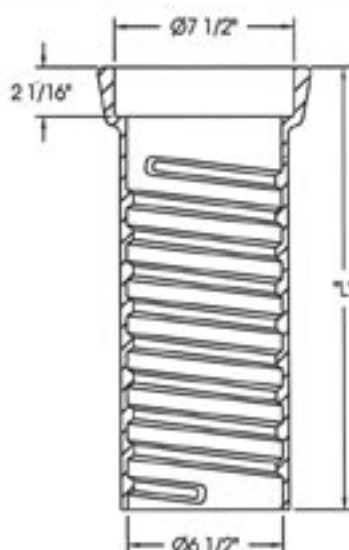
CODE	L (IN.)	Weight (Lb)
V743	16	31
V748	26	40

**SLIDE TOP
MIDDLE FLANGE**



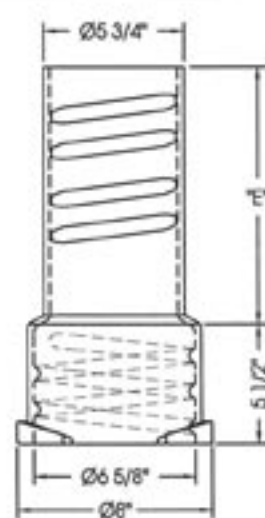
CODE	L (IN.)	Weight (Lb)
V757	26	41

SCREW TOP



CODE	L (IN.)	Weight (Lb)
V733	10	21
V734	17	32
V735	27	51

SCREW EXTENSION



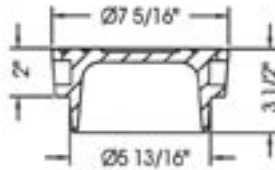
CODE	E (IN.)	Weight (Lb)
V813-#57	9	20
7344-#58	14	26
7345-#59	18	32
V816-#60	26	36
V817-#61	29	42

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WATER COVER

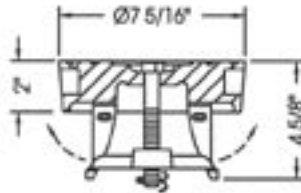
For off road or low traffic flow



CODE	Weight (Lb)	MODEL
V878	13	WATER
V879	13	GAS
V880	13	SEWER

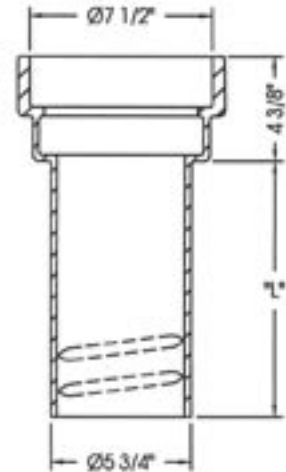
LOCKING COVER

For high traffic flow



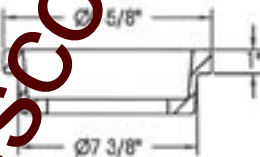
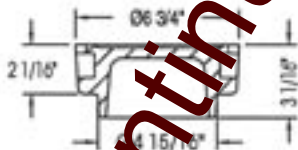
CODE	Weight (Lb)
S881	13

ADJUSTABLE SCREW RISERS



CODE	L (IN.)	Weight (Lb)
V852	12 1/2	26
V853	24	39
V854	30	46

1" FIXED RISER W/SPECIAL COVER

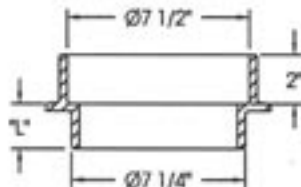


SPECIAL RISER COVER

*RISER WITH COVER

CODE	Description	Weight (Lb)
*S833	COMPLETE	23
V834	RISER ONLY	9
V877	COVER ONLY	14

FIXED RISERS



RISERS ACCEPT REGULAR COVER

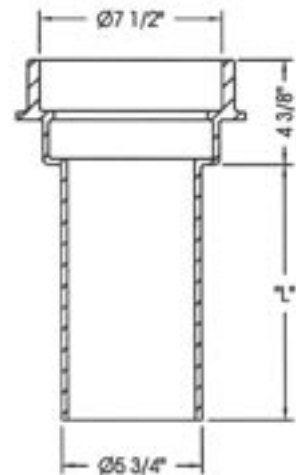
CODE	L (IN.)	Weight (Lb)
V829	1	6
V830	1 1/2	7
V831	2	9
V832	3	13
V833	4	14

KEY FOR PENTAGON HEAD



CODE	Weight (Lb)
V314	0.8

ADJUSTABLE SLIDE RISERS



CODE	L (IN.)	Weight (Lb)
V856	6	19
V858	12	26
V862	24	39

BIBBY

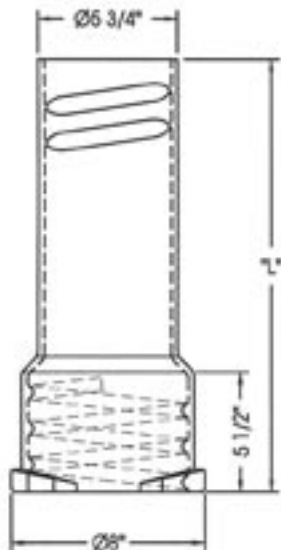


STE-CROIX

U S A

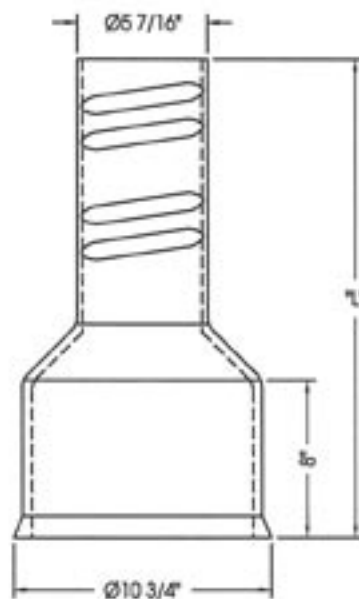
Division of McWane Inc.

SCREW BOTTOM



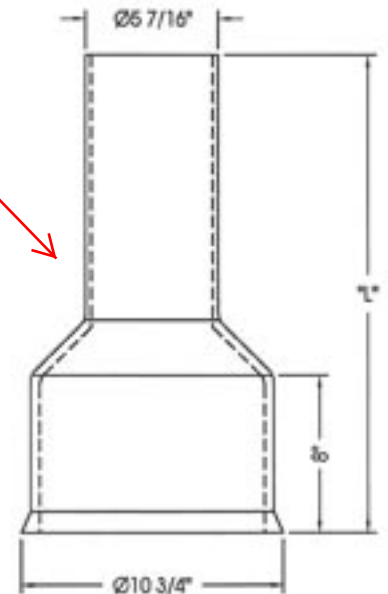
CODE	L (IN.)	Weight (Lb)
V813 #57	14	20
7344 #58	19	26
7345 #59	23 1/2	32
V816 #60	31	36
V817 #61	34	42

SCREW BELL BOTTOM



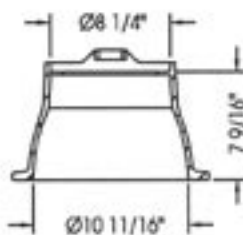
CODE	L (IN.)	Weight (Lb)
V770	24	35
V771	30	44
V772	36	54

SLIP BELL BOTTOM



CODE	L (IN.)	Weight (Lb)
V791	16	30
V792	24	37
V794	30	42
7354	36	47
7355	48	56
7356	60	63

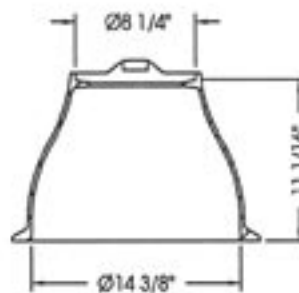
#4 BASE



FOR 4 INCHES VALVES OR SMALLER.

CODE	Weight (Lb)
V868	29

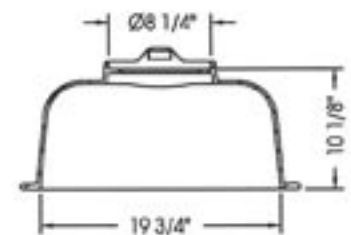
#6 BASE



FOR 8 INCHES VALVES OR SMALLER.

CODE	Weight (Lb)
7341	41

#160 OVAL BASE



FOR 16 INCHES VALVES OR SMALLER.

CODE	Weight (Lb)
V870	54

BIBBY STE-CROIX

U S A

Division of McWane Inc.



MECHANICAL JOINT C153 DUCTILE IRON COMPACT FITTINGS

Sizes 3" thru 16" UL Listed For Fire Main Equipment

SAMPLE SPECIFICATIONS (Current ANSI/AWWA revisions apply)

Mechanical joint watermain fittings with accessories, 2" through 48" shall be manufactured from ductile iron in accordance with and meet all applicable terms and provisions of standards **ANSI/AWWA C153/A21.53 and**

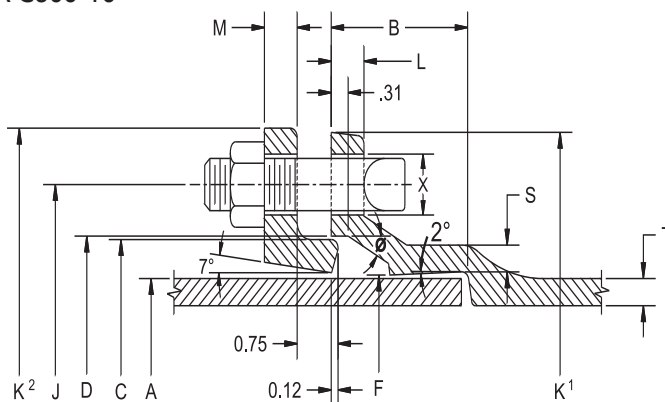
ANSI/AWWA C111/A21.11. Ductile iron mechanical joint fittings 2" through 24" shall be rated for 350 PSI working pressure. Ductile iron 30" through 48" shall be rated for 250 psi working pressure. Flanged ductile iron fittings in 24-in. (610 mm) and smaller sizes may be rated for 350 psi (2,413 kPa) with the use of special (annular ring or comparable) gaskets. All coated and lined fittings meet requirements of NSF-61.

NOTE - EXCEPTIONS: Mechanical joint fittings with flanged branches are rated for water pressure of 250 PSI.

NOTE - Wyes over 12" are not pressure rated. Contact manufacturer for rating in your application.

