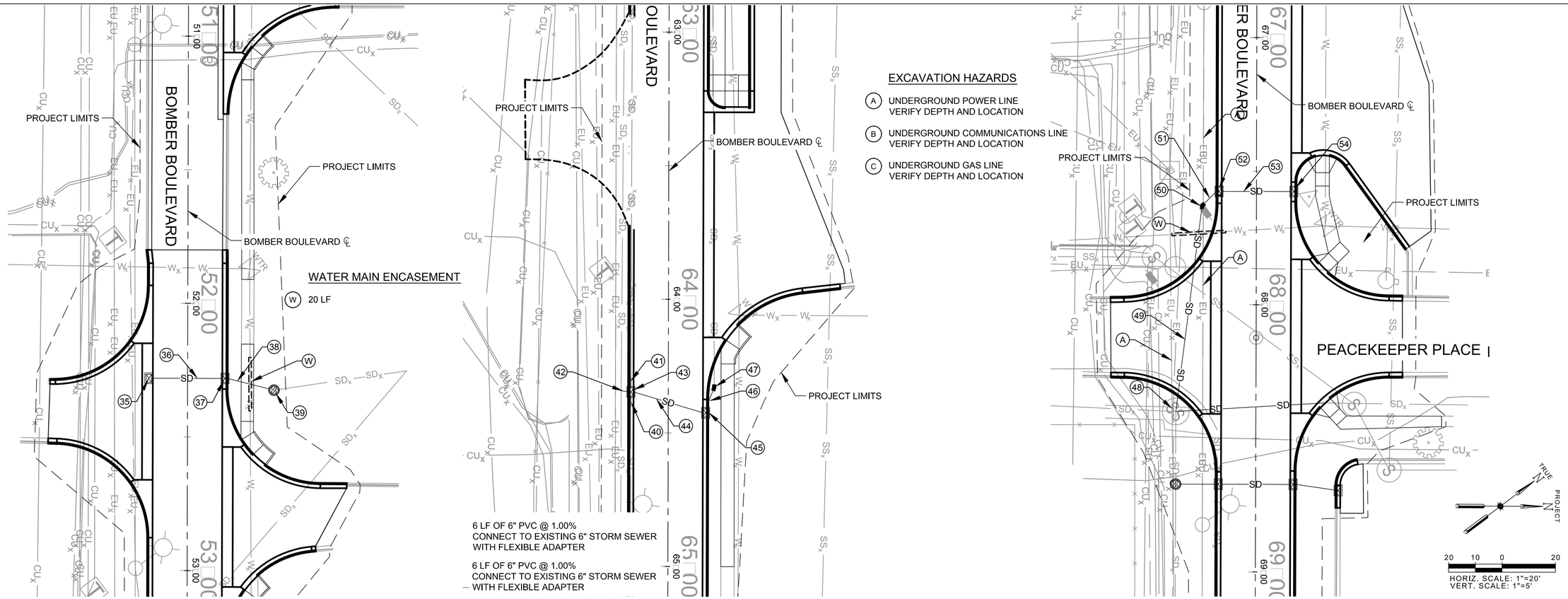

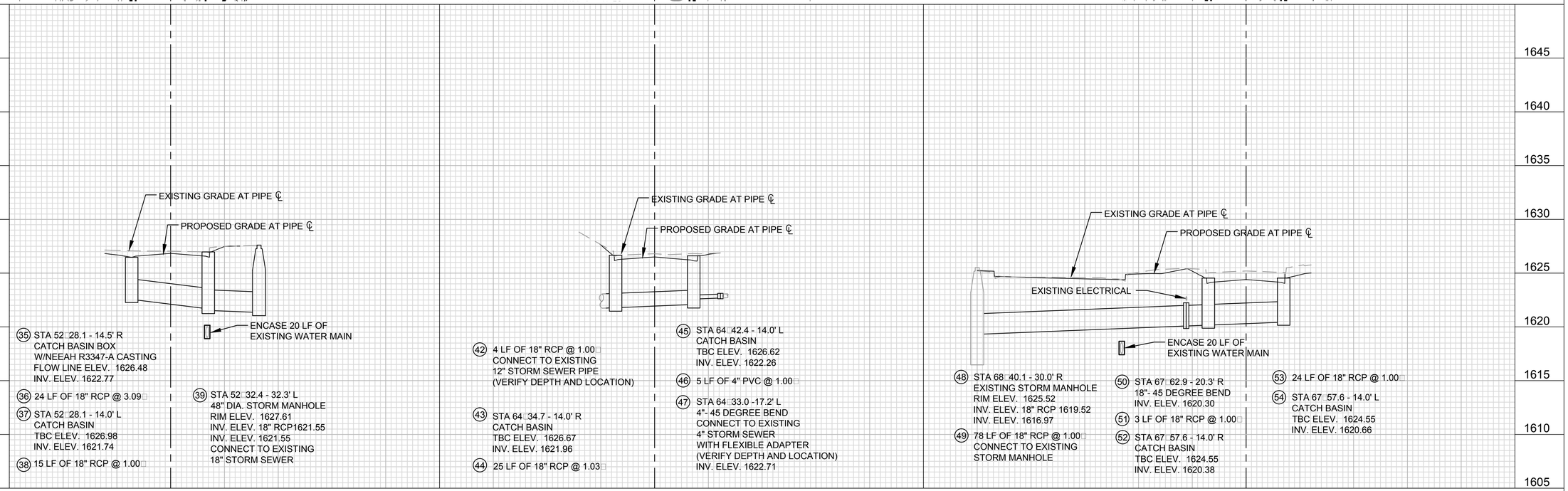

35 STA 52+28.1 - 14.5' R
CATCH BASIN BOX
W/NEEAH R3347-A CASTING
FLOW LINE ELEV. 1626.48
INV. ELEV. 1622.77

36 24 LF OF 18" RCP @ 3.09%

37 STA 52+28.1 - 14.0' L
CATCH BASIN
TBC ELEV. 1626.98
INV. ELEV. 1621.74

38 15 LF OF 18" RCP @ 1.00%

39 STA 52+32.4 - 32.3' L
48" DIA. STORM MANHOLE
RIM ELEV. 1627.61
INV. ELEV. 18" RCP1621.55
INV. ELEV. 1621.55
CONNECT TO EXISTING
18" STORM SEWER

42 4 LF OF 18" RCP @ 1.00%
CONNECT TO EXISTING
12" STORM SEWER PIPE
(VERIFY DEPTH AND LOCATION)

43 STA 64+34.7 - 14.0' R
CATCH BASIN
TBC ELEV. 1626.67
INV. ELEV. 1621.96

44 25 LF OF 18" RCP @ 1.03%

45 STA 64+42.4 - 14.0' L
CATCH BASIN
TBC ELEV. 1626.62
INV. ELEV. 1622.26

46 5 LF OF 4" PVC @ 1.00%

47 STA 64+33.0 -17.2' L
