FT. WORTH, TEXAS FORT WORTH CENTRAL CITY PRELIMINARY DESIGN SOL. NO. XXXX

PRELIMINARY DESIGN

FORT WORTH CENTRAL CITY

US ARMY CORPS
OF ENGINEERS
Ft. Worth District

FORT WORTH CENTRAL CITY

FORT WORTH, TEXAS

CIVIL / STRUCTURAL PRELIMINARY DESIGN

APPENDIX C

VOLUME II - SUPPLEMENTAL PLANS

MARCH 2008

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CDM

TARRANT REGIONAL WATER DISTRICT

IN ASSOCIATION WITH Freese and Nichols

ARS Engineers, Inc.
5910 N Central Expressway Suite 1000
Dallas, Texas 75206
(214) 739-3152 Fax (214) 739-3169

FORT WORTH, TEXAS SOL. NO. XXXX CONTR. NO. XXXXX

SHEET LIST

Sheet Number	File Name	Sheet Title 1	Sheet Title 2	Sheet Title 3
G-01	00001_COE_G-001xx01			
GI-01	00001_COE_GI-001xx02	Drawing Index		
GI-02	00001_COE_GI-002xx03	Vicinity and Location Map		
CS-01	00001_COE_CS-101xx04	Valley Storage Mitigation	Key Plan	
CG-01	07040_COE_CG-101xx05	Valley Storage Mitigation	Site Plan	Rockwood Park - West (Site 2)
CG-02	07040_COE_CG-102xx06	Valley Storage Mitigation	Grading Plan	Rockwood Park - West (Site 2)
CG-03	07040_COE_CG-303xx07	Valley Storage Mitigation	Cross Sections	Rockwood Park - West (Site 2)
CG-04	07030_COE_CG-104xx08	Valley Storage Mitigation	Site Plan	Samuels Avenue (Site 5A)
CG-05	07030_COE_CG-105xx09	Valley Storage Mitigation	Site Plan	Samuels Avenue (Site 5C)
CG-06	07030_COE_CG-106xx10	Valley Storage Mitigation	Grading Plan	Samuels Avenue (Site 5A)
CG-07	07030_COE_CG-107xx11	Valley Storage Mitigation	Grading Plan	Samuels Avenue (Site 5C)
CG-08	07030_COE_CG-308xx12	Valley Storage Mitigation	Cross Sections	Samuels Avenue (Site 5A & 5C)
CG-09	07020_COE_CG-109xx13	Valley Storage Mitigation	Site Plan	Riverside Park (Site 21)
CG-10	07020_COE_CG-110xx14	Valley Storage Mitigation	Grading Plan	Riverside Park (Site 21)
CG-11	07020_COE_CG-311xx15	Valley Storage Mitigation	Cross Sections	Riverside Park (Site 21)
CG-12	07010_COE_CG-112xx16	Valley Storage Mitigation	Site Plan	Ham Branch
CG-13	07010_COE_CG-113xx17	Valley Storage Mitigation	Site Plan	Ham Branch
CG-14	07010_COE_CG-114xx18	Valley Storage Mitigation	Grading Plan	Ham Branch
CG-15	07010_COE_CG-115xx19	Valley Storage Mitigation	Grading Plan	Ham Branch
CG-16	07010_COE_CG-316xx20	Valley Storage Mitigation	Cross Sections	Ham Branch
CG-17	07010_COE_CG-317xx21	Valley Storage Mitigation	Profile	Ham Branch
CG-18	00001_COE_CG-118xx22	Valley Storage Mitigation	Site Plan	OxBow-Gateway Site
CG-19	00001_COE_CG-119xx23	Valley Storage Mitigation	Riverside Oxbow Enlarged Plan	OxBow-Gateway Site
CG-20	00001_COE_CG-120xx24	Valley Storage Mitigation	Gateway Park Enlarged Plan	OxBow-Gateway Site
CG-21	00001_COE_CG-121xx25	Valley Storage Mitigation	Grading Plan	OxBow-Gateway Site
CG-22	00001_COE_CG-122xx26	Valley Storage Mitigation	Grading Plan	OxBow-Gateway Site
CG-23	00001_COE_CG-123xx27	Valley Storage Mitigation	Grading Plan	OxBow-Gateway Site
CG-24	00001_COE_CG-124xx28	Valley Storage Mitigation	Grading Plan	OxBow-Gateway Site
CG-25	00001_COE_CG-125xx29	Valley Storage Mitigation	Grading Plan	OxBow-Gateway Site
CG-26	00001_COE_CG-126xx30	Valley Storage Mitigation	Grading Plan	OxBow-Gateway Site
CG-27	00001_COE_CG-127xx31	Valley Storage Mitigation	Grading Plan	OxBow-Gateway Site
CG-28	00001_COE_CG-128xx32	Valley Storage Mitigation	Grading Plan	OxBow-Gateway Site
CG-29	00001_COE_CG-129xx33	Valley Storage Mitigation	Grading Plan	OxBow-Gateway Site
CG-30	00001_COE_CG-330xx34	Valley Storage Mitigation	Cross Sections	OxBow-Gateway Site
CG-31	00001_COE_CG-331xx35	Valley Storage Mitigation	Cross Sections	OxBow-Gateway Site
CG-32	00001_COE_CG-332xx36	Valley Storage Mitigation	Cross Sections	OxBow-Gateway Site
CG-33	00001_COE_CG-333xx37	Valley Storage Mitigation	Cross Sections	OxBow-Gateway Site
CG-34	00001_COE_CG-334xx38	Valley Storage Mitigation	Cross Sections	OxBow-Gateway Site
CG-35	00001_COE_CG-335xx39	Valley Storage Mitigation	Cross Sections	OxBow-Gateway Site
CP-01	00001_COE_CP-101xx40	Valley Storage Mitigation	Plan and Profile	Beach Street
CP-02	00001_COE_CP-102xx41	Valley Storage Mitigation	Plan and Profile	West Park Road
CP-03	00001_COE_CP-103xx42	Valley Storage Mitigation	Plan and Profile	West Park Road
CP-04	00001_COE_CP-104xx43	Valley Storage Mitigation	Plan and Profile	West Park Road Spur
CP-05	00001_COE_CP-105xx44	Valley Storage Mitigation	Plan and Profile	East Park Road
CP-06	00001_COE_CP-306xx45	Valley Storage Mitigation	Typical Pavement Sections	
CU-01	00001_COE_CU-101xx46	Valley Storage Mitigation	Utility Key Plan	Oxbow-Gateway Site
CU-02	00001_COE_CU-102xx47	Valley Storage Mitigation	Utility Plan	Oxbow-Gateway Site
CU-03	00001_COE_CU-103xx48	Valley Storage Mitigation	Utility Plan	Oxbow-Gateway Site
CU-04	00001_COE_CU-104xx49	Valley Storage Mitigation	Utility Plan	Oxbow-Gateway Site
CU-05	00001_COE_CU-105xx50	Valley Storage Mitigation	Utility Plan	Oxbow-Gateway Site
SS-01	00001_COE_SS-101xx51	Samuels Avenue Dam	Samuels Avenue Lock & Dam	Site Plan
SS-02	00001_COE_SS-102xx52	Samuels Avenue Dam	Samuels Avenue Lock & Dam	Phasing Plan
SS-03	00001_COE_SS-403xx53	Samuels Avenue Dam	Plan	
SS-04	00001_COE_SS-304xx54	Samuels Avenue Dam	Section and Elevation	
SS-05	00001_COE_SS-605xx55	Samuels Avenue Dam	Stability Analysis	
SS-06	00001_COE_SS-606xx56	Samuels Avenue Dam	Training Walls and Right Abutment Wall	Dimensions
SS-07	00001_COE_SS-607xx57	Samuels Avenue Dam	Right Training Wall	Stability Analysis
SS-08	00001_COE_SS-608xx58	Samuels Avenue Dam	Left Training Wall	Stability Analysis
SS-09	00001_COE_SS-609xx59	Samuels Avenue Dam	Right Abutment Wall	Stability Analysis
SS-10	00001_COE_SS-410xx60	Samuels Avenue Dam	Lock	Plan and Section
SS-11	00001_COE_SS-611xx61	Samuels Avenue Dam	Upstream, Downstream and Floodwalls	Dimensions
SS-12	00001_COE_SS-612xx62	Samuels Avenue Dam	Upstream Lockwall	Rotational and Stability Analysis
SS-13	00001_COE_SS-613xx63	Samuels Avenue Dam	Downstream Lockwall	Rotational and Stability Analysis
SS-14	00001_COE_SS-614xx64	Samuels Avenue Dam	Floodwall	Rotational and Stability Analysis
SS-15	00001_COE_SS-415xx65	Marine Creek Dam	Plan	
SS-16	00001_COE_SS-316xx66	Marine Creek Dam	Section	
SS-17	00001_COE_SS-617xx67	Marine Creek Dam	Stability Analysis	
SS-18	00001_COE_SS-618xx68	Marine Creek Dam	Left Training Wall	Dimensions
SS-19	00001_COE_SS-619xx69	Marine Creek Dam	Left Training Wall	Rotational and Stability Analysis
SS-20	00001_COE_SS-620xx70	Marine Creek Dam	Abutment Walls	Dimensions
SS-21	00001_COE_SS-621xx71	Marine Creek Dam	Left Abutment Wall	Stability Analysis
SS-22	00001_COE_SS-622xx72	Marine Creek Dam	Right Abutment Wall	Rotational Analysis

REFERENCE SHEETS

Sheet Number	Sheet Title 1	Sheet Title 2	Sheet Title 3
RS-01		Beach Street	Elevation
RS-02		Beach Street	Plan
RS-03		Beach Street	Slab
RS-04		Beach Street	Abutment
RS-05		Beach Street	I-Beam
RS-06		Park Road	Elevation
RS-07		Park Road	Plan
RS-08		Park Road	Slab
RS-09		Park Road	Abutment
RS-10		Park Road	I-Beam

US Army Corps of Engineers
Fort Worth District

No.	Description	Date	App'd

CDM

Design file: Datafile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: ANDREE
Drawn by: JONES
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PEState

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
DRAWING INDEX

SheetDescription3

SHEET IDENTIFICATION

GI-01

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

BASE TOPOGRAPHIC AND FEATURE MAPPING AS SHOWN IS FROM DATA CD PROVIDED BY THE TARRANT REGIONAL WATER DISTRICT ON SEPTEMBER 10, 2004 AS USED FOR THE FORT WORTH CENTRAL CITY FINAL ENVIRONMENTAL IMPACT STATEMENT, PRELIMINARY DESIGN. DATA IS DERIVED FROM MAPPING DATA COMPLIED FROM 1"=800' AERIAL PHOTOGRAPHY OBTAINED ON FEBRUARY 22 AND 23, 1991 AS PREPARED BY GREENHORNE & O'MARA, INC (DULUTH, GA) FOR USACE AND SUBSEQUENTLY UPDATED BY THE TARRANT REGIONAL WATER DISTRICT.

COORDINATE BASIS IS TEXAS STATE PLANE GRID, ZONE 5351 FPS 4202, TEXAS NORTH CENTRAL (FEET), HORIZONTAL CONTROL BASED ON NAD83, AND VERTICAL CONTROL BASED ON NAD 1929.

