LAKE COUNTY PUBLIC WORKS DEPARTMENT

ROLLINS ROAD FORCE MAIN REPLACEMENT

MARCH 30, 2026

INDEX

SHT #	DRAWING TITLE
1	TITLE PAGE
2	GENERAL NOTE & LEGEND
3	CONSTRUCTION NOTES & QUANTITIES
4	CONSTRUCTION NOTES
5	OVERALL PLAN
6	ALIGNEMENT, TIES AND BENCHMARKS
7	PLAN & PROFILE - 1
8	PLAN & PROFILE - 2
9	PLAN & PROFILE - 3
10	PLAN & PROFILE - 4
11	PLAN & PROFILE - 5
12	PLAN & PROFILE - 6
13	PLAN & PROFILE - 7
14	ROLLINS ROAD YARD PIPING DETAIL
15	CIVIL WORKS DETAILS - 1
16	CIVIL WORKS DETAILS - 2
17	CIVIL WORKS DETAILS - 3
18	EROSION CONTROL NOTES
19	EROSION CONTROL DETAILS
20	TRAFFIC CONTROL DETAILS - 1
21	TRAFFIC CONTROL DETAILS - 2
22	TRAFFIC CONTROL DETAILS - 3

ROLLINS RD. PUMP STATION ADDRESS

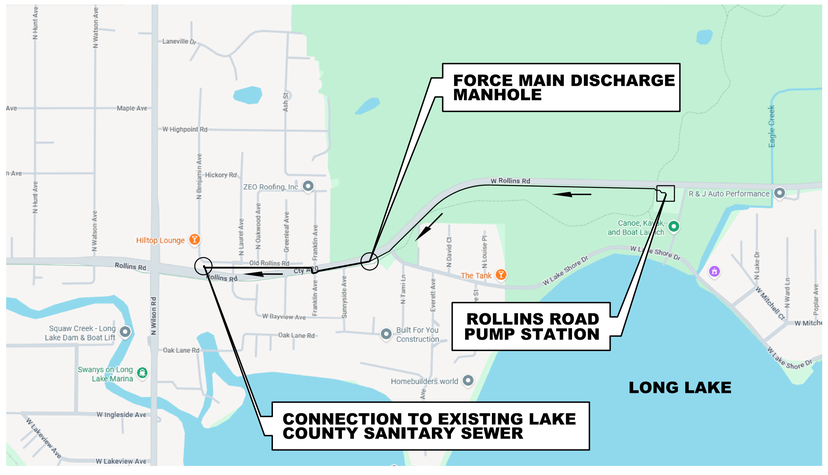
25265 W. ROLLINS RD.
INGLESIDE, IL 60041

LOCATION / VICINITY MAP

N

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N.T.S.



NOTES

1. DRAWINGS SHALL BE USED AS A COMPLETE SET ONLY. DO NOT SEPARATE SHEETS.
2. THE LAKE COUNTY PUBLIC WORKS DEPARTMENT AND CHRISTOPHER B. BURKE ENGINEERING, LTD., SHALL BE NOTIFIED IN WRITING BY THE CONTRACTOR AT LEAST THREE (3) FULL WORKING DAYS PRIOR TO CONSTRUCTION.

DESCRIPTION OF WORK

THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, LABOR, AND SERVICES NECESSARY FOR THE CONSTRUCTION, INSTALLATION AND TESTING OF THE NEW FORCE MAIN. THE PROJECT INCLUDES APPROXIMATELY 2,400 FEET OF NEW 16" FORCEMAIN TO BE INSTALLED BY THE DIRECTIONAL BORED METHOD OF CONSTRUCTION, 1,400 FEET OF NEW 16" GRAVITY SEWER TO BE INSTALLED BY THE OPEN CUTTING METHOD OF CONSTRUCTION, 120 FEET OF 14" DIP YARD PIPING, AND ALL OTHER RELATED APPURTENANCES, ACCESSORIES, CONNECTION TO THE EXISTING SEWER FACILITIES, AND COMPLETE RESTORATION OF THE AREA DISTURBED BY CONSTRUCTION ACTIVITIES NECESSARY TO COMPLETE THE WORK.

LCPW JOB NO: **PW# 2025.014**

LAKE CO. BID NO: **26116**

LOCATION

THE PROJECT IS LOCATED IN INGLESIDE (UNINCORPORATED LAKE COUNTY), IL ON ROLLINS RD.

CALL JULIE 811
WITH THE FOLLOWING:
COUNTY: LAKE
CITY-TOWNSHIP: INGLESIDE
T45N - R9E - 13
48 HOURS BEFORE YOU DIG.
EXCLUDING SAT., SUN., & HOLIDAYS

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION

PROFESSIONAL ENGINEER _____ DATE _____

MARK E. EMORY, P.E.
ILLINOIS REGISTRATION No. 062-038850
EXPIRATION DATE: 11/30/2027

ISSUED FOR BID
MARCH 30, 2026

CLIENT :
LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

PROJECT MANAGER:
LESLIE YOO, PE
847-377-7160

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500
PROFESSIONAL DESIGN FIRM NO. 184-001175
EXPIRATION DATE: 04/30/27

jhastings
3/30/2026
FILE NAME: N:\LCPWD\230629\230629.00004\Mech\CVR_2306290004.dgn

GENERAL NOTES

1. THE LAKE COUNTY DEPARTMENT OF PUBLIC WORKS AND OWNER'S REPRESENTATIVE, SHALL BE NOTIFIED IN WRITING AT LEAST (3) FULL WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

2. UTILITIES EXIST IN THE AREA WHERE WORK IS PROPOSED. ACTUAL DEPTH OF UTILITIES ARE UNKNOWN. SHOULD ANY GIVEN UTILITY INTERFERE WITH THE PROPOSED WORK, PIPE ROUTING, ETC., THE CONTRACTOR SHALL, AT NO EXTRA COST TO THE OWNER, RESOLVE ANY AND ALL INTERFERENCE PROBLEMS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK AS REQUIRED.

3. ALL UTILITY COMPANIES SHALL BE CONTACTED AND THEIR FACILITIES SHALL BE LOCATED PRIOR TO ANY WORK IN ANY EASEMENT, RIGHT-OF-WAY, OR SUSPECTED UTILITY LOCATION.

4. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LINE AND GRADES SHOWN ON THE CONTRACT DRAWINGS. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY REPORT SAME TO THE OWNER PRIOR TO PERFORMING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK AS REQUIRED.

5. ALL ELEVATIONS SHOWN ON THE CONTRACT DRAWINGS ARE BASED ON ESTABLISHED DATUM AT EACH SITE UNLESS OTHERWISE SPECIFIED. BENCHMARK IS PROVIDED ON SHEET 6.

6. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:

   A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", AS PREPARED BY IDOT.

   B. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION.

   C. "AWWA STANDARDS", LATEST EDITION.

   D. LAKE COUNTY PUBLIC WORKS STANDARDS AND SPECIFICATIONS.

   E. LAKE COUNTY CODES.

   WHERE CONTRADICTIONS OCCUR BETWEEN THE ABOVE LISTED SPECIFICATION, CODES AND/OR CONTRACT DOCUMENTS, THE MORE STRINGENT SHALL APPLY.

7. THE CONTRACT DOCUMENTS ARE NOT INTENDED TO SHOW EVERY AND ALL DETAILS OF WORK TO BE PERFORMED OR EQUIPMENT TO BE SUPPLIED. THE INTENT OF THE CONTRACT DOCUMENTS IS TO ILLUSTRATE THE CONCEPTUAL DESIGN AND LAYOUT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE AND REGULARLY ENGAGED IN THE TYPE OF WORK DESCRIBED BY THESE CONTRACT DOCUMENTS, AND SHALL BE RESPONSIBLE FOR UNDERSTANDING THEIR INTENT. ANY WORK TO BE PERFORMED OR ITEM OF EQUIPMENT TO BE SUPPLIED WHICH IS NOT SPECIFICALLY CALLED FOR BY THESE CONTRACT DOCUMENTS BUT WHICH IS NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFUL WORKING SYSTEM SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.

8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES AND APPRAISE HIMSELF/HERSELF OF ALL CONDITIONS. THE CONTRACT PRICE SUBMITTED BY THE CONTRACTOR SHALL BE CONSIDERED AS THE TOTAL COST FOR THE COMPLETE PROJECT. NO CLAIMS FOR EXTRA WORK WILL BE RECOGNIZED DUE TO THE CONTRACTOR'S FAILURE TO UNDERSTAND THE SCOPE OF WORK.

9. APPROXIMATE 100 YEAR FLOOD ELEVATION, IF APPLICABLE, IN THE AREA OF CONCERN IS SHOWN ON THE DRAWINGS.

10. WHERE IT IS NECESSARY TO PERFORM WORK ADJACENT TO EXISTING UTILITIES THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR EXISTING UTILITIES IN CONFORMANCE WITH THE AFFECTED UTILITY COMPANIES REQUIREMENTS AS MAY BE REQUIRED TO PERFORM THE WORK OF THIS CONTRACT.

11. THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.

12. ORIENTATION OF PIPING, CONDUITS, EQUIPMENT, ETC. MAY VARY. CONTRACTOR TO COORDINATE SAME WITH THE OWNER.

13. ANY AND ALL DEWATERING REQUIRED TO KEEP EXCAVATIONS DRY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND MUST COMPLY WITH GOVERNING ORDINANCES.

GENERAL NOTES (CONT.)

14. SOIL EROSION PROTECTION SHALL BE IN ACCORDANCE WITH IEPA, LAKE COUNTY, AND IDOT STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. ALL DISTURBED AREAS SHALL BE FINE GRADED, TOP-SOIL RESTORED (MIN. 4 INCHES), AND SEED & EXCELSIOR BLANKET APPLIED UNLESS OTHERWISE SPECIFIED ON THE PLAN AND PROFILES.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS/METHODS AND TECHNIQUES OF CONSTRUCTION. OWNER'S REPRESENTATIVE/ ENGINEER'S REVIEW OF SAME DOES NOT RELIEVE CONTRACTOR OF THIS RESPONSIBILITY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY AND JOB SITE SAFETY.

16. LIMITS OF CONSTRUCTION SHALL BE LCDOT ROW, LCDOT PROPERTY, AND LCPW PROPERTY, SUBJECT TO OWNER'S APPROVAL, AND SHALL NOT IMPACT EXISTING ROADWAY PAVEMENT EXCEPT WHERE IMPROVEMENTS ARE SHOWN BY DRAWINGS. LIMITS OF CONSTRUCTION (OTHER THAN ACROSS ROADWAY PAVEMENT) SHALL BE FENCED OFF WITH ORANGE CONSTRUCTION FENCING, SUBJECT TO THE OWNER'S APPROVAL.

17. SEE MAINTENANCE OF TRAFFIC PLAN FOR LIMITS ON CONSTRUCTION HOURS.

RECORD DRAWINGS & UTILITY NOTES

1. CERTAIN INFORMATION SHOWN ON THESE DRAWINGS HAS BEEN OBTAINED FROM DRAWINGS OF RECORD. CONTRACTOR SHALL VERIFY SUCH INFORMATION PRIOR TO ACTUAL START OF WORK. WHERE DISCREPANCIES ARE DISCOVERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE. FAILURE BY THE CONTRACTOR TO IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF SUCH DISCREPANCIES SHALL RESULT IN THE CONTRACTOR BEARING THE FULL BURDEN OF ALL RISKS/COSTS ATTRIBUTED TO THE DISCOVERED DISCREPANCY.

2. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHT-OF-WAYS ARE SHOWN ON THE DRAWINGS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS.

3. THE EXISTING BURIED UTILITY LINES, PUBLIC AND PRIVATE, ARE SHOWN ON THE DRAWINGS ACCORDING TO INFORMATION AVAILABLE FROM RECORDS. THE LOCATION AND DEPTH OF EXISTING BURIED UTILITY LINES SHOWN ON THE DRAWINGS IS THEREFORE APPROXIMATE AND MAY VARY FROM FIELD CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION AND DEPTH OF BURIED UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES TO MARK THE LOCATION OF BURIED UTILITIES IN THE FIELD BEFORE BEGINNING EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY LINES AND SHALL REPAIR ANY UTILITY LINES HE DAMAGES AT HIS OWN EXPENSE.

4. BEFORE INSTALLING ANY BURIED PIPE, THE CONTRACTOR SHALL CAREFULLY UNCOVER ALL EXISTING BURIED UTILITY LINES WHICH CROSS NEW CONSTRUCTION SO HE CAN DETERMINE THEIR EXACT LOCATION AND DEPTH. IF EXISTING BURIED UTILITY LINES ARE ENCOUNTERED THAT CONFLICT WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE SO THAT THE CONFLICT MAY BE RESOLVED.

SYMBOLS AND ABBREVIATIONS

CULVERT	℄ CENTERLINE	GV GATE VALVE	
SIGNPOST	ℙ PROPERTY LINE	HDPE HIGH DENSITY POLYETHELENE PIPE	
POWERPOLE	Ø DIAMETER	INV INVERT	
ELECTRICAL TRANSFORMER	@ AT	PVC POLYVINYL CHLORIDE PIPE	
CONTROL POINT	BA BEARING AREA	RCP REINFORCED CONCRETE PIPE	
DITCH CHECK	BM BENCHMARK	RJ RESTRAINED JOINT	
EROSION INLET AND PIPE PROTECTION	BV BUTTERFLY VALVE	ROW RIGHT-OF-WAY	
SOIL BORING	CMP CORRUGATED METAL PIPE	SBF STRUCTURAL (TRENCH) BACKFILL OF THE GRANULAR TYPE EQUAL TO IDOT CA-6	
LOCATOR WIRE HANDHOLE (H)	DIP DUCTILE IRON PIPE	WM WATERMAIN	
	FH FIRE HYDRANT	WV WATER VALVE	
	FM FORCEMAIN		

LEGEND

- EXISTING FIRE HYDRANT
- EXISTING MANHOLE
- EXISTING VALVE BOX
- EXISTING GATE VALVE IN VAULT
- EXISTING COMBINED SEWER
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN (W)
- EXISTING FORCEMAIN (FM)
- EXISTING TELEPHONE LINE (T)
- EXISTING GAS LINE (G)
- EXISTING CABLE TV (CTV)
- EXISTING ELECTRICAL LINE (E)
- EXISTING OVERHEAD WIRE (A)
- FENCE LINE
- DITCH LINE
- CENTERLINE
- EASEMENT LINE
- PROPERTY LINE (℄)
- RIGHT-OF-WAY LINE
- EXISTING TREE TO BE REMOVED
- CUT AND CAPPING OF EXISTING WM
- PROPOSED VALVE BOX
- PROPOSED GATE VALVE IN VAULT
- PROPOSED FIRE HYDRANT
- PROPOSED SANITARY MANHOLE
- PROPOSED FORCEMAIN CLEAN OUT MH
- PROPOSED COMBINED SEWER
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN (W)
- PROPOSED FORCEMAIN (FM)
- PROPOSED SILT FENCE

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(847) 823-0500

CLIENT:
LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.
FILE NAME		N:\LCPWD\230629\230629.00004\Mech\NOT_2306290004_1.dgn	

DSGN.	KWB
DWN.	JCH
CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	3/30/2026
CAD USER:	jhastings
MODEL:	Default

TITLE: **ROLLINS ROAD FORCE MAIN REPLACEMENT**

GENERAL NOTES & LEGEND

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	2 OF 22
DRAWING NO.	2

SANITARY SEWER NOTES

1. WHEREVER A SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED ABOVE CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATERMAIN, THE SEWER SHALL BE CONSTRUCTED TO WATERMAIN STANDARDS.

2. CONTRACTOR TO VERIFY RIM AND INVERT ELEVATIONS. RIM ELEVATIONS FOR MANHOLES AND VAULTS SHALL BE ADJUSTED TO MEET FINAL GRADE. THESE ADJUSTMENTS ARE TO BE MADE BY THE CONTRACTOR AND ANY ASSOCIATED COSTS FOR THESE ADJUSTMENTS ARE TO BE CONSIDERED INCIDENTAL. THESE ADJUSTMENTS TO FINISHED GRADE WILL NOT ALLEVIATE THE CONTRACTOR FROM ANY ADDITIONAL ADJUSTMENTS AS MAY BE REQUIRED BY THE OWNER OR VILLAGE UPON FINAL INSPECTION OF THE PROJECT. (FINAL GRADES AS MAY BE DETERMINED BY THE OWNER OR VILLAGE AT THE TIME OF FINAL INSPECTION MAY VARY FROM THOSE SHOWN ON THE PLANS.)

3. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, ALL SANITARY FORCE MAIN SHALL BE CONSTRUCTED OF HDPE DIPS DR11 PIPE CONFORMING WITH ASTM D-3035 BUTT FUSION WELDED CONFORMING TO ASTM D-2657, ASTM D-3261, AND ASTM F-2620.

4. ALL FORCE MAIN PIPE SHALL BE OF THE SAME TYPE AND CLASSIFICATION.

5. FORCE MAIN PIPING AND RELATED FITTINGS AND VALVES SHALL BE HYDROSTATICALLY TESTED AT NOT LESS THAN 100 PSI PRESSURE MEASURED AT THE ROLLINS ROAD PUMP STATION. TESTS SHALL BE WITNESSED BY THE OWNER'S REPRESENTATIVE. DURATION OF THE TEST SHALL BE AT LEAST TWO (2) HOURS. MINIMUM REQUIREMENTS FOR THE TEST METHODS AND PROCEDURES SHALL BE AS FOLLOWS:

   A. THE CONTRACTOR SHALL PROVIDE ALL WATER, MATERIALS, EQUIPMENT, AND LABOR REQUIRED TO HYDROSTATICALLY TEST THE FORCE MAIN INCLUDING BUT NOT LIMITED TO TEMPORARY PLUGS AND RESTRAINTS, PUMPS, PRESSURE GAUGES AND ALL OTHER INCIDENTALS.

   B. THE CONTRACTOR SHALL PERFORM THE HYDROSTATIC TESTING OF PIPES AND PROVIDE ALL EQUIPMENT, MATERIALS, AND LABOR NECESSARY TO COMPLETE THE TESTING.

   C. TEST PRESSURE SHALL BE HELD FOR A MINIMUM OF 2 HOURS AS REQUIRED WITH NO NOTICEABLE LOSS IN PRESSURE WHILE ALL JOINTS ARE VISUALLY INSPECTED FOR LEAKS. AFTER PRESSURE IS APPLIED, PRESSURIZING DEVICE MUST BE DISCONNECTED OR ISOLATED FROM THE SYSTEM DURING THE INSPECTION PERIOD. THERE SHALL BE NO ALLOWABLE LEAKAGE AND DEFECTS SHALL BE CORRECTED IMMEDIATELY. TESTING SHALL BE REPEATED AFTER DEFECTS HAVE BEEN CORRECTED UNTIL A SUCCESSFUL TEST HAS BEEN ACCOMPLISHED.

   D. ALL EQUIPMENT SHALL BE ISOLATED FROM THE SYSTEM DURING TESTING OF THE PIPING SYSTEM. ALL AIR SHALL BE VENTED FROM THE SYSTEM PRIOR TO APPLICATION OF TEST PRESSURE FOR HYDROSTATIC TESTS.

6. ALL NUTS, BOLTS, AND MISCELLANEOUS HARDWARE USED UNDERGROUND SHALL BE ANSI TYPE 304 STAINLESS STEEL AS A MINIMUM.

DIRECTIONAL BORE INSTALLATION

1. THE PIPE USED FOR DIRECTIONAL DRILL APPLICATIONS SHALL BE HDPE DUCTILE IRON SIZE (DIPS) DR 11 PIPE AS SPECIFIED.

2. HDPE DIPS PIPE SHALL CONFORM TO ASTM D-3035 AND SHALL HAVE A WALL THICKNESS WITH A MINIMUM RATIO OF DR11. MINIMUM PRESSURE RATING SHALL BE 160 PSI.

3. HDPE DIPS JOINTS SHALL BE BUTT FUSION WELDED AND SHALL CONFORM TO ASTM D-2657, ASTM D-3261, AND ASTM F-2620.

4. THE CONTRACTOR SHALL PERFORM A DRILL PATH SURVEY (EXPLORATORY EXCAVATIONS) TO LOCATE EXISTING UTILITIES AND SERVICE LINES PRIOR TO CONSTRUCTION TO CONFIRM FINAL PIPELINE ALIGNMENT.

5. AFTER THE DRILL PATH SURVEY IS COMPLETED, THE DIRECTIONAL BORE CONTRACTOR SHALL SUBMIT A BORING PLAN TO THE OWNER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. BORING PLAN SHALL IDENTIFY ANY REQUIRED CHANGES TO THE PROPOSED ALIGNMENT REQUIRED TO AVOID EXISTING UTILITIES AND SERVICE LINES.

6. THE CONTRACTOR SHALL INSTALL SILT FENCE TO CONTAIN OR OTHERWISE ENCLOSE ALL STOCKPILE EXCAVATIONS OF BORING AND RECEIVING PITS AREAS. THIS ITEM IS CONSIDERED WITHIN THE UNIT PRICES AND QUANTITIES FOR THE PROJECT.

7. BEFORE THE HDPE FORCE MAIN IS CONNECTED TO THE EXISTING LIFT STATION DISCHARGE PIPE OR TO THE PROPOSED SANITARY DISCHARGE MANHOLE, IT SHALL BE PRESSURE TESTED.

8. ALL JOINTS ON HDPE DIPS PIPE SHALL BE RESTRAINED JOINTS. BUTT HEAT FUSED JOINTS CONFORMING TO ASTM D-3261 AND ASTM F-2620 ARE CONSIDERED TO BE RESTRAINED JOINTS. ALL ADAPTERS TO CONNECT TO EXISTING DUCTILE IRON PIPE AND THE CONNECTION AT THE EXISTING MANHOLE SHALL BE RESTRAINED.

EXCAVATION AND BACKFILL NOTES

1. THE CONTRACTOR SHALL EXAMINE THE CONTRACT DRAWINGS THOROUGHLY PRIOR TO BEGINNING ANY EXCAVATION, AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE AT ONCE OF ANY DISCREPANCIES.

2. ALL WORK AREAS SHALL BE PROPERLY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION AND TRAFFIC.

3. THE EXCAVATION FOR STRUCTURE &/OR PIPE INSTALLATION SHALL BE KEPT DRY AT ALL TIMES DURING STRUCTURE/PIPE PLACEMENT. APPROPRIATE FACILITIES TO MAINTAIN THE DRY EXCAVATIONS/TRENCHES SHALL BE PROVIDED BY THE CONTRACTOR AND THE COST OF SUCH SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS ITEMS TO WHICH THEY PERTAIN.

4. DETAILED DRAWINGS FOR ANY SHEETING AND BRACING SHALL BE PROVIDED FOR REVIEW TO THE OWNER'S REPRESENTATIVE PRIOR TO IMPLEMENTATION OF THE METHOD. A TRENCH BOX SHALL BE AVAILABLE ON THE JOB SITE AT ALL TIMES, AND BE UTILIZED IN ACCORDANCE WITH OSHA STANDARDS.

5. SUITABLE EXCAVATED MATERIALS SUBJECT TO THE REVIEW OF THE OWNER'S REPRESENTATIVE MAY BE USED TO BACKFILL THE EXCAVATED AREAS OF THE SITE.

6. NO UNDERGROUND WORK SHALL BE COVERED UNTIL IT HAS BEEN REVIEWED BY OWNER.

7. TRENCH BACKFILL SHALL BE PROVIDED FOR THE FULL DEPTH ABOVE PIPELINES UNDER OR WITHIN INFLUENCE AREAS OF PROPOSED OR EXISTING PAVEMENTS, UTILITIES, DRIVEWAYS, SIDEWALKS, AND BACK OF CURB. THE TRENCH BACKFILL SHALL CONSIST OF A GRANULAR MATERIAL MEETING IDOT CRUSHED STONE CA-6 GRADATION SPECIFICATIONS. INFLUENCE AREAS SHALL BE AREAS WHICH ARE WITHIN 45 DEGREES VERTICALLY OF THE ITEM REQUIRING TRENCH BACKFILL. THE TRENCH BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS AND SHALL EXTEND A MINIMUM OF ONE FOOT ON EITHER SIDE OF THE PIPE, OR AS OTHERWISE SHOWN OR SPECIFIED HEREIN.

