1-17-14 LETTING ITEM 121

F. A. U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
400	12-00007-00-BR	GRUNDY	10	1
STA. 54+90		TO STA. 72+80		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT	M-4003(176)	

CONTRACT #87550

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SURFACE TRANSPORTATION URBAN FUNDS

FAU ROUTE 400 (MINOOKA ROAD)
UTILITY RELOCATION
PROJECT NO.: M-4003(176)
SECTION NO.: 12-00007-00-BR
VILLAGE *of* MINOOKA
GRUNDY COUNTY
JOB NO.: C-93-074-13

INDEX OF SHEETS

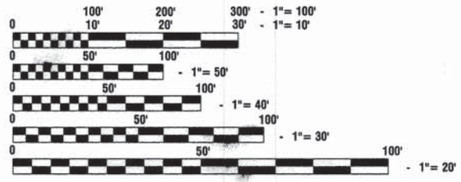
1. COVER SHEET, INDEX OF SHEETS & STATE STANDARDS
2. GENERAL NOTES
3. SUMMARY OF QUANTITIESS
4. ALIGNMENT, TIES & BENCHMARKS
5.-8. PLAN AND PROFILE
9.-10. DETAILS

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
604001-03	FRAME AND LIDS - TYPE 1
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-04	OFF-RD OPERATIONS, 2L, 2W, 15' TO 2' FROM PAVEMENT EDGE
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, >/ 45 MPH
701901-03	TRAFFIC CONTROL DEVICES

MINOOKA ROAD - MAJOR COLLECTOR
2010 ADT = 2800
PV=92.5% SU=5.2% MU=2.3%
DESIGN SPEED = 45 mph

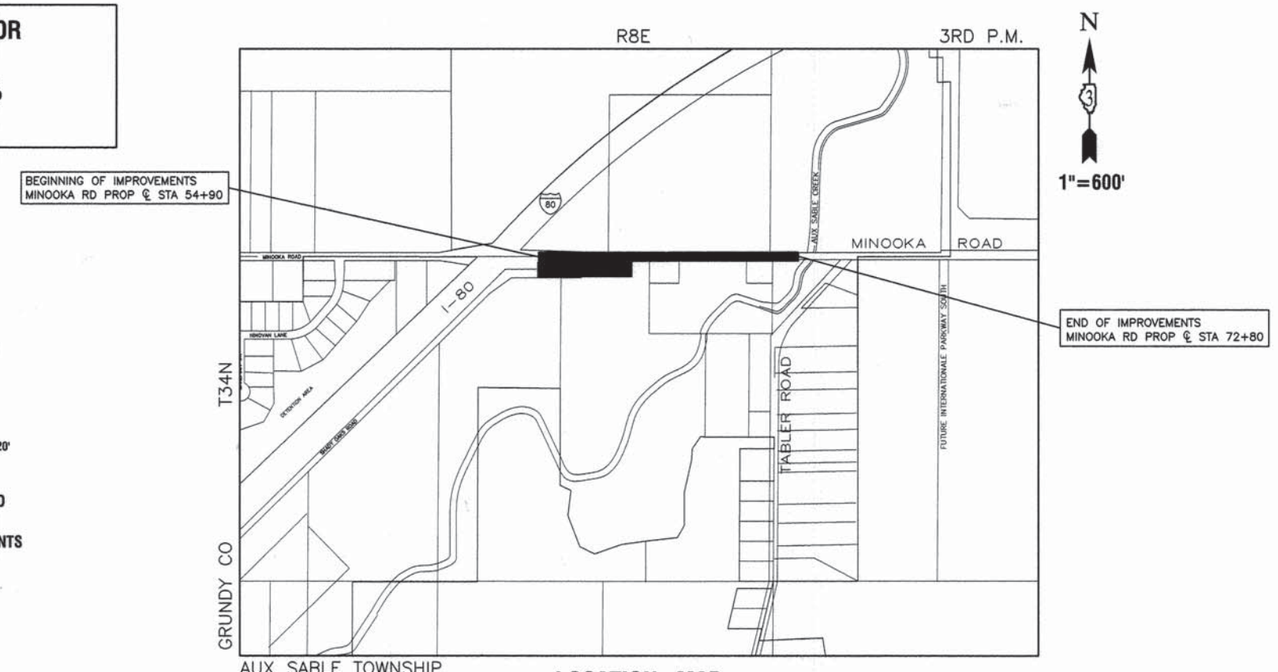
SCALES
PLAN - 1"=20'
PROFILE HORIZ. - 1"=20'
PROFILE VERT. - 1"=2'
CROSS SECTIONS - 1"=10'



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

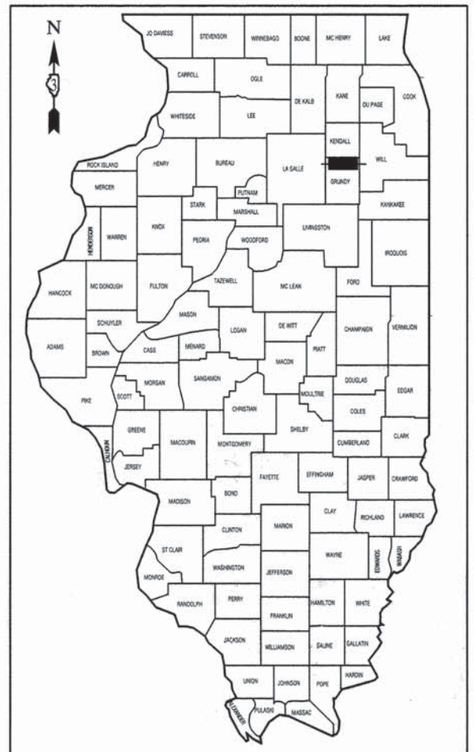
J. U. L. I. E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1 - 800 - 892 - 0123 or 811

CONTRACT NO. 87550



LOCATION MAP

GROSS LENGTH=1,790 FEET=0.339 MILES
NET LENGTH=1,790 FEET=0.339 MILES



LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved Aug 16, 2013
Patrick J. Brennan
President, Village of MINOOKA

Approved Aug 16, 2013
Craig Cassem
Craig Cassem, Grundy County Engineer

Passed Aug 26, 2013
David R Gremm
District 3 Engineer of Local Roads & Streets

Released for Bid Based on Limited Review Aug 26, 2013
Paul A Loetterle
Deputy Director of Highways, Region 2 Engineer

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

Brian D Brown
8/15/2013

BRIAN D. BROWN
62-4813?
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

LICENSE EXPIRES: 11/30/13

I.D.O.T. FEDERAL AID DESIGN ENGINEER:
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

12667-COVR-01 - IDOT C01

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012 BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND ALL AMENDMENTS THERETO.
2. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.
3. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
4. ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.
5. ALL ELEVATIONS REFER TO U.S.G.S MEAN SEAL LEVEL DATUM.
6. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
7. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.
8. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD

9. WORK REQUIRED TO CONNECT ANY SEWER TO AN EXISTING DRAINAGE STRUCTURE OR PIPE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE SEWER ITEMS.
10. MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

    COMCAST CABLE
    COMED
    NICOR GAS
    AT&T

    NON-MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

    VILLAGE OF MINOOKA

FORCE MAIN NOTES

1. PRESSURE TAPS SHALL BE DUCTILE IRON FOR SIZE-ON-SIZE TAPS OR TAPS.
2. CUT-IN-SLEEVES SHALL BE MUELLER, CLOW, OR VILLAGE APPROVED EQUAL.
3. ALL EXISTING PIPE SHALL BE EXPOSED AND MEASURED TO ASSURE PURCHASE OR FABRICATION OF THE PROPER FITTING PRIOR TO EXISTING MAINS BEING SHUT-DOWN OR CUT. THE CONTRACTOR IS CAUTIONED THAT SOME EXISTING MAINS MAY BE SAND-CAST OR ASBESTOS CEMENT.
4. PRIOR TO MAKING CUT-IN-CONNECTIONS, THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE VILLAGE OF MINOOKA ON PROCEDURE, NOTIFICATIONS TO USERS, AND TIMING.
5. EXISTING FORCE MAIN TO BE ABANDONED IN-PLACE UNLESS OTHERWISE NOTED TO BE REMOVED. ONCE SANITARY SEWER IS CUT AND CAPPED, CONTRACTOR SHALL PUMP CONTROLLED LOW STRENGTH MATERIAL (CLSM – ARTICLE 593 OF THE STANDARD SPECIFICATIONS) INTO THE ABANDONED PIPE.