SAMUELS AVENUE DAM

SAMUELS AVENUE VALLEY STORAGE SITES

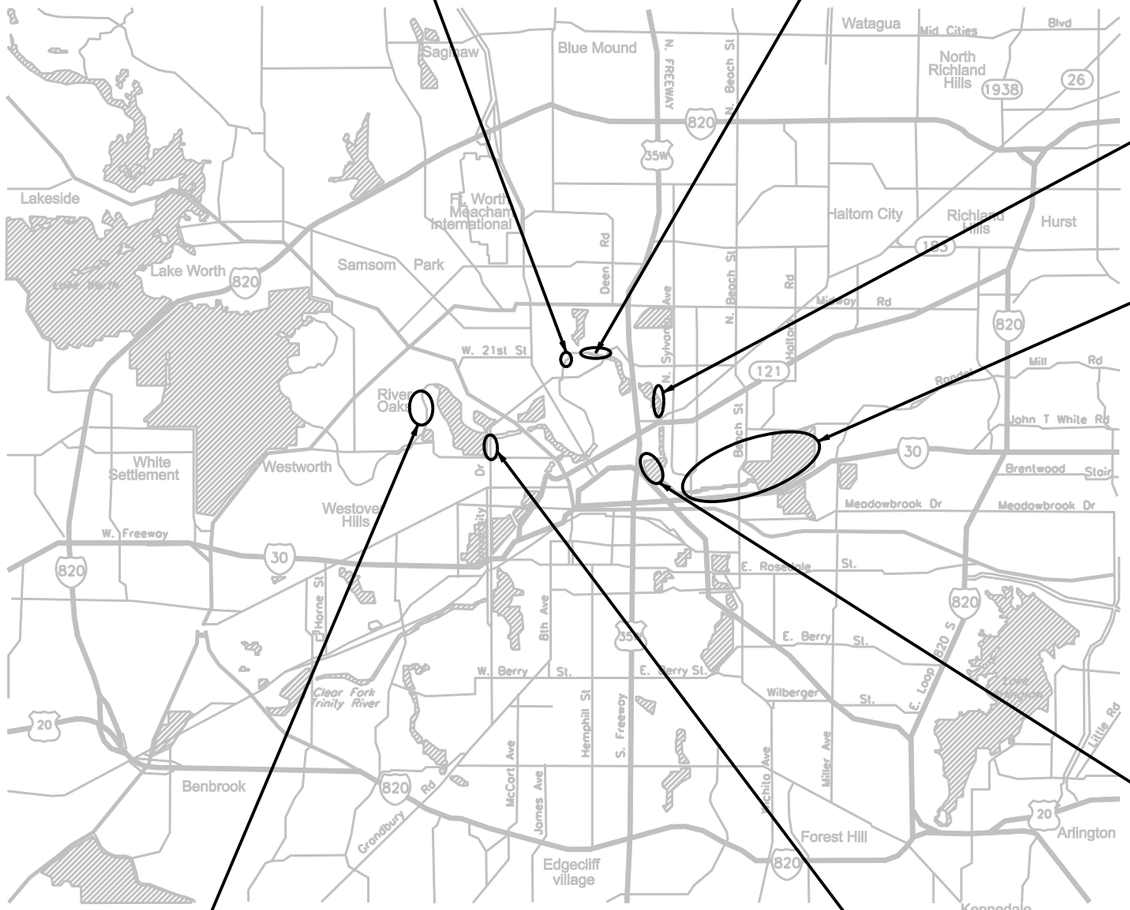
RIVERSIDE PARK VALLEY STORAGE SITE

RIVERSIDE OXBOW / GATEWAY PARK ECOSYSTEM RESTORATION AND VALLEY STORAGE SITE

HAM BRANCH VALLEY STORAGE SITE

ROCKWOOD PARK – WEST VALLEY STORAGE SITE

UNIVERSITY DRIVE VALLEY STORAGE SITE (REFER TO CENTRAL CITY FEIS)



VICINITY MAP
NTS

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

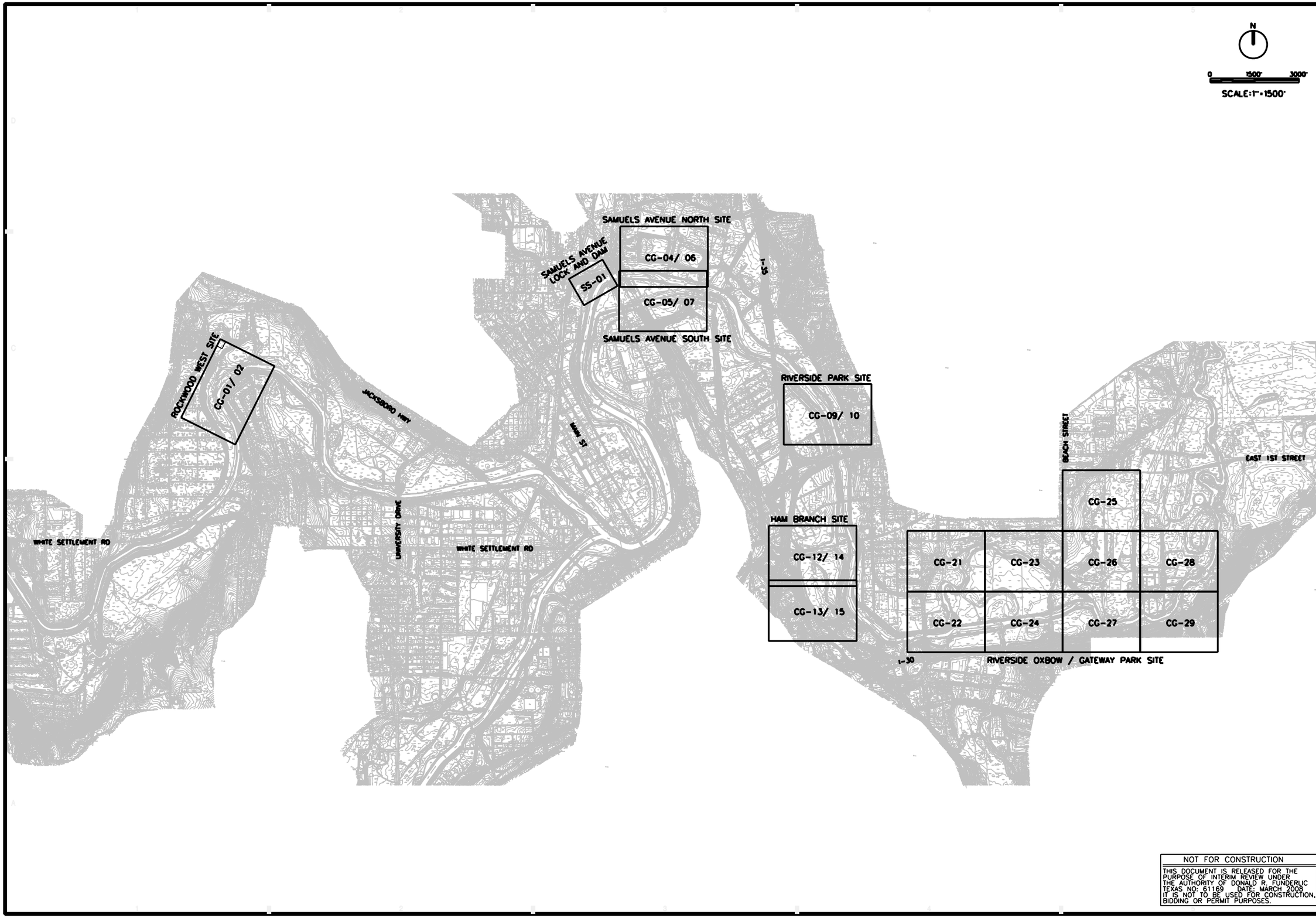
US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VICINITY AND LOCATION MAP

SHEET IDENTIFICATION

GI-2



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: Designfile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PEState

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
KEY PLAN

SHEET IDENTIFICATION

CS-01

NOTE

UNDERGROUND UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.

LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.

END EXISTING PIPE FENCE REMOVAL AND REPLACEMENT

EXISTING 36" SANITARY SEWER

NEW MAINTENANCE/ RECREATION TRAIL

END NEW MAINTENANCE/ RECREATION TRAIL

EXISTING TRAIL TO REMAIN

EXISTING 36" SANITARY SEWER

30' MIN. TRAIL/ MAINT. ACCESS

BEGIN EXISTING PIPE FENCE REMOVAL AND REPLACEMENT

BEGIN NEW MAINTENANCE/ RECREATION TRAIL

0 100' 200'

SCALE:1"=100'

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers Fort Worth District

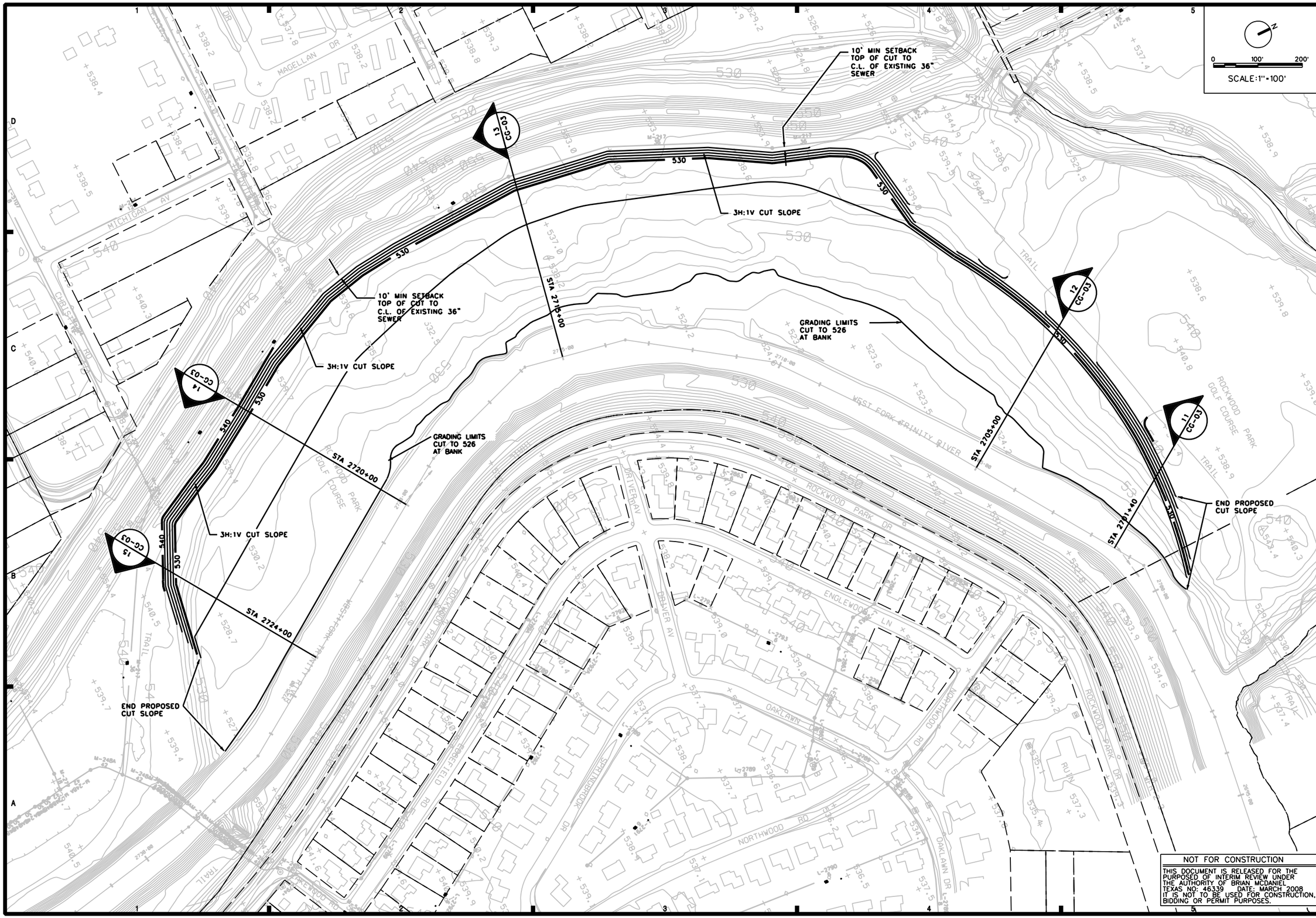
CDM

ARS

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CIVIL SITE PLAN
ROCKWOOD PARK - WEST (SITE 2)

SHEET IDENTIFICATION

CG-01



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

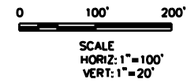
Design file: 07000_CFW_CG-101.dgn
Set ID: SetID
Size: ANSI D
Plot date: PlotDate
Designed by: C. PAUL
Drawn by: B. EADS
Checked by: C.PAUL
Responsible P.E.: B. McDANIEL
License Number: 46339
License State: TEXAS