4"- 45 DEGREE BEND
CONNECT TO EXISTING
4" STORM SEWER
WITH FLEXIBLE ADAPTER
(VERIFY DEPTH AND LOCATION)
INV. ELEV. 1622.71

48 STA 68+40.1 - 30.0' R
EXISTING STORM MANHOLE
RIM ELEV. 1625.52
INV. ELEV. 18" RCP 1619.52
INV. ELEV. 1616.97

49 78 LF OF 18" RCP @ 1.00%
CONNECT TO EXISTING
STORM MANHOLE

50 STA 67+62.9 - 20.3' R
18"- 45 DEGREE BEND
INV. ELEV. 1620.30

51 3 LF OF 18" RCP @ 1.00%

52 STA 67+57.6 - 14.0' R
CATCH BASIN
TBC ELEV. 1624.55
INV. ELEV. 1620.38

53 24 LF OF 18" RCP @ 1.00%

54 STA 67+57.6 - 14.0' L
CATCH BASIN
TBC ELEV. 1624.55
INV. ELEV. 1620.66

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: SHANE MATT
DWN BY: KM
CKD BY: SMATT
SUBMITTED BY: FOURFRONT DESIGN INC.
PLOT SCALE: 1" = 1'
PLOT DATE: 6/13/17
SIZE: 34X22
FILE NAME: QJVF 11-0144C-CU101-CU107.DWG