GENERAL WATER NOTES

1. AN APPROVED IEPA CONSTRUCTION PERMIT MUST BE RECEIVED BY THE DIRECTOR OF PUBLIC WORKS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
2. ALL MATERIAL SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA. A LETTER OF CERTIFICATION OF THE COUNTRY OF ORIGIN MUST BE PROVIDED IF REQUESTED BY THE VILLAGE.
3. THE CONTRACTOR SHALL COORDINATE ALL WORK ON WATERMAIN SYSTEMS WITH THE VILLAGE OF MINOOKA. CONSTRUCTION SHALL BE STAGED TO MAINTAIN SERVICE TO ADJACENT PROPERTIES. TEMPORARY SYSTEM SHUTDOWNS SHALL BE OF SHORT DURATION AND HAVE PRIOR WRITTEN APPROVAL FROM THE VILLAGE OF MINOOKA.
4. NO DISCONNECTION FROM EXISTING OR CONNECTION TO PROPOSED IS TO BE PERFORMED UNTIL THE NEW WATERMAIN IS TESTED AND PLACED INTO SERVICE. NOTIFICATION OF INTERRUPTION OF SERVICE SHALL BE MADE TO THOSE AFFECTED BY THE CONTRACTOR IN WRITING A MINIMUM OF 24 HOURS IN ADVANCE.
5. WATERMAIN
   - WATERMAIN SHALL BE DUCTILE IRON, CLASS 52, IN ACCORDANCE WITH AWWA LATEST STANDARDS. THE WATERMAIN SHALL BE BITUMINOUS COATED WITH CEMENT LINING IN ACCORDANCE WITH AWWA LATEST STANDARDS.
   - JOINTS SHALL BE PUSH-ON IN ACCORDANCE WITH AWWA LATEST STANDARDS, EXCEPT GASKETS SHALL BE NEOPRENE OR OTHER SYNTHETIC RUBBER.
   - FITTINGS SHALL BE CEMENT LINED DUCTILE IRON OR CAST IRON IN ACCORDANCE WITH AWWA LATEST STANDARD RATED AT 350 PSI.
   - WATERMAIN DEPTH SHALL BE A MINIMUM OF SIXTY-SIX INCHES (66") AND A MAXIMUM DEPTH OF SEVENTY-TWO INCHES (72") FROM THE PROPOSED GROUND SURFACE.
   - WATERMAIN SHALL BE INSTALLED WITH HYDRANTS AT HIGH POINTS.
6. RESTRAINING GLANDS – ALL MECHANICAL JOINT FITTINGS, VALVES, FIRE HYDRANTS, ETC. SHALL BE RESTRAINED WITH A RESTRAINING DEVICE SUCH AS MEGA LUG SERIES 1100.
7. CONCRETE THRUST BLOCKS
   - CONCRETE SHALL BE CLASS SI.
   - WHERE HORIZONTAL BEND IS MADE, THE PIPING SHALL BE RESTRAINED BY MEANS OF A THRUST BLOCK AS DETAILED ON THE DRAWINGS.
   - CONCRETE SHALL BEAR ON ONE COMPLETE QUADRANT OF PIPE AT A MINIMUM.
   - MINIMUM THRUST BLOCK AREA SHALL BE PER VILLAGE OF MINOOKA STANDARDS.

PRESSURE CONNECTION NOTES

1. PRESSURE TAPS SHALL BE DUCTILE IRON FOR SIZE-ON-SIZE TAPS OR TAPS ON MAINS GREATER THAN 12". STAINLESS STEEL TAPPING SLEEVES CAN ONLY BE USED FOR NON-SIZE ON SIZE TAPS ON MAINS LESS THAN OR EQUAL TO 12".
2. CUT-IN-SLEEVES SHALL BE MUELLER, CLOW, OR VILLAGE APPROVED EQUAL.
3. ALL EXISTING PIPE SHALL BE EXPOSED AND MEASURED TO ASSURE PURCHASE OR FABRICATION OF THE PROPER FITTING PRIOR TO EXISTING MAINS BEING SHUT-DOWN OR CUT. THE CONTRACTOR IS CAUTIONED THAT SOME EXISTING MAINS MAY BE SAND-CAST OR ASBESTOS CEMENT.
4. PRIOR TO MAKING CUT-IN-CONNECTIONS, THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE VILLAGE OF MINOOKA ON PROCEDURE, NOTIFICATIONS TO USERS, AND TIMING.
5. THE CONNECTION SHALL BE DISINFECTED.

WATERMAIN TESTING NOTES

1. ALL WATERMAIN SHALL BE PRESSURE TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, JULY 2009 FIFTH EDITION.
2. ALL WATERMAIN INCLUDING THE EXISTING WATERMAIN SOUTH TO THE TWIN RAIL DRIVE VALVE SHALL BE DISINFECTED IN ACCORDANCE TO METHODS STATED IN AWWA STANDARD C651, LATEST EDITION.
3. ALL DISINFECTION SHALL BE UNDER THE DIRECT SUPERVISION OF A LICENSED VILLAGE OF MINOOKA WATER OPERATOR OR DESIGNATED REPRESENTATIVE.
4. BACTERIOLOGICAL SAMPLES ARE REQUIRED AT ALL DEAD ENDS, AT A MAXIMUM OF 1,250-FOOT-INTERVALS ON STRAIGHT THROUGH PIPE RUNS AND TAKEN BY A LICENSED IEPA WATER OPERATOR EMPLOYED BY THE VILLAGE OF MINOOKA OR BY A PRE-APPROVED PRIVATE FIRM.
5. PRECAUTIONS SHALL BE FOLLOWED TO ENSURE THAT ANY OF THE DISINFECTING AGENTS DO NOT FLOW BACK INTO THE LINE SUPPLYING WATER.
6. ALL WATERMAINS SHALL BE FLUSHED TO REMOVE ANY SOLIDS OR CONTAMINATED MATERIAL THAT MAY HAVE BECOME LODGED IN THE PIPE. ARRANGEMENTS MUST BE MADE PRIOR TO FLUSHING WITH THE PUBLIC WORKS DEPARTMENT.
7. ALL WATERMAINS SHALL BE TESTED BY MEANS OF REPRESENTATIVE SAMPLES FROM THE NEWLY INSTALLED SYSTEM FOR BACTERIOLOGICAL CONTAMINATION BY A CERTIFIED IEPA LABORATORY.

VALVE VAULT NOTES

1. VALVE VAULTS ARE REQUIRED FOR EIGHT INCH (8") OR LARGER VALVES.
2. ALL VALVE VAULTS SHALL BE PRECAST REINFORCED CONCRETE ONLY.
3. ALL VALVE VAULTS SHALL HAVE NO MORE THAN TWO ADJUSTING RINGS WITH A MINIMUM OF FOUR INCHES (4") AND A MAXIMUM OF TWELVE INCHES (12") OF ADJUSTING RING. RUBBER ADJUSTING RINGS ARE REQUIRED FOR ANY RINGS THAT ARE TWO INCHES (2") IN THICKNESS OR LESS. THE TOP RING UNDER PAVED SERVICES SHALL BE A ONE INCH (1") RUBBER RING – FOR A TOTAL OF THREE (3) RINGS.
4. ALL LIFTING HOLES, JOINTS BETWEEN PRECAST REINFORCED CONCRETE SECTIONS, GAPS BETWEEN PIPES AND STRUCTURES SHALL BE TUCKPOINTED WITH HYDRAULIC CEMENT.
5. ALL CASTING SHALL BE SET ON BITUMASTIC MATERIAL.
6. BITUMASTIC MATERIAL SHALL BE PLACED BETWEEN PRECAST REINFORCED CONCRETE SECTIONS.
7. ALL VALVE VAULTS SHALL HAVE NEOPRENE COATED OR FIBERGLASS STEPS.
8. VALVE VAULT SHALL BE NEENAH R-1550-A FRAME (LID TYPE B) WITH "VILLAGE OF MINOOKA WATER" CAST ON THE COVER OR AN EAST JORDAN IRON WORKS 1050 FRAME, HEAVY DUTY COVER WITH "VILLAGE OF MINOOKA WATER" CAST ON THE LID.
9. VALVE OPERATING NUTS SHALL BE ACCESSIBLE THROUGH THE FRAME AND LID.
10. ALL VALVE VAULTS SHALL BE SET ON A SIX INCH (6") CA-7 CUSHION.

FIRE HYDRANT NOTES

1. ALL FIRE HYDRANTS SHALL HAVE A FIVE AND ONE QUARTER INCH (5-¼") MAIN VALVE OPENING.
2. HYDRANT COLOR SHALL BE AS DIRECTED BY THE VILLAGE.
3. THE HYDRANT SHALL BE FOR A FIVE AND ONE HALF FOOT (5-½') BURY DEPTH.
4. HYDRANT SHALL HAVE TWO (2) TWO AND ONE-HALF INCH (2-½") HOSE CONNECTIONS AND ONE (1) FOUR AND ONE HALF INCH (4-½") CONNECTION.
5. THREADS SHALL BE NATIONAL STANDARD.
6. THE HYDRANT SHALL HAVE A BREAKAWAY TRAFFIC FLANGE AND CONNECTION.
7. HYDRANT SHOES SHALL BE EITHER SIX INCH (6") MECHANICAL JOINT OR FLANGED DEPENDING ON THE APPLICATION.
8. HYDRANT LEADS MAY BE 6 INCH (6") SWIVEL ANCHORING COUPLING. HYDRANT TEES SHALL BE USED IN LIEU OF SWIVEL ANCHORING COUPLING PIPE IF NECESSARY.
9. ALL FIRE HYDRANTS (EXISTING AND PROPOSED) NOT IN SERVICE SHALL BE BAGGED OR IDENTIFIED WITH SIGNAGE.
10. ALLOWABLE HYDRANTS ARE MUELLER SUPER CENTURION 250 AND CLOW MEDALLION.
11. FIRE HYDRANT TO BE RELOCATED
    - THE WORK SHALL BE COORDINATED TO MINIMIZE DISRUPTION OF SERVICE. NO DISCONNECTION FROM EXISTING OR CONNECTION TO PROPOSED IS TO BE PERFORMED UNTIL THE NEW WATERMAIN IS TESTED AND PLACED INTO SERVICE AND ALL SHALL SHALL BE PERFORMED PRIOR TO ABANDONING THE EXISTING WATERMAIN. NOTIFICATION OF INTERRUPTION OF SERVICE SHALL BE MADE TO THOSE AFFECTED BY THE CONTRACTOR IN WRITING A MINIMUM OF 24 HOURS IN ADVANCE. THE VILLAGE OF MINOOKA PUBLIC WORKS DEPARTMENT SHALL APPROVE ALL INTERRUPTIONS TO SERVICE IN ADVANCE. THE CONTRACTOR MAY HAVE TO VERIFY THE EXISTING TYPE OF MATERIALS USED FOR EXISTING WATERMAINS PRIOR TO STARTING CONSTRUCTION.