NOTE - Fittings are cement lined and seal coated in accordance with ANSI/AWWA C104/A21.4. Fittings are available double cement-lined, bare, or epoxy coated upon request. Epoxy coating per ANSI/AWWA C116

NOTE - Installation per AWWA C600-10



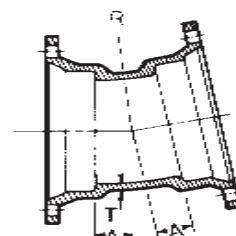
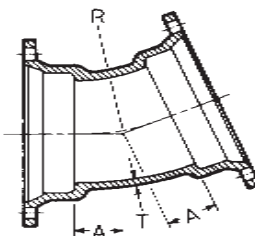
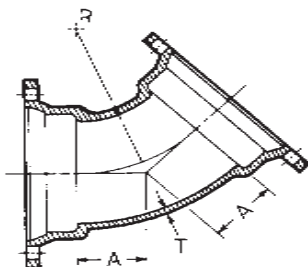
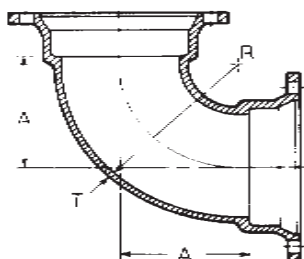
NOMINAL JOINT DIMENSIONS IN INCHES

BOLTS

Size	A Dia.	B	C Dia.	D Dia.	F Dia.	J Dia.	K ¹ Dia.	K ² Dia.	L	M	S	T	X	Size	No.
3	3.96	2.50	4.84	4.94	4.06	6.19	7.62	7.69	.58	.62	.39	.33	3/4	5/8x3	4
4	4.80	2.50	5.92	6.02	4.90	7.50	9.06	9.12	.60	.75	.39	.34	7/8	3/4x3 1/2	4
6	6.90	2.50	8.02	8.12	7.00	9.50	11.06	11.12	.63	.88	.43	.36	7/8	3/4x3 1/2	6
8	9.05	2.50	10.17	10.27	9.15	11.75	13.31	13.37	.66	1.00	.45	.38	7/8	3/4x4	6
10	11.10	2.50	12.22	12.34	11.20	14.00	15.62	15.62	.70	1.00	.47	.40	7/8	3/4x4	8
12	13.20	2.50	14.32	14.44	13.30	16.25	17.88	17.88	.73	1.00	.49	.42	7/8	3/4x4	8
14	15.30	3.50	16.40	16.54	15.44	18.75	20.31	20.25	.79	1.25	.55	.47	7/8	3/4x4 1/2	10
16	17.40	3.50	18.50	18.64	17.54	21.00	22.56	22.50	.85	1.31	.58	.50	7/8	3/4x4 1/2	12
18	19.50	3.50	20.60	20.74	19.64	23.25	24.83	24.75	1.00	1.38	.68	.54	7/8	3/4x4 1/2	12
20	21.60	3.50	22.70	22.84	21.74	25.50	27.08	27.00	1.02	1.44	.69	.57	7/8	3/4x4 1/2	14
24	25.80	3.50	26.90	27.04	25.94	30.00	31.58	31.50	1.02	1.56	.75	.61	7/8	3/4x5	16
30	32.00	4.00	33.29	33.46	32.17	36.88	39.12	39.12	1.31	2.00	.82	.66	1 1/8	1x6	20
36	38.30	4.00	39.59	39.76	38.47	43.75	46.00	46.00	1.45	2.00	1.00	.74	1 1/8	1x6	24
42	44.50	4.00	45.79	45.96	44.67	50.62	53.12	53.12	1.45	2.00	1.25	.82	1 3/8	1 1/4x6 1/2	28
48	50.80	4.00	52.09	52.26	50.97	57.50	60.00	60.00	1.45	2.00	1.35	.90	1 3/8	1 1/4x6 1/2	32

NOTE: 2 Inch MJ ASTM A536 ductile iron Compact fittings (2"-22.5 bend, 2"-45 bend, 2"-90 bend, 2"x12" solid sleeve, 2"x2" tee, 4"x2" tee, and 4"x2" reducer) will be available beginning 2012. Call Tyler Union for availability and product dimensions.

BENDS



90° Bends (1/4)

45° Bends (1/8)

22 1/2° Bends (1/16)

11 1/4° Bends (1/32)

Size	Dimensions				Weight	Dimensions			Weight	Dimensions			Weight	Dimensions			Weight
	T	A	R			A	R			A	R			A	R		
3	.34	3.5	2.5		19	2.00	2.41		17	1.50	2.51		15	1.25	2.53		16
4	.35	4.0	3.0		22	2.50	3.56		20	1.75	3.81		18	1.50	5.12		18
6	.37	6.5	6.0		49	3.50	7.25		39	2.25	6.35		31	1.50	5.12		29
8	.39	7.5	7.0		64	4.00	8.44		56	2.85	11.80		50	2.06	15.80		45
10	.41	9.5	9.0		102	5.01	10.88		78	3.35	14.35		66	2.32	18.36		59
12	.43	10.5	10.0		129	5.98	13.25		102	3.86	16.90		87	2.56	20.90		82
14	.51	12.0	11.5		214	5.50	12.06		155	3.93	17.25		142	2.59	21.25		136
16	.52	13.0	12.5		273	5.98	13.25		204	3.98	17.50		178	2.62	21.50		157
18	.59	15.5	14.0		411	6.50	12.36		292	7.50	30.19		286	3.00	60.84		283
20	.60	17.0	15.5		519	7.00	13.59		372	8.50	35.19		376	3.50	71.07		374
24	.62	17.0	15.5		721	7.50	14.89		490	9.00	37.69		512	3.50	76.12		487
30	.66	21.50	19.0		930	10.50	9.31		716	6.75	21.36		665	4.75	22.84		600
36	.74	24.50	22.0		1450	11.50	21.73		1110	7.75	26.39		960	5.00	25.38		820
42	.82	29.25	26.7		2205	14.00	27.76		1610	9.00	32.68		1350	6.00	35.54		1180
48	.90	33.25	30.75		2990	15.00	30.17		2090	10.00	27.70		1760	6.50	40.61		1475

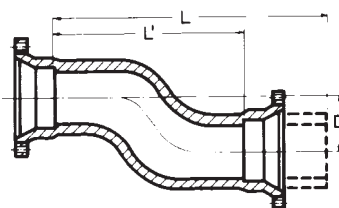
**Note: 2 Inch Compact ductile iron 22.5, 45, and 90 degree bends available in 2012. Call Tyler Union for information.

*OFFSETS

MJ x MJ

MJ x PE

Size	D	Dimensions		Weights	
		L ¹	L	MJxMJ	MJxPE
4	6	10	--	42	--
4	12	16	--	52	--
4	18	22	--	58	--
4	24	28	--	70	--
6	6	12	17.5	50	--
6	12	18	--	65	--
6	18	24	--	82	--
6	24	30	--	91	--
8	6	13	--	79	--
8	12	19	--	96	--
8	18	25	--	116	--
10	12	21	--	136	--
12	6	17	--	137	--



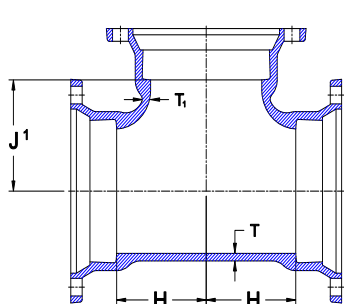
* Not included in AWWA C153.



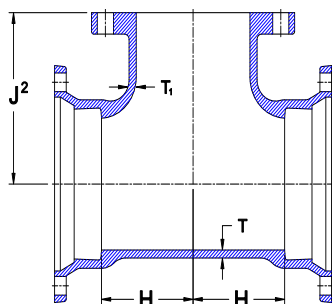
MECHANICAL JOINT C153 DUCTILE IRON COMPACT FITTINGS

Sizes 3" thru 16" UL Listed For Fire Main Equipment

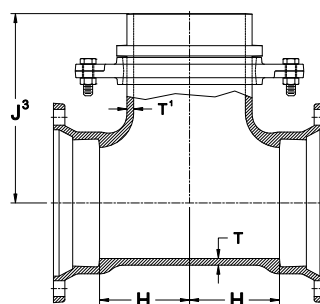
TEES



MJ Tee

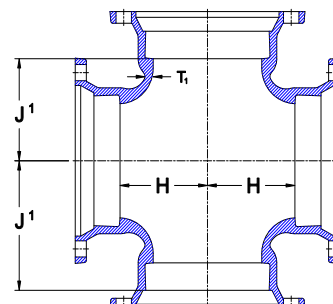


MJ x FE Tee



MJ x Swivel Tee

CROSS



Cross

Size	Dimensions				Weights					
	T	T ¹	H	J ¹	J ²	J ³	MJ	MJxFE	†MJxS	Cross
3	.34	.34	3.5	3.50	5.5	...	26	29	...	31
4x3	.35	.34	3.5	4.00	6.5	...	35	34	...	39
4	.35	.35	4.0	4.00	6.5	...	36	39	...	45
6x3	.37	.34	4.0	4.00	6.5	...	51	54	...	...
6x4	.37	.35	4.0	5.00	8.0	...	52	57	...	62
6	.37	.37	5.0	5.00	8.0	10.50	66	68	77	79
8x3	.39	.34	4.0	6.50	9.0	...	56	...	...	...
8x4	.39	.35	4.5	6.50	9.0	...	72	82	...	84
8x6	.39	.37	5.5	6.50	9.0	11.50	79	81	105	98
8	.39	.39	6.5	6.50	9.0	11.50	90	101	116	112
10x3	.41	.34	4.0	7.50	11.0	...	80	...	...	...
10x4	.41	.35	4.5	7.50	11.0	...	82	92	...	98
10x6	.41	.37	5.5	7.50	11.0	13.00	99	116	114	121
10x8	.41	.39	6.5	7.50	11.0	13.00	116	128	138	135
10	.41	.41	7.5	7.50	11.0	...	132	144	...	156
12x3	.43	.34	4.0	8.75	12.0	...	99	...	...	...
12x4	.43	.35	4.5	8.75	12.0	...	108	118	...	119
12x6	.43	.37	5.5	8.75	12.0	14.25	119	133	132	138
12x8	.43	.39	6.5	8.75	12.0	14.25	126	146	149	149
12x10	.43	.41	7.5	8.75	12.0	...	159	174	...	187
12	.43	.43	8.75	8.75	12.0	...	171	198	...	202
14x6	.51	.44	6.5	10.50	14.0	16.00	183	205	211	210
14x8	.51	.45	7.5	10.50	14.0	...	211	...	...	231
14x10	.51	.46	8.5	10.50	14.0	...	229	244	...	255
14x12	.51	.47	9.5	10.50	14.0	...	245	284	...	269
14	.51	.51	10.5	10.50	14.0	...	281	291	...	299
16x6	.52	.45	6.5	11.50	15.0	17.00	222	230	243	250
16x8	.52	.46	7.5	11.50	15.0	...	245	248	...	264
16x10	.52	.47	8.5	11.50	15.0	...	265	287	...	286
16x12	.52	.48	9.5	11.50	15.0	...	277	312	...	312
16x14	.52	.51	10.5	11.50	15.0	...	317	348	...	...
16	.52	.52	11.5	11.50	15.0	...	337	324	...	451
18x6	.59	.44	6.5	14.50	15.5	18.00	275	261	279	...
18x8	.59	.45	7.5	14.50	14.5	...	280	351	...	...
18x10	.59	.47	8.5	12.50	...	...	286	...	...	...
18x12	.59	.49	9.5	12.50	...	...	372	...	...	...
18x14	.59	.56	10.5	12.50	...	...	415	...	...	...
18x16	.59	.57	11.5	12.50	...	...	445	...	...	...
18x18	.59	.59	13.0	12.50	...	...	490	...	...	...

NOTE: Contact TU Inside Sales representative for MJ Crosses larger than 16 inch. †MJxSwl Weights include swivel gland.

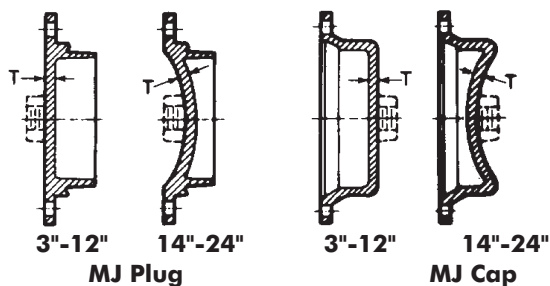
**NOTE: 2"x2" and 4"x2" Compact C153 tees available in 2012. Call Tyler Union for information.