DATE: 09-18-2017
SOLICITATION NO.: W912BF-14-R-0036-0003
CONTRACT NO.: W912BF-15-C-0018
FILE NUMBER: AF85110-01

U.S. ARMY CORPS OF ENGINEERS
OMAHA DISTRICT
OMAHA NEBRASKA

FOURFRONT DESIGN INC.
517 7th STREET
RAPID CITY, SOUTH DAKOTA
57701

REPAIR BOMBER BOULEVARD
MINOT AFB

BOMBER BOULEVARD
PLAN AND PROFILE
STORM SEWER

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SHEET IDENTIFICATION
CU103
SHEET 131 OF 142

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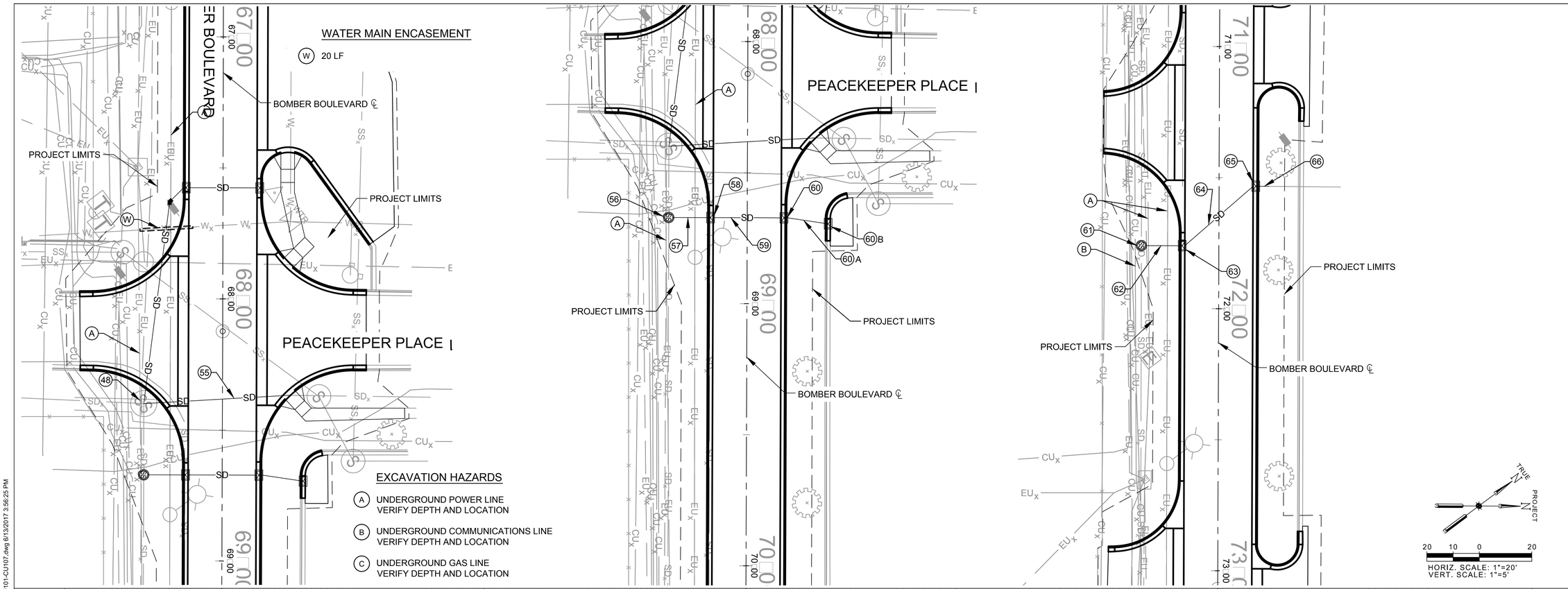
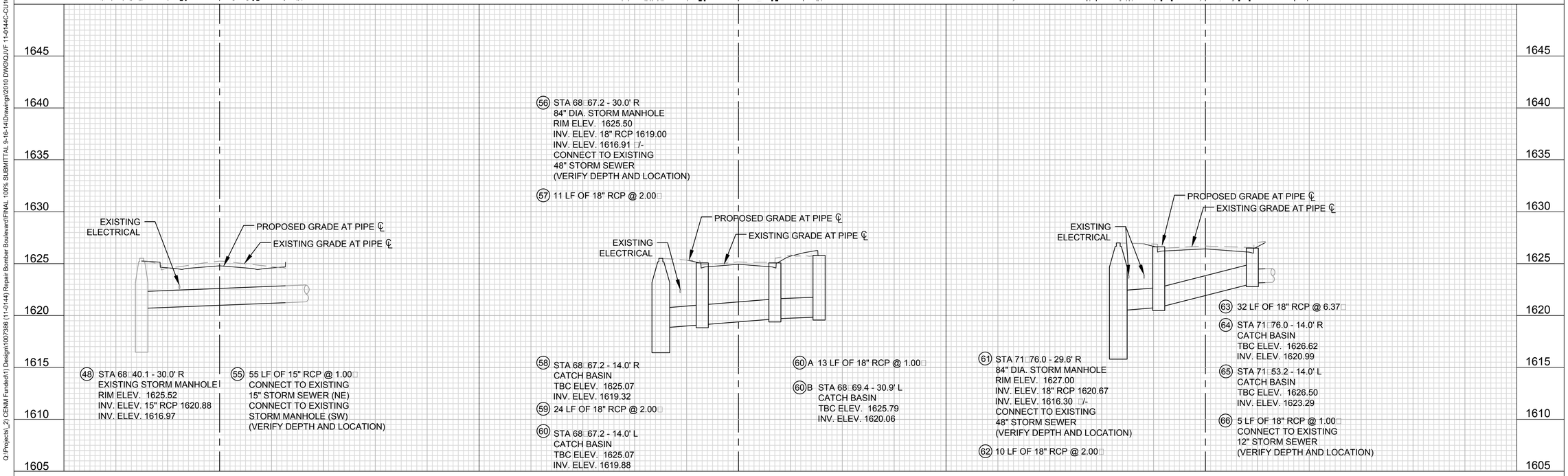
CONTRACT A□ ARD SET