VALVE NOTES

1. VALVES SHALL BE MECHANICAL JOINT RESILIENT WEDGE GATE VALVES.
2. VALVES SHALL BE CAST IRON, BRONZE MOUNTED, O-RING SEAL, WITH BRONZE NON-RISING STEMS.
3. VALVES SHALL BE OPEN LEFT AND BE TESTED TO 500 PSI WITH A 250 PSI WORKING PRESSURE.
4. ALLOWABLE VALVE MANUFACTURERS ARE AMERICAN FLOW CONTROL, MUELLER, AND CLOW.
5. ALL EXISTING WATER VALVES TAKEN OUT OF SERVICE ARE TO BE REMOVED IN THEIR ENTIRETY. CUT AND PLUG BOTH ENDS OF WATERMAIN UPSTREAM AND DOWNSTREAM OF REMOVED VALVE.

VALVE BOX NOTES

1. VALVE BOXES SHALL BE ADJUSTABLE, 2-PIECE CAST IRON, FIVE AND ONE-QUARTER INCH (5- ¼") SHAFT ROADWAY-TYPE AND NO-TILT DROP COVER WITH "WATER" CAST INTO IT.
2. VALVE BOX EXTENSIONS WHEN NECESSARY SHALL BE CENTER SCREW TYPE EXTENSION THREADED MALE AT THE TOP AND FEMALE AT THE BOTTOM. THE EXTENSION SHALL BE COMPATIBLE WITH THE FIVE AND ONE-QUARTER (5-¼") VALVE BOX.
3. VALVE BOX STABILIZER OF PVC MANUFACTURED BY VALVE BOX STABILIZER, INC. OR STABILIZER OF RUBBER BY VALVE BOX ADAPTER II MANUFACTURED BY ADAPTOR, INC. FOR SIX INCH (6") THROUGH TEN INCH (10") VALVE SHALL BE PROVIDED.
4. VALVE BOX MUST HAVE ADDITION UPWARD OR DOWNWARD TRAVEL WHEN ADJUSTED TO FINISHED GRADE.

SUMMARY OF QUANTITIES

	S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTION TYPE CODE 0043
		20800150	TRENCH BACKFILL	CU YD	909	909
		28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	240	240
		28000400	PERIMETER EROSION BARRIER	FOOT	1780	1780
		40200700	AGGREGATE SURFACE COURSE, TY A, 8"	SQ YD	121	121
*		56105300	WATER VALVES, 16"	EACH	4	4
		56200300	WATER SERVICE LINE 1"	FOOT	120	120
*		56201400	CORPORATION STOPS 1"	EACH	2	2
*		56400500	FIRE HYDRANTS TO BE REMOVED	EACH	4	4
*		56500400	DOMESTIC METER VAULTS TO BE REMOVED	EACH	1	1
*		56500500	DOMESTIC METER VAULTS	EACH	2	2
		60248900	VALVE VAULTS, TYPE A, 5' DIA., TY 1 FR & CL	EACH	4	4
		61100500	EXPLORATION TRENCH 52" DEPTH	FOOT	200	200
		67100100	MOBILIZATION	L SUM	1	1
*		X0326747	SANITARY FORCE MAIN, 6"	FOOT	1851	1851
*		X0326749	AIR RELEASE VALVE MANHOLE	EACH	1	1
*		X0327241	STEEL CASING PIPE IN TRENCH, 24 INCH	FOOT	40	40
*		X5610004	DUCTILE IRON WATER MAIN FITTINGS	POUND	6272	6272
*		X5610651	ABANDON EX. WATER MAIN FILL W/CLSM	FOOT	1893	1893
*		X5630716	CONNECTION TO EXISTING WATER MAIN,16"	EACH	2	2
*		X5640175	FIRE HYDRANT COMPLETE	EACH	5	5
*		X7010216	TRAF CONT & PROT SPL	L SUM	1	1
*		XX008409	DI WM CL52 POLY EN 16	FOOT	1853	1853
*		Z0001100	AIR RELEASE VALVE	EACH	1	1
*		XX008901	STEEL CASING PIPE IN TRENCH, 30 INCH	FOOT	40	40
*		XX008902	TAPPING SLEEVE, 16"	EACH	2	2
*		X5630016	CUT AND CAP EXISTING 16" WATER MAIN	EACH	2	2
*		X5631006	CUT AND CAP EXISTING 6" FORCE MAIN	EACH	2	2
*		X5631106	CONNECTION TO EXISTING FORCE MAIN, 6"	EACH	2	2
*		XX008903	ABANDON EX. FORCE MAIN FILL W/CLSM	FOOT	1862	1862

* – INDICATES SPECIAL PROVISION

Δ – INDICATES SPECIALTY ITEMS

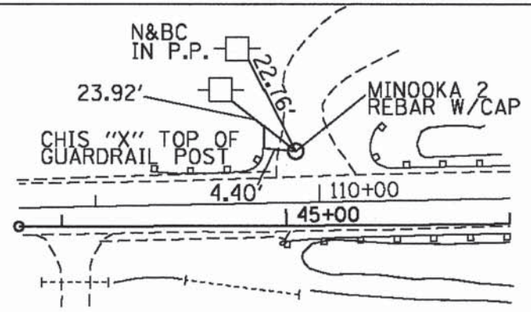
FILE NAME = 12667-QUAN-01 - Q-1	USER NAME =	DESIGNED – KJB	REVISED –
		CHECKED – BDB	REVISED –
	PLOT SCALE =	DRAWN – JJB	REVISED –
	PLOT DATE = 6-28-2013	CHECKED – BDB	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

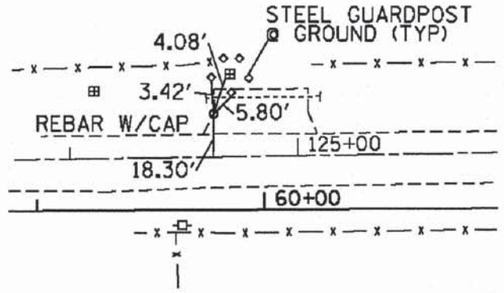
UTILITY RELOCATION
MINOOKA ROAD
SUMMARY OF QUANTITIES

SCALE: NA | SHEET NO. 3 OF 10 SHEETS | STA. | TO STA.

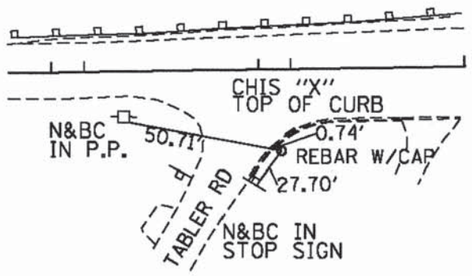
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
400	12-00007-00-BR	GRUNDY	10	3
		CONTRACT NO. 87550		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT M-4003(176)		



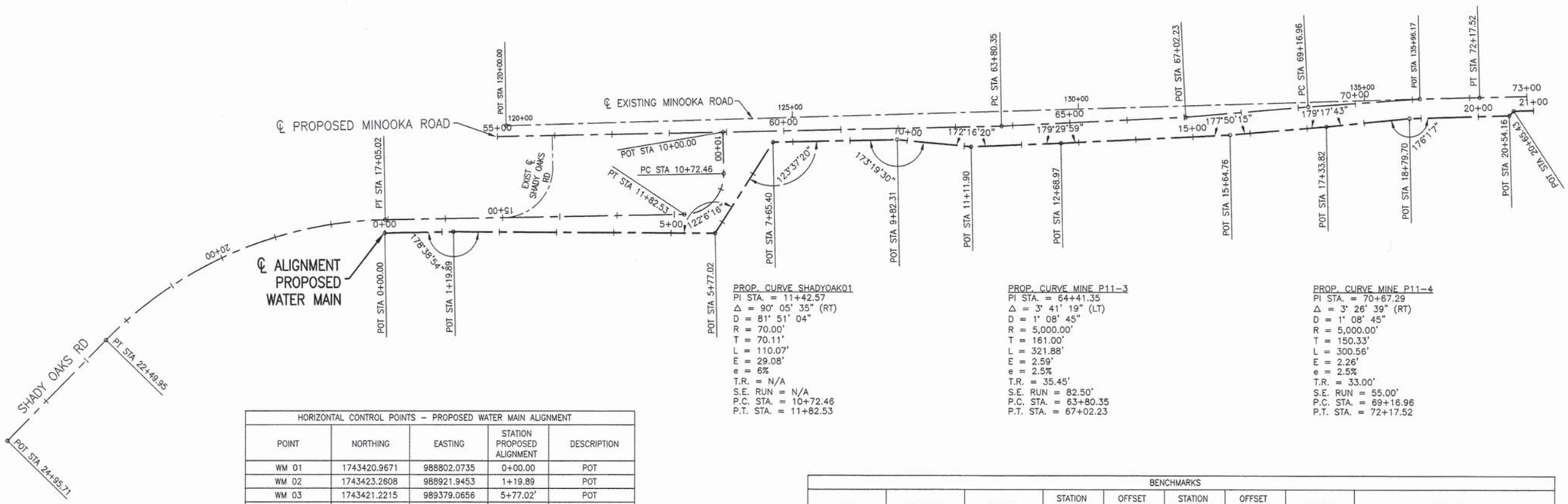
MINOOKA 2 CP STA. 109+79.55(EX) 20.04' LT
STA. 44+94.45(PR) 30.22' LT