8. BACKFILL IN PIPE TRENCHES IN OPEN AREAS AND LANDSCAPED AREAS SHALL CONSIST OF SUITABLE EXCAVATED MATERIALS PLACED IN LIFTS AND COMPACTED TO A MINIMUM OF 90 PERCENT OF THE MAXIMUM DENSITY OBTAINABLE PER ASTM D 1557.

9. THE CONTRACTOR SHALL REMOVE ALL EXCESS UTILITY SPOIL. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

10. ALL REMOVAL OR EXCAVATION ITEMS BEING DISPOSED OF AT AN UNCONTAMINATED SOIL FILL OPERATION OR CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) FILL SITE SHALL MEET THE REQUIREMENTS OF PUBLIC ACT 96-1416. ALL COSTS ASSOCIATED WITH MEETING THESE REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE COST FOR THE ASSOCIATED REMOVAL OR EXCAVATION ITEMS IN THE CONTRACT. THESE COSTS SHALL INCLUDE BUT ARE NOT LIMITED TO ALL REQUIRED TESTING, LAB ANALYSIS, CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER, AND STATE AND LOCAL TIPPING FEES.

11. STOCKPILING OF EXCAVATED MATERIALS ON SITE SHALL BE MINIMIZED TO THE GREATEST EXTENT PRACTICABLE. THE CONTRACTOR SHALL PROCEED PROMPTLY WITH UNDERGROUND WORK IMMEDIATELY FOLLOWING EXCAVATION, AND SHALL BACKFILL ALL EXCAVATIONS IMMEDIATELY FOLLOWING APPROVAL OF COMPLETED WORK BY THE OWNER.

SUMMARY OF QUANTITIES NOTES

1. THE CONTRACTOR'S BID AND CONTRACT PRICES FOR FORCE MAIN, DIRECTIONAL BORED, SHALL INCLUDE PROVIDING A CERTIFIED / QUALIFIED REPRESENTATIVE OF THE HDPE MANUFACTURER ONSITE DURING INSTALLATION IF REQUESTED BY OWNER.

2. THE CONTRACTOR'S BID AND CONTRACT PRICES FOR FORCE MAIN, DIRECTIONAL BORED, SHALL INCLUDE LOCATING WIRES AS DETAILED AND SPECIFIED AND HANDHOLES TO ACCESS THE LOCATOR WIRES SPACED NOT MORE THAN 500' ALONG THE ENTIRE FORCE MAIN ALIGNMENT.

3. THE SUMMARY OF QUANTITIES INCLUDES AN ALLOWANCE OF $150,000 TO BE USED FOR WORK ORDERED BY THE OWNER'S REPRESENTATIVE DURING CONSTRUCTION AND/OR AS CONTINGENCY FOR ADDITIONAL QUANTITIES. USE OF ALLOWANCE SHALL BE AT SOLE DISCRETION OF THE OWNER'S REPRESENTATIVE.

SUMMARY OF QUANTITIES

BASE BID ITEMS

ITEM	DESCRIPTION	QUANTITY ESTIMATE	UNIT
01 05 10/01	CONSTRUCTION LAYOUT	1	L SUM
01 10 00/01	MISCELLANEOUS ADDITIONS TO PROJECT AT OWNER'S DISCRETION (ALLOWANCE)	150,000	UNITS
01 50 00/01	MAINTENANCE OF BIKE TRAIL CROSSING AT PUMP STATION	1	L SUM
01 50 00/02	TEMPORARY CONSTRUCTION FENCING	1	L SUM
01 50 00/03	MATERIAL TESTING, SOILS VERIFICATION GEOTECHNICAL SERVICES	1	L SUM
01 50 00/04	MOBILIZATION, DEMOBILIZATION & CONTRACT ADMINISTRATION (SHALL NOT EXCEED 6% OF TOTAL BID PRICE)	1	L SUM
01 55 26/01	TRAFFIC CONTROL	1	L SUM
07 14 65/01	EXISTING DROP CHAMBER SURFACE REPAIR, CLEANING AND PREPARATION, AND APPLICATION OF NEOPOXY COATING	1	L SUM
31 13 16/01	TREE PROTECTION	1	L SUM
31 20 00/01	TRENCH BACKFILL	2,230	CU YD
31 25 13/01	EROSION CONTROL FENCE	1,500	FOOT
31 25 13/02	BMP MAINTENANCE	1	L SUM
31 25 13/03	CONCRETE WASHOUT	1	L SUM
31 25 13/04	STABILIZED CONSTRUCTION ENTRANCE	1	L SUM
31 25 13/05	DITCH CHECK	8	EACH
32 12 16/01	AGGREGATE SHOULDER RESTORATION	15	SQ YD
32 12 16/02	AGGREGATE BIKE PATH RESTORATION	270	SQ YD
32 12 16/03	SECONDARY ROADWAY BITUMINOUS PAVEMENT (PAVEMENT AND BITUMINOUS SHOULDERS), PER SQUARE YARD INCLUDING AGGREGATE BASE COURSE, HOT MIX ASPHALT BINDER COURSE AND HOT MIX ASPHALT SURFACE COURSE, PER SQUARE YARD	47	SQ YD
32 12 16/04	BITUMINOUS BIKE PATH RESTORATION, PER SQUARE YARD INCLUDING AGGREGATE BASE COURSE, HOT MIX ASPHALT BINDER COURSE AND HOT MIX ASPHALT SURFACE COURSE, PER SQUARE YARD	270	SQ YD
32 16 23.1/10	STAMPED PORTLAND CEMENT CONCRETE SHOULDER	135	SQ FT
32 97 00/01	SEED AND EXCELSIOR BLANKET, INCLUDES 4" TOPSOIL (PAY LIMITS - 10' WIDTH OVER OPEN CUT TRENCH & PUMP STATION YARD AREA)	6,100	SQ YD
33 41 00/01	14" DIP CLASS 52 W/ PROTECTO 401 LINING, FITTINGS, AND ACCESSORIES	122	FOOT
33 41 00/02	20" DIP CLASS 52 W/ PROTECTO 401 LINING, FITTINGS, AND ACCESSORIES	1	L SUM
33 41 00/03	16" PVC C900 DR 25 SEWER AND ACCESSORIES	1,380	FOOT
33 41 00/04	14" FLANGED RESILIENT WEDGE WITH SPUR GEAR AND ACCESSORIES IN 6' DIAMETER VAULT	1	EACH
33 41 00/05	20" INSERTION VALVE, 20" x 4" SADDLE, AND ACCESSORIES	1	EACH
33 41 00/06	4'-0" FOOT SANITARY SEWER MANHOLE W/ ANTIMICROBIAL ADDITIVE AND FRAME, LID AND ACCESSORIES	8	EACH
33 41 00/07	JACKED AND BORED HIGHWAY CROSSING ROLLINS ROAD	1	L SUM
33 41 00/08	GRAVITY SEWER CONNECTION TO EXISTING DROP STRUCTURE	1	L SUM
33 41 00/09	CONNECTION TO EXISTING 20" FORCE MAIN	1	L SUM
33 41 00/10	FILL EXISTING 20" PCCP FORCE MAIN WITH FLOWABLE FILL (1)	1	L SUM
33 41 50/01	DRILL PATH SURVEY	1	L SUM
33 41 50/02	16" HDPE DIPS SDR 11 DIRECTIONALLY DRILLED	2,334	FOOT
33 41 50/03	16" HDPE DIPS SDR 11 OPEN CUT INSTALLATION	44	FOOT
33 42 00/01	TEMPORARY FORCE MAIN FLOW CONTROL	1	LSUM

ALTERNATE BID ITEMS

ITEM	DESCRIPTION	QUANTITY ESTIMATE	UNIT
33 41 00/01A	14" FLANGED RESILIENT WEDGE WITH SPUR GEAR AND ACCESSORIES IN 6' DIAMETER VAULT	1	EACH
33 41 00/02A	14" FLANGED PIG LAUNCHER ASSEMBLY AND ACCESSORIES IN 7' DIAMETER VAULT WITH 9' DIAMETER FLAT TOP WITH ALUMINUM ACCESS HATCHES	1	EACH

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CLIENT:
LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE

FILE NAME: N:\LCPWD\230629\230629.00004\Mech\N0T_2306290004_2.dgn

DSGN.	KWB
DWN.	JCH
CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:
ROLLINS ROAD
FORCE MAIN REPLACEMENT

CONSTRUCTION NOTES & QUANTITIES

PROJ. NO. 23-0629.0004
DATE: 3/30/2026
SHEET 3 OF 22
DRAWING NO. 3

SPECIAL CONDITIONS FOR CONSTRUCTION WITHIN A LAKE COUNTY HIGHWAY RIGHT-OF-WAY

WORK PERFORMED ALONG AND WITHIN LAKE COUNTY HIGHWAY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE LAKE COUNTY DIVISION OF TRANSPORTATION (LAKE COUNTY DOT) REQUIREMENTS.

THE REVIEW AND APPROVAL OF THESE FINAL ENGINEERING PLANS AND SPECIFICATIONS BY THE LAKE COUNTY DIVISION OF TRANSPORTATION DOES NOT CONSTITUTE A RELEASE FROM OR GRANT A VARIATION FROM THE RULES, REGULATIONS, AND SPECIFICATIONS REQUIRED IN THE LAKE COUNTY HIGHWAY UTILITY AND FACILITY PLACEMENT ORDINANCE, LATEST EDITION, AS AMENDED, OR ANY SUCCESSOR DOCUMENT OR DOCUMENTS THERETO. THE PERMITTEE'S DESIGNATED REPRESENTATIVE AND/OR ALL SUCCESSORS AND ASSIGNS SHALL BE SOLELY RESPONSIBLE FOR ALL WORK AND PROCESSES WITHIN AND LIMITS OF THE COUNTY HIGHWAY RIGHT-OF-WAY, UNLESS OTHERWISE SPECIFIED. APPROVAL BY THE LAKE COUNTY DIVISION OF TRANSPORTATION SHALL NOT BE CONSTRUED AS ACCEPTANCE OF THE DESIGN OR CONSTRUCTION, AND MAINTENANCE RESPONSIBILITY SHALL REMAIN WITH THE PERMITTEE. ALL UTILITY AND FACILITY WORK SHALL BE IN CONFORMANCE WITH THE RULES, REGULATIONS, AND SPECIFICATIONS OF THE LAKE COUNTY UTILITY AND FACILITY PLACEMENT ORDINANCE, LATEST EDITION, AS AMENDED, OR ANY SUCCESSOR DOCUMENT OR DOCUMENTS THERETO.

LCDOT GENERAL NOTES

1. THE CONSTRUCTION, INCLUDING MATERIALS USED, OF THIS UTILITY AND FACILITY SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF THE MOST RECENT EDITIONS OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LAKE COUNTY HIGHWAY ACCESS AND USE ORDINANCE TECHNICAL REFERENCE MANUAL, SUPPLEMENTAL SPECIFICATIONS, AND RECURRING SPECIAL PROVISIONS, "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," AND "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" AS AMENDED AND SUCCESSIVE DOCUMENTS THERETO, AS PUBLISHED OR ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION UNLESS OTHERWISE STATED IN THESE ENGINEERING PLANS.

2. THE CONSTRUCTION OF THIS UTILITY OR FACILITY SHALL BE IN ACCORDANCE WITH THE LAKE COUNTY HIGHWAY UTILITY AND FACILITY PLACEMENT ORDINANCE, LATEST EDITION, AS AMENDED, OR ANY SUCCESSOR DOCUMENT OR DOCUMENTS THERETO.

3. THE LAKE COUNTY DIVISION OF TRANSPORTATION SHALL NOT BE HELD LIABLE FOR ANY ERRORS OR OMISSIONS IN THESE ENGINEERING PLANS OR FOR ANY ADDITIONAL WORK WHICH MAY BE NEEDED DUE TO ERRORS OR OMISSIONS IN THESE ENGINEERING PLANS.

4. THE PERMITTEE SHALL BE RESPONSIBLE FOR ANY ADDITIONAL WORK AND ALL COSTS THEREOF, REQUIRED BECAUSE OF ERRORS OR OMISSIONS IN THESE ENGINEERING PLANS AND FOR THE CORRECTION OF ANY CONSTRUCTION, MAINTENANCE, OR SAFETY PROBLEMS WHICH BECOME APPARENT DURING CONSTRUCTION OR BY INSPECTIONS MADE BY THE PERSON IN CHARGE OR THE LAKE COUNTY DIVISION OF TRANSPORTATION.

5. THE PERSON IN CHARGE SHALL NOTE ANY CHANGES FROM THESE ENGINEERING PLANS AND SHALL NOTIFY THE PERMIT DEPARTMENT OF THE LAKE COUNTY DIVISION OF TRANSPORTATION ABOUT ANY CHANGES THAT DEVIATE FROM THE INTENT OF THE ENGINEERING PLANS.

WORK NOTIFICATION

PRIOR TO STARTING CONSTRUCTION, THE MAINTENANCE SECTION, 847-377-7498, AND THE PERMIT SECTION, 847-377-7400, SHALL BE CALLED AND GIVEN THE CONSTRUCTION START DATE.

SPECIFICATION

THE CONSTRUCTION AND RESTORATION METHODS AND PROCEDURES, MATERIALS USED, AND CONSTRUCTION SIGNING AND TRAFFIC CONTROL SHALL, WHEN APPLICABLE, CONFORM TO OR MEET THE STANDARDS AND REQUIREMENTS SET FORTH IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS," AND THE "HIGHWAY STANDARDS," MANUAL AS PUBLISHED OR ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

FIELD CHANGES FOR WATERMAIN OR SEWER LOCATION

NO CHANGES TO THE DEPTH OR LOCATION OF THE WATERMAIN OR SEWER AS SHOWN ON THESE PLANS DUE TO UNFORESEEN FIELD CONDITIONS OR CONFLICTS MAY BE MADE UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE PERMIT SECTION OF THE LAKE COUNTY DIVISION OF TRANSPORTATION.

ADDITIONS, EXTENSIONS OR DELETIONS FOR THE WATERMAIN OR SEWER

NO ADDITIONS, EXTENSIONS, OR DELETIONS CAN BE MADE TO THE WATERMAIN OR SEWER AS SHOWN ON THESE PLANS UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE PERMIT SECTION OF THE LAKE COUNTY DIVISION OF TRANSPORTATION.

APPROVAL OF MATERIALS

THE MANAGER OF MATERIALS & QUALITY CONTROL OF THE LAKE COUNTY DIVISION OF TRANSPORTATION, 847-377-7400, SHALL BE CALLED FOR APPROVAL OF ANY TRENCH BACKFILL, SAND, GRAVEL OR OTHER GRANULATED MATERIALS USED WITHIN THE COUNTY HIGHWAY RIGHT-OF-WAY.

HAZARDS TO THE PUBLIC

MEASURES SHALL BE TAKEN TO PREVENT OR PROTECT THE PUBLIC FROM HAZARDS CAUSED BY THE CONSTRUCTION OPERATIONS.

PARKING OF VEHICLES, EQUIPMENT AND STORAGE OF MATERIALS

CONSTRUCTION WORKERS' VEHICLES AND CONSTRUCTION EQUIPMENT SHALL BE PARKED IN AREAS OUTSIDE OF THE COUNTY HIGHWAY RIGHT-OF-WAY OR IN AREAS WHERE THERE WILL BE NO INTERFERENCE WITH THE NORMAL USE OF THE HIGHWAY OR VEHICLE SIGHT DISTANCE. CONSTRUCTION MATERIALS SHALL BE LOCATED AT LEAST 12 FEET FROM A THROUGH TRAFFIC LANE OR OUTSIDE OF THE COUNTY HIGHWAY RIGHT-OF-WAY.

MAINTAINING EXISTING TRAFFIC CONTROL DEVICES

EXISTING TRAFFIC CONTROL DEVICES THAT ARE REMOVED SHALL BE RE-ERECTED AS SOON AS POSSIBLE. DAMAGED OR LOST TRAFFIC CONTROL SIGNS SHALL BE REPORTED TO THE SIGN SHOP (847-377-7501) OF THE LAKE COUNTY DIVISION OF TRANSPORTATION FOR REPLACEMENT.

REGULATORY AND WARNING TRAFFIC SIGNS SHALL BE KEPT IN VIEW OF THE HIGHWAY TRAFFIC.

EXISTING DRAINAGE AND ACCESS

DISTURBED HIGHWAY DRAINAGE FACILITIES SHALL BE RE-ESTABLISHED AT THE CLOSE OF EACH WORK DAY. OCCUPANTS OF ADJACENT PROPERTIES HAVING ACCESS TO THE COUNTY HIGHWAY SHALL BE NOTIFIED PRIOR TO BEING BLOCKED AND SUITABLE ARRANGEMENTS MADE WITH THE OCCUPANTS. ADJACENT PROPERTY ACCESS SHALL BE RE-ESTABLISHED AS SOON AS POSSIBLE.

HIGHWAY PAVEMENTS

CARE SHALL BE TAKEN NOT TO BREAK, CRACK OR DAMAGE THE HIGHWAY PAVEMENT WITH EQUIPMENT OPERATING ON IT. ALSO, ANY DIRT OR DEBRIS TRACKED ONTO THE HIGHWAY PAVEMENT SHALL BE REMOVED. EQUIPMENT WITH GROOVED PADS, CLEATS OR STUDS ARE NOT PERMITTED TO OPERATE ON THE HIGHWAY PAVEMENT.

EXCAVATIONS, TRENCHES AND BORE PITS

EXCAVATED MATERIAL SHALL, WHERE PRACTICAL, BE PILED ON THE NEAR TRAFFIC SIDE OF THE EXCAVATION, TRENCH OR BORE PIT. OPEN EXCAVATIONS, TRENCHES OR BORE PITS REMAINING PROTECTED (FENCING, COVERED, ETC.) EXCEEDING 50 FEET IN LENGTH SHALL BE PROPERLY BARRICADED. BORE PITS SHALL BE LOCATED ON THE NEAR TRAFFIC SIDE OF THE HIGHWAY PAVEMENT BACK OF CURB OR GUTTER, OR SHOULDER BREAK LINE, WHICHEVER IS FURTHER. IF CASING PIPES ARE USED, THE VOIDS IN THE CASING PIPE SHALL BE FILLED AND/OR THE ENDS SEALED SO THERE WILL BE NO INFILTRATION INTO THE CASING PIPE.

BACKFILLING

BACKFILLING OPERATIONS SHALL BE SIMULTANEOUS WITH THE CONSTRUCTION OPERATIONS AND SHALL BE IN ACCORDANCE WITH THE " STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." ANY EXCAVATION, TRENCH, BORE PIT OR PORTION THEREOF SHALL BE BACKFILLED AND PAVEMENT EDGE OR BACKFILL (SAND) SHALL BE USED FOR ALL ACCESS CROSSINGS AND PAVEMENT AREAS. THE PAVEMENT EDGE SHALL EXTEND TWO FEET BEYOND THE EDGE OF THE ACCESS OR PAVEMENT AREA. AREAS BETWEEN THE PAVEMENT EDGE AND SHOULDER BREAK LINE SHALL BE BACKFILLED WITH AGGREGATE BASE COURSE GRAVEL. BACKFILL OF SHOULDER AREAS SHALL NOT EXTEND ABOVE THE EXISTING GROUND AND ANY SETTLEMENT SHALL BE PROMPTLY FILLED.

MANHOLES, VALVES, VALVE VAULTS AND APPURTENANCES

THE TOP OF THE FRAME AND LID OR COVER OF A MANHOLE, VALVE OR VALVE VAULT SHALL BE FLUSH AND CONTOURED TO THE SURROUNDING GROUND. IF THIS IS NOT POSSIBLE DUE TO EXCESSIVE SLOPE, THE SURROUNDING GROUND SHALL BE REGRADED OR THE FRAME AND LID OR COVER RAISED. BURIED PROTRUDING GROUND SHALL BE TRANSITIONED TO THE AREA AND BE SAFE FOR PEDESTRIANS. THE TOP OF THE FRAME AND/OR COVER LOCATED WITHIN A GRAVEL SHOULDER SHALL HAVE A BITUMINOUS APRON INSTALLED AROUND THE FRAME OR COVER AS DIRECTED BY THE LAKE COUNTY DIVISION OF TRANSPORTATION. ANY FRAME AND LID OR COVER LOCATED IN A PAVED AREA SHALL BE CONTOURED TO 1/4 INCH BELOW THE SURFACE OF THE SURROUNDING PAVEMENT. THE TOP OF THE FRAME AND LID OR COVER SHALL NOT BE LOCATED WITHIN THE AREA OF 27.5 FEET TO 30.5 FEET FROM THE HIGHWAY PAVEMENT CENTERLINE.

SURFACE APPURTENANCES WHICH EXTEND ABOVE THE SURROUNDING GROUND SURFACE SHALL BE LOCATED WITHIN 2 FEET OF THE COUNTY HIGHWAY RIGHT-OF-WAY.

TILE LINES AND STORM SEWERS

EXISTING TILE LINES AND STORM SEWERS THAT ARE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE REPLACED IF BROKEN WITH LIKE SIZE AND KIND OF MATERIAL. TILE LINE AND STORM SEWER CROSSINGS OF THE EXCAVATION SHALL BE BRIDGED WITH RIGID MATERIAL SUCH AS WOOD OR STEEL. THE LOCATION AND DEPTH OF ANY ENCOUNTERED TILE LINES AND STORM SEWERS SHALL BE RECORDED AND A COPY GIVEN TO THE LAKE COUNTY DIVISION OF TRANSPORTATION.

WINTER CONSTRUCTION WORK

SNOW AND ICE REMOVAL OPERATIONS OF THE LAKE COUNTY DIVISION OF TRANSPORTATION SHALL HAVE PRECEDENCE OVER THE CONSTRUCTION OPERATIONS. A 12-FOOT (MINIMUM) CLEAR AREA FROM THE HIGHWAY PAVEMENT EDGE SHALL BE MAINTAINED FOR THE ROADSIDE STORAGE OF SNOW AND ICE. NO CONSTRUCTION EQUIPMENT OR MATERIAL SHALL BE STORED IN THIS 12-FOOT WIDE (MINIMUM) CLEAR AREA NOR SHALL ANY PILES OF DIRT OR EXCAVATED MATERIALS BE LEFT IN THIS AREA.

RESTORATION AND CLEAN-UP

THE AREA OF THE COUNTY HIGHWAY RIGHT-OF-WAY DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE RESTORED AS PROMPTLY AS WEATHER AND SOIL CONDITIONS PERMIT. IF RESTORATION IS NOT ACCOMPLISHED VOLUNTARILY, THE LAKE COUNTY DIVISION OF TRANSPORTATION MAY SET A FINAL DATE FOR THE COMPLETION OF THE RESTORATION WORK.

TURF AREAS OF THE RIGHT-OF-WAY DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE COMPACTED AND REGRADED TO AN EQUAL OR BETTER CONDITION THAN EXISTED BEFORE CONSTRUCTION. ALSO, AN AVERAGE 3-INCH DEPTH OF TOPSOIL, FERTILIZER, SEED AND MULCH SHALL BE USED. HYDRO SEEDING IS ALSO ACCEPTABLE. SOD SHALL BE USED IN HIGH EROSION AREAS. THIS RESTORATION WORK WILL NOT BE CONSIDERED COMPLETED UNTIL THE TURF COVER IS ESTABLISHED.

GRAVEL AND PAVED SHOULDERS THAT ARE DAMAGED SHALL BE REPLACED OR DIRECTED BY THE LAKE COUNTY DIVISION OF TRANSPORTATION. DRIVEWAYS, SIDE ROADS AND OTHER ACCESSES WHICH ARE DAMAGED SHALL BE RESTORED WITH SIMILAR MATERIALS AND THICKNESS. THE EDGES OF EXCAVATED PAVED SURFACES SHALL BE SAWCUT PRIOR TO REPAIR. CULVERTS, STORM SEWER SYSTEMS AND OTHER DRAINAGE FACILITIES INCLUDING DITCH LINES SHALL BE CLEANED OF SILTATION AND DEBRIS DUE TO THE CONSTRUCTION OPERATIONS.

OTHER AREAS OF THE RIGHT-OF-WAY THAT HAVE BEEN DISTURBED SUCH AS CURB AND GUTTERS SHALL ALSO BE RESTORED WITH SIMILAR MATERIALS.

ANY DAMAGED PROPERTY OF THE COUNTY OF LAKE, ITS DIVISION OF TRANSPORTATION, OR OF OTHERS (INCLUDING UTILITY COMPANIES) SHALL BE REPAIRED OR REPLACED OR THE OWNER OF THE DAMAGED PROPERTY REIMBURSED FOR THE COSTS OF REPAIRING THE DAMAGED PROPERTY BY THE OWNER.