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DATE: 09-18-2017
SOLICITATION NO.: W912BF-14-R-0036-0003
CONTRACT NO.: W912BF-15-C-0018
FILE NUMBER: AFB51-10-01

U.S. ARMY CORPS OF ENGINEERS
OMAHA DISTRICT
OMAHA NEBRASKA

FOURFRONT DESIGN INC.
517 7th STREET
RAPID CITY, SOUTH DAKOTA
57701

REPAIR BOMBER BOULEVARD
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BOMBER BOULEVARD
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STORM SEWER

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SHEET IDENTIFICATION
CU104
SHEET 132 OF 142

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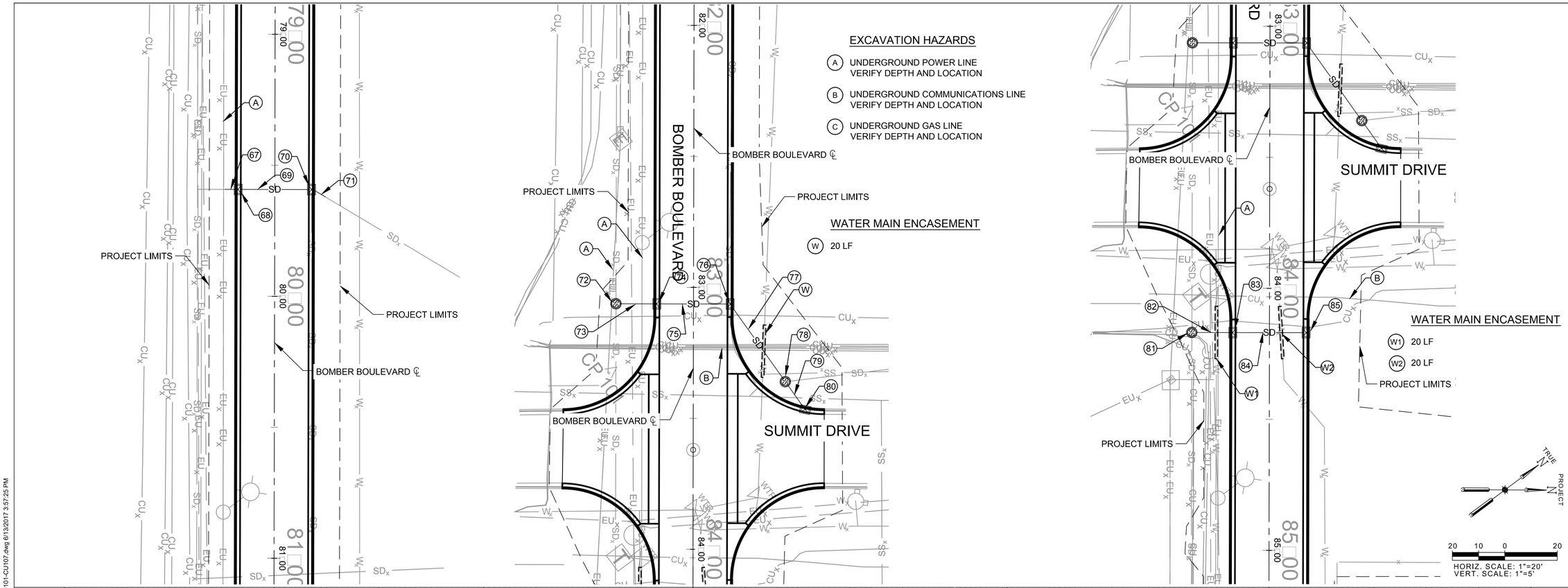
CONTRACT A□ ARD SET



EXCAVATION HAZARDS

- (A) UNDERGROUND POWER LINE VERIFY DEPTH AND LOCATION
- (B) UNDERGROUND COMMUNICATIONS LINE VERIFY DEPTH AND LOCATION
- (C) UNDERGROUND GAS LINE VERIFY DEPTH AND LOCATION