MINOOKA 3 CP STA. 124+63.54(EX) 28.70' LT
STA. 59+78.5(PR) 51.92' LT



MINOOKA 4 CP STA. 141+96.22(EX) 35.03' RT
STA. 77+12.00(PR) 35.03' RT



PROP. CURVE SHADYOAK01
PI STA. = 11+42.57
Δ = 90° 05' 35" (RT)
D = 81° 51' 04"
R = 70.00'
T = 70.11'
L = 110.07'
E = 29.08'
e = 6%
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 10+72.46
P.T. STA. = 11+82.53

PROP. CURVE MINE P11-3
PI STA. = 64+41.35
Δ = 3° 41' 19" (LT)
D = 1° 08' 45"
R = 5,000.00'
T = 161.00'
L = 321.88'
E = 2.59'
e = 2.5%
T.R. = 35.45'
S.E. RUN = 82.50'
P.C. STA. = 63+80.35
P.T. STA. = 67+02.23

PROP. CURVE MINE P11-4
PI STA. = 70+67.29
Δ = 3° 26' 39" (RT)
D = 1° 08' 45"
R = 5,000.00'
T = 150.33'
L = 300.56'
E = 2.26'
e = 2.5%
T.R. = 33.00'
S.E. RUN = 55.00'
P.C. STA. = 69+16.96
P.T. STA. = 72+17.52

HORIZONTAL CONTROL POINTS – PROPOSED WATER MAIN ALIGNMENT				
POINT	NORTHING	EASTING	STATION PROPOSED ALIGNMENT	DESCRIPTION
WM 01	1743420.9671	988802.0735	0+00.00	POT
WM 02	1743423.2608	988921.9453	1+19.89	POT
WM 03	1743421.2215	989379.0656	5+77.02'	POT
WM 04	1743580.3502	989479.8967	7+65.40	POT
WM 05	1743585.1279	989696.7503	9+82.31	POT
WM 06	1743572.9034	989825.7632	11+11.90	POT
WM 07	1743579.2475	989982.7029	12+68.97	POT
WM 08	1743593.7756	990278.1383	15+64.76	POT
WM 09	1743608.4454	990446.5648	17+33.82	POT
WM 10	1743622.8897	990591.7263	18+79.70	POT
WM 11	1743628.0684	990766.1089	20+54.16	POT
WM 12	1743636.2705	990773.8379	20+65.43	POT

HORIZONTAL CONTROL POINTS – PROPOSED SHADY OAKS ROAD				
POINT	NORTHING	EASTING	STATION PROPOSED ALIGNMENT	DESCRIPTION
SHADYOAK01	1743597.8669	989392.3113	10+00.00	POT
PC SHADYOAK01	1743525.4229	989393.8153	10+72.46	PC
PT SHADYOAK01	1743453.9828	989325.1689	11+82.53	PT
PC SHADY02	1743443.9847	988802.7727	17+05.02	PC
PT SHADY02	1743233.3642	988315.5346	22+49.45	PT

BENCHMARKS								
NO.	NORTHING	EASTING	STATION EXISTING ALIGNMENT	OFFSET EXISTING ALIGNMENT	STATION PROPOSED ALIGNMENT	OFFSET PROPOSED ALIGNMENT	ELEVATION	DESCRIPTION
MINOOKA 2	1743599.3740	987993.1290	109+79.55	20.04' LT	44+94.45	30.22' LT	557.14	REBAR W/CAP IN FIELD ENTRANCE
MINOOKA 3	1743651.5350	989476.1880	124+63.54	28.7' LT	59+78.50	51.92' LT	547.55	REBAR W/CAP OFF MINOOKA ROAD
MINOOKA 4	1743637.1680	991209.9130	141+96.22	35.03' RT	77+12.00	35.03' RT	547.73	REBAR W/CAP, SE QUAD TABLER RD

HORIZONTAL CONTROL POINTS – CENTERLINE PROPOSED MINOOKA ROAD					
POINT	NORTHING	EASTING	STATION EXISTING ALIGNMENT	STATION PROPOSED ALIGNMENT	DESCRIPTION
53	1743608.8057	989013.7325	120+00.00		POT
SHADYOAK01	1743597.8669	989392.3113		58+93.24	POT – STA. 10+00 ON SHADY OAKS
MINOOKA3	1743651.5350	989476.1880	124+63.54		CONTROL POINT
PC MINE P11-3	1743607.9776	898879.3124		63+80.35	PC
PT MINE P11-3	1743625.0093	990200.6882		67+02.23	PT
PC MINE P11-4	1743643.2682	990414.6415		69.16.96	PC
54	1743657.1856	990609.7670	135+96.77		POT
PT MINE P11-4	1743659.8119	990714.7019		72+17.52	PT
55	1743664.8410	990915.6449	139+02.74	74+18.53	POT
MINOOKA4	1743637.1680	991209.9130	141+96.22	77+12.00	CONTROL POINT

FILE NAME = 12667-ALGN-02 - IDOT P01	USER NAME =	DESIGNED – KJB	REVISED –
		CHECKED – BDB	REVISED –
	PLOT SCALE =	DRAWN – ACAD	REVISED –
	PLOT DATE = 6-28-2013	CHECKED – ACAD	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MINOOKA ROAD
UTILITY RELOCATION
ALIGNMENT - TIES - BENCHMARKS

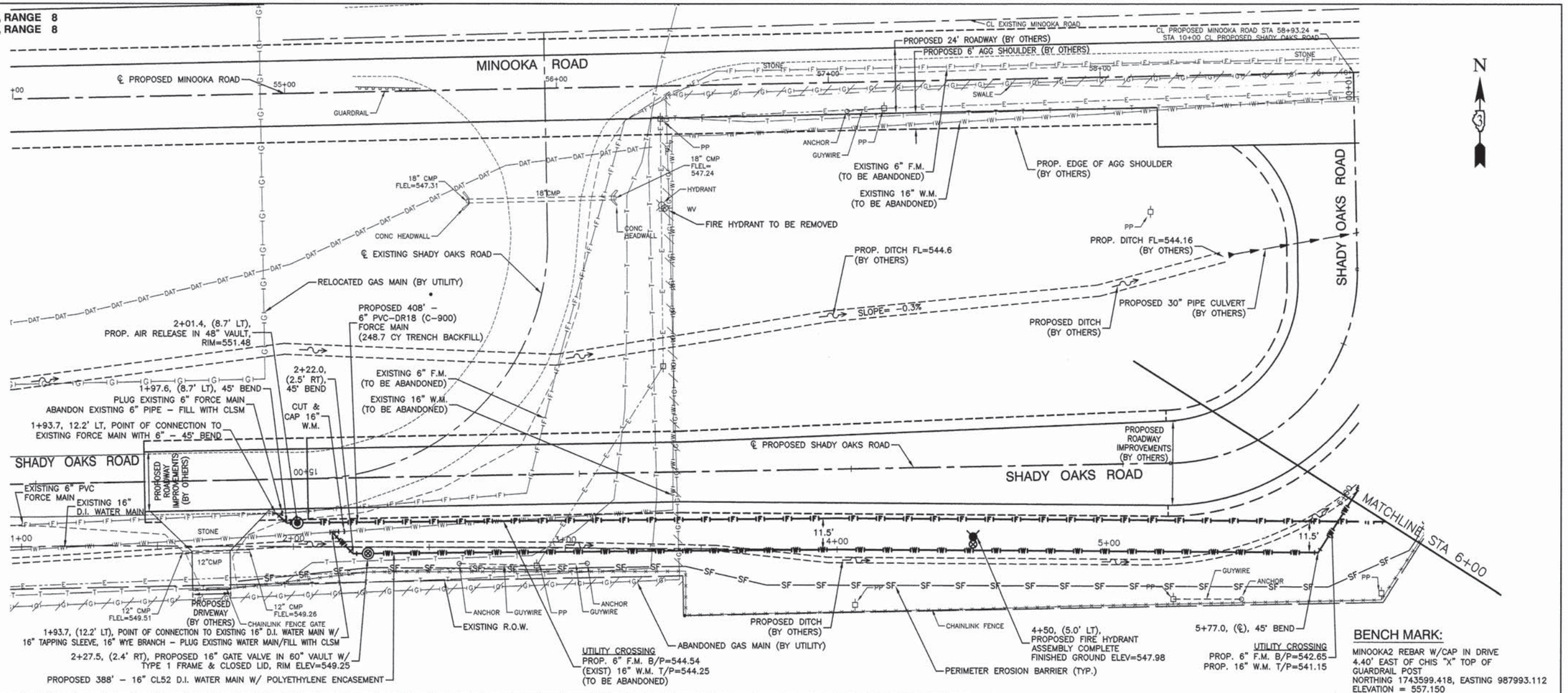
SCALE: 1" = 125' | SHEET NO. 4 OF 10 SHEETS | STA. | TO STA.

