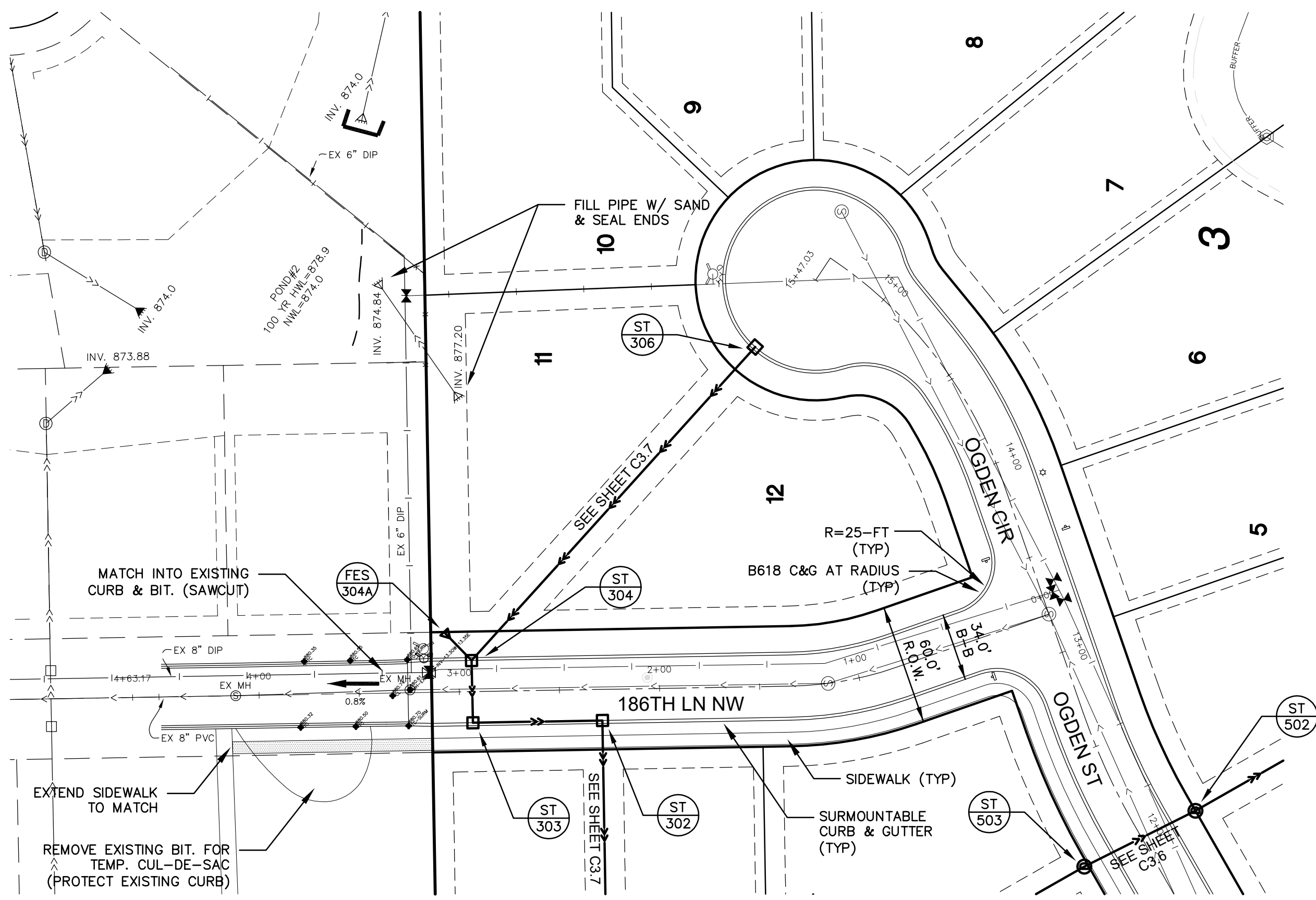
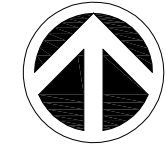


NORTH



186TH LANE NW

GENERAL NOTES

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
2. CONTACT GOPHER STATE ONE-CALL AT (651) 454-0002 FOR EXISTING UTILITY LOCATIONS.
3. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING SANITARY SEWER, STORM SEWER, AND WATERMAIN AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.
4. INSTALLATIONS SHALL CONFORM TO THE CITY OF ELK RIVER STANDARD SPECIFICATIONS & DETAIL PLATES WHICH GOVERN OVER ALL OTHER REFERENCED SPECIFICATIONS.
5. USE TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE PROVISIONS OF "THE MINNESOTA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" AS NECESSARY WHENEVER GRADING, UTILITY, OR PAVING OPERATIONS ENCRROACH ONTO ADJACENT STREETS.
- 5.1. TRAFFIC CONTROL REQUIRED FOR TRAIL DISRUPTION.
6. TEMPORARY EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE START OF ANY CONSTRUCTION.
7. SEE STORM WATER POLLUTION PREVENTION PLAN FOR ADDITIONAL EROSION CONTROL DETAILS AND SITE SEQUENCING NOTES.
8. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (N.P.D.E.S.) PERMIT REQUIRED.