RESTORATION GUARANTEE

ANY RESTORATION WORK THAT FAILS WITHIN ONE YEAR OF COMPLETION SHALL BE REDONE. ALSO, ANY SETTLEMENT WHICH OCCURS WITHIN ONE YEAR OF COMPLETION OF THE SURFACE RESTORATION WORK SHALL BE FILLED AND THE SURFACE AREA RESTORED.

KEEPING ROADS OPEN TO TRAFFIC

ALL ROADS SHALL REMAIN OPEN TO TRAFFIC. THE CONTRACTOR MAY CLOSE ONE LANE BECAUSE OF CONSTRUCTION ONLY BETWEEN THE HOURS OF 9:00 A.M. AND 3:00 P.M. THE PERSON IN CHARGE SHALL NOTIFY THE LAKE COUNTY DIVISION OF TRANSPORTATION TRAFFIC MANAGEMENT CENTER (847-377-7000) OF ANY LANE CLOSURE AND WHEN THE LANE RE-OPENS. THIS INFORMATION SHALL BE BROADCAST ON THE LAKE COUNTY PASSAGE WEBSITE AND HIGHWAY ADVISORY RADIO. THE CONTRACTOR SHALL MAINTAIN TRAFFIC DURING THESE RESTRICTED HOURS AS SHOWN ON THE TRAFFIC CONTROL STANDARDS. TWO LANES OF TRAFFIC WILL BE MAINTAINED BETWEEN 3:00 P.M. AND 9:00 A.M. AND WHEN NO CONSTRUCTION ACTIVITIES ARE BEING CARRIED OUT. TRAFFIC ROUTED AROUND CONSTRUCTION AREAS SHALL BE OVER PAVED SURFACES AND NOT OVER GRAVEL SHOULDERS.

LAKE COUNTY PUBLIC WORKS STANDARD NOTES

GENERAL

1. ALL SEWER AND WATER MAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS AND ORDINANCES OF LAKE COUNTY PUBLIC WORKS (LCPW), ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS, LATEST EDITION AND THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN ILLINOIS, LATEST EDITION, AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS, LATEST EDITION.

2. CONTRACTOR SHALL NOTIFY LCPW AT LEAST THREE (3) WORKING DAYS (72 HOURS) PRIOR TO THE START OF WATER AND/OR SEWER CONSTRUCTION AT 847-377-7500.

3. LCPW SHALL BE GRANTED ACCESS TO ALL PARTS OF THE CONSTRUCTION SITE AND SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND/OR REJECT ALL WATER MAIN, WATER SERVICE, SANITARY SEWER AND SANITARY SERVICE IMPROVEMENTS.

4. ALL SANITARY SEWER AND WATER MAIN SHALL BE INSPECTED AND APPROVED BY LCPW PRIOR TO BACKFILL.

SANITARY SEWER

1. SANITARY SEWERS AND SEWER SERVICES UP TO A DEPTH OF 14 FEET SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PLASTIC GRAVITY SEWER PIPE (PVC) CONFORMING TO ASTM DESIGNATION D3034 WITH AN SDR OF 26 (MINIMUM) WITH PUSH-ON ELASTOMERIC GASKET JOINTS CONFORMING TO ASTM D3212. SEE LCPW STANDARD SPECIFICATIONS FOR PIPE MATERIAL OVER 14 FEET IN DEPTH.

2. ALL SANITARY SERVICE CONNECTIONS TO NEW MAINLINE SEWER SHALL BE MADE WITH PRECAST WYES OR TEES MANUFACTURED SPECIFICALLY FOR THAT PURPOSE. SANITARY SEWER RISER AND SERVICE MATERIAL SHALL BE SAME AS MAINLINE SEWER. PIPE AND FITTINGS SHALL BE A MINIMUM OF SDR 26.

3. SANITARY SERVICES SHALL BE LAID TO A MINIMUM GRADE OF 1.00%. THE END OF EACH SERVICE SHALL BE SEALED WITH A MANUFACTURER'S WATERTIGHT PLUG. SANITARY SERVICE STUBS SHALL BE MARKED WITH A 4" X 4" POST THAT EXTENDS A MINIMUM OF 3 FEET INTO THE GROUND AND 4 FEET ABOVE FINISH GRADE WITH THE TOP 12 INCHES PAINTED RED.

4. SEWER SERVICE RISER SHALL BE USED WHEN MAINLINE SEWER EXCEEDS 12 FEET IN DEPTH.

5. A CURRENT COLOR VIDEO RECORDING AND A TYPE WRITTEN TRANSCRIPTION OF THE INTERNAL INSPECTION OF THE NEWLY CONSTRUCTED SANITARY SEWER SYSTEM SHALL BE SUBMITTED TO LCPW AND THE MUNICIPALITY AS APPLICABLE. THIS WORK SHALL INCLUDE THE ROTATION OF THE LENS TO LOOK UP/AT EACH SERVICE.

6. ALL SANITARY SEWERS INCLUDING SERVICE LINES SHALL BE CLEANED AND SUBJECTED TO AN AIR TEST, APPLICABLE DEFLECTION TEST, AND TV INSPECTION BY THE CONTRACTOR.

7. SANITARY MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C969 OR ASTM C1244.

8. AN ACCEPTABLE INFLATABLE SEWER PRESSURE PLUG SHALL BE INSTALLED IN THE DOWNSTREAM CONNECTION MANHOLE ON THE NEW PIPE. THE SEWER PLUG SHALL HAVE A GAUGE PLACED JUST UNDER THE MANHOLE RIM FOR VISUAL INSPECTION OF PLUG INFLATION WITHOUT REQUIRING MANHOLE ACCESS.

RECORD DRAWINGS

1. DRAWINGS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF ILLINOIS. DRAWINGS SHALL BE CREATED USING CAD. APPROVED RECORD DRAWING FILES SHALL BE SUBMITTED IN EITHER ARCGIS (PREFERRED), MICROSTATION, OR AUTOCAD FORMAT WITH ONE PAPER COPY. UNDER EITHER CIRCUMSTANCE, AN ADOBE PDF OF THE RECORD DOCUMENTS SHALL BE INCLUDED.

2. SUBMITTED DRAWINGS SHALL BE NO SMALLER THAN 11" X 17" OR LARGER THAN 24" X 36". THE SCALE SHALL BE 1" = 50' OR GREATER.

3. STATE PLANE COORDINATES, EASTERN ZONE, NAD 83 NSRS2007, WITH MINIMUM SUB-FOOT ACCURACY. VERTICAL DATUM SHALL BE NAVD88.

4. THE DRAWINGS SHALL INCLUDE ANY AND ALL APPROVED FIELD CHANGES.

5. ALL STRUCTURES (MANHOLES, VALVE VAULTS, VALVE BOXES, HYDRANTS, B-BOXES) SHALL HAVE GPS COORDINATES INCLUDING NORTHING, EASTING, AND VERTICAL ELEVATION.

SANITARY SEWER IMPROVEMENTS - RECORD DRAWINGS

1. ALL MANHOLES SHALL BE NUMBERED WITH RECORD RIM AND INVERT ELEVATIONS.

2. ALL PIPES SHALL INCLUDE LINEAL FOOTAGE BETWEEN CENTER OF MANHOLES, DIAMETER OF PIPE, MATERIAL TYPE, AND RECORD SLOPE.

3. ALL SEWER SERVICES SHALL BE IDENTIFIED BY STATIONING FROM THE NEAREST DOWNSTREAM MANHOLE, AND THE END OF THE SERVICE SHALL HAVE GPS COORDINATES (NORTHING AND EASTING). INFORMATION REQUIRED INCLUDES LINEAL FOOTAGE OF LATERAL AND HEIGHT OF RISER.

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CLIENT:

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650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.

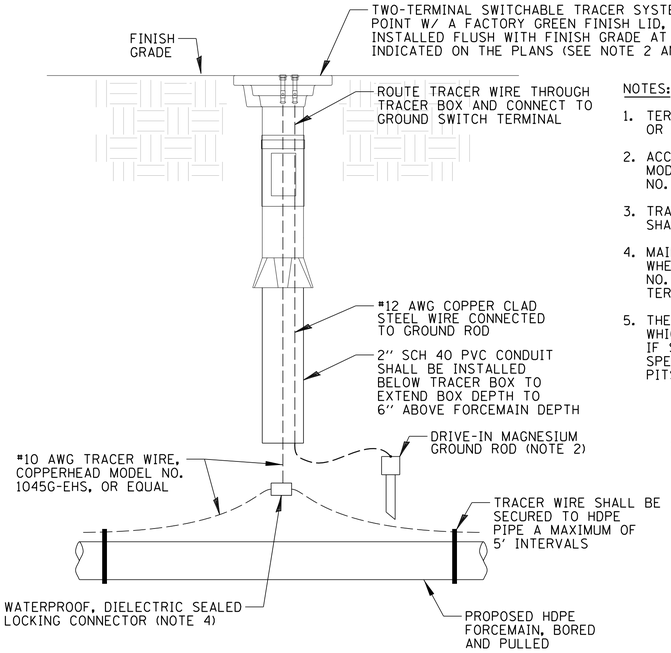
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DSGN.	KWB
DWN.	JCH
CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	3/30/2026
CAD USER:	jhastings
MODEL:	Default

TITLE: **ROLLINS ROAD FORCE MAIN REPLACEMENT**

CONSTRUCTION NOTES

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	4 OF 22
DRAWING NO.	4



NOTES:

1. TERMINAL ACCESS POINT SHALL BE INSTALLED AT LOCATIONS INDICATED ON PLANS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
2. ACCESS POINT SHALL BE COPPERHEAD TWO TERMINAL SWITCHABLE LID SNAKE PIT MODEL NO. LD14G2T-SW (OR EQUAL) IN GRASS AREAS AND COPPERHEAD MODEL NO. CD14G2T-SW (OR EQUAL) IN CONCRETE/DRIVEWAY AREAS.
3. TRACER WIRE SYSTEM SHALL BE INSTALLED AS SINGLE CONTINUOS WIRE, NO SPLICING SHALL BE ALLOWED UNLESS DONE AT A TRACER WIRE ACCESS POINT.
4. MAINLINE-TO-SERVICE CONNECTOR SHALL BE COPPERHEAD MODEL NO. 3WB-01 (OR EQUAL) WHEN INSTALLING AN ACCESS POINT ALONG THE FORCEMAIN AND COPPERHEAD MODEL NO. LSC1030C (OR EQUAL) WHEN INSTALLING AN ACCESS POINT AT FORCEMAIN TERMINATION POINTS OR WHEN A TRACER WIRE SPLICE IS REQUIRED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATIONS OF THE ACCESS POINTS WHICH SHALL BE LOCATED AT CONTRACTOR'S BORE PITS, SUBJECT TO OWNER'S APPROVAL. IF SPACING OF BORE PITS EXCEEDS ALLOWABLE SPACING OF ACCESS POINTS PER SPECIFICATION 33 05 26, CONTRACTOR SHALL PROVIDE ACCESS POINTS BETWEEN BORE PITS, SUBJECT TO OWNER'S APPROVAL.

TRACER WIRE ACCESS POINT DETAIL

N.T.S.

FLOWABLE FILL EXCAVATION, PAVEMENT CUT & QUANTITY, AND TRENCH BACKFILL TABLE					
EXCAVATION #	LCDOT CENTERLINE STATION	PAVEMENT CUT (FTxFT)	PAVEMENT QTY (S.Y.)	TRENCH BACKFILL QUANTITY (C.Y.)	ROADWAY PAVEMENT & NOTES
1	3+87.6 , 74.8' LEFT	0 x 0	0.0	14.2	N.A. - OLD ROLLINS ROAD
2	7+31.9 , 89.1' LEFT	1.7 x 8.0	1.6	14.2	OLD ROLLINS ROAD
3	11+53.5 , 36.1' LEFT	0 x 0	0.0	0.0	N.A. - OLD ROLLINS ROAD
4	16+28.7 , 24.4' RIGHT	3.1 x 8.0	2.8	14.2	ROLLINS ROAD - EXISTING AIR RELEASE VAULT TO BE ABANDONED
5	21+57.7 , 19.9' RIGHT	0.5 x 8.0	0.5	14.2	ROLLINS ROAD
6	26+18.9 , 17.8' RIGHT	2.3 x 8.0	2.1	14.2	ROLLINS ROAD
7	31+18.9 , 19.0' RIGHT	1.7 x 8.0	1.6	14.2	ROLLINS ROAD
8	36+18.9 , 17.2' RIGHT	0.5 x 8.0	0.5	14.2	ROLLINS ROAD
PUMP STATION	40+90.5 , 48.7' RIGHT	0 x 0	0.0	0.0	N.A. INSERTION VALVE EXCAVATION
TOTAL		67.6	9.1	99.4	

FLOWABLE FILL NOTES:

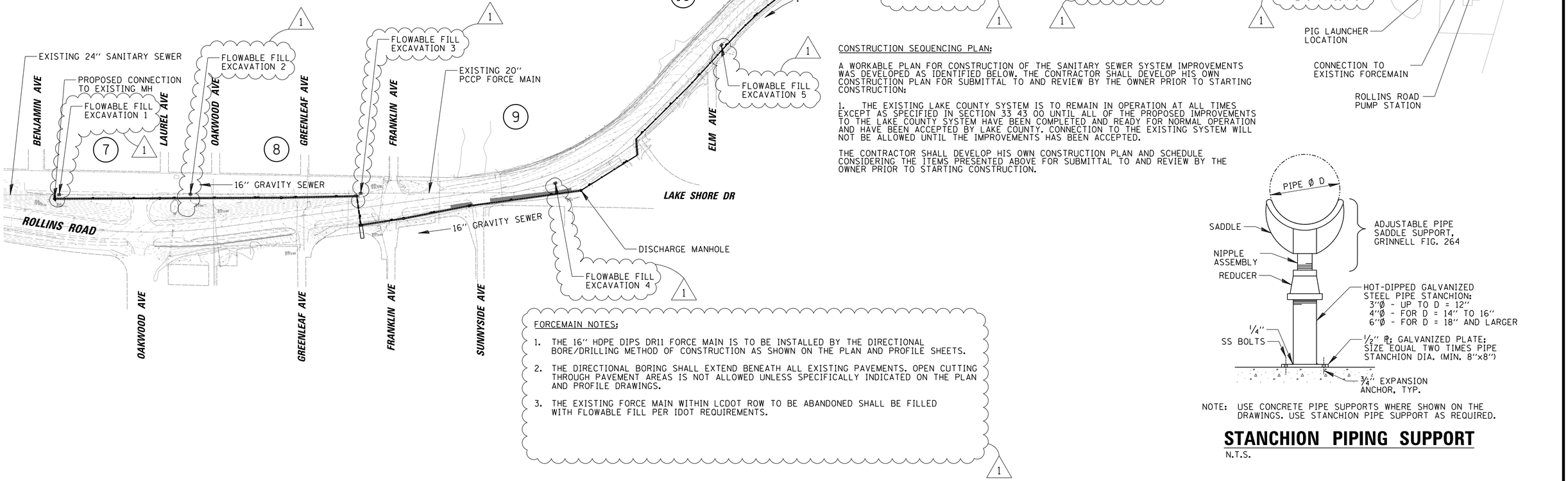
1. COST OF PAVEMENT CUTS, PAVEMENT RESTORATION, TRENCH BACKFILL, SHOULDER AND PARKWAY RESTORATION, AND TRAFFIC CONTROL TO BE INCLUDED IN LUMP SUM PRICE FOR FLOWABLE FILL.
2. CONTRACTOR MAY PROPOSE ALTERNATE SPACING AND LOCATIONS FOR FLOWABLE FILL PITS. FINAL LOCATIONS AND SPACING VARYING FROM THOSE INDICATED SHALL BE APPROVED BY LCPW AND LCDOT PRIOR TO PROCEEDING WITH THE WORK.

SCALE 1" = 120'
0 120 240

N

LEGEND

(XX) = SHEET NUMBER



CONSTRUCTION SEQUENCING PLAN:

A WORKABLE PLAN FOR CONSTRUCTION OF THE SANITARY SEWER SYSTEM IMPROVEMENTS WAS DEVELOPED AS IDENTIFIED BELOW. THE CONTRACTOR SHALL DEVELOP HIS OWN CONSTRUCTION PLAN FOR SUBMITTAL TO AND REVIEW BY THE OWNER PRIOR TO STARTING CONSTRUCTION:

1. THE EXISTING LAKE COUNTY SYSTEM IS TO REMAIN IN OPERATION AT ALL TIMES EXCEPT AS SPECIFIED IN SECTION 33 43 00 UNTIL ALL OF THE PROPOSED IMPROVEMENTS TO THE LAKE COUNTY SYSTEM HAVE BEEN COMPLETED AND READY FOR NORMAL OPERATION AND HAVE BEEN ACCEPTED BY LAKE COUNTY. CONNECTION TO THE EXISTING SYSTEM WILL NOT BE ALLOWED UNTIL THE IMPROVEMENTS HAS BEEN ACCEPTED.

THE CONTRACTOR SHALL DEVELOP HIS OWN CONSTRUCTION PLAN AND SCHEDULE CONSIDERING THE ITEMS PRESENTED ABOVE FOR SUBMITTAL TO AND REVIEW BY THE OWNER PRIOR TO STARTING CONSTRUCTION.

FORCEMAIN NOTES:

1. THE 16" HDPE DIPS DR11 FORCE MAIN IS TO BE INSTALLED BY THE DIRECTIONAL BORE/DRILLING METHOD OF CONSTRUCTION AS SHOWN ON THE PLAN AND PROFILE SHEETS.
2. THE DIRECTIONAL BORING SHALL EXTEND BENEATH ALL EXISTING PAVEMENTS. OPEN CUTTING THROUGH PAVEMENT AREAS IS NOT ALLOWED UNLESS SPECIFICALLY INDICATED ON THE PLAN AND PROFILE DRAWINGS.
3. THE EXISTING FORCE MAIN WITHIN LCDOT ROW TO BE ABANDONED SHALL BE FILLED WITH FLOWABLE FILL PER IDOT REQUIREMENTS.

NOTE: USE CONCRETE PIPE SUPPORTS WHERE SHOWN ON THE DRAWINGS. USE STANCHION PIPE SUPPORT AS REQUIRED.

STANCHION PIPING SUPPORT

N.T.S.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:

LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE

FILE NAME: N:\LCPWD\230629\230629.00004\Mech\OVR_2306290004_1.dgn

DSGN.	KWB
DWN.	JCH
CHKD.	MEE
SCALE:	1" = 120'
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

TITLE: ROLLINS ROAD FORCE MAIN REPLACEMENT

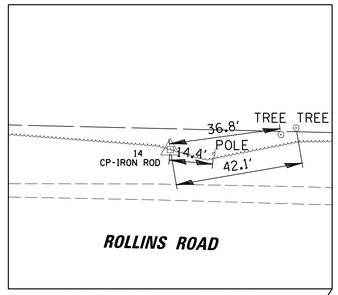
OVERALL PLAN

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	5 OF 22
DRAWING NO.	5

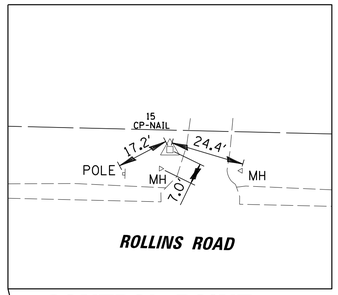
ELEVATION BENCHMARKS
DATUM: NAVD '88 (GPS OBSERVED)

NO.	DESCRIPTION	ELEV.
OSBM	SOUTHWEST CORNER OF THE TRAFFIC	762.02
25-1	CONTROL BOX AT THE NORTHEAST CORNER OF	
	WILSON ROAD AND ROLLINS ROAD	
OSBM	SQUARE CUT ON THE NORTH SIDE OF THE	782.61
25-2	WALL ALONG THE PATH AT THE CENTERLINE	
	OF NORTH OAKWOOD AVENUE	
OSBM	EAST END OF THE RETAINING WALL AT THE	790.26
25-3	SOUTHWEST CORNER OF GREENLEAF AVENUE	
	AND ROLLINS ROAD	
OSBM	SQUARE CUT ON THE TRAFFIC CONTROL BOX	802.62
25-4	AT THE SOUTHEAST CORNER OF FRANKLIN	
	AVENUE AND ROLLINS ROAD	
OSBM	MINI RAILROAD SPIKE IN THE UTILITY	795.30
25-5	POLE AT THE SOUTHEAST CORNER OF ELM	
	AVENUE AND ROLLINS ROAD	
OSBM	SPIKE IN A 26" ELM TREE ON THE NORTH	758.52
25-6	SIDE OF ROLLINS ROAD AROUND 900' WEST	
	OF THE PUMP STATION	
OSBM	SQUARE CUT ON THE CROSSWALK SIGNAL	750.29
25-7	BASE FOR THE PATH ON THE WEST SIDE OF	
	THE PUMP STATION	

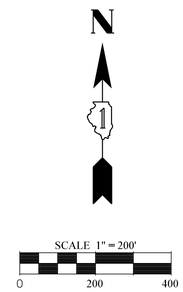
BASELINE	HORIZONTAL CONTROL POINTS					
	CP NO	NORTHING (Y)	EASTING (X)	DESCRIPTION	STATION	OFFSET
ROLLINS ROAD	CP 4	N 2,081,518.48	E 1,036,586.28	CP-NAIL	0+67.37	32.07' RT
	CP 5	N 2,081487.44	E 1,036,843.90	CP-NAIL	3+26.67	22.25' RT
	CP 6	N 2,081,462.72	E 1,037,073.15	CP-XCUT	5+54.96	20.48' RT
	CP 7	N 2,081,518.37	E 1,037,561.76	CP-NAIL	10+44.32	8.72' RT
	CP 8	N 2,081546.47	E 1,037,768.50	CP-XCUT	12+52.96	8.84' RT
	CP 9	N 2,081,570.18	E 1,037,920.92	CP-XCUT	14+7.18	5.95' RT
	CP 10	N 2,081,682.75	E 1,038,286.73	CP-NAIL	17+87.54	19.49' RT
	CP 11	N 2,081,923.02	E 1,038,524.45	CP-NAIL	21+22.34	11.40' RT
	CP 12	N 2,082,188.19	E 1,038,799.58	CP-IRON ROD	25+0.67	28.49' LT
	CP 13	N 2,082,255.19	E 1,039227.29	CP-IRON ROD	29+24.49	35.54' LT
	CP 14	N 2,082,241.38	E 1,039,706.78	CP-IRON ROD	34+4.18	33.12' LT
	CP 15	N 2,082,227.17	E 1,040,323.69	CP-NAIL	40+21.25	33.56' LT

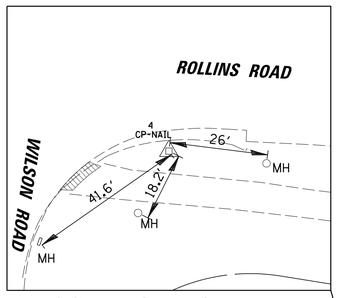


CONTROL POINT 14

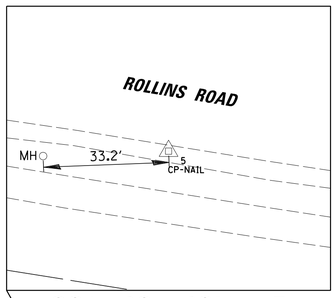


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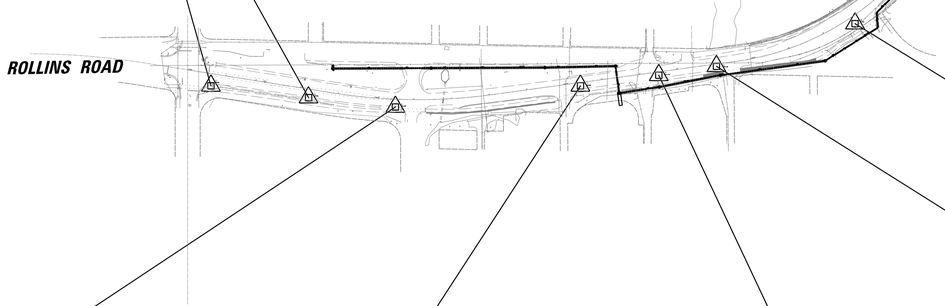


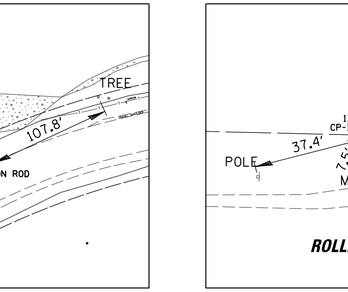


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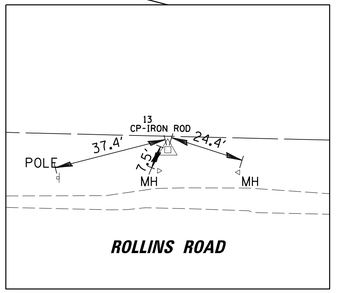


CONTROL POINT 5

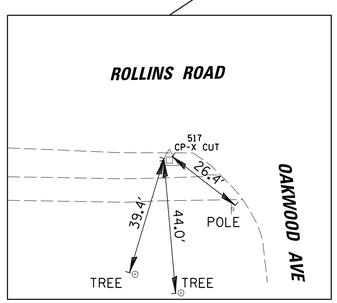




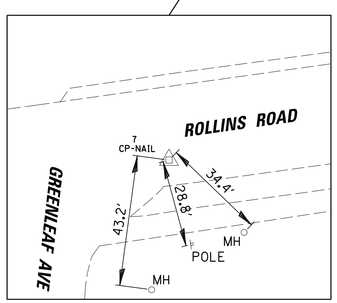
CONTROL POINT 12



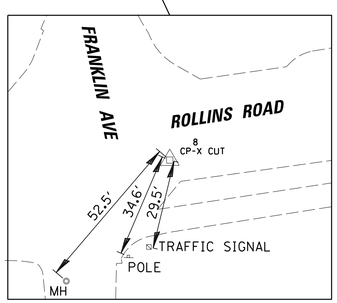
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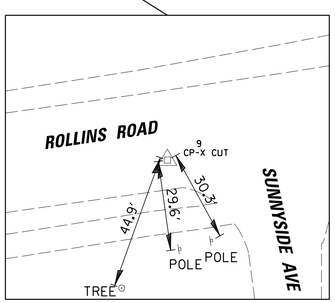
CONTROL POINT 6



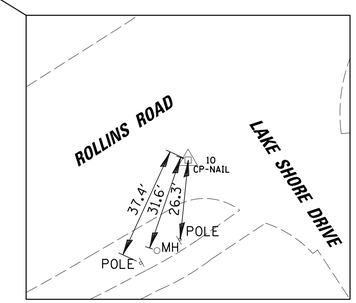
CONTROL POINT 7



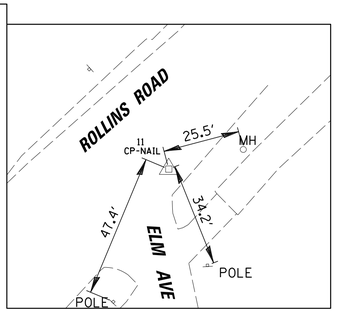
CONTROL POINT 8



CONTROL POINT 9



CONTROL POINT 10



CONTROL POINT 11

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CLIENT:

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Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.