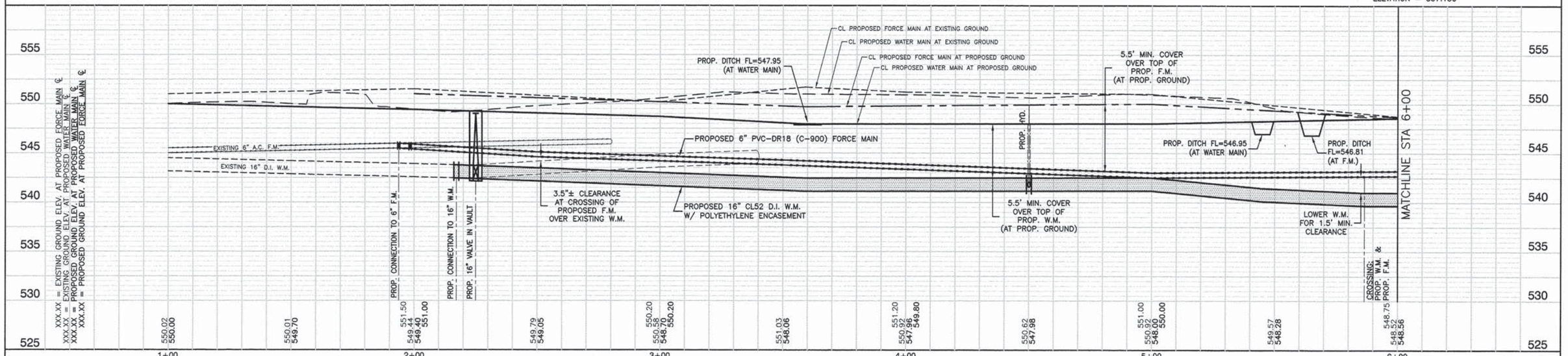
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
400	12-00007-00-BR	GRUNDY	10	4
		CONTRACT NO. 87550		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT M-4003(176)		

SECTION 3, TOWNSHIP 34, RANGE 8
SECTION 4, TOWNSHIP 34, RANGE 8

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
NOTE BOOK
BY
DATE





FILE NAME = 12667-PLPR-02 - IDOT PLPR01	USER NAME =	DESIGNED – KJB	REVISED –
		CHECKED – BDB	REVISED –
	PLOT SCALE =	DRAWN – JJB	REVISED –
	PLOT DATE = 6-26-2013	CHECKED – ACAD	REVISED –

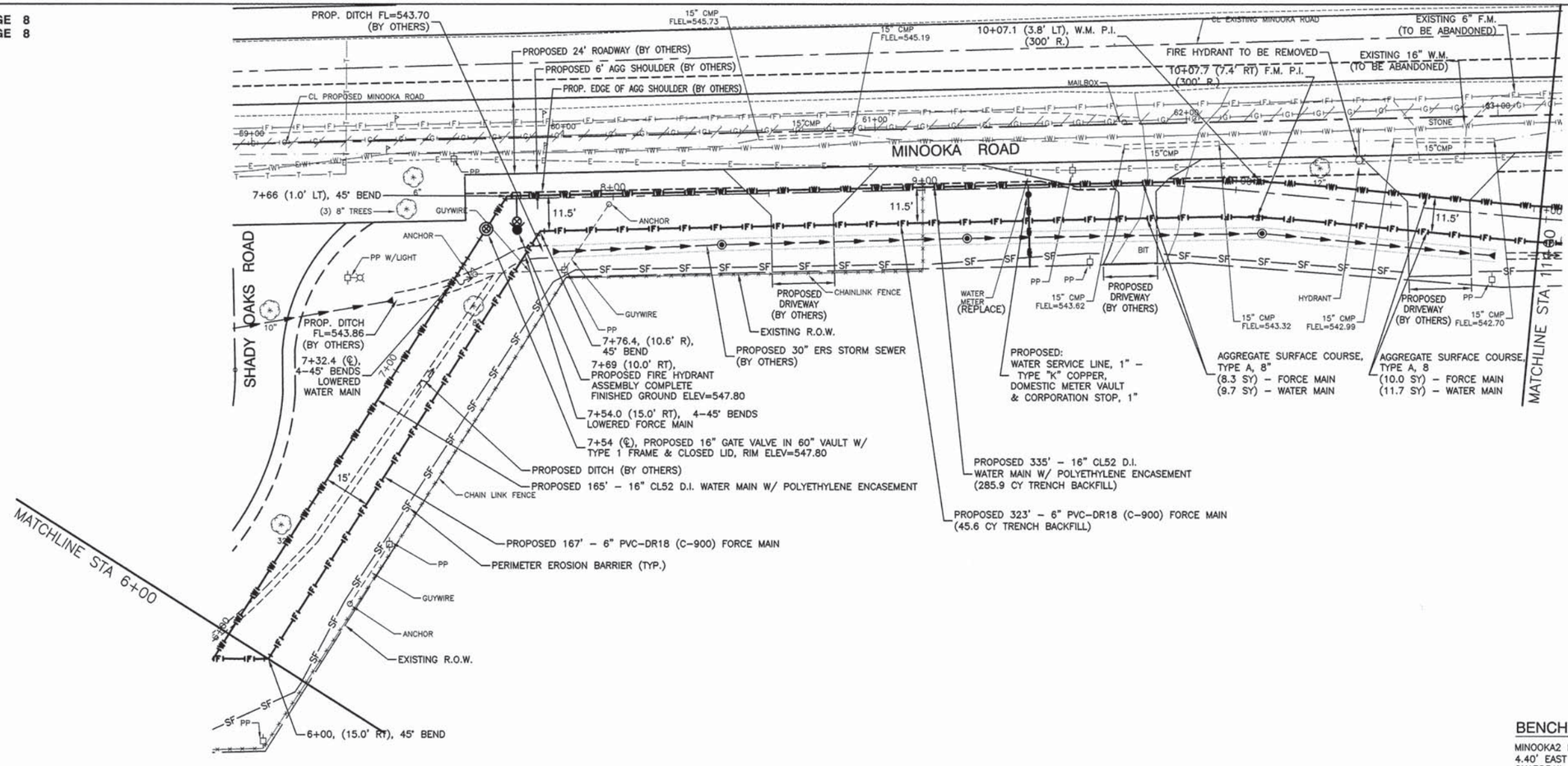
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MINOOKA ROAD
UTILITY RELOCATION
PLAN & PROFILE

SCALE: H 1"=20' V 1"=5' | SHEET NO. 5 OF 10 SHEETS | STA. | TO STA.

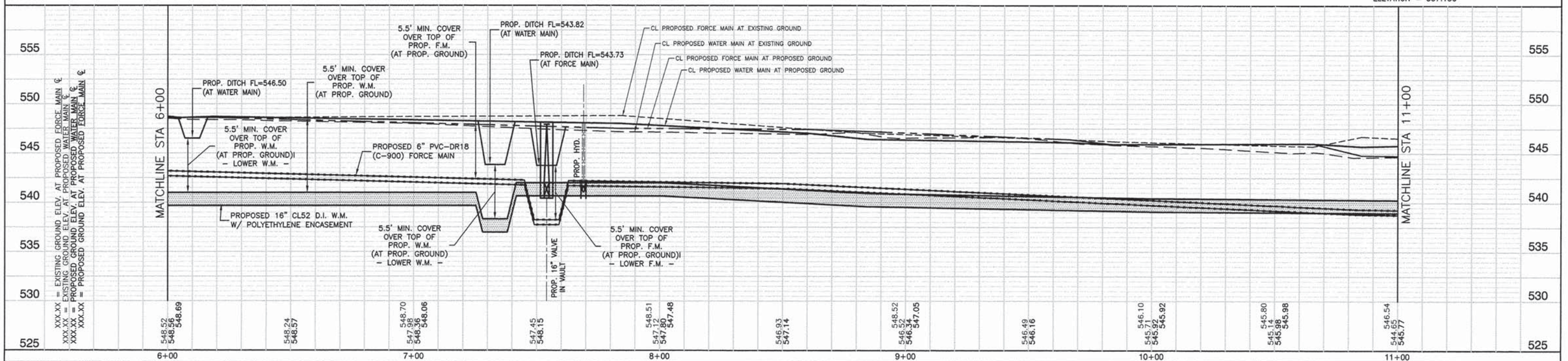
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
400	12-00007-00-BR	GRUNDY	10	5
		CONTRACT NO. 87550		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT M-4003(176)		

SECTION 3, TOWNSHIP 34, RANGE 8
SECTION 4, TOWNSHIP 34, RANGE 8



BENCH MARK:

MINOOKA2 REBAR W/CAP IN DRIVE
4.40' EAST OF CHIS "X" TOP OF GUARDRAIL POST
NORTHING 1743599.418, EASTING 987993.112
ELEVATION = 557.150



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		CHECKED — BDB	REVISED —
	PLOT SCALE =	DRAWN — JJB	REVISED —
	PLOT DATE = 6-28-2013	CHECKED — ACAD	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MINOOKA ROAD
UTILITY RELOCATION
PLAN & PROFILE

