



LOWER PLATTE SOUTH
natural resources district

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Memorandum

Date: August 13, 2024
To: Water Resources Subcommittee
From: Drew Ratkovec, Projects Coordinator *DR*
Subject: Water Resources Subcommittee Meeting Minutes – August 2024

The Water Resources Subcommittee met on August 13, 2024, Via Zoom, at 9:00 am to take action on one item. Subcommittee members who participated included Susan Seacrest- committee chair, Bob Andersen, Melissa Baker, Gary Hellerich, Luke Petersen, and Mark Spangler. Others participating included Legal Counsel Corey Wasserburger, NRD Staff Mike Sousek, and myself. Director Seacrest called the meeting to order at 9:00 am. A quorum was present for the meeting.

A. Consideration of an Agreement to Extend Upper Salt 5-7 Warranty Period [ACTION]–

Drew Ratkovec, Projects Coordinator presented background information on the Upper Salt 5-7 rehabilitation project that was completed in 2022. Tim Sisco Construction removed and replaced the aging CMP principal spillway and riser structure. During the two-year warranty inspection, it was found that the end section was separated and Houston Engineering recommended fixing the separation with an internal compression band. Tim Sisco agreed to repair the pipe with the compression band as well as extend the warranty one more year through an agreement drafted by NRD Legal Counsel. This repair comes at no cost to the NRD. There were no questions regarding the agreement or the repair.

It was moved by Hellerich, seconded by Andersen, and approved 6-0 by the Subcommittee to recommend that the Board of Directors approve that the General Manager is authorized to execute the Agreement between the Lower Platte South NRD and Tim Sisco Construction to extend the warranty period for the Upper Salt 5-7 dam rehabilitation project.

Update: A brief update was provided on the Piening Water Quality Basin. The NRD has been informed that NeDNR has completed the review of the final plans and specifications of the dam structure. Miscellaneous corrections will be made to the plans and then it will be ready to go out to bid for construction in the upcoming weeks.

The meeting adjourned at 9:05 am.

Enclosures.

cc: Dave Landis
Corey Wasserburger

AGREEMENT

This Agreement entered into effective August _____, 2024, by and between the LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT, a political subdivision of the State of Nebraska (hereinafter referred to as “District”), TIM SISCO CONSTRUCTION, LLC, a limited liability company with a principal place of business at 61448 735rd Road, Sterling, NE 68443 (hereinafter referred to as “Contractor”), and TIM SISCO, a resident of Lancaster County, Nebraska, in his personal capacity, (hereinafter referred to as “Sisco”), (District, Contractor, and Sisco may be collectively referred to herein as “Parties” or individually referred to as “Party”)

RECITALS:

A. The District and Contractor entered into an agreement dated February 25, 2022 (hereinafter referred to as the “Contract”), in which Contractor agreed to remove 86 LF of aged CMP principal spillway and riser structure and replace 86 LF of HDPE plastic pipe and riser structure in an earthen dam (hereinafter referred to as the “Project”).

B. Work on the Project was completed in 2022, and a two-year warranty inspection revealed that a section of pipe had separated.

C. An internal band repair option was recommended by the supervising engineer on the Project (hereinafter referred to as the “Repair”); however, the Contractor was not able to extend the performance bond on the Project to cover the additional work to complete the Repair.

D. In lieu of extending the performance bond on the Project to complete the Repair, Sisco is willing to personally guarantee the work of Contractor to complete the Repair.

NOW, THEREFORE, in consideration of the above recitals and the mutual promises and covenants contained herein the Parties agree as follows:

1. Contractor shall complete the Repair according to the specifications and under the supervision of the engineer of the Project.
2. Sisco shall personally guarantee the work of the Repair for a period of one year after completion of the Repair, and such guarantee shall be of the same scope and terms as the performance bond executed on the Contract.
3. The respective rights of the District and the Contractor under the Contract shall be preserved and shall not be prejudiced by the execution of this Agreement. This Agreement shall not constitute a waiver of any rights held by any party under the Contract.

IN WITNESS WHEREOF, the Parties have executed the Agreement effective on the above stated date.