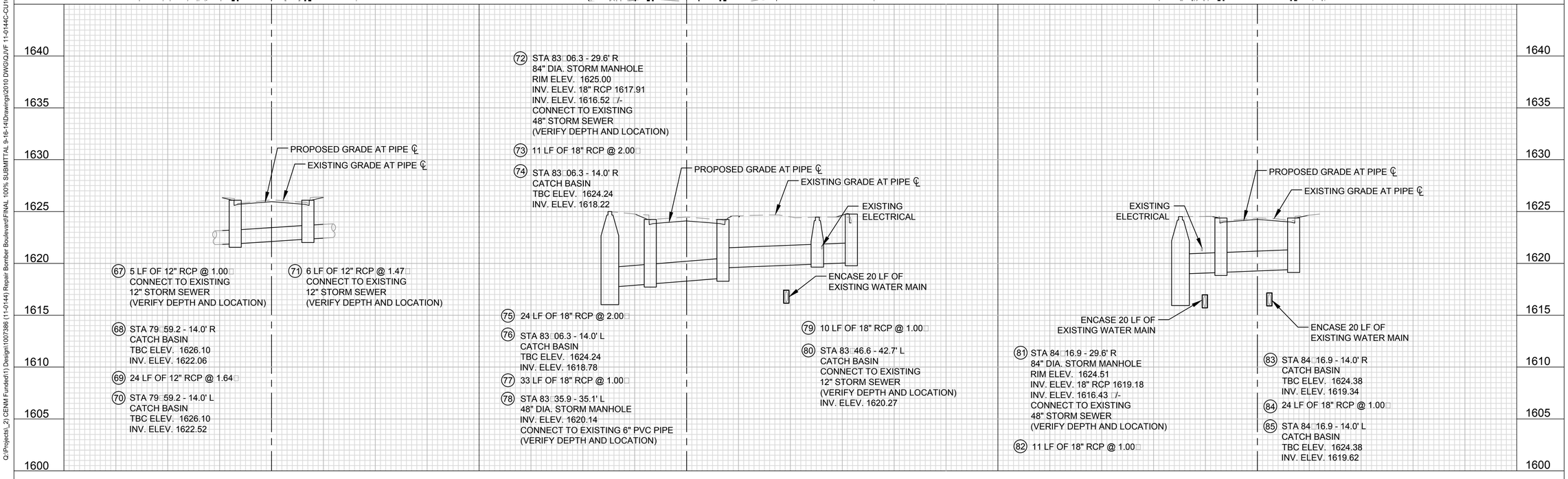
WATER MAIN ENCASEMENT

(W) 20 LF

WATER MAIN ENCASEMENT

(W1) 20 LF

(W2) 20 LF



(67) 5 LF OF 12" RCP @ 1.00
CONNECT TO EXISTING
12" STORM SEWER
(VERIFY DEPTH AND LOCATION)

(68) STA 79+59.2 - 14.0' R
CATCH BASIN
TBC ELEV. 1626.10
INV. ELEV. 1622.06

(69) 24 LF OF 12" RCP @ 1.64

(70) STA 79+59.2 - 14.0' L
CATCH BASIN
TBC ELEV. 1626.10
INV. ELEV. 1622.52

(71) 6 LF OF 12" RCP @ 1.47
CONNECT TO EXISTING
12" STORM SEWER
(VERIFY DEPTH AND LOCATION)

(72) STA 83+06.3 - 29.6' R
84" DIA. STORM MANHOLE
RIM ELEV. 1625.00
INV. ELEV. 18" RCP 1617.91
INV. ELEV. 1616.52 +/-
CONNECT TO EXISTING
48" STORM SEWER
(VERIFY DEPTH AND LOCATION)

(73) 11 LF OF 18" RCP @ 2.00

(74) STA 83+06.3 - 14.0' R
CATCH BASIN
TBC ELEV. 1624.24
INV. ELEV. 1618.22

(75) 24 LF OF 18" RCP @ 2.00

(76) STA 83+06.3 - 14.0' L
CATCH BASIN
TBC ELEV. 1624.24
INV. ELEV. 1618.78

(77) 33 LF OF 18" RCP @ 1.00

(78) STA 83+35.9 - 35.1' L
48" DIA. STORM MANHOLE
INV. ELEV. 1620.14
CONNECT TO EXISTING 6" PVC PIPE
(VERIFY DEPTH AND LOCATION)

(79) 10 LF OF 18" RCP @ 1.00

(80) STA 83+46.6 - 42.7' L
CATCH BASIN
CONNECT TO EXISTING
12" STORM SEWER
(VERIFY DEPTH AND LOCATION)
INV. ELEV. 1620.27

(81) STA 84+16.9 - 29.6' R
84" DIA. STORM MANHOLE
RIM ELEV. 1624.51
INV. ELEV. 18" RCP 1619.18
INV. ELEV. 1616.43 +/-
CONNECT TO EXISTING
48" STORM SEWER
(VERIFY DEPTH AND LOCATION)

(82) 11 LF OF 18" RCP @ 1.00

(83) STA 84+16.9 - 14.0' R
CATCH BASIN
TBC ELEV. 1624.38
INV. ELEV. 1619.34

(84) 24 LF OF 18" RCP @ 1.00

(85) STA 84+16.9 - 14.0' L
CATCH BASIN
TBC ELEV. 1624.38
INV. ELEV. 1619.62

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

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CKD BY: SMATT
SUBMITTED BY: FOURFRONT DESIGN INC.
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PLOT DATE: 6/13/17
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FILE NAME: QJVF 11-0144C-CU101-CU107.DWG

DATE: 09-18-2017
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CONTRACT NO.: W912BF-15-C-0018
FILE NUMBER: AFB51-10-01