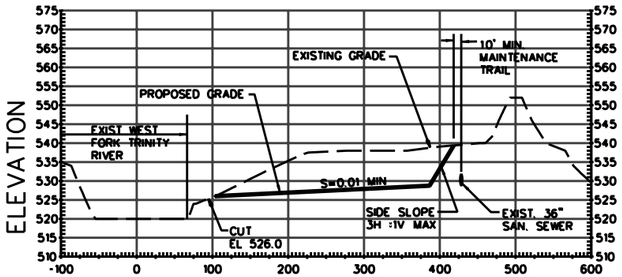
CDM
ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
ROCKWOOD PARK - WEST (SITE 2)

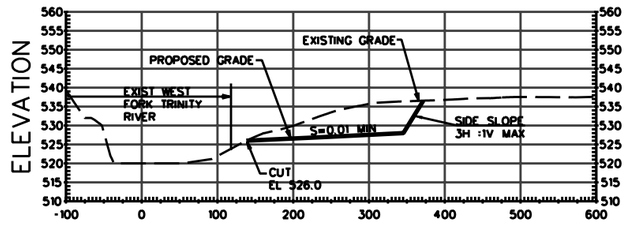
SHEET IDENTIFICATION

CG-02

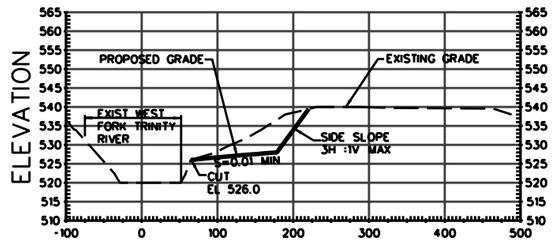




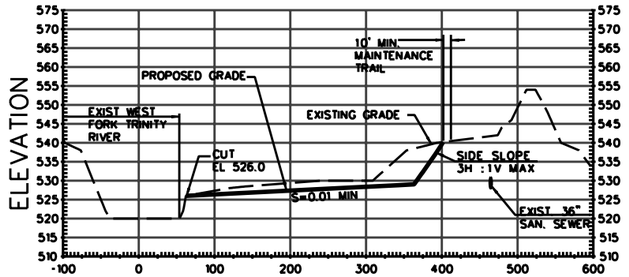
SECTION STA. 2715+00.00 13



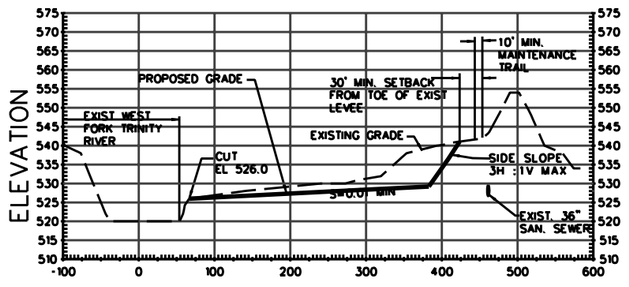
SECTION STA. 2705+00.00 12



SECTION STA. 2701+40.00 11



SECTION STA. 2724+00.00 15



SECTION STA. 2720+00.00 14

SITE 2

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: Designfile
Set ID: SetID
Size: ANSI D
Plot date: PlotDate
Designed by: C. PAUL
Drawn by: B. EADS
Checked by: C. PAUL
Responsible P.E.: BRIAN A. McDANIEL
License Number: 46339
License State: TEXAS

CDM
ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS SECTIONS
ROCKWOOD WEST PARK (SITE 2)

SHEET IDENTIFICATION
CG-03

NOTE

UNDERGROUND UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.

LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.

N

0 100' 200'

SCALE:1"=100'

EXIST 42" SANITARY SEWER

M-106R 42"

TRAIL DRIVERS PARK

EXISTING 8" SANITARY SEWER

M-122 B

M-122 B

M-106R 42"

PROP LINE

AREA U/C

SPOILS DISPOSAL AREA

M-106R 42"

EXISTING 42" SANITARY SEWER

PROP LINE

TANK

PROP LINE

SPOILS DISPOSAL AREA

PRESERVE EXISTING VEGETATION

PROP LINE

EXISTING UNKNOWN SANITARY OR STORM SEWER 6'X6'X7'H CONCRETE MANHOLE STRUCTURE

PROP LINE

PROP LINE

PROP LINE

EXISTING OUTFALL TO REMAIN

PROP LINE

PROP LINE

PROPOSED CONC. DRAINAGE

PROP LINE

PROPOSED MAINTENANCE/ RECREATION TRAIL

WEST FORK TRINITY RIVER

PROP LINE

EXISTING AREA DRAIN TO BE REMOVED

AREA DRAIN TO BE REMOVED

TRAIL

EXISTING ROCK MONUMENT TO BE RELOCATED

SEE SHEET CG-05 FOR CONTINUATION BELOW

M-119R 18"

ROW

ROW

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers Fort Worth District

No.	Description	Date	App'd

Design File: D:\00_CFW_CIP\101520_Samuels\Civil\Sheets\CG-04.dgn
Set ID: SamID
Size: ANSI D
Plot date: Plotdate
Designed by: C. PAUL
Drawn by: C. PAUL
Checked by: C. PAUL
Responsible P.E.: B. McDANIEL
License Number: 46339
License State: TEXAS

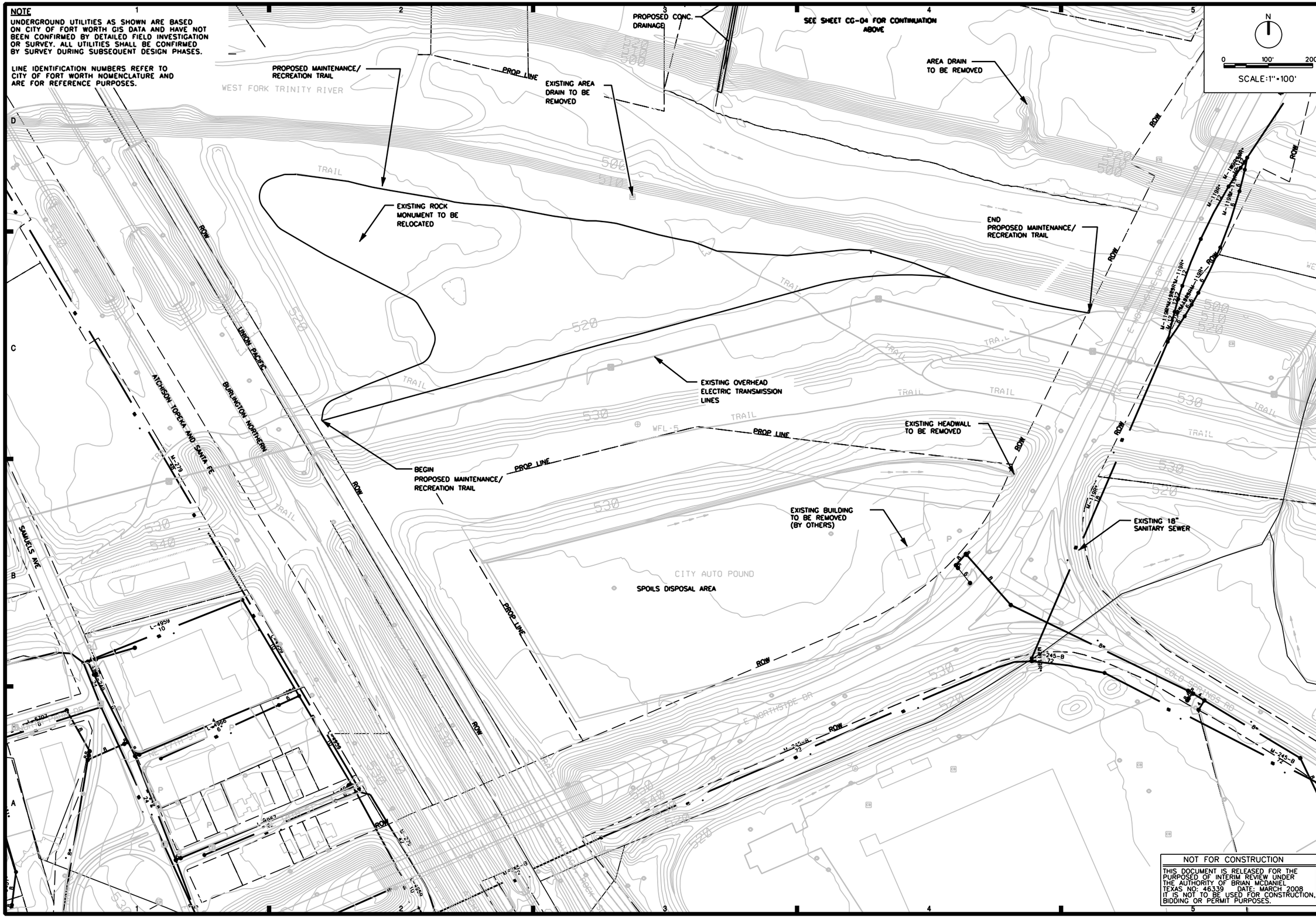
CDM

ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CIVIL SITE PLAN
SAMUELS AVENUE (SITE 5A)

SHEET IDENTIFICATION

CG-04



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: 07000_CFW_CG-101.dgn
Set ID: SetID
Size: ANSI D
Plot date: PlotDate
Designed by: C. PAUL
Drawn by: B. EADS
Checked by: C. PAUL
Responsible P.E.: B. McDANIEL
License Number: 46339
License State: TEXAS

CDM
ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CIVIL SITE PLAN
SAMUELS AVENUE (SITE 5C)

SHEET IDENTIFICATION
CG-05

NOTE

UNDERGROUND UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.

LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.

N

0 100' 200'

SCALE:1"=100'

US Army Corps of Engineers
Fort Worth District

3H:1V FILL SLOPE

SPOILS DISPOSAL AREA
FILL TO EL 572
GRADE AT 1% TO PROVIDE DRAINAGE

AREA U/C

3H:1V FILL SLOPE

SPOILS DISPOSAL AREA
FILL TO EL 572
GRADE AT 1% TO PROVIDE DRAINAGE

3H:1V FILL SLOPE

3H:1V CUT SLOPE

GRADING LIMITS CUT TO EL 502 AT BANK

STA 2415+00

STA 2407+25

STA 2400+00

STA 2395+00

STA 2412+00

3H:1V CUT SLOPE

GRADING LIMITS CUT TO EL 502 AT BANK

3H :1V CUT SLOPE

GRADING LIMITS CUT TO EL 502 AT BANK

3H :1V CUT SLOPE

TRAIL DRIVERS PARK

WEST FORK TRINITY RIVER

TANK

SEE SHEET CG-07 FOR CONTINUATION BELOW

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CDM

ARS Engineers, Inc.

Design File: 07030_CFW_CG-106xx
Set ID: SetID
Size: ANSI D
Plot date: Plotdate
Designed by: C. PAUL
Drawn by: R. PAUL
Checked by: C. PAUL
Responsible P.E.: B. McDANIEL
License Number: 46339
Home State: TEXAS

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
SAMUELS AVENUE (SITE 5A)

SHEET IDENTIFICATION

CG-06

...\ARS\07030_CFW_CG-106xx06.dgn 3/8/2008 2:31:10 PM

NOTE

UNDERGROUND UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.

LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.

SEE SHEET CG-06 FOR CONTINUATION ABOVE

N

0 100' 200'

SCALE:1"=100'

WEST FORK TRINITY RIVER

STA 2412+00

STA 2400+00

STA 2395+00

STA 2392+00

3H :1V CUT SLOPE

GRADING LIMITS CUT TO EL 502 AT BANK

3:1 CUT SLOPE

50' MIN. SETBACK TO TOP OF CUT

EXISTING OVERHEAD POWER LINES

ACCESS RAMP

3H:1V FILL SLOPE

SPOILS DISPOSAL AREA
FILL TO EL 544 TO EL 550

510

520

530

540

550

TRAIL

NORTH PARK DR

NE 17TH ST

NE 28TH ST

E NORTHSIDE DR

GOLD SPRINGS RD

CHICAGO, ROCK ISLAND & GULF RAILROAD

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

No.	Description	Date	Appd.

