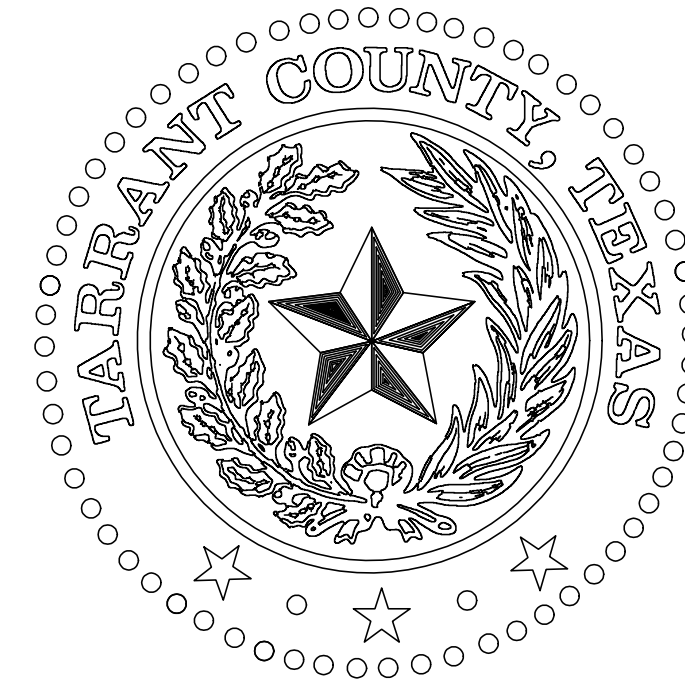


# TARRANT COUNTY RESOURCE CONNECTION

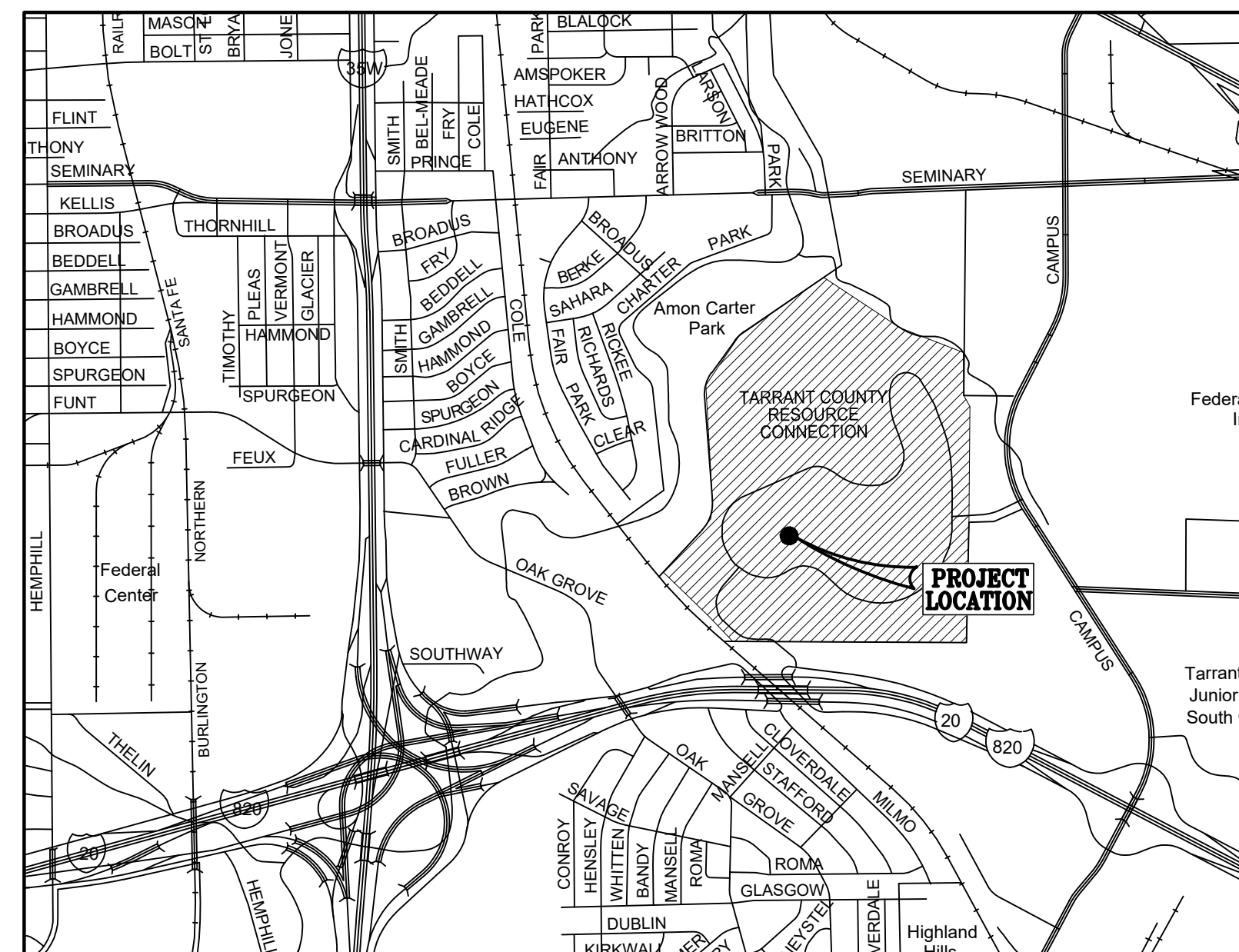
1100 CIRCLE DRIVE  
FORT WORTH, TEXAS 76119



# SANITARY SEWER SYSTEM IMPROVEMENTS

ARPA Project Cost Center 5460460502

INDEX OF DRAWINGS	
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--	GENERAL NOTES
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C1.1	PLAN & PROFILE LINE A (BEG TO STA 12+00)
C1.2	PLAN & PROFILE LINE A (STA 12+00 TO STA 24+00)
C1.3	PLAN & PROFILE LINE A (STA 24+00 TO END)
C1.4	PLAN & PROFILE LINE A-4 & A-5
C1.5	PLAN & PROFILE LINE B & B-1
C1.6	PLAN & PROFILE LINE C
C1.7	PLAN & PROFILE LINE D
C1.8	PLAN & PROFILE LINE D-1, D-2 & D-5
C1.9	PLAN & PROFILE LINE D-3, D-4 & D-6
C2.0	DETAILS
C2.1	DETAILS
C2.2	DETAILS



VICINITY MAP  
NO SCALE

## COMMISSIONERS COURT

B. GLENN WHITLEY	COUNTY JUDGE
ROY CHARLES BROOKS	PRECINCT 1
DEVAN ALLEN	PRECINCT 2
GARY FICKES	PRECINCT 3
J.D. JOHNSON	PRECINCT 4

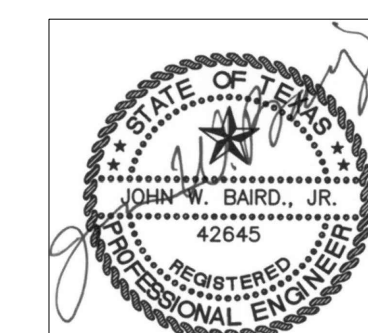
OCTOBER, 2022



**BAIRD, HAMPTON & BROWN**  
engineering & surveying

project  
2022.010.005

6300 Ridglea Place, Suite 700 | Fort Worth, TX 76116  
(817)338-1277 | mail@bhinc.com | TBPE Firm #44 | TBPLS Firm #10011300



10/07/22

GENERAL NOTES:

- SEWER SYSTEM REPLACEMENT PROJECT IS PRIVATE UTILITY WORK. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING APPLICATION AND PAYING ALL FEES REQUIRED FOR OBTAINING PERMIT FROM THE CITY OF FORT WORTH FOR PRIVATE PLUMBING WORK.
- CONTRACTOR SHALL COORDINATE WITH CITY OF FORT WORTH FOR TIE-INS AT TWO EXISTING PUBLIC MANHOLES. PAYMENT OF INSPECTION FEES BY THE CITY OF FORT WORTH IS THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL PAYMENT WILL BE MADE FOR INSPECTION FEES CHARGED BY THE CITY OF FORT WORTH.
- LOCATIONS OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. PRIOR TO COMMENCING ANY CONSTRUCTION, CONTRACTOR SHALL CONFIRM LOCATION AND DEPTH OF ALL EXISTING UTILITIES.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS OF CITY OF FORT WORTH PLUMBING STANDARDS, TARRANT COUNTY, TEXAS AND THE INTERNATIONAL PLUMBING CODE.
- CONTRACTOR SHALL PREPARE A CONSTRUCTION SCHEDULE AND SUBMIT TO PROJECT MANAGER FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION. ADVANCE NOTICE OF AT LEAST 3 WORKING DAYS SHALL BE GIVEN AT EACH BUILDING WHEN SEWER SERVICE CONNECTION TO NEW SEWER LINE IS PLANNED.
- SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED TO ANY BUILDING AT ANY TIME. FINAL CONNECTIONS TO NEW SEWER LINES MAY HAVE TO OCCUR AFTER REGULAR BUSINESS HOURS OR ON WEEKENDS, WHEN BUILDING IS NOT IN USE. NO ADDITIONAL PAYMENT WILL BE MADE FOR AFTER HOURS OR WEEKEND WORK.
- COORDINATE ALL INSPECTIONS WITH PROJECT MANAGER. DO NOT BACKFILL TRENCHES UNTIL INSPECTOR HAS APPROVED INSTALLATION AND BACKFILLING OF TRENCH.
- ALL CONSTRUCTION SURVEYING AND LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID AS SUBSIDIARY TO UNIT PRICE BIDS FOR SEWER SYSTEM CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY FACILITIES FOR WORKERS.
- EROSION CONTROL DURING THE CONSTRUCTION PERIOD IS THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR PREPARING A STORM WATER POLLUTION PREVENTION PLAN (SW3P) AND IMPLEMENTING IT FOR THE DURATION OF THE CONSTRUCTION. PREPARATION OF THE SW3P SHALL BE BY A PERSON EXPERIENCED IN THE PREPARATION OF SW3P. SW3P SHALL BE MAINTAINED AT THE PROJECT SITE FOR THE DURATION OF THE CONSTRUCTION. CONTRACTOR SHALL INSPECT EROSION CONTROL DEVICES AFTER EVERY RAINFALL EVENT AND MAKE REPAIRS AS NECESSARY TO CONTROL EROSION FROM THE CONSTRUCTION ACTIVITIES.
- ALL DISTURBED NON-GRASSY AREAS SHALL BE STABILIZED WITH PERMANENT GRASS COVERAGE, CONSISTING OF BERMUDA HYDROMULCH. HYDROMULCH SHALL BE WATERED AND MAINTAINED UNTIL FULL GRASS COVERAGE IS ACHIEVED.
- ALL OPEN TRENCH CONSTRUCTION SHALL CONFORM TO OSHA TRENCH SAFETY REQUIREMENTS AND BE PROTECTED WITH TRENCH SAFETY SYSTEM AND COMPLY WITH CITY OF FORT WORTH REQUIREMENTS. CONTRACTOR SHALL PREPARE A TRENCH SAFETY PLAN PREPARED BY AN ENGINEER EXPERIENCED IN PREPARATION OF SUCH PLANS AND SUBMIT TO ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
- ALL OPEN TRENCHES SHALL BE COVERED WITH TRAFFIC RATED STEEL PLATES DURING THE ENTIRE DURATION OF CONSTRUCTION WHEN UNSUPERVISED BY CONTRACTOR.
- VEHICULAR AND PEDESTRIAN SAFETY AND TRAFFIC CONTROLS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR DURING THE ENTIRE CONSTRUCTION PERIOD UP TO SUBSTANTIAL COMPLETION.
- NO STREETS, ROAD, DRIVEWAYS AND ACCESS ROADS WITHIN TARRANT COUNTY PROPERTY AND THE PROJECT SITE SHALL BE CLOSED AT ANY TIME. AT LEAST ONE LANE OF TRAFFIC (WIDE ENOUGH FOR TRASH TRUCK TO PASS THROUGH) SHALL BE OPEN AT ALL TIMES. FLAGMEN SHALL BE PROVIDED AT ALL TIMES DURING ANY OPEN CUT IN OR NEAR STREETS, ACCESS ROAD AND DRIVEWAYS.
- TRAFFIC CONTROL IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE TOTAL BID PRICE.
- LOCATIONS OF ALL SERVICE LATERALS ARE APPROXIMATE. IT IS POSSIBLE THAT SOME SERVICE LATERALS AND CLEANOUTS ARE COVERED AND NOT SHOWN ON THE PLANS. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATED AND VERIFY THE LOCATIONS OF ALL SERVICE LATERALS AND MAKE CONNECTIONS TO THE NEW SANITARY SEWER LINES.
- CONTRACTOR SHALL REMOVE EXISTING MANHOLES, FILL THE VOID AND REGRADE SURFACE AFTER PROPOSED SANITARY SEWER LINES ARE IN SERVICE.
- ALL PAVEMENT REMOVALS SHALL BE TO NEAT SAW CUT LINES AND PAVEMENT REPLACED IN ACCORDANCE WITH DETAILS INCLUDED HEREIN (SEE DETAIL SHEETS).
- IF ANY IRRIGATION LINES ARE CUT OR DAMAGED DURING THE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS TO RESTORE THE IRRIGATION SYSTEM TO ORIGINAL CONDITION. ALL IRRIGATION WORK SHALL BE DONE BY A LICENSED IRRIGATOR.

FOLLOWING ARE THE REGULAR OPERATIONAL HOURS FOR THE VARIOUS BUILDINGS AT THE RESOURCE CONNECTION. CONTRACTOR SHALL SCHEDULE WORK ACTIVITIES TO NOT DISRUPT REGULAR BUILDING OPERATIONS:

Monday– Friday Group I  
 Building 1100 , 1200, 1300, 2200 and 2400  
 M–F 7:30 A.M. – 6 P.M.  
 Building 1400 JPS and 1500 CSCD  
 M–F 7:30 A.M. – 8:30 P.M.  
 Building 5000 , 5010, 5020 MHMR  
 M–F 7 A.M. – 4:30 P.M.  
 Building 5041 and 5051  
 M–F 6 A.M. – 5 P.M.  
 Monday– Friday with Saturday's Group II  
 Building 2100  
 M–F 7:30 A.M. – 5 P.M.  
 Saturday 8 A.M. – 1 P.M.  
 Building 2300  
 M–F 7 A.M. – 5 P.M. or Event schedule  
 Saturday Varies – Depends on event schedule  
 Building 2500 JPS  
 M–F 7 A.M. – 7:30 P.M.  
 Saturday 7 A.M. – 6 P. M. Clinic Only  
 Building 1801  
 M–F 8 A.M – 2 P.M.  
 Saturday Varies – Depends on scheduled class events

BENCHMARKS:

TBM #1 Box cut set on the concrete base of light pole, +/- 535' North from Northwest corner of North parking lot and +/- 22' East from centerline of Circle Dr. Elevation = 671.96'.

TBM #2 Box cut set on the concrete base of a light pole, +/- 160' North from Northwest corner of North parking lot and +/- 20' East from centerline of Circle Dr. Elevation = 668.50'

TBM #3 Box Cut set on the concrete base of a light pole, +/- 25' South from Southwest corner of Building #2500 and +/- 35' West. Elevation = 676.01'

TBM #4 Mueller Nut on a fire hydrant, +/- 75' East from the Northeast corner of Building #2400 and +/- 15' North. Elevation = 680.11

TBM #5 Box Cut set on the concrete base of a light pole, +/- 115' North from the Northwest corner of Building #1100 and +/- 55' West. Elevation = 682.34'

TBM #6 Box Cut set on the concrete base of a light pole, +/- 115' West from the West face of Building #1200 and +/- 3' North from the concrete edge of North concrete walkway. Elevation = 682.56'

TBM #7 Box Cut set on the concrete base of a light pole, +/- 88' North from the Northeast corner of Building #1400 and +/- 5' East from the concrete edge of walkway. Elevation = 682.91'

TBM #8 Box Cut set on the concrete base of a light pole about center of North face of Building #1400, and +/- 8' North from centerline of concrete walk. Elevation = 684.54'

TBM #9 Mueller Nut on a fire hydrant, +/- 105' North from the Northwest corner of Building #1400 and +/- 8' East from centerline of concrete walkway. Elevation = 685.72'

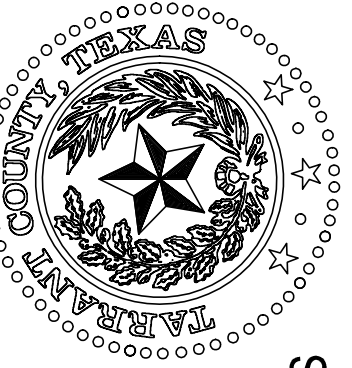
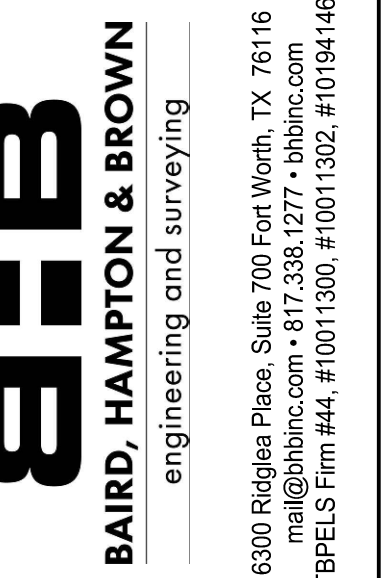
TBM #10 Box Cut set on the concrete base of a light pole, +/- 95' West from concrete walkway intersection at Northwest corner of Building #1400 and +/- 8' North from centerline of concrete walkway. Elevation = 686.58'

TBM #11 Box Cut set on the concrete base of a light pole, +/- 50' East from the Southeast corner of Building #1500 and +/- 8' North from centerline of concrete walkway. Elevation = 689.20'

TBM #12 Mueller Nut on a fire hydrant, +/- 25' North from the Northwest corner of Building #1501. Elevation = 693.32'

TBM #13 Box Cut on a concrete headwall, +/- 80' Northwest from Resource Dr. and parking lot intersection, and +/- 25' Southwest from centerline of asphalt pavement. Elevation = 674.25'

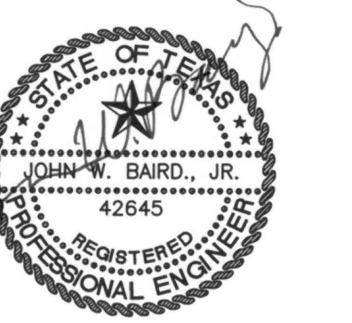
TBM #14 Mueller Nut on a fire hydrant, +/- 55' West from the Northwest corner of Building #5041 and +/- 16' South from concrete curb. Elevation = 677.65'



TARRANT COUNTY  
 REPLACE SANITARY  
 SEWER SYSTEM  
 RESOURCE CONNECTION - FORT WORTH, TEXAS

GENERAL NOTES

NO.	DESCRIPTION	DATE



10/07/2022

PROJECT NUMBER: 2022.010.005

DATE: 10/07/22 DRAWN BY: LB

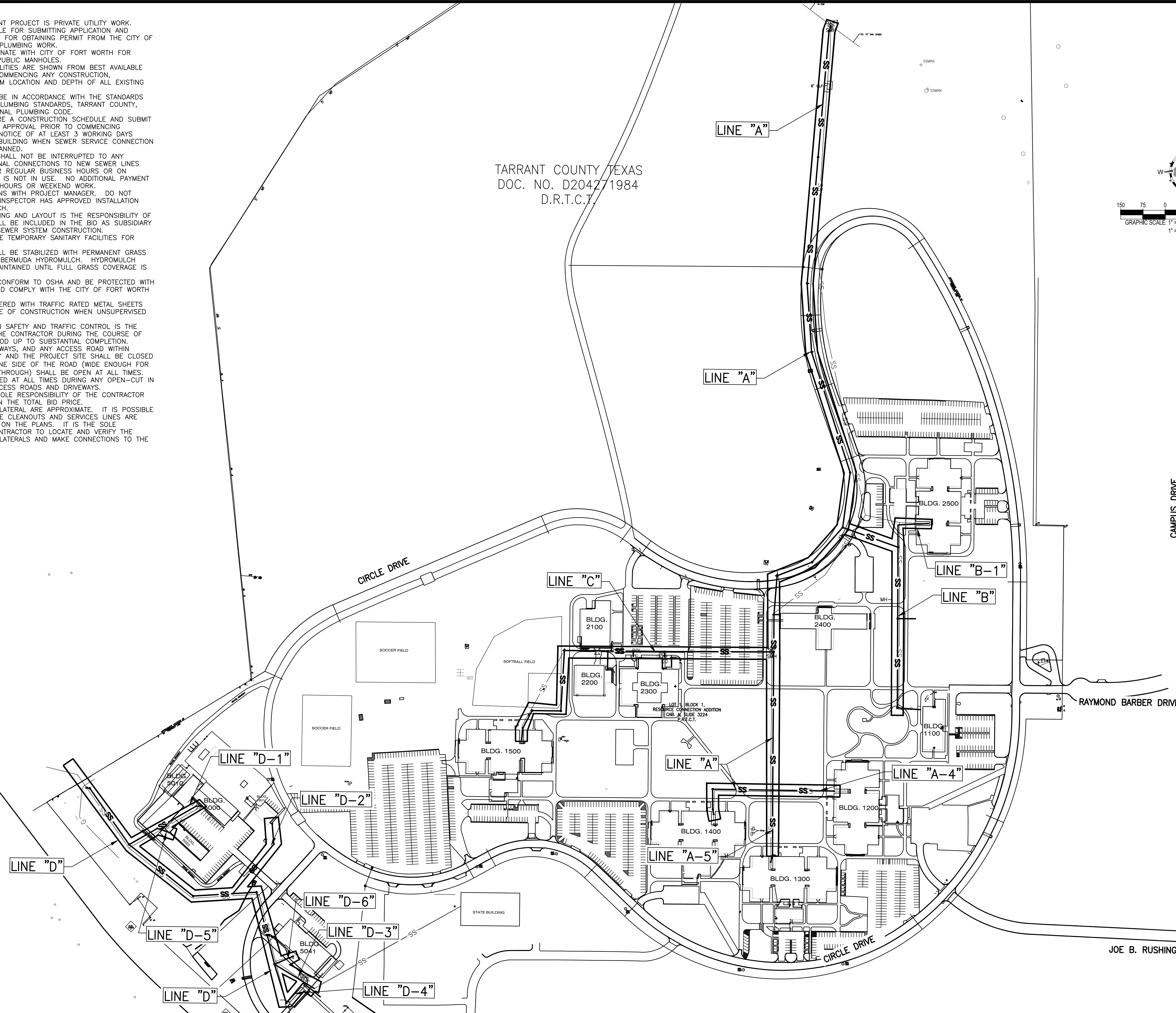
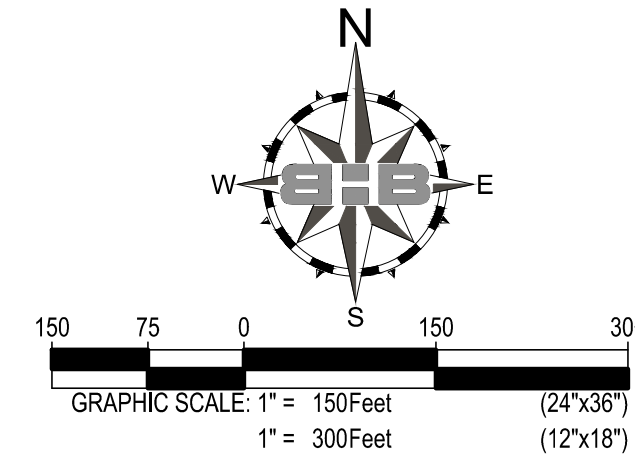
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SHEET

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  - ALL OPEN TRENCH SHALL CONFORM TO OSHA AND BE PROTECTED WITH TRENCH SAFETY SYSTEM AND COMPLY WITH THE CITY OF FORT WORTH REQUIREMENTS.
  - ALL OPEN TRENCH BE COVERED WITH TRAFFIC RATED METAL SHEETS DURING THE ENTIRE COURSE OF CONSTRUCTION WHEN UNSUPERVISED BY THE CONTRACTOR.
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TARRANT COUNTY TEXAS  
DOC. NO. D204271984  
D.R.T.C.T.