MECHANICAL JOINT C153 DUCTILE IRON COMPACT FITTINGS

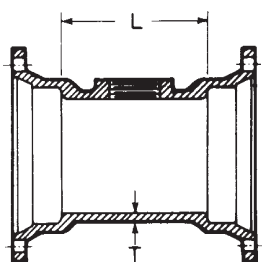
Sizes 3" thru 16" UL Listed For Fire Main Equipment

SOLID & TAPPED PLUGS & CAPS



Size	Dimensions		Max. Tap	Weights	
	T			Plugs	Caps
3	.46	2		9	8
4	.46	2		9	10
6	.46	2		18	18
8	.46	2		25	26
10	.56	2		36	32
12	.56	2		47	46
14	.62	2		76	85
16	.62	2		98	94
18	.65	2		138	121
20	.66	2		158	149
24	.68	2		223	210
30	.66	2		355	345
36	.74	2		688	626
42	.82	2		1091	723
48	.90	2		1455	974

TAPPED TEE

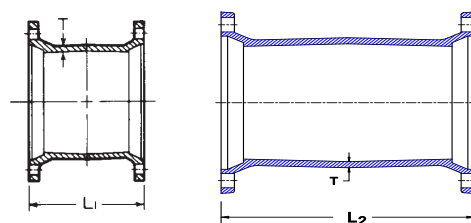


MJ x FE Flange
Dimensions are
on inside front
cover.

MJ Tapped Tee (2" Tap)

Size	Dimensions		Max. Tap	Weights
	T	L		
3	.34	6	2	19
4	.35	6	2	23
6	.37	6	2	35
8	.39	6	2	54
10	.41	6	2	68
12	.43	6	2	88
16	.52	6	2	164

SOLID SLEEVES

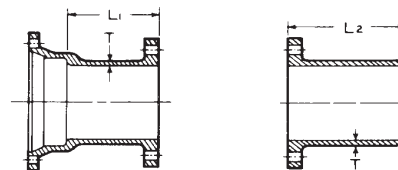


Size	T	Dimensions		Weights	
		L ¹	L ²	Short	Long
3	.34	7.5	12	13	22
4	.35	7.5	12	19	25
6	.37	7.5	12	28	39
8	.39	7.5	12	38	55
10	.41	7.5	12	48	68
12	.43	7.5	12	62	81
14	.56	9.5	15	116	146
16	.57	9.5	15	138	174
18	.68	9.5	15	160	230
20	.69	9.5	15	212	269
24	.75	9.5	15	272	380
30	.66	15.0	15	500	...
30	.66	...	24	...	640
36	.74	15.0	15	725	662
36	.74	...	24	...	925
42	.82	...	24	...	1146
48	.90	...	24	...	1455

Note: 2"x12" C153 Sleeves available, call for information

ADAPTERS

*Note: Verify non domestic laying lengths with Tyler Union



Size	T	Dimensions		Weights	
		L ¹	L ²	MJxFE	FExPE
3	.34	*6	12	18	...
4	.35	*6	12	26	23
6	.37	*6	12	36	35
8	.39	*6	12	50	50
10	.41	*6	12	60	69
12	.43	*6	12	88	88
14	.51	*6	12	127	...
16	.52	*6	12	155	149
18	.56	*6	...	195	...
20	.60	*6	...	275	...
24	.62	*6	...	305	...
30	.66	*7	...	470	...
36	.74	*8	...	750	...



DOMESTIC

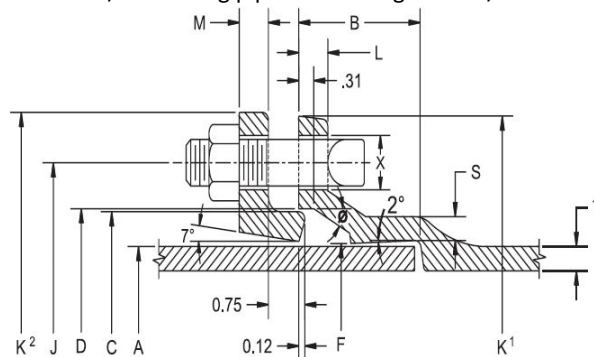


NON-DOMESTIC

SUBMITTAL: C153 MECHANICAL JOINT PRODUCT

(Current revisions for the noted Standards apply)

SIZES:	2" through 64" (2" not included in ANSI/AWWA C153 standard)
STANDARDS:	ANSI/AWWA C153/A21.53, NFPA13/24, 3"-16" UL and 3"-10" FM listed & approved (File - Tyler Union)
MATERIAL:	Cast of ASTM A536 qualified ductile iron. Date code is cast on and required for traceability.
PRESSURE RATING:	*Flanged fittings rated at 250 psi. Mechanical joints 2" – 24" rated at 350 psi and 30" – 48" at 250 psi. *Note: With rubber annular ring flange gasket, 2" – 24" Flanged fittings can be rated at 350 psi. Note: Wyes over 12" are not pressure rated. Contact Tyler Union for rating in your application.
DEFLECTION:	Max joint deflection 2"– 12", 5° and 14"– 48", 3°. Reduces by 50% at nominal pipe & fitting diameters
NSF-61 & NSF372:	Meets all requirements including Annex G, Tyler Union's Underwriters Laboratory listing MH16439.
ASPHALT COATING:	Per ANSI/AWWA C104/A21.4 and ANSI/AWWA C153/A21.53.
CEMENT LINING:	Per ANSI/AWWA C104/A21.4, with double cement lining.
EPOXY COATING:	Fusion bonded epoxy per ANSI/AWWA C116/A21.16. Additional coatings available upon request.
BARE FITTINGS:	Available upon request.
FASTENERS:	High strength low alloy weathering steel per ANSI/AWWA C111/A21.11 and ASTM A242
INSTALLATION:	Install per AWWA C600/C651 using pipe conforming to ANSI/AWWA C151/A21.51 or AWWA C900/905.



NOMINAL JOINT DIMENSIONS IN INCHES

BOLTS

Size Inches	A Dia. DI Pipe	B Hub Depth	C Dia. GLAND	D Dia.	F Dia.	J Dia. GLAND	K¹ Dia.	K² Dia. GLAND	L	M GLAND	S	T	X	Size	Qty.
2	2.51	2.50	3.50	3.60	2.61	4.75	6.19	6.89	0.58	0.62	0.36	0.30	3/4	5/8x3.0	2
3	3.96	2.50	4.84	4.94	4.06	6.19	7.62	7.69	0.58	0.62	0.39	0.33	3/4	5/8x3.0	4
4	4.80	2.50	5.92	6.02	4.90	7.50	9.06	9.12	0.60	0.75	0.39	0.34	7/8	3/4x3.5	4
6	6.90	2.50	8.02	8.12	7.00	9.50	11.06	11.12	0.63	0.88	0.43	0.36	7/8	3/4x3.5	6
8	9.05	2.50	10.17	10.27	9.15	11.75	13.31	13.37	0.66	1.00	0.45	0.38	7/8	3/4x4.0	6
10	11.10	2.50	12.22	12.34	11.20	14.00	15.62	15.62	0.70	1.00	0.47	0.40	7/8	3/4x4.0	8
12	13.20	2.50	14.32	14.44	13.30	16.25	17.88	17.88	0.73	1.00	0.49	0.42	7/8	3/4x4.0	8
14	15.30	3.50	16.40	16.54	15.44	18.75	20.31	20.25	0.79	1.25	0.55	0.47	7/8	3/4x4.5	10
16	17.40	3.50	18.50	18.64	17.54	21.00	22.56	22.50	0.85	1.31	0.58	0.50	7/8	3/4x4.5	12
18	19.50	3.50	20.60	20.74	19.64	23.25	24.83	24.75	1.00	1.38	0.68	0.54	7/8	3/4x4.5	12
20	21.60	3.50	22.70	22.84	21.74	25.50	27.08	27.00	1.02	1.44	0.69	0.57	7/8	3/4x4.5	14
24	25.80	3.50	26.90	27.04	25.94	30.00	31.58	31.50	1.02	1.56	0.75	0.61	7/8	3/4x5.0	16
30	32.00	4.50	33.29	33.46	32.17	36.88	39.12	39.12	1.31	2.00	0.82	0.66	1-1/8	1x6.0	20
36	38.30	4.50	39.59	39.76	38.47	43.75	46.00	46.00	1.45	2.00	1.00	0.74	1-1/8	1x6.0	24
42	44.50	4.50	45.79	45.96	44.67	50.62	53.12	53.12	1.45	2.00	1.25	0.82	1-3/8	1-1/4x6.5	28
48	50.80	4.50	52.09	52.26	50.97	57.50	60.00	60.00	1.45	2.00	1.35	0.90	1-3/8	1-1/4x6.5	32
54	Available on Request														
60	Available on Request														
64	Available on Request														

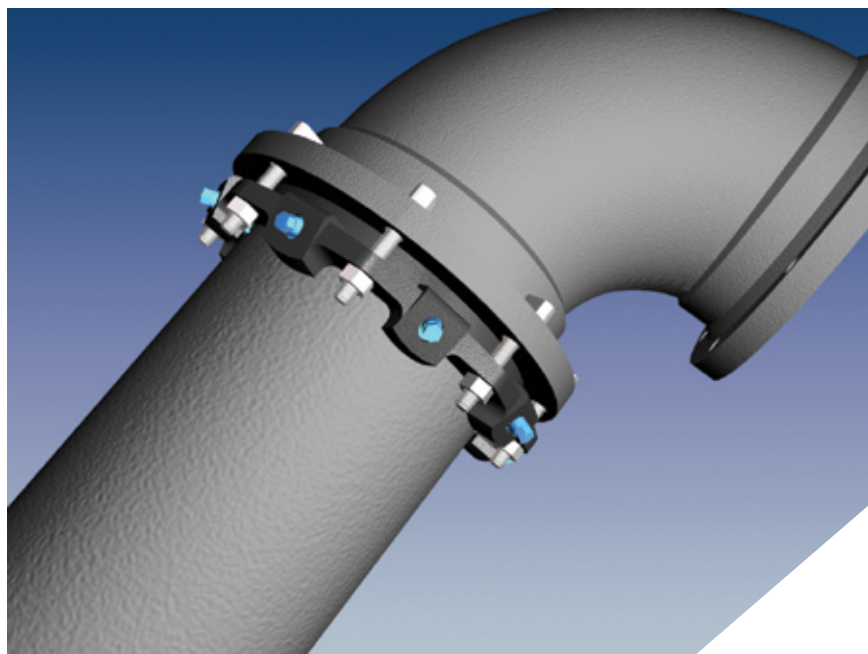
Anniston: 1501 W 17th St. • Anniston, AL 36201 • (800) 226-7601
Corona: 1001 El Camino Ave. • Corona, CA 92879 • (866) 527-8471
Tyler: 11910 CR 492 • Tyler, Texas 75706 • (800) 527-8478
Dallas: 1201 Ave. S. Suite100 • Grande Prairie, TX 75050

Elmer: 701 Kenyon Ave. Elmer, New Jersey 03318
New Lenox: 2200 West Haven • New Lenox, IL 60451
Portland: 15670 N. Lombard St. • Portland, OR 97203
Oxford: 1800 Greenbrier Dear Road • Anniston, AL 36207

MEGALUG®

Series 1100

Mechanical Joint Restraint for Ductile Iron Pipe



Features and Applications:

- Sizes 3 inch through 48 inch
- Constructed of ASTM A536 Ductile Iron
- Torque Limiting Twist-Off Nuts
- MEGA-BOND®
Restraint Coating System
For more information on MEGA-BOND,
refer to www.ebaa.com
- The Mechanical Joint Follower Gland is
incorporated into the restraint
- Heavy Duty thick wall design
- Support Products Available:
Split repair style available 3 inch
through 48 inch.
EBAA Series 1100SD

Solid restraint harness available for
push-on pipe bells.
EBAA Series 1700

Split restraint harness available for
existing push-on bells.
EBAA Series 1100HD
- All MEGALUG and related restraint
products can be furnished as packaged
accessories complete with appropriate
restraint, gasket, lubrication, and bolt-
ing hardware
- For use on water or wastewater pipe-
lines subject to hydrostatic pressure
and tested in accordance with either
AWWA C600 or ASTM D2774

Nominal Pipe Size	Series Number	Shipping Weights	Post Assembly Deflection	Pressure Rating (PSI)
3	1103	6.1	3°	350
4	1104	7.7	3°	350
6	1106	11.9	3°	350
8	1108	14.8	3°	350
10	1110	23.9	3°	350
12	1112	31.2	3°	350
14	1114	48.5	2°	350
16	1116	56.4	2°	350
18	1118	63.1	1½°	250
20	1120	72.3	1½°	250
24	1124	133.1	1½°	250
30	1130	194.6	1°	250
36	1136	234.0	1°	250
42	1142	536.0	1°	250
48	1148	653.0	1°	250

NOTE: For applications or pressures other than those shown please
contact EBAA for assistance.



