CITY OF LUCAS, TEXAS

2002 WATER IMPROVEMENT PROJECTS - PHASE II
12" & 8" WATER LINE

CITY OFFICIALS

TOM FLEPS	MAYOR
JIM STROUP	MAYOR PRO-TEM
LINDA SHOUP	CITY ADMINISTRATOR

CITY COUNCIL

MIKE MARAFINE	JIM LANDES
STEVE CHAPMAN	DAVID HARVEY

INDEX OF SHEETS

1	TITLE SHEET
2	LOCATION MAP/GENERAL NOTES
3–36	PROPOSED PLAN & PROFILE SHEETS
37	STANDARD WATERLINE DETAILS
38	THRUST BLOCKING DETAILS

NOT AS-BUILTS

RECOMMENDED FOR APPROVAL
HUNTER ASSOCIATES TEXAS, LTD.
CONSULTING ENGINEERS
DATE 4/28/03
APPROVED:
DATE

STATE OF TEXAS
E. R. McDOW, JR.
43926
LICENSED PROFESSIONAL ENGINEER
5/10/03

HUNTER ASSOCIATES TEXAS, LTD.
ENGINEERS/PLANNERS/SURVEYORS
a TRC company
8140 Walnut Hill Lane / Suite 500 / Dallas, Texas 75231–4399
Ph. 214.369.9171 / Fax 214.696.3795
6990 Main Street / Frisco, Texas 75034 / 972.712.6400
505 E. Huntland Dr. Suite 250 / Austin, Texas / 512.454.8716

PROJECT NO. 37510–0050

2002 WATER IMPROVEMENT PROJECTS – PHASE II * LUCAS, TEXAS * MAY 2003 * 37510–0050

Construction Drawings
Lucas Rd 12"
Winningkoff Rd 12"
Christian 8"

NTMWD NOTES

A. NORTH TEXAS MUNICIPAL WATER DISTRICT (NTMWD) 20-INCH AND 42-INCH WATER TRANSMISSION PIPELINES RESPECTIVELY ARE LOCATED WITHIN LIMITS OF CONSTRUCTION.

B. OPERATION OF HEAVY EARTHMOVING EQUIPMENT, COMPACTION EQUIPMENT OR HEAVY CONSTRUCTION EQUIPMENT, SUCH AS CONCRETE TRUCKS, SHALL BE RESTRICTED TO SPECIFIC CROSSING POINTS ACROSS NTMWN EASEMENTS, AS APPROVED BY THE NTMWD. THE CROSSING SHALL BE DESIGNATED AND VERIFIED TO PROVIDE A MINIMUM OF FIVE-FEET OF COVER.

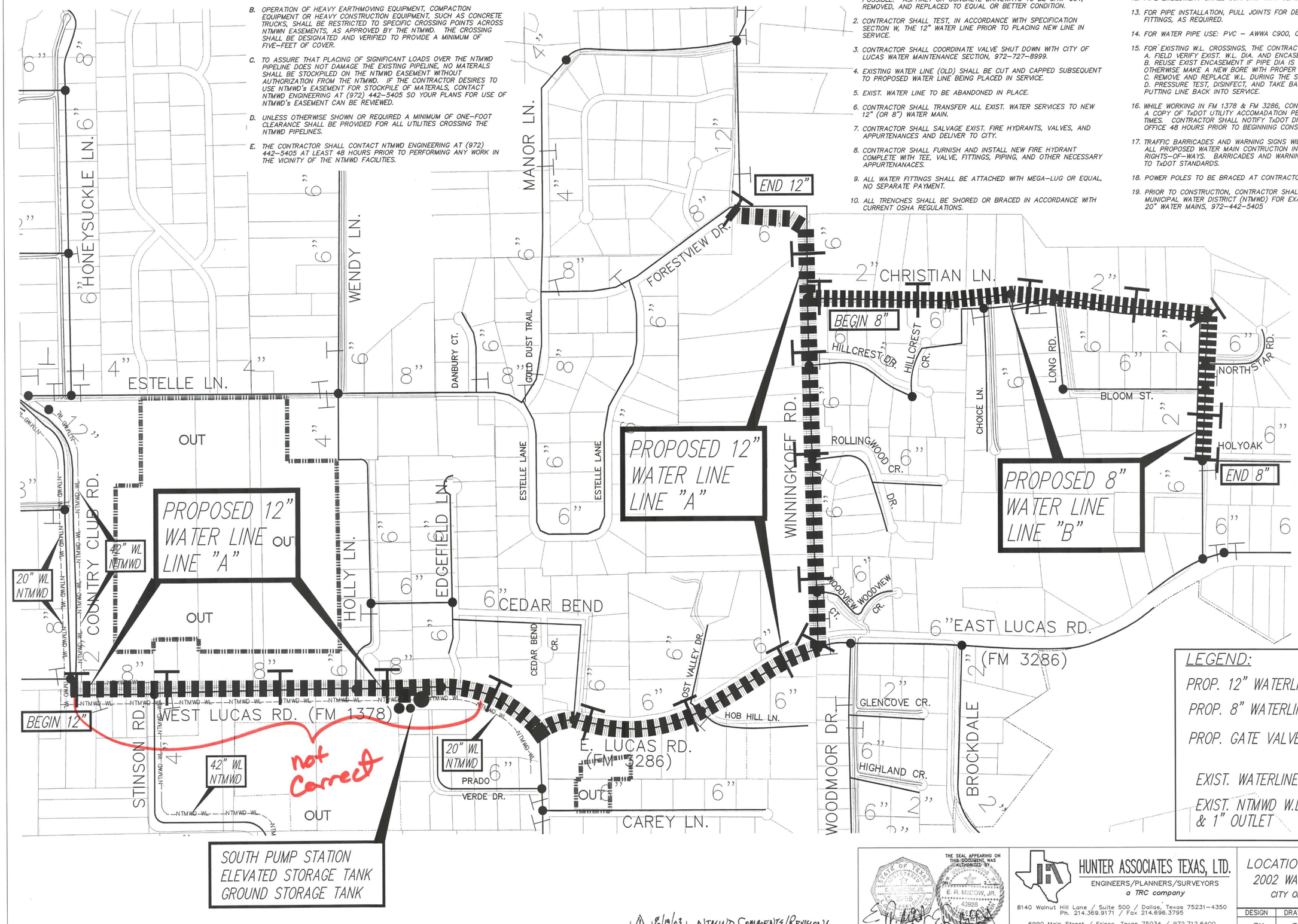
C. TO ASSURE THAT PLACING OF SIGNIFICANT LOADS OVER THE NTMWD PIPELINE DOES NOT DAMAGE THE EXISTING PIPELINE, NO MATERALS SHALL BE STOCKPILED ON THE NTMWD EASEMENT WITHOUT AUTHORIZATION FROM THE NTMWD. IF THE CONTRACTOR DESIRES TO USE NTMWD's EASEMENT FOR STOCKPILE OF MATERALS, CONTACT NTMWD ENGINEERING AT (972) 442-5405 SO YOUR PLANS FOR USE OF NTMWD's EASEMENT CAN BE REVIEWED.