**BAIRD, HAMPTON & BROWN**  
engineering and surveying  
6300 Ridgela Place, Suite 700 Fort Worth, TX 76116  
mail@bhbc.com • 817.338.1277 • bhbc.com  
TBPELS Firm #44, #10011900, #1011132, #10194146

**TARRANT COUNTY  
REPLACE SANITARY  
SEWER SYSTEM**  
RESOURCE CONNECTION - FORT WORTH, TEXAS

OVERALL SITE PLAN

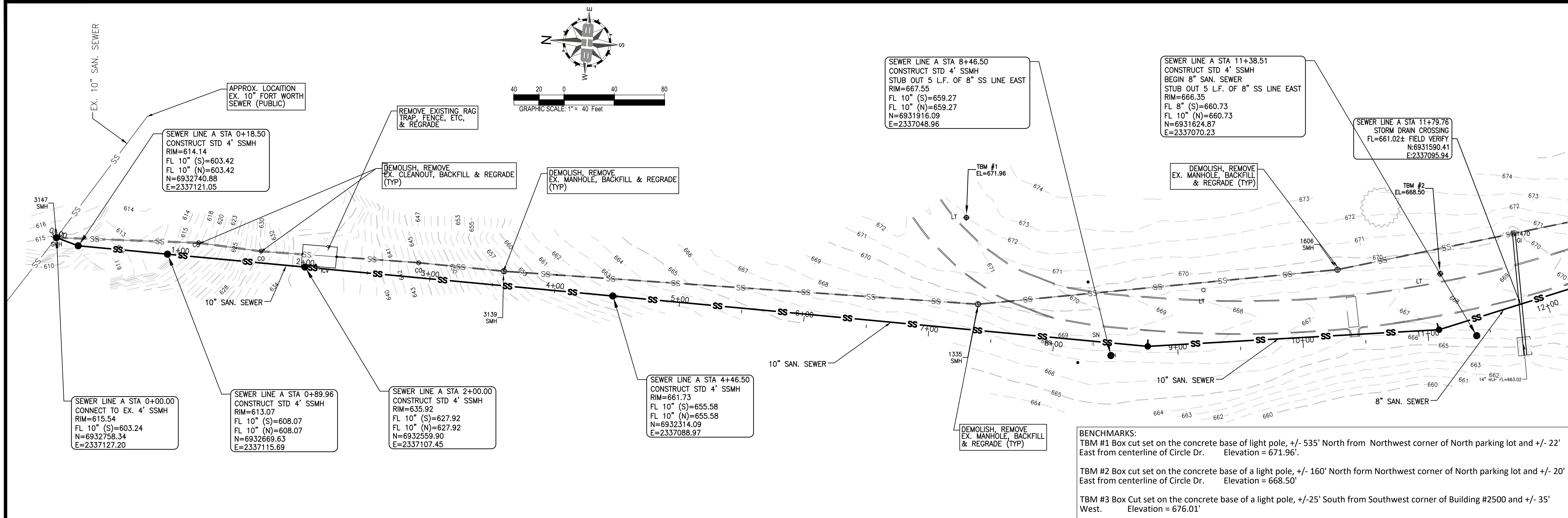
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10/07/2022

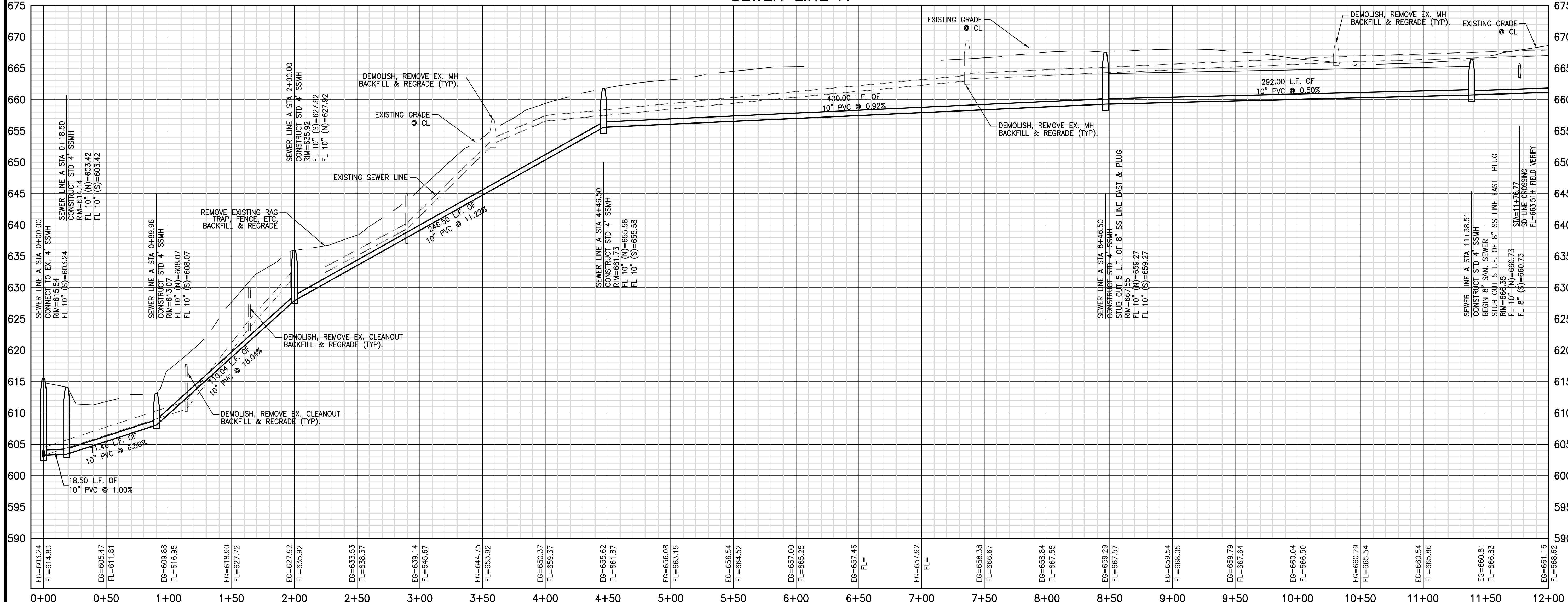
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DATE: 10/07/22 DRAWN BY: LB  
DESIGN BY: BB CHECKED BY: BB

SHEET  
**C1.0**

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SEWER LINE A



**B**  
BAIRD, HAMPTON & BROWN  
engineering and surveying  
6300 Reglea Place, Suite 700 Fort Worth, TX 76116  
mail@bhinc.com • 817.338.1277 • bhinc.com  
TBPELS Firm #4, #10011900, #10011302, #10194146

TARRANT COUNTY  
REPLACE SANITARY  
SEWER SYSTEM  
RESOURCE CONNECTION - FORT WORTH, TEXAS

PLAN & PROFILE LINE A  
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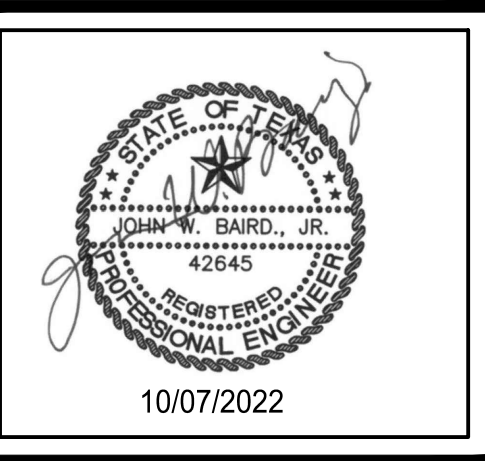
NO.	DESCRIPTION	DATE

STATE OF TEXAS  
REGISTERED PROFESSIONAL ENGINEER  
JOHN W. BAIRD, JR.  
42645  
10/07/2022

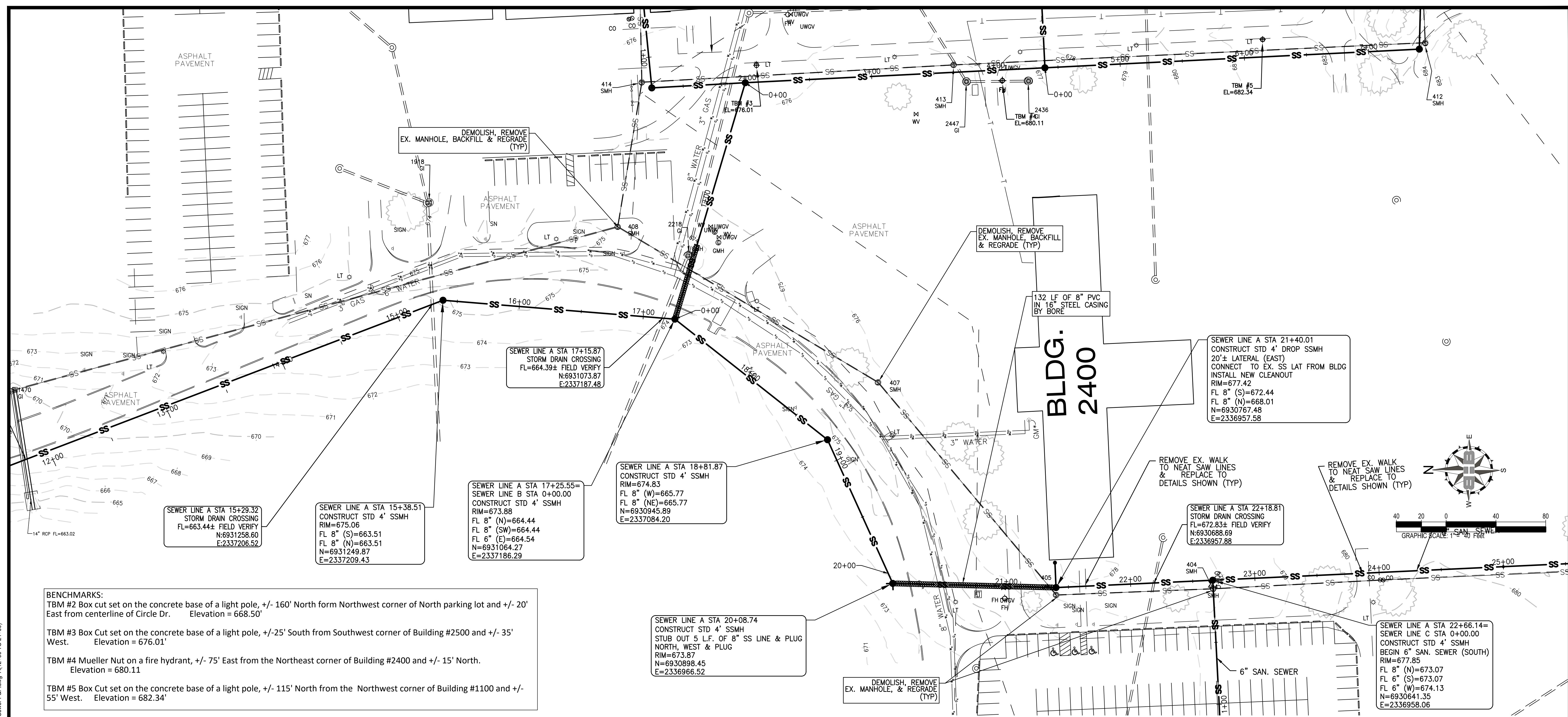
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DATE: 10/07/22 DRAWN BY: LB  
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C1.1

PLAN & PROFILE LINE A  
 (STA 12+00 TO STA 24+00)

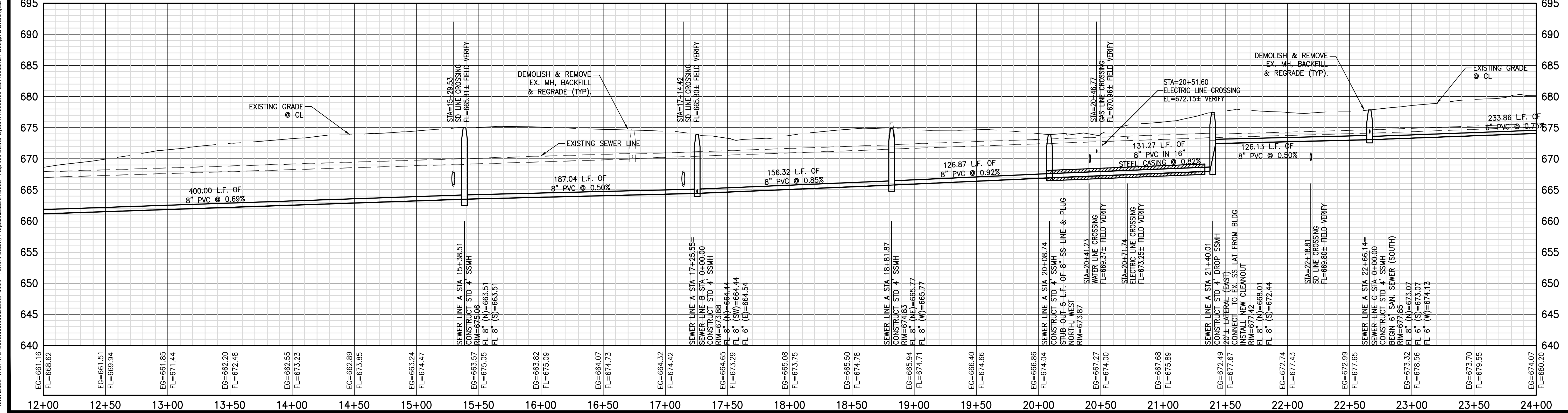
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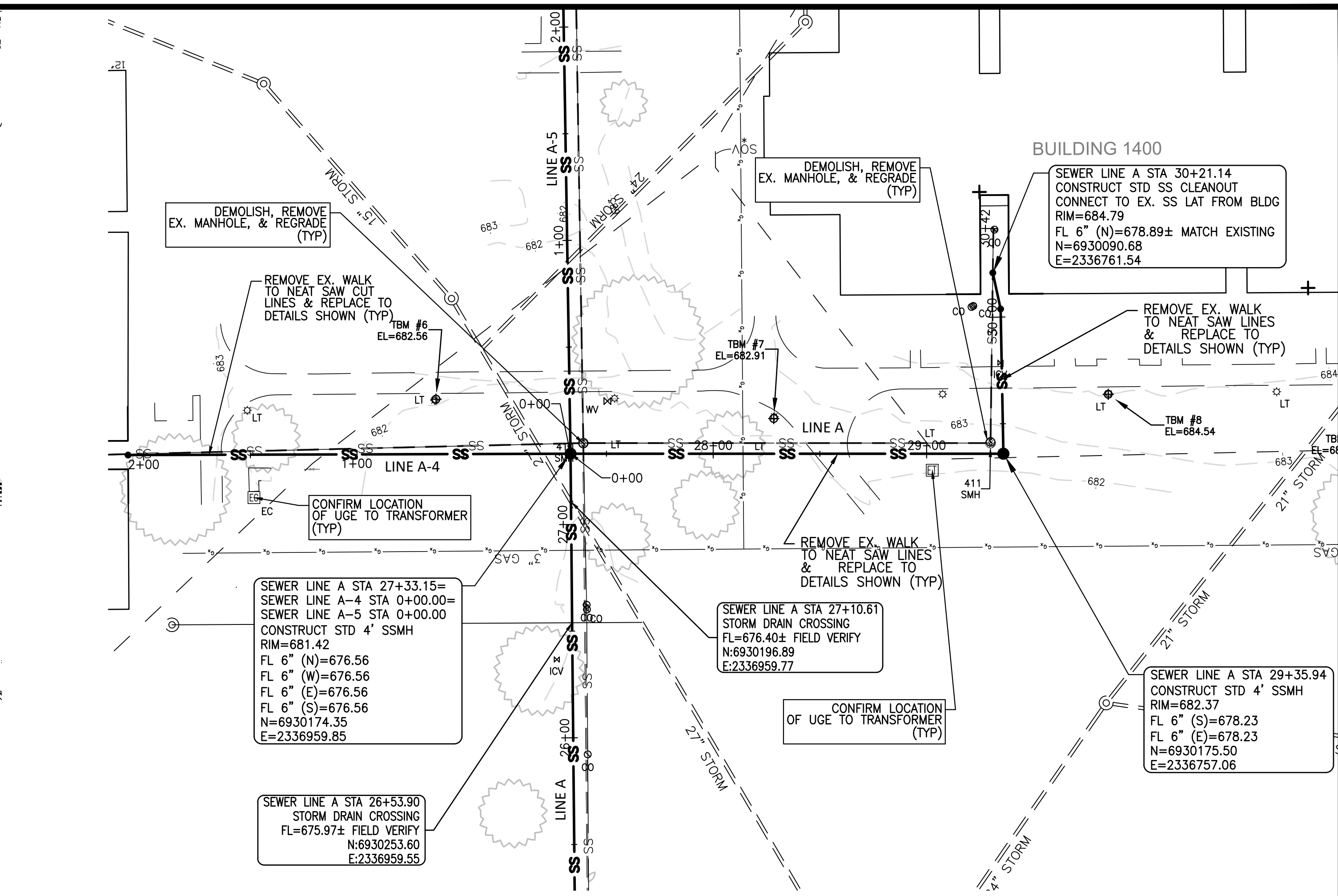
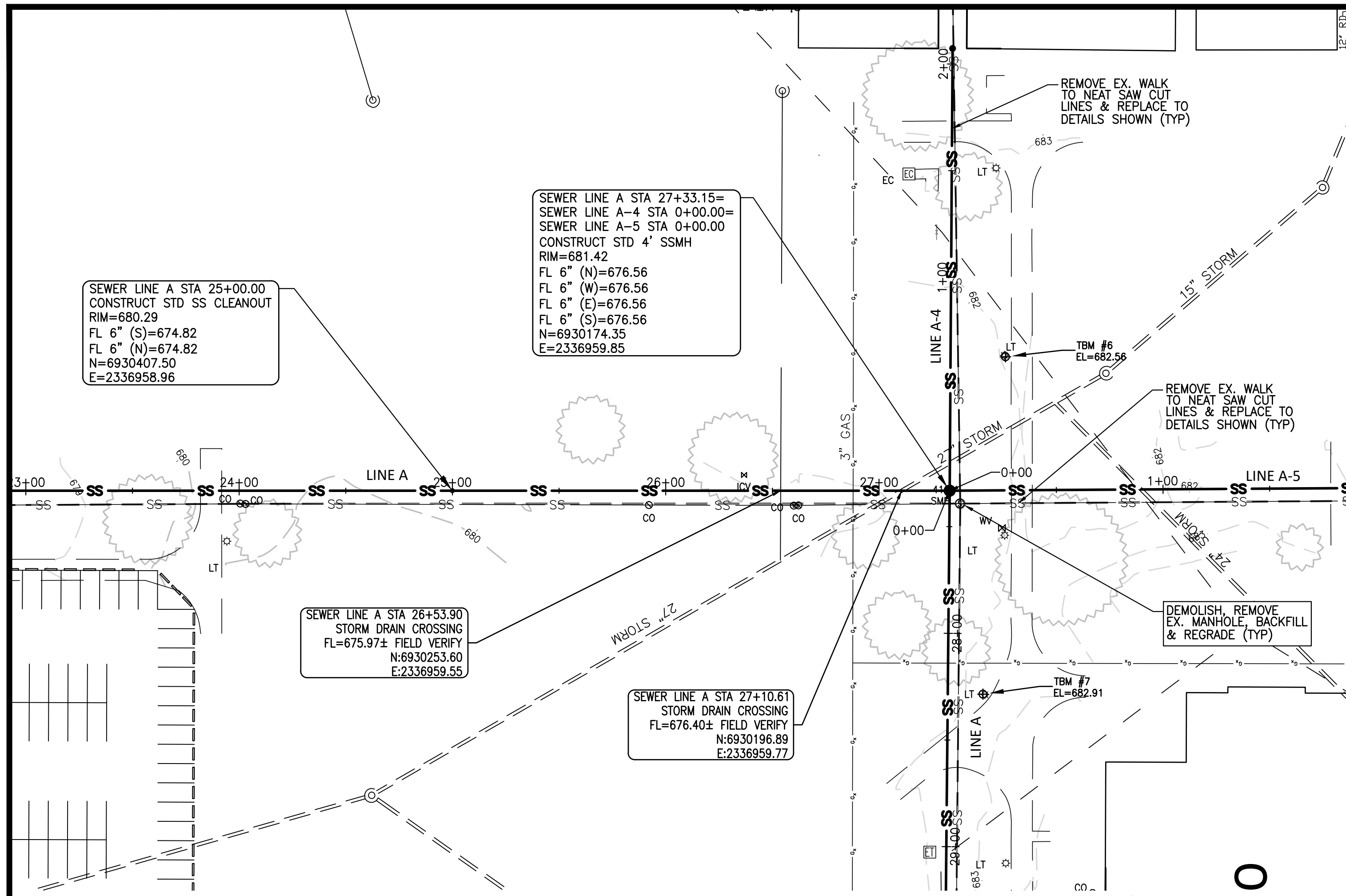
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DATE:	10/07/22
DESIGN BY:	BB
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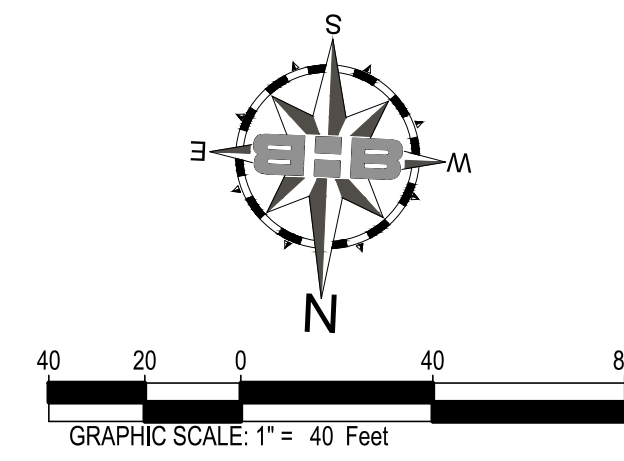
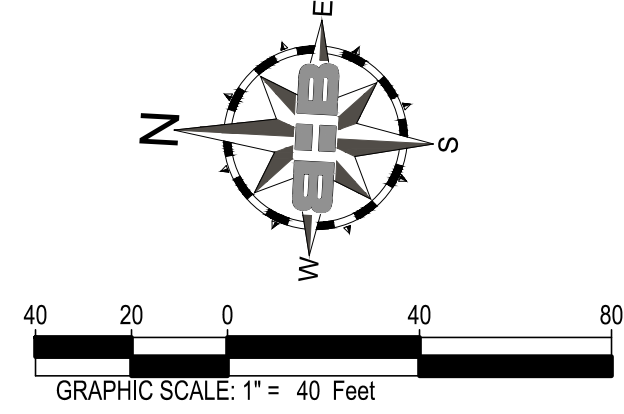
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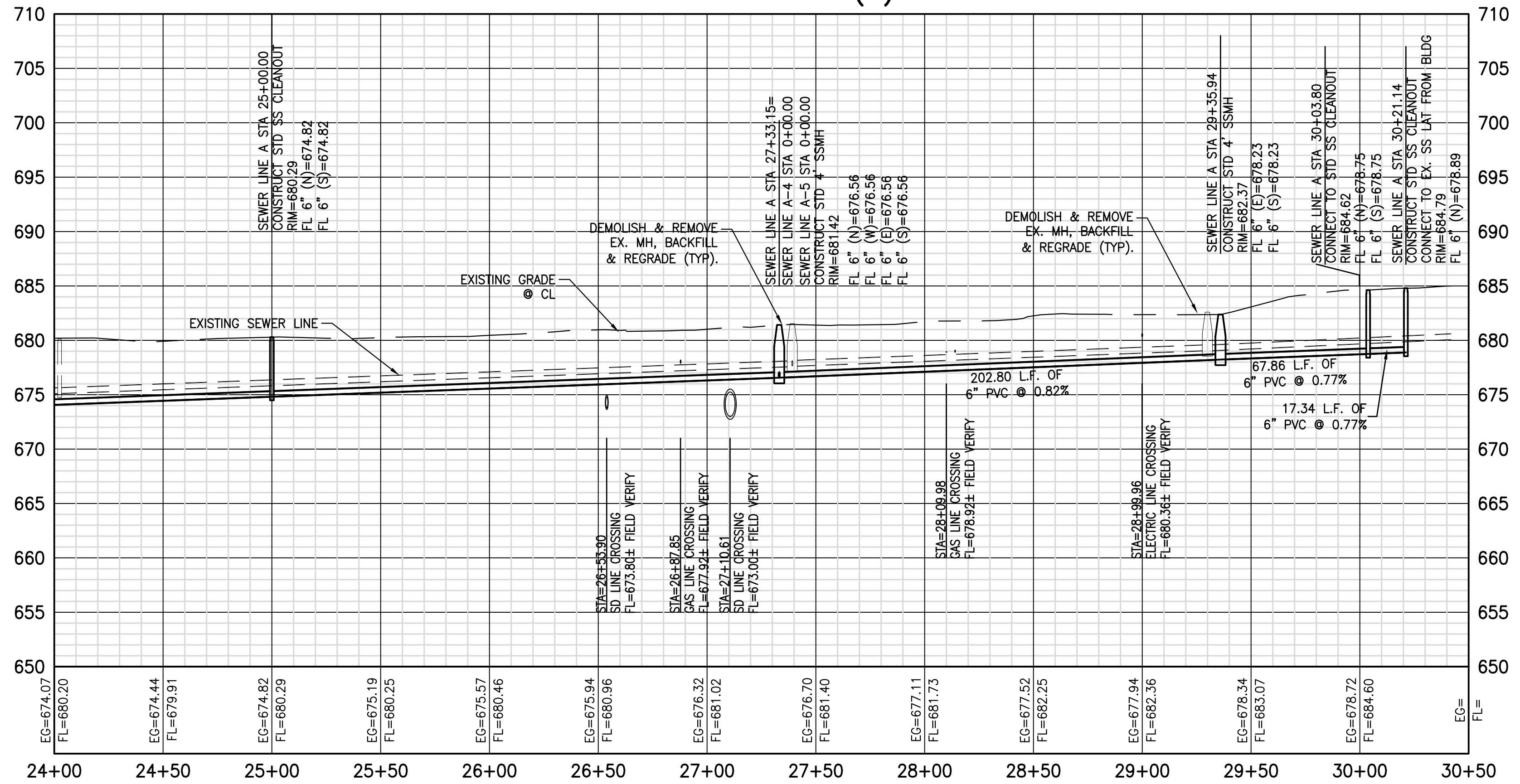
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**BENCHMARKS:**  
 TBM #6 Box Cut set on the concrete base of a light pole, +/- 115' West from the West face of Building #1200 and +/- 3' North from the concrete edge of North concrete walkway. Elevation = 682.56'  
 TBM #7 Box Cut set on the concrete base of a light pole, +/- 88' North from the Northeast corner of Building #1400 and +/- 5' East from the concrete edge of walkway. Elevation = 682.91'  
 TBM #8 Box Cut set on the concrete base of a light pole about center of North face of Building #1400, and +/- 8' North from centerline of concrete walk. Elevation = 684.54'