U.S. Patent Nos.

4092036, 4627774, 4779900, 4896903, 5544922



MEGALUG: THE PRODUCT OF PREFERENCE SINCE 1984

Since 1984, engineers and contractors designing and installing water and wastewater pipelines and systems have come to rely on the EBAA Series 1100 MEGALUG Mechanical Joint Restraint as the “Product of Preference” for effectively and economically restraining ductile iron pipe connections above or below ground.

MEGALUG Mechanical Joint Restraints replace external restraints such as cumbersome concrete thrust blocks and corrodible metal tie rods creating a quicker, safer and more economical installation.

Major testing laboratories agree as the 3” through 24” sizes are Underwriters Laboratories (UL) listed, and the 3” through 12” sizes are Factory Mutual (FM) approved.

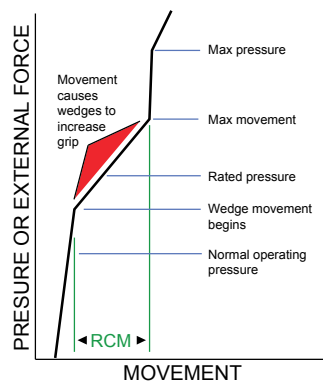
For use on all classes of ductile iron pipe (PC350 through PC150 and CL56 through CL50), for practically any application including valves, hydrants and pipe, the MEGALUG Mechanical Joint Restraint effectively and safely performs without damage to the pipe or cement linings.

THE MEGALUG GRIPPING WEDGE... PERFORMANCE PROVEN

The wedge style MEGALUG design reacts to the amount of force acting on the joint. When each wedge is set, the wedge teeth penetrate the pipe’s outer surface, and the wedge does not move on the pipe. There is very little change in this interface until the wedge movement begins inside the pocket of the main casting. Once the wedge starts moving, the formation of the buttress begins.

This “dam” of material (the wedge impression) is cold formed as the wedging action continues. If the force of pressure acting on the joint is released, the wedge moves back to near its original position. This engages the reserve-controlled movement or “RCM”. The wedge is then ready for another round.

After the wedge has moved to the back



of the pocket at the maximum pressure or load, the wedge buttress are in shear. The maximum movement is about 0.3 inch through the thirty-six inch size and 0.4 inch for forty-two and forty-eight inch.

The RCM is available even with severe

cyclic loads. This has been tested to very high-pressure differentials and the wedge impressions look the same as if a single test had been performed.

Typically, the depth of pipe wall penetration, or wedge impression at around 25,000 pounds of force per wedge (200 PSI on a six inch and 150 PSI on a twelve inch) is 0.03”. Finally, at roughly twice that force the penetration is around 0.05”. At these high pressures, there is no affect on the design thickness of ductile iron pipe made according to AWWA C150. The lack of damage to the cement lining clearly indicates that the thrust load is primarily longitudinal.

This ability to move in the pocket allows for angular flexibility as well as longitudinal flexibility.

THE ORIGINAL PATENTED GRIPPING WEDGES

Since 1964 EBAA Iron has responded aggressively to the needs of the water industry for better solutions to joint restraint problems - thus the development of the family of self actuating MEGALUG wedge action restraints.

TOOLS

MEGALUGS install using an ordinary wrench (box, ratchet, or air-driven), because the torque-limiting, twist-off nuts automatically shear during tightening when the proper torque is reached. The same 1¼ wrench used to tighten the T-bolts on the 4" through 24" sizes can be used to tighten and shear the twist off nuts in all sizes. If removal becomes necessary, a 5/8 hex head remains so the screws can be loosened, and retightened with a torque-indicating wrench. During removal, the wedges are held in place by retainer clips.

DEFLECTION

The MEGALUG gripping wedges provide resiliency to your pipeline design. In addition to deflecting as

much as allowed by the mechanical joint during installation, it can also deflect after assembly:

Sizes of 12" and below are capable of up to 3 degrees of deflection after installation (depending on the preset deflection.)

The 14" and 16" sizes are capable of 2 degrees deflection.

The 18" through 24" sizes are capable of 1.5 degrees deflection.

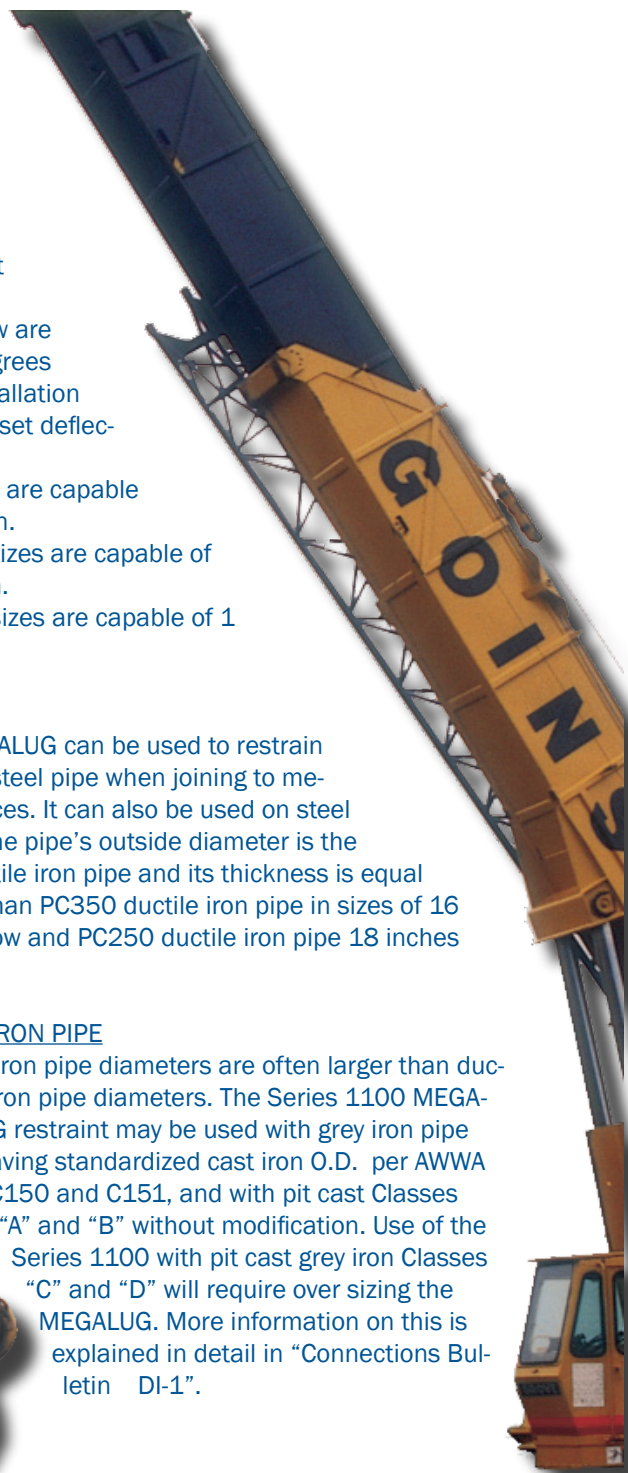
The 30" through 48" sizes are capable of 1 degree deflection.

STEEL PIPE

The 1100 Series MEGALUG can be used to restrain 3" - 8" SCH 40 or 80 steel pipe when joining to mechanical appurtenances. It can also be used on steel pipe in all sizes if the pipe's outside diameter is the same as the ductile iron pipe and its thickness is equal to or greater than PC350 ductile iron pipe in sizes of 16 inch and below and PC250 ductile iron pipe 18 inches and above.

CAST IRON PIPE

Grey iron pipe diameters are often larger than ductile iron pipe diameters. The Series 1100 MEGALUG restraint may be used with grey iron pipe having standardized cast iron O.D. per AWWA C150 and C151, and with pit cast Classes "A" and "B" without modification. Use of the Series 1100 with pit cast grey iron Classes "C" and "D" will require over sizing the MEGALUG. More information on this is explained in detail in "Connections Bulletin DI-1".



MEGALUG Takes the Load

On April 11, 1997 EBAA Iron performed a remarkable force demonstration of their series 1100 MEGALUG Joint Restraint. With the use of EBAA's Series 1100 MEGALUG using a standard mechanical joint installation on 12 inch Ductile Iron Pipe, and a 80 Ton motor crane, EBAA Iron lifted a D7 Caterpillar Track Type Tractor weighing in at 50,350 lbs. Along with this, the Series 1100 MEGALUG has been tested to over 700 PSI. Concluding that EBAA's MEGALUGS can take the load.

Mechanical Joint Restraint Sample Specifications

(The text of the specifications below can be copied/pasted from www.ebaa.com/download/1100Spec.DOC)

Restraint devices for mechanical joint fittings and appurtenances conforming to either ANSI/AWWA C111/A21.11 or ANSI/AWWA C153/A21.53, shall conform to the following:

Design

Restraint devices for nominal pipe sizes 3 inch through 48 inch shall consist of multiple gripping wedges incorporated into a follower gland meeting the applicable requirements of ANSI/AWWA C110/A21.10.

The devices shall have a working pressure rating of 350 psi for 3-16 inch and 250 psi for 18-48 inch. Ratings are for water pressure and must include a minimum safety factor of 2 to 1 in all sizes.

Material

Gland body, wedges and wedge actuating components shall be cast from grade 65-45-12 ductile iron material in accordance with ASTM A536.

For applications requiring restraint 30 inch and greater, an alternate grade of iron meeting the material requirements of ASTM A536 is acceptable, providing the device meets all end product performance requirements.

Ductile iron gripping wedges shall be heat treated within a range of 370 to 470 BHN.

Three (3) test bars shall be incrementally poured per production shift as per Underwriter's Laboratory (U.L.) Specifications and ASTM A536. Testing for tensile, yield and elongation shall be done in accordance with ASTM E8.

Chemical and nodularity tests shall be performed as recommended by the Ductile Iron Society, on a per ladle basis.

Traceability

An identification number consisting of year, day, plant and shift (YYDDD)(plant designation)(Shift number), shall be cast into each gland body.

All physical and chemical test results shall be recorded such that they can be accessed via the identification number on the casting. These Material Traceability Records (MTR's) are to be made available, in hard copy, to the purchaser that requests such documentation and submits his gland body identification number.

Production pieces that are too small to accommodate individual numbering, such as fasteners and wedges, shall be controlled in segregate inventory until such time as all quality control tests are passed. These component parts may then be released to a general inventory for final assembly and packaging.

