Standard Procedures for the Approval of Water Main Construction

The procedures that follow were created in a cooperative effort between the City of St. Joseph and the Southwest Michigan Regional Sanitary Sewer & Water Authority (Authority) to standardize the approval and acceptance process for water main construction within the Authority area. These procedures do not relieve the Owner from the responsibility of obtaining any or all other permits required for construction. The Owner/Developer/Engineer or designated representative shall not submit for a permit directly to the Michigan Department of Environmental Quality (EGLE). A separate set of procedures, closely paralleling those that follow, shall be adhered to for water main construction within the City limits (contact the City Engineer for procedures).

ESCROW ACCOUNTS

Setting Up of Accounts

Prior to submitting a submittal package for review, the Owner shall submit an application with payment to both the City of St. Joseph and the appropriate Township to set up escrow account to be used to cover the costs for plan reviews.

PLAN SUBMISSION, REVIEW & APPROVAL

Submission of Plans

The Owner or Owner's Agent (Owner/Agent) shall initiate the review process by submitting the EGLE Permit application, along with plans and specifications sealed by a Professional Engineer in the State of Michigan, and proof that the escrow accounts are established (herein referred to as the submittal package). The Authority's Engineer shall generally act as the central point of contact and all communication shall go through them unless indicated otherwise. The Owner/Agent shall distribute the submittal package consisting of one (1) electronic version and one (1) paper copy to the following entities:

- Original set to the Authority's Engineer (include original permit application)
- 1-Copy to the City Engineer
- 1-Copy to the appropriate Township Engineer

Addresses and point of contact information are provided in Appendix A.

The submittal shall include an overview of the water main project at an appropriate scale. Design plans shall not exceed a scale of 1" = 50' (i.e. 1" = 40' is acceptable, 1" = 60' is not) with existing utilities appropriately designated. The plans shall be on State Plane Coordinates and include the north arrow and appropriate scale. The project shall be designed to comply with the following:

- Safe Drinking Water Act, PA 399, as amended
- AWWA Standards (most recent version)
- Recommended Standards for Water Works ("Ten State Standards")
- Applicable Federal, State, and Local Codes
- The Standard Plans and Details and any requirements deemed appropriate by the City and the Authority.
- Recommend a 1-year maintenance bond when feasible.

A Water Main Plan Review checklist should be completed and submitted as part of the initial review.

Plan Review

The City and the affected Township's Engineer will endeavor to complete their reviews of the submittal package and respond within four weeks of receipt. The Authority's Engineer shall incorporate the comments from the City and the Township's Engineer into the submittal package review letter. The Authority's Engineer shall distribute via email the submittal package review letter to the following:

- Owner/Agent
- City of St. Joseph, City Engineer
- The appropriate Township Engineer

If the submittal package review letter indicates a revised submittal package is required, then the revised submittal shall follow the above procedures until all review comments are resolved.

To expedite the review process, the resubmittals by the Owner/Agent may be completed via email at the discretion of the reviewing engineers.

Permit Application to EGLE

Once the submittal package is approved, the Owner/Agent will provide five additional sets of sealed plans and specifications and one original permit application to the Authority Engineer. After obtaining the authorized signature on the permit application the Authority Engineer will submit the original documents with all attachments to the EGLE and distribute an electronic copy of the cover letter as follows:

- 1-Copy to The Authority Chairperson
- 1-Copy to Owner/Agent
- 1-Copy to City of St. Joseph, City Engineer
- 1-Copy to the appropriate Township Supervisor
- 1-Copy to the appropriate Township Engineer

EGLE Review & Approval

The Authority Engineer will act as the point of contact for plan review comments by the EGLE and subsequent approval. Should EGLE require revisions, the Authority will inform the Owner/Agent of the requirements. Revised package resubmission shall be as per the initial procedures indicated above. EGLE has agreed to distribute the permitted plans as follows.

- 1-Copy to Owner or designated agent
- 1-Copy to City of St. Joseph, City Engineer
- 1-Copy to the Authority Engineer
 - The Authority Engineer shall notify the Authority Chairperson.
- 1-Copy to the appropriate Township Engineer

Construction on water main SHALL NOT commence until the permit has been issued by EGLE.

CONSTRUCTION PHASE

Pre-Construction Meeting

A pre-construction meeting will be required prior to the commencement of construction of water main. The Owner's representative shall call the meeting and provide written notice to the following individuals.

- City of St. Joseph, Water & Sewer Superintendent
- City of St. Joseph, Water Treatment Plant Superintendent
- The Authority Engineer
- Appropriate Township Engineer
- Appropriate Utilities

The construction checklist will be reviewed at the pre-construction meeting. The Contractor will submit a project schedule to all attendees at the pre-construction meeting.