CDM

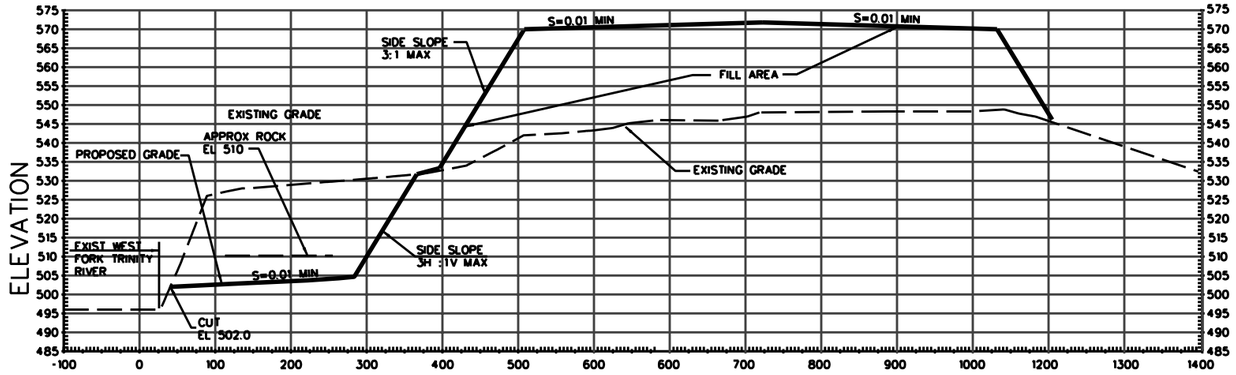
ARS Engineers Inc.

Design File: 01300-CH_ACP-101.DGN
Set ID: SetID
Size: ANSI D
Plot date: PlotDate
Designed by C. PAUL
Drawn by C. PAUL
Checked by C. PAUL
Responsible P.E.: B. MCDANIEL
License Number: 46339
Licensed State: TEXAS

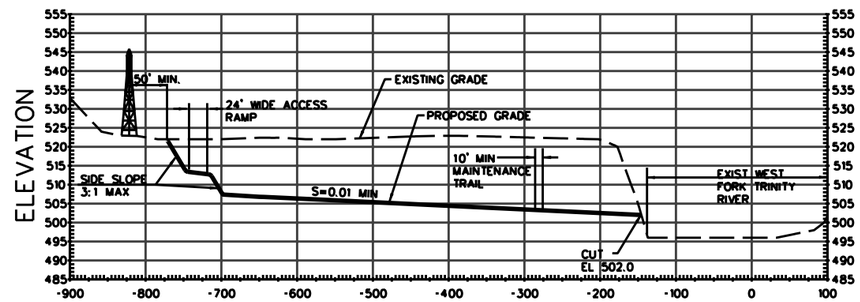
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
SAMUELS AVENUE (SITE 5C)

SHEET IDENTIFICATION

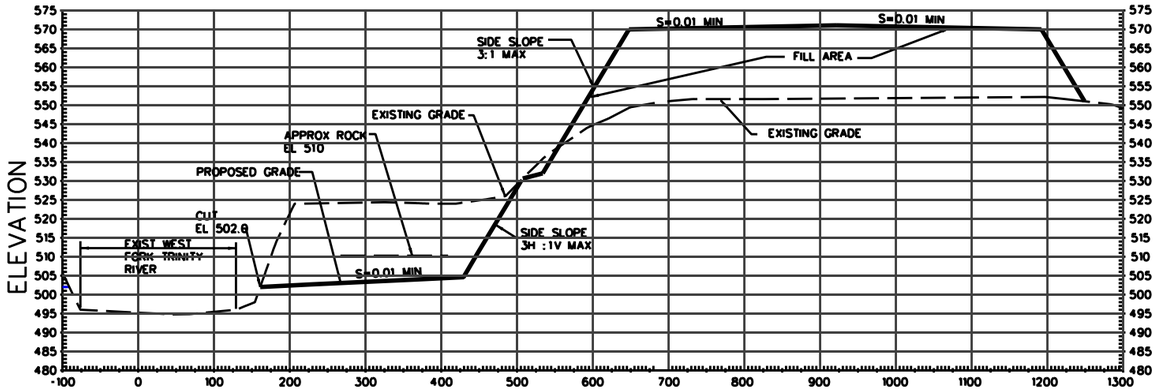
CG-07



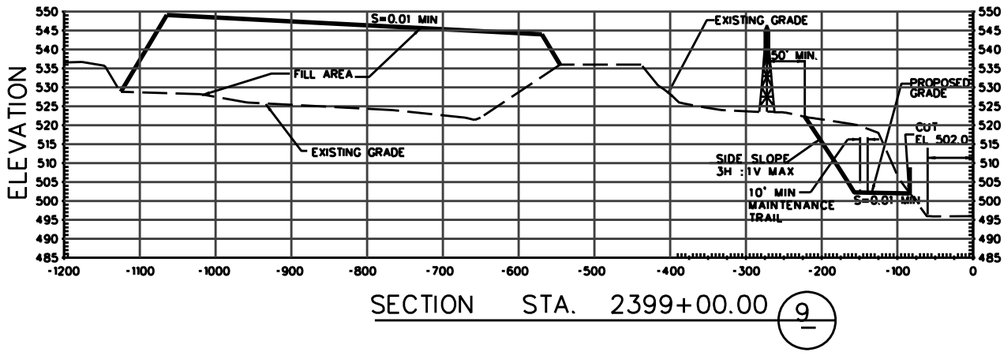
SECTION STA. 2407+25.00 (7)



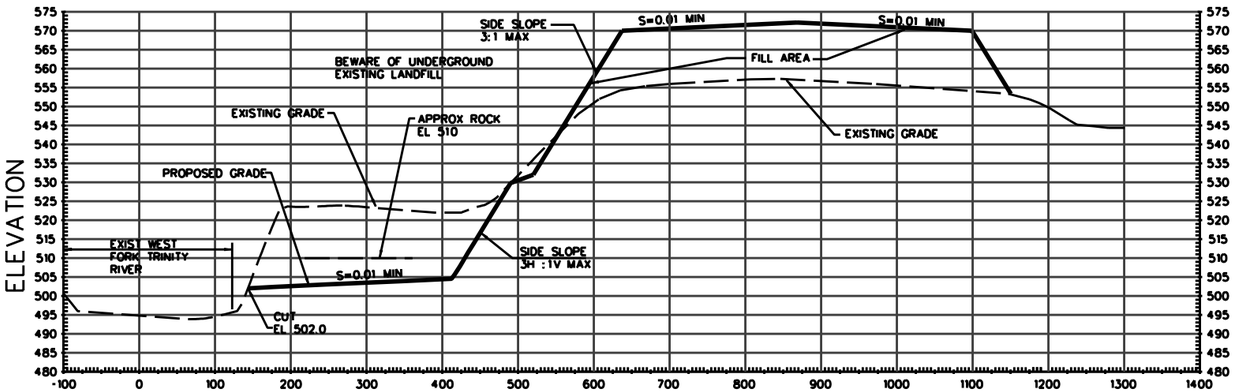
SECTION STA. 2412+25.00 (10)



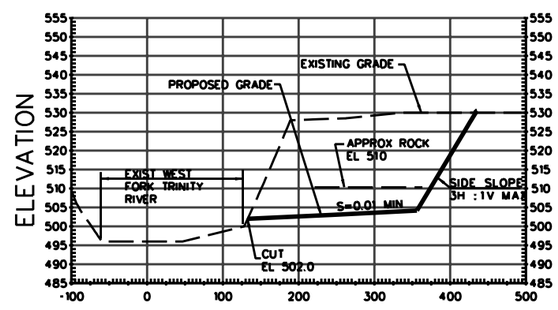
SECTION STA. 2400+00.00 (6)



SECTION STA. 2399+00.00 (9)



SECTION STA. 2395+00.00 (5)



SECTION STA. 2415+00.00 (8)

SITE 5a / 5c

0 100' 200'

SCALE
HORIZ: 1"=100'
VERT: 1"=20'

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

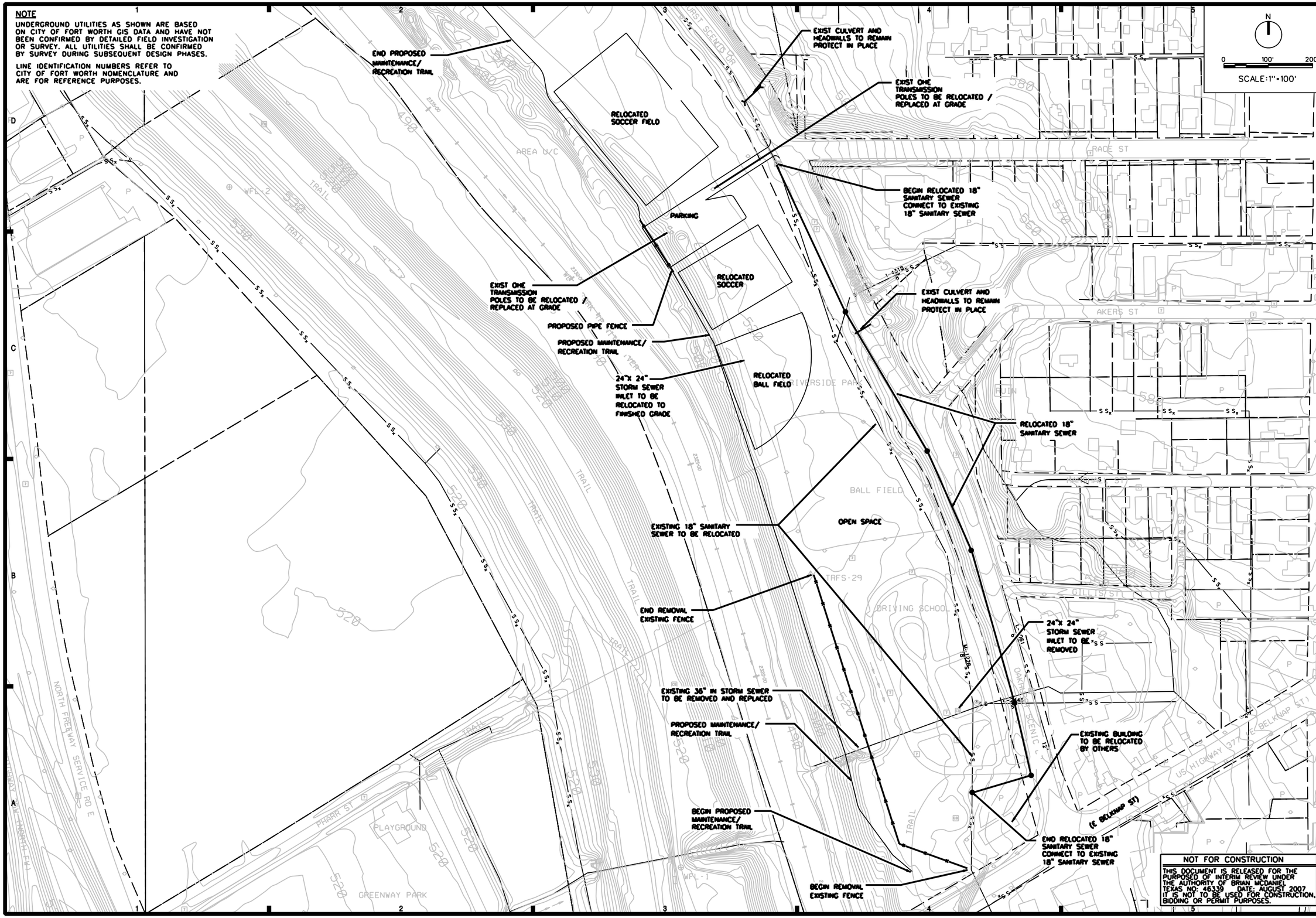
CDM

ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS SECTIONS
SAMUELS AVENUE (SITE 5A & 5C)

SHEET IDENTIFICATION
CG-08

...\ARS\07030_CFW_CG-108xx08.dgn 3/8/2008 2:35:06 PM



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: AUGUST 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol | Description | Date | Appr.