FILE NAME: N:\LCPWD\230629\230629.00004\Mech\BMK_2306290004_2.dgn

DSGN.	KWB
DWN.	JCH
CHKD.	MEE
SCALE:	1" = 200'
PLOT DATE:	3/30/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

TIES, CONTROL POINTS, & BENCHMARKS

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	6 OF 22
DRAWING NO.	6

EXISTING ROW

EXISTING 24" SANITARY SEWER

BIT. PAVEMENT RESTORATION 28 SY

AGGREGATE SHOULDER RESTORATION, 7 SY

AGGREGATE SHOULDER RESTORATION, 7 SY

PROPOSED DITCH CHECK (TYP)

OLD ROLLINS RD

EX. DROP STRUCTURE 72AA3D

EX MH 779.99 / 763.51

EXISTING 20" PCCP FORCEMAIN

N: 2081573.40
E: 1036907.70

PROPOSED 16" GRAVITY SEWER

PRO MH SAN 2 775.53 / 769.00

N: 2081573.40
E: 1036907.70
LCDOT 6+50.8, 82.89' LT

FLOWABLE FILL EXCAVATION 1

FLOWABLE FILL EXCAVATION 2

CB 688
RIM=779.86
INV W 12" CMP=770.86

SAN 708
RIM=781.76
CAN NOT OPEN
E 20" PCCP PER ATLAS
W 24" RCP PER ATLAS

SAN 709
RIM=781.67
INV E 12" DIP=775.17
RIM=764.67

N: 2081564.04
E: 1036907.81
LCDOT STA. 3+77.8, 63.51' LT

63.51'

82.89'

PRO MH SAN 1 778.01 / 763.66

24" RCP FES W/ GRATE
INV=772.65

SAN 1154
RIM=774.03
TOP OF WATER=774.03
FULL OF DEBRIS

WETLANDS

EXISTING FM BLOW OFF SEE AS-BUILT DRAWING SHEET 16

36"X24" RCP BOX CULVERT
INV=770.84

COMED, AT&T AERIAL

COMED AERIAL

ROLLINS RD

ROLLINS RD

OAKWOOD AVE

36"X24" RCP BOX CULVERT
INV=768.69

CB 792
RIM=769.15
INV E 12" RCP=764.45
INV W 12" RCP=764.45

CB 790
RIM=771.70
INV W 12" RCP=767.68

EXISTING ROW

MATCHLINE 104+00

N

SCALE 1" = 20'
0 20 40

LEGEND

- REMOVE AND REPLACE HMA ROADWAY PAVEMENT
- REMOVE AND REPLACE HMA SHOULDER PAVEMENT
- REMOVE AND REPLACE HMA SIDEWALK
- SEED AND TOPSOIL RESTORATION

NOTES:
1. CALCULATED SLOPES ARE MANHOLE CENTERLINE - MANHOLE CENTERLINE.

2. PIPE LENGTHS ON PROFILE ARE MANHOLE EDGE - MANHOLE EDGE.

SEED & TOP SOIL RESTORATION

BIT. PAVEMENT RESTORATION

SEED & TOP SOIL RESTORATION

AGG. SHOULDER

AGG. SHOULDER

RIM IS 781.76 EX. DROP STRUCTURE 72AA3D SEE DETAIL SHEET 15 AND AS-BUILT DRAWING

PRO MH-1
STA. 100+09.2

PRO MH-2
STA. 102+69.2

EXISTING GRADE

EX. 24" RCP SEWER

CORE CONNECTION, NEOPOXY COAT PER SPECIFICATIONS
PROVIDE BOOT PER DETAIL ON SHEET 15

296.0' - 16" PVC C900 DR 25 @ 1.90%

256.0' - 16" PVC C900 DR 25 @ 2.05%

EXISTING FM BLOW OFF

INV. 769.00

INV. 763.66

4.2' - 16" PVC C900 DR 25 @ 1.63%

INV. 763.51

EX. 8" VCP SANITARY

EXISTING 24" RCP EFFLUENT SEWER INV = 762.51
CONTRACTOR TO VERIFY IN FIELD

779.99 780.45 780.56 779.55 777.79 776.50 775.04 775.40 776.22

MATCHLINE 104+00

785 780 775 770 765 760 755

98+50 99+00 99+50 100+00 100+50 101+00 101+50 102+00 102+50 103+00 103+50 104+00

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650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE
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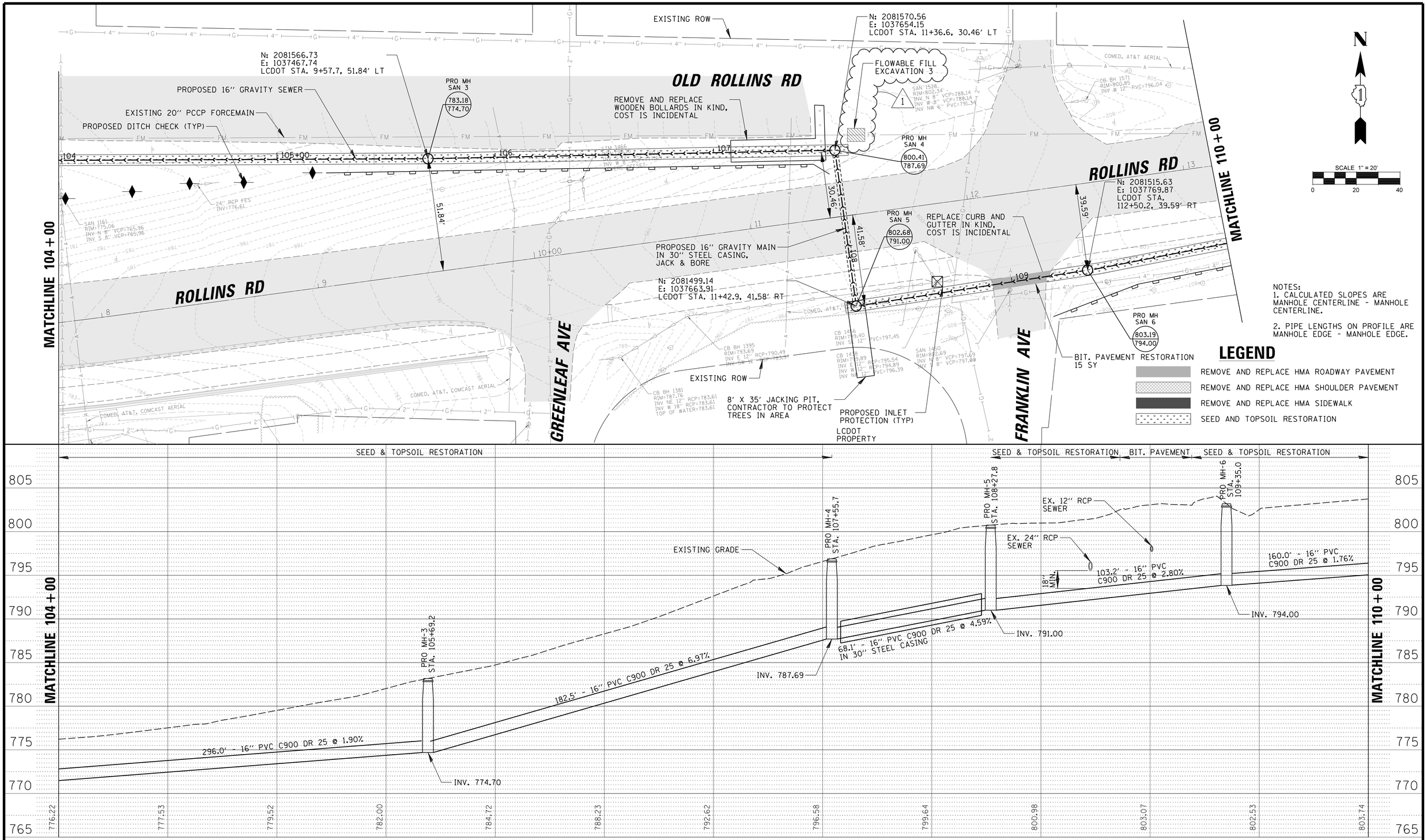
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DWN.	JCH
CHKD.	MEE
SCALE:	1" = 20'
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

PLAN AND PROFILE – 1

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	7 OF 22
DRAWING NO.	7



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NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE

FILE NAME N:\LCPWD\230629\230629.00004\Mech\PLN_2306290004_2.dgn

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DWN.	JCH
CHKD.	MEE
SCALE:	1" = 20'
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

PLAN AND PROFILE – 2

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	8 OF 22
DRAWING NO.	8

LEGEND

- REMOVE AND REPLACE HMA ROADWAY PAVEMENT
- REMOVE AND REPLACE HMA SHOULDER PAVEMENT
- REMOVE AND REPLACE HMA SIDEWALK
- SEED AND TOPSOIL RESTORATION

N

SCALE 1" = 20'
0 20 40

MATCHLINE 110 + 00

ROLLINS RD

110+00

PRO MH SAN 7
806.50
797.27

PAVEMENT PATCHING
20 SY

SIDEWALK / BIKE TRAIL REPAIR
48 SY
N: 2081546.33
E: 1037930.96
LCDOT STA. 14+13.9, 30.95' RT
REPLACE WALKWAY RUMBLE, COST IS INCIDENTAL

SUNNYSIDE AVE

PROPOSED 16" GRAVITY SEWER

EXISTING ROW

18" RCP CULVERT
INV=801.48

AT&T (SUE LEVEL D)
COMCAST-U/G
COMED U/G

COMED, AT&T AERIAL

COMED, AT&T, COMCAST AERIAL

EXISTING ROW

SIDEWALK / BIKE TRAIL REPAIR
192 SY

FLOWABLE FILL EXCAVATION 4

SAN 1675
RIM=809.51
TOP E/W 12" PCCP=800.71
(20" ATLAS)

DISCHARGE MANHOLE

PRO MH SAN 8
810.53
801.07

N: 2081584.57
E: 1038207.71
LCDOT STA. 16+76.9, 66.1' RT

30.95'

66.1'

EXISTING FORCEMAIN ALIGNMENT

N: 2081711.98
E: 1038344.03
LCDOT STA. 18+48.6, 29.97' RT

ROLLINS RD

MATCHLINE 116 + 00

29.97'

63.23'

45° BEND

SIDEWALK / BIKE TRAIL REPAIR
5 SY

REPLACE WALKWAY RUMBLE, COST IS INCIDENTAL

115+00

PROPOSED FORCEMAIN ALIGNMENT
16" HDPE, DIRECTIONALLY BORED

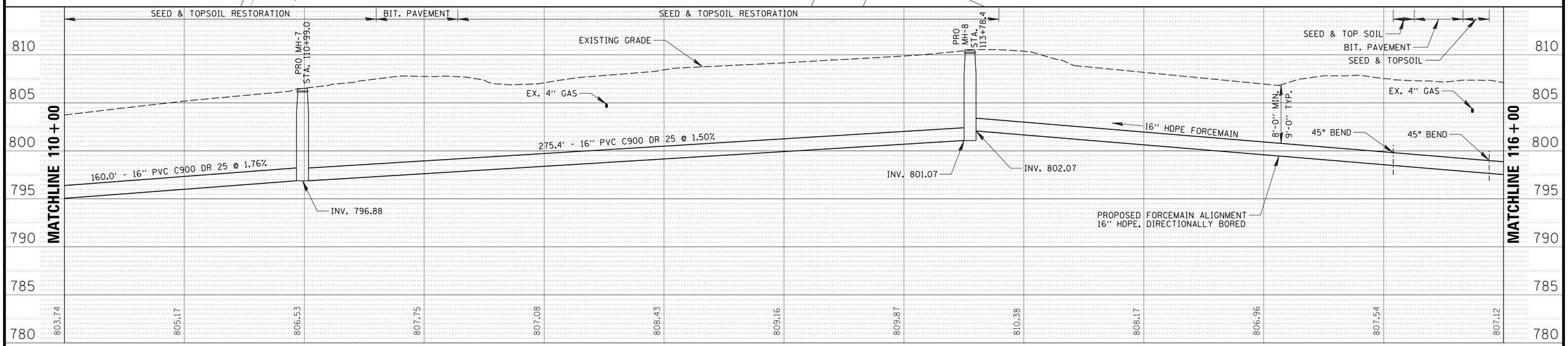
45° BEND

LAKE SHORE DR

N: 2081672.05
E: 1038347.03
LCDOT STA. 18+28.0, 63.23' RT

NOTES:
1. CALCULATED SLOPES ARE MANHOLE CENTERLINE - MANHOLE CENTERLINE.

2. PIPE LENGTHS ON PROFILE ARE MANHOLE EDGE - MANHOLE EDGE.



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NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE

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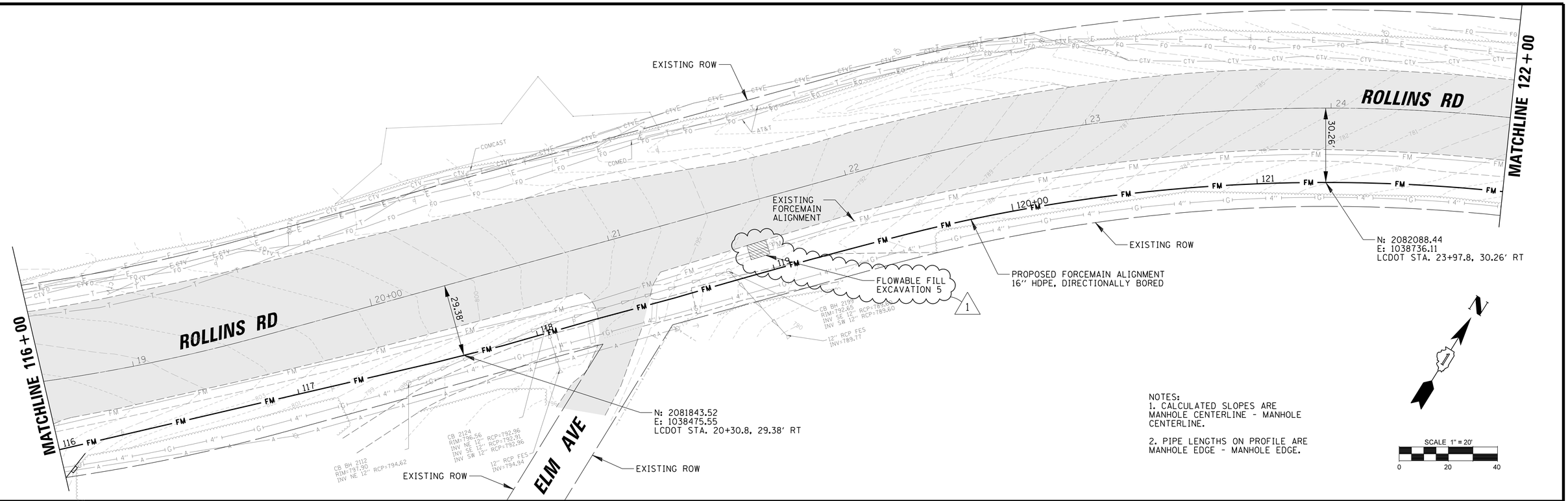
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CHKD.	MEE
SCALE:	1" = 20'
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

PLAN AND PROFILE – 3

PROJ. NO. 23-0629.0004
DATE: 3/30/2026
SHEET 9 OF 22
DRAWING NO. 9



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NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE

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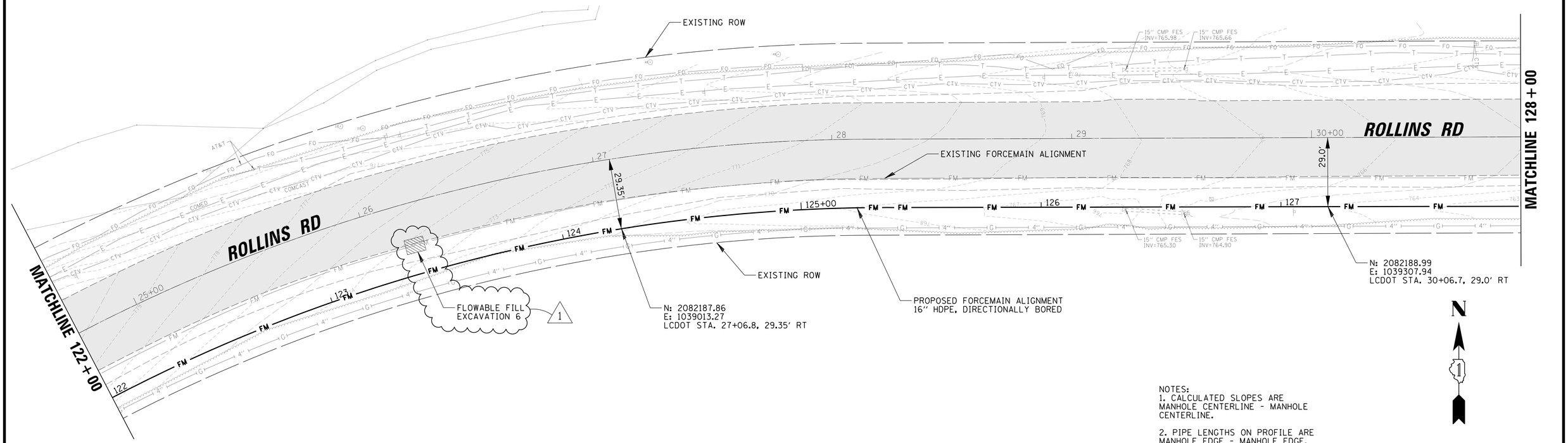
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DWN.	JCH
CHKD.	MEE
SCALE:	1" = 20'
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

PLAN AND PROFILE – 4

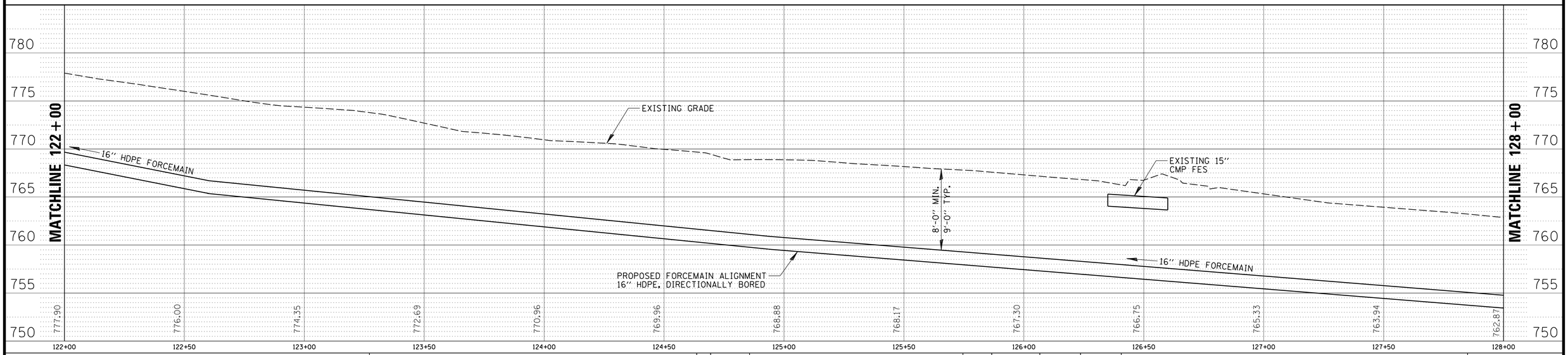
PROJ. NO. 23-0629.0004
DATE: 3/30/2026
SHEET 10 OF 22
DRAWING NO. 10



NOTES:
1. CALCULATED SLOPES ARE MANHOLE CENTERLINE - MANHOLE CENTERLINE.