All components shall be manufactured and assembled in the United States. The purchaser shall, with reasonable notice, have the right to plant visitation at his/her expense.

Installation

Mechanical joint restraint shall require conventional tools and installation procedures per AWWA C600, while retaining full mechanical joint deflection during assembly as well as allowing joint deflection after assembly.

Proper actuation of the gripping wedges

shall be ensured with torque limiting twist off nuts.

Approvals

Restraint devices shall be Listed by Underwriters Laboratories (3" through 24" inch size) and Approved by Factory Mutual (3" through 12" inch size).

Mechanical joint restraint for ductile Iron pipe shall be Megalug Series 1100 produced by EBAA Iron Inc. or approved equal.

MEGA-BOND® Restraint Coating System

All wedge assemblies and related parts shall be processed through a phosphate wash, rinse and drying operation prior to coating application. The coating shall consist of a minimum of two coats of liquid thermoset epoxy coating with heat cure to follow each coat.

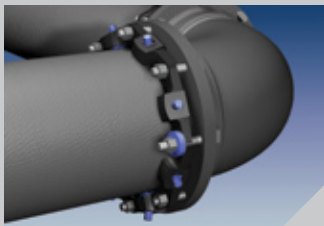
All casting bodies shall be surface pre-treated with a phosphate wash, rinse and sealer before drying. The coating shall be electrostatically applied and heat cured. The coating shall be a polyester based powder to provide corrosion, impact and UV resistance.

The coating system shall be MEGA-BOND by EBAA Iron, Inc. or approved equal. Requests for approved equal must submit coating material and process details for review prior to bid.

For more information regarding MEGA-BOND, refer to the MEGA-BOND brochure or visit www.ebaa.com.

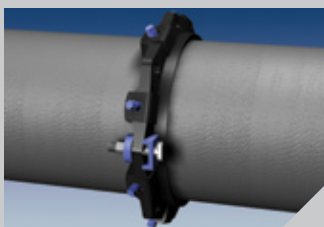
Support Products

for more information concerning these products please consult the catalog or www.ebaa.com



Series 1100SD

Split MEGALUG Restraint
For Existing Mechanical Joints



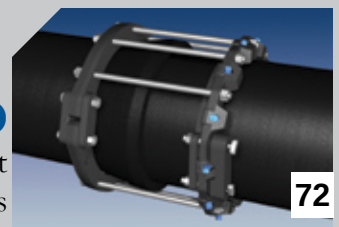
Series 1100SDB

Split MEGALUG Restraint
For Mid-Span Applications



Series 1700

MEGALUG Restraint Harness
For Push-On Bell Joints

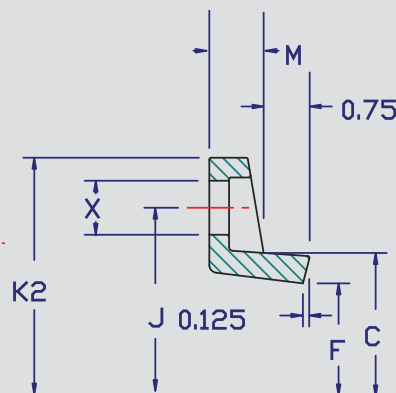
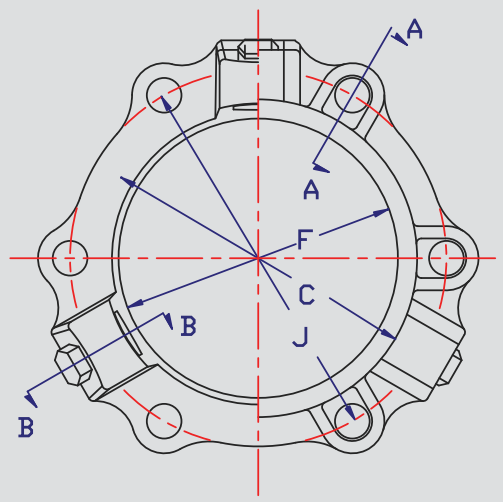


Series 1100HD

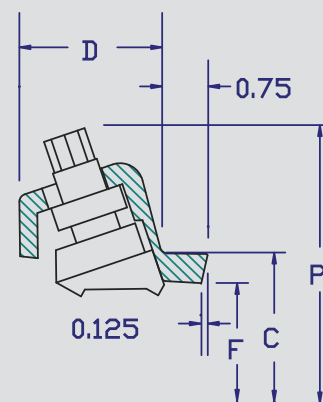
Split MEGALUG Restraint
Harness for Existing Push-On Bells

Series 1100 Submittal Reference Drawing

EBAA IRON



SECTION A-A



SECTION B-B

MADE IN USA

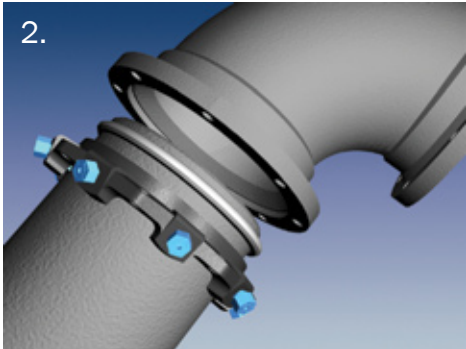
Nominal Pipe Size	Series Number	C	D	F	M	P*	X	J	K2	Wedge QTY.	Bolt QTY.	Weight (LBS.)	Pressure Rating (PSI)
3	1103	4.48	2.27	4.06	0.62	9.06	0.750	6.19	7.69	2	4	6.1	350
4	1104	5.92	2.27	4.90	0.75	9.90	0.875	7.50	9.12	2	4	7.6	350
6	1106	8.02	2.27	7.00	0.88	12.00	0.875	9.50	11.12	3	6	11.8	350
8	1108	10.17	2.31	9.15	1.00	14.15	0.875	11.75	13.37	4	6	14.9	350
10	1110	12.22	2.37	11.20	1.00	16.20	0.875	14.00	15.62	6	8	23.9	350
12	1112	14.32	2.37	13.30	1.25	18.30	0.875	16.25	17.88	8	8	31.2	350
14	1114	16.40	2.69	15.44	1.50	20.94	0.875	18.75	20.25	10	10	49.7	350
16	1116	18.50	2.69	17.54	1.56	22.90	0.875	21.00	22.50	12	12	56.4	350
18	1118	20.60	2.69	19.64	1.63	25.00	0.875	23.25	24.75	12	12	63.6	250
20	1120	22.70	2.69	21.74	1.69	27.10	0.875	25.50	27.00	14	14	71.0	250
24	1124	26.90	3.20	25.94	1.81	32.64	0.875	30.00	31.50	16	16	128.7	250
30	1130	33.29	3.20	32.17	2.25	38.87	1.125	36.88	39.12	20	20	190.7	250
36	1136	39.59	3.20	38.47	2.25	45.17	1.125	43.75	46.00	24	24	226.5	250
42	1142	45.79	4.56	44.67	3.88	55.57	1.375	50.62	53.48	28	28	518.9	250
48	1148	52.09	4.56	50.97	3.88	61.87	1.375	57.50	60.36	32	32	608.3	250

* With Twist-Off Nuts twisted off.

Important Notes

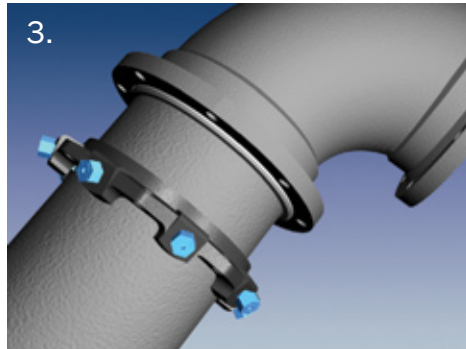
NOTE: Dimensions are in inches and are subject to change without notice.

- The Series 1100 MEGALUG should not be used on plain end fittings.
- If encased in concrete, polyethylene wrap must be used to prevent concrete intrusion into the wedge pocket.
- For test pressures above the rated pressures shown, contact EBAA for recommendations, such as tandem restraint for high pressure applications.
- If you experience the need to install the Series 1100 MEGALUG in an unconventional manner please consult our engineering department.
- The Series 1100 MEGALUG is intended for use on ductile iron pipe. The restraint can be used on grey iron pipe if the pipe is not severely corroded and is in sound condition and has an outside diameter that can be accommodated. For more information on the use of the MEGALUG restraint on grey iron pipe ask for Connections Bulletin DI-1.
- EBAA-Seal™ Mechanical Joint Gaskets are provided with 30 inch through 48 inch MEGALUG restraints. These are required on the above referenced sizes to accommodate the pressure ratings and safety factors shown.
- Extra length T-bolts are provided with the 42 inch and 48 inch sizes to facilitate easier assembly of the mechanical joint.
- All Series 1100 MEGALUG components are made of ductile iron conforming to ASTM A536. The wedges are heat treated to a hardness range of 370 to 470 BHN.
- LISTINGS AND APPROVALS: Sizes 3 inch through 24 inch are listed by Underwriters Laboratories, Inc. Category HJKF "Fittings, Retainer Type" with a deflection angle of 5 degrees (3 inch through 12 inch) and 2½ degrees (14 inch through 24 inch). The listing file number is EX2836, Sizes 3 inch through 12 inch are Factory Mutual approved.



1. The Series 1100 MEGALUG joint restraint is designed for use on ductile iron pipe conforming to ANSI/AWWA C151/A21.51 (all thickness classes) when restraining mechanical joint pipe fittings.

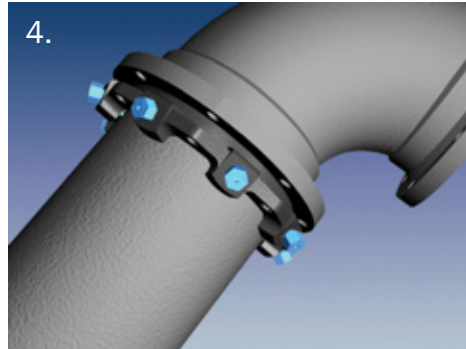
2.* Clean the socket and the plain end. Lubrication and additional cleaning should be provided by brushing both the gasket and the plain end with soapy water or an approved pipe lubrication meeting the requirement of ANSI/AWWA C111/A21.11,



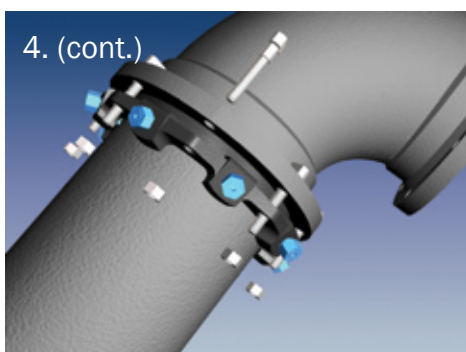
just prior to slipping the gasket onto the plain end for joint assembly. Place the gland on the plain end with lip extension toward the plain end, followed by the gasket.

NOTE: In cold weather it is preferable to warm the gasket to facilitate assembly of the joint.

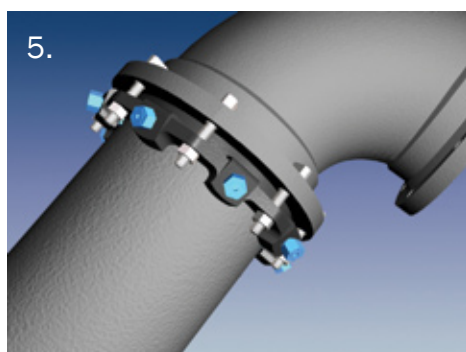
3.* Insert the pipe into the socket and press the gasket firmly and evenly into the gasket recess. Keep the joint straight during assembly.