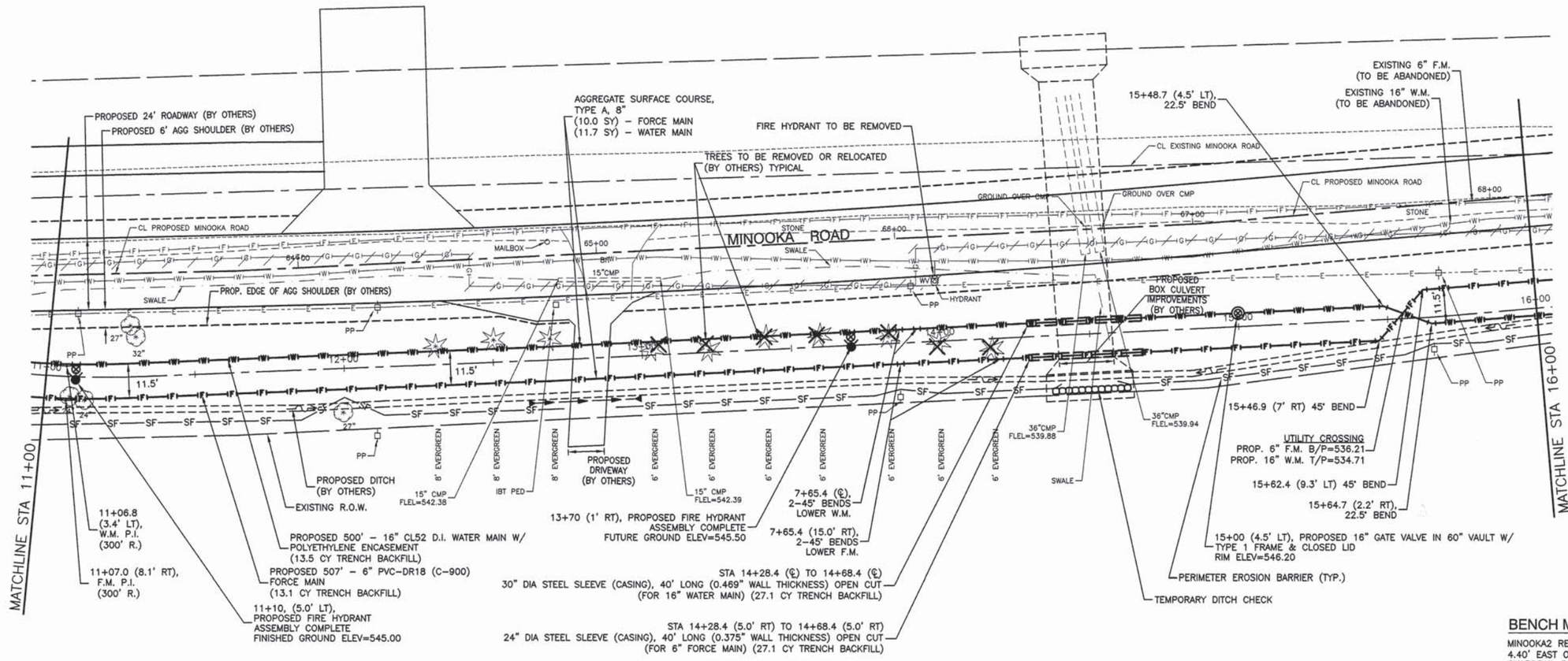
SCALE: H 1"=20' V 1"=5' | SHEET NO. 6 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
400	12-00007-00-BR	GRUNDY	10	6
		CONTRACT NO. 87550		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT M-4003(176)		

PLAN — DATE / BY / SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED / QUAD FILE NAME / NOTE BOOK / NO.

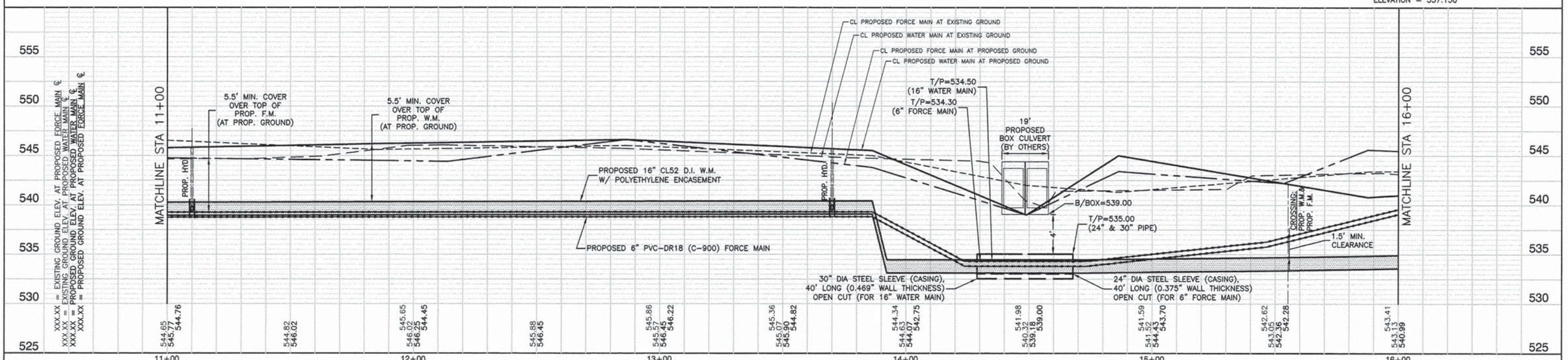
PROFILE — DATE / BY / SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / NOTE BOOK

SECTION 3, TOWNSHIP 34, RANGE 8
SECTION 4, TOWNSHIP 34, RANGE 8



BENCH MARK:

MINOOKA2 REBAR W/CAP IN DRIVE
4.40' EAST OF CHIS "X" TOP OF GUARDRAIL POST
NORTHING 1743599.418, EASTING 987993.112
ELEVATION = 557.150



PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
CROSS CHECKED
B.M. NOTED
NOTE BOOK
BY
DATE

FILE NAME = 12667-PLPR-02 - IDOT PLPR03	USER NAME =	DESIGNED – KJB	REVISED –
		CHECKED – BDB	REVISED –
	PLOT SCALE =	DRAWN – JJB	REVISED –
	PLOT DATE = 6-28-2013	CHECKED – ACAD	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

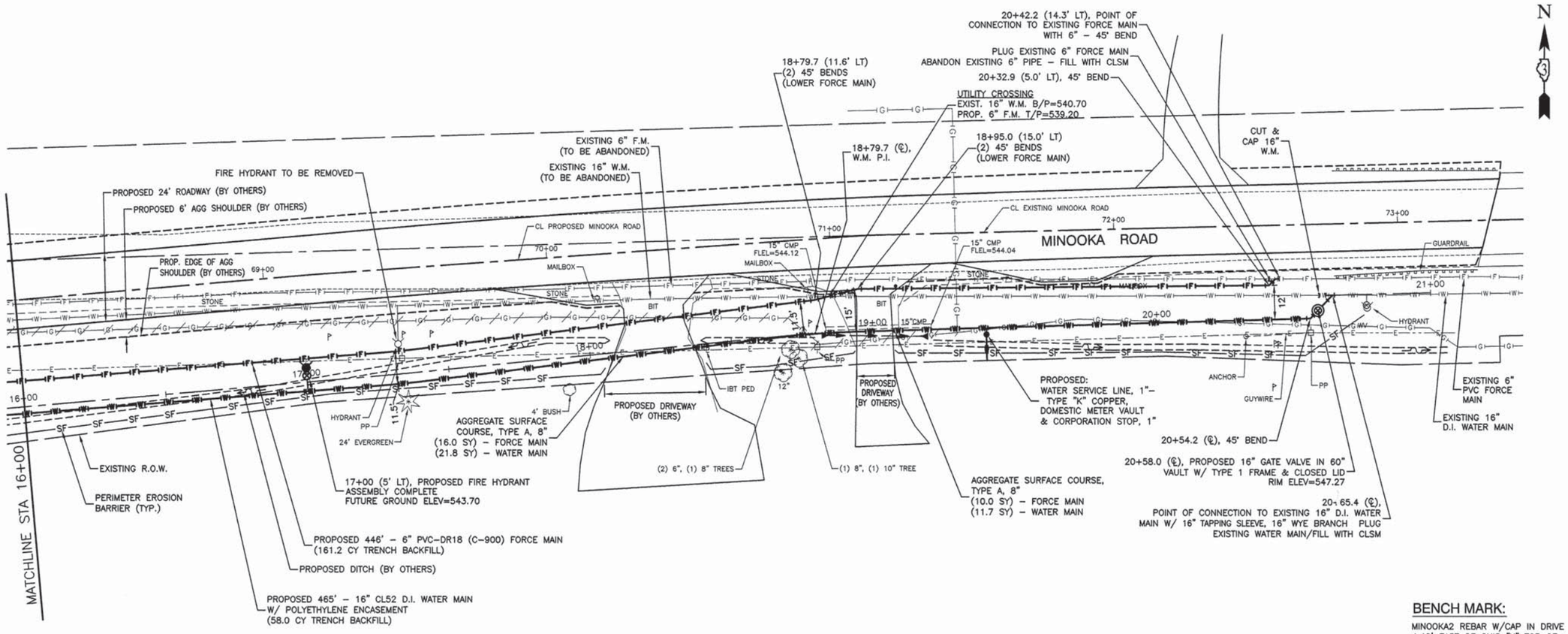
MINOOKA ROAD
UTILITY RELOCATION
PLAN & PROFILE

SCALE: H 1"=20' V 1"=5' | SHEET NO. 7 OF 10 SHEETS | STA. | TO STA.