D. UNLESS OTHERWISE SHOWN OR REQUIRED A MINIMUM OF ONE-FOOT CLEARANCE SHALL BE PROVIDED FOR ALL UTILITIES CROSSING THE NTMWD PIPELINES.

E. THE CONTRACTOR SHALL CONTACT NTMWD ENGINEERING AT (972) 442-5405 AT LEAST 48 HOURS PRIOR TO PERFORMING ANY WORK IN THE VICINITY OF THE NTMWD FACILITIES.

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE OWNER FOR THE RELOCATION OF ALL UTILITIES AND ALL DRIVEWAY CROSSINGS. CONTRACTOR TO RESTORE DRIVEWAY CROSSINGS AS RAPIDLY AS POSSIBLE. ASPHALT OR CONCRETE DRIVEWAYS TO BE SAW-CUT, REMOVED, AND REPLACED TO EQUAL OR BETTER CONDITION.
2. CONTRACTOR SHALL TEST, IN ACCORDANCE WITH SPECIFICATION SECTION W, THE 12" WATER LINE PRIOR TO PLACING NEW LINE IN SERVICE.
3. CONTRACTOR SHALL COORDINATE VALVE SHUT DOWN WITH CITY OF LUCAS WATER MAINTENANCE SECTION, 972-727-8999.
4. EXISTING WATER LINE (OLD) SHALL BE CUT AND CAPPED SUBSEQUENT TO PROPOSED WATER LINE BEING PLACED IN SERVICE.
5. EXIST. WATER LINE TO BE ABANDONED IN PLACE.
6. CONTRACTOR SHALL TRANSFER ALL EXIST. WATER SERVICES TO NEW 12" (OR 8") WATER MAIN.
7. CONTRACTOR SHALL SALVAGE EXIST. FIRE HYDRANTS, VALVES, AND APPURTENANCES AND DELIVER TO CITY.
8. CONTRACTOR SHALL FURNISH AND INSTALL NEW FIRE HYDRANT COMPLETE WITH TEE, VALVE, FITTINGS, PIPING, AND OTHER NECESSARY APPURTENANACES.
9. ALL WATER FITTINGS SHALL BE ATTACHED WITH MEGA-LUG OR EQUAL, NO SEPARATE PAYMENT.
10. ALL TRENCHES SHALL BE SHORED OR BRACED IN ACCORDANCE WITH CURRENT OSHA REGULATIONS.
11. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PREVENT DAMAGE TO TREES AND PROPERTY OWNERS LANDSCAPING.
12. PIPE EMBEDMENT SHALL CONFORM WITH CLASS B+ EMBEDMENT DETAIL.
13. FOR PIPE INSTALLATION, PULL JOINTS FOR DEFLECTION OR USE FITTINGS, AS REQUIRED.
14. FOR WATER PIPE USE: PVC – AWWA C900, CLASS DR18, BLUE COLOR
15. FOR EXISTING W.L. CROSSINGS, THE CONTRACTOR SHALL:
    A. FIELD VERIFY EXIST. W.L. DIA. AND ENCASEMENT PIPE DIA.
    B. REUSE EXIST ENCASEMENT IF PIPE DIA IS LARGE ENOUGH, OTHERWISE MAKE A NEW BORE WITH PROPER ENCASEMENT PIPE DIA.
    C. REMOVE AND REPLACE W.L. DURING THE SAME WORK DAY.
    D. PRESSURE TEST, DISINFECT, AND TAKE BACTERIA SAMPLES BEFORE PUTTING LINE BACK INTO SERVICE.
16. WHILE WORKING IN FM 1378 & FM 3286, CONTRACTOR SHALL MAINTAIN A COPY OF TxDOT UTILITY ACCOMADATION PERMIT ON JOB SITE AT ALL TIMES. CONTRACTOR SHALL NOTIFY TxDOT DISTRICT MAINTENANCE OFFICE 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
17. TRAFFIC BARRICADES AND WARNING SIGNS WILL BE REQUIRED ALONG ALL PROPOSED WATER MAIN CONTRUCTION IN CITY STREETS AND TxDOT RIGHTS-OF-WAYS. BARRICADES AND WARNING SIGNS SHALL CONFIRM TO TxDOT STANDARDS.
18. POWER POLES TO BE BRACED AT CONTRACTORS EXPENSE
19. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CONTACT NORTH TEXAS MUNICIPAL WATER DISTRICT (NTMWD) FOR EXACT LOCATION OF 42" AND 20" WATER MAINS, 972-442-5405



NO.	DATE	REVISION DESCRIPTION
1	6/19/03	NTMWD COMMENTS/REVISIONS

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY E. R. McDOW, JR. 6/19/03

HUNTER ASSOCIATES TEXAS, LTD.
ENGINEERS/PLANNERS/SURVEYORS
a TRC company
8140 Walnut Hill Lane / Suite 500 / Dallas, Texas 75231-4350
Ph. 214.369.9171 / Fax 214.696.3795
6990 Main Street / Frisco, Texas 75034 / 972.712.6400
505 E. Huntland Dr. Suite 250 / Austin, Texas / 512.454.8716

LOCATION MAP/GENERAL NOTES
2002 WATER IMPROVEMENT – PHASE II
CITY OF LUCAS, COLLIN COUNTY, TEXAS

DESIGN	DRAWN	DATE	JOB NUMBER	SHEET NO.
JDM	JDM	NOV., 2002	37510-0050	2

12" Crosses to the North side between sta 42+00 and sta 43+00

MATCH LINE STA. 41+00

FM 1378 (LUCAS ROAD)

FM 3286 (EAST LUCAS ROAD)

MATCH LINE STA. 47+00

DRIVEWAY

WOOD MON.

24" RCP

12" RCP

30.0'

MAX. 7.0'

42+00 43+00 44+00 45+00 46+00

R.O.W.

EX. 6" WL

NTMWD WL

FO

PT = 41+57.76

PC = 44+03.94

PT = 45+81.01

FM 1378 STA. 253+26.3= FM 3286 STA. 0+00

12" W.L. STA. 46+03= FM 1378 STA. 252+75.60

55' BORE W/ STEEL ENCASEMENT

INSTALL 600 L.F. OF 12" P.V.C. AWWA C900 DR18 WATER LINE

STA 44+00
INSTALL:
1-FIRE HYDRANT ASSEMBLY

NTMWD 20" WATERLINE 8' OUTSIDE OF R.O.W. LOCATED IN 30' ESMT.