2. PIPE LENGTHS ON PROFILE ARE MANHOLE EDGE - MANHOLE EDGE.

SCALE 1" = 20'
0 20 40



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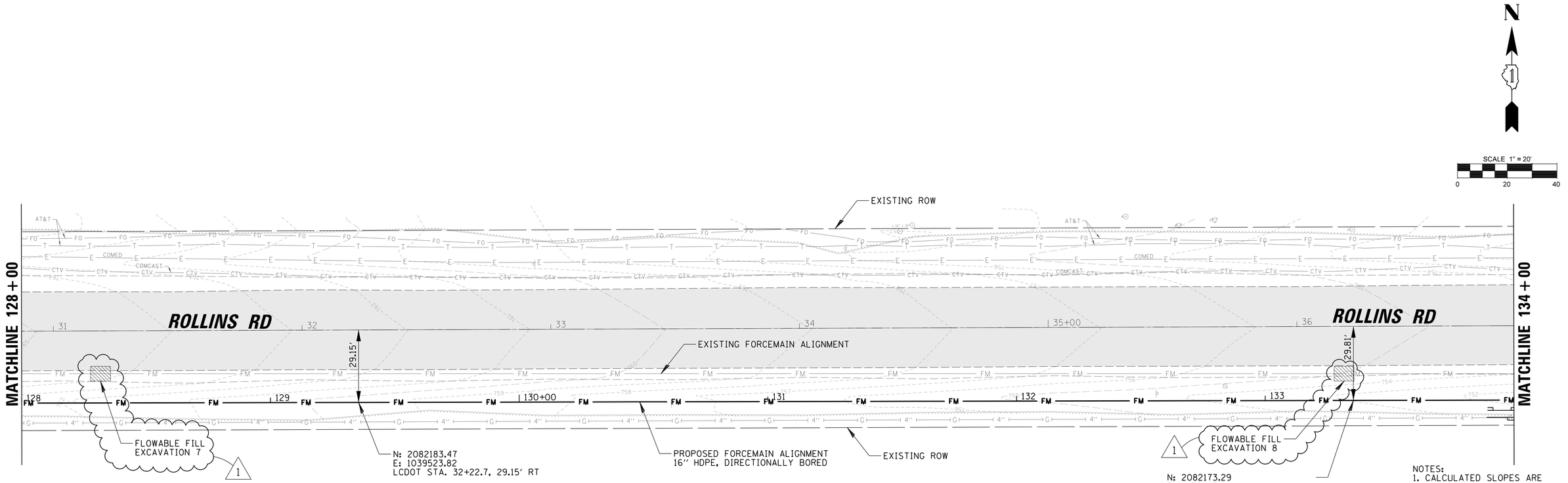
CLIENT:
LakeCounty
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Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE
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DSGN.	KWB
DWN.	JCH
CHKD.	MEE
SCALE:	1" = 20'
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

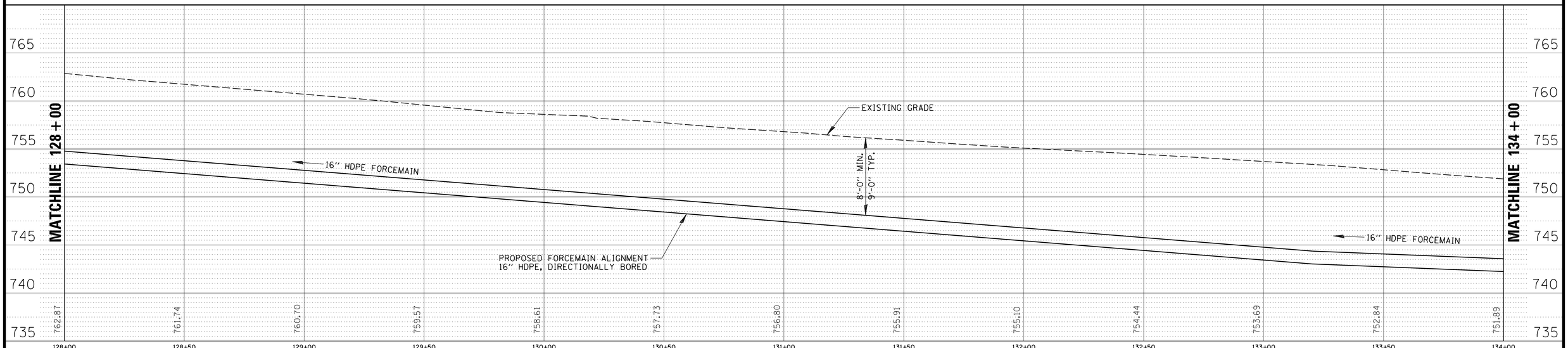
TITLE:
ROLLINS ROAD FORCE MAIN REPLACEMENT
PLAN AND PROFILE – 5

PROJ. NO. 23-0629.0004
DATE: 3/30/2026
SHEET 11 OF 22
DRAWING NO. 11



NOTES:
1. CALCULATED SLOPES ARE MANHOLE CENTERLINE - MANHOLE CENTERLINE.

2. PIPE LENGTHS ON PROFILE ARE MANHOLE EDGE - MANHOLE EDGE.



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:

LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE

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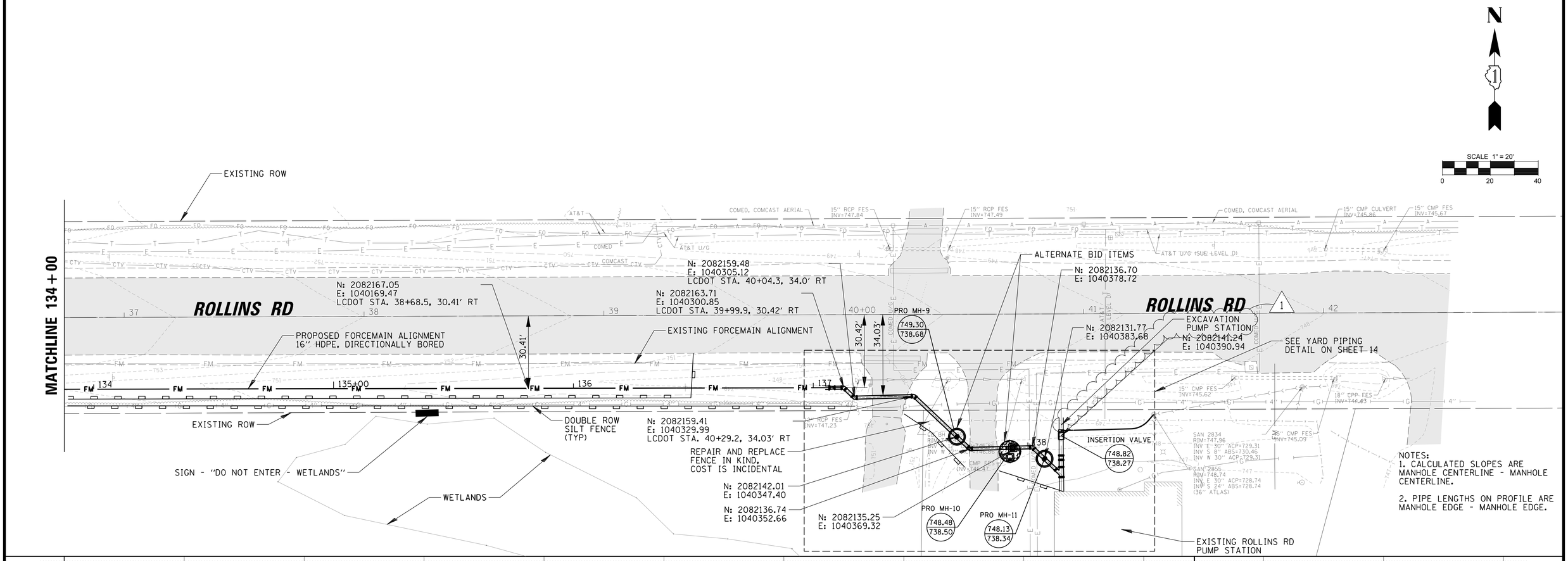
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DWN.	JCH
CHKD.	MEE
SCALE:	1" = 20'
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

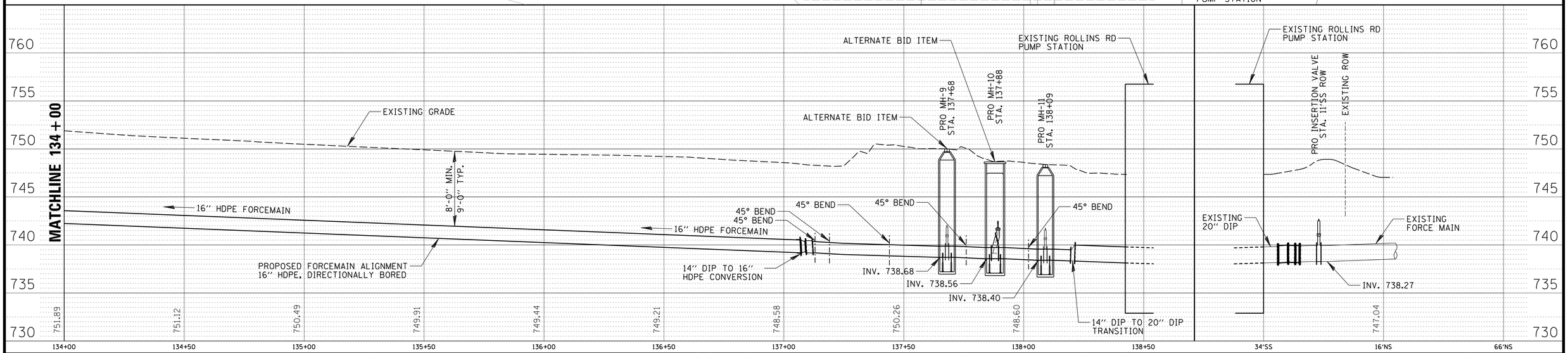
TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

PLAN AND PROFILE – 6

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	12 OF 22
DRAWING NO.	12





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CLIENT:

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Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE

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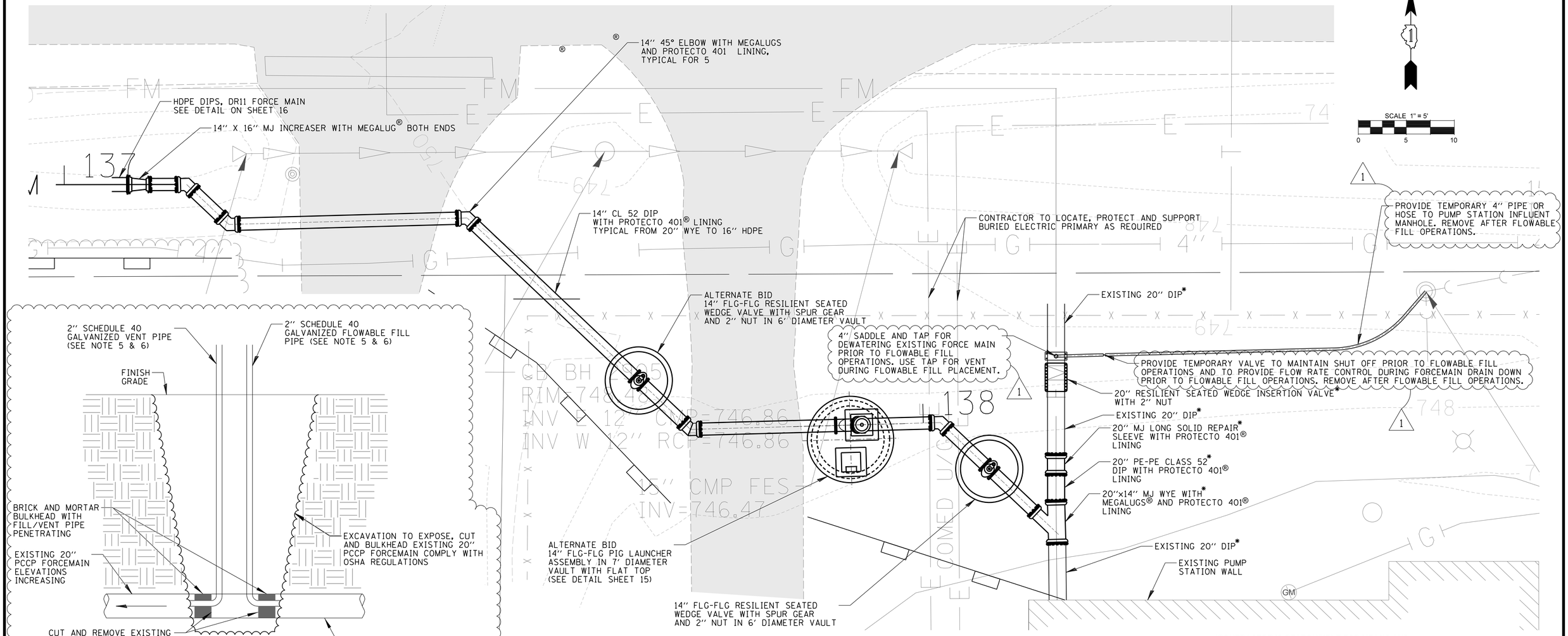
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DWN.	JCH
CHKD.	MEE
SCALE:	1" = 20'
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

PLAN AND PROFILE – 7

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	13 OF 22
DRAWING NO.	13



TYPICAL FLOWABLE FILL / VENT DETAIL

N.T.S.

NOTES:

1. CONTRACTOR TO DETERMINE SPACING BETWEEN FILL/VENT LOCATIONS SUBJECT TO LIMITS OF FLOWABLE FILL INSTALLATION AND SUBJECT TO OWNER'S AND LCDOT ACCEPTANCE.
2. BACKFILL TO COMPLY WITH TRENCH DETAIL REQUIREMENTS.
3. SURFACE RESTORATION TO COMPLY WITH TRENCH DETAIL REQUIREMENTS AND SPECIFICATION 33 41 00.
4. PROVIDE TRAFFIC CONTROL COMPLYING WITH DRAWINGS AND SPECIFICATIONS DURING FLOWABLE FILL OPERATIONS.
5. VERIFY AND ADJUST PIPE SIZES AS REQUIRED BY CONTRACTOR/SUB-CONTRACTOR INSTALLING FLOWABLE FILL. NO ADDITIONAL COMPENSATION ALLOWED FOR CHANGES IN PIPE SIZE.
6. TERMINATE FILL AND VENT PIPES PER CONTRACTOR/SUB-CONTRACTOR INSTALLING FLOWABLE FILL REQUIREMENTS. NO ADDITIONAL COMPENSATION ALLOWED FOR CHANGES IN PIPE TERMINATIONS.

***CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF RESTRAINING INSERTION VALVE TO PREVENT MOVEMENT OF THE VALVE OR SEPARATION OF EXISTING PIPE JOINTS WHEN SECTIONS OF EXISTING PIPE ARE REMOVED BETWEEN INSERTION VALVE AND PUMP STATION.**

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650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE

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CHKD.	MEE
SCALE:	1" = 20'
PLOT DATE:	4/16/2026
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TITLE: **ROLLINS ROAD FORCE MAIN REPLACEMENT**

ROLLINS ROAD YARD PIPING DETAIL

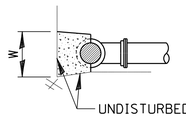
PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	14 OF 22
DRAWING NO.	14

NOTES:

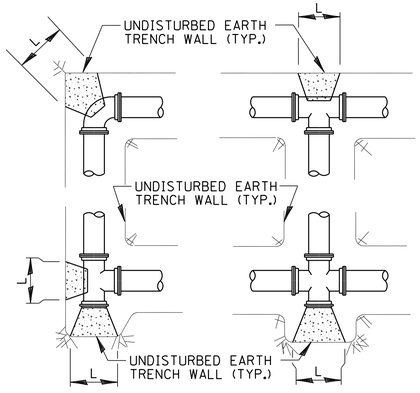
1. PROVIDE PRECAST OR CAST-IN-PLACE CONCRETE THRUST BLOCKS OF ADEQUATE SIZE AND THRUST BEARING SURFACE TO PREVENT MOVEMENT OF PIPELINE UNDER PRESSURE. SEE TABLE FOR BEARING SURFACE AREA.
2. PLACE THE BASE AND THRUST BEARING SIDES OF THRUST BLOCK DIRECTLY AGAINST UNDISTURBED EARTH.
3. PLACE THRUST BLOCKING SO THE FITTING JOINTS WILL BE ACCESSIBLE FOR REPAIR.
4. THE LENGTH (L) OF THE THRUST BLOCK SHALL BE APPROXIMATELY TWICE THE WIDTH (W).
5. THRUST BLOCKS ARE BASED ON A 2000 PSF SOIL BEARING LOAD AND 100 PSI THRUST INSIDE THE PIPE.
6. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 2000 PSI AFTER 28 DAYS.

THRUST RESTRAINT FOR BURIED WATERMAINS AND FORCE MAINS NOTES:

1. ALL JOINTS SHALL BE RESTRAINED.
2. ALL HDPE FITTINGS SHALL BE BUTT HEAT FUSED PER ASTM D-2657 AND ASTM D-3261. HDPE FITTING SHALL BE PROVIDED WITH THRUST BLOCKS AS SHOWN OF THRUST BLOCK INSTALLATION DETAIL.



TYPICAL SECTIONS



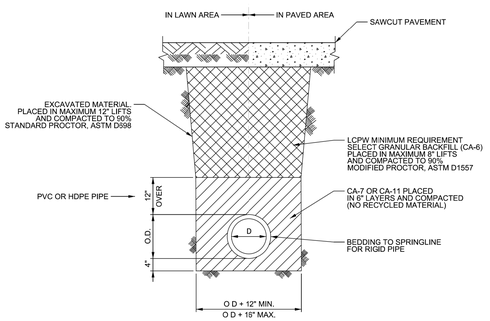
TYPICAL PLAN

PIPE SIZE	PIPE BEND IN DEGREES				PLUG OR TEE
	90	45	22.5	11.25	
8''	5 SQ. FT.	3 SQ. FT.	2 SQ. FT.	1 SQ. FT.	3 SQ. FT.
10''	7 SQ. FT.	4 SQ. FT.	2 SQ. FT.	1 SQ. FT.	5 SQ. FT.
12''	10 SQ. FT.	5 SQ. FT.	3 SQ. FT.	2 SQ. FT.	7 SQ. FT.
14''	13 SQ. FT.	7 SQ. FT.	4 SQ. FT.	2 SQ. FT.	9 SQ. FT.
16''	17 SQ. FT.	9 SQ. FT.	5 SQ. FT.	2 SQ. FT.	12 SQ. FT.
20''	26 SQ. FT.	14 SQ. FT.	7 SQ. FT.	4 SQ. FT.	18 SQ. FT.

BEARING SURFACE AREA TABLE

TYPICAL THRUST BLOCK INSTALLATIONS

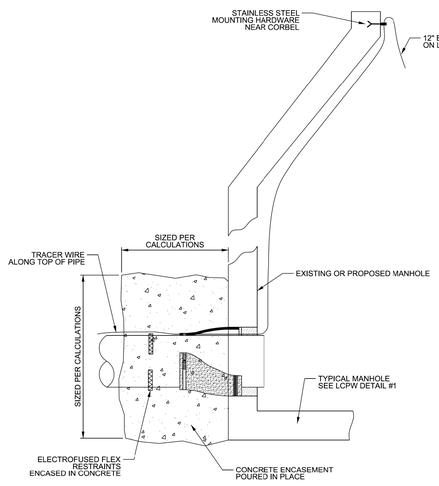
REFER TO LCDOT DETAIL
THIS SHEET FOR PAYMENT LIMITS



NOTE:

CONFIRM REQUIREMENTS OF LOCAL MUNICIPALITY AND ROADWAY AUTHORITY REGARDING THEIR SPECIFIC BEDDING AND BACKFILL MATERIAL STANDARDS

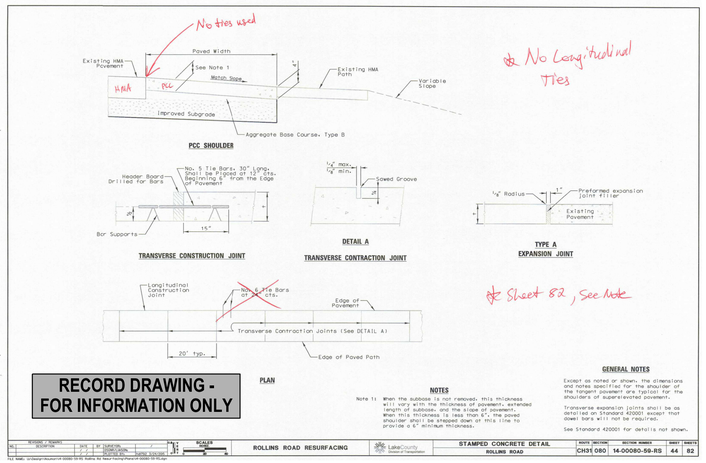
LakeCounty Department of Public Works	PIPE BEDDING TRENCH BACKFILL	DATE: 6/26/15 ID: 3
		REVISIONS DATE
		ENG-MAIN. UPDATE 7/24/18
		ENG-MAIN. UPDATE 9/20/18
		ENG-MAIN. UPDATE 12/14/20



NOTES:

1. SET MANHOLE, COMPLETE WITH RUBBER BOOT PIPE CONNECTIONS.
2. ELECTROFUSE FLEX RESTRAINTS
3. FORM AND POUR CONCRETE AROUND PIPE AND ENCASE FLEX RESTRAINT.

LakeCounty Department of Public Works	THRUST RESTRAINT FOR HDPE PIPE	DATE: 6/26/15 ID: 13
		REVISIONS DATE
		ENG-MAIN. UPDATE 8/21/18
		ENG-MAIN. UPDATE 12/14/20



RECORD DRAWING - FOR INFORMATION ONLY

NOTES

Note 1: When the subbase is not removed, this thickness will vary with the thickness of pavement, extended to the bottom of the HMA base course. When this thickness is less than 6", the paved shoulder shall be stepped down at this line to provide a 6" minimum thickness.

GENERAL NOTES

Except as noted or shown, the dimensions and notes specified for the shoulder at the tangent pavement are typical for the shoulders of superelevated pavement.

Transverse expansion joints shall be as detailed on Standard 420001 except that dowel bars will not be required.

See Standard 420001 for details not shown.

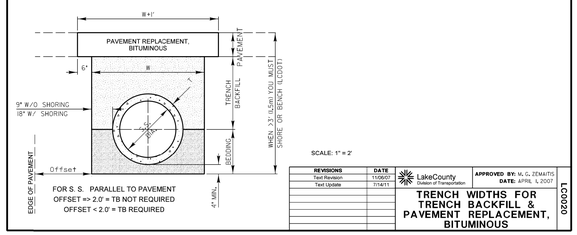
ROLLINS ROAD RESURFACING	SCALE	STAMPED CONCRETE DETAIL ROLLINS ROAD	ROUTE SECTION	SECTION NUMBER	SHEET SHEETS
			CH31 080	14-00080-59-RS	44 82

ENGLISH		TRENCH WIDTH (W)		MIN OFFSET FROM E.O.P.* FOR NO TB		¾ PIPE AREA (O.D.)
S.S. DIA.	T	WITHOUT SHORING	WITH SHORING	WITHOUT SHORING	WITH SHORING	
(IN)	(IN)	(FT)	(FT)	(FT)	(FT)	(SQ.FT)
10	2.00	2.67	4.17	3.33	4.08	0.53
12	2.00	2.83	4.33	3.42	4.17	0.70
15	2.25	3.13	4.63	3.56	4.31	1.04
18	2.50	3.42	4.92	3.71	4.46	1.44
21	2.75	3.71	5.21	3.85	4.60	1.92
24	3.00	4.00	5.50	4.00	4.75	2.45
27	3.25	4.29	5.79	4.15	4.90	3.06
30	3.50	4.58	6.08	4.29	5.04	3.73
36	4.00	5.17	6.67	4.58	5.33	5.28
42	4.50	5.75	7.25	4.88	5.63	7.09
48	5.00	6.33	7.83	5.17	5.92	9.17

* TO CENTER LINE OF PIPE

DESIGN NOTES:

1. Trench backfill is required if the storm sewer or culvert offset from the edge of the pavement is less than the tabulated values (the inner trench wall is closer than 2' to the edge of pavement)
2. Payment for the trench backfill shall not exceed the quantity computed using the maximum trench width dimensions. If the trench is excavated beyond these limits, the contractor shall furnish and place any additional trench backfill at his/her expense.
3. If the trench width is less than the above maximum values, payment will be based on the actual dimensions of the dug trench.
4. Bedding shall be placed from 4" under the pipe to the spring line of the pipe and is incidental to the corresponding storm sewer or culvert pay item.
5. If any part of the excavation for a drainage structure falls within 2' of the edge of pavement, the space between the side of the excavation and the outer surface of the drainage structure shall be filled with trench backfill. The cost of this item is included in the pay item for the drainage structure.



SCALE: 1" = 2'

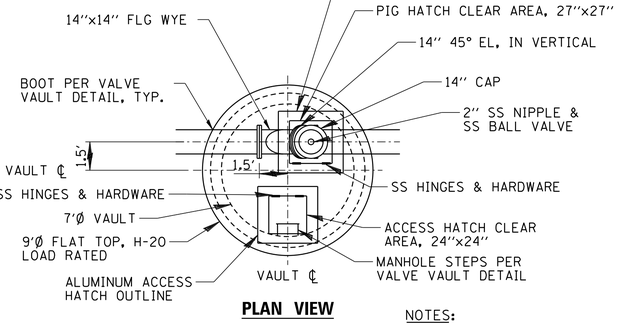
REVISIONS	DATE
Text Revision	11/30/07
Text Update	7/14/11

LakeCounty Division of Transportation

APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

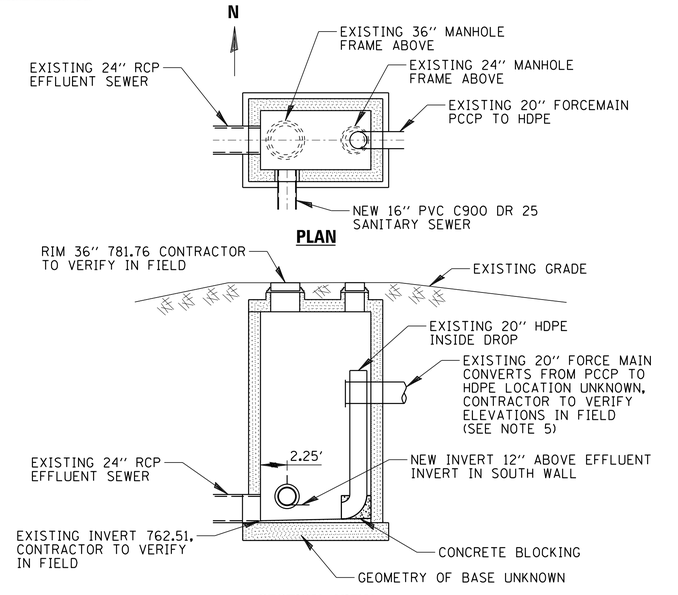
TRENCH WIDTHS FOR TRENCH BACKFILL & PAVEMENT REPLACEMENT, BITUMINOUS

LC0020



PIG LAUNCHER MANHOLE DETAIL

SCALE (11x17): N.T.S.