The LOWER PLATTE SOUTH NATURAL
RESOURCES DISTRICT,

By: _____
Mike Sousek, General Manager

TIM SISCO CONSTRUCTION, LLC,

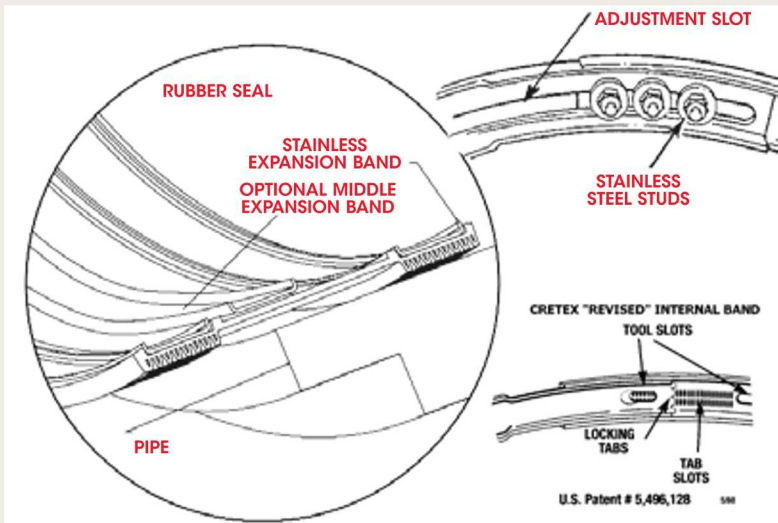
By: _____
Tim Sisco, Authorized Member

TIM SISCO, in his personal capacity,

By: _____
Tim Sisco

INTERNAL PIPE JOINT SEAL

Stops groundwater infiltration



ADVANTAGES:

- Easily installed by a two person crew.
- Conforms to out-of-round shapes.
- Teardrop sealing fins provides superior sealing.
- Provides watertightness, while having the flexibility to allow differential movement caused by ground movement and frost lift.
- Installed mechanically to the inside of existing pipe or manhole.
- Reusable – can be removed and used elsewhere if needed.
- Constructed of high quality materials having a long service life.

THE INTERNAL MANHOLE AND PIPE JOINT SEALS

are watertight compression seals that reduce groundwater infiltration and soil migration through defective joints. Made of high-quality rubber, these seals meet or exceed the physical requirements of ASTM C-923. Designed for new or existing installations, these seals can be installed without excavation on joints with separations up to 3 inches with no offset.

RUBBER SLEEVE Made of a 7-1/2-inch wide high-quality rubber, the Internal Manhole and Pipe Joint Seal meets or exceeds the physical requirements of ASTM C-923 as modified with a 3/16 inch minimum thickness for durability and resistance to puncturing or tearing.

EXPANSION BANDS For seal sizes from 18" diameter to 36" diameter, a one-piece expansion band is used and for 42" and 48" diameter seals, two-piece expansion bands are used. These expansion bands are 1-3/4 inches wide and are fabricated from a high-quality corrosion resistant, 16-gauge stainless steel conforming to the material requirements of ASTM A-240, Type 304, with no welded attachments. The one-piece band is comprised of multiple transverse tab slots and overlapping locking tabs that provides for a 2-1/2-inch diameter range while the two-piece band is comprised of two 8-inch adjustment slots and provides for a 2-inch diameter range. An easy to use mechanical expansion tool quickly expands the bands to compress the rubber sleeve against the manhole or pipe wall. The one-piece bands are locked in place by engagement of the locking tabs while the two-piece bands are locked in place by the tightening of the two sets of three, self-locking stainless steel studs and nuts.



SPECIFICATIONS

GENERAL

When required in the contract document, the Contractor shall provide all labor, equipment and materials to seal manhole or pipe joints subjected to 14 feet or less of head with an internal rubber seal manufactured by Cretex Specialty Products, Waukesha, WI, www.cretexseals.com or pre-approved equal.

PRODUCTS

INTERNAL RUBBER SEAL

Internal rubber seals used for sealing pipe joints shall consist of the following components.

RUBBER SLEEVE

The flexible rubber sleeve shall be extruded from a high-grade rubber compound conforming to the applicable requirements of ASTM C-923, with a minimum 1500-psi tensile strength, maximum 18% compression set, and a hardness (durometer) of 48±5.

The sleeve shall be available in a 7.5 inch width, a minimum thickness of 3/16 inches and shall be capable of expansion when installed of not less than 2 diameter inches. The sleeve shall contain two integrally formed expansion band recesses and multiple sealing fins. The sleeve is designed to span joints with separations of not greater than 3 inches with no offset. Offsets will reduce the allowable span distance.

Any splice used to fabricate the sleeve shall be vulcanized and have a strength such that the sleeve shall withstand a 180 degree bend with no visible separation.

EXPANSION BANDS

The one or two piece expansion bands used to compress the sleeve against the pipe shall be 16 gauge stainless steel conforming to ASTM A-240, Type 304, with a minimum width of 1-3/4 inches and shall have a minimum adjustment range of 2 diameter inches. The expansion mechanisms shall have the capacity to develop the pressures necessary to make a watertight seal. Any fasteners used to lock the bands in their expanded position shall be stainless steel conforming to ASTM F-593 and 594, Type 304.