EXIST. BLOW OFF VALVE

W.L. C/L CURVE DATA:
Δ=32°00'53"
R=318.34'
L=177.88'
T=91.33'

STA 45+81
INSTALL:
1-12" TEE
1-12" GATE VALVE
1-12"x 6" REDUCER
1-6" SLEEVE
1-WET CONNECTION

CUT AND PLUG 6" W.L. RUNNING EAST TO FM 3286

0 20 40 60
GRAPHIC SCALE IN FEET
1"=20' HORIZONTAL
1"= 5' VERTICAL

GENERAL NOTES:

1. REFER TO GENERAL NOTES ON SHEET 2

CAUTION !!
BURIED UTILITIES IN THIS AREA. CONTACT APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. (1-800-DIG-TESS)

BENCHMARKS:

BM# 1 - "□" CUT WITH "X" INSIDE AT N.W. CORNER OF LUCAS RD. & COUNTRY CLUB RD. 3.70 FT EAST OF FLAG POLE. ELEV. = 611.87

BM# 2 - TOP OF THREADED BOLT AT CENTER POINT OF "X" CUT AT S.E. CORNER INTERSECTION OF F.M. 1378 & F.M. 3286, 3.40 FT N.W. OF BUILDING CORNER. ELEV. = 571.20

BM# 3 - TOP OF BOLT OF S.W. SIDE OF FIRE HYDRANT AT S.W. CORNER OF INTERSECTION WOODMOOR & F.M. 3286. BOLT HAS TAG LABELED "BURY" ATTACHED. ELEV. = 552.09

41+00 42+00 43+00 44+00 45+00 46+00 47+00

590 580 570 560

MATCH LINE STA. 41+00

MATCH LINE STA. 47+00

EXIST. GRADE @ W.L.

4' MINIMUM COVER

STA 44+00
INSTALL:
1-FIRE HYDRANT ASSEMBLY

STA 45+81
INSTALL:
1-12" TEE
1-12" GATE VALVE
1-12"x 6" REDUCER
1-6" SLEEVE
1-WET CONNECTION

12" W.L. STA. 46+03= FM 1378 STA. 252+75.60

12" RCP

4' MINIMUM COVER

12" P.V.C. AWWA C900 DR18

55' BORE W/ STEEL ENCASEMENT

NO.	DATE	REVISION DESCRIPTION
1	6/19/03	NTMWD COMMENTS/REVISIONS

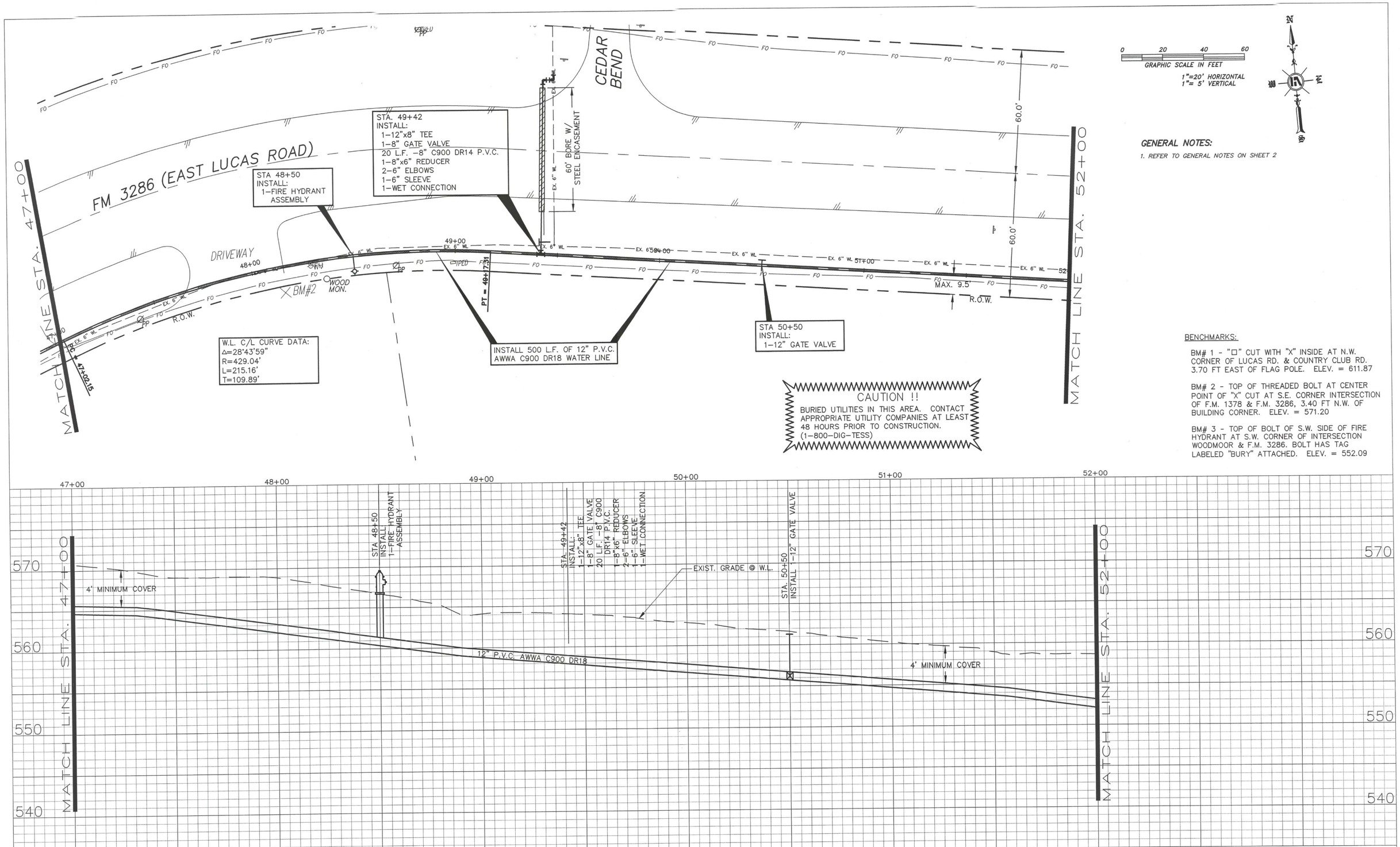
STATE OF TEXAS — E. R. ESPOY, JR. — 6/19/03

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY E. H. MADDOX, JR. — 43938 — 6/19/03

HUNTER ASSOCIATES TEXAS, LTD.
ENGINEERS/PLANNERS/SURVEYORS
a TRC company
8140 Walnut Hill Lane / Suite 500 / Dallas, Texas 75231-4350
Ph. 214.369.9171 / Fax 214.696.3795
6990 Main Street / Frisco, Texas 75034 / 972.712.6400
505 E. Huntland Dr. Suite 250 / Austin, Texas / 512.454.8716

LINE A-STA. 41+00 TO 47+00
2002 WATER IMPROVEMENTS - PHASE II
CITY OF LUCAS, COLLIN COUNTY, TEXAS

DESIGN	DRAWN	DATE	JOB NUMBER	SHEET NO.
JDM/JDS	JDM/JDS	MAR., 2003	37510-0050	11



GENERAL NOTES:

1. REFER TO GENERAL NOTES ON SHEET 2

CAUTION !!