NOTES:

1. CONTRACTOR RESPONSIBLE FOR TEMPORARY FORCE MAIN FLOW CONTROL PER SPECIFICATION 33 43 00.
2. CORE CONCRETE WALL AS REQUIRED FOR PROPOSED SANITARY SEWER.
3. COAT EXPOSED CONCRETE AND REPAIR ANY DAMAGED COATING WITH NEOPOXY PER SPECIFICATION 07 14 65.
4. PROVIDE RUBBER GASKETED COUPLING FOR SANITARY MANHOLE PER ASTM C-923.
5. CONTRACTOR IS TO CUT AND BULKHEAD BOTH ENDS OF EXISTING 20'' FORCE MAIN AS PART OF OPERATIONS FOR FILLING EXISTING FORCEMAIN WITH FLOWABLE FILL. SEE DETAIL ON SHEET 14 AND SPECIFICATIONS 33 41 00.

1

EXISTING DROP STRUCTURE CONNECTION DETAIL

N.T.S.

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NO.	DATE	NATURE OF REVISION	CHKD.
1	4/16/26	ADDENDUM #1	MEE
FILE NAME	N:\LCPWD\230629\230629.00004\Mech\DET_2306290004_ldgn		

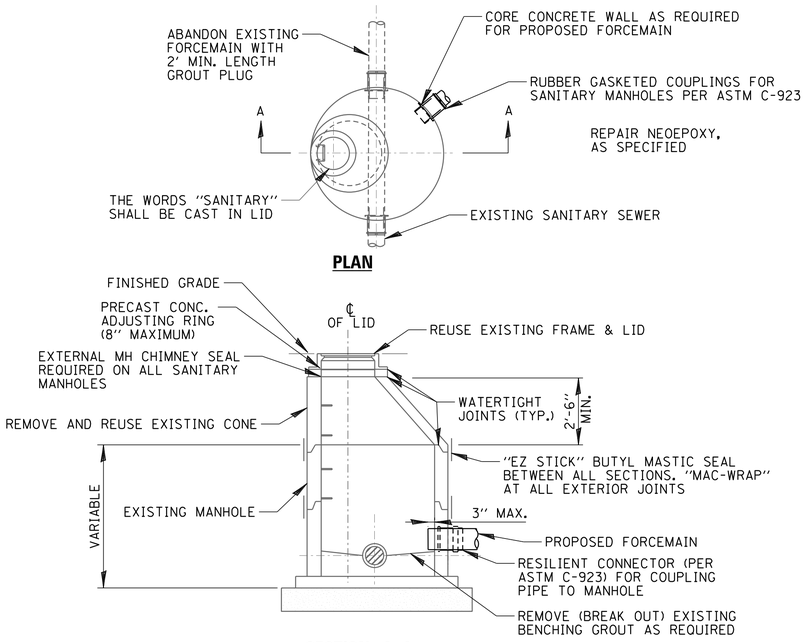
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DWN.	JCH
CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	4/16/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

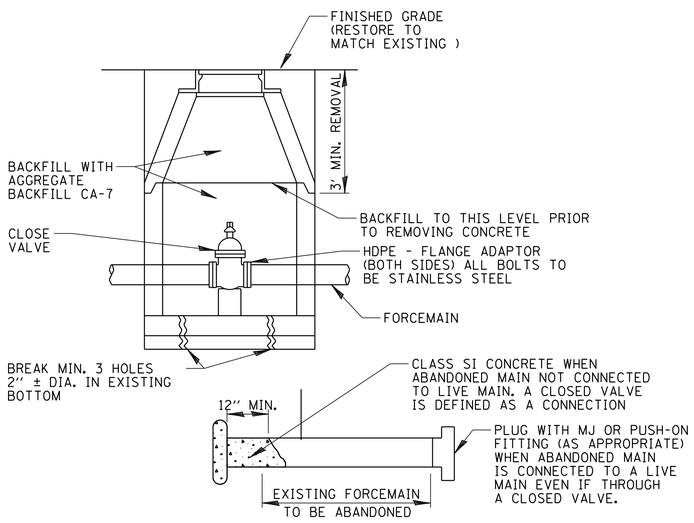
CIVIL WORK DETAILS – 1

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	15 OF 22
DRAWING NO.	15



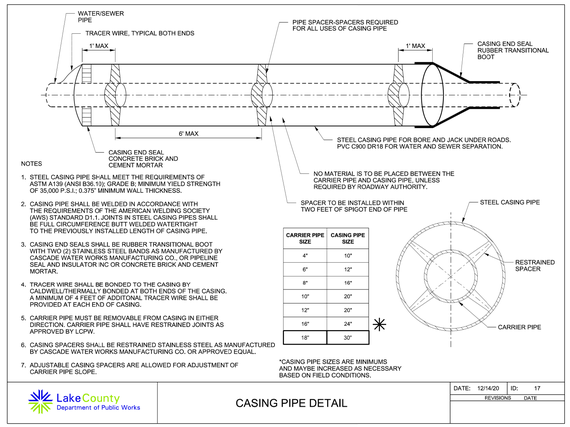
CONNECTION TO EXISTING SANITARY MANHOLE DETAIL

N.T.S.



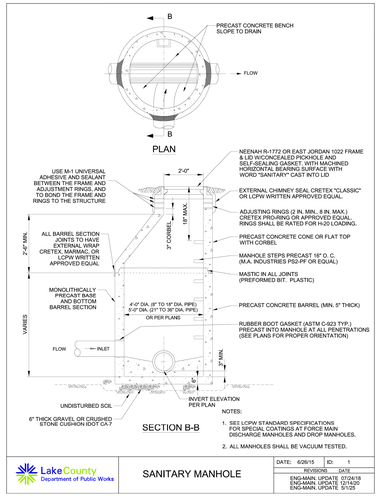
VALVE VAULT, FORCEMAIN & VALVE BOX ABANDONMENT DETAIL

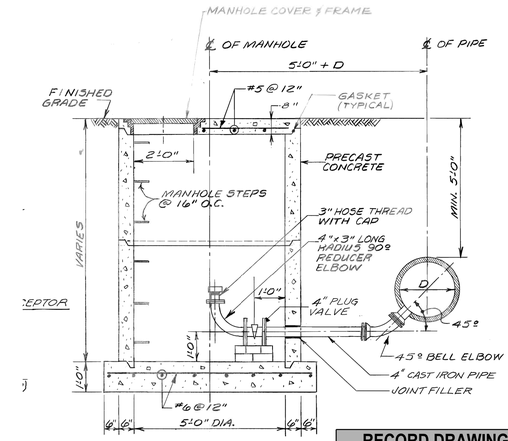
N.T.S.



CARRIER PIPE SIZE	CASING PIPE SIZE
4"	10"
6"	12"
8"	16"
10"	20"
12"	20"
16"	24"
18"	30"

✳ UNLESS OTHERWISE SHOWN ON PLANS

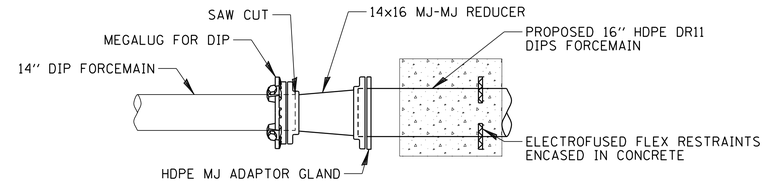




RECORD DRAWING - FOR INFORMATION ONLY

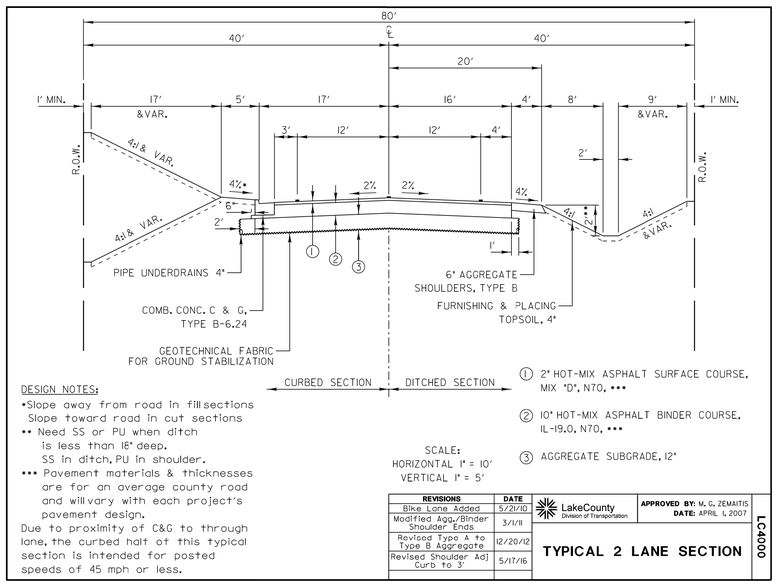
BLOW-OFF MANHOLE FOR PIPE 24" AND SMALLER

NOT TO SCALE



CONNECTION TO EXISTING FORCEMAIN DETAIL

N.T.S.



RECORD DRAWING - FOR INFORMATION ONLY

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CLIENT:
LakeCounty
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650 West Winchester Road
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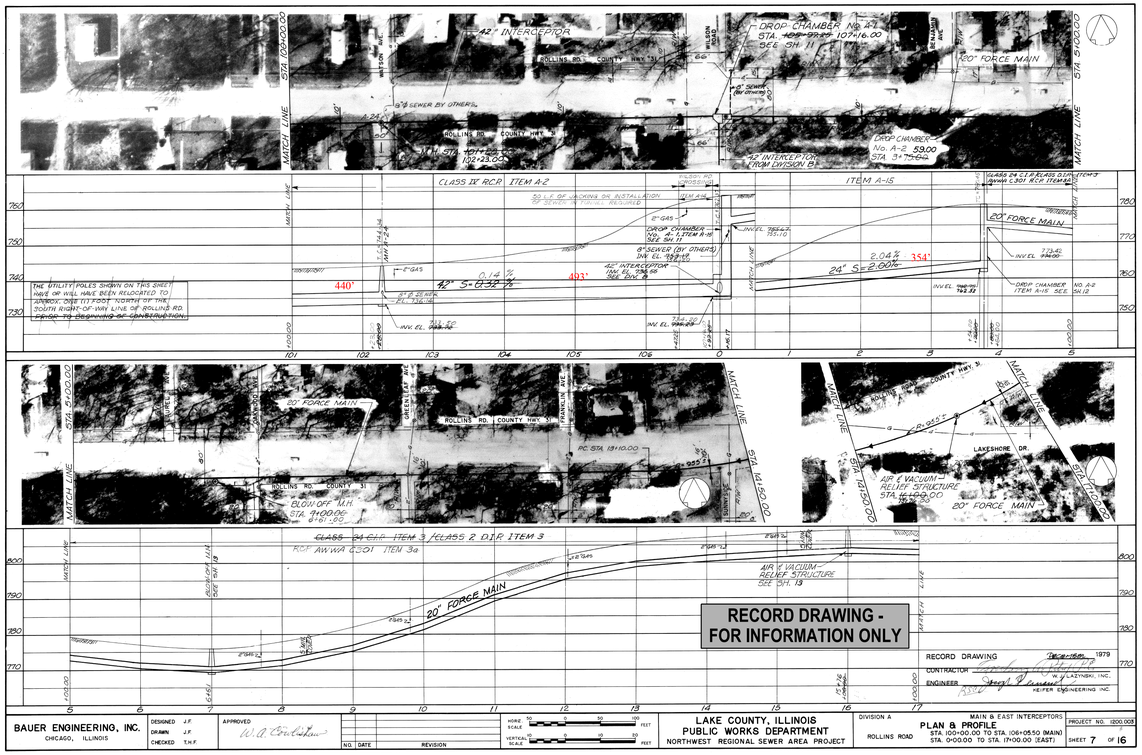
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DWN.	JCH
CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	3/30/2026
CAD USER:	jhastings
MODEL:	Default

TITLE: ROLLINS ROAD FORCE MAIN REPLACEMENT

CIVIL WORK DETAILS – 2

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	16 OF 22
DRAWING NO.	16



BAUER ENGINEERING, INC. CHICAGO, ILLINOIS — DESIGNED J.F. DRAWN J.F. CHECKED T.H.F — APPROVED W. A. Bauer

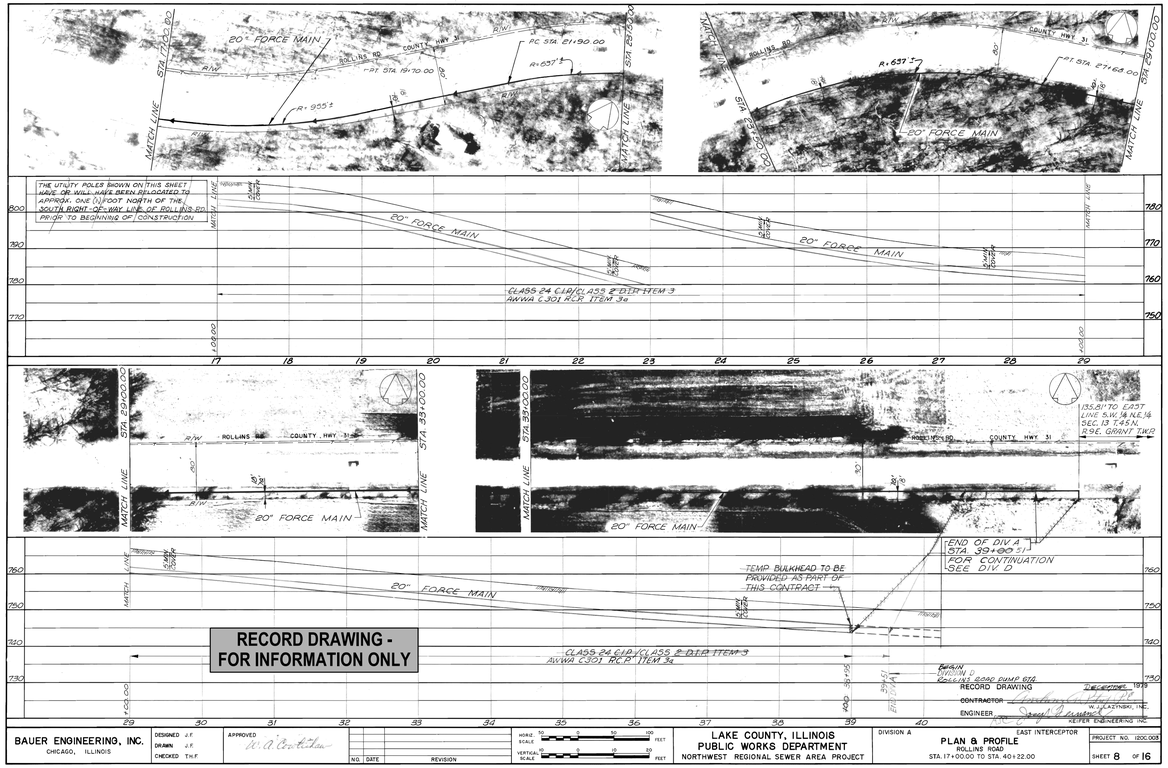
NO.	DATE	REVISION

HORIZ. SCALE 0 50 100 FEET — VERTICAL SCALE 0 10 20 50 FEET

LAKE COUNTY, ILLINOIS
PUBLIC WORKS DEPARTMENT
NORTHWEST REGIONAL SEWER AREA PROJECT

DIVISION A — ROLLINS ROAD — MAIN & EAST INTERCEPTORS
PLAN & PROFILE
STA. 100+00.00 TO STA. 106+05.50 (MAIN)
STA. 0+00.00 TO STA. 17+00.00 (EAST)

PROJECT NO. 1200.008 — SHEET 7 OF 16



BAUER ENGINEERING, INC. CHICAGO, ILLINOIS — DESIGNED J.F. DRAWN J.F. CHECKED T.H.F — APPROVED W. A. Bauer

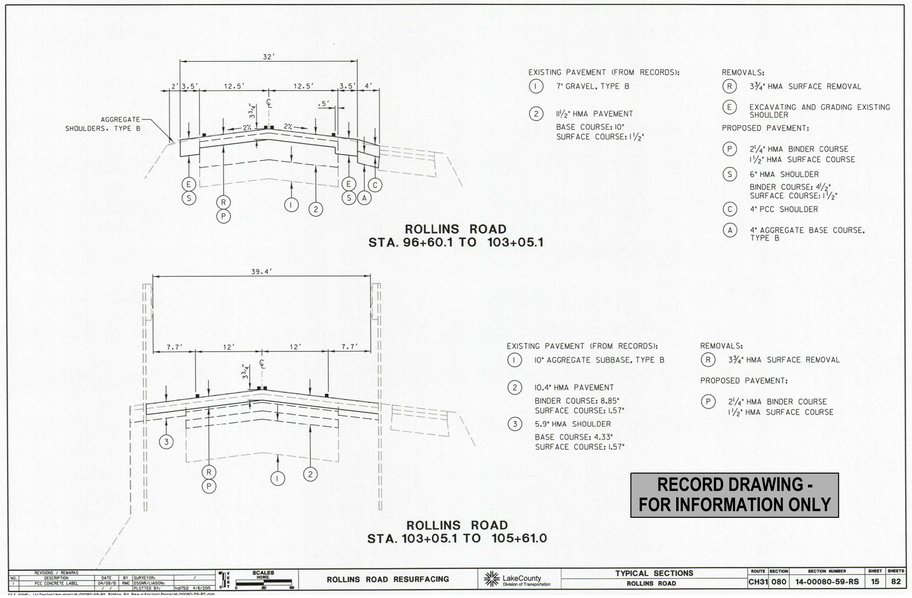
NO.	DATE	REVISION

HORIZ. SCALE 0 50 100 FEET — VERTICAL SCALE 0 10 20 50 FEET

LAKE COUNTY, ILLINOIS
PUBLIC WORKS DEPARTMENT
NORTHWEST REGIONAL SEWER AREA PROJECT

DIVISION A — ROLLINS ROAD — EAST INTERCEPTOR
PLAN & PROFILE
STA. 17+00.00 TO STA. 40+22.00

PROJECT NO. 1200.008 — SHEET 8 OF 16



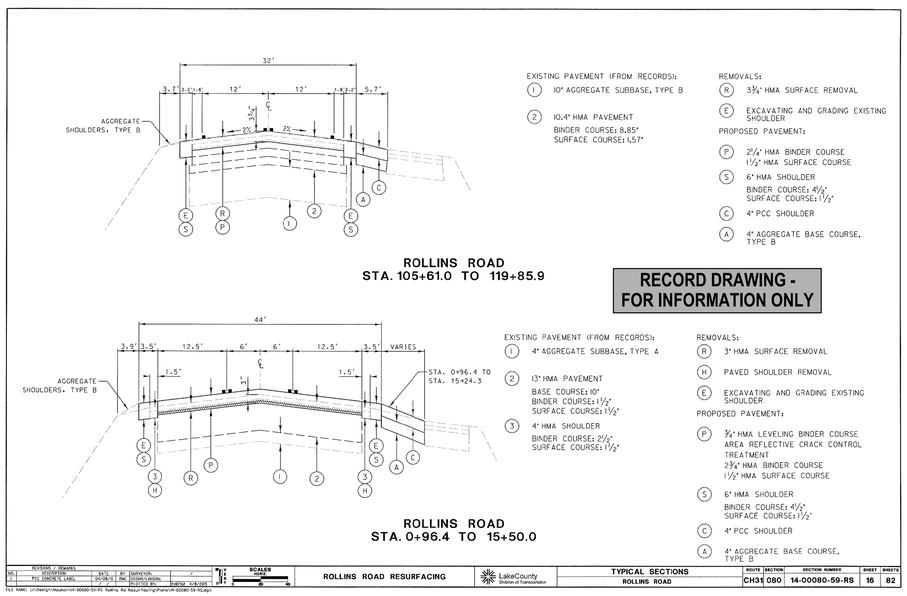
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NO.	DESCRIPTION	DATE	BY	SUPERVISOR:		
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				PLOTTED BY:	04/27/16	4:52 PM

SCALES: HORIZ. 1"=50' — VERT. 1"=10'

ROLLINS ROAD RESURFACING

LakeCounty Division of Transportation

TYPICAL SECTIONS	ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
ROLLINS ROAD	CH31	080	14-00080-59-RS	15	82



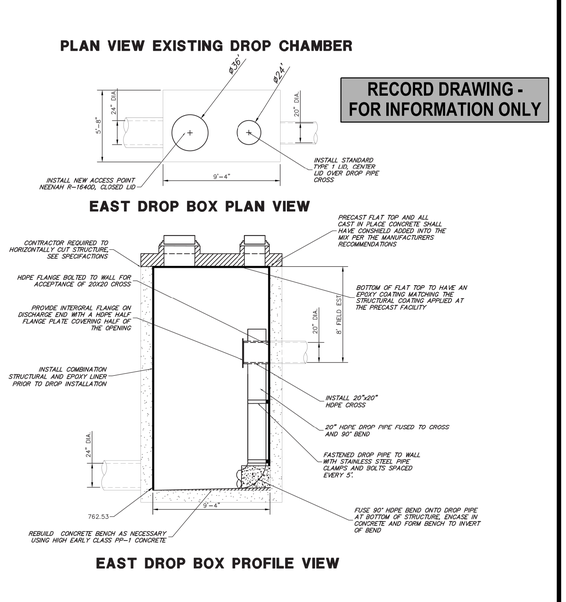
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SCALES: HORIZ. 1"=50' — VERT. 1"=10'

ROLLINS ROAD RESURFACING

LakeCounty Division of Transportation

TYPICAL SECTIONS	ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
ROLLINS ROAD	CH31	080	14-00080-59-RS	16	82



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CLIENT:

LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.

DSGN.	KWB
DWN.	JCH
CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	3/30/2026
CAD USER:	jhastings
MODEL:	Default

FILE NAME: N:\LCPWD\230629\230629.00004\Mech\DET_2306290004_3.dgn

TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

CIVIL WORK DETAILS – 3

PROJ. NO. 23-0629.0004
DATE: 3/30/2026
SHEET 17 OF 22
DRAWING NO. 17

SOIL EROSION CONTROL AND SEDIMENT CONTROL NOTES

1. SOIL EROSION AND SEDIMENT CONTROL (SESC) FEATURES MUST BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE. SOIL DISTURBANCE MUST BE PHASED OR ENACTED IN SUCH A MANNER AS TO MINIMIZE EROSION SOIL STABILIZATION MEASURES MUST CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY AND/OR PERMANENT MEASURES.

2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED AT MINIMUM ACCORDING TO THE STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL, REVISED TO LATEST VERSION AS AMENDED. A COPY OF THE APPROVED SOIL EROSION AND SEDIMENT CONTROL (SESC) PLAN MUST BE MAINTAINED ON THE SITE AT ALL TIMES.

3. THE EROSION AND SEDIMENT CONTROLS SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED AS DIRECTED BY THE VILLAGE, OR THEIR AUTHORIZED REPRESENTATIVE. ALL ADDITIONAL MEASURES MUST BE IN PLACE WITHIN 3 DAYS OF DISTURBANCE AND ANY EMERGENCY SESC MEASURES MUST BE INSTALLED IMMEDIATELY.

4. THE CONTRACTOR MUST CLEAN UP, GRADE THE WORK AREAS AS THE PROJECT PROGRESSES, AND INSTALL EROSION PROTECTION TO ELIMINATE THE CONCENTRATION OF RUNOFF, OR MUST INSTALL APPROPRIATE SEDIMENT CONTROL DEVICES TO TRAP SEDIMENT. PAVEMENT MUST BE CLEANED DAILY OR AS NECESSARY TO REMOVE TRACK-OUT MATERIAL.