MIDDLE EXPANSION BAND

A one or two piece middle band is required to prevent excessive ballooning of the sleeve when hydrostatic pressure is or is expected to be greater than 6 feet of head and shall meet the same material requirements as that of the main outer bands.

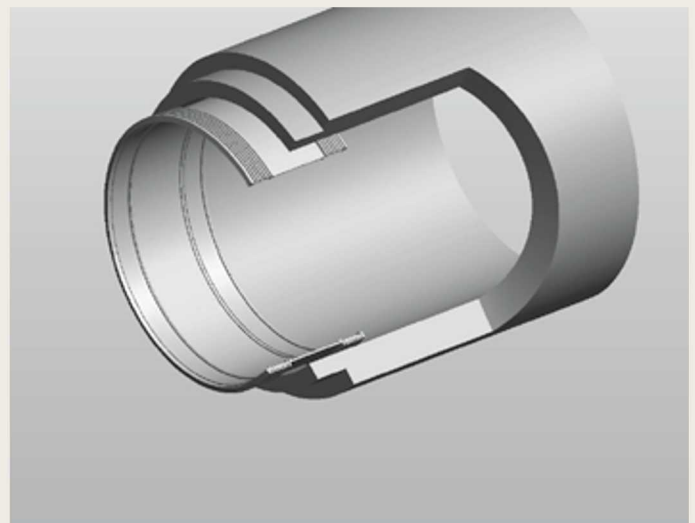
INSTALLATION

The inside surface of the manhole or pipe extending approximately 5 inches on either side of the joint shall be reasonably smooth, non-porous and free of any lime or other deposits, loose material and excessive voids. Any voids, cracks or porous surfaces shall be repaired with a material recommended by the manufacturer. After the rubber sleeve has been placed in the proper position, the required number of one or two piece stainless steel expansion bands shall be installed in the band recesses and individually tightened as required to provide a watertight seal.

Detailed installation procedures shall be in accordance with the manufacturers instructions.

PHYSICAL PROPERTIES

Tensile Strength	1500 psi
Elongation at break	350% min.
Hardness (Durometer)	48+5
Accelerated oven-aging	max. 15% decrease of tensile, 20% of elongation
Chemical resistance	no weight loss in 1 N of sulfuric or hydrochloric acid
Compression set	18% max. decrease
Water absorption	max. 10% increase by weight
Ozone resistance	rating 0
Low temperature brittle point	No fracture at -40°C.
Tear resistance	200 lb. f/in.
Splice strength	180° bend with no visible separation



SUGGESTED SPECIFICATION FOR INTERNAL MANHOLE OR PIPE JOINT SEALS

PART 1 GENERAL

1.01 SCOPE

This section includes the materials and procedures required to provide for the internal sealing of joints in Precast Concrete manholes and in most types of pipe, including but not limited to Reinforced Concrete, PVC, HDPE, Fiberglass, Steel or Vitrified Clay. The sealing shall be accomplished via the installation of a mechanical internal joint sealing system. Seals shall only be permitted on joints subjected to not greater than 14 feet of head pressure (approximately 6 psi).

PART 2 PRODUCTS

2.01 INTERNAL JOINT SEAL

Internal joint seals shall consist of a flexible rubber sleeve and stainless steel expansion bands conforming to the following requirements.

- A. Rubber Sleeve – The flexible rubber sleeve shall be molded or extruded from a high grade rubber compound conforming to the applicable material requirements of ASTM C-923 with a minimum 1500 psi tensile strength, maximum 18% compression set and a hardness (durometer) of 48±5.

The sleeve shall have a minimum width of 7.5 inches and a minimum thickness of 3/16 inches. Both end sections of the sleeve shall have an integrally formed expansion band recess and series of sealing fins to facilitate a watertight seal. These sealing fins shall have teardrop holes or air pockets to allow them to conform to minor surface irregularities that may be encountered on the manhole or pipe surfaces. The sleeve is designed to span joints with separations of not greater than 3 inches with no offset. Offsets will reduce the allowable span distance.

- B. Expansion Bands – The expansion bands used to compress the sleeve against pipe or manhole wall shall be formed from a minimum 16 gauge stainless steel conforming to the applicable material requirements of ASTM C-923, Type 304 and shall have a minimum width of 1-3/4 inches. Expansion bands may consist of one or two pieces depending on the inside diameter of the manhole or pipe. To prevent ballooning, a center band shall be used where greater than 6 feet of head pressure (approximately 2.5 psi) is expected.