U.S. ARMY CORPS OF ENGINEERS
OMAHA DISTRICT
OMAHA NEBRASKA

FOURFRONT DESIGN INC.
517 7th STREET
RAPID CITY, SOUTH DAKOTA
57701

REPAIR BOMBER BOULEVARD
MINOT AFB

BOMBER BOULEVARD
PLAN AND PROFILE
STORM SEWER

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SHEET IDENTIFICATION
CU105
SHEET 133 OF 142

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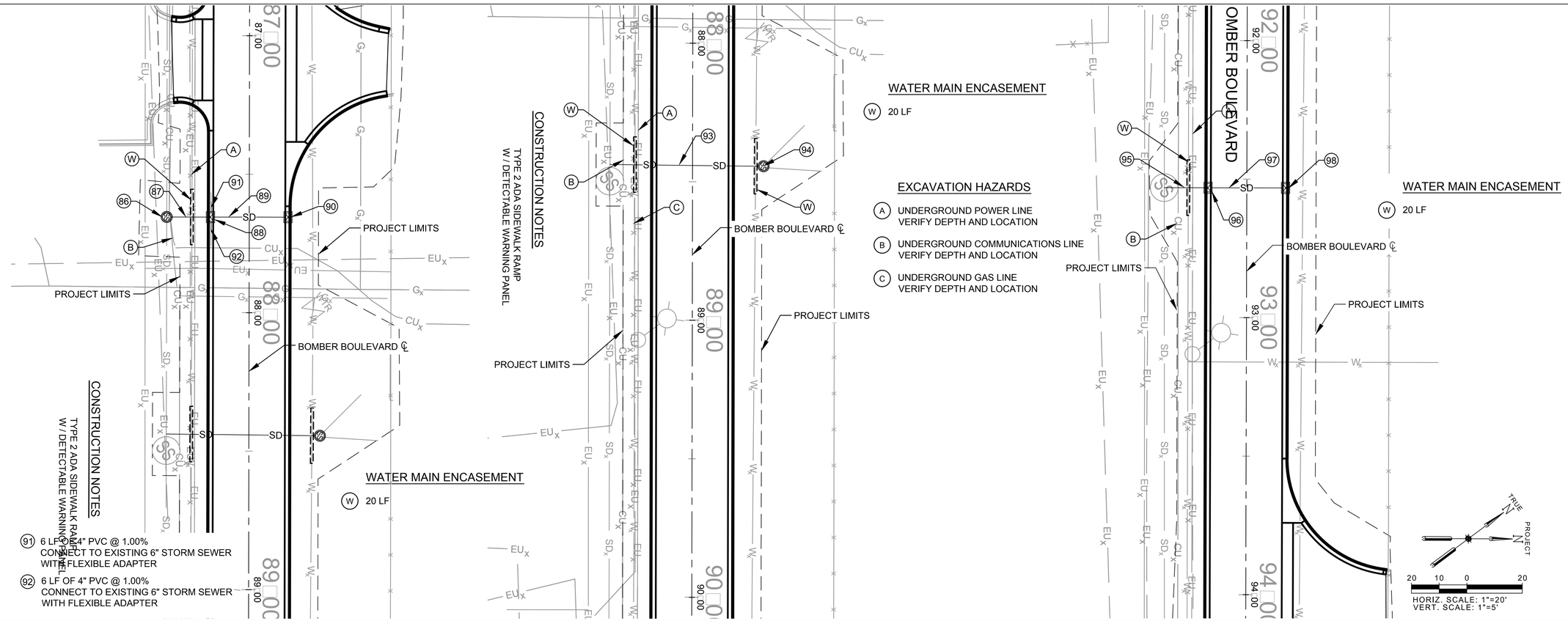
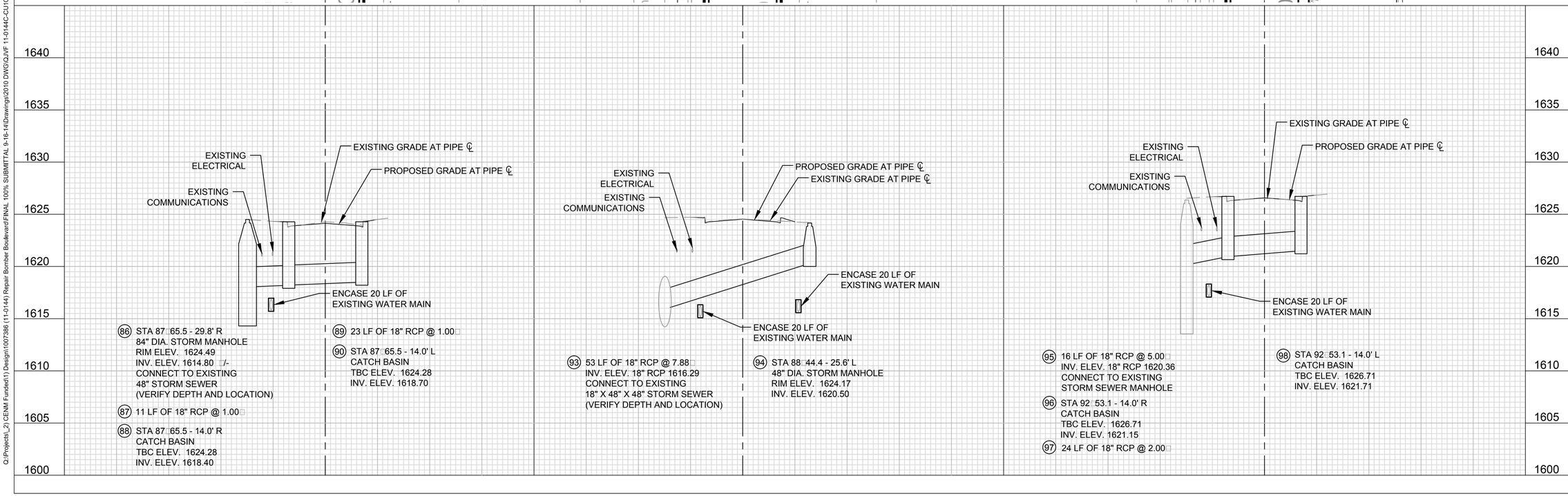
CONTRACT A□ ARD SET