**SEWER LINE A (3)**

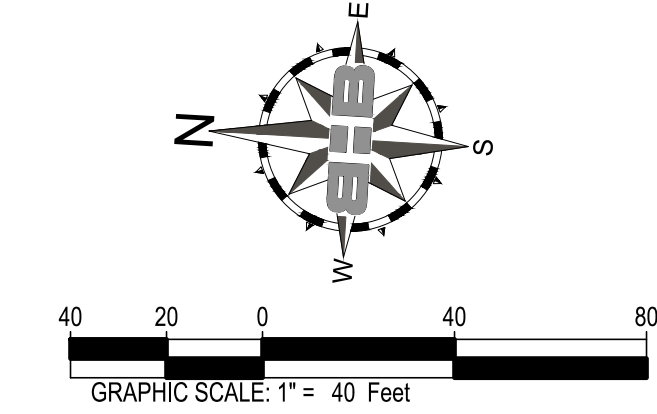
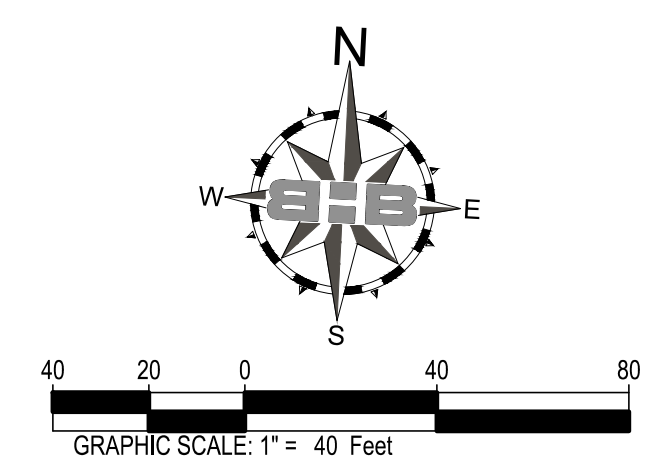
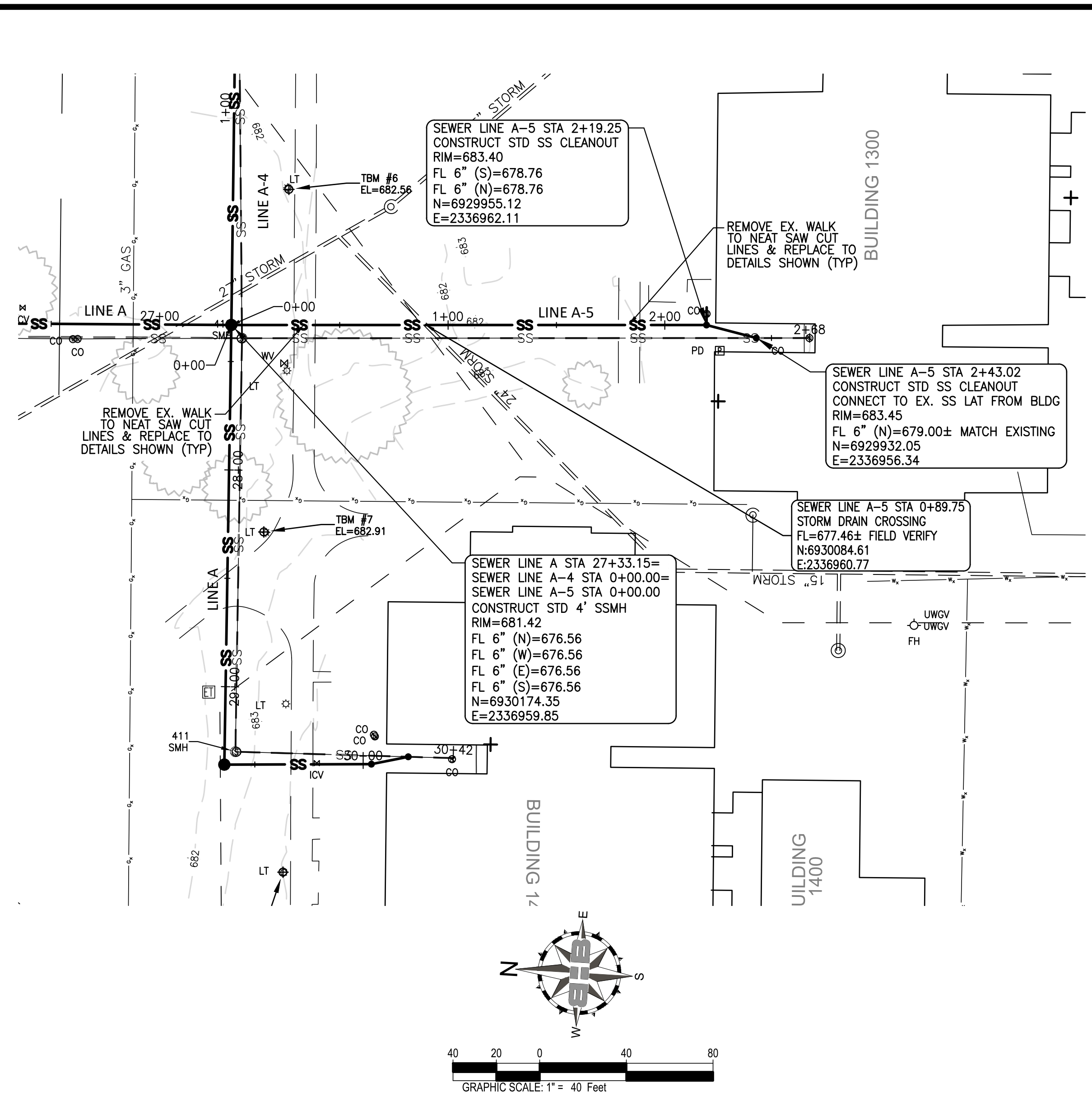
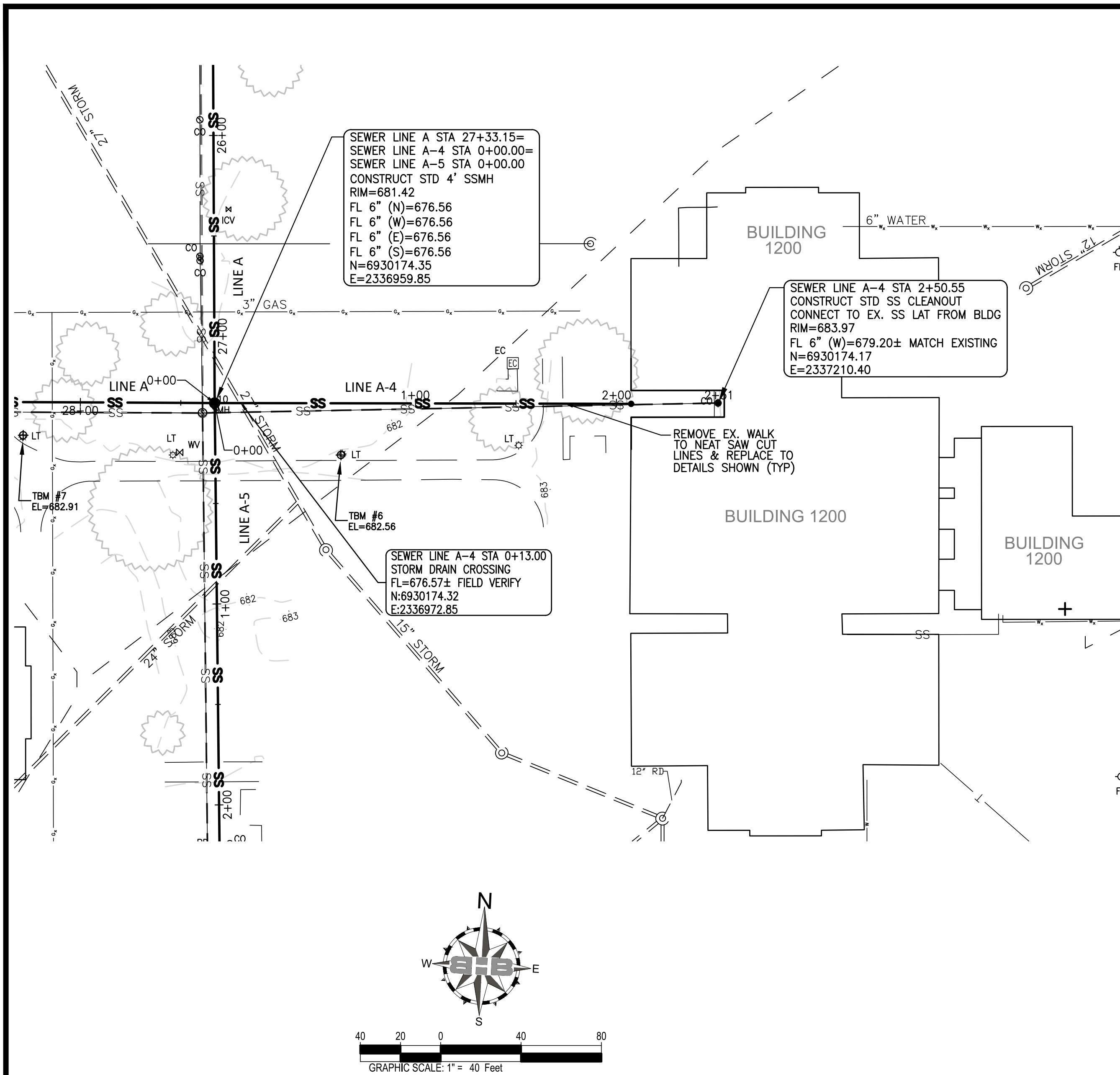


**PLAN & PROFILE LINE A (STA 24+00 TO END)**

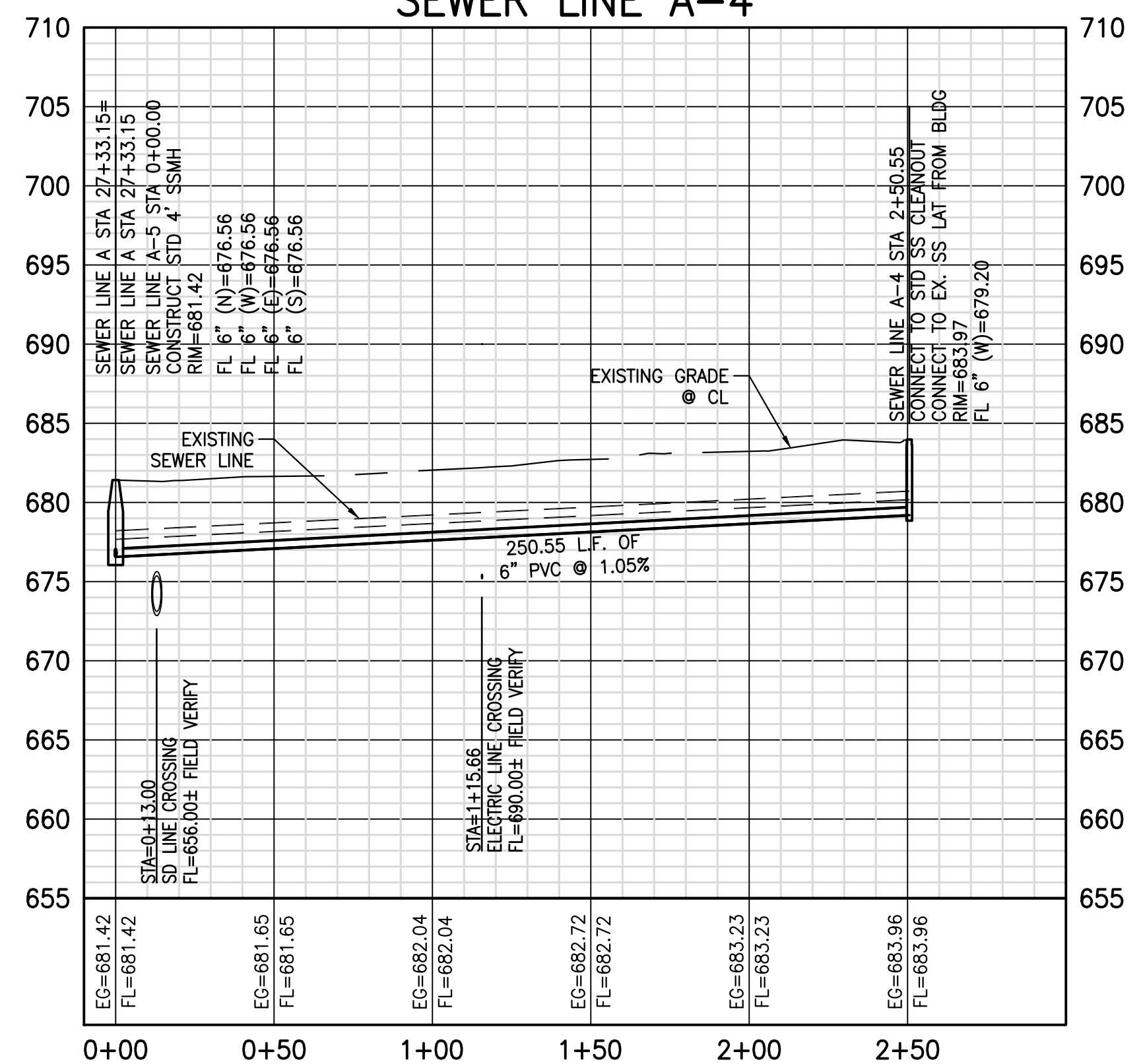
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PROJECT NUMBER: 2022.010.005  
 DATE: 10/07/22 DRAWN BY: LB  
 DESIGN BY: BB CHECKED BY: BB

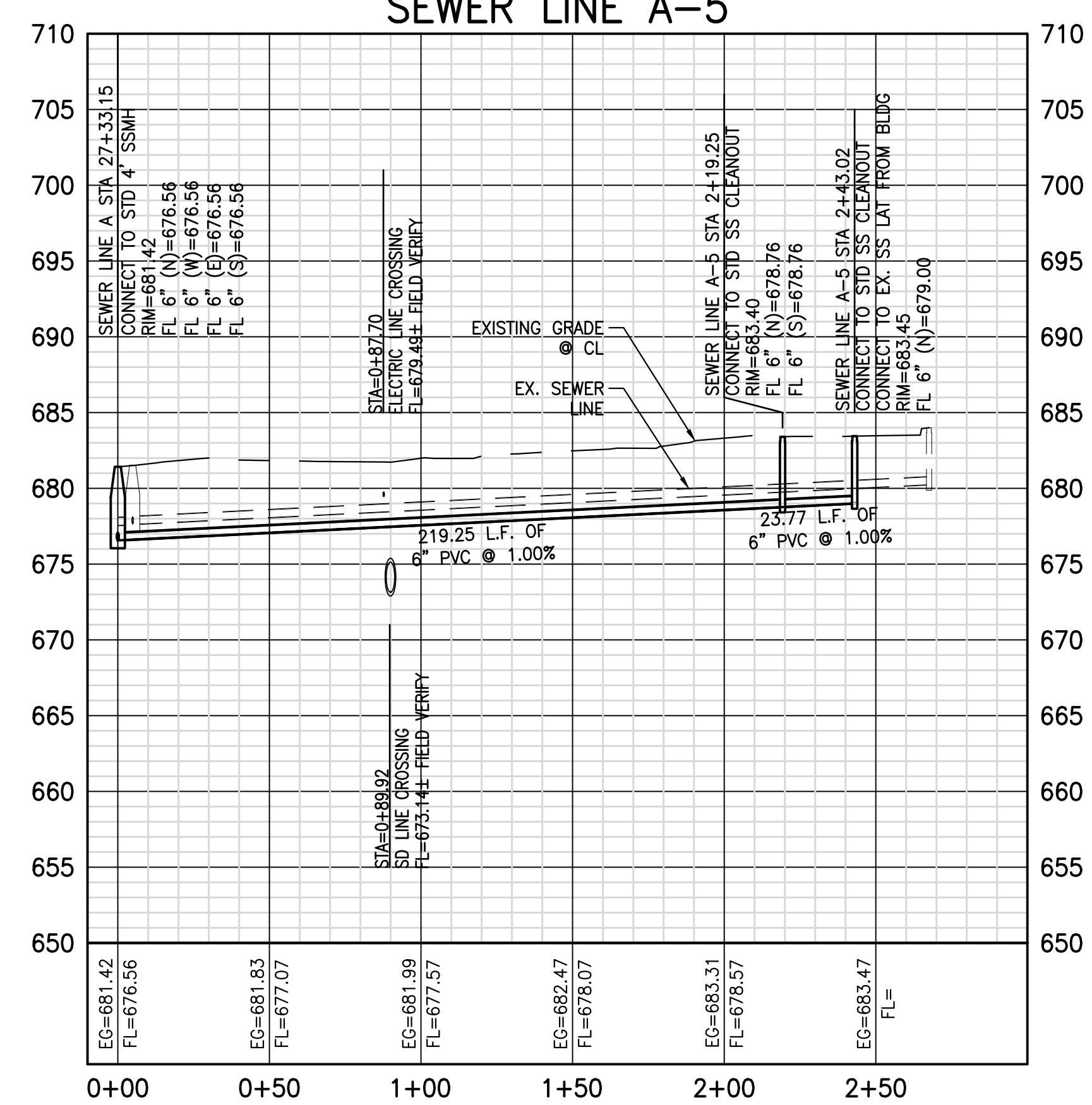
SHEET  
**C1.3**



SEWER LINE A-4



SEWER LINE A-5



**BENCHMARKS:**  
 TBM #6 Box Cut set on the concrete base of a light pole, +/- 115' West from the West face of Building #1200 and +/- 3' North from the concrete edge of North concrete walkway. Elevation = 682.56'  
 TBM #7 Box Cut set on the concrete base of a light pole, +/- 88' North from the Northeast corner of Building #1400 and +/- 5' East from the concrete edge of walkway. Elevation = 682.91'  
 TBM #8 Box Cut set on the concrete base of a light pole about center of North face of Building #1400, and +/- 8' North from centerline of concrete walk. Elevation = 684.54'