Design file: 07000_CFW_CG-101xxx0
Set ID: SetID
Size: ANSI D
Plot date: PlotDate
Designed by: C. PAUL
Drawn by: B. EADS
Checked by: C. PAUL
Responsible P.E.: B. McDANIEL
License Number: 46339
LicenseState: TEXAS

CDM
ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CIVIL SITE PLAN
RIVERSIDE PARK (SITE 21)

SHEET IDENTIFICATION
CG-09

07020_CFW_CG-109xx09.dgn 11/14/2007 11:10:12 AM

4H :1V CUT SLOPE

MAINTAIN 25' MIN SETBACK TO EXISTING TREES

GRADING LIMITS END CUT SLOPE

SOCCER FIELD CUT TO 510

PARKING CUT TO 506

SOCCER CUT TO 504

BALL FIELD CUT TO 509

OPEN SPACE CUT TO 504

3H :1V CUT SLOPE

PROTECT EXISTING TREES IN PLACE (TYP.)

24' WIDE ACCESS

STA 2330+00

STA2325+00

STA2320+00

STA 2316+00

WEST FORK TRINITY RIVER

RIVERSIDE

DRIVING SCHOOL

BALL FIELD

PLAYGROUND

GREENWAY PARK

TRAIL

PROP LINE

ROW

RACE ST

AKERS ST

MARSHALL ST

ILLIS ST

PARRR ST

US HIGHWAY 377 (E BELKNAP ST)

NORTH FREEWAY SERVICE RD E

HIGHWAY 377 (NORTH FWY)

WEST SCENIC DR

AREA D/C

TRFS-29

N

0 100' 200'

SCALE:1"=100'

US Army Corps of Engineers Fort Worth District

CDM

ARS Engineers Inc.

Design File: 07020_CFW_CG-110xx10.dgn
Set ID: SetID
Size: ANSI D
Plot date: Plotdate
Designed by: C. PAUL
Created by: C. PAUL
Responsible P.E.: B. MCDANIEL
License Number: 46339
State: TEXAS

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
RIVERSIDE PARK (SITE 21)

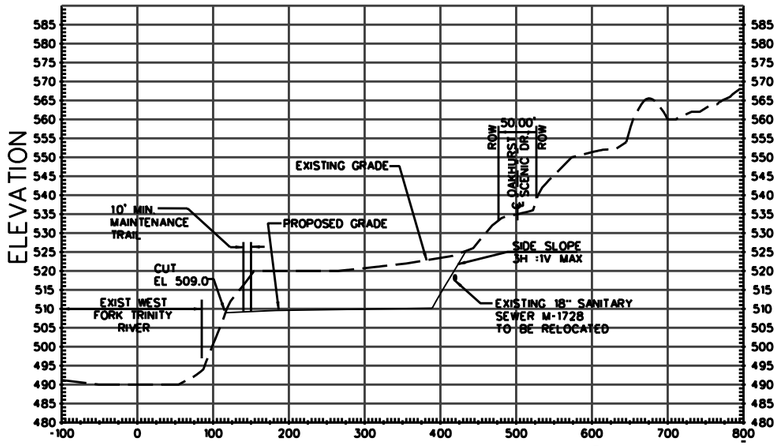
SHEET IDENTIFICATION

CG-10

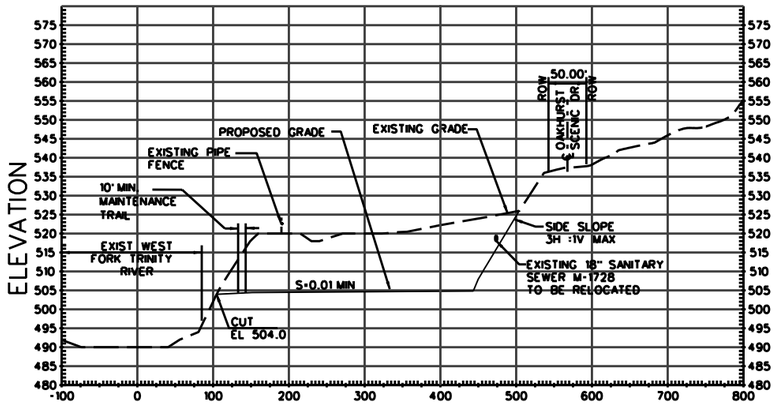
NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: AUGUST 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

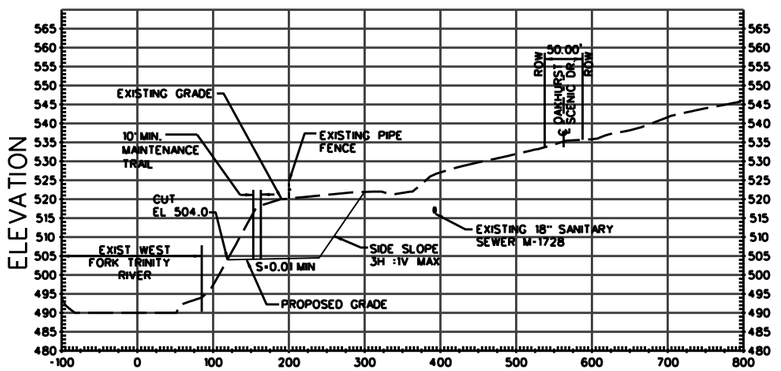
07020_CFW_CG-110xx10.dgn 10/29/2007 5:02:20 PM



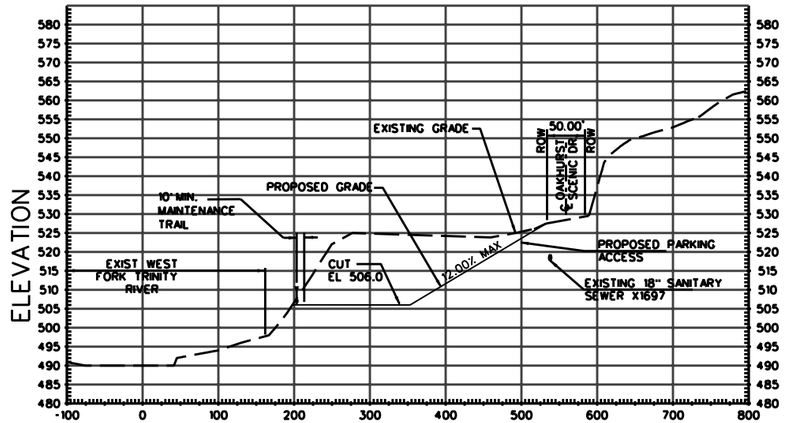
SECTION STA. 2325+00.00 (3)



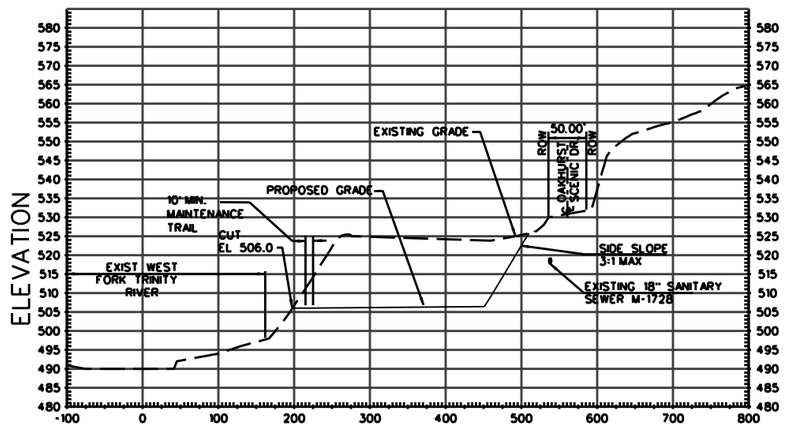
SECTION STA 2320+00.00 (2)



SECTION STA. 2316+00.00 (1)



PROFILE PARKING LOT DRIVEWAY



SECTION STA. 2330+00.00 (4)

SITE 21

0 100' 200'

SCALE
HORIZ: 1"=100'
VERT: 1"=20'

US Army Corps of Engineers
Fort Worth District

CDM

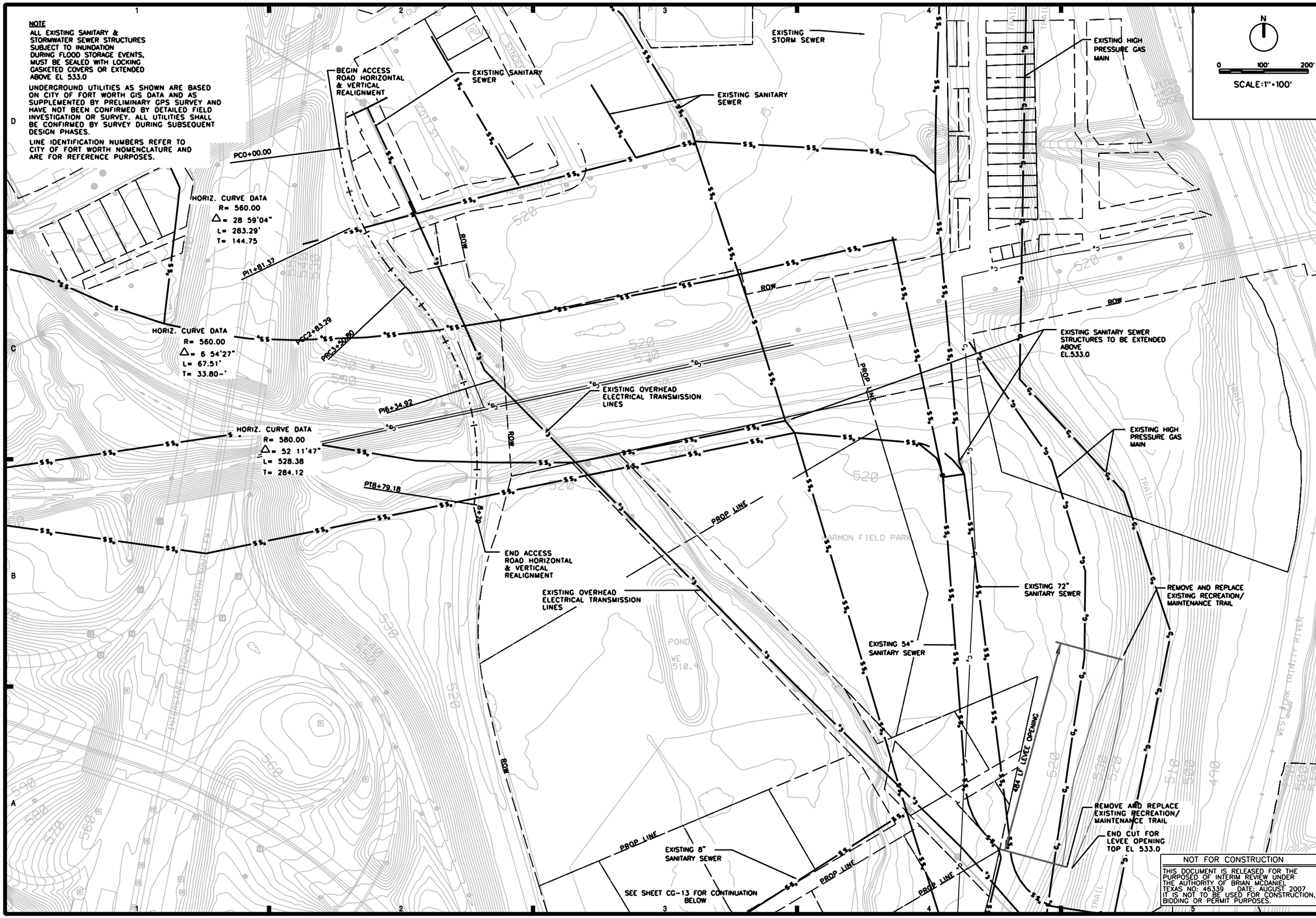
ARS Engineers Inc

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS SECTIONS
RIVERSIDE PARK (SITE 21)

SHEET IDENTIFICATION
CG-11

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: AUGUST 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: Designfile
Set ID: SetID
Size: ANSI D
Plot date: PlotDate
Designed by: C. PAUL
Drawn by: B. EADS
Checked by: C. PAUL
Responsible P.E.: BRIAN A. McDANIEL
License Number: 46339
LicenseState: TEXAS

CDM
ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CIVIL SITE PLAN
HAM BRANCH (SITE 9)

SHEET IDENTIFICATION
CG-12

07010_CFW_CG-112xx12.dgn 11/14/2007 11:07:22 AM

NOTE

ALL EXISTING SANITARY & STORMWATER SEWER STRUCTURES SUBJECT TO INUNDATION DURING FLOOD STORAGE EVENTS, MUST BE SEALED WITH LOCKING GASKETED COVERS OR EXTENDED ABOVE EL 533.0

UNDERGROUND UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND AS SUPPLEMENTED BY PRELIMINARY GPS SURVEY AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.

LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.

SEE SHEET CG-12 FOR CONTINUATION ABOVE

EXISTING 8" SANITARY SEWER

EXISTING HP GAS MAIN

EXISTING 8" SANITARY SEWER

END CUT FOR LEVEE OPENING TOP EL 533.0

REMOVE AND REPLACE EXISTING RECREATION/ MAINTENANCE TRAIL

EXISTING SANITARY SEWER

EXISTING UG COMMUNICATIONS LINE

EXISTING OVERHEAD ELECTRICAL TRANSMISSION LINES

EXISTING SANITARY SEWER

EXISTING SANITARY SEWER

EXISTING SANITARY SEWER STRUCTURES TO BE EXTENDED ABOVE EL.533.0

EXISTING HIGH PRESSURE GAS MAIN

EXISTING RECREATION/ MAINTENANCE TRAIL TO REMAIN

EXISTING HIGH PRESSURE GAS MAIN

EXISTING 72" SANITARY SEWER

EXISTING STORM SEWER

PROP LINE

CARVER JR HIGH SCHOOL

HARMON FIELD PARK

ATHLETIC FIELDS

PLAYGROUND

BASKETBALL COURT

TRAIL

E 12TH ST

E 14TH ST

LUBBOCK AVE

STEPHENSON AVE

SUMMERS AVE

INTERSTATE HIGHWAY 35W (NORTH SOUTH FWY)

NORTH FREEWAY SERVICE RD E

US HIGHWAY 287 (MARTIN LUTHER KING FWY)

N

0 100' 200'

SCALE:1"=100'

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: AUGUST 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers Fort Worth District

No.	Description	Date	Appd

Design for: Design
Set ID: Set0
Size: ANSI D
Plot date: Plotdate
Designed by: C. Paul
Drawn by: C. Paul
Checked by: C. Paul
Responsible P.E.: BRIAN A. McDANIEL
License Number: 46339
LicenseState: TEXAS

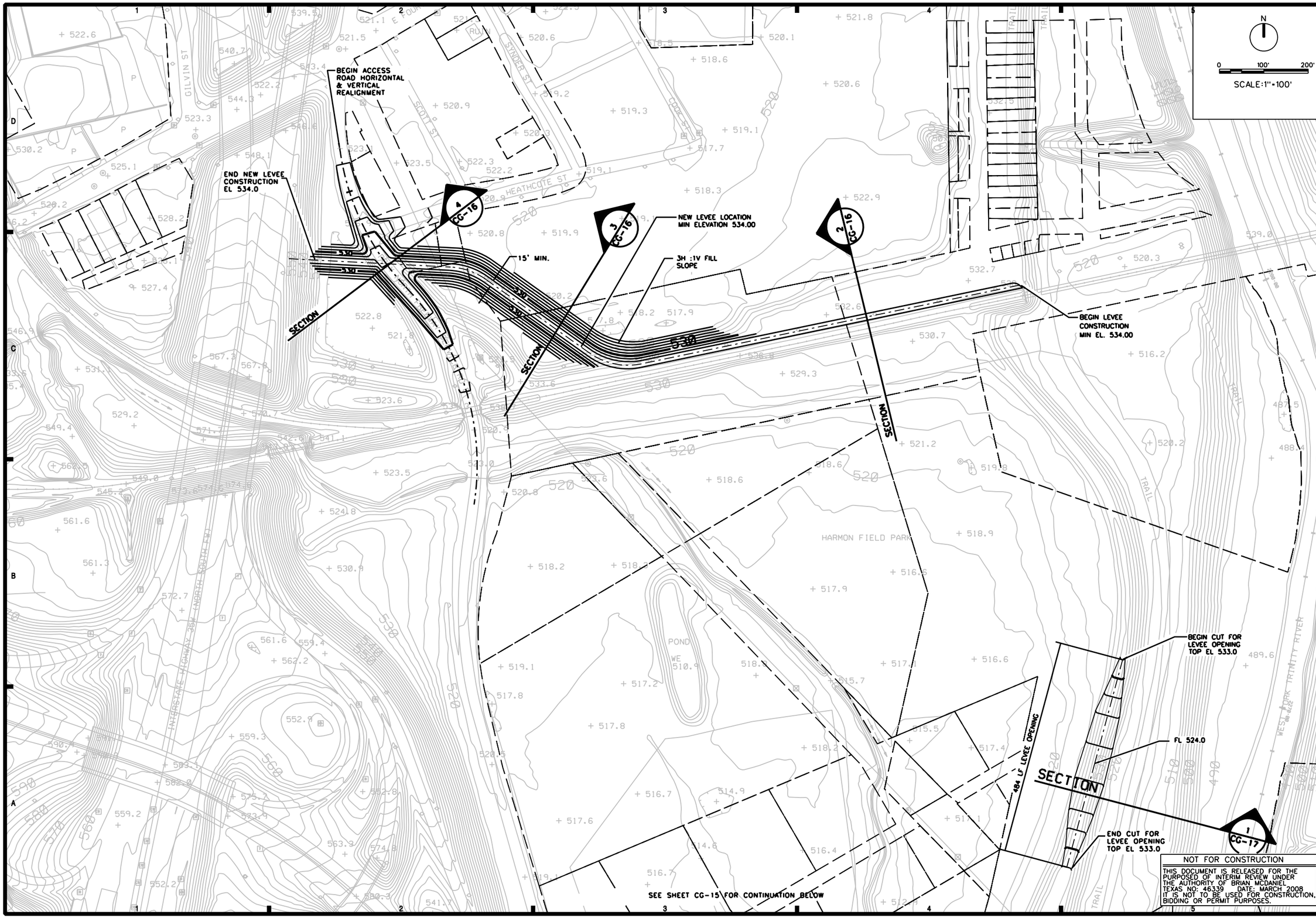
CDM

ARS Engineers Inc.
3001 S Cooper Highway, Suite 100
Arlington, Texas 76015-3744
(817) 784-7474 Fax (817) 784-7444

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CIVIL SITE PLAN
HAM BRANCH (SIRE 9)

SHEET IDENTIFICATION

CG-13



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: Design File
Set ID: SetID
Size: ANSI D
Plot date: PlotDate
Designed by: C. PAUL
Drawn by: B. EADS
Checked by: C. PAUL
Responsible P.E.: BRIAN A. McDANIEL
License Number: 46339
License State: TEXAS

CDM
ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
HAM BRANCH

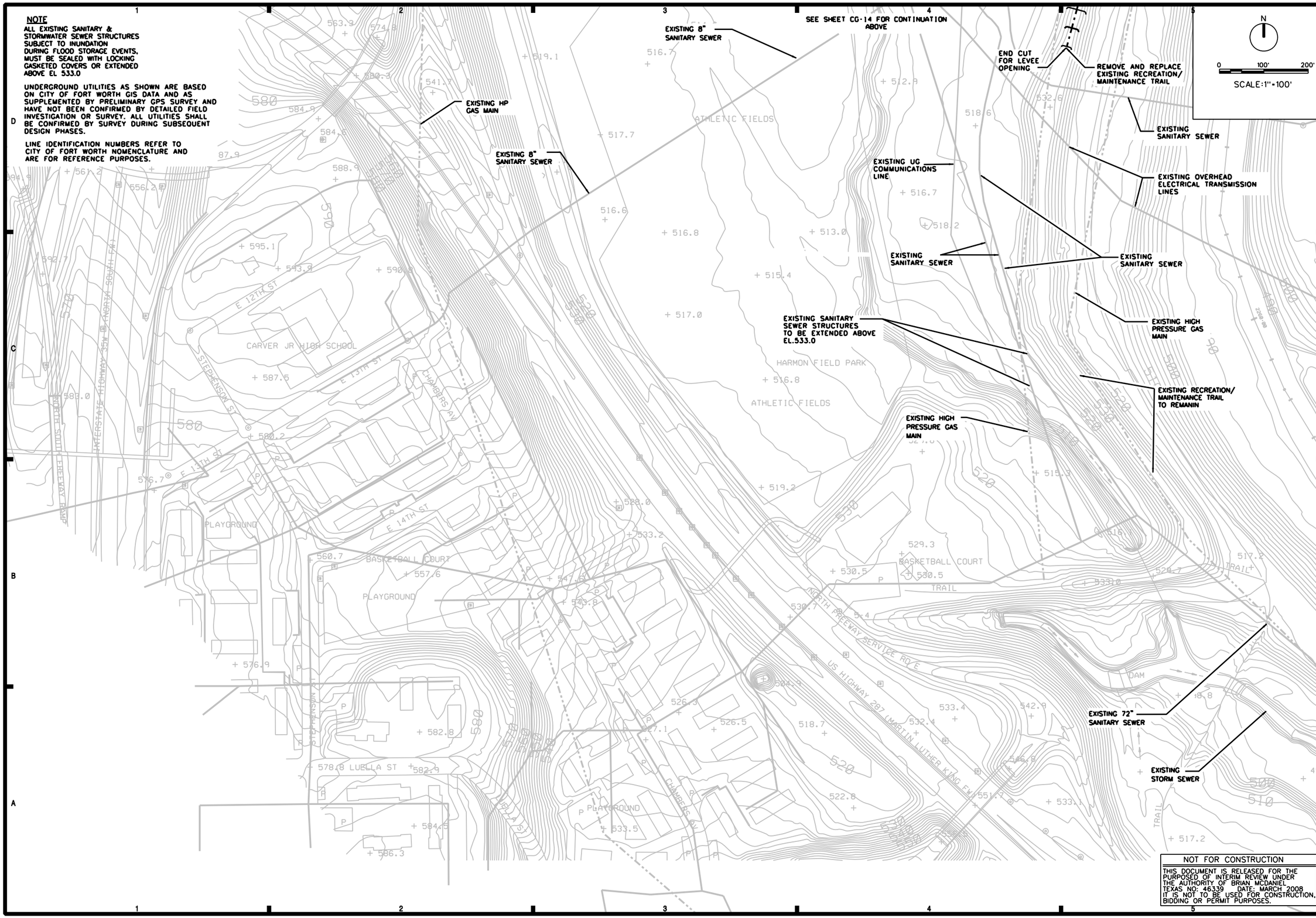
SHEET IDENTIFICATION
CG-14

NOTE

ALL EXISTING SANITARY & STORMWATER SEWER STRUCTURES SUBJECT TO INUNDATION DURING FLOOD STORAGE EVENTS, MUST BE SEALED WITH LOCKING GASKETED COVERS OR EXTENDED ABOVE EL 533.0

UNDERGROUND UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND AS SUPPLEMENTED BY PRELIMINARY GPS SURVEY AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.

LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

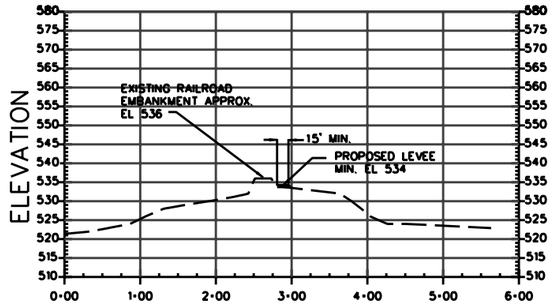
Design file: DesignFile
Set ID: SetID
Size: ANSI D
Plot date: PlotDate
Designed by: C. PAUL
Drawn by: B. EADS
Checked by: C. PAUL
Responsible P.E.: BRIAN A. McDANIEL
License Number: 46339
License State: TEXAS

CDM
ARS Engineers, Inc.