91 6 LF OF 4" PVC @ 1.00%
CONNECT TO EXISTING 6" STORM SEWER
WITH FLEXIBLE ADAPTER

92 6 LF OF 4" PVC @ 1.00%
CONNECT TO EXISTING 6" STORM SEWER
WITH FLEXIBLE ADAPTER



86 STA 87 65.5 - 29.8' R
84" DIA. STORM MANHOLE
RIM ELEV. 1624.49
INV. ELEV. 1614.80 /-
CONNECT TO EXISTING
48" STORM SEWER
(VERIFY DEPTH AND LOCATION)

87 11 LF OF 18" RCP @ 1.00

88 STA 87 65.5 - 14.0' R
CATCH BASIN
TBC ELEV. 1624.28
INV. ELEV. 1618.40

89 23 LF OF 18" RCP @ 1.00

90 STA 87 65.5 - 14.0' L
CATCH BASIN
TBC ELEV. 1624.28
INV. ELEV. 1618.70

93 53 LF OF 18" RCP @ 7.88
INV. ELEV. 18" RCP 1616.29
CONNECT TO EXISTING
18" X 48" X 48" STORM SEWER
(VERIFY DEPTH AND LOCATION)

94 STA 88 44.4 - 25.6' L
48" DIA. STORM MANHOLE
RIM ELEV. 1624.17
INV. ELEV. 1620.50

95 16 LF OF 18" RCP @ 5.00
INV. ELEV. 18" RCP 1620.36
CONNECT TO EXISTING
STORM SEWER MANHOLE

96 STA 92 53.1 - 14.0' R
CATCH BASIN
TBC ELEV. 1626.71
INV. ELEV. 1621.15

97 24 LF OF 18" RCP @ 2.00

98 STA 92 53.1 - 14.0' L
CATCH BASIN
TBC ELEV. 1626.71
INV. ELEV. 1621.71

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PLAN AND PROFILE
STORM SEWER

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SHEET IDENTIFICATION
CU106
SHEET 134 OF 142

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CONTRACT A ARD SET