**BBA**  
**BAIRD, HAMPTON & BROWN**  
 engineering and surveying  
 6300 Regalia Place, Suite 700 Fort Worth, TX 76116  
 mail@bhinc.com • 817.338.1277 • bhinc.com  
 TBPELS Firm #44, #F01011900, #F01011902, #F010194146

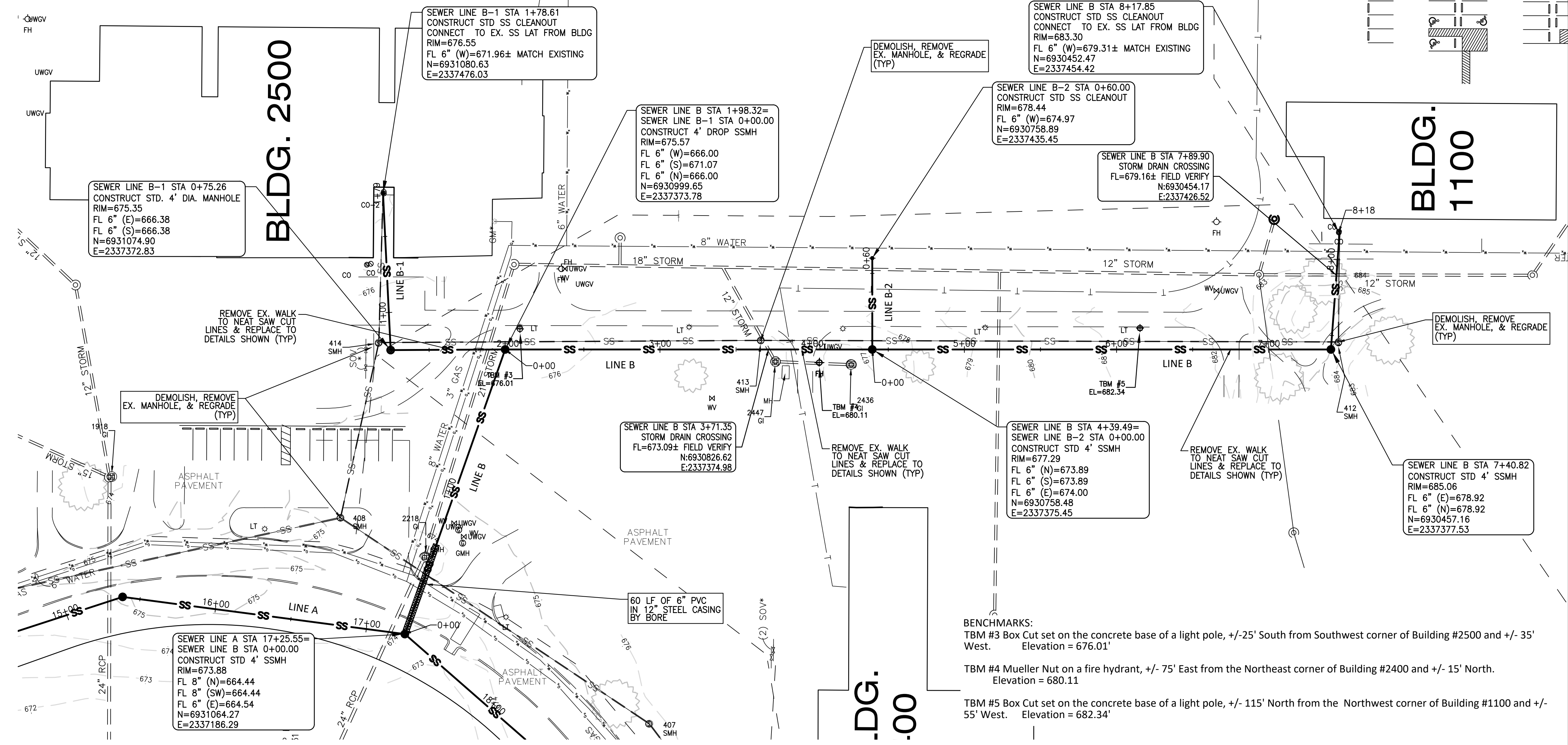
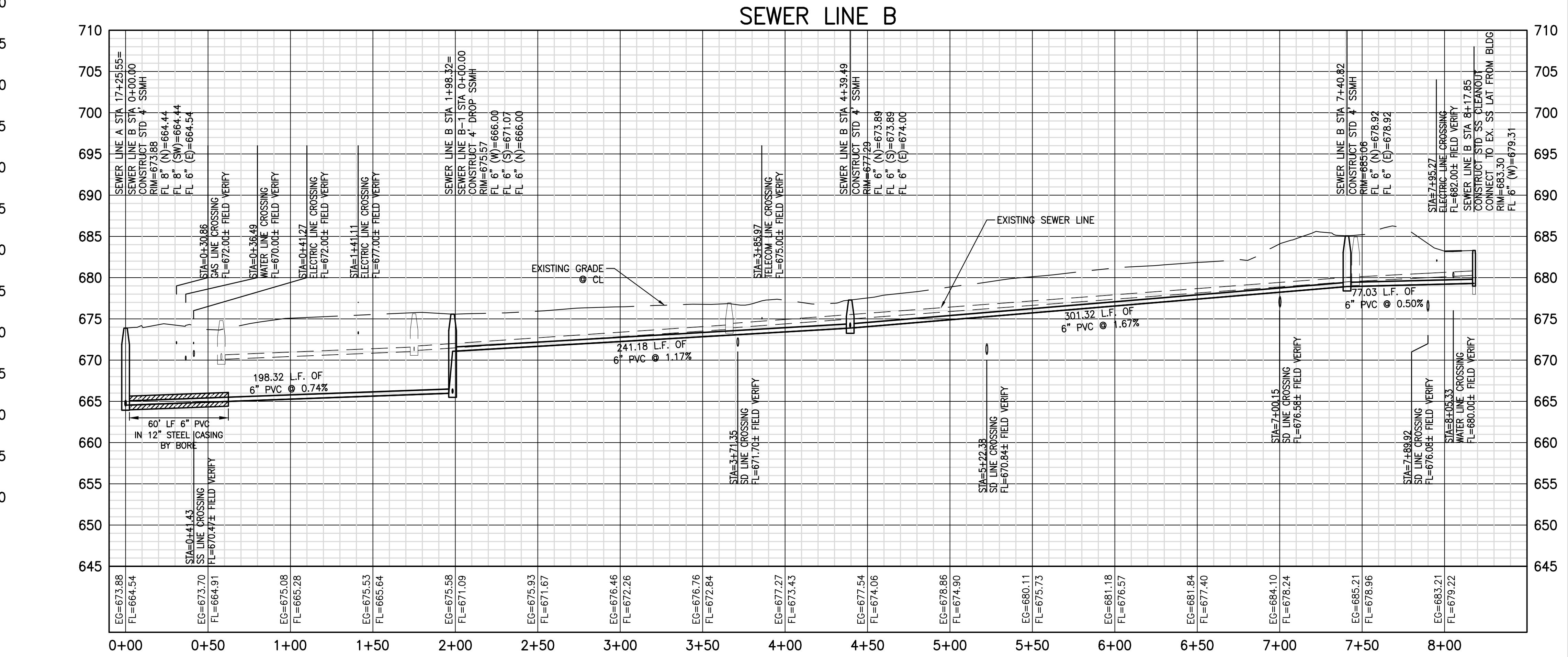
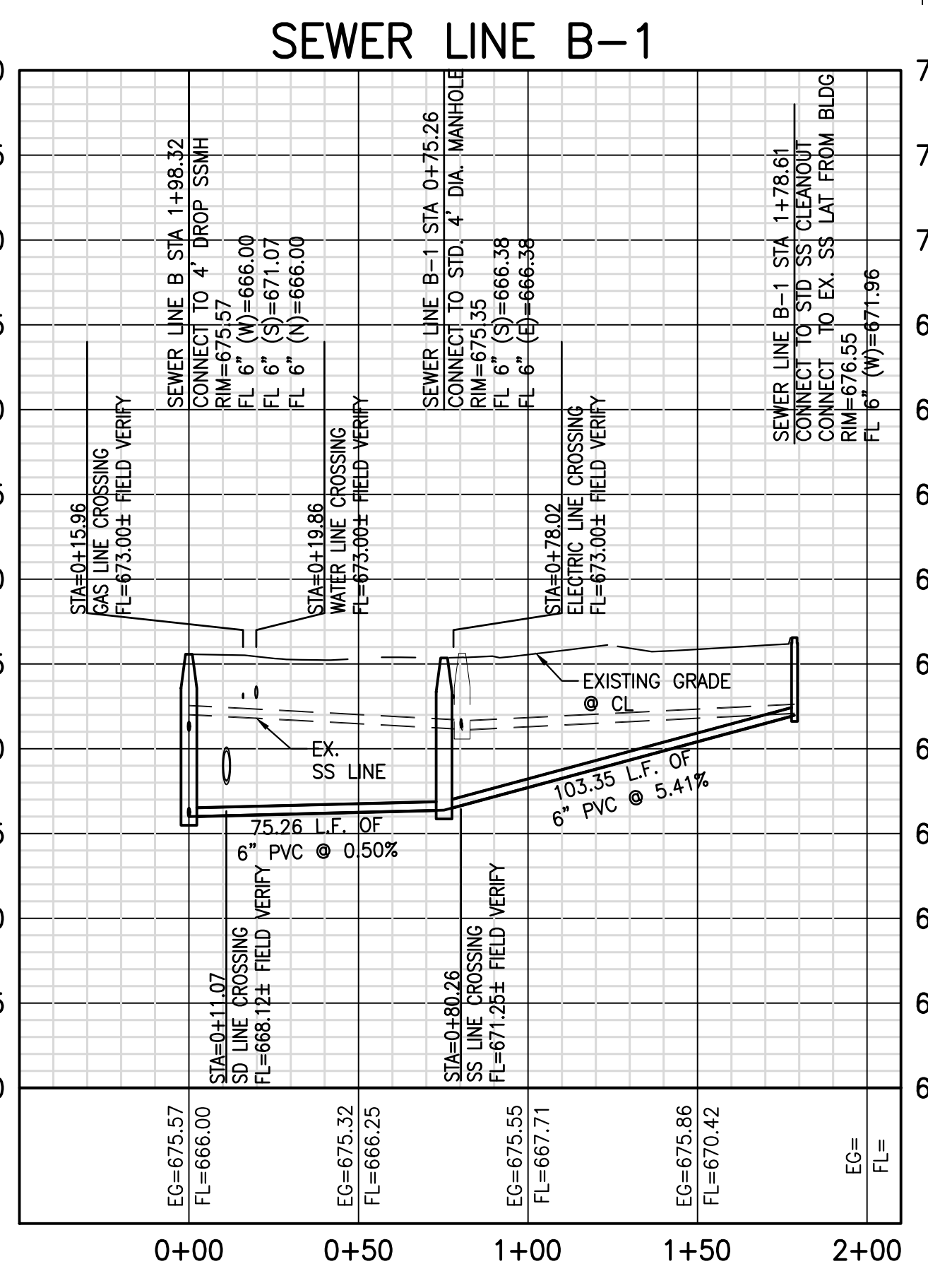
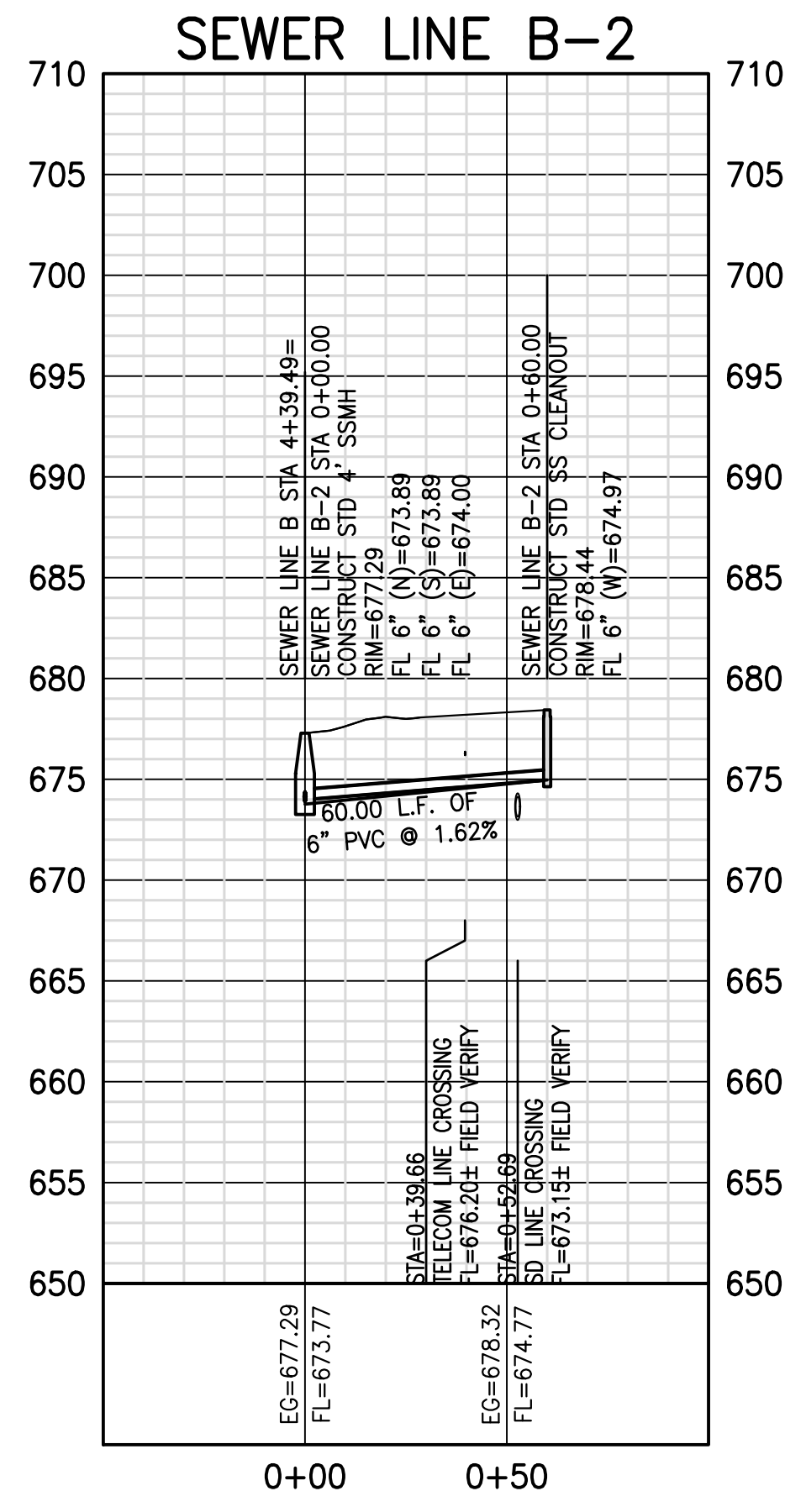
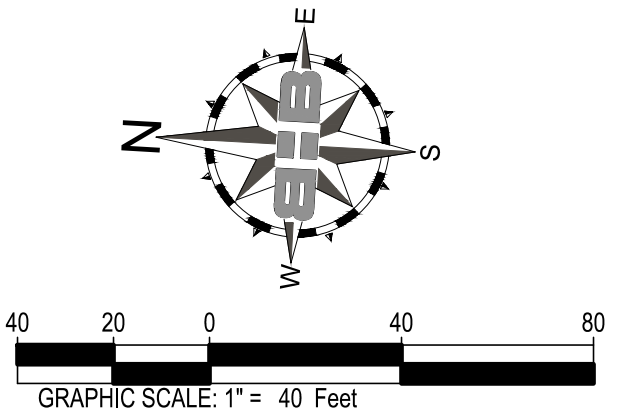
TARRANT COUNTY  
 REPLACE SANITARY  
 SEWER SYSTEM  
 RESOURCE CONNECTION - FORT WORTH, TEXAS

PLAN & PROFILE LINE A-4 & A-5

NO.	DESCRIPTION	DATE

STATE OF TEXAS  
 JOHN W. BAIRD, JR.  
 REGISTERED PROFESSIONAL ENGINEER  
 10/07/2022

PROJECT NUMBER: 2022.010.005  
 DATE: 10/07/22 DRAWN BY: LB  
 DESIGN BY: BB CHECKED BY: BB  
 SHEET  
**C1.4**



**BENCHMARKS:**  
 TBM #3 Box Cut set on the concrete base of a light pole, +/- 25' South from Southwest corner of Building #2500 and +/- 35' West. Elevation = 676.01'  
 TBM #4 Mueller Nut on a fire hydrant, +/- 75' East from the Northeast corner of Building #2400 and +/- 15' North. Elevation = 680.11  
 TBM #5 Box Cut set on the concrete base of a light pole, +/- 115' North from the Northwest corner of Building #1100 and +/- 55' West. Elevation = 682.34'

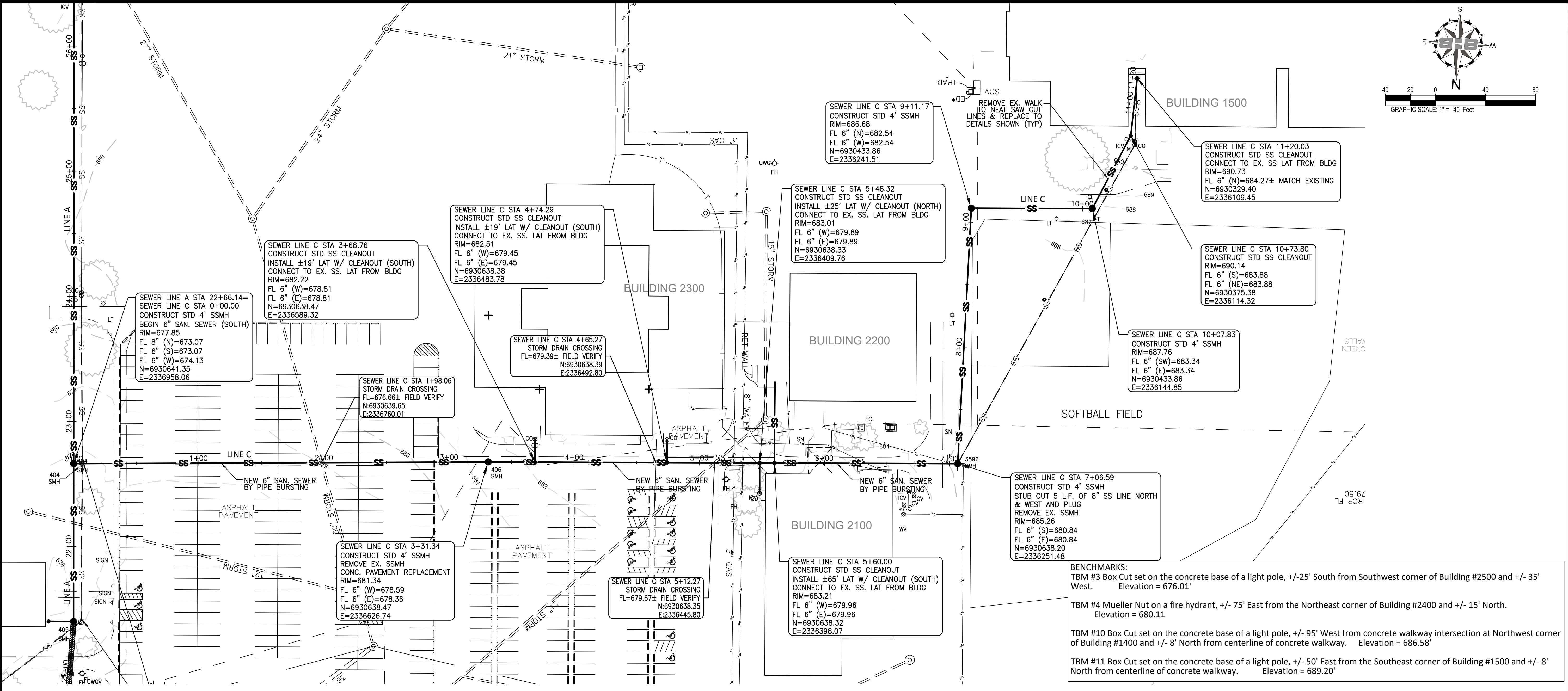
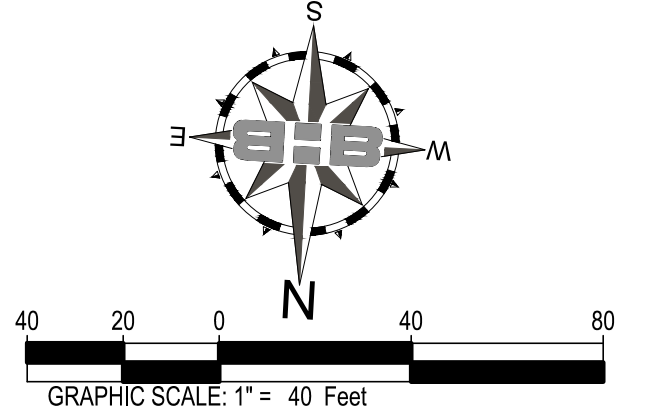
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NO.	DESCRIPTION	DATE