BURIED UTILITIES IN THIS AREA. CONTACT APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. (1-800-DIG-TESS)

BENCHMARKS:

BM# 1 - "□" CUT WITH "X" INSIDE AT N.W. CORNER OF LUCAS RD. & COUNTRY CLUB RD. 3.70 FT EAST OF FLAG POLE. ELEV. = 611.87

BM# 2 - TOP OF THREADED BOLT AT CENTER POINT OF "X" CUT AT S.E. CORNER INTERSECTION OF F.M. 1378 & F.M. 3286, 3.40 FT N.W. OF BUILDING CORNER. ELEV. = 571.20

BM# 3 - TOP OF BOLT OF S.W. SIDE OF FIRE HYDRANT AT S.W. CORNER OF INTERSECTION WOODMOOR & F.M. 3286. BOLT HAS TAG LABELED "BURY" ATTACHED. ELEV. = 552.09

NO.	DATE	REVISION DESCRIPTION

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY

ON _____, 2____.

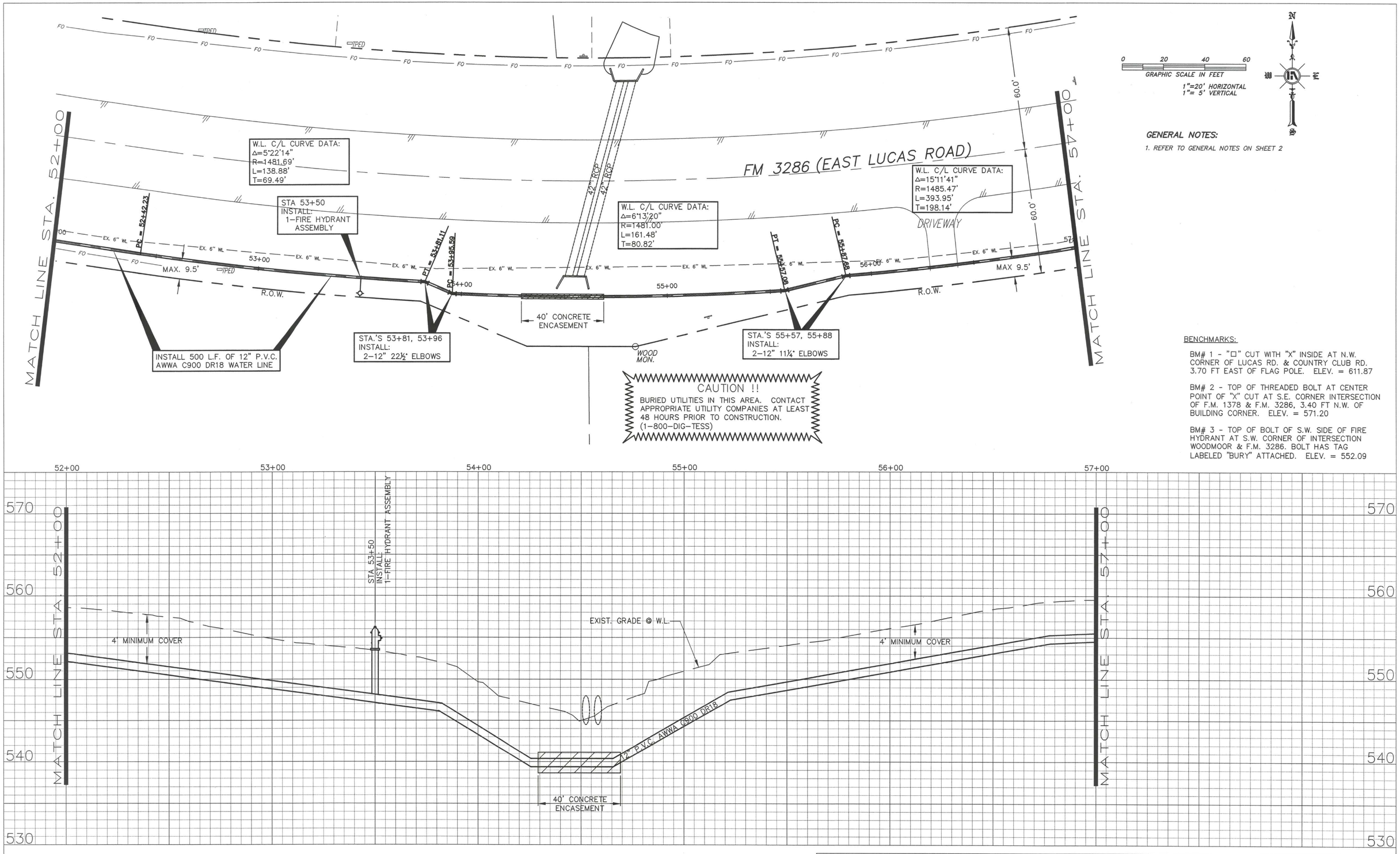
STATE OF TEXAS — E. R. McDOW, JR. — 43626 — LICENSED PROFESSIONAL ENGINEER

5/16/03

HUNTER ASSOCIATES TEXAS, LTD.
ENGINEERS/PLANNERS/SURVEYORS
a TRC company
8140 Walnut Hill Lane / Suite 500 / Dallas, Texas 75231-4350
Ph. 214.369.9171 / Fax 214.696.3795
6990 Main Street / Frisco, Texas 75034 / 972.712.6400
505 E. Huntland Dr. Suite 250 / Austin, Texas / 512.454.8716

LINE A-STA. 47+00 TO 52+00
2002 WATER IMPROVEMENTS - PHASE II
CITY OF LUCAS, COLLIN COUNTY, TEXAS

DESIGN	DRAWN	DATE	JOB NUMBER	SHEET NO.
JDM/JDS	JDM/JDS	MAR., 2003	37510-0050	12



0 20 40 60
GRAPHIC SCALE IN FEET
1"=20' HORIZONTAL
1"= 5' VERTICAL

N W E S

GENERAL NOTES:

1. REFER TO GENERAL NOTES ON SHEET 2

BENCHMARKS:

BM# 1 - "□" CUT WITH "X" INSIDE AT N.W. CORNER OF LUCAS RD. & COUNTRY CLUB RD. 3.70 FT EAST OF FLAG POLE. ELEV. = 611.87

BM# 2 - TOP OF THREADED BOLT AT CENTER POINT OF "X" CUT AT S.E. CORNER INTERSECTION OF F.M. 1378 & F.M. 3286, 3.40 FT N.W. OF BUILDING CORNER. ELEV. = 571.20

BM# 3 - TOP OF BOLT OF S.W. SIDE OF FIRE HYDRANT AT S.W. CORNER OF INTERSECTION WOODMOOR & F.M. 3286. BOLT HAS TAG LABELED "BURY" ATTACHED. ELEV. = 552.09

NO.	DATE	REVISION DESCRIPTION

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY

ON _____, 2___.