5. AFTER ALL PERIMETER EROSION BARRIER IS REMOVED, THE AREAS DAMAGED BY THE PERIMETER EROSION BARRIER MUST BE RESTORED.

6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DIVERT ALL WATER (GROUND, STORM, AND CONSTRUCTION) DURING CONSTRUCTION IN ORDER TO KEEP THE CONSTRUCTION AREAS FREED OF WATER, BYPASS PUMPING, INCLUDING SILT BAGS AND AN ENERGY DISSIPATION SURFACE FOR THE PUMPS, SHALL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF EXCAVATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SIZE THE PUMPS APPROPRIATELY.

7. DURING DE-WATERING/PUMPING OPERATIONS, ONLY UNCONTAMINATED WATER SHOULD BE ALLOWED TO DISCHARGE TO PROTECTED NATURAL AREAS, WATERS OF THE STATE, OR TO A STORM SEWER SYSTEM (IN ACCORDANCE WITH LOCAL PERMITS). INLET HOSES SHOULD BE PLACED IN A STABILIZED SUMP PIT OR FLOATED AT THE SURFACE OF THE WATER IN ORDER TO LIMIT THE AMOUNT OF SEDIMENT INTAKE. PUMPING OPERATIONS MAY BE DISCHARGED TO A STABILIZED AREA THAT CONSISTS OF AN ENERGY DISSIPATING DEVICE (E.G., STONE), SEDIMENT FILTER BAG, OR BOTH. ADEQUATE EROSION AND SEDIMENT CONTROLS SHOULD BE USED DURING DE-WATERING OPERATIONS AS NECESSARY. DEWATERING SEDIMENT LADEN WATER DIRECTLY INTO FIELD TILES, STORM WATER STRUCTURES, OR "WATERS OF THE US" IS PROHIBITED.

8. ANY WORK WITHIN A STREAM OR DITCH CAPABLE OF CONVEYING WATER MUST BE CONDUCTED IN THE DRY. PROVISIONS MUST BE MADE TO BY-PASS PUMP OR DEWATER ANY AREAS WITHIN THE STREAM OR DITCH IN WHICH WORK WILL BE CONDUCTED.

9. CONSTRUCTION ACTIVITIES MUST BE SCHEDULED TO MINIMIZE THE TIME SOIL IS EXPOSED AND UNPROTECTED. IN NO CASE WILL THE EXISTING VEGETATION BE DESTROYED, REMOVED, OR DISTURBED MORE THAN FOURTEEN (14) DAYS PRIOR TO THE INITIATION OF IMPROVEMENTS.

10. TEMPORARY CONSTRUCTION ENTRANCES WILL BE CONSTRUCTED AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC ENTERS OF LEAVES THE SITE. GRAVELED ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASH DOWN FACILITIES IF NECESSARY, MUST BE PROVIDED TO PREVENT THE DEPOSIT OF SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING PUBLIC OR PRIVATE ROADWAY MUST BE REMOVED IMMEDIATELY.

11. ALL DISTURBED SOILS ARE TO BE STABILIZED, TEMPORARILY OR PERMANENTLY, WITHIN SEVEN (7) DAYS OF CONSTRUCTION ACTIVITY HAVING CEASED IF THE SOIL IS TO REMAIN UNDISTURBED FOR MORE THAN FOURTEEN (14) DAYS.

12. STOCK PILES OR SOIL MUST NOT BE LOCATED IN FLOOD PLAINS, RIPARIAN AREAS (VEGETATED FLOOD PLAINS), WETLANDS AND WATERS OF THE U.S., UNLESS OTHERWISE AUTHORIZED BY THE RELEVANT PERMITTING AUTHORITY. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, PERIMETER EROSION BARRIER MUST BE PROVIDED. IF THE STOCKPILE IS INACTIVE FOR MORE THAN 14 DAYS, SOIL STABILIZATION MUST BE PROVIDED BY THE 7TH DAY AFTER ACTIVITY HAS STOPPED.

13. CONTRACTOR MUST INSTALL PERIMETER EROSION BARRIER AT ANY LOCATION IN WHICH SHEET FLOWS MAY RESULT IN SEDIMENT RUNOFF OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR MAY USE OTHER METHODS TO CONTROL RUNOFF, INCLUDING, BUT NOT LIMITED TO, TEMPORARY DIVERSION SWALES, TEMPORARY SEDIMENT TRAPS, SHAPED DITCHES TO CONVEY WATER, ETC.

14. THE VILLAGE, OR THEIR AUTHORIZED REPRESENTATIVE, MUST MAKE INSPECTIONS A MINIMUM OF ONCE EVERY SEVEN DAYS OF THE FOLLOWING: 1) DISTURBED AREAS OF THE PROJECT SITE THAT HAVE NOT BEEN FULLY STABILIZED, 2) STRUCTURAL CONTROL MEASURES (SILT FENCES, ETC), AND 3) LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE. AN ADDITIONAL INSPECTION OF THE ITEMS LISTED ABOVE MUST BE MADE WITHIN TWENTY-FOUR (24) HOURS OF A 0.5-INCH OR GREATER RAINFALL OR EQUIVALENT SNOWFALL.

15. ALL STORM SEWER INLET STRUCTURES WITHIN 100 FT OF PROJECT SITE EXCAVATIONS OR STOCKPILES (INCLUDING INLETS LOCATED WITHIN THE HAUL ROUTES, AS SHOWN ON PLAN) MUST BE PROTECTED WITH STORM SEWER INLET PROTECTION (I.E. INLET FILTERS) PER INLET PROTECTION DETAILS IN THE PLANS. ALTERNATE TYPES OF PROTECTION MAY BE SUBMITTED FOR REVIEW AND APPROVAL BY THE VILLAGE OR THEIR AUTHORIZED AGENT.

16. STREET SWEEPING SHALL OCCUR AT THE DISCRETION OF THE VILLAGE OR THEIR AUTHORIZED REPRESENTATIVE.

EROSION & SEDIMENT CONTROL NARRATIVE

THE PROPOSED IMPROVEMENTS CONSIST OF REPLACING 3,350 FEET OF EXISTING FORCEMAIN WITH A NEW FORCE MAIN ON THE SAME ALIGNMENT AS THE EXISTING FORCEMAIN OFFSET ONLY ENOUGH TO ALLOW FOR THE CONSTRUCTION OF THE NEW FORCEMAIN.

THE FORCEMAIN WILL BE INSTALLED USING THE HORIZONTAL DIRECTIONAL DRILLING CONSTRUCTION METHOD; THEREFORE THE ONLY DISTURBED AREAS WILL BE THE AREAS (DRILLING PITS) USED FOR THE DRILLING MACHINE TO INSTALL THE FORCE MAIN, A SMALL RECEIVING PIT AT THE END OF THE DRILLING RUNS, AND LIMITED FORCEMAIN LENGTHS AT INTERCONNECTIONS TO EXISTING FORCEMAIN AND DISCHARGE MANHOLE, AND CONNECTING THE DRILLING RUNS TOGETHER. THESE DISTURBED AREAS TOTAL APPROXIMATELY 0.05 ACRES. MOST OF THESE AREAS ARE IN LANDSCAPED AREAS EXCEPT FOR WHERE THE FORCE MAIN CROSSES DUNDEE ROAD THAT IS WITHIN PAVED AREAS.

THE PROPOSED FORCEMAIN ALIGNMENT HAS NO IMPACT ON WETLANDS OR FLOODPLAIN OR FLOODWAY.

TEMPORARY EROSION AND SEDIMENTATION CONTROL CONSIST OF; SILT FENCE AROUND THE PROJECT SITE, INLET PROTECTION ON ALL STORM SEWER STRUCTURES WITHIN 100 FEET OF THE SITE DISTURBED AREAS, DEWATERING FILTER PAD TO DEWATERING THE AREAS EXCAVATED IF REQUIRED, CONCRETE WASHOUT AREA, AND EROSION CONTROL BLANKET INSTALLED OVER NEW LANDSCAPE AREAS.

TEMPORARY EROSION AND SEDIMENTATION CONTROL ITEMS WILL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE. ITEMS WILL REMAIN IN PLACE DURING CONSTRUCTION AND WILL NOT BE REMOVED UNTIL THE PROPOSED INSTALLATION HAS BEEN INSPECTED AND APPROVED BY MWRDGC. ALL SITE MATERIAL REMOVED SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. TEMPORARY EROSION AND SEDIMENTATION CONTROL ITEMS SHALL BE MAINTAINED DURING AND AFTER CONSTRUCTION. ONSITE INSPECTIONS FOR SOIL EROSION AND SEDIMENT CONTROL COMPLIANCE WILL OCCUR ONCE PER WEEK, AND AFTER A STORM EVENT THAT PRODUCES 0.5" OF RAINFALL OR GREATER. INSPECTIONS SHALL BE COMPLETED BY THE OWNER'S REPRESENTATIVE, PROJECT CONTACT IS MR. KYLE GROETZELMANN, (847) 344-0734.

NO CALCULATIONS WERE REQUIRED FOR THE TEMPORARY EROSION AND SEDIMENTATION CONTROL. MINIMUM DEWATERING IS ANTICIPATED DUE TO DEPTH OF PROPOSED EXCAVATION, AND SHALL BE PERFORMED BY A SMALL SUMP PUMP. THE DEWATERING FILTER PAD WAS SIZED BASED ON A 1½" TO 2" DISCHARGE PIPE SIZE FOR THE DEWATERING SUMP PUMP.

ROUTINE MAINTENANCE REQUIREMENTS

TASK DESCRIPTION	DURATION	
	DURING CONSTRUCTION	POST CONSTRUCTION
EROSION AND SEDIMENT CONTROL PRACTICES (SEE BELOW SCHEDULE OF CONSTRUCTION ACTIVITIES FOR ROUTINE MAINTENANCE TASKS TO BE PERFORMED)	X	X

SCHEDULE OF CONSTRUCTION ACTIVITIES

1. INSTALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES, WHICH INCLUDES:
   -SILT FENCE INSTALLATION
   -INSTALL INLET PROTECTION IN EXISTING STORM SEWER STRUCTURES
2. DESIGNATE CONSTRUCTION STAGING, MATERIAL STORAGE, AND CONSTRUCTION WASTE AREAS.
3. MOBILIZE DE-WATERING FILTER BAG AND INSTALL TEMPORARY SUMP PIT (AS NEEDED).
4. EXCAVATE FOR PROPOSED DRILLING AND RECEIVING PITS AND COMPLETE MINOR GRADING (DE-WATER AND FILTER EXCAVATION AS NEEDED).
5. TEMPORARILY STABILIZE AREAS THAT WILL REMAIN IDLE FOR GREATER THAN 14 DAYS.
6. CONSTRUCT AND MAINTAIN CONCRETE WASHOUT BMPS.
7. INSTALL PROPOSED FORCEMAIN, AIR RELEASE VAULTS, AND BLOWOFF VAULTS.
8. PRESSURE TEST AND MAKE CONNECTIONS TO EXISTING.
9. INSTALL PERMANENT OR TEMPORARY SOIL STABILIZATION AND VEGETATIVE ENHANCEMENTS.
10. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES AFTER THE SITE IS STABILIZED WITH VEGETATION.

CONTINGENCY PLAN FOR DIRECTIONAL DRILLING

1. IN THE EVENT OF AN UNCONTROLLED RELEASE OF DRILLING MUD (FRAC-OUT), DRILLING MUST BE STOPPED AND THE DRILLING MUD SHALL BE CONTAINED WITH SILT FENCE IMMEDIATELY. ONCE THE DRILLING MUD IS CONTAINED, IT MUST BE REMOVED FROM THE SITE WITH A VACUUM TRUCK.
2. WHEN DIRECTIONAL DRILLING IS BEING DONE UNDERNEATH OR ADJACENT TO WETLANDS, THE CONTRACTOR SHALL HAVE AT LEAST ONE VACUUM TRUCK ONSITE DURING ALL DRILLING OPERATIONS AND AT LEAST ONE ADDITIONAL VACUUM TRUCK SHALL BE READILY AVAILABLE OR ON STAND-BY AT A NEARBY LOCATION, AS APPROPRIATE.
3. THE CONTRACTOR SHALL HAVE EXTRA SILT FENCE AND STAKES OF SUFFICIENT QUANTITY AVAILABLE ONSITE AT ALL TIMES.
4. IN CASE OF A FRAC-OUT, AN ANIONIC POLYMER SHALL BE USED IN ACCORDANCE WITH THE PAM SPECIFICATIONS CONTAINED HEREIN (AS PREAPARED BY ERO-TEX). DAN SALSINGER AT ERO-TEX CAN BE CONTACTED TO OBTAIN POLYMER OR OTHER SEDIMENT AND EROSION CONTROL SUPPLIES. HE CAN BE CONTACTED AT 847-899-9965.
5. FRAC-OUTS IN UPLAND AREAS THAT DO NOT AFFECT WETLANDS OR OTHER SENSITIVE AREAS ARE TO BE SUMMARIZED IN A WEEKLY REPORT TO THE VILLAGE DETAILING THE AMOUNT OF DRILLING MUD RELEASED, THE METHOD OF CONTAINMENT, REMEDIATION METHOD USED AND ANY ADDITIONAL RELEVANT INFORMATION.
6. THE DIRECTIONAL DRILLING CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE VILLAGE PRIOR TO THE START OF CONSTRUCTION. THIS INFORMATION CAN BE PROVIDED AT THE PRE-CONSTRUCTION MEETING:
   A. NAME AND CONTACT INFORMATION FOR ONSITE DRILLING COMPANY REPRESENTATIVE.
   B. MATERIAL SAFETY DATA SHEETS (MSDS) FOR DRILLING MUD CONSTITUENTS.

PAM SPECIFICATIONS

APS POLYMERS:

THE POLYMER SHALL BE A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM) USED TO MINIMIZE SOIL EROSION, BIND SOIL PARTICLES, REMOVE SUSPENDED PARTICLES, AND ACT AS A CONSTRUCTION AIDE. PAMS ARE MANUFACTURED IN VARIOUS FORMS TO BE USED ON SPECIFIC SOIL TYPES. USING THE WRONG PAM WILL RESULT IN PERFORMANCE FAILURES. ALL SITE SPECIFIC SOILS MUST BE TESTED BY A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) EACH TIME A PAM IS USED.

IN ADDITION TO SOIL TESTING, A CPESC PERSON SHALL DESIGN THE INSTALLATION PLAN FOR THE POLYMERS BASED ON MIX TIME AND POINT OF ENTRY.

PAM APPLICATIONS:

PAM SHALL BE MIXED AND/OR APPLIED IN ACCORDANCE WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) MATERIAL SAFETY DATA SHEET (MSDS) REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS FOR SPECIFIED USE.

(A.) TOXICITY:

ALL VENDORS AND SUPPLIERS OF PAM, PAM MIX OR BLENDS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT WHICH VERIFIES THAT THE PAM, PAM MIX OR BLEND EXHIBITS ACCEPTABLE TOXICITY PARAMETERS WHICH MEET OR EXCEED THE REQUIREMENTS FOR THE STATE AND FEDERAL WATER QUALITY STANDARDS. NO CATIONIC FORMULATIONS OF PAM, PAM BLENDS, POLYMERS OR CHITOSAN ARE NOT ALLOWED FOR USE UNDER THIS SPECIFICATION.

(B.)

ALL VENDORS AND SUPPLIERS OF PAM, PAM MIX OR BLENDS SHALL SUPPLY WRITTEN "SITE SPECIFIC" TESTING RESULTS DEMONSTRATING THAT A PERFORMANCE OF 95% OR GREATER OF NTU OR TSS FROM SAMPLES TAKEN.

DRY FORM APPLICATION:

DRY FORM POWDER MAY BE APPLIED BY HAND SPREADER OR MECHANICAL SPREADER. PRE MIXING OF DRY FORM PAM INTO FERTILIZER, SEED OR OTHER SOIL AMENDMENTS IS ALLOWED WHEN INSTRUCTED BY THE CPESC. APPLICATION METHOD SHALL INSURE UNIFORM COVERAGE TO THE TARGET AREA. APPLICATION RATES TYPICALLY RANGE FROM 10LBS. PER ACRE TO 18LBS. PER ACRE.

HYDRAULICALLY APPLIED APPLICATION:

PAM IS TYPICALLY USED A PART OF HYDRAULICALLY APPLIED SLURRY CONTAINING AT LEAST MULCH AND SEED TO QUICKLY ESTABLISH VEGETATION, TEMPORARY OR PERMANENT. WHEN USED WITHOUT SEED, PAM PROVIDES TEMPORARY EROSION PROTECTION FOR CUT & FILL SURFACES. APPLICATION RATES TYPICALLY RANGE FROM 10LBS. PER ACRE TO 18LBS. PER ACRE.

INSTALLATION CONSTRAINTS FOR DRY AND HYDRAULICALLY APPLICATIONS:

POLYMER BINDERS SHALL BE APPLIED TO NON-FROZEN SOIL SURFACES, ONLY. AN UNFROZEN SOIL SURFACE IS DEFINED AS ANY EXPOSED SOIL SURFACE, I.E., FREE OF SNOW, STANDING WATER, ICE CRYSTALS, ECT. WHICH IS COMPRISED OF DISCRETE SOIL PARTICLES UNBOUND TO ONE ANOTHER BY SURFACE OR INTESTACY ICE. WHEN HYDRAULICALLY APPLYING THE POLYMER, THE TEMPERATURE SHOULD BE AT LEAST 40 F.

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650 West Winchester Road
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NO.	DATE	NATURE OF REVISION	CHKD.

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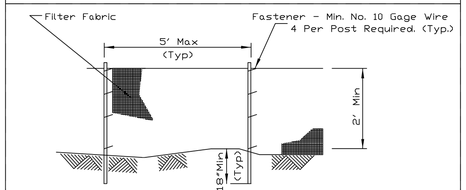
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TITLE:
ROLLINS ROAD FORCE MAIN REPLACEMENT

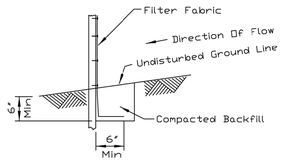
EROSION CONTROL NOTES

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	18 OF 22
DRAWING NO.	18

SILT FENCE PLAN



ELEVATION

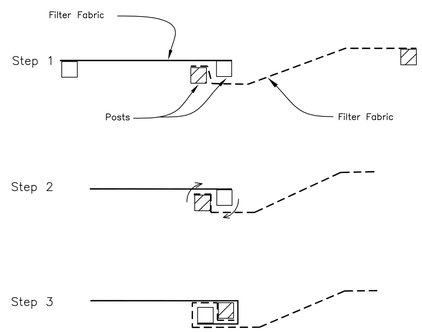


FABRIC ANCHOR DETAIL

NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 50 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE		STANDARD DWG. NO.
Project		IL-620
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 1 OF 2
Checked ____ Date ____		DATE 11-20-01
Approved ____ Date ____		

SILT FENCE

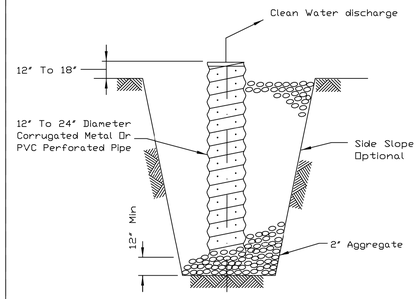


ATTACHING TWO SILT FENCES

NOTES:
1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Drive both posts a minimum of 18 inches into the ground and bury the flap.

REFERENCE		STANDARD DWG. NO.
Project		IL-620(W)
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 2 OF 2
Checked ____ Date ____		DATE 1-29-99
Approved ____ Date ____		

SUMP PIT PLAN

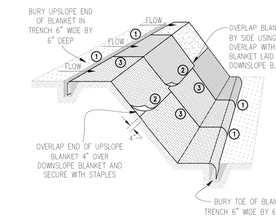


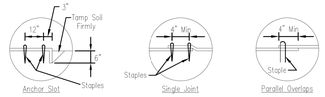
SECTION

NOTES:
1. Pit dimensions are optional.
2. The standpipe will be constructed by perforating a 12"-24" diameter corrugated metal or PVC pipe.
3. A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled with 2" aggregate.
4. The standpipe will extend 12" to 18" above the lip of the pit.
5. If discharge will be pumped directly to a storm drainage system, the standpipe will be wrapped with filter fabric before installation.
6. If desired, 1/4"-1/2" hardware cloth may be placed around the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

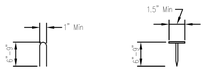
REFERENCE		STANDARD DWG. NO.
Project		IL-650
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 1 OF 1
Checked ____ Date ____		DATE 8-11-94
Approved ____ Date ____		

AUTOCAD2006





DETAIL 1 DETAIL 2 DETAIL 3



STAPLE DETAIL PUSH PIN DETAIL

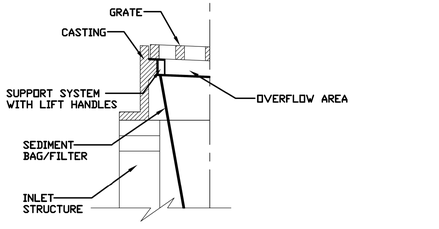
NOTES:
1. Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 staples with non-stiched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

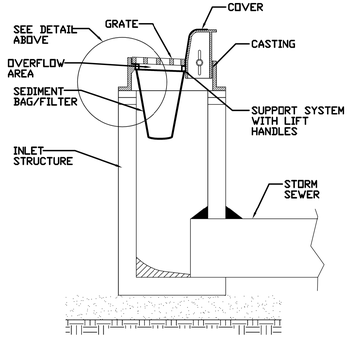
NO.	DATE	REVISION	BY
1	10/15/2025	TR Review	DJS
2	03/27/2026	TR Review	DJS

EROSION CONTROL BLANKET INSTALLATION DETAILS

Designed ____ Date ____
Drawn R. JOHNSON 11/08/...
Checked ____
Approved ____

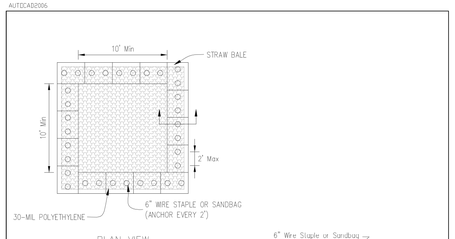
INLET PROTECTION - PAVED AREAS
DROP-IN PROTECTION



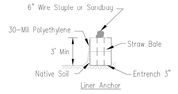


REFERENCE		STANDARD DWG. NO.
Project		IUM-561D
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 01-11-11
Approved ____ Date ____		

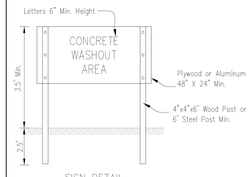
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PLAN VIEW



STRAW BALE ANCHOR SECTIONS



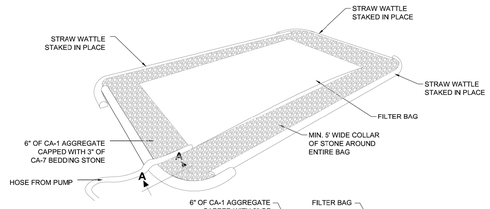
SIGN DETAIL

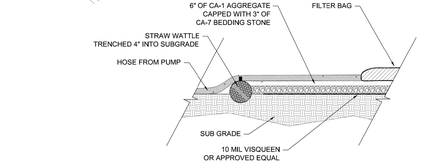
NOTES:
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.
3. Each straw bale is to be staked in place using (2) 2"x2"x4' wooden stakes.