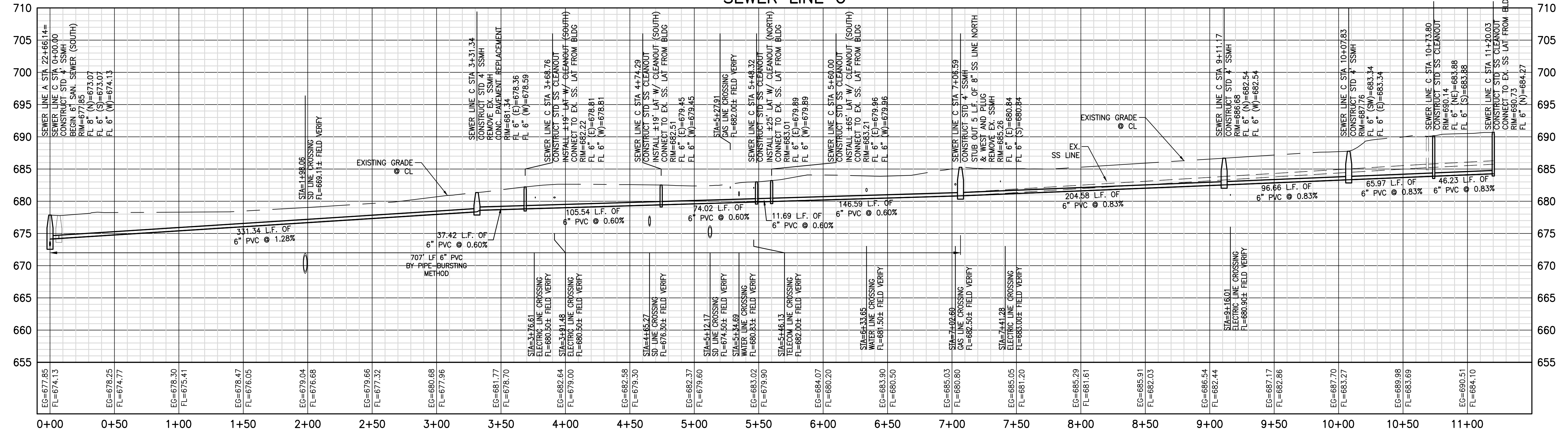
PROJECT NUMBER: 2022.010.005  
 DATE: 10/07/22 DRAWN BY: LB  
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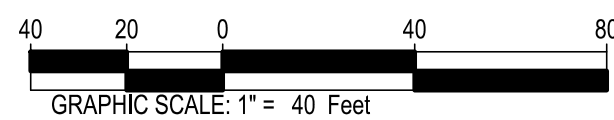
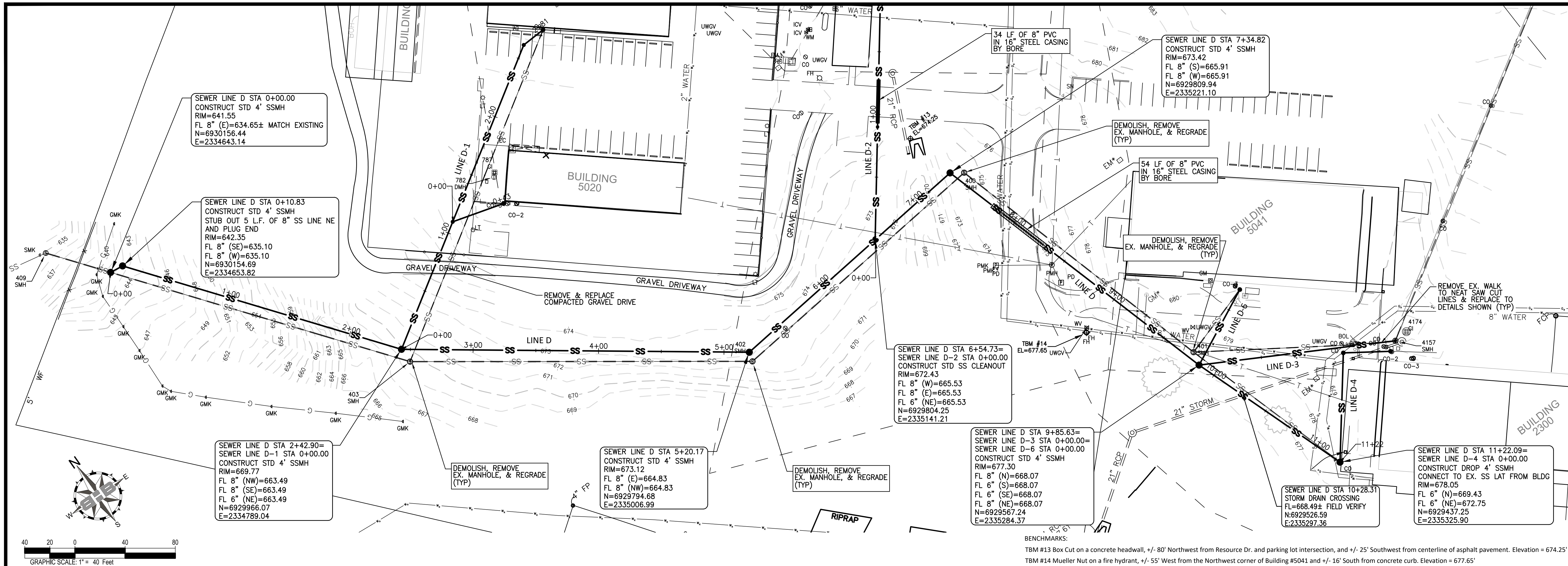
SHEET  
**C1.5**



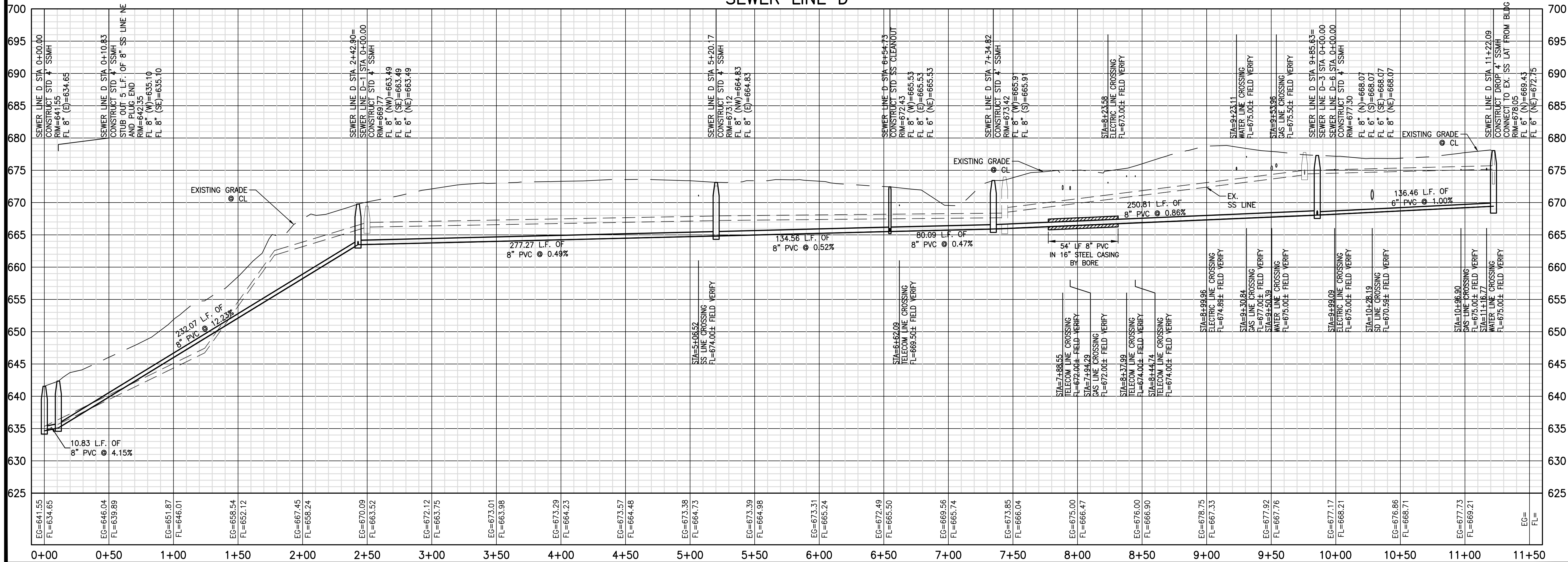


**SEWER LINE C**





SEWER LINE D



TARRANT COUNTY  
 REPLACE SANITARY  
 SEWER SYSTEM  
 RESOURCE CONNECTION - FORT WORTH, TEXAS

PLAN & PROFILE LINE D

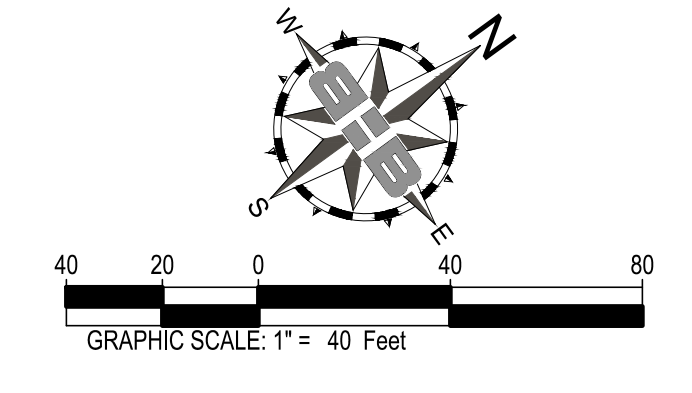
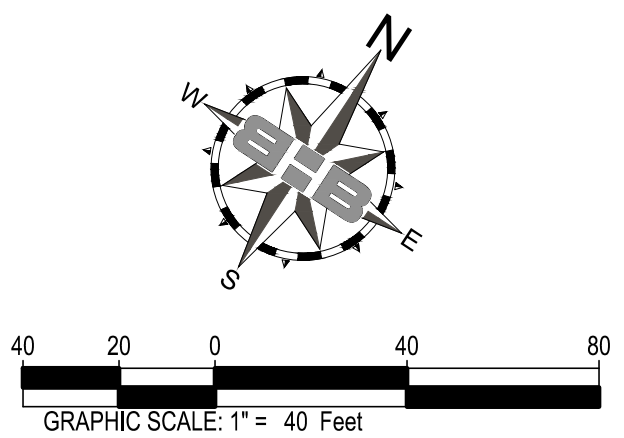
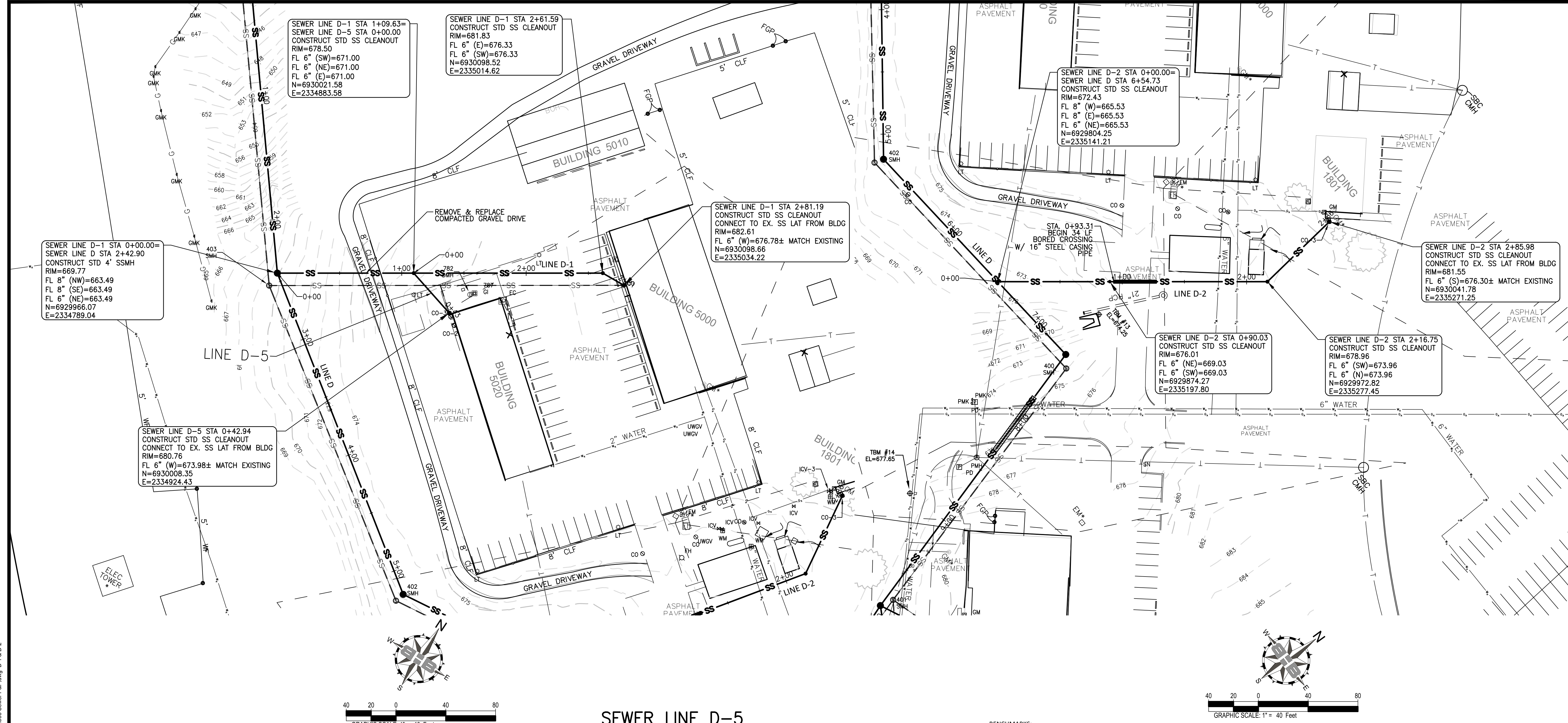
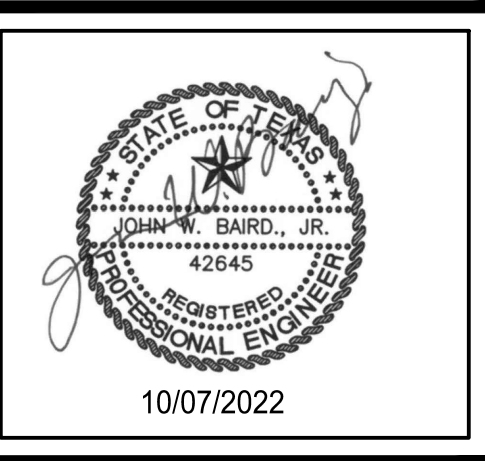
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PROJECT NUMBER: 2022.010.005  
 DATE: 10/07/22 DRAWN BY: LB  
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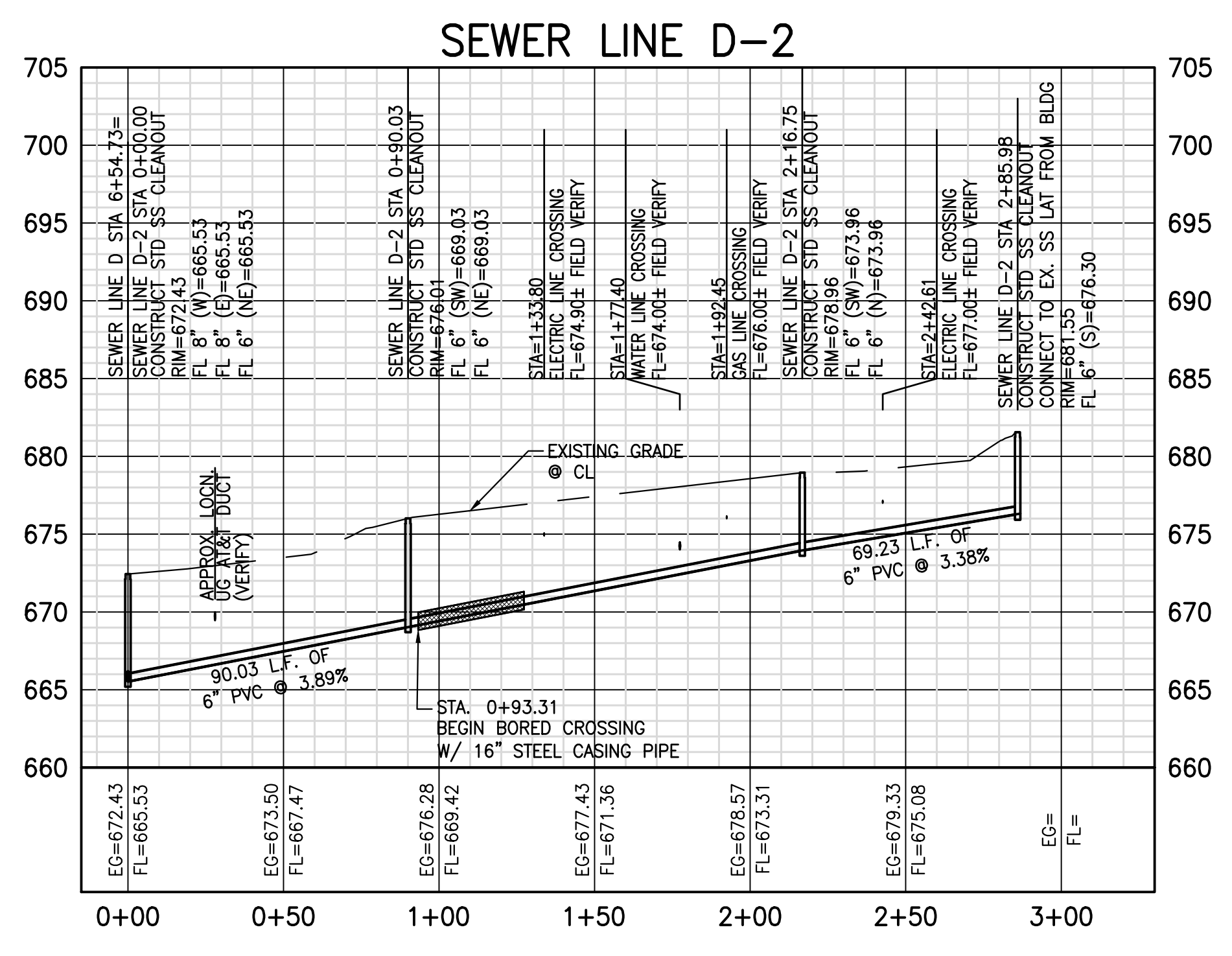
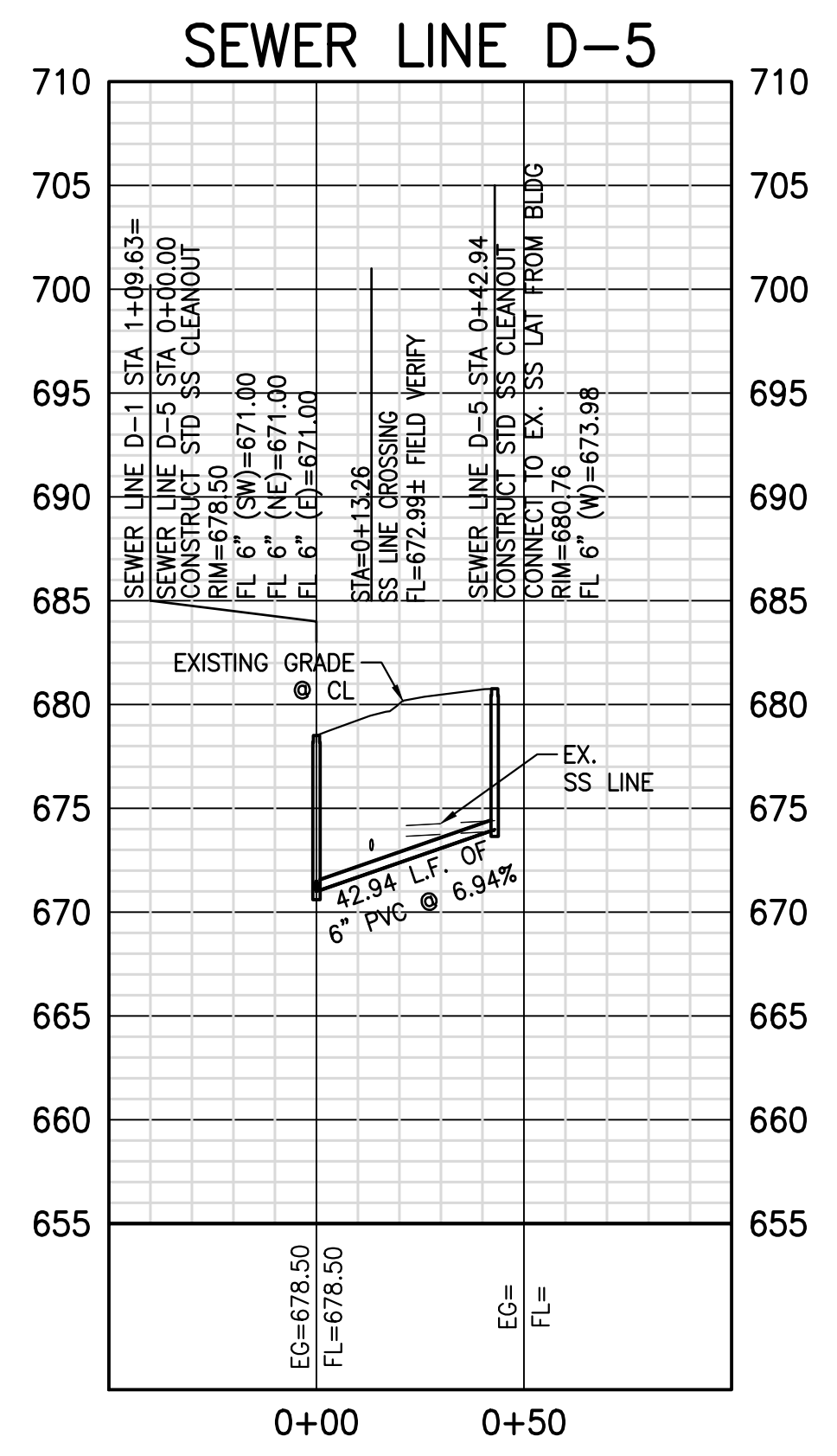
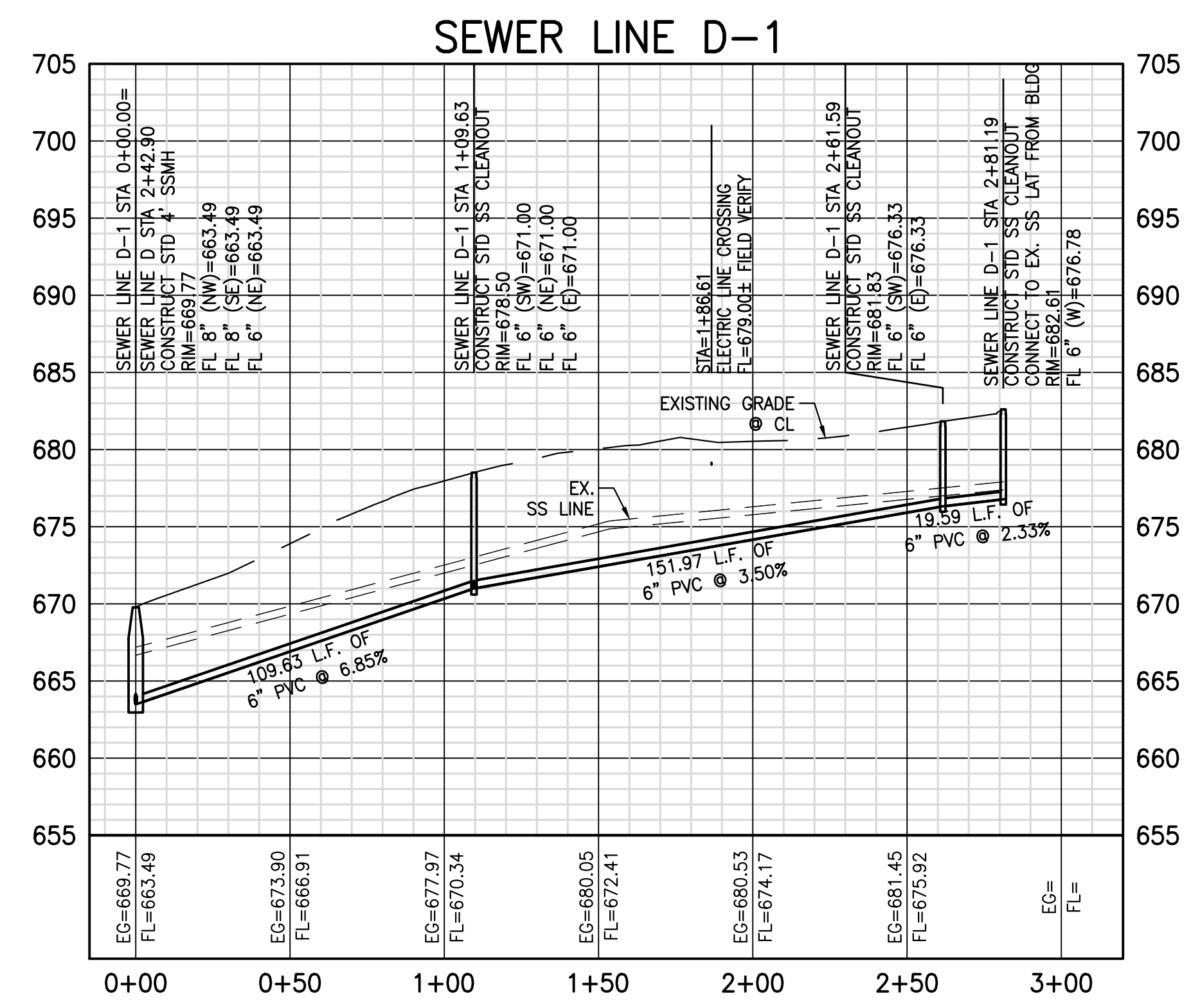
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PLAN & PROFILE LINE  
 D-1, D-2 & D-5