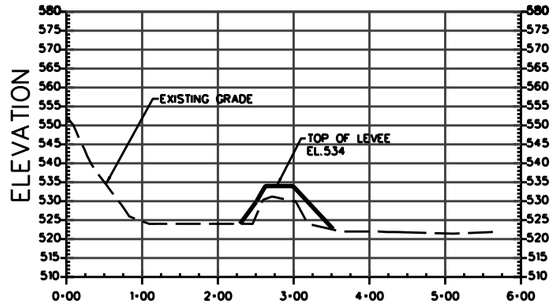
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
HAM BRANCH (SITE 9)

SHEET IDENTIFICATION

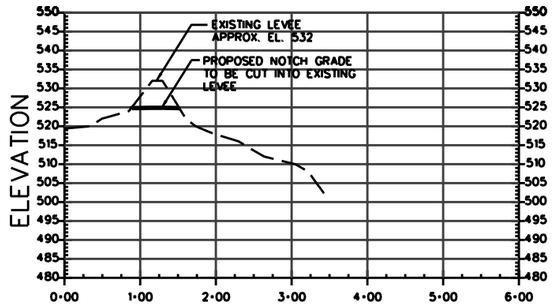
CG-15



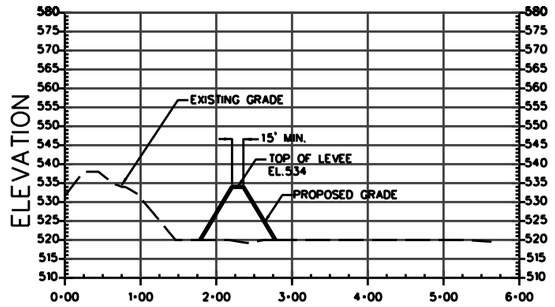
SECTION 2



SECTION 4



SECTION 1



SECTION 3

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

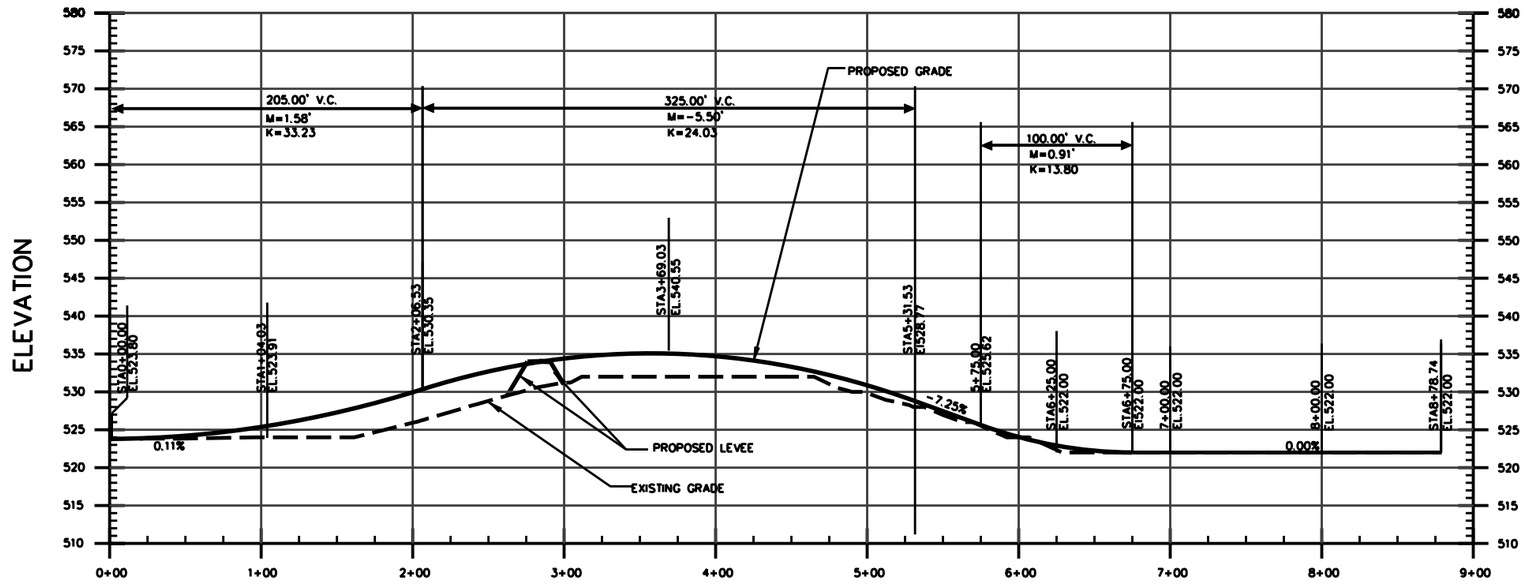
Symbol	Description	Date	Appr.

Design file: DesignFile
Set ID: SetID
Size: ANSI D
Plot date: PlotDate
Designed by: C. PAUL
Drawn by: B. EADS
Checked by: C. PAUL
Responsible P.E.: BRIAN A. McDANIEL
License Number: 46339
License State: TEXAS

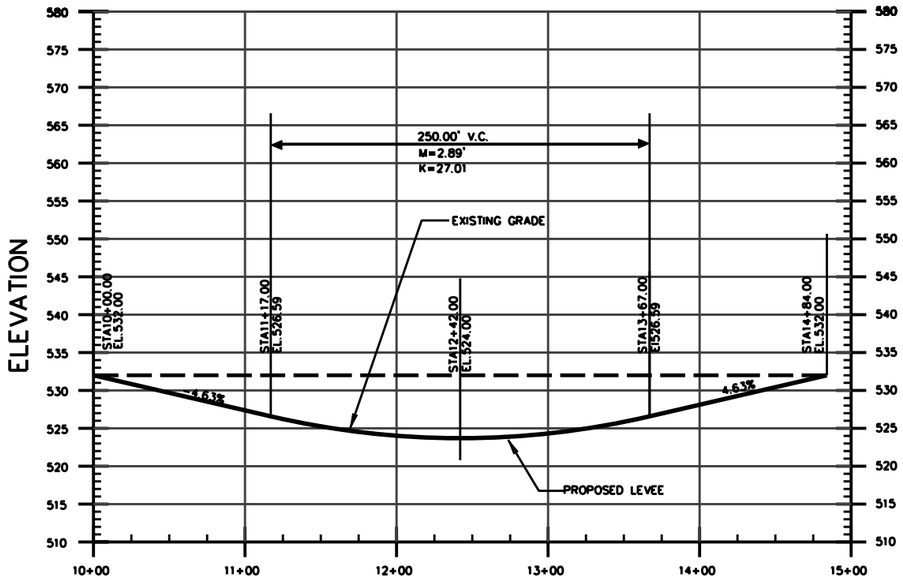
CDM
ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS SECTIONS
HAM BRANCH (SITE 9)

SHEET IDENTIFICATION
CG-16



PROFILE NORTH FREEWAY SERVICE ROAD



PROFILE LEVEE OPENING

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSED OF INTERIM REVIEW UNDER THE AUTHORITY OF BRIAN MCDANIEL TEXAS NO: 46339 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

No.	Description	Date	Appd.

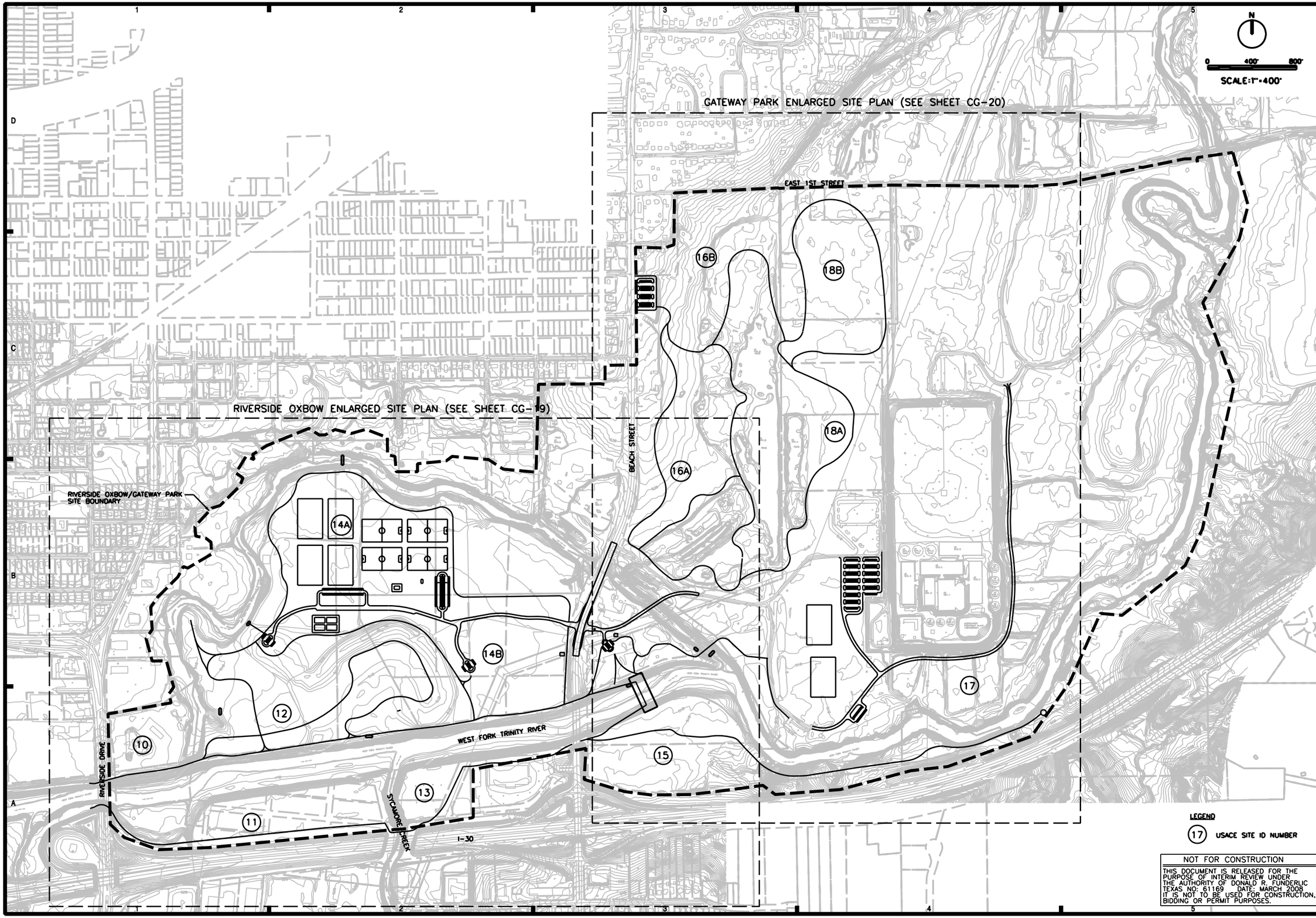
Design File: Design-a
Set ID: SetID
Size: ANSI D
Proj. date: Projdate
Designed by: C. PAUL
Drawn by: C. PAUL
Checked by: C. PAUL
Responsible P.E.: BRIAN A. MCDANIEL
License Number: 46339
License State: TEXAS

CDM
ARS Engineers, Inc.

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
PROFILE
HAM BRANCH (SITE 9)

SHEET IDENTIFICATION

CG-17



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers Fort Worth District

Symbol	Description	Date	Appr.