4.* Push the gland toward the socket and center it around the pipe with the gland lip against the gasket. Insert bolts and hand tighten nuts. Make deflection after joint assembly but before tightening bolts.

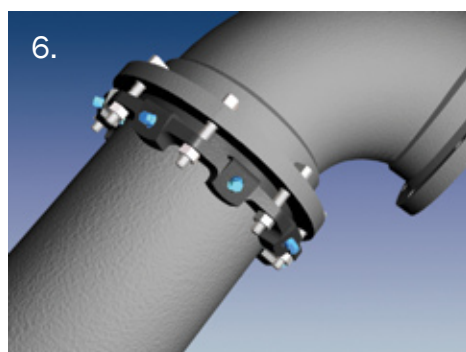


5.* Tighten the bolts to the normal range of torque as indicated [3 inch 45-60 ft-lbs., 4-24 inch 75-90 ft-lbs., 30-36 inch 100-120 ft-lbs., and 42-48 inch 120-150 ft-lbs.] While at all times maintaining approximately the same distance between the gland and the face of the flange at all points around the socket. This can be accomplished by partially tightening the bottom bolt first, then top bolt, next the bolts at either side, finally the remaining bolts. Repeat the process until all bolts are within the appropriate range of torque.



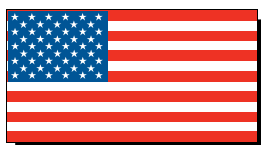
In large sizes (30-48 inch), five or more repetitions may be required. The use of a torque-indicating wrench will facilitate this procedure.

6. Tighten the torque limiting twist-off nuts in a clockwise direction (direction indicated by arrow on top of nut) until all wedges are in firm contact with the pipe surface. Continue tightening in an alternating manner until all of the nuts have been twisted off.



7. If removal is necessary, utilize the $\frac{5}{8}$ inch hex heads provided. If reassembly is required, assemble the joint in the same manner as above, by tightening the wedge bolts to 90 ft-lbs. If the series 1100 restraint is removed from the pipe, be sure that all the collar bolts and wedges are in place before the restraint is reassembled.

* These steps are requirements of AWWA. AWWA Standard C600



EBAA IRON Sales, Inc.

P.O. Box 857, Eastland, TX 76448

Tel: (254) 629-1731

Fax: (254) 629-8931

(800) 433-1716 within US and Canada

contact@ebaa.com

www.ebaa.com

For More Information

For more information about MEGALUG restraints call EBAA today and request

"EBAA Connections Bulletin DI-1" concerning use of the MEGALUG restraint on grey iron pipe, or "EBAA Connections Bulletin DI-2" covering the background and operation of the MEGALUG system of restraint.

"Restraint Length Calculation" Software is available for PC/Windows applications. Support documentation about the software can be found in "EBAA Connections Bulletin PD-1 through PD-5".

TEMPORARY CONSTRUCTION FENCING W/ SPLIT FENCE OR STAKED HARBULES

LIMIT OF ACTIVITY

PROPOSED RESIDENTIAL APARTMENTS

REMOVE 481,000 S.F. OF EXISTING BROKEN PAVEMENT

REMOVE EXISTING FENCE

Gate Valve

EXISTING WATER SERVICE

DUMPSTER ENCLOSURE

ASBESTOS UNDERGROUND PROPANE TANK

EXISTING RETAIL/COMMERCIAL SPACE

EXISTING MAIN/STEPS (75%)

STONE

STONE

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FENCE

SAND

LONEL LEDYARD HIGHWAY (ROUTE 117)

N15°57'16"W 281.03

N09°51'36"W 94.11

N15°53'51"W 106.57

N04°18'41"E 132.00

N73°20'34"E 71.81

S73°40'46"W 613.10



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1093

Agenda Date: 7/28/2026

Agenda #: 2.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

1947 Center Groton Road

Background:

(type text here)

Department Comment/Recommendation:

(type text here)

CITY OF GROTON
DEPARTMENT OF UTILITIES
SITE PLAN REVIEW SHEET

Title of Plan Multifamily Residential Dvlpt. - 1947 Center Groton Rd Latest Revision Date 07/20/2026

Location 1947 Center Groton Road, Ledyard Center W.I.P. # 02-1864

Engineer BL Companies & EG Homes/EG Shoreline Phone #

Reviewed By Blacker, Monk, Acimovic Date of Review 07/17/26

*Please include all Notes on Plan.

Check for the Following:

<u>Required</u>	
Yes	No

- | | | | |
|---|---|---|-------------------------------|
| 1. | Note - All water main and service installations shall conform to the City of Groton, Department of Utilities, Water Main and Service Construction Specifications, with most current revisions. | X | _____ |
| 2. | Note - Approved backflow preventers are required on all fire sprinkler and domestic water lines. | X | _____ |
| 3. | Note - Remote water meter read box required for each meter. | X | <u>please see note</u> |
| 4. | Note - minimum cover shall be 4.5' from finish grade. | X | _____ |
| 5. | Note - Pipe separations -10' min between water and sewer
10' min between water and buildings
5' min between water and catch basins or drain pipes. | X | _____ |
| 6. | Note - Site must be at subgrade before water utilities can be installed. | X | _____ |
| 7. | Note - Valve locations - All branch line valves to be located as close as possible to main lines. | X | <u>please reflect in plan</u> |
| 8. | Note - Engineer to provide flow calculations to confirm hydrant flow and domestic flow requirements for meter sizing. | X | _____ |
| 9. | Architectural plans to show utility room locations and entry point of water service. | X | _____ |
| 10. | Water meter location inside UTILITY ROOM/CABINET. | X | <u>please see notes</u> |
| 11. | Electronic Copy of the site plan and as-built is required | X | _____ |
| 12. | Is site located in Groton Utilities' watershed? | X | _____ ¹ _____ |
| 13. | Comments: <u>Plans not approved for GU Water & Watershed – See attached comments</u> | | |
| <u>from GU - Contract Operator for Ledyard WPCA Water system.</u> | | | |

Water Utility General Comments:

1. Existing water main at Center Groton Rd = 16" DI. GU noted relocation of water main tap to new, northern driveway, please note on the plan a minimum 10 ft. separation distance from force sewer.
 - a. Please note this separation is required the entire length of the force sewer main, routing north on Cetner Groton Rd and once it turns east on Colonel Ledyard Highway (Sheets: C3.10, C3.00 and C3.100). If vertical separations are utilized, please indicate this in notes on the plan.
 - b. GU Water Spec Detail # 5 provides additional information.
2. Existing Static Pressure is approximately 63 PSI static at Center Groton Road.
3. GU will perform the tap at the 16" DI water main on Center Groton Road with a tapping sleeve and valve. Please note this on the Plan. Contractor to coordinate with GU Project Management on tapping requirements, scheduling and procedures. Note this on Utility Plan Sheet.
4. ~~A meter pit and curb box will be required for each individual water service, per Ledyard WPCA Rules and Regulations.~~ **GU has requested written documentation (from Ledyard WPCA) of a verbal conversation between the developer and the WPCA, in which Ledyard WPCA waived the Meter Pit Policy requirements.**
 - a. Our current understanding is that for each building, a utility cabinet/room, with maintenance access, will be installed; within the cabinet, a manifold with four (4) meters will be installed and associated piping to each of the four units.
 - b. Please note that the meters will require associated wiring be routed through a small diameter pipe and to the face of the building. GU Meter Shop can provide additional information.
 - c. The WPCA Water & Sewer Commitment Letter, provided to the developer, outlines conditions for the contract operator to perform routine leak detection monitoring and owner requirements to repair any leaks within 60 days of a notification letter.
5. Additionally, please note on Plan:
 - a. Required 5' horizontal or 18" vertical clearance separation of water and storm water utilities.
 - b. Note water 6' min. horizontal separation from UG telecommunications and electric.
6. Flow Demand Letter to be provided to GU Water Meter Department. GU Meter Department will size meters based on flow demand provided. Meters are provided through GU Meter Shop.
7. Contact GU Water Meter Department to review requirements for the layout, quantities, and sizing of meters and backflow devices at domestic and fire protection:
 - a. **Groton Utilities Meter Department: 860-446-4077.**
 - b. Contractor to coordinate with GU Water Meter Department for temporary water meter/backflow device rental and water usage requirements during construction.
8. Hydrants:
 - a. Hydrant quantities and locations are to be determined/approved by Fire Marshal. Currently, four (4) are shown.
 - b. Please coordinate with Groton Utilities about ownership and hydrant agreements.
9. Unmetered Fire Sprinkler Agreement will be required for annual billing.
10. Contractor to provide As-built records at project completion.
11. *Please remove Generic Spec details on page: C3.100 and replace with Groton Utilities' Water Specification Sheets 1-20: Add GU Technical Drawings*
 - #1 – Typical Gate Box
 - #2 – Gate Valve Connection Detail
 - #3 - Tapping Sleeve & Valve
 - #4 – Thrust Block Details
 - #5 – Typical Sewer & Drain Crossing
 - #6 – Hydrant Assembly Detail
 - #7 – Brass Wedge Detail

- #13 –Backflow Preventer Install
- #17 – Typical Trench Detail
- #19 – Typical Tracer Wire Detail
- #20 – Water Service Trench Detail

12. Please contact Groton Utilities Project Manager, Kate Blacker, assigned to this project.
13. Groton Utilities is the Contracted Water Operator (This does not include the Sewer). Ledyard WPCA’s consultants, Weston and Sampson, review sewer and force sewer infrastructure on this project.

Watershed Comments

1. We request addition of a note on Stormwater Operations and Maintenance Plan to notify Groton Utilities if a spill ever occurs.
- 2.

Roof & Yard Discharges to Swale and CB-208 – We continue to remain concerned with the accumulation of flow designed to enter the catch basin at CB-208. The explanation given is that “..... *any bypass of flow will be captured by catch basins down slope and will be routed to the treatment areas.*” The flow into the catch basin (i.e., CB-208), as well as the bypass flow, do not appear to be quantified, and the reference to Appendix E does not appear to provide the “gutter spread calculations” noted. Any ponding, storage or detention of flow in the area of the catch basin would be minimal, based on proposed contours, and bypass flow would appear to be directed into roadway and parking areas, as well as toward PDA-42, rather than the intended PDA-21. We would ask for some further clarification on this issue.

Forwarding, to the Commissioners, at your request:

GU Site Plan review comments on 1947 Center Groton Road: EG Shoreline Homes.

Out of tomorrow's meeting we are requesting a written narrative/decision could be documented on the exception to the WPCA meter location Policy; this would become part of the next site plan review and ensure GU alignment in our oversight/inspection of the development. The site plan review comments reference the verbal agreement you mentioned last week of a Utility room or closet per each building.

Our Meter Shop comments: relating to access for routine meter maintenance or change outs and the reminder to developer that associated wiring and small diameter line is required to facilitate remote read device installation.

Thank you,
Kate

WATER AND SEWER MAIN EXTENSION AGREEMENT

This Agreement, entered into by and between **THE TOWN OF LEDYARD**, a municipal corporation acting through its Water Pollution Control Authority, and, **EG Shoreline IV LLC**, a Connecticut limited liability company, hereinafter called the "Owner", whose mailing address for the purpose of carrying out the terms of this Agreement is 3 Pomperaug Office park, Suite 105, Southbury, Connecticut 06488.