NO.	DESCRIPTION	DATE

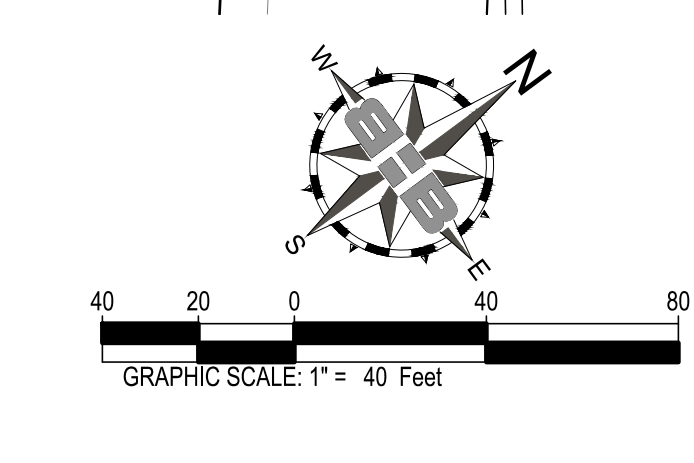
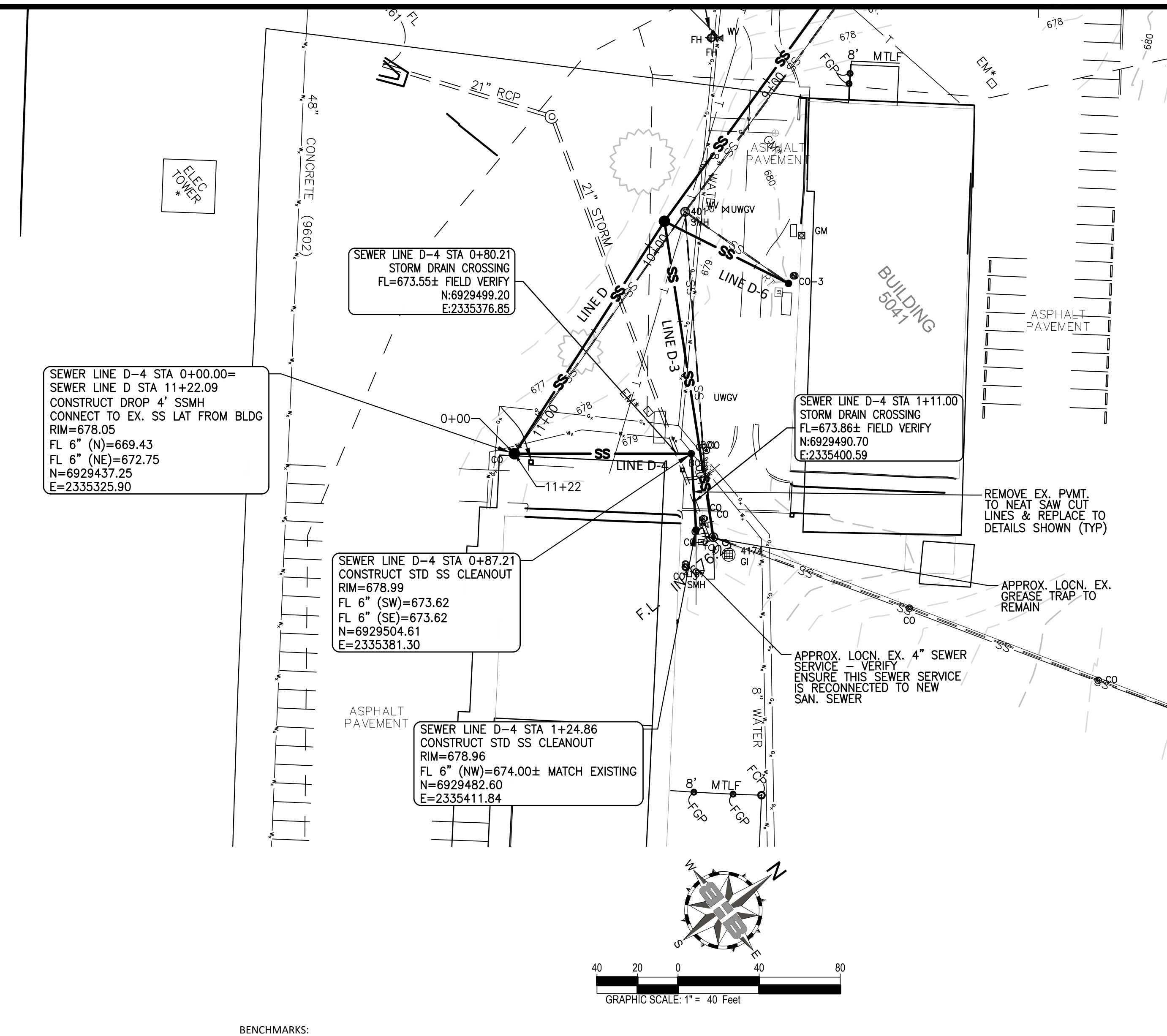
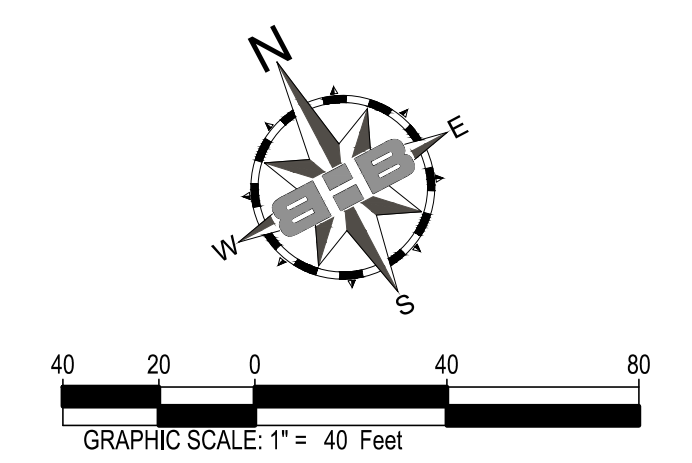
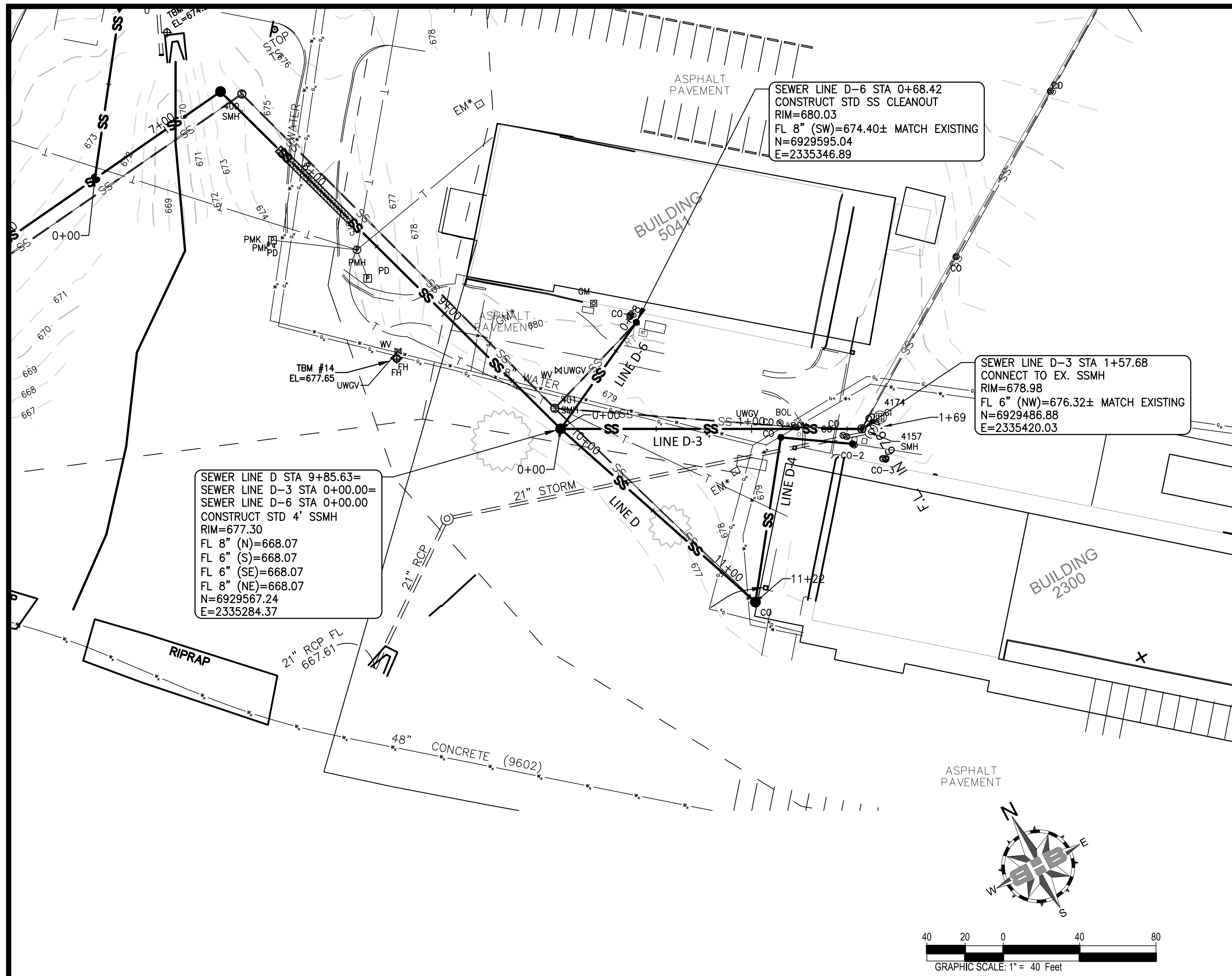


BENCHMARKS:  
 TBM #13 Box Cut on a concrete headwall, +/- 80' Northwest from Resource Dr. and parking lot intersection, and +/- 25' Southwest from centerline of asphalt pavement. Elevation = 674.25'  
 TBM #14 Mueller Nut on a fire hydrant, +/- 55' West from the Northwest corner of Building #5041 and +/- 16' South from concrete curb. Elevation = 677.65'

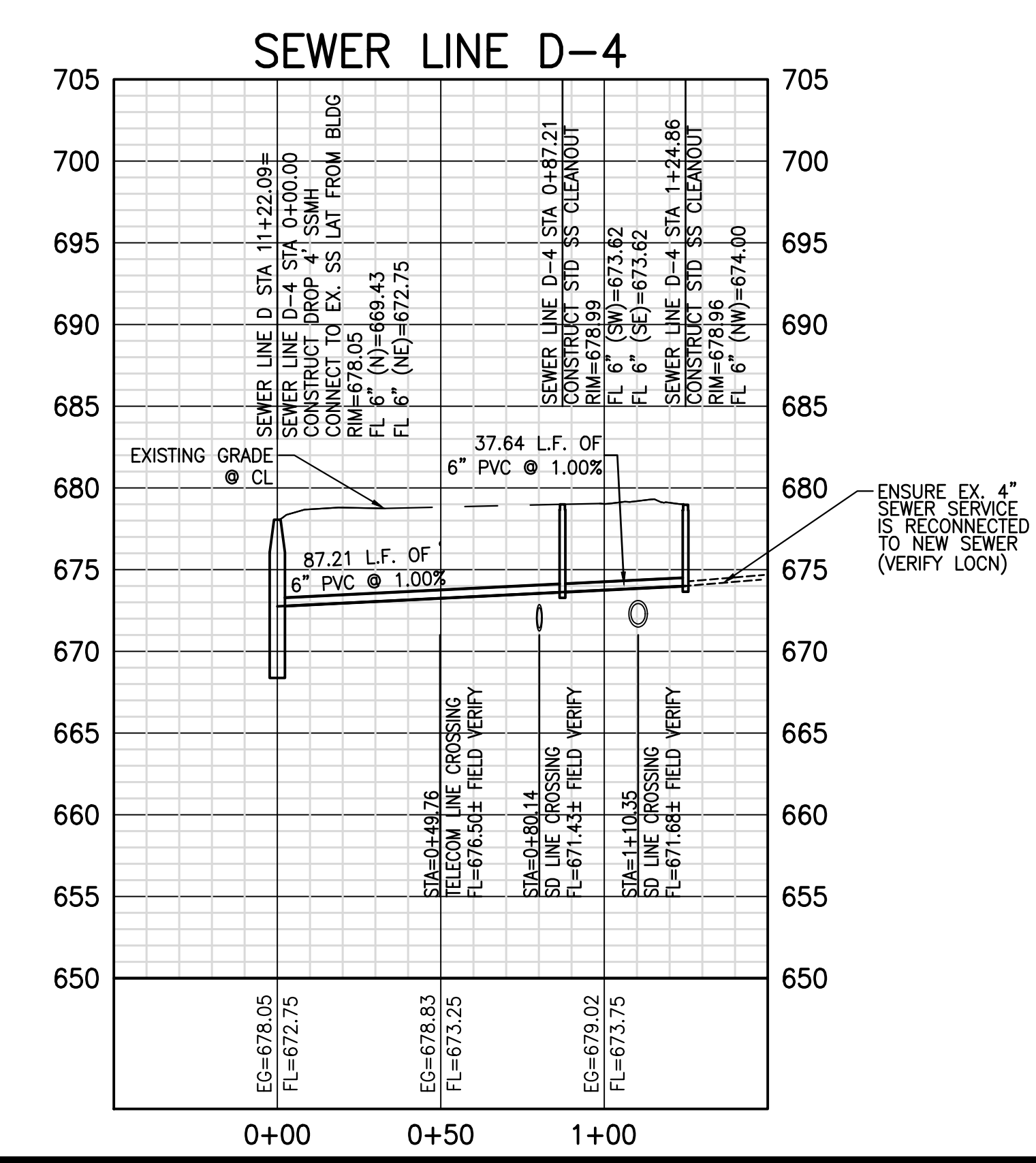
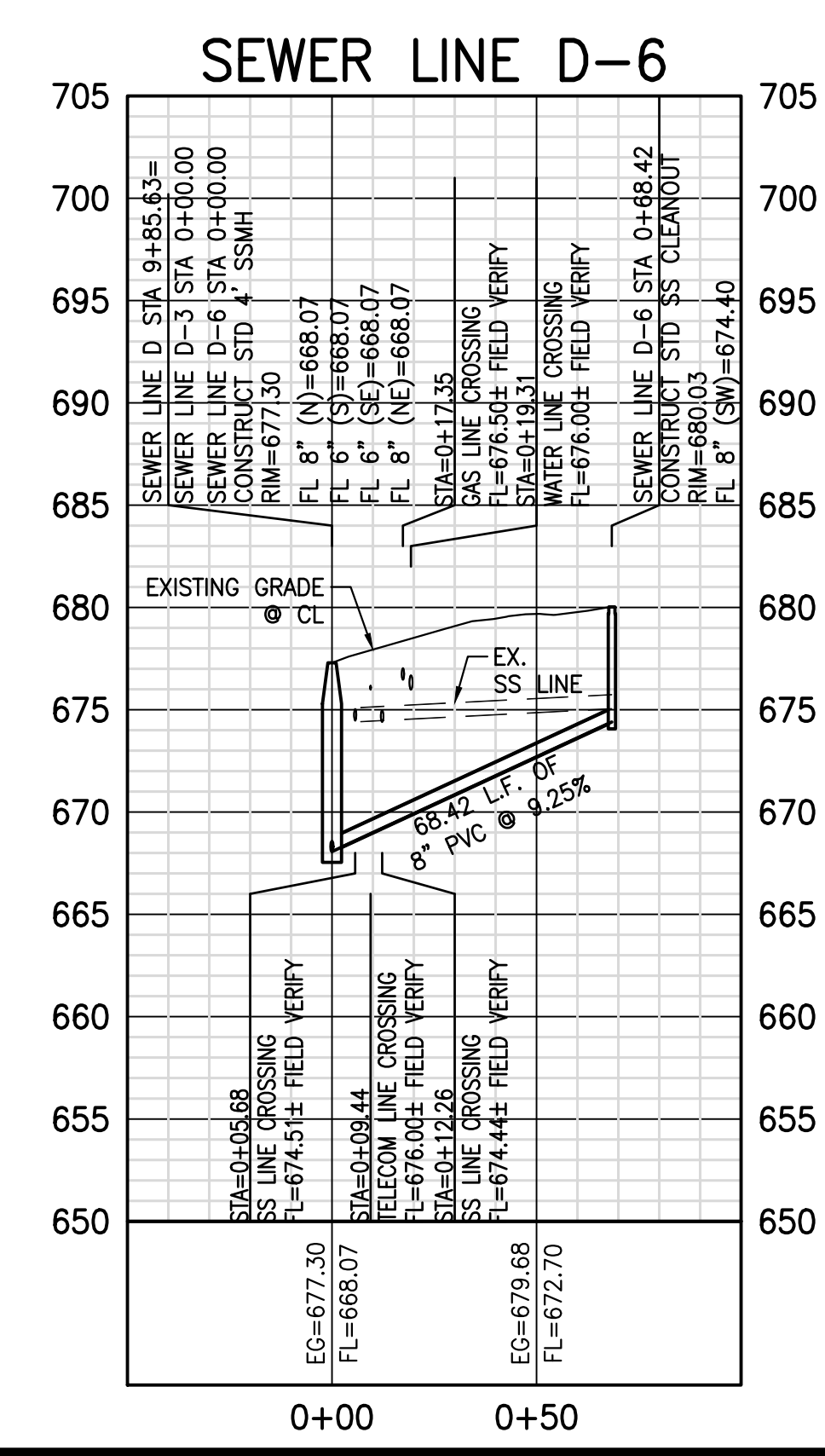
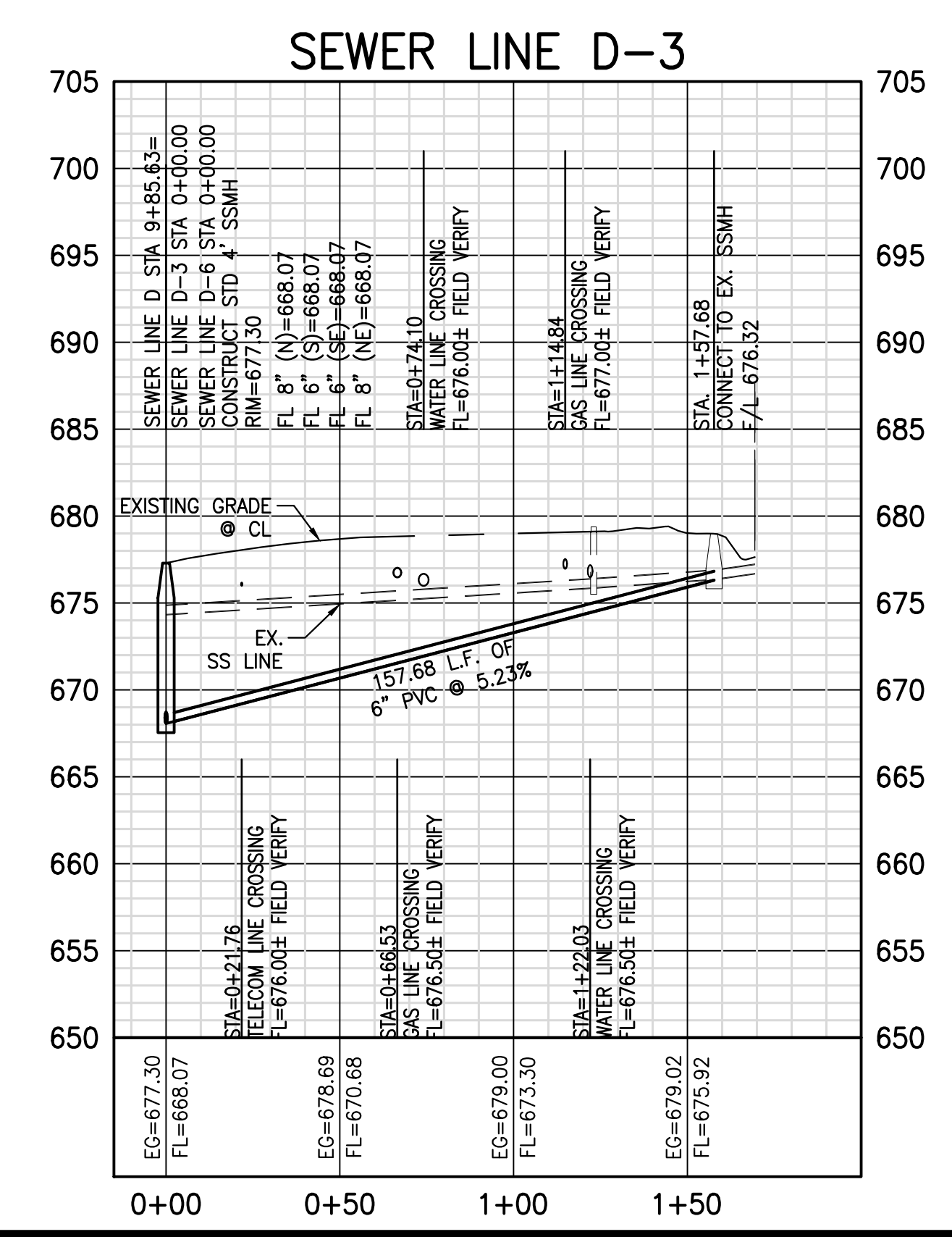