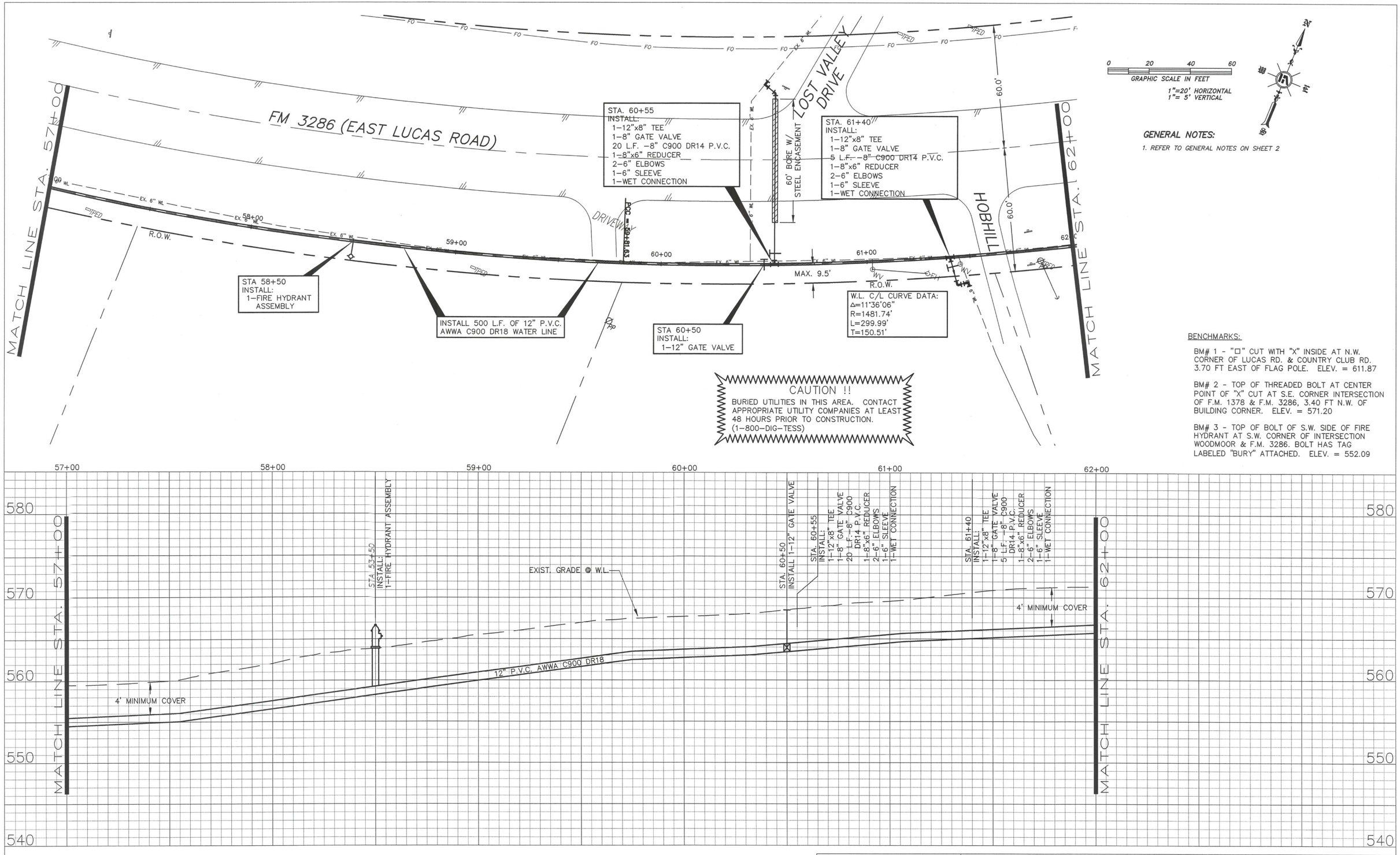
E. R. McDOW, JR. 43926 TEXAS

E.R. McDow 6/18/03

HUNTER ASSOCIATES TEXAS, LTD.
ENGINEERS/PLANNERS/SURVEYORS
a TRC company
8140 Walnut Hill Lane / Suite 500 / Dallas, Texas 75231-4350
Ph. 214.369.9171 / Fax 214.696.3795
6990 Main Street / Frisco, Texas 75034 / 972.712.6400
505 E. Huntland Dr. Suite 250 / Austin, Texas / 512.454.8716

LINE A-STA. 52+00 TO 57+00
2002 WATER IMPROVEMENTS - PHASE II
CITY OF LUCAS, COLLIN COUNTY, TEXAS

DESIGN	DRAWN	DATE	JOB NUMBER	SHEET NO.
JDM/JDS	JDM/JDS	MAR., 2003	37510-0050	13



GENERAL NOTES:

1. REFER TO GENERAL NOTES ON SHEET 2

BENCHMARKS:

BM# 1 - "□" CUT WITH "X" INSIDE AT N.W. CORNER OF LUCAS RD. & COUNTRY CLUB RD. 3.70 FT EAST OF FLAG POLE. ELEV. = 611.87

BM# 2 - TOP OF THREADED BOLT AT CENTER POINT OF "X" CUT AT S.E. CORNER INTERSECTION OF F.M. 1378 & F.M. 3286, 3.40 FT N.W. OF BUILDING CORNER. ELEV. = 571.20

BM# 3 - TOP OF BOLT OF S.W. SIDE OF FIRE HYDRANT AT S.W. CORNER OF INTERSECTION WOODMOOR & F.M. 3286. BOLT HAS TAG LABELED "BURY" ATTACHED. ELEV. = 552.09

NO.	DATE	REVISION DESCRIPTION

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY

ON _____, 2____.