WITNESSETH

WHEREAS, the Owner has a serious need to have its properties located at in Ledyard service with 72 Units receiving public water and sewer and has requested the Town of Ledyard Water Pollution Control Authority to provide such service;

WHEREAS, the Town of Ledyard, acting through its Water Pollution Control Authority provides a public water supply and sewer service to portions of the Town of Ledyard, including properties in the vicinity of the town library on State road 117 and will reserve a nominal rate of 7000 gallons/day of sewer service for up to 5 years commencing upon the filing of the mylars, after which, if the Owner does not complete the development in 5 years, said rate capacity of 7000 gallons/day at the discretion of the Water Pollution Control Authority may be reallocated to another development; and

WHEREAS, the Town of Ledyard is willing to provide the requested services as long as there is no appreciable cost to the Town of Ledyard and agrees to process a nominal sewer rate of 7000 gallons/day;

NOW, THEREFORE, the parties agree as follows:

1. The Owner agrees to install, at its sole cost and expense, and in accordance with all rules, regulations, ordinances and specifications adopted by the Town of Ledyard, acting through its Water Pollution Control Authority, in accordance with the plan referenced in the plan attachment hereof, the water and sewer main described therein and all appurtenances required in connection therewith by the applicable rules and regulations of the Town of Ledyard Water Pollution Control Authority, including any additional regulations promulgated by its consultant, the City of Groton acting through its Department of Public Utilities and adopted by the Town of Ledyard Water Pollution Control Authority, including the cost of supervision of testing and sanitizing the installed facilities.

Notwithstanding any requirement for individual exterior water meter pits located outside each dwelling unit, the Owner shall have the option to install individual water meters inside each unit. In such event, exterior meter pits shall not be required, and all water usage for each unit shall be measured through the interior meters, provided that the installation and configuration of such interior meters comply with all applicable utility standards and regulatory requirements.

All dwelling units shall be equipped with an individual curb stop for the purpose of controlling water service to that unit. The Association's governing documents shall grant permission to the Ledyard Water Pollution Control Authority (WPCA) and/or Groton

Utilities, as applicable, to enter upon the property, including any limited common elements, for the purpose of accessing the curb stop and shutting off water service in the event of leaks, repairs, maintenance needs, non-payment or emergencies. Such access may occur without prior notice when immediate action is required to protect persons or property.

2. In addition, the Owner agrees to pay the full and actual cost incurred by the Town of Ledyard Water Pollution Control Authority for the following:
 - a. The connection of the water main described in the attached plan hereof to the existing water main along the frontage of 1947 Center Groton Rd (Route 117). The diameter of the attached water main shall be 8 inches.
 - b. Construction inspection fees incurred by the Town of Ledyard Water Pollution Control Authority.
 - c. Testing of the water main and appurtenant facilities.
 - d. Interconnection of the individual units to the existing water main.
 - e. The connection of the sewer main described in the attached plan hereof to the low pressure force main located at the corner of Ray Holdridge Circle and Colonel Ledyard Hwy or at a location deemed to be the most efficient and cost effective by EG Shoreline IV LLC and agreed upon by the WPCA
 - f. Any leak test requirements for the new sewer line installation.
3. The Owner agrees to pay to the Town of Ledyard, in advance of construction, in accordance with a written proposal, the anticipated cost to be incurred by the Town of Ledyard, acting through the Water Pollution Control Authority, for the work to be conducted by the Town of Ledyard as provide in Paragraph 2 of this Agreement. Any funds so collected, which are in excess of actual costs, shall be refunded to the Owner.
4. The Town of Ledyard agrees to pay the full and actual cost of the following:
 - a. The review of the customer's request to determine the relationship to system requirements, size of facilities to be built, and procedures to be followed.
5. Title to all water and sewer mains installed in the state road, DOT right-of-way, or town-owned property under the terms of this Agreement shall vest in the Town of Ledyard which shall assume full responsibility for the maintenance thereof including water meters. All water and sewer mains installed on or under the parcel shall be privately owned and maintained by the Homeowner's Association.
6. No benefit assessment, special connection charge, or end connection charge shall be applied to or assessed against any building lot developed by the Owner which connects to the water and sewer mains in accordance with paragraph 3 above.

7. All reimbursement to the Owner shall be made to the address contained in this Agreement. It shall be the responsibility of the Owner, in this Agreement, to advise the Town of Ledyard of any changes in address. Should any reimbursement mailed to the Owner be returned for lack of sufficient address, the Town of Ledyard shall be relieved of any further obligation to reimburse the Owner.

Should title to the Owner's property be transferred to any other person, firm or agency, reimbursements shall continue to be made to the Owner as defined in and under the terms of this Agreement.

8. Nothing contained herein shall obligate the Town of Ledyard to make payments to the Owner from their own funds in the event any assessment or charge is found to be illegal, excessive or uncollectible for any reason.
9. In consideration of the commitment by the Town of Ledyard, acting through its Water Pollution Control Authority, to provide water and sewer service to the Owner, the Owner waives any objections, known or unknown, to the regularity or authority for this Agreement.

Dated at Ledyard, Connecticut, this 16 day of July

TOWN OF LEDYARD

WATER POLLUTION CONTROL AUTHORITY

By  (L.S.) 6/29/2024
Edmond Lynch, Its Chairman

EG Shoreline IV LLC

By  (L.S.)
MATTHEW S. GILCHRIST



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1083

Agenda Date: 7/28/2026

Agenda #: 3.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

Any Other Old Business to Come Before the Authority.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1097	Agenda Date: 7/28/2026	Agenda #: 4.
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AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:
Lead Survey Update

Background:
(type text here)

Department Comment/Recommendation:
(type text here)

water pollution control authority

Ian Stammel;Matthew Bonin

Mathew/Ian - I am working on next week's agenda and am wondering if there is any status on Arcadia and part-time employee?

Thanks!

Ed Lynch, WPCA

Mobile 646-732-9224

status on part-time WPCA and Acadia contract?

Matthew Bonin

water pollution control authority

Ian Stammel

Ed,

Arcadia is on hold. We are having a discussion next week with reps from USDA regarding funding opportunities.

The part-time employee/consultant role is in process.

Matt



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1071

Agenda Date: 7/28/2026

Agenda #: 1.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

MOTION to approve Groton Utilities Invoice# 29159 dated June 30, 2026 in the amount of \$470.00 for Diversion Permits-DEEP FY26.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



GROTON UTILITIES

At Your Service

295 Meridian Street - Groton, Connecticut 06340
Tel: 860-446-4025 Fax: 860-446-4075

Authorized to Pay

Signature

PO# 20260736

Date

DATE	INVOICE NO
6/30/2026	0029159

BILL TO

Ledyard, Town of
741 Colonel Ledyard Hwy
Ledyard, CT 06339-1511

DUE DATE

7/30/2026

DESCRIPTION	QUANTITY	EFFECTIVE RATE	AMOUNT	DISCOUNT	CREDIT	BALANCE
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PREVIOUS OUTSTANDING BALANCE

0.00

Diversion Permits - DEEP FY26:

Interconnection (Diversion Permit 202103560 - DEEP)	1.00	235.00	235.00	0.00	0.00	235.00
Meter Station (Diversion Permit 201703984GP - DEEP)	1.00	235.00	235.00	0.00	0.00	235.00

INVOICE TOTAL: 470.00 0.00 0.00 470.00

PLEASE DETACH BOTTOM PORTION & REMIT WITH YOUR PAYMENT

For questions please contact us at (860) 446-4025

Customer Name: Ledyard, Town of
Customer No: 000205
Account No: 0014883 - Diversion Permits

DUE DATE	INVOICE NO
7/30/2026	0029159

Please remit payment by the due date to:

City of Groton
Groton Utilities
295 Meridian Street
Groton, CT 06340-

Invoice Total: 470.00
Discounts: 0.00
Credit Applied: 0.00
Ending Balance: 470.00

INVOICE BALANCE: \$470.00

AMOUNT PAID: _____



Connecticut
Department of Energy &
Environmental Protection

79 Elm Street • Hartford, CT 06106-5127
portal.ct.gov/DEEP

Invoice #: DEP455059
Client #: 1040673

Invoice Date: 05/26/2026
Payment Due Date: 08/01/2026

CITY OF GROTON
RAYMOND L. VALENTINI
295 MERIDIAN ST
DEPT. OF UTILITIES
GROTON, CT 06340-4012

Make checks payable to:
CONNECTICUT DEPARTMENT OF ENERGY and
ENVIRONMENTAL PROTECTION

Include Invoice # on check to expedite processing.
Remit checks to:

ACCOUNTS RECEIVABLE
CONNECTICUT DEPARTMENT OF ENERGY and
ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106

Invoice Amount: \$470.00

Amount Enclosed:

Remittance Form
Cut Here

Invoice Details

CITY OF GROTON
RAYMOND L. VALENTINI
295 MERIDIAN ST
DEPT. OF UTILITIES
GROTON, CT 06340-4012

APPROVED BY

DATE

PO NO.

WO NO.

G/L NO.

[Signature]
5/28/26

006-3800-676-00-2

Billing Details

Client #: 1040673
Invoice #: DEP455059
Invoice Date: 05/26/2026
Payment Due Date: 08/01/2026
Invoice Amount: \$470.00
Terms: Net 30 @ 15.00%; Initial
Penalty: 10.00%; Minimum
Penalty: \$0.00

Rev. ID	Reference #	Description	Fee Amt	Qty	Disc./Adj.	Amount Due
1031	Permit #: DIVC-201703984GP	Water Diversion - Consumptive-GP - Holders Of Diversion Permits For Consumptive Use- General Permit Company Contact: RAYMOND L. VALENTINI Ledyard Meter Station, Ledyard, CT	940.00	1	470.00	\$470.00

Current Charges: \$470.00

Client Outstanding Balance Owed to DEEP (prior to current invoice): \$0.00

Pay your Invoice Online

Use this link to access our online payment portal : <https://deep.service.ct.gov/paymentportal>

Please contact DEEP Accounts Receivable Office at (860) 424-4004 to request a detailed Statement of outstanding charges. **If you would like your invoice emailed, please contact us at DEEP.CentralPermits@ct.gov to update your account.

RECEIVED

MAY 26 2026

ACCOUNTS PAYABLE
GROTON UTILITIES

Invoice



Connecticut Department of Energy & Environmental Protection

79 Elm Street • Hartford, CT 06106-5127
portal.ct.gov/DEEP

Invoice #: DEP455059
Client #: 1040673

Invoice Date: 05/26/2026
Payment Due Date: 08/01/2026

CITY OF GROTON
RAYMOND L. VALENTINI
295 MERIDIAN ST
DEPT. OF UTILITIES
GROTON, CT 06340-4012

Make checks payable to:
CONNECTICUT DEPARTMENT OF ENERGY and
ENVIRONMENTAL PROTECTION

Include Invoice # on check to expedite processing.
Remit checks to:

ACCOUNTS RECEIVABLE
CONNECTICUT DEPARTMENT OF ENERGY and
ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106

Invoice Amount: \$470.00

Amount Enclosed:

Remittance Form
Cut Here

Invoice Details

CITY OF GROTON
RAYMOND L. VALENTINI
295 MERIDIAN ST
DEPT. OF UTILITIES
GROTON, CT 06340-4012

APPROVED BY

DATE

PO NO.

WO NO.

G/L NO.