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BENCHMARKS:  
 TBM #13 Box Cut on a concrete headwall, +/- 80' Northwest from Resource Dr. and parking lot intersection, and +/- 25' Southwest from centerline of asphalt pavement. Elevation = 674.25'  
 TBM #14 Mueller Nut on a fire hydrant, +/- 55' West from the Northwest corner of Building #5041 and +/- 16' South from concrete curb. Elevation = 677.65'



**B=B**  
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 TBEELS Firm #44, #10011900, #10011302, #10194146

TARRANT COUNTY  
**REPLACE SANITARY  
 SEWER SYSTEM**  
 RESOURCE CONNECTION - FORT WORTH, TEXAS

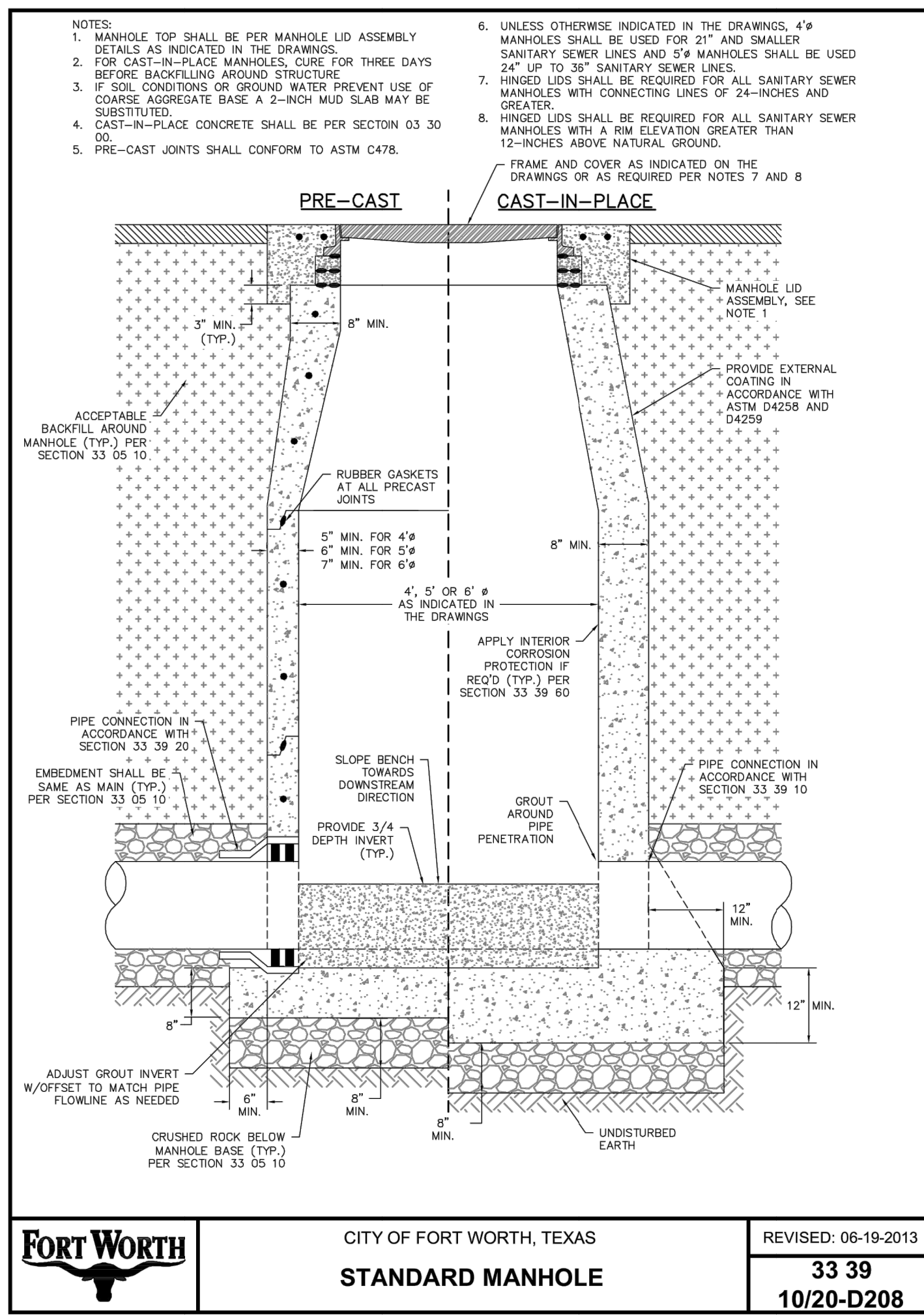
PLAN & PROFILE LINE  
 D-3, D-4 & D-6

NO.	DESCRIPTION	DATE

STATE OF TEXAS  
 JOHN W. BAIRD, JR.  
 REGISTERED PROFESSIONAL ENGINEER  
 42645  
 10/07/2022

PROJECT NUMBER: 2022.010.005  
 DATE: 10/07/22 DRAWN BY: LB  
 DESIGN BY: BB CHECKED BY: BB

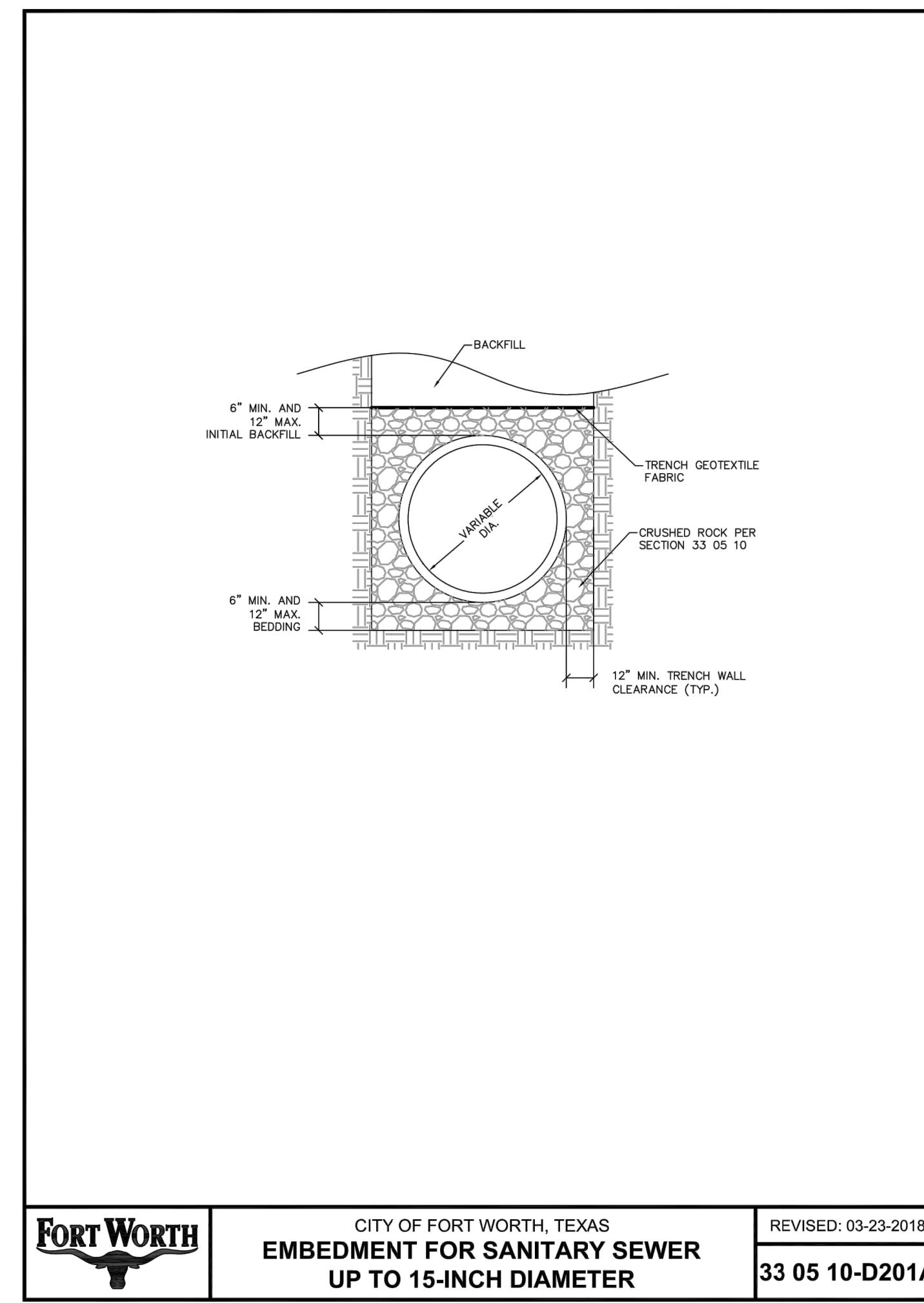
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**FORT WORTH** CITY OF FORT WORTH, TEXAS      REVISED: 06-19-2013

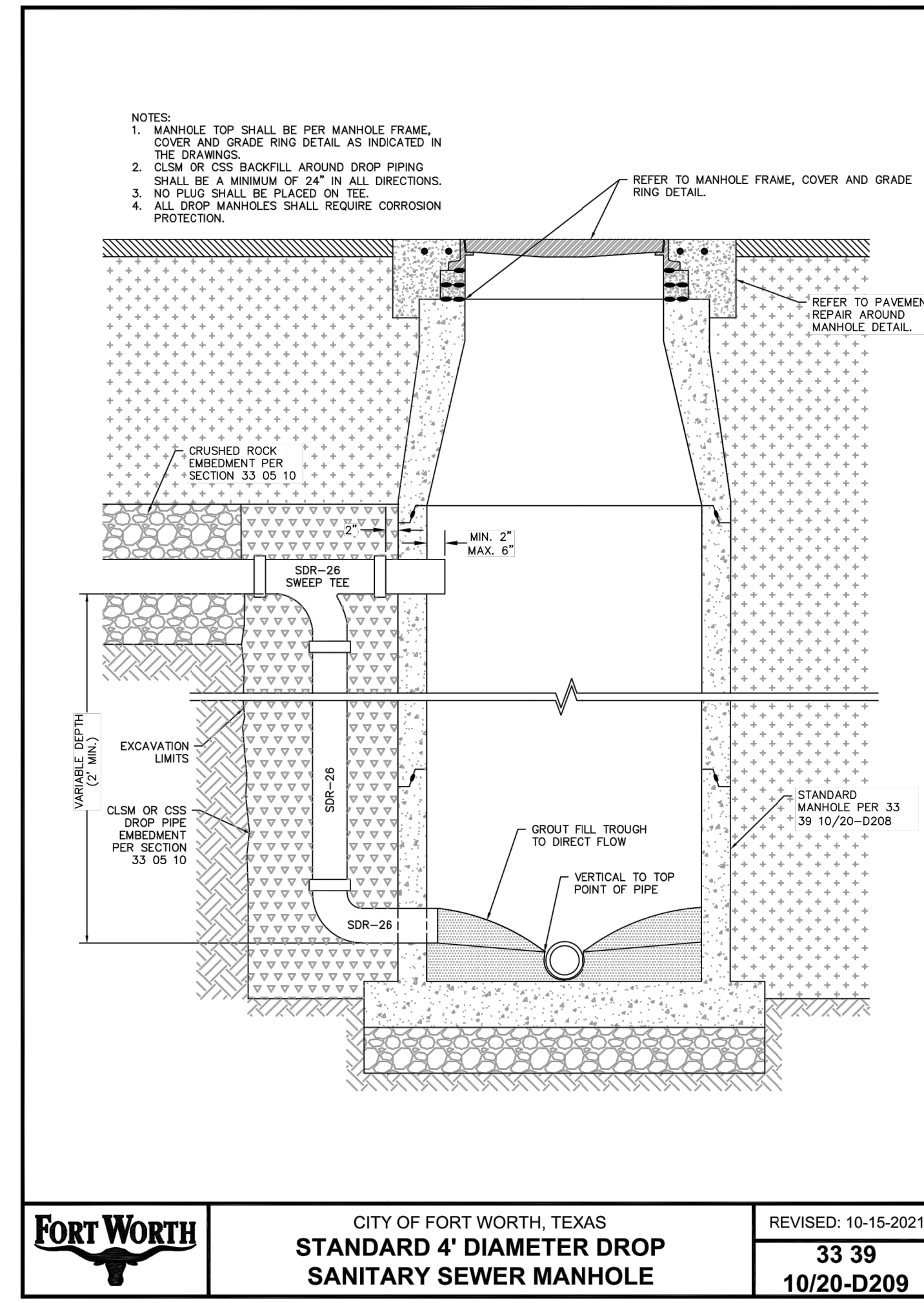
**STANDARD MANHOLE**      **33 39**

10/20-D208



**FORT WORTH** CITY OF FORT WORTH, TEXAS      REVISED: 03-23-2018

**EMBEDMENT FOR SANITARY SEWER UP TO 15-INCH DIAMETER**      **33 05 10-D201A**



**FORT WORTH** CITY OF FORT WORTH, TEXAS      REVISED: 10-15-2021

**STANDARD 4' DIAMETER DROP SANITARY SEWER MANHOLE**      **33 39**

10/20-D209

**NOTE TO DESIGNER:**  
 PIPE LARGER THAN 42" TO BE CASING IN STEEL SHALL BE DESIGNED BY ENGINEER

**NOTE:**  
 1. SEWER CARRIER PIPE SHALL BE CENTERED IN CASING PIPE OR TUNNEL LINER PLATE, BUT VARIATIONS MAY BE ALLOWED TO ACHIEVE PROPOSED GRADE ON DRAWINGS.  
 2. CASING AND TUNNEL LINER PLATE DIAMETERS SHOWN ARE TO MEET MINIMUM INSTALLATION REQUIREMENTS. LARGER CASING SIZES MAY BE INCREASED TO ALLOW FOR CASING INSTALLATION TOLERANCE VARIABILITY.

**CARRIER PIPE**

**SANITARY SEWER PIPE WITH STEEL CASING**

STEEL CASING PIPE

CELLULAR GROUTING IN ANNULAR SPACE PER SECTION 33 05 24

COATED STEEL CASING SPACERS PER SECTION 33 05 24

**SANITARY SEWER PIPE 36" AND LARGER WITH TUNNEL LINER PLATE**

TUNNEL LINER PLATE OUTSIDE DIAMETER

TUNNEL LINER PLATE INSIDE DIAMETER

CELLULAR GROUTING IN ANNULAR SPACE PER SECTION 33 05 24

GROUT BOTTOM

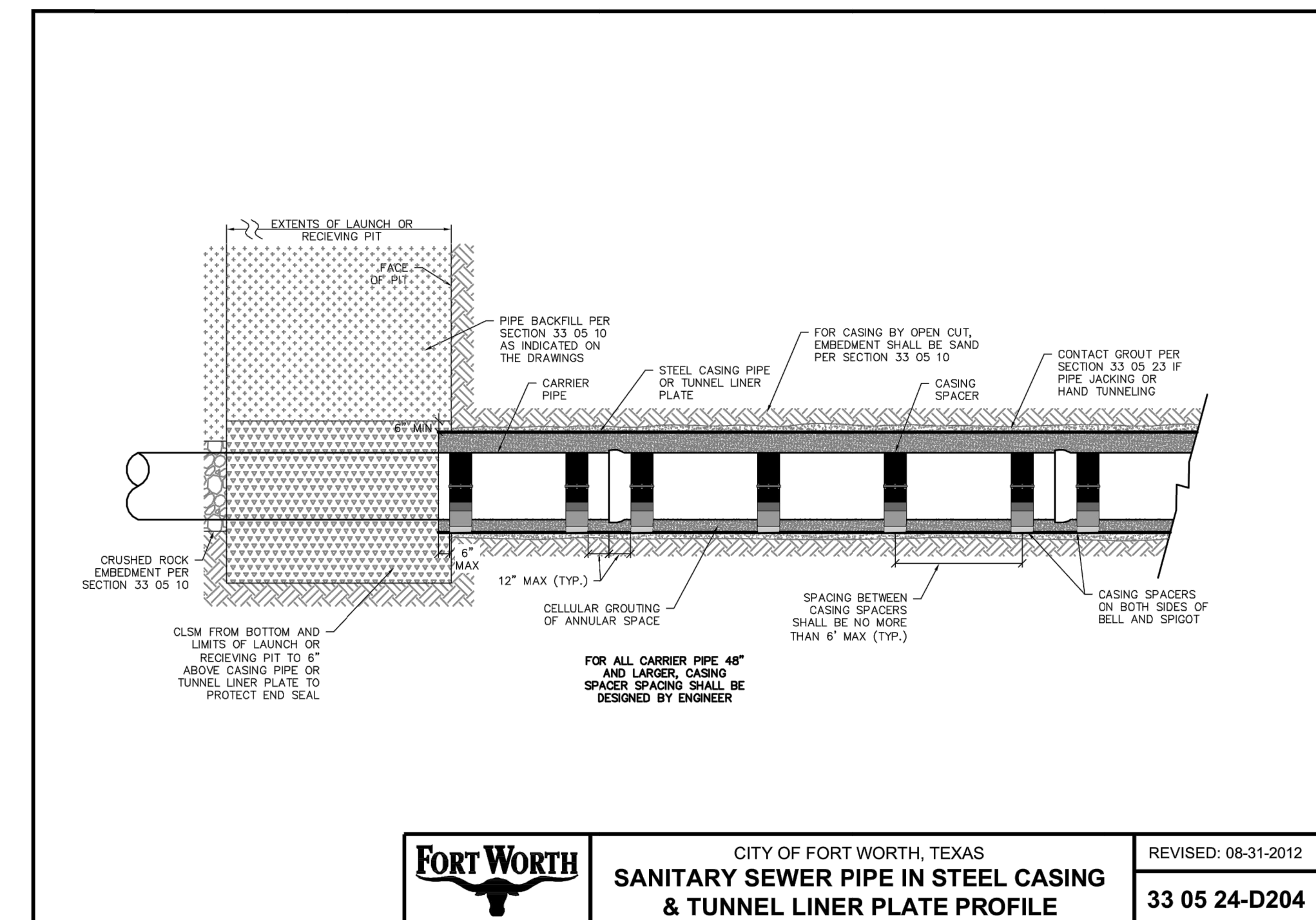
IRON 1/2" CHANNEL OR TUBING SPACERS (NO ANGLE IRON ALLOWED)

NOMINAL CARRIER PIPE SIZE	SDR 26 PVC CARRIER PIPE BELL OD	MIN CASING STEEL ID	DI CARRIER PIPE BELL OD	MIN CASING STEEL ID	FIBERGLASS CARRIER PIPE COUPLING OD	MIN CASING STEEL ID
8"	9.692"	20"	11.16"	20"	--	--
10"	12.116"	20"	13.25"	20"	--	--
15"	14.424"	24"	15.22"	20"	--	--
15"	17.652"	24"	--	--	--	--
16"	--	--	18.86"	30"	--	--
18"	--	--	22.16"	36"	21.3"	30"
20"	--	--	24.28"	38"	23.4"	30"
21"	--	--	25.39"	38"	--	--
24"	--	--	28.50"	42"	27.6"	42"
27"	--	--	--	--	29.8"	42"
30"	--	--	34.95"	48"	33.9"	48"
36"	--	--	41.37"	54"	40.2"	54"
42"	--	--	48.27"	60"	46.5"	60"

NOMINAL CARRIER PIPE SIZE	DI CARRIER PIPE BELL OD	NOMINAL TLP #	SS FIBERGLASS CARRIER PIPE COUPLING OD	NOMINAL TLP #
18"	22.16"	48"	21.3"	48"
20"	24.28"	48"	23.4"	48"
21"	--	--	--	--
24"	28.50"	48"	27.6"	48"
27"	--	--	29.8"	48"
30"	34.95"	52"	33.9"	52"
36"	41.37"	58"	40.2"	52"
42"	48.27"	66"	46.5"	62"
48"	--	--	52.9"	68"
54"	--	--	59.4"	76"
60"	--	--	65.5"	82"
66"	--	--	72"	88"
72"	--	--	78.3"	94"
78"	--	--	84.7"	100"
84"	--	--	91.2"	106"
90"	--	--	97.8"	114"
96"	--	--	103.1"	118"

**FORT WORTH** CITY OF FORT WORTH, TEXAS      REVISED: 05-31-2016

**SANITARY SEWER CARRIER PIPE INSTALLATION IN STEEL CASING AND TUNNEL LINER PLATE**      **33 05 24-D203**



**FORT WORTH** CITY OF FORT WORTH, TEXAS      REVISED: 08-31-2012

**SANITARY SEWER PIPE IN STEEL CASING & TUNNEL LINER PLATE PROFILE**      **33 05 24-D204**

**B=B**  
**BAIRD, HAMPTON & BROWN**  
 engineering and surveying

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 TBEELS Firm #44, #10011900, #101194146