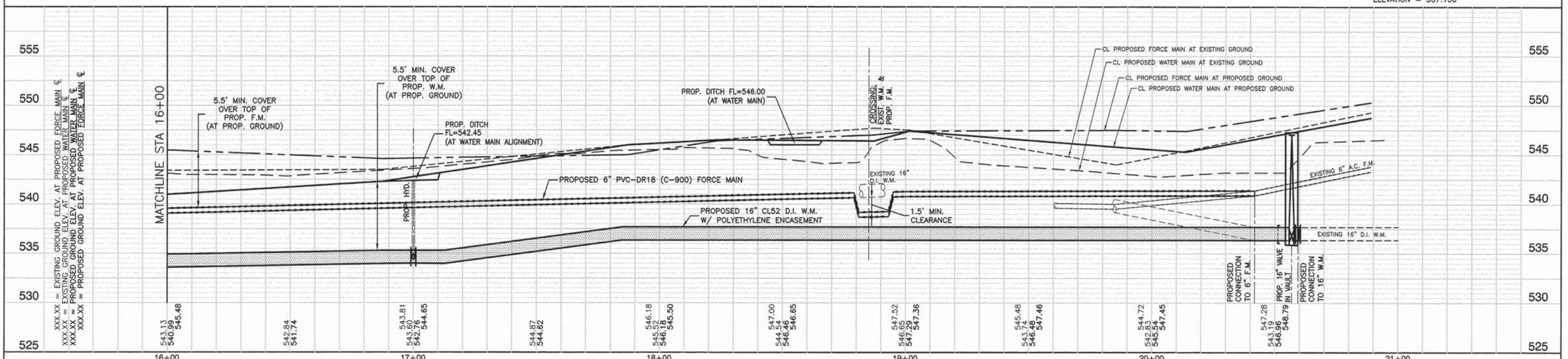
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
400	12-00007-00-BR	GRUNDY	10	7
		CONTRACT NO. 87550		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT M-4003(176)		

SECTION 3, TOWNSHIP 34, RANGE 8
SECTION 4, TOWNSHIP 34, RANGE 8

PLAN — SURVEYED / PLOTTED / QUANTITIES CHECKED / R.O.W. CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME / NOTE BOOK / NO. / BY / DATE



PROFILE — SURVEYED / PLOTTED / QUANTITIES CHECKED / R.O.W. CHECKED / R.T. OF WAY NOTED / NOTE BOOK / BY / DATE



BENCH MARK:

MINOOKA2 REBAR W/CAP IN DRIVE
4.40' EAST OF CHIS "X" TOP OF GUARDRAIL POST
NORTHING 1743599.418, EASTING 987993.112
ELEVATION = 557.150

FILE NAME = 12867-PLPR-02 - IDOT PLPR04	USER NAME =	DESIGNED — KJB	REVISED —
		CHECKED — BDB	REVISED —
	PLOT SCALE =	DRAWN — JJB	REVISED —
	PLOT DATE = 6-28-2013	CHECKED — ACAD	REVISED —

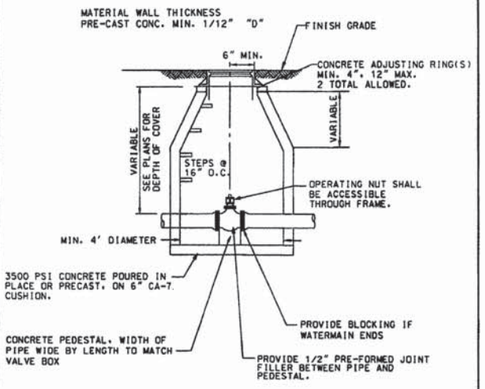
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MINOOKA ROAD
UTILITY RELOCATION
PLAN & PROFILE

SCALE: H 1"=20' V 1"=5' | SHEET NO. 8 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
400	12-00007-00-BR	GRUNDY	10	8
		CONTRACT NO. 87550		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT M-4003(176)		

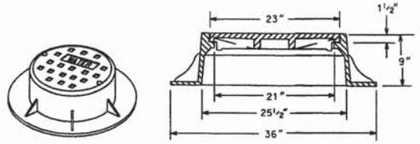
VALVE VAULT FOR WATERMAIN VALVES 8" AND LARGER



MINOOKA STANDARD

VERSION 1.0

VALVE VAULT FRAME AND COVER



1.) THE FRAME AND LID SHALL BE EJIW 1050 FRAME WITH M1 GRATE OR NEENAH R-1550-A FRAME WITH TYPE B LID. THE LID SHALL HAVE TWO CONCEALED PICKHOLES.

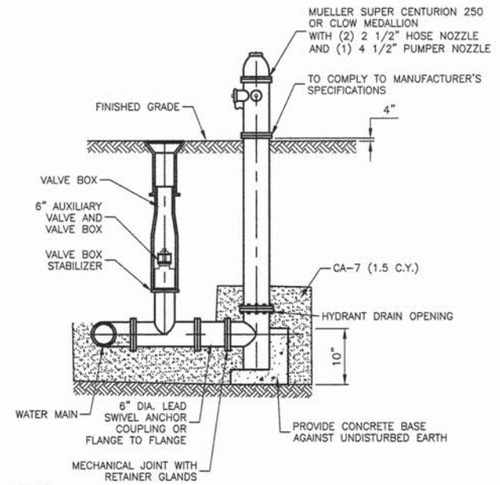
2.) THE LID SHALL HAVE RASIED LETTERS 'WATER'.

3.) THE FRAME AND LID SHALL BE SET ON A MASTIC BED WITH ALL GAPS TUCKPOINTED.

** ALL DIMENSIONS ARE FOR THE NEENAH MODELS. EJIW DIMENSIONS MAY VARY.

MINOOKA STANDARD

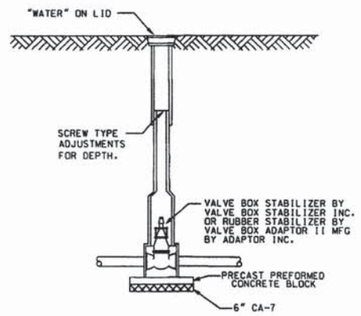
VERSION 1.0



NOTES:
1. HYDRANTS SHALL BE INSTALLED FACING TOWARD THE CURB. NO HYDRANT SHALL BE INSTALLED WITHIN 48" OF ANY OBSTRUCTION NOR SHALL ANY OBSTRUCTION BE PLACED WITHIN 48" OF A HYDRANT.
2. ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE CLOCKWISE WITH NON-RISING STEM.
3. HYDRANT DRAIN HOLE SHALL BE FREE OF CONCRETE.
4. CONCRETE BASE AND BLOCKING MATERIAL SHALL NOT BLOCK NOR OBSTRUCT HYDRANT DRAIN AS SHOWN IN AWWA MANUAL M 17.

FIRE HYDRANT ASSEMBLY COMPLETE

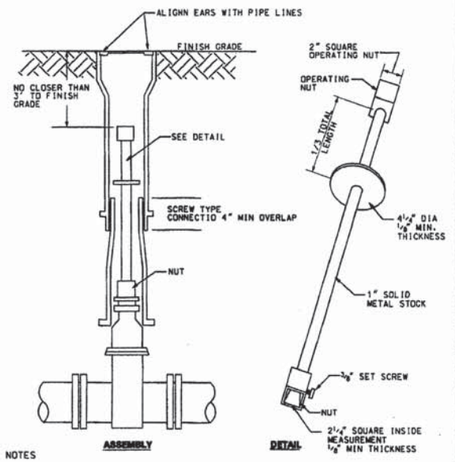
VALVE BOX INSTALLATION FOR 2" TO 6" WATER SERVICES ONLY AND/OR HYDRANT AUXILIARY VALVES



MINOOKA STANDARD

VERSION 1.0

VALVE BOX OPERATING NUT EXTENSION



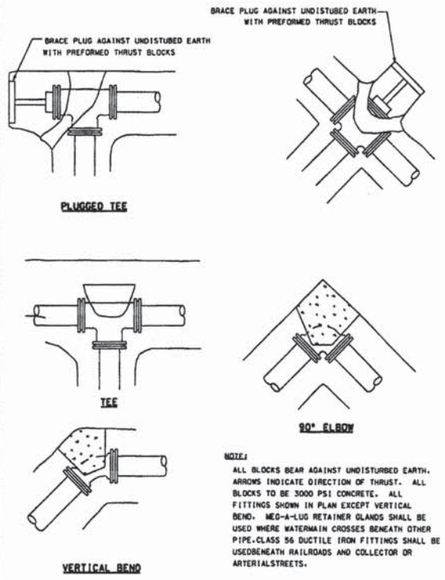
NOTES

1. EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN 6 FEET BELOW FINISHED GRADE.
2. ONLY ONE EXTENSION. MINIMUM OF 3 FEET LONG TO BE USED PER VALVE.
3. ALL EXTENSIONS ARE TO BE MADE OF STEEL AND PAINTED WITH TWO COATS OF METAL PAINT. NO FIELD-FABRICATED EXTENSIONS.
4. VALVE BOX COVER SHALL BE LABELED WATER.