Design file: Design File
Set ID.: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PEState

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
SITE PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CG-18

...\Sheet\00001_COE_CG-118xx22.dgn 3/3/2008 12:07:35 PM

PROPOSED GRADING LIMIT

PROPOSED ROCK WEIR STRUCTURE

PROPOSED FUTURE RECREATIONAL FIELDS

PROPOSED RECREATION FIELDS

PROPOSED CHANNEL LOWERING WITHIN OLD OXBOW CHANNEL

EXISTING PARK ENTRANCE TO BE REMOVED

PROPOSED RECREATION TRAIL

RIVERSIDE OXBOW/GATEWAY PARK SITE BOUNDARY

PROPOSED SPLASH PARK

PROPOSED RESTROOM AND SNACK BAR

PROPOSED BEACH STREET BRIDGE

PROPOSED FUTURE PARKING

PROPOSED EAST PARK ROAD

PROPOSED FUTURE PARKING

PROPOSED CHANNEL LOWERING WITHIN OLD OXBOW CHANNEL

PROPOSED WEST PARK ROAD

PROPOSED BEACH STREET ROADWAY IMPROVEMENTS

PROPOSED PARKING

PROPOSED PARKING

EXISTING PEDESTRIAN BRIDGE

PROPOSED BOAT LAUNCH

PROPOSED MAINTENANCE/ RECREATION TRAIL

PROPOSED PARK ROAD BRIDGE

PROPOSED BASKETBALL COURTS

PROPOSED RECREATION TRAILS

PROPOSED PARKING

PROPOSED BOAT LAUNCH

PROPOSED WEST PARK ROAD SPUR

PROPOSED PARKING

PROPOSED BOAT LAUNCH

PROPOSED ROCK WEIR STRUCTURE

PROPOSED PEDESTRIAN BRIDGE

PROPOSED ROCK WEIR STRUCTURE

PROPOSED ROCK WEIR STRUCTURE

WEST FORK TRINITY RIVER

BEACH ST

EXISTING BEACH STREET LOW WATER DAM

PROPOSED MAINTENANCE/ RECREATION TRAIL

SYCAMORE CREEK

RIVERSIDE DR

EXISTING PEDESTRIAN BRIDGE

I-30

I-30

N

0 200' 400'

SCALE: 1" = 200'

US Army Corps of Engineers
Fort Worth District

No.	Description	Date	Appd.
Symbol			

Design File: Datgfile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. ROBSON
Drawn by: J. HUNSUCKER
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
Meters&Bounds: PESeals

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
RIVERSIDE OXBOW ENLARGED PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CG-19

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

...\Sheet\00001_COE_CG-119xx23.dgn 3/3/2008 6:02:35 PM

PROPOSED GRADING LIMITS

PROPOSED BOAT LAUNCH

EXISTING PEDESTRIAN BRIDGE

PROPOSED ROCK WEIR STRUCTURE

EXISTING PARK ROAD TO BE REMOVED

EXISTING PARK ROAD TO REMAIN

PROPOSED FUTURE EQUESTRIAN PARKING

NO GRADING WORK IN THIS AREA

FUTURE PROPOSED RECREATION FIELDS

EXISTING PARKING

PROPOSED GRADING LIMITS

EXISTING DOG PARK

WEST FORK TRINITY RIVER

PROPOSED EQUESTRIAN TRAILS

EXISTING PARKING

PROPOSED GRADING LIMITS

PROPOSED FUTURE PARKING

EXISTING BALL FIELDS

PROPOSED FUTURE PARK ROAD

PROPOSED WETLAND PONDS (BY OTHERS)

PROPOSED FUTURE PARKING

RIVERSIDE OXBOW/GATEWAY PARK SITE BOUNDARY

PROPOSED RECREATION TRAIL

EXISTING RECREATION FIELDS

EXISTING PARKING

EXISTING RECREATION TRAIL

PROPOSED WETLAND PONDS (BY OTHERS)

0 200' 400'

SCALE: 1" = 200'

US Army Corps of Engineers
Fort Worth District

No.	Description	Date	Approved

CDM

Design File:	Design1a
Set ID:	Set0
Size:	ANSI D
Plot date:	AUGUST 2007
Designed by:	DKLSON
Drawn by:	AKLSON
Checked by:	D. FUNDERLIC
Responsible P.E.:	PEResponsible
License Number:	PELicenseNum
License Seals:	PESeals

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GATEWAY PARK ENLARGED PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CG-20

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

N

0 100' 200'

SCALE: 1" = 100'

NOTE:

1. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES

GRADING OFFSET (25 FT MIN TYP.)

APPROXIMATE LOCATION OF EXISTING TREELINE

10H:1V CUT SLOPE

3H:1V CUT SLOPE

RIVERSIDE OXBOW/GATEWAY PARK SITE BOUNDARY

NO GRADING WORK IN THIS AREA

CUT TO ELEVATION 501

PROPOSED RECREATION FIELDS

CUT TO ELEVATION 501

ECOSYSTEM RESTORATION WORK ZONE

PROPOSED CHANNEL LOWERING WITHIN OLD OXBOW CHANNEL (EXTENTS TO BE DETERMINED AFTER FINAL DESIGN SURVEY)

PROPOSED RECREATION TRAIL SEE SHEET CP-01

PROPOSED DRAINAGE SWALE

EXISTING TRAIL TO BE REMOVED

PROPOSED WEST PARK ROAD SEE SHEET CP-02 & 03

PROPOSED COVERED BASKETBALL COURTS

PROPOSED BOAT LAUNCH

FOR CONTINUATION SEE SHEET CG-22

FOR CONTINUATION SEE SHEET CG-23

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

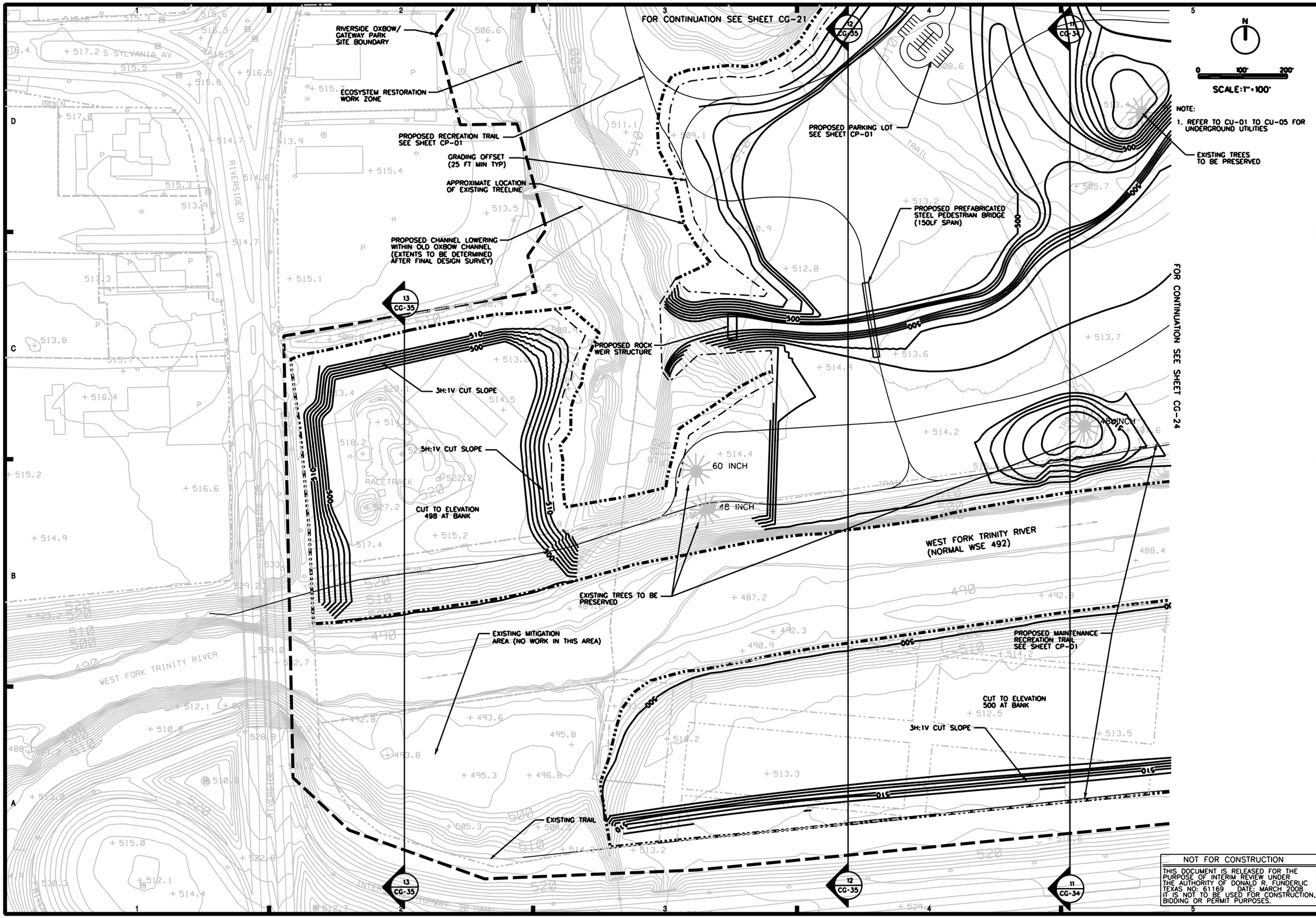
US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CG-21



NOTE:
1. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers Fort Worth District

Symbol	Description	Date	Appr.

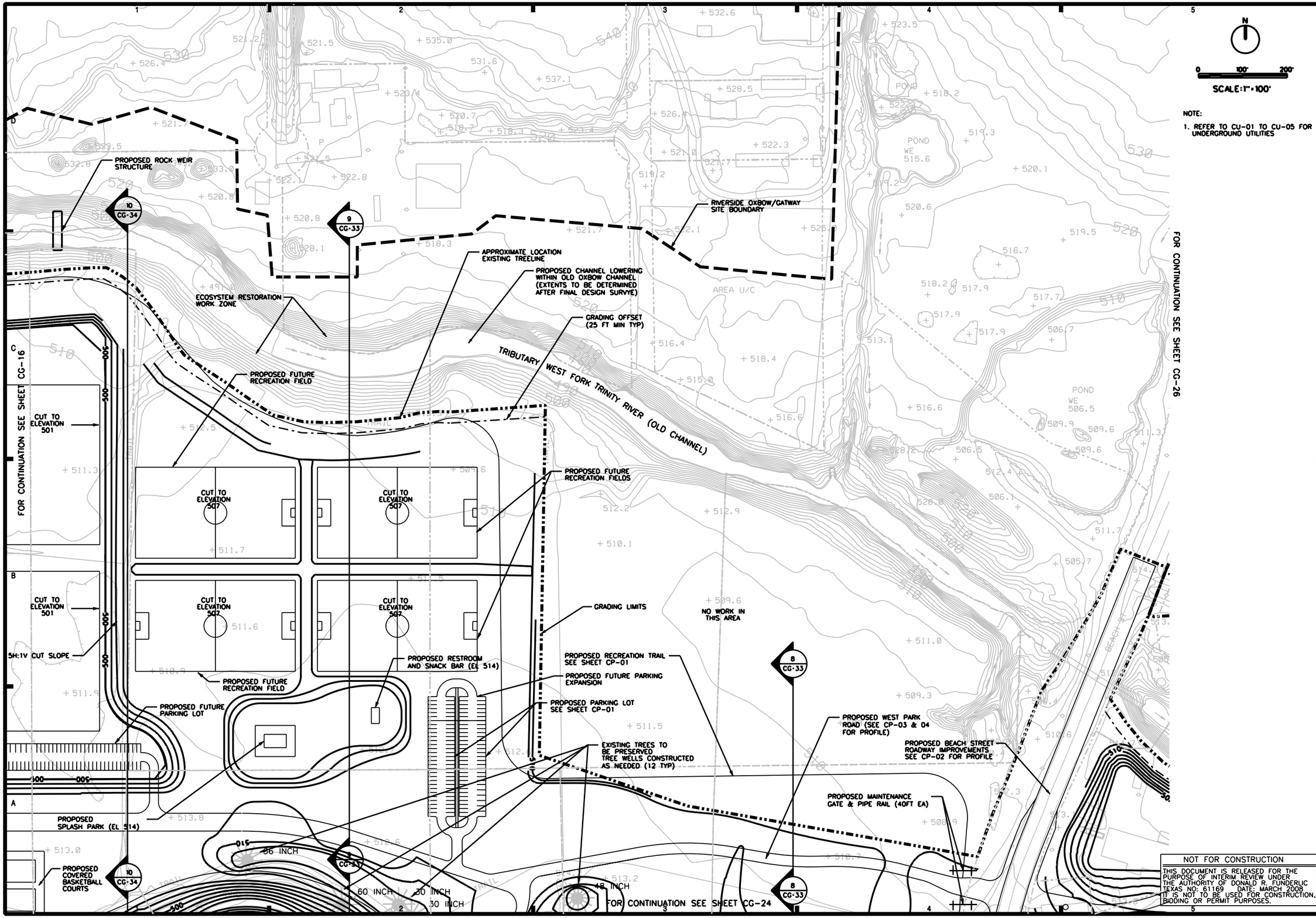