[Signature]
5/28/26
006-3800-676-00-2

Billing Details

Client #: 1040673
Invoice #: DEP455059
Invoice Date: 05/26/2026
Payment Due Date: 08/01/2026
Invoice Amount: \$470.00
Terms: Net 30 @ 15.00%; Initial
Penalty: 10.00%; Minimum
Penalty: \$0.00

Rev. ID	Reference #	Description	Fee Amt	Qty	Disc./Adj.	Amount Due
1031	Permit #: DIVC-201703984GP	Water Diversion - Consumptive-GP - Holders Of Diversion Permits For Consumptive Use- General Permit Company Contact: RAYMOND L. VALENTINI Ledyard Meter Station, Ledyard, CT	940.00	1	470.00	\$470.00

Current Charges: \$470.00

Client Outstanding Balance Owed to DEEP (prior to current invoice): \$0.00

Pay your Invoice Online

Use this link to access our online payment portal : <https://deep.service.ct.gov/paymentportal>

Please contact DEEP Accounts Receivable Office at (860) 424-4004 to request a detailed Statement of outstanding charges. **If you would like your invoice emailed, please contact us at DEEP.CentralPermits@ct.gov to update your account.

RECEIVED

MAY 26 2026

ACCOUNTS PAYABLE
GROTON UTILITIES

Invoice #: DEP455059

Printed On: 5/26/2026



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1072

Agenda Date: 7/28/2026

Agenda #: 2.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

MOTION to approve Groton Utilities Invoice # 29160 dated June 30, 2026 in the amount of \$2,000 for Ledyard Meter Purchases FY2023- FY2025.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



GROTON UTILITIES

At Your Service

295 Meridian Street - Groton, Connecticut 06340
Tel: 860-446-4025 Fax: 860-446-4075

Authorized to Pay

Signature

PO# 20263905 Date _____

DATE	INVOICE NO
6/30/2026	0029160

BILL TO
Ledyard, Town of 741 Colonel Ledyard Hwy Ledyard, CT 06339-1511

DUE DATE
7/30/2026

DESCRIPTION	QUANTITY	EFFECTIVE RATE	AMOUNT	DISCOUNT	CREDIT	BALANCE
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PREVIOUS OUTSTANDING BALANCE

WO Billing until 06/30/2026:

0028990 - Services	1.00	2,000.00	2,000.00	0.00	0.00	2,000.00
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INVOICE TOTAL:			2,000.00	0.00	0.00	2,000.00
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PLEASE DETACH BOTTOM PORTION & REMIT WITH YOUR PAYMENT

For questions please contact us at (860) 446-4025

Customer Name: Ledyard, Town of
Customer No: 000205
Account No: 0015790 - 28990 Ledyard Meter Purchases FY2023 - FY2025

DUE DATE	INVOICE NO
7/30/2026	0029160

Please remit payment by the due date to:

City of Groton
Groton Utilities
295 Meridian Street
Groton, CT 06340-

Invoice Total:	2,000.00
Discounts:	0.00
Credit Applied:	0.00

INVOICE BALANCE: \$2,000.00
AMOUNT PAID: _____

Ledyard Meter Purchases					
WO Number	Services	Activity	Units	Date	Description
0028990	2,000.00	2,000.00	1.00	06/19/2026	Ti-Sales Inc - Inv# INV0198202
Report Totals	2,000.00	2,000.00			



36 Hudson Road
Sudbury, MA 01776-2039

800-225-4616
978-443-2002
Fax: 978-443-7600
www.tisales.com

Invoice	INV0198202
Invoice Date	05/28/2026
Ship Date	05/28/2026
Order Date	05/28/2026
Customer PO	WILL 5/27/2026

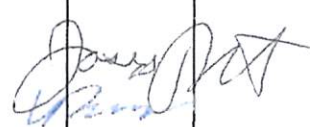
Sold To: Groton Dept. of Utilities CT
295 Meridian St.
Groton CT 06340-4012

RECEIVED

MAY 28 2026

ACCOUNTS PAYABLE
GROTON UTILITIES

Ship To: Groton Dept. of Utilities CT
Will Henton
1270 Poquonnock Rd.
Groton CT 06340-4607

Customer Number	Order Method	Job Location	Job Name	Territory Manager		
GRO76	Ordered by Will Henton	Groton CT	Ledyard	Adam Hollenbach		
Terms	Freight	Shipping Method	Master Number			
NET 30	Allowed	UPS Ground	412804			
Item Number	Description	Ordered	Shipped	Backord	Price	Extension
N7ECGPIT	2" Neptune T-10 Meter E-CODER Gallon Pit Set Flanged End	2	2		\$1,000.00	\$2,000.00
Order Taken By: Paul Ancarani		APPROVED BY  DATE 6/14/26 PO NO. 23990 WO NO. G/L NO.				
Remit to: Ti-SALES, LLC 36 Hudson Road Sudbury, MA 01776-2039		Subtotal				\$2,000.00
		Other Charges				\$0.00
		Tax				\$0.00
		TOTAL DUE				\$2,000.00

Invoice



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1073

Agenda Date: 7/28/2026

Agenda #: 3.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

MOTION to approve Groton Utilities Invoice # 29161 dated June 30, 2026 in the amount of \$2,234.68 for Ledyard Hydraulic Model 2025.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



GROTON UTILITIES

At Your Service

295 Meridian Street - Groton, Connecticut 06340
Tel: 860-446-4025 Fax: 860-446-4075

Signature

PO# 20263153

Date

DATE	INVOICE NO
6/30/2026	0029161

BILL TO
Ledyard, Town of 741 Colonel Ledyard Hwy Ledyard, CT 06339-1511

DUE DATE
7/30/2026

DESCRIPTION	QUANTITY	EFFECTIVE RATE	AMOUNT	DISCOUNT	CREDIT	BALANCE
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PREVIOUS OUTSTANDING BALANCE

WO Billing until 06/30/2026 PO# 20262231:

0029898 - Services	1.00	2,234.68	2,234.68	0.00	0.00	2,234.68
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INVOICE TOTAL:			2,234.68	0.00	0.00	2,234.68
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PLEASE DETACH BOTTOM PORTION & REMIT WITH YOUR PAYMENT

For questions please contact us at (860) 446-4025

Customer Name: Ledyard, Town of
Customer No: 000205
Account No: 0015972 - Ledyard Hydraulic Model 2025

DUE DATE	INVOICE NO
7/30/2026	0029161

Please remit payment by the due date to:

City of Groton
Groton Utilities
295 Meridian Street
Groton, CT 06340-

Invoice Total:	2,234.68
Discounts:	0.00
Credit Applied:	0.00

INVOICE BALANCE: \$2,234.68
AMOUNT PAID: _____

Ledyard Hydraulic Model 2025					
PO# 20262231					
WO Number	Services	Activity	Units	Date	Description
0029898	2,234.68	2,234.68	1.00	06/12/2026	Wright Pierce Engineering - Inv# 251787
Report Totals	2,234.68	2,234.68			

A - Groton Utilities System

Personnel

Class

	Hours	Rate	Amount
PROJ ENGINEER	1.00	113.454	113.45
	25.00	161.865	4,046.63
	3.00	163.350	490.05
Total PROJ ENGINEER	29.00		4,650.13
PROJ. MANAGER	1.50	248.820	373.23
Total Personnel			5,023.36
Total Bill Task: A - Groton Utilities System			5,023.36

B - Ledyard System

Personnel

Class

	Hours	Rate	Amount
PROJ ENGINEER	11.50	161.865	1,861.45
PROJ. MANAGER	1.50	248.820	373.23
Total Personnel			2,234.68
Total Bill Task: B - Ledyard System			2,234.68

Total Project: 22325 - Groton, CT UtilitiesModel Calibration

7,258.04



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1074

Agenda Date: 7/28/2026

Agenda #: 4.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

MOTION to approve PKF O'Connor Davies Accountants and Advisors Invoice #1068090 dated May 31, 2026, in the amount of \$500.00 for services rendered.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



Date 05/31/2026

Matthew Bonin
Town of Ledyard, CT
741 Colonel Ledyard Highway
Ledyard, CT 06339
USA

Client No. 1480584.000 Invoice No. 1068090

For Professional Services Rendered

Town (includes single audits)	\$ 2,600
Education (includes single audits)	1,900
Water and Sewer	500
EFS	-
Total	\$ 5,000

Authorized to Pay

Signature

PO# 20263907 Date

Pay online: <https://www.pkfod.com/onlinepayment/>

Check Instructions:

Please remit all checks to:

P.O. Box 5381

Deptford, NJ 08096

(Please reference Client No. 1480584.000 and Invoice No. 1068090 on your remittance)

PKF O'Connor Davies

www.pkfod.com

"PKF O'Connor Davies" is the brand name under which PKF O'Connor Davies LLP and PKF O'Connor Davies Advisory LLC, independently owned entities, provide professional services in an alternative practice structure in accordance with applicable professional standards. PKF O'Connor Davies LLP is a licensed CPA firm that provides attest services and PKF O'Connor Davies Advisory LLC and its subsidiary entities provide tax and advisory services. PKF O'Connor Davies is a member of the PKF International Limited network of legally independent firms and does not accept any responsibility or liability for the actions or inactions on the part of any other individual member firm or firms.



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1075

Agenda Date: 7/28/2026

Agenda #: 5.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

MOTION to approve PKF O'Connor Davies Accountants and Advisors Invoice #1075257 dated June 30, 2026 in the amount of \$500.00 for services rendered.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



Date 06/30/2026

Matthew Bonin
Town of Ledyard, CT
741 Colonel Ledyard Highway
Ledyard, CT 06339
USA

Client No. 1480584.000 Invoice No. 1075257

For Professional Services Rendered

Town (includes single audits)	\$ 2,600
Education (includes single audits)	1,900
Water and Sewer	500
EFS	-
Total	\$ 5,000

Authorized to Pay

Pay online: <https://www.pkfod.com/onlinepayment/>

Check Instructions:

Please remit all checks to:

P.O. Box 5381

Deptford, NJ 08096

(Please reference Client No. 1480584.000 and Invoice No. 1075257 on your remittance)

PKF O'Connor Davies

www.pkfod.com

Signature

PO# 20263907

Date

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TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1095

Agenda Date: 7/28/2026

Agenda #: 7.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

MOTION to approve Ledyard WPCA Water & Sewer Rate Schedules effective July 1, 2026, for public posting.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)

Ledyard WPCA Water & Sewer Rate Schedules

Effective July 1, 2026

Water Utility Rates

Customer Class	Rate Type	Rate
Residential	Monthly Base Rate	\$4.00 per 1/8-inch of meter diameter
Residential	Water Usage	\$0.0115 per gallon (1.15¢/gal)
Commercial	Base Rate (≤1-inch meter)	\$120.00/month
Commercial	Base Rate (>1-inch meter)	\$200.00/month
Commercial	Water Usage	\$0.0140 per gallon (1.40¢/gal)

Residential Water Base Rates by Meter Size

Meter Size	Monthly Base Rate
5/8 inch	\$20.00
3/4 inch	\$24.00
1 inch	\$32.00
1¼ inch	\$40.00
1½ inch	\$48.00
2 inch	\$64.00
3 inch	\$96.00
4 inch	\$128.00
6 inch	\$192.00

Sewer Utility Rates

Customer Class	Monthly Sewer Rate
Residential	\$55.00 for 0–3,333 gallons, plus \$0.018 (1.8¢) per gallon over 3,333 gallons.
Commercial	\$185.00 for 0–10,000 gallons, plus \$0.0244 (2.44¢) per gallon over 10,000 gallons.

Billing Notes

- Residential water base charges are calculated by multiplying \$4.00 by the meter diameter measured in eighths (1/8) of an inch.
- Water usage charges apply to all gallons consumed.
- Sewer usage charges are based on metered water consumption.



TOWN OF LEDYARD

741 Colonel Ledyard
Highway
Ledyard, CT 06339-1511

File #: 26-1084

Agenda Date: 7/28/2026

Agenda #: 8.

AGENDA REQUEST
GENERAL DISCUSSION ITEM

Subject:

Any Other New Business to Come Before the Authority.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)