LEGEND

- EXISTING STORM SEWER
- EXISTING WATER MAIN
- EXISTING SANITARY SEWER
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- △ EXISTING FLARED-END SECTION
- ▽ EXISTING GATE VALVE
- EXISTING HYDRANT
- EXISTING SANITARY SEWER MANHOLE
- EXISTING WETLAND
- PROPOSED WATER PIPE
- PROPOSED SANITARY SEWER PIPE
- PROPOSED STORM SEWER PIPE
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FLARED-END SECTION
- ▽ PROPOSED GATE VALVE
- PROPOSED HYDRANT
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED OUTFALL STABILIZATION (ARTICULATED BLOCK - E.G. FLEXAMAT OR APPROVED EQUAL)
- SOIL BORING (NTL, LLC)

STORM SEWER STRUCTURE SCHEDULE

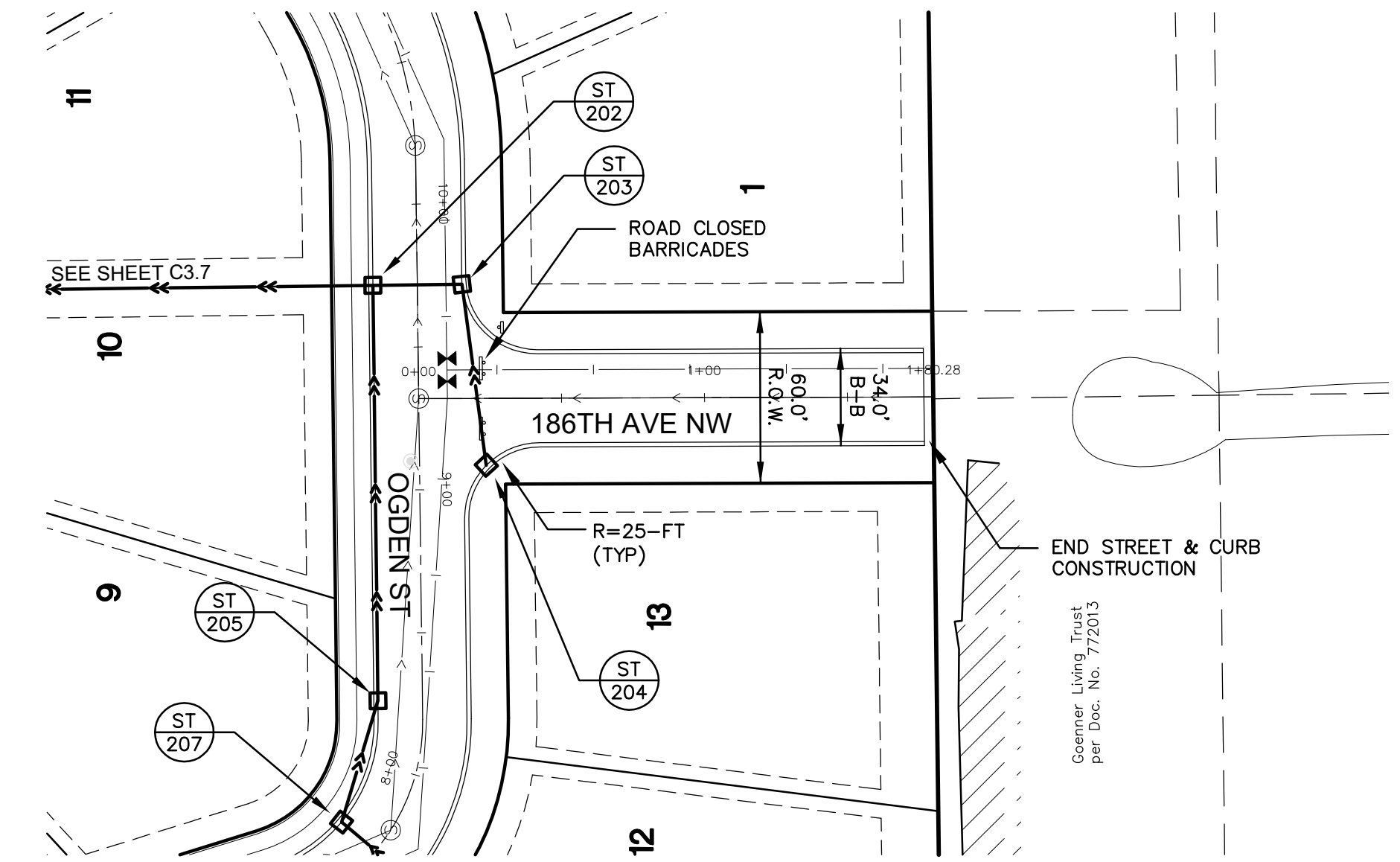
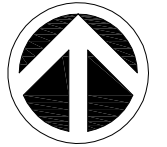
#	TYPE	SIZE	CASTING
102	TYPE 2502	48"φ	NEENAH R-3067V
103	TYPE 2502	48"φ	NEENAH R-3067V
104	TYPE 2502	48"φ	NEENAH R-3067V
105	MNDOT "G"		NEENAH R-4242
106	TYPE 2502	48"φ	NEENAH R-3067V
107	TYPE 2500	2x3	NEENAH R-3067V
202	TYPE 2502	48"φ	NEENAH R-3067V
203	TYPE 2502	48"φ	NEENAH R-3067V
204	TYPE 2500	2x3	NEENAH R-3067V
205	TYPE 2502	48"φ	NEENAH R-3067V
206	TYPE 2502	48"φ	NEENAH R-3067V
207	TYPE 2502	48"φ	NEENAH R-3067V
208	MNDOT "G"		NEENAH R-4242
302	TYPE 2502	48"φ	NEENAH R-3067V
303	TYPE 2502	48"φ	NEENAH R-3067V
304	TYPE 2502	48"φ	NEENAH R-3067V
305	TYPE 2500	2x3	NEENAH R-3067V
402	TYPE 2502	48"φ	NEENAH R-1733
502	TYPE 2502	48"φ	NEENAH R-1733
503	TYPE 2502	48"φ	NEENAH R-1733
504	SPECIAL		SEE DETAIL