TARRANT COUNTY  
 REPLACE SANITARY  
 SEWER SYSTEM  
 RESOURCE CONNECTION - FORT WORTH, TEXAS

**DETAILS**

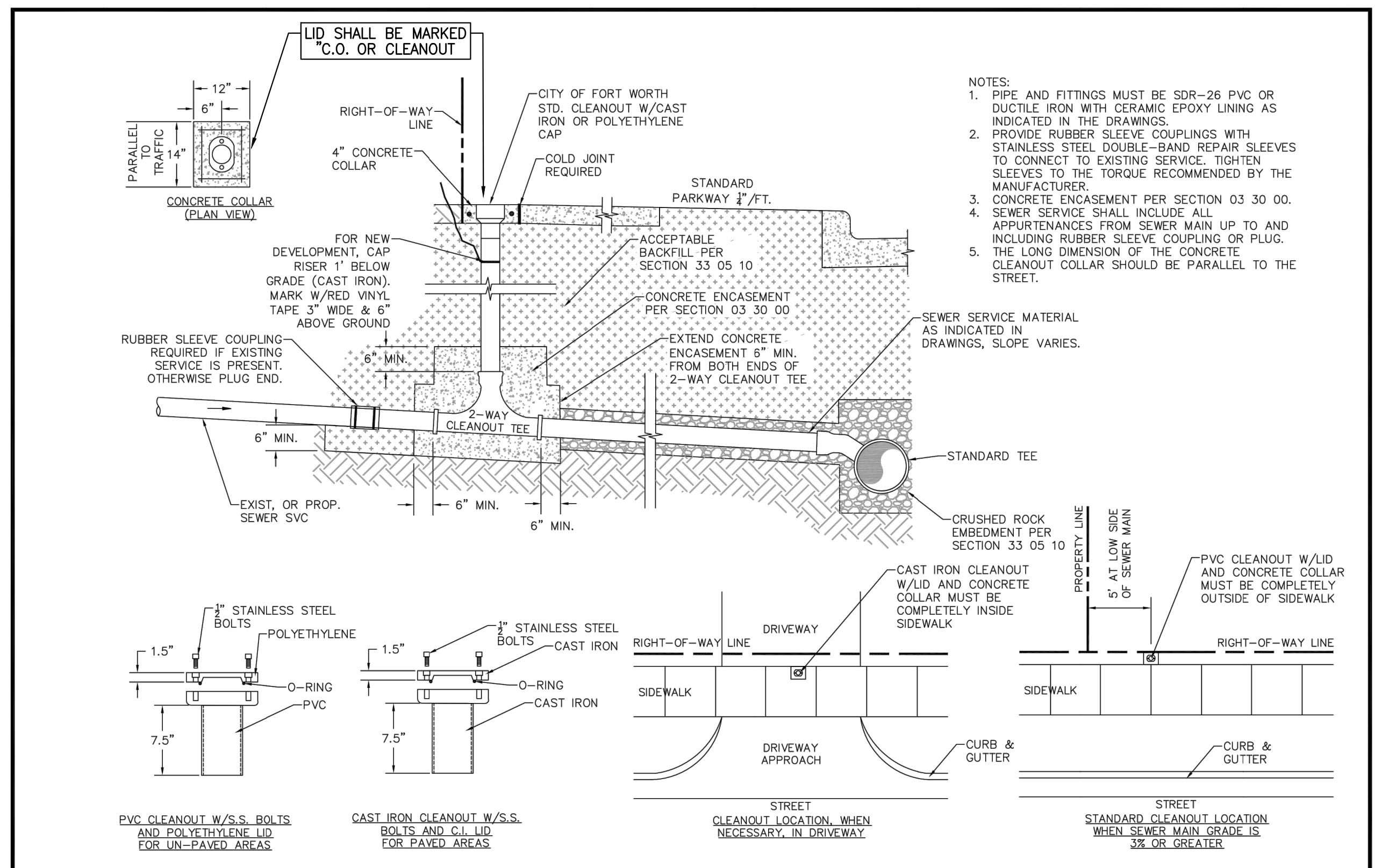
NO.	DESCRIPTION	DATE

**STATE OF TEXAS**  
**REGISTERED PROFESSIONAL ENGINEER**  
**JOHN W. BAIRD, JR.**  
 10/07/2022

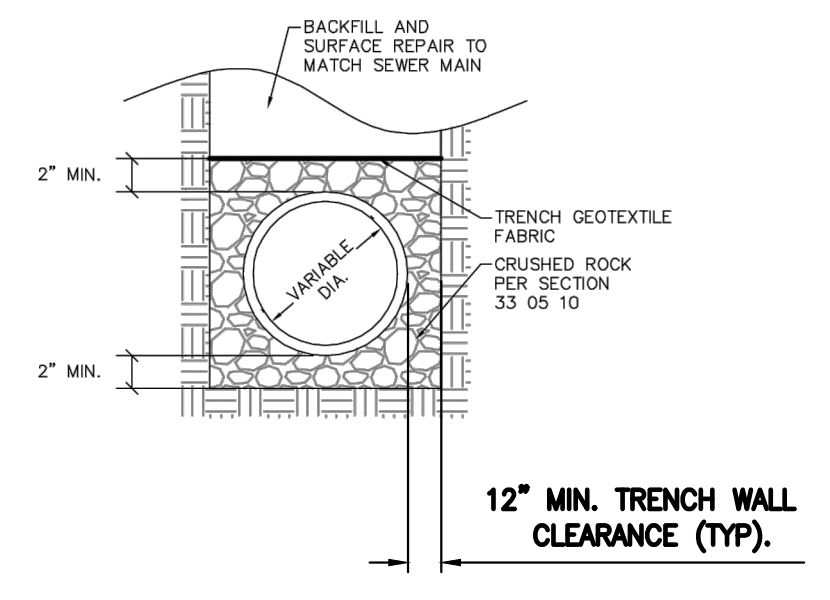
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 DATE: 10/07/22 DRAWN BY: LB  
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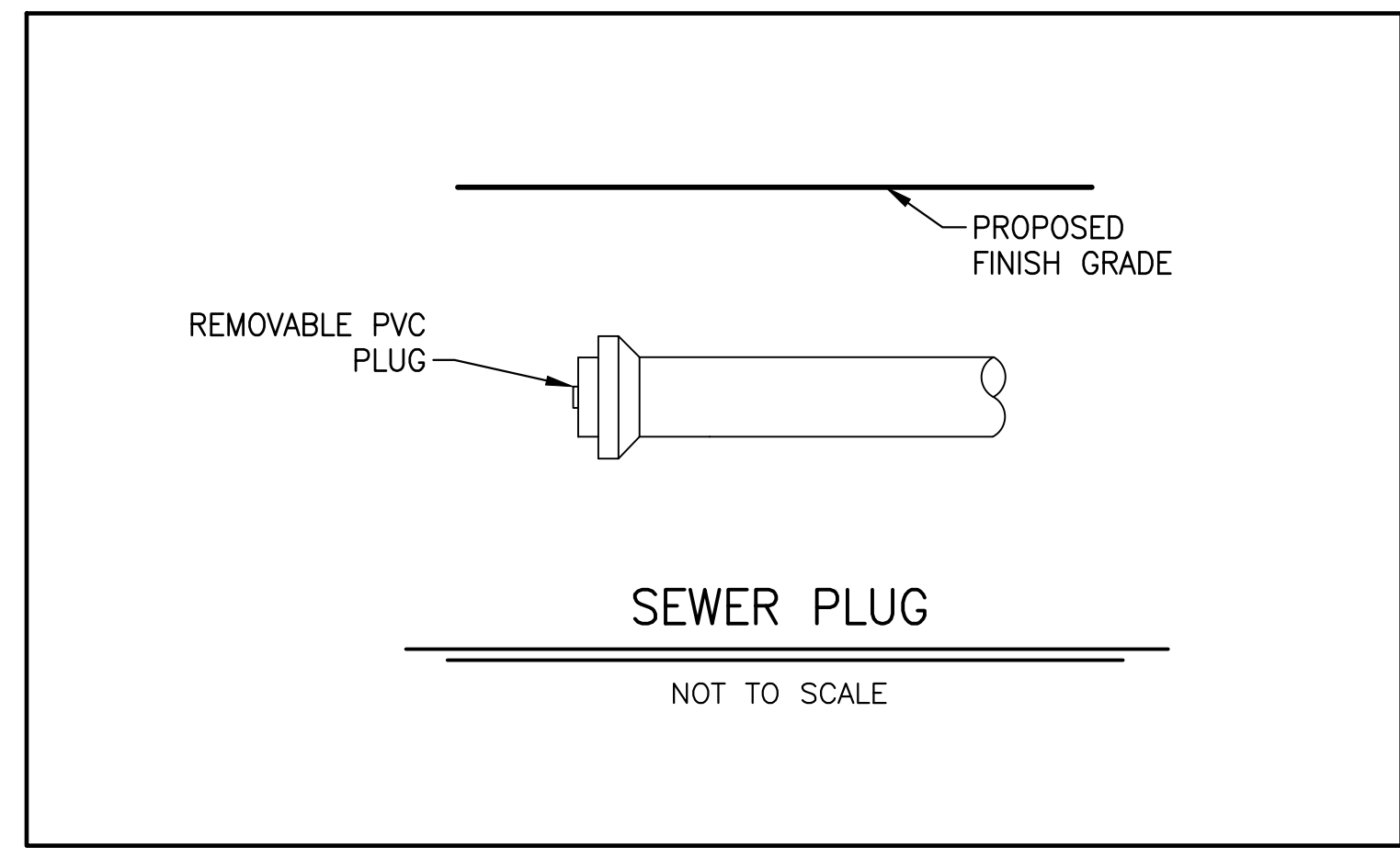
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**FORT WORTH** CITY OF FORT WORTH, TEXAS  
**SANITARY SEWER SERVICE** REVISED: 02-08-2021  
**33 31 50-D214**



**FORT WORTH** CITY OF FORT WORTH, TEXAS  
**EMBEDMENT FOR SANITARY SEWER SERVICES** REVISED: 08-31-2012  
**33 05 10-D202**



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 mail@bhinc.com • 817.338.1277 • bhinc.com  
 TBPELS Firm #44, #10011900, #10011902, #10194146

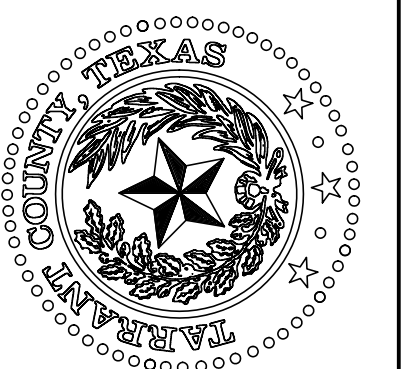
TARRANT COUNTY  
**REPLACE SANITARY SEWER SYSTEM**  
 RESOURCE CONNECTION - FORT WORTH, TEXAS

NO.	DESCRIPTION	DATE

STATE OF TEXAS  
**BAIRD, JR.**  
 REGISTERED PROFESSIONAL ENGINEER  
 10/07/2022

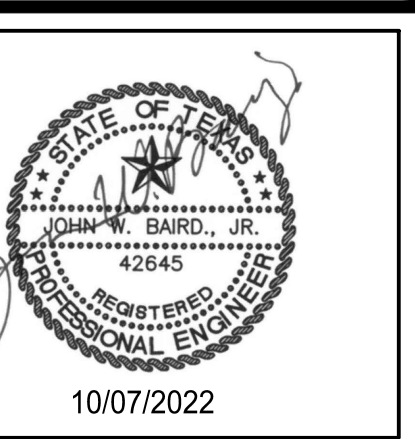
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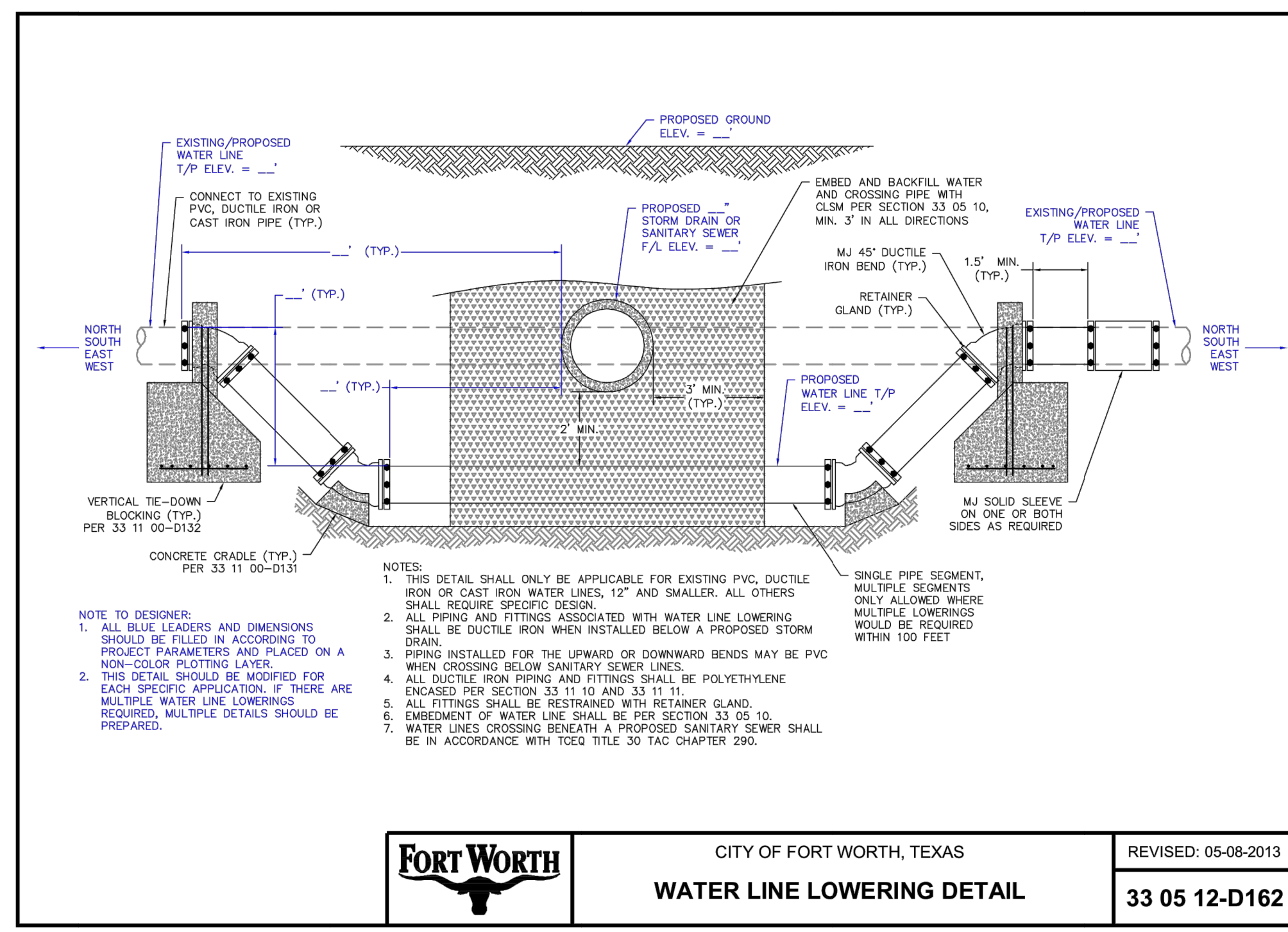
TARRANT COUNTY  
 REPLACE SANITARY  
 SEWER SYSTEM  
 RESOURCE CONNECTION - FORT WORTH, TEXAS

NO.	DESCRIPTION	DATE

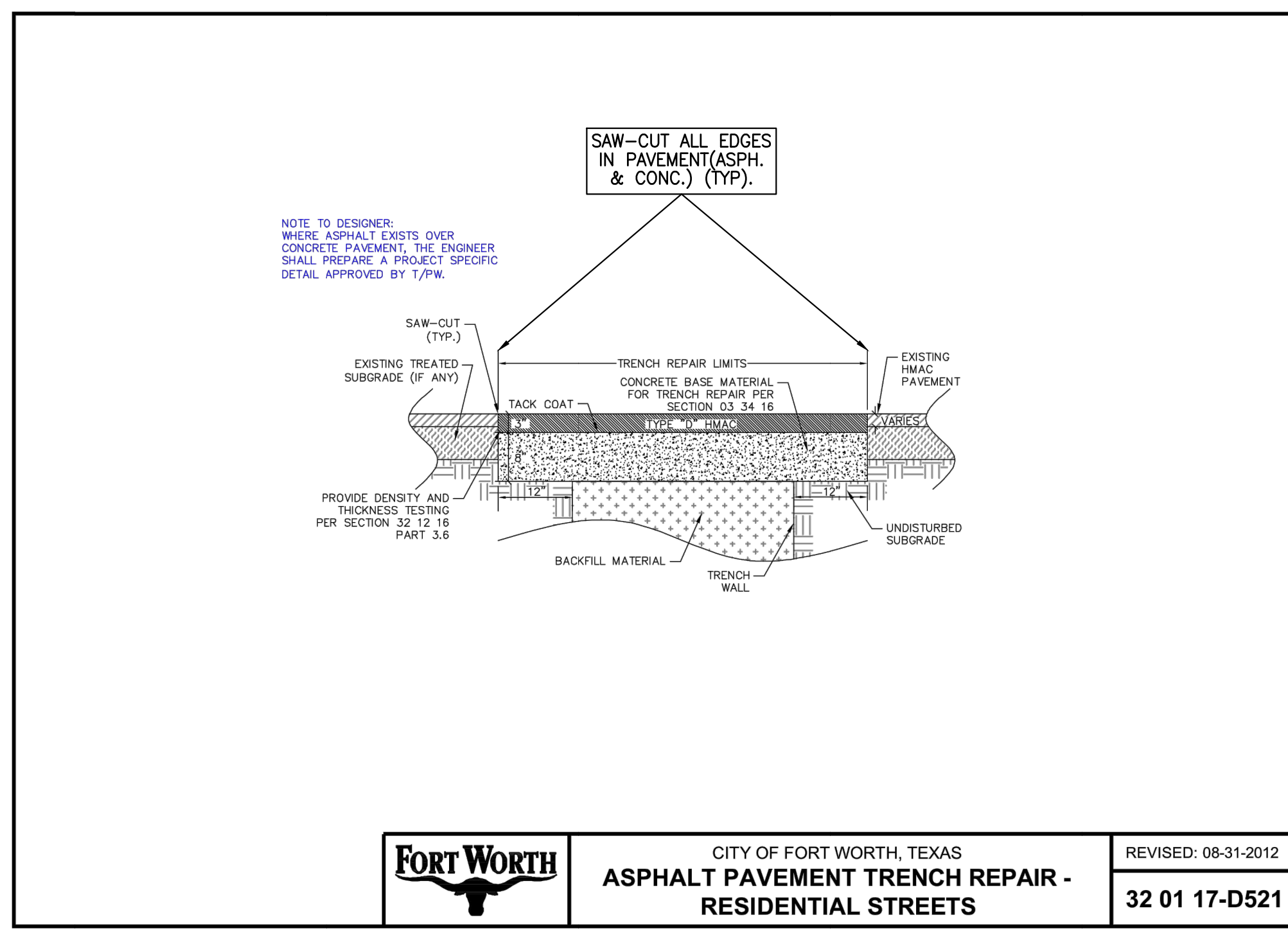


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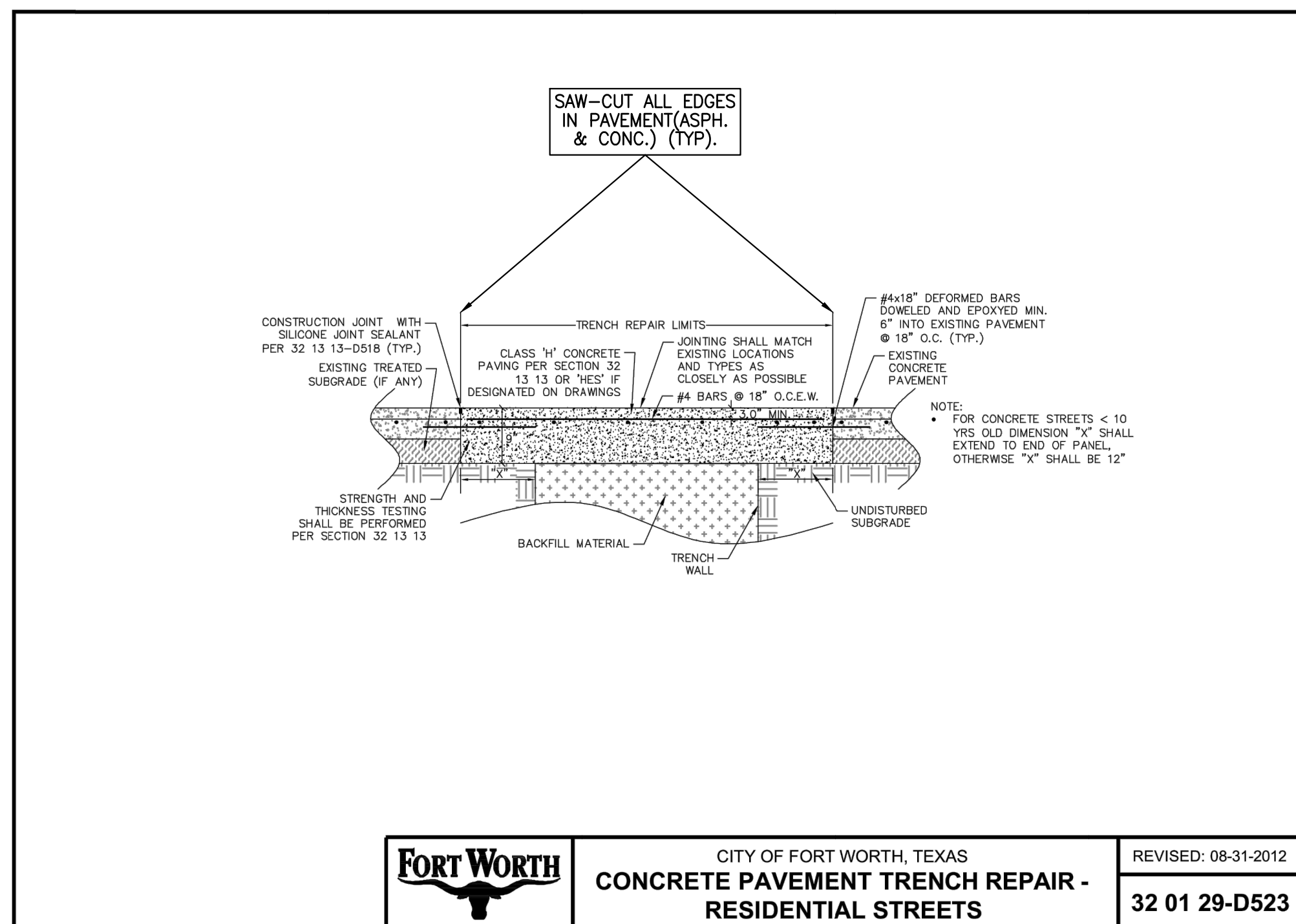
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**FORT WORTH** CITY OF FORT WORTH, TEXAS  
**WATER LINE LOWERING DETAIL**  
 REVISED: 05-08-2013  
**33 05 12-D162**



**FORT WORTH** CITY OF FORT WORTH, TEXAS  
**ASPHALT PAVEMENT TRENCH REPAIR - RESIDENTIAL STREETS**  
 REVISED: 08-31-2012  
**32 01 17-D521**



**FORT WORTH** CITY OF FORT WORTH, TEXAS  
**CONCRETE PAVEMENT TRENCH REPAIR - RESIDENTIAL STREETS**  
 REVISED: 08-31-2012  
**32 01 29-D523**