The mechanism used to expand the bands shall have the capacity to develop the pressure necessary to provide a watertight seal once the bands have been locked into place. Any fasteners used to lock the bands into place after tightening shall be stainless steel conforming to ASTM F-593, Type 304.

- C. Acceptable Manufacturer's
Cretex Specialty Products
Pre-Approved Equal

PART 3 EXECUTION

3.01 INSTALLATION

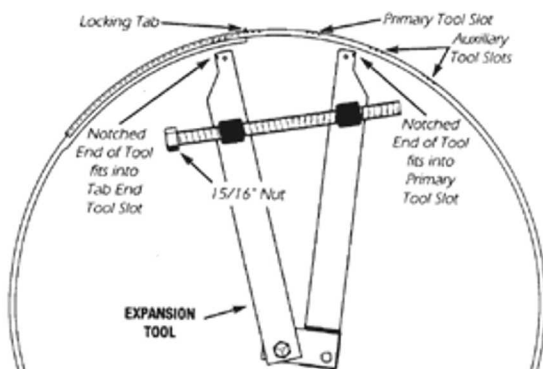
All work to be performed shall be in strict accordance with the ENGINEER's specifications and recommendations, including installation and application of all products as required and in accordance with the manufacturer's recommended installation and surface preparation instructions. The CONTRACTOR shall be responsible for field measuring each pipe or manhole joint to be sealed. This information is required to determine the proper size of rubber sleeve and the size and number of expansion bands required to complete each installation.

INTERNAL PIPE JOINT SEAL INSTALLATION INSTRUCTIONS FOR 36" AND UNDER DIAMETER

1. Wire brush the surface 5 inches on either side of the leaking joint to remove lime and other deposits. Wipe this area with mortar, filling the cracks and porous surfaces, providing a smooth sealing surface. PREPARATION OF THIS SURFACE IS ABSOLUTELY NECESSARY.
2. Make a series of alignment marks 4 inches away from the joint and install rubber sleeve so it is positioned along alignment marks and centered over the joint.
3. Lubricate and install the first band in the appropriate band recess with the slotted end against the rubber surface. Position the expansion tool as shown below and expand the band until the locking tabs pop into the tightest slots possible. To ensure proper tightness, stop expanding and let the seal "relax" for 30 to 60 seconds and then try to tighten again to the next set of slots. Once the band is fully tightened, loosen the expansion tool slowly until the tabs are fully engaged in the slots, and then continue to loosen and remove the tool.
4. Lubricate the second band and install it in the other band recess, attach the tool and expand as before, keeping the bands parallel. The seal may be adjusted up or down as required for minimum or maximum chimney coverage or if excessive sleeve expansion is required.
5. Repeat band installation procedure for the middle band if required.
6. Check the top and bottom edges of the installed sleeve to insure that they have been properly compressed against the surfaces.

NOTES:

1. A smooth, non-porous sealing surface must be prepared.
2. Do not use if water pressure head is expected to exceed 14 feet.



INTERNAL PIPE JOINT SEAL INSTALLATION INSTRUCTIONS FOR 42" AND 48" DIAMETER

1. Wire brush the surface 5 inches on either side of the leaking joint to remove lime and other deposits. Wipe this area with mortar, filling the cracks and porous surface, providing a smooth sealing surface. PREPARATION OF THIS SURFACE IS ABSOLUTELY NECESSARY.
2. Make a series of alignment marks 4 inches away from the joint and install rubber sleeve so it is positioned along alignment marks and centered over the joint.
3. LUBRICATE all bands and assemble by overlapping 2 band ends such that the studs of each band lay behind and extend through the other band's adjustment slot.
4. Position bands in the band recess of the sleeve, center studs in each adjustment slot and tighten lock nuts (3) on one side of band only. To generate the force necessary to provide a watertight seal, bands must be expanded at both adjustment slots.
5. Place the installation tool in the opposite adjustment slot, as shown below, and expand the band until tight. Check to insure that the sleeve is tight against the surface around its entire perimeter, check tool tightness and tighten the 3 lock nuts.
6. Remove tool and place in first adjustment slot. Expand tool, as needed, to prevent slippage while lock nuts are loosened. Expand, as necessary, to provide a watertight seal. Securely tighten the 3 lock nuts.
7. Repeat band installation procedure for each band.
8. Repeat band installation procedure for the middle band if required.

NOTES:

1. A smooth, non-porous sealing surface must be prepared.
2. Do not use if water pressure head is expected to exceed 14 feet.