After the Authority's Engineer has been contacted about the proposed site's Pre-Construction meeting, the Authority's Engineer will write a letter to the appropriate Township's Chief Building official (with copies to the Owner/Agent, and the appropriate escrow account contact) informing them that no building permits and water connections to be issued for the proposed site until the Final Acceptance Submittal Package has been approved.

Construction

Full-time inspection will be required, paid for by the Owner, for the duration of water main (and all associated services & appurtenances) construction. The Contractor shall notify the Water & Sewer Department and the Water Plant Superintendent prior to making connection to the existing water main. The Water & Sewer Department shall be notified for the following items:

- prior to filling the new water main with water.
- prior to hydrant flushing.
- If any of component of the water service encountered contains lead material.

The Water Plant Superintendent shall be notified:

- twenty-four hours before chlorination of new mains.
- three working days' notice prior to bacteriological testing.
- If a water quality complaint is communicated to the Contractor, Inspector, Owner or Owners Representative.

The Contractor is required to have a permit to use City water during the construction phase (contact the Water & Sewer Superintendent for permit requirements). Testing of water mains shall be completed prior to roadway surfacing.

ACCEPTANCE

Final Acceptance Submittal

The Owner/Agent will initiate the acceptance process by submitting a "Final Acceptance Review Checklist". *Incomplete submittals will not be reviewed*. This request must be accompanied by:

- Construction Checklist (paper copies required, electronic copies optional).
- Record drawings (paper copies required for the initial review and electronic copies are required after final acceptance) Review copy of Record drawings shall be sealed by a licensed Professional Engineer and submitted for initial review per the distribution list below. Electronic copies shall be in AutoCAD version 2013 or later format. Record drawings shall contain the following:
 - Any underground or above ground utility improvements which have been revised from the approved construction plans must be shown in its actual location.
 - Lengths between all major connections (i.e. tees, crosses, bends, sleeves, etc.) shall be shown in the plan view.
 - Show in a detail drawing any hydrant, bend, water main offset, or other crowded water main arrangements that cannot be clearly dimensioned in the plan or profile views.
- Copies of daily inspection reports (electronic copy).
- State Plane coordinate list in current Excel spreadsheet format for valves, hydrants, bends, fittings, water shut-offs, and auxiliary valves. (electronic copy).
- Pressure Test Logs (electronic copy).
- Chlorination/flushing & bacteriological records (electronic copy).
- Right of entry form or **recorded** easements or dedicated right-of-way to confirm proper access for maintenance crew. (electronic copy).
- A cover letter signed by a licensed Professional Engineer certifying that the project has been built in accordance with the EGLE permit, plans and specifications.

The Owner shall distribute the Final Acceptance submittal package as follows.

- Original to the Township
- 1-Copy to the Authority Engineer
- 1-Copy to the City of St. Joseph, City Engineer
- 1-Copy to the appropriate Township Engineer

The Authority Engineer & the City will review the submittal. The City will perform a field check to verify information prior to acceptance. The City will provide comments to the Authority Engineer who will either approve or deny the Final Acceptance Package. If denied, comments for a revised submittal will be provided per the distribution listed below and a resubmittal will be required until the Final Acceptance Package has been approved. If approved, the Authority Engineer will send out an approval letter per the distribution listed below.

Note: No building and associated plumbing permits to install water services will be issued until the Final Acceptance Submittal Package has been approved.

The Authority Engineer will distribute a denial as follows.

- Original to Owner/Agent
- .. 1-Copy for City of St. Joseph, City Engineer
- 1-Copy for Appropriate Township Official

The Authority Engineer will distribute an approval letter as follows.

- Original to Owner/Agent
- 1-Copy for City of St. Joseph, City Engineer
- 1-Copy for Appropriate Township Official
- 1-Copy for the Authority Chairperson
- 1-Copy for the appropriate Township Supervisor
- 1-Copy for the appropriate Township Escrow Account Clerk
- 1-Copy for the appropriate Township Chief Building Official
- 1-Copy of Final Acceptance Only for EGLE, Permit Reviewer

Please note Lincoln Township requires 3 additional paper copies of the final accepted recorded drawings for their files. The Owner/Agent shall send Lincoln Township the additional paper copies after the Final Package Submittal Package has been approved.

The City and appropriate Township will refund any remaining escrow fund balance after the final billing for the reviews has been paid.

Application for Water Main Plan Review Escrow Account

To be completed and submitted to the City of St. Joseph and the appropriate Township prior to submitting plans for review. Authorized copies to be included with plan submittals.