MINOOKA STANDARD

VERSION 1.0

THRUST BLOCK INSTALLATIONS

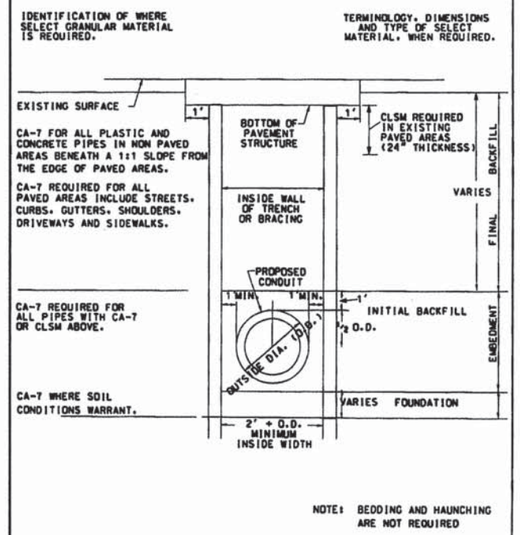


NOTE:
ALL BLOCKS BEAR AGAINST UNDISTURBED EARTH. ARROWS INDICATE DIRECTION OF THRUST. ALL BLOCKS TO BE 3000 PSI CONCRETE. ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND. MEG-A-LUG RETAINER GLANDS SHALL BE USED WHERE WATERMAIN CROSSES BENEATH OTHER PIPE. CLASS 56 DUCTILE IRON FITTINGS SHALL BE USEDBENEATH RAILROADS AND COLLECTOR OR ARTERIALSTREETS.

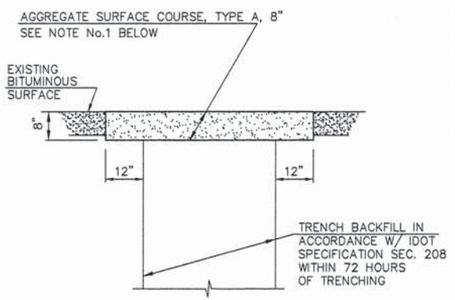
MINOOKA STANDARD

VERSION 1.0

WATERMAIN TRENCH AND FORCE MAIN TRENCH



NOTE: BEDDING AND HAUNCHING ARE NOT REQUIRED

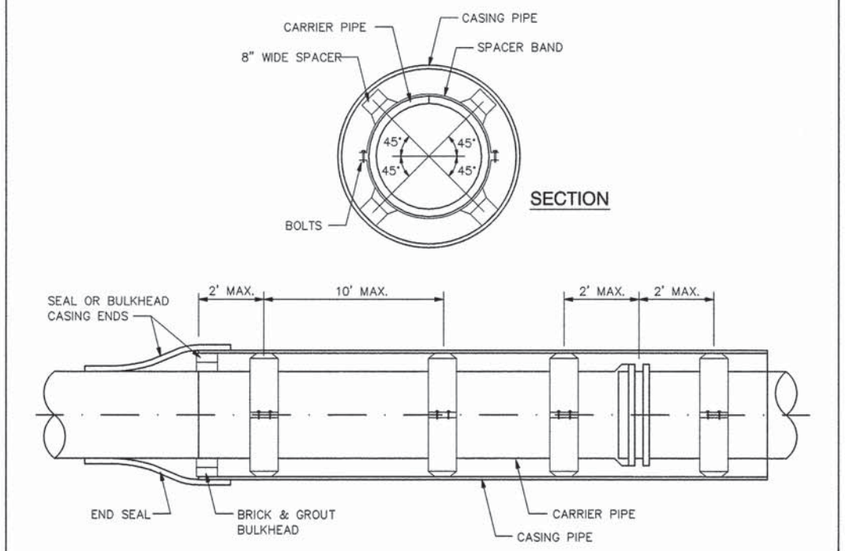


NOTE:
1.) AGGREGATE FOR AGGREGATE SURFACE COURSE, TYPE A, SHALL MEET THE REQUIREMENTS OF SECTION 402 OF THE STANDARD SPECIFICATIONS.

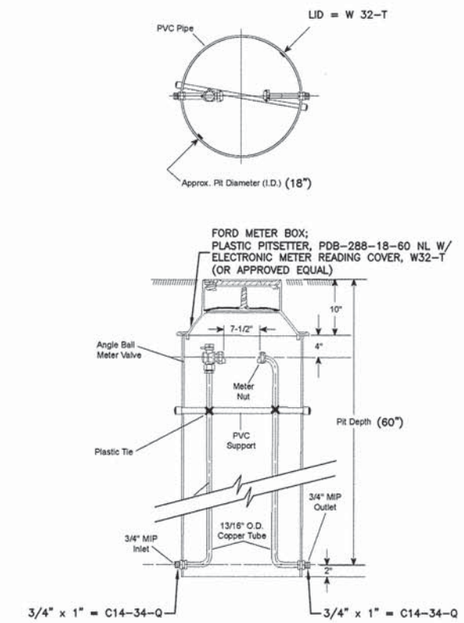
AGGREGATE DRIVEWAY DETAIL

NOT TO SCALE

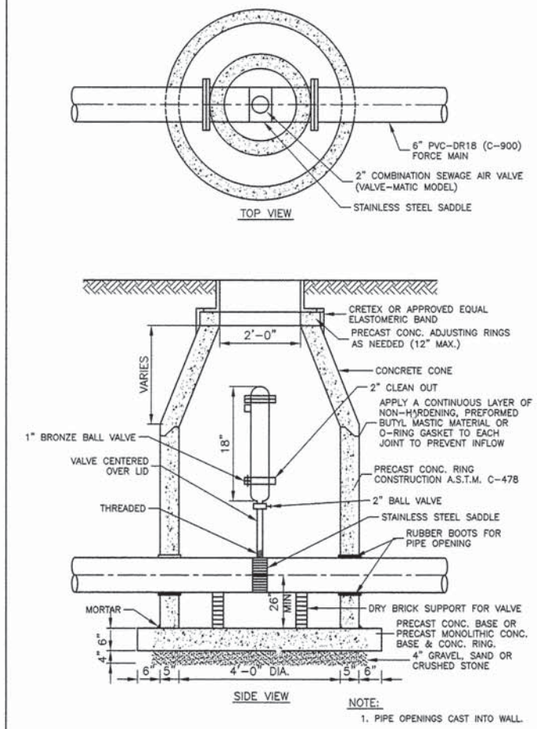
FILE NAME = 12667-DTLS-01 - DT-1	USER NAME =	DESIGNED — KJB	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MINOOKA ROAD UTILITY RELOCATION DETAILS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — BDB	REVISED —			400	12-00007-00-BR	GRUNDY	10	9
	PLOT SCALE =	DRAWN — JJB	REVISED —					CONTRACT NO. 87550		
	PLOT DATE = 6-28-2013	CHECKED — ACAD	REVISED —		SCALE: SHEET NO. 9 OF 10 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT M-4003(176)		



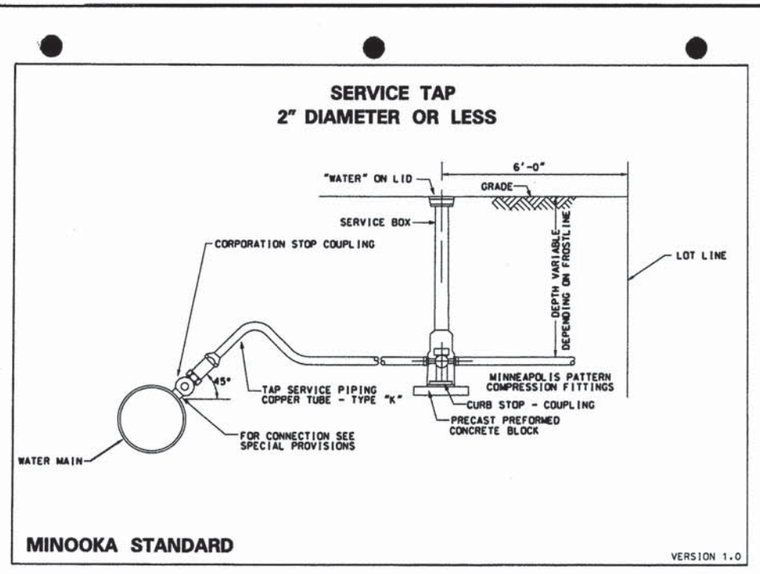
CASING SPACER INSTALLATION

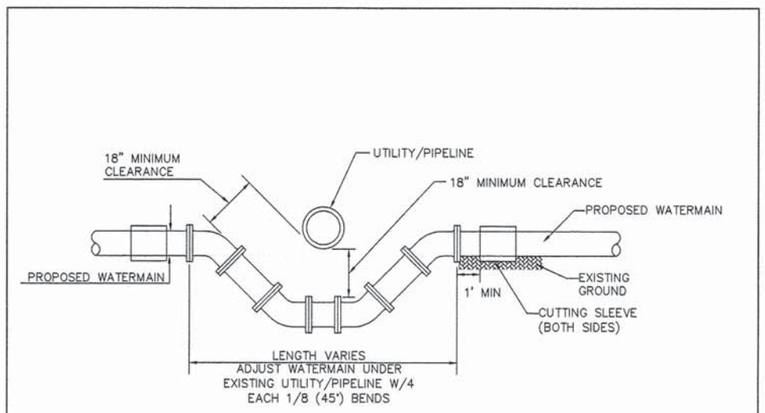


WATER METER VAULT DETAIL
(DOMESTIC METER VAULT)



AIR RELEASE DETAIL
NOT TO SCALE





WATERMAIN ADJUSTMENT UNDER UTILITY/PIPELINE

FILE NAME = 12667-DTLS-01 - DT-2	USER NAME =	DESIGNED — KJB	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MINOOKA ROAD UTILITY RELOCATION DETAILS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — BDB	REVISED —			400	12-00007-00-BR	GRUNDY	10	10
	PLOT SCALE =	DRAWN — JJB	REVISED —					CONTRACT NO. 87550		
	PLOT DATE = 6-28-2013	CHECKED — ACAD	REVISED —		SCALE: SHEET NO. 10 OF 10 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT M-4003(176)		