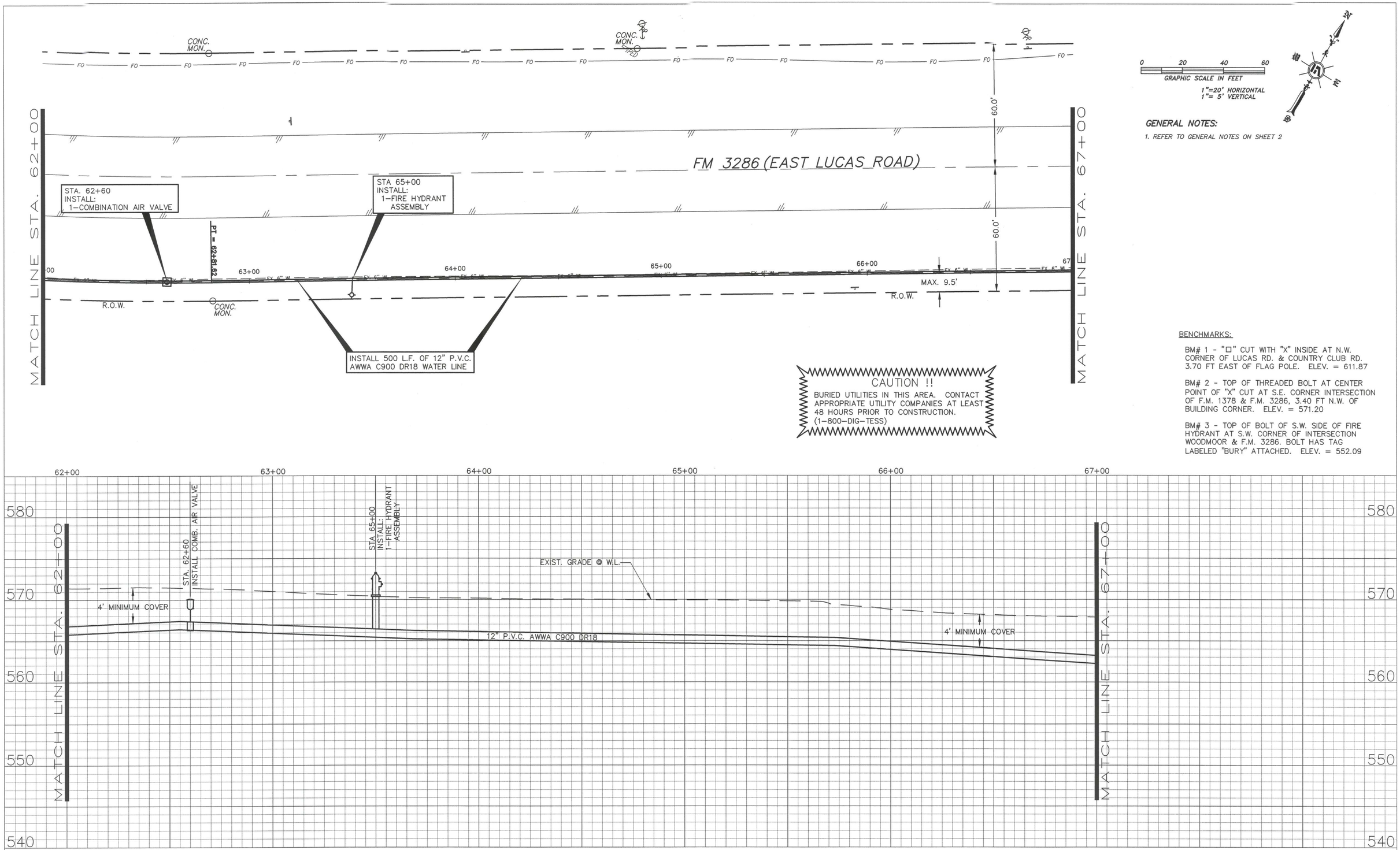
STATE OF TEXAS — E. H. HUNTER, JR. — 33929

5/16/03

HUNTER ASSOCIATES TEXAS, LTD.
ENGINEERS/PLANNERS/SURVEYORS
a TRC company
8140 Walnut Hill Lane / Suite 500 / Dallas, Texas 75231-4350
Ph. 214.369.9171 / Fax 214.696.3795
6990 Main Street / Frisco, Texas 75034 / 972.712.6400
505 E. Huntland Dr. Suite 250 / Austin, Texas / 512.454.8716

LINE A-STA. 57+00 TO 62+00
2002 WATER IMPROVEMENTS - PHASE II
CITY OF LUCAS, COLLIN COUNTY, TEXAS

DESIGN	DRAWN	DATE	JOB NUMBER	SHEET NO.
JDM/JDS	JDM/JDS	MAR., 2003	37510-0050	14



CAUTION !!

BURIED UTILITIES IN THIS AREA. CONTACT APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. (1-800-DIG-TESS)

GENERAL NOTES:

1. REFER TO GENERAL NOTES ON SHEET 2

BENCHMARKS:

BM# 1 - "□" CUT WITH "X" INSIDE AT N.W. CORNER OF LUCAS RD. & COUNTRY CLUB RD. 3.70 FT EAST OF FLAG POLE. ELEV. = 611.87

BM# 2 - TOP OF THREADED BOLT AT CENTER POINT OF "X" CUT AT S.E. CORNER INTERSECTION OF F.M. 1378 & F.M. 3286, 3.40 FT N.W. OF BUILDING CORNER. ELEV. = 571.20

BM# 3 - TOP OF BOLT OF S.W. SIDE OF FIRE HYDRANT AT S.W. CORNER OF INTERSECTION WOODMOOR & F.M. 3286. BOLT HAS TAG LABELED "BURY" ATTACHED. ELEV. = 552.09

NO.	DATE	REVISION DESCRIPTION

STATE OF TEXAS
E. R. McDOW, JR.
43968
LICENSED PROFESSIONAL ENGINEER

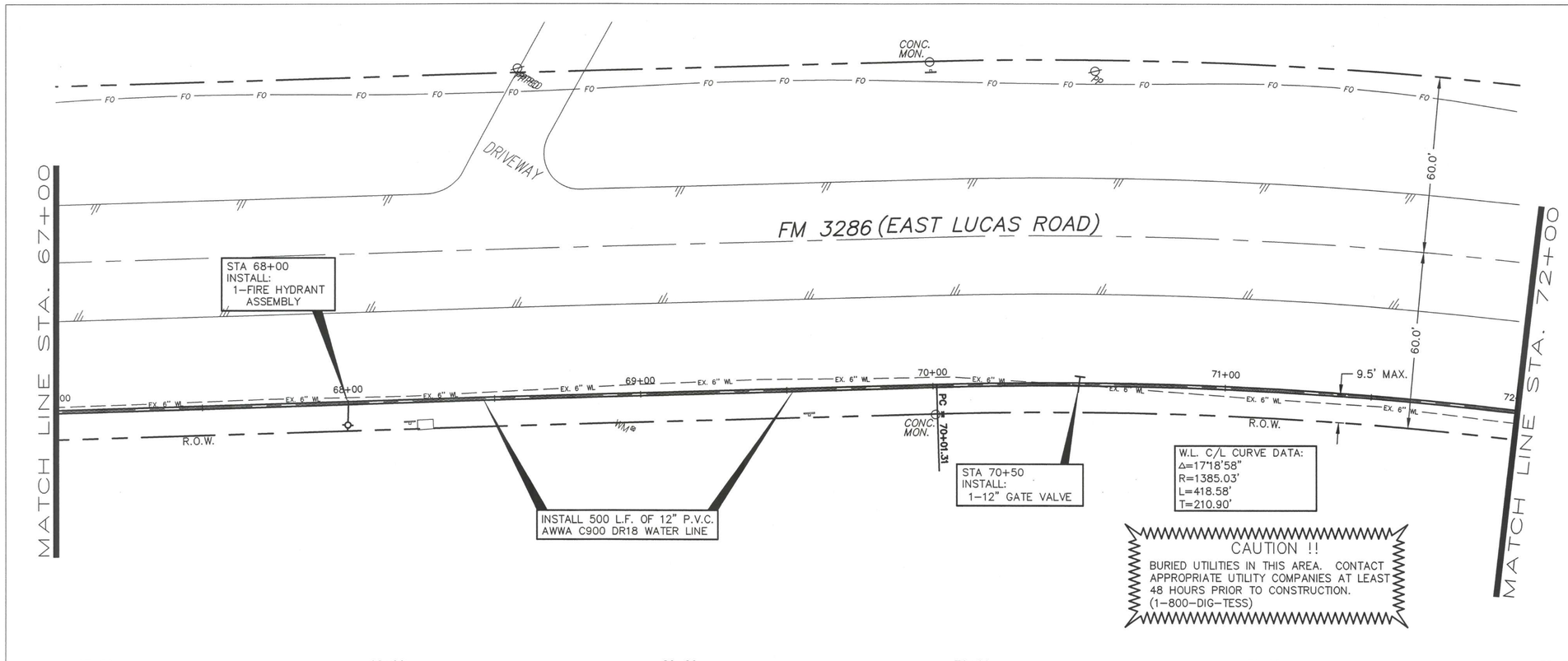
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY _____ ON _____, 2____.