Project Name:		
Project Location:		
City / Township:		
Nearest existing street intersection:		
Proposed street names:		
Attach Project Location Map		
Engineer:		
Contact Name:		
Phone:		
Address:		
Email Address:		
Owner:		
Contact Name:		
Phone:		
Address:		
Email Address:		

We are requesting that an escrow account be set up to cover the cost of the water main plan reviews for the above-named project. We have attached an initial deposit of \$2,500 and will replenish the account if notified that the balance has fallen below \$1,000. We further understand that the balance in the account will not be refunded until all required paperwork and submittals per the "City of St. Joseph – Southwest Michigan Regional Sanitary Sewer & Water Authority, Standard Procedures for the Approval of Water Main Construction" have been reviewed and accepted.

Please note separate \$2,500 Escrow Accounts must be established with both the City and the Township.

No building permits for the project will be issued until the Final Acceptance Submittal Package has been approved.

Owner Signature	

/	_/	
Date		

By signing the application, the owner acknowledges the above-named engineer as their Agent for this project

AUTHORIZATION For City / Township Use Only

I acknowledge that the escrow account for the above project has been established and plan reviews may proceed.

____/___/____

Signature and Title

Date

Water Main – Plan Review Checklist

To be completed and submitted to the City of St. Joseph and the appropriate Township prior to submitting plans for review. Authorized copies to be included with plan submittals.

Project Name:				
Project Location:				
City / Township:				
Nearest existing street intersection:				
Proposed street names:				
Attach Project Location Map				
Engineer:				
Contact Name:				
Phone:				
Address:				
Email Address:				
Owner:				
Contact Name:				
Phone:				
Address:				
Email Address:				

Submittals

The submittal package consists of complete plans and specifications sealed by a professional engineer, the EGLE application, letter from owner authorizing engineer to act on his behalf, signed escrow account applications from City & Township and a completed copy of this checklist.

Yes	Checklist Item		
	1 copy of submittal package sent to the Authority Engineer.		
	1 copy of submittal package sent to City of St. Joseph, City Engineer.		
	1 copy of submittal package sent to the Township Engineer.		

One paper copy and one electronic copy of the submittal package are required.

<u>Plans</u>

Yes	N/A	Checklist Item
		All utilities must be shown
		Right-of-way and easements clearly identified
		Stream crossing clearly identified
		Water main with sizes, materials, and lengths clearly identified
		Bore & jack clearly identified
		Looping of main to avoid dead ends
		Minimum of 10 ft horizontal and 18 inches vertical separation maintained
		between water main and sewers
		Utility crossings sufficiently detailed
		Valves and fittings clearly identified
		Valves at branches (Minimum of 2 at a tee, minimum of 3 at a cross).
		Valves at 1000 ft maximum spacing
		Hydrants at 500 ft maximum spacing
		Street names labeled
		Street or utility alignments shown with appropriate stationing
		Project location map shown

Water Main – Construction Phase Checklist

To be completed and submitted to the City of St. Joseph and the appropriate Township prior to submitting plans for Final Acceptance. Authorized copies to be included with plan submittals.

Project Name:	:
Municipality:	

Instructions for Use

This form is to be initiated at the pre-construction meeting and shall be completed as construction progresses. A completed Construction Checklist form is a required item for approval to place water main in service. The review of this checklist, in its entirety, is required to be done by the project engineer at the pre- construction meeting and throughout construction.

Pre-Construction Meeting Phase

The City of St. Joseph Water Department, the Authority Engineer, and the appropriate Township have been notified of the following items:

Yes	N/A	Checklist Item
		The Owners Representative called the pre-construction meeting.
		The appropriate officials and agents have been invited to the pre-construction
		meeting.
		Name and phone of Contractor.*
		Name and contact information of Job site foreman.*
		Name and contact information of the engineer's job site inspector.*
		A project schedule has been submitted.
		A sub-contractors list has been submitted.
		A list of material suppliers has been provided.
		The staging area has been selected, permission for use has been granted.
		Miss Dig has been called before any work has started.
		Permit has been obtained from the City of St. Joseph for water.
		Contractor safety plan submitted.
		Public notification procedure established.
		Traffic maintenance plan provided.
		Water Supply Serial Numbers provided. City of St. Joseph: WSSN 6310; Authority areas: WSSN 3726
		Letter from Authority Engineer informing developer no building permits to be issued prior to approval of Final Acceptance Submittal Package.

Main Valves and Vaults

Yes	N/A	Checklist
		Item
		All main valves (6 inches or larger) are in vaults (minimum 5' diameter).
		All covers labeled "Water".
		All valves; resilient wedge type.
		All valves; right hand to close.
		All main valves operable from the surface with a main wrench of reasonable length.
		All vault covers are at final grade.
		Three (3) valves at all "crosses".
		Two (2) valves at all "tees".

Main marked with 4"x4" posts at bends, on 40' intervals for deflections, on 300' intervals for straight runs.	
All main valves open after testing and/or completion of project.	
Water main shall have a minimum cover of 5 feet, maximum cover of 6 feet.	