STORM SEWER NOTES

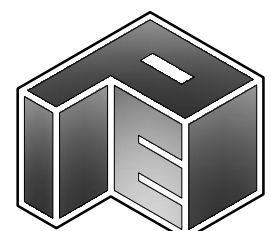
1. PROPOSED STORM SEWER PIPE SHALL BE:
 - 1.1. REINFORCED CONCRETE PIPE (RCP) WITH R-4 GASKETS; AND,
 - 1.2. HIGH-DENSITY POLYETHYLENE PIPE (HDPE). HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE 5 WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
2. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
3. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF APRON TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
4. ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF THE BUILDING OR WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH MINNESOTA RULES, CHAPTER 4714, SECTION 1109.0.

ALL CASTINGS (MANHOLES AND VALVE BOXES) MUST BE ADJUSTED TO 1/2" BELOW THE FINISHED ASPHALT BASE COURSE ELEVATION BEFORE PAVING OF THE ASPHALT BASE. NO CUTS WILL BE ALLOWED IN THE ASPHALT BASE. ADJUSTMENTS TO MEET FINAL WEAR COURSE ELEVATIONS WILL BE ACCOMPLISHED USING GLUE IN STEEL ADJUSTING RINGS. THE CITY WILL IMPOSE A \$1000/PATCH CHARGE TO THE DEVELOPER FOR EVERY PATCH LOCATION (NEEDED FOR CASTING ADJUSTMENT OR OTHER PAVEMENT REPAIR) IN THE BASE COURSE BITUMINOUS PAVEMENT.

NORTH

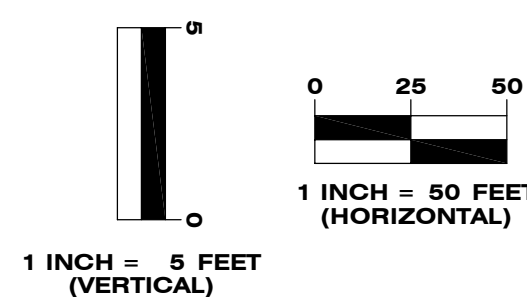


186TH AVENUE NW



PLOWE
ENGINEERING, INC.
6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (651) 361-8210
FAX: (651) 361-8701

SITE PLANNING & ENGINEERING



RIVERPLACE SECOND ADDITION
ELK RIVER, MINNESOTA
PLAN/PROFILE
STORM SEWER & STREETS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Adam Sinkel
ADAM SINKEL
DATE: 07.29.2020 LIC. NO. 43963

DATE	REVISION DESCRIPTION
6-15-18	CITY REVIEW COMMENTS; CONSTRUCTION PLANS
7-11-18	FINAL PLAT SUBMITTAL
8-7-18	GRADES ADJ.
7-11-19	FINAL PLANS
7-29-20	RECORD DRAWINGS

DRAWN BY: A.G.
DESIGN BY: A.G.
CHKD BY: C.W.P.
PROJ. NO. 18-1747

C3.5