E. R. McDow 9/14/03

HUNTER ASSOCIATES TEXAS, LTD.
ENGINEERS/PLANNERS/SURVEYORS
a TRC company
8140 Walnut Hill Lane / Suite 500 / Dallas, Texas 75231-4350
Ph. 214.369.9171 / Fax 214.696.3795
6990 Main Street / Frisco, Texas 75034 / 972.712.6400
505 E. Huntland Dr. Suite 250 / Austin, Texas / 512.454.8716

LINE A-STA. 62+00 TO 67+00
2002 WATER IMPROVEMENTS - PHASE II
CITY OF LUCAS, COLLIN COUNTY, TEXAS

DESIGN	DRAWN	DATE	JOB NUMBER	SHEET NO.
JDM/JDS	JDM/JDS	MAR., 2003	37510-0050	15



0 20 40 60
GRAPHIC SCALE IN FEET
1"=20' HORIZONTAL
1"= 5' VERTICAL

GENERAL NOTES:

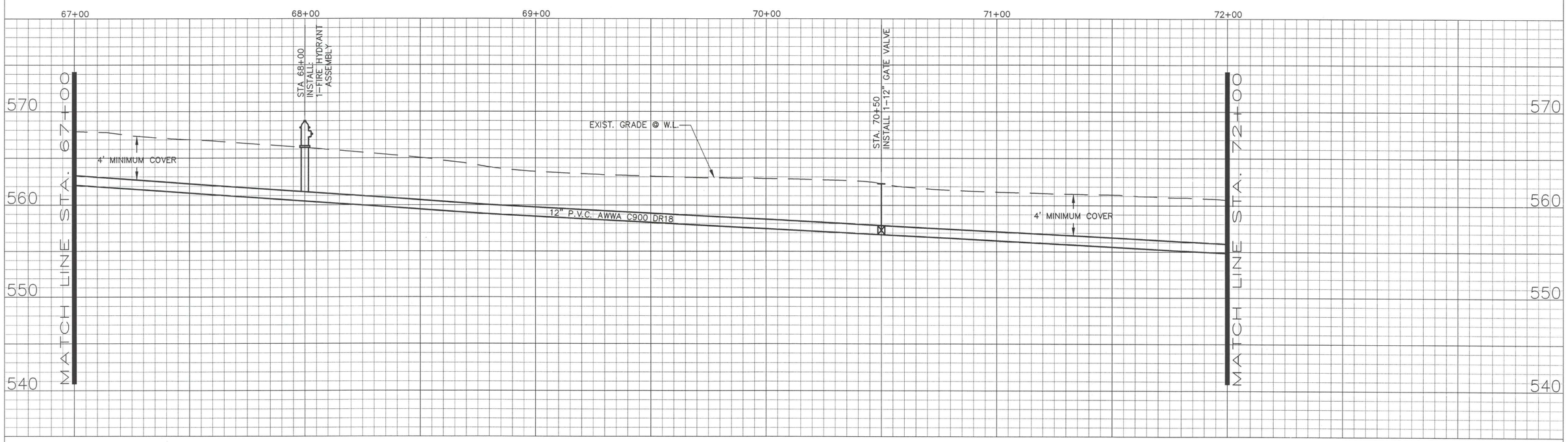
1. REFER TO GENERAL NOTES ON SHEET 2

BENCHMARKS:

BM# 1 - "□" CUT WITH "X" INSIDE AT N.W. CORNER OF LUCAS RD. & COUNTRY CLUB RD. 3.70 FT EAST OF FLAG POLE. ELEV. = 611.87

BM# 2 - TOP OF THREADED BOLT AT CENTER POINT OF "X" CUT AT S.E. CORNER INTERSECTION OF F.M. 1378 & F.M. 3286, 3.40 FT N.W. OF BUILDING CORNER. ELEV. = 571.20

BM# 3 - TOP OF BOLT OF S.W. SIDE OF FIRE HYDRANT AT S.W. CORNER OF INTERSECTION WOODMOOR & F.M. 3286. BOLT HAS TAG LABELED "BURY" ATTACHED. ELEV. = 552.09



NO.	DATE	REVISION DESCRIPTION

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY

ON _____, 2____.