Fire Hydrants

Yes	N/A	Checklist Item
		All threads are NST.
		All operating nuts and caps are the correct size and type.
		All hydrants; right hand to close.
		All hydrants are properly painted: RED for Authority Area and YELLOW for City of St. Joseph.
		All hydrant auxiliary valves at final grade and operable in valve box.
		All hydrant auxiliary valves open prior to final testing.
		The break-away flanges on all hydrants, set at final grade.
		Hydrant cap chains have been removed.
		Pumper nozzle contains 5" Storz fitting.

Resident Water Concerns

Yes	N/A	Checklist Item
		Contractor or Inspector has notified the St. Joseph Water Plant.

Water Main Testing

Yes	N/A	Checklist Item
		The hydrostatic pressure test has been completed per specification.
		The main disinfecting and bacteriological testing procedures have been properly followed.

Water Main – Final Acceptance Checklist

To be completed and submitted by Owner/Agent prior to final acceptance.

Project Name: _	
Municipality:	
Engineer:	
Contractor:	
Owner:	

<u>Submittal</u>

Yes	N/A	Checklist Item	
		Construction Checklist	
		Record drawings (paper copies for initial review, electronic copy for final acceptance).	
		Copies of daily inspection reports.	
		State Plan coordinate list for all water main items listed in procedures.	
		Pressure Test logs.	
		Chlorination/flushing & bacteriological records	
		Right of Entry form or recorded easements or dedicated right-of-way.	
		Letter from licensed professional engineer certifying the project has been built in accordance with the approved construction plans and specifications.	

RIGHT OF ENTRY

FOR UTILITY CONSTRUCTION AND MAINTENANCE

PROJECT:

OWNER(S):

LOCATION AND TAX I.D. NUMBER:

Right of Entry is hereby granted to the Southwest Michigan Regional Sanitary Sewer and Water Authority, City of St. Joseph, and the local Township, their contractors and their agents onto the development and lands commonly known as:

Upon entry the above-named parties shall conduct construction, inspection and maintenance of utilities as necessary and in accordance with their normal standards & practices.

This right of entry shall remain in effect until a Utility Easement covering all installed utilities has been recorded and conveyed to the above-named parties.

Witness:

Signature an	nd Date
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Print or type name as written above

Owner(s):

Signature and Date

____/___/____

____/__/___

Print or type name as written above

/	' /	1
/	,	

Signature and Date

Print or type name as written above

Appendix A

Escrow Account Contacts

City of St. Joseph – Accounting Clerk – Amy Welch (269) 983-6324 St. Joseph Township – Assistant to the Building Inspector – Tiffeny Buist (269) 429-7703 Lincoln Township – Accounting Clerk – Stacy Loar-Porter (269) 429-1589 Royalton Township – Deputy Clerk – Patty Knight (269) 429-2501

Plan Submission Review & Approval Contacts

Southwest Michigan Regional Sanitary Sewer & Water main Authority

Chairperson: Mr. Steve Tilly 980 Miners Road St. Joseph, MI. 49085 (269) 429-2501 e-mail stilly@royaltontownship.org

City of St. Joseph

City Engineer: Tim Zebell, P.E. 700 Broad Street St. Joseph, MI. 49085-1276 (269) 983-5541 e-mail tzebell@sjcity.com

St. Joseph Charter Township

P.O. Box 147 St. Joseph, MI. 49085 Location: 3000 Washington Ave Denise Cook, Manager David Rindfield, Public Works Supervisor (269) 429-7703 e-mail <u>dcook@sjct.org;</u> <u>drindfield@sjct.org</u>

Lincoln Charter Township

P.O. Box 279 2055 West John Beers Road Stevensville, MI. 49127 Dick Stauffer, Supervisor James Pheiffer, Building Department (269) 429-1589 e-mail <u>stauffer@lctberrien.org;</u> jpheifer@lctberrien.org

Royalton Township

980 Miners Road St. Joseph, MI. 49085 Steve Tilly, Manager (269) 429-2501 e-mail stilly@royaltontownship.org Engineer: Wightman Mary Nykamp, P.E. 2303 Pipestone Ave. Benton Harbor, MI. 49022 (269) 927-0100 e-mail mnykamp@gowightman.com

Water & Sewer Superintendent: David Linderman e-mail: <u>dlinderman@sjcity.com</u> (269) 983-6341

Water Treatment Plant Superintendent: Greg Alimenti e-mail: <u>galimenti@sjcity.com</u> (269) 983-1240

Alan Smaka, P.E., Consulting Engineer St. Joseph Charter Township 3000 Washington Ave P.O. Box 147 St. Joseph, MI 49085 (574) 360-6638 e-mail: <u>asmaka@stct.org</u>

Engineer: William & Works Brandon Mieras, P.E. 549 Ottawa NW Grand Rapids, MI. 49503 (616) 224-1500 e-mail mieras@williams-works.com