NO.	DATE	REVISION	BY
1	10/15/2025	TR Review	DJS
2	03/27/2026	TR Review	DJS

TEMPORARY CONCRETE WASHOUT FACILITY - STRAW BALE

Designed ____ Date ____
Drawn R. JOHNSON 11/08/...
Checked ____
Approved ____





SECTION 'A'

NOTES:
(1) ACTUAL SIZE AND LAYOUT DETERMINED IN THE FIELD
(2) PUMP INTAKE HEAD SHOULD BE FLOATED AT SURFACE OR PLACED IN A STABILIZED SUMP PIT

DEWATERING FILTER PAD

ERO-TEX
THE GROUND CONTROL LEADERS

Dewatering Filter Bag Data Sheet



Specifications

Description: ERO-TEX dewatering filter bags are effective in collecting sediment from dewatering operations. Sediment-laden water is pumped into the bag.
- Made from nonwoven needle-punched geotextile fabric
- Roll stitched bag seams

Standard Available Sizes:
- 10' x 15' for 2" discharge hose
- 20' x 15' for 3" discharge hose
- 25' x 15' for 4" discharge hose
- 35' x 15' for 6" discharge hose

Geotextile Specification:

PROPERTY	*TEST PROCEDURE*	*METRIC*		*ENGLISH*	
		MARV		MARV	
Grab Tensile Strength	ASTM D-4632	912	N	205	lbs
Grab Elongation	ASTM D-4632	50	%	50	%
Trapezoid Tear	ASTM D-4533	356	N	80	lbs
CBR Puncture	ASTM D-6241	2380	N	535	lbs
Permittivity	ASTM D-4491	1.5	sec^{-1}	1.5	sec^{-1}
A.O.S.	ASTM D-4751	0.150	mm	100	U.S. Sieve
UV Resistance (500 hrs)	ASTM D-4355	70	%	70	%
Water Flow Rate	ASTM D-4491	4482	lpm/m^2	110	gpm/ft^2

Installation: ERO-TEX dewatering filter bags should be placed on a level stabilized area (bags can roll down sloped areas), not directly on exposed soil. Insert pump discharge hose into bag, and secure the connection with a clamp or tie wire. Check bags regularly to prevent over-filling.

Note: High pumping rates and high sediment loads can cause bags to burst.

ERO-TEX · N94 W14330 Garwin Mace Drive · Menomonee Falls, WI 53051
(262) 250-9945 · www.ero-tex.net · 866-437-6839 (Toll Free) · FAX: (866) 827-5443

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:
LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

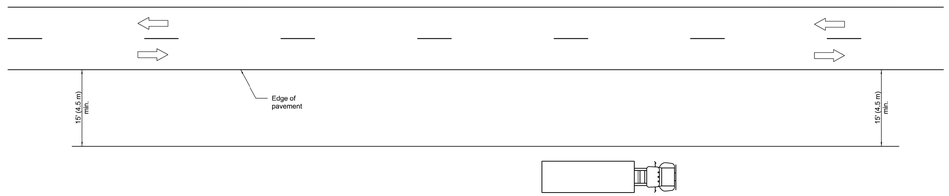
NO.	DATE	NATURE OF REVISION	CHKD.

FILE NAME N:\LCPWD\230629\230629.00004\Mech\DET_2306290004_5.dgn

DSGN.	KWB
DWN.	JCH
CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	3/30/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:
ROLLINS ROAD FORCE MAIN REPLACEMENT
EROSION CONTROL DETAILS

PROJ. NO. 23-0629.0004
DATE: 3/30/2026
SHEET 19 OF 22
DRAWING NO. 19



TYPICAL APPLICATIONS

Landscaping work

Utility work

Fencing contracts and maintenance

Cleaning culverts

GENERAL NOTES

This Standard is used where at all times all vehicles, equipment, workers or their activities are more than 15' (4.5 m) from the edge of pavement.

When the work operation requires that two or more work vehicles cross the 15' (4.5 m) clear zone in any one hour, traffic control shall be according to Standard 701006.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2009
ENGINEER OF OPERATIONS

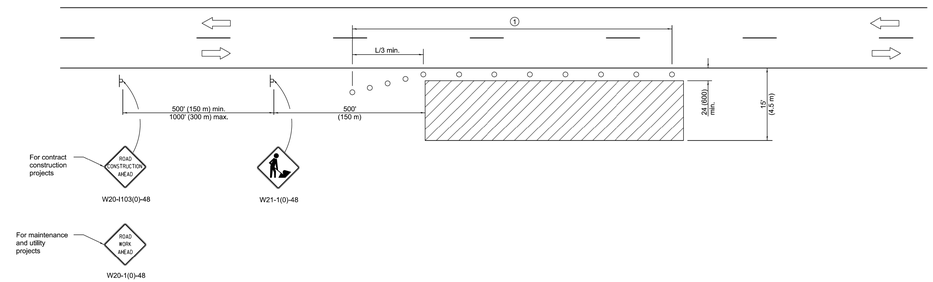
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

BDE/BDE 5-1-07

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-05	Revised title and notes.

OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY

STANDARD 701001-02



TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

SYMBOLS

Work area

Sign

Cone, drum or barricade

GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS English	(Metric)
40 mph (70 km/h) or less:	$L=\frac{WS^2}{60}$	$L=\frac{WS^2}{150}$
45 mph (80 km/h) or greater:	L=(W)(S)	L=0.65(W)(S)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2014
ENGINEER OF SAFETY ENGINEERING

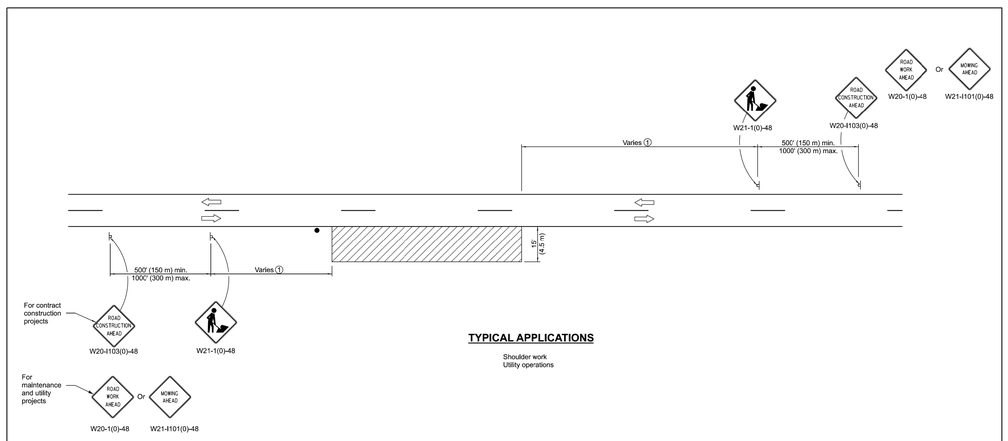
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT

BDE/BDE 5-1-07

DATE	REVISIONS
1-1-14	Revised workers sign number to
	agree with current MUTCD.
1-1-13	Omitted text "WORKERS" sign.

OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701006-05



TYPICAL APPLICATIONS

Shoulder work
Utility operations

① Minimum distance is 200' (60 m). Maximum distance to be determined by the Engineer but should not exceed ½ the length required for one normal working day's operation, or 4 miles (6.4 km) whichever is less.

SYMBOLS

Work area

Sign

Flagger with traffic control sign when required

GENERAL NOTES

This Standard is used where at any time, any vehicle, equipment, workers or their activities require an intermittent or continuous moving operation on the shoulder, where the average speed is 1 mph (2 km/h) or less.

When the work operation does not exceed 60 minutes, traffic control may be according to Standard 701301.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2014
ENGINEER OF SAFETY ENGINEERING

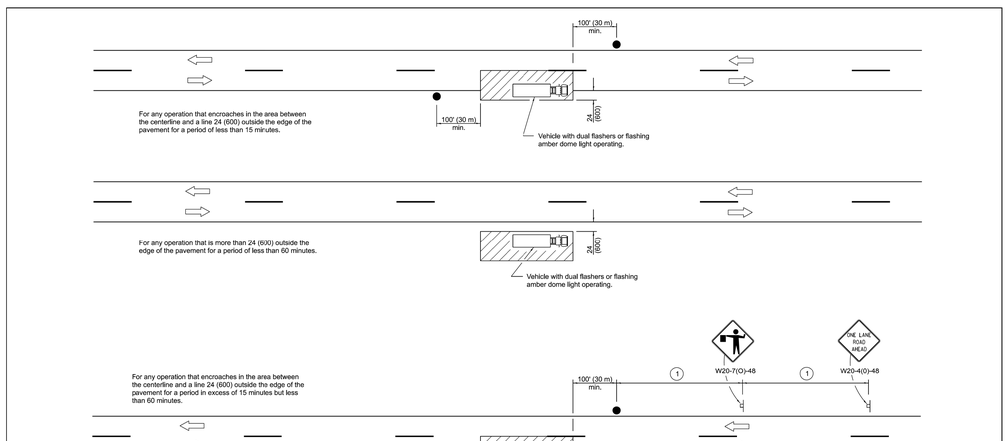
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT

BDE/BDE 5-1-07

DATE	REVISIONS
1-1-14	Revised workers sign number to
	agree with current MUTCD.
1-1-13	Omitted text "WORKERS" sign.

OFF-RD MOVING OPERATIONS 2L, 2W, DAY ONLY

STANDARD 701011-04



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

① = Refer to SIGN SPACING table for distances.

TYPICAL APPLICATIONS

Marking patches
Field survey
String line
Utility operations
Cleaning up debris on pavement

SYMBOLS

Work area

Sign on portable or permanent support

Flagger with traffic control sign

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

BDE/BDE 5-1-07

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric).

LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS

STANDARD 701301-04

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:

LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.
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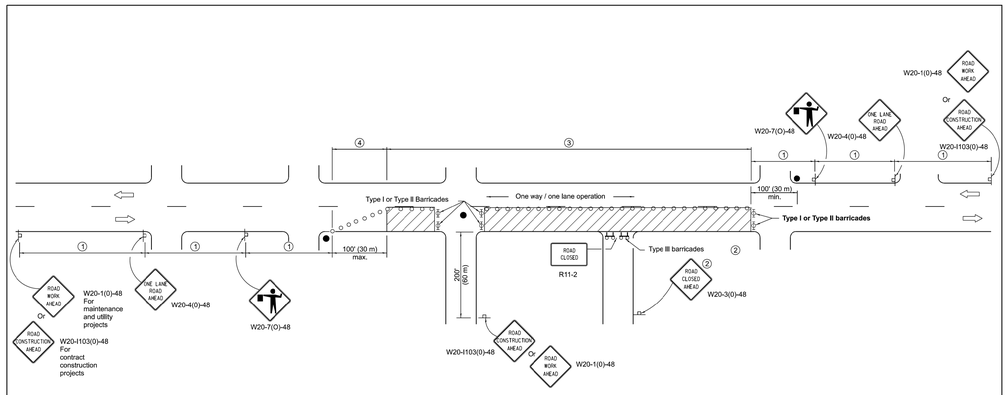
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DWN.	JCH
CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	3/30/2026
CAD USER:	jhastings
MODEL:	Default

TITLE:

ROLLINS ROAD FORCE MAIN REPLACEMENT

TRAFFIC CONTROL DETAILS – 1

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	20 OF 22
DRAWING NO.	20



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- Work area
- Cone, drum or barricade (not required for moving operations)
- Sign on portable or permanent support
- Flagger with traffic control sign
- Barricade or drum with flashing light
- Type III barricade with flashing lights

1. Refer to SIGN SPACING TABLE for distances.
2. For approved sideroad closures.
3. Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
4. Cones, drums or barricades at 20' (6 m) centers.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

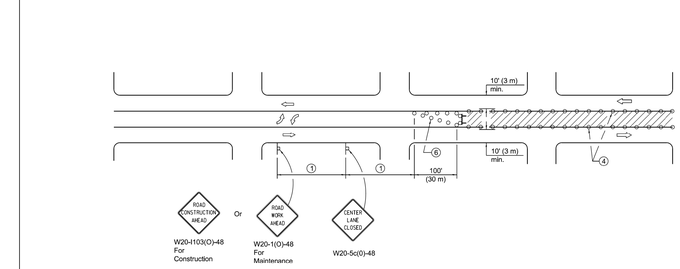
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

BDE/BDE 1-1-11

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric).
	Corrected sign No.'s.

URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

STANDARD 701501-06



CASE J

(Signs required for both directions)

SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- Work area
- Barricade or drum with flashing light
- Flagger with traffic control sign
- Cone, drum or barricade
- Sign on portable or permanent support
- Type III barricade with flashing lights

1. Refer to SIGN SPACING TABLE for distances.
2. Required for speeds > 40 mph (70 km/h).
3. Required if work exceeds 500' (164 m) or 1 block.
4. Cones at 25' (8 m) centers for 250' (75 m) on approach. Additional cones may be placed at 50' (15 m) centers. When drums or type I or II barricades are used, the interval between devices may be doubled.
5. For approved sideroad closures.
6. Cones, drums or barricades at 20' (6 m) centers in taper.
7. Use flagger sign only when flagger is present.

GENERAL NOTES

This Standard is used to close one lane of an urban, two lane, two way roadway with a bidirectional turn lane.

Case I applies when no workers are present. When workers are present, two lanes shall be closed and traffic control shall be according to Standard 701501.

Calculate L as follows:

SPEED LIMIT — FORMULAS

	English	(Metric)
40 mph (70 km/h) or less:	$L=\frac{WS^2}{60}$	$L=\frac{WS^2}{150}$
45 mph (80 km/h) or greater:	L=(W)(S)	L=0.65(W)(S)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2019
ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

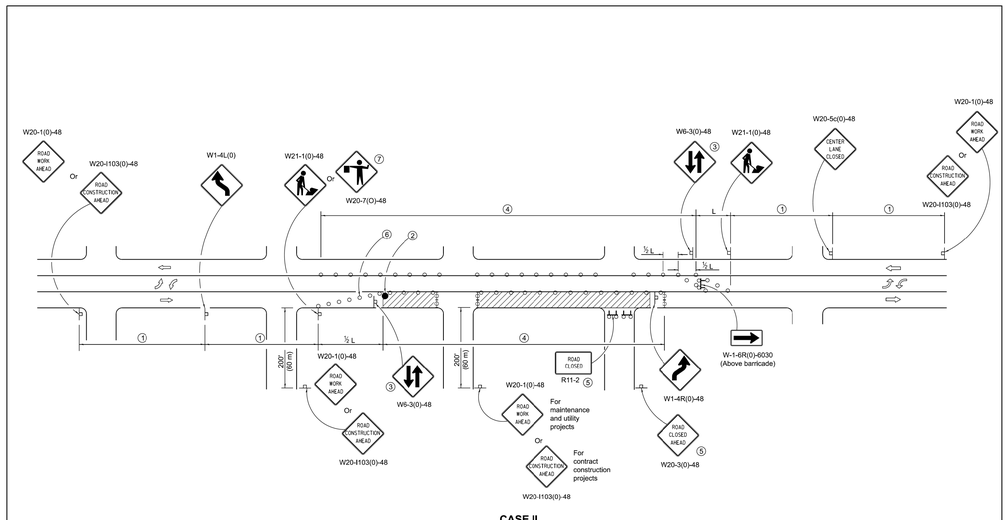
BDE/BDE 1-1-11

DATE	REVISIONS
1-1-19	Revised to allow cones at night.
1-1-18	Corrected sign number for TWO WAY
	TRAFFIC sign for CASE II.

URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE

(Sheet 1 of 2)

STANDARD 701502-09



CASE II

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade

Illinois Department of Transportation

APPROVED January 1, 2019
ENGINEER OF SAFETY ENGINEERING

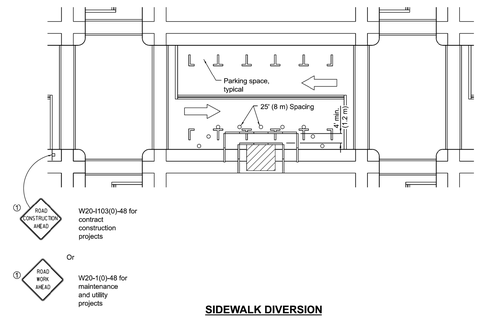
APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

BDE/BDE 1-1-11

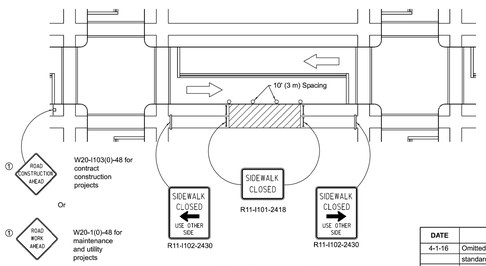
URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE

(Sheet 2 of 2)

STANDARD 701502-09



SIDEWALK DIVERSION



SIDEWALK CLOSURE

1. Omit whenever duplicated by road work traffic control.

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2016
ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

BDE/BDE 1-1-07

DATE	REVISIONS
4-1-16	Omitted orange safety fence from
	standard as this is covered in
	the standard spec.
1-1-12	Added SIDEWALK DIVERSION.
	Modified appearance of plan views.
	Renamed Standard.

SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:

LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.

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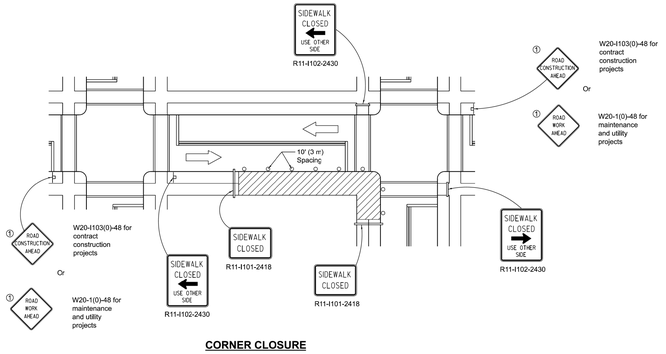
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CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	3/30/2026
CAD USER:	jhastings
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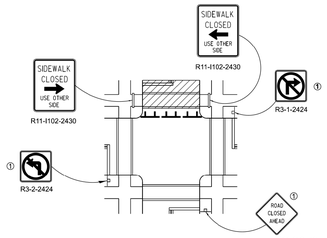
ROLLINS ROAD FORCE MAIN REPLACEMENT

TRAFFIC CONTROL DETAILS – 2

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	21 OF 22
DRAWING NO.	21



CORNER CLOSURE



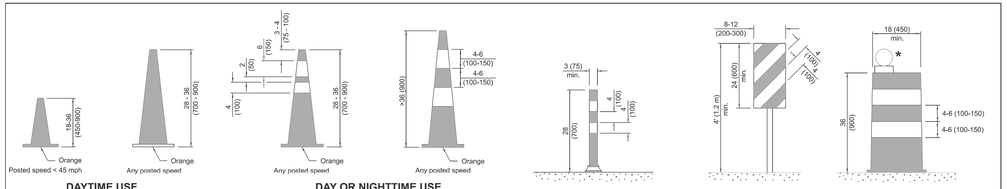
CROSSWALK CLOSURE

Illinois Department of Transportation
APPROVED January 1, 2016
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT
BD630 (D-1-1-13) 1 of 3

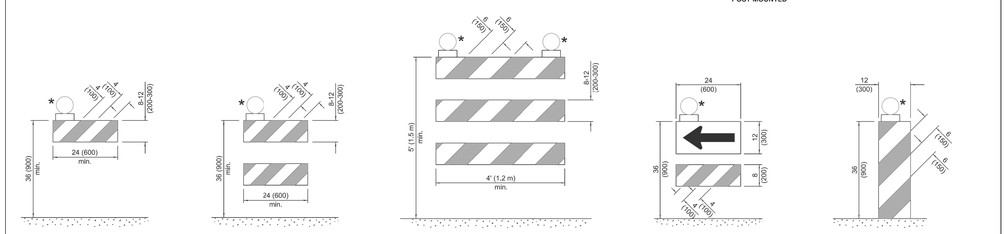
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 2 of 2)

STANDARD 701801-06



DAYTIME USE | **CONES** | **DAY OR NIGHTTIME USE** | **TUBULAR MARKER** | **VERTICAL PANEL** POST MOUNTED | **DRUM**



TYPE I BARRICADE | **TYPE II BARRICADE** | **TYPE III BARRICADE** | **DIRECTION INDICATOR BARRICADE** | **VERTICAL BARRICADE**

DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE

★ Warning lights (if required)

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

All dimensions are in inches (millimeters) unless otherwise shown.

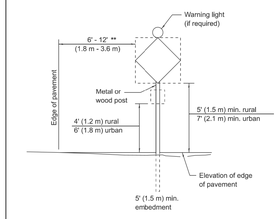
DATE	REVISIONS
1-1-26	Updated Detectable Pedstrian
	Channelizing Barricade (sht. 1) &
	Temporary Rumble Strips
	details (sht. 3)
1-1-25	Updated Temporary Rumble
	Strip Detail (sht. 3).

Illinois Department of Transportation
APPROVED January 1, 2026
ENGINEER OF SAFETY PROG. AND ENGINEERING
APPROVED January 1, 2026
ENGINEER OF DESIGN AND ENVIRONMENT
BD630 (D-1-1-13)

TRAFFIC CONTROL DEVICES

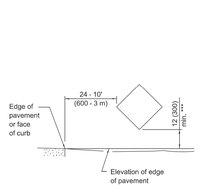
(Sheet 1 of 3)

STANDARD 701901-11



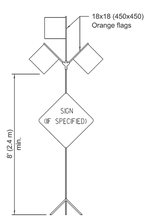
POST MOUNTED SIGNS

** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.



SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.



HIGH LEVEL WARNING DEVICE



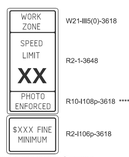
This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING



W21-I85(0)-3618
R2-1-3648
R10-I108p-3618 ****
R2-I106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.

This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

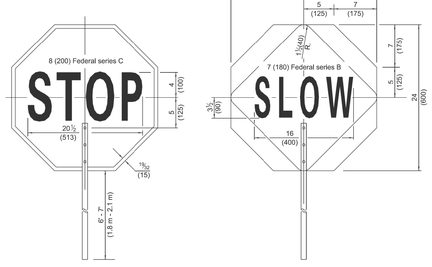
**** R10-I108p shall only be used along roadways under the jurisdiction of the State.



W12-I103-4848

WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.



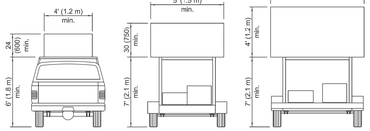
FLAGGER TRAFFIC CONTROL SIGN

Illinois Department of Transportation
APPROVED January 1, 2020
ENGINEER OF SAFETY PROG. AND ENGINEERING
APPROVED January 1, 2026
ENGINEER OF DESIGN AND ENVIRONMENT
BD630 (D-1-1-13)

TRAFFIC CONTROL DEVICES

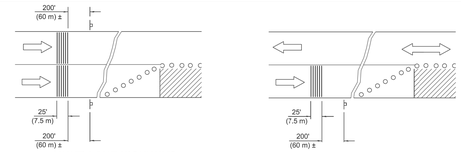
(Sheet 2 of 3)

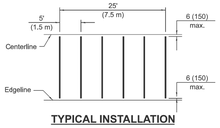
STANDARD 701901-11



TYPE A ROOF MOUNTED | **TYPE B ROOF OR TRAILER MOUNTED** | **TYPE C TRAILER MOUNTED**

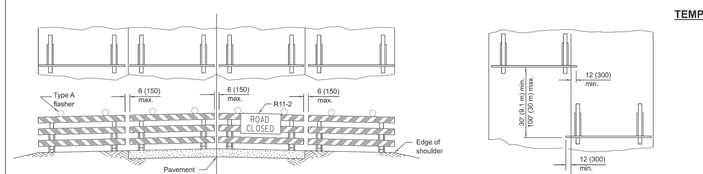
ARROW BOARDS





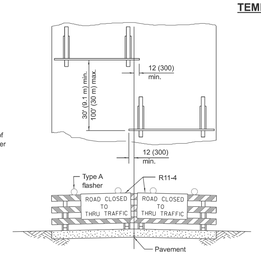
TYPICAL INSTALLATION

TEMPORARY RUMBLE STRIPS



ROAD CLOSED TO ALL TRAFFIC

Reflectorized striping may be omitted on the back side of the barricades.



ROAD CLOSED TO THRU TRAFFIC

Reflectorized striping shall appear on both sides of the barricades.

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

If a Type III barricade with an attached sign panel which meets NCHRP 350 or MASH is not available, the sign may be mounted on an NCHRP 350 or MASH temporary sign support directly in front of the barricade.

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BD630 (D-1-1-13)

TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

STANDARD 701901-11

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:

LakeCounty
Department of Public Works
650 West Winchester Road
Libertyville, IL 60048

NO.	DATE	NATURE OF REVISION	CHKD.

FILE NAME N:\LCPWD\230629\230629.00004\Mech\TRF_2306290004_3.dgn

DSGN.	KWB
DWN.	JCH
CHKD.	MEE
SCALE:	N.T.S.
PLOT DATE:	3/30/2026
CAD USER:	jhastings
MODEL:	Default

TITLE: **ROLLINS ROAD FORCE MAIN REPLACEMENT**

TRAFFIC CONTROL DETAILS – 3

PROJ. NO.	23-0629.0004
DATE:	3/30/2026
SHEET	22 OF 22
DRAWING NO.	22