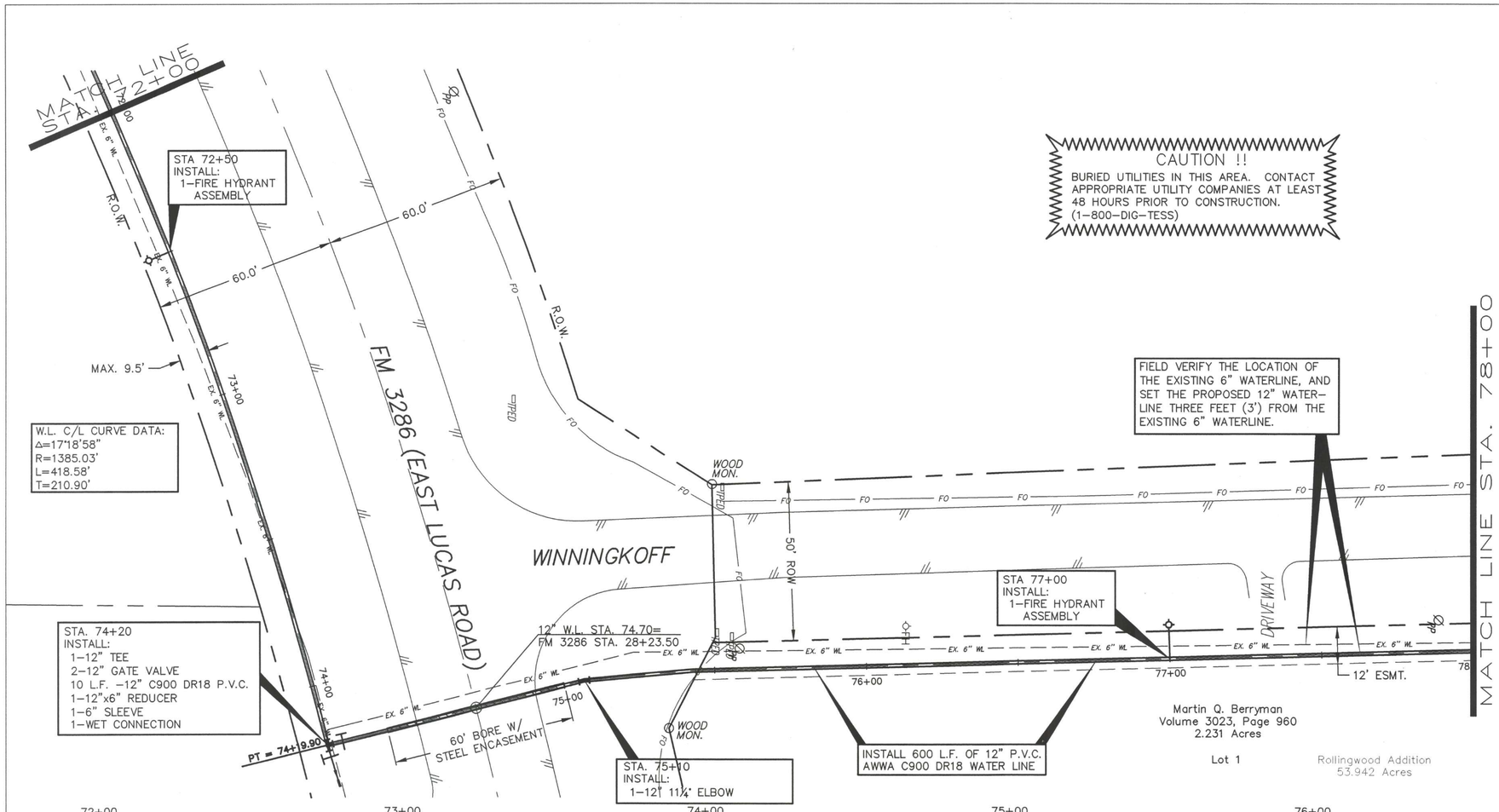
STATE OF TEXAS
E. R. McDOW, JR.
43926
REGISTERED PROFESSIONAL ENGINEER

5/16/03

HUNTER ASSOCIATES TEXAS, LTD.
ENGINEERS/PLANNERS/SURVEYORS
a TRC company
8140 Walnut Hill Lane / Suite 500 / Dallas, Texas 75231-4350
Ph. 214.369.9171 / Fax 214.696.3795
6990 Main Street / Frisco, Texas 75034 / 972.712.6400
505 E. Huntland Dr. Suite 250 / Austin, Texas / 512.454.8716

LINE A-STA. 67+00 TO 72+00
2002 WATER IMPROVEMENTS - PHASE II
CITY OF LUCAS, COLLIN COUNTY, TEXAS

DESIGN	DRAWN	DATE	JOB NUMBER	SHEET NO.
JDM/JDS	JDM/JDS	MAR., 2003	37510-0050	16



CAUTION !!

BURIED UTILITIES IN THIS AREA. CONTACT APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. (1-800-DIG-TESS)

0 20 40 60

GRAPHIC SCALE IN FEET

1"=20' HORIZONTAL
1"= 5' VERTICAL

GENERAL NOTES:

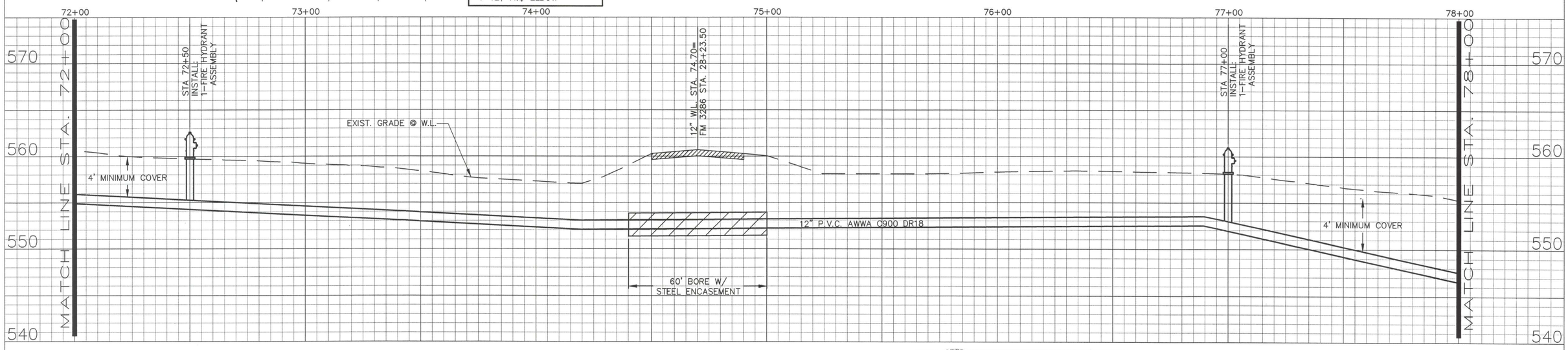
1. REFER TO GENERAL NOTES ON SHEET 2

BENCHMARKS:

BM# 1 - "□" CUT WITH "X" INSIDE AT N.W. CORNER OF LUCAS RD. & COUNTRY CLUB RD. 3.70 FT EAST OF FLAG POLE. ELEV. = 611.87

BM# 2 - TOP OF THREADED BOLT AT CENTER POINT OF "X" CUT AT S.E. CORNER INTERSECTION OF F.M. 1378 & F.M. 3286, 3.40 FT N.W. OF BUILDING CORNER. ELEV. = 571.20

BM# 3 - TOP OF BOLT OF S.W. SIDE OF FIRE HYDRANT AT S.W. CORNER OF INTERSECTION WOODMOOR & F.M. 3286. BOLT HAS TAG LABELED "BURY" ATTACHED. ELEV. = 552.09



NO.	DATE	REVISION DESCRIPTION

STATE OF TEXAS
E. R. McDOW, JR.
43255
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY

ON _____, 2____.

E. McDow 8/16/03

HUNTER ASSOCIATES TEXAS, LTD.
ENGINEERS/PLANNERS/SURVEYORS
a TRC company
8140 Walnut Hill Lane / Suite 500 / Dallas, Texas 75231-4350
Ph. 214.369.9171 / Fax 214.696.3795
6990 Main Street / Frisco, Texas 75034 / 972.712.6400
505 E. Huntland Dr. Suite 250 / Austin, Texas / 512.454.8716

LINE A-STA. 72+00 TO 78+00
2002 WATER IMPROVEMENTS - PHASE II
CITY OF LUCAS, COLLIN COUNTY, TEXAS

DESIGN	DRAWN	DATE	JOB NUMBER	SHEET NO.
JDM/JDS	JDM/JDS	MAR., 2003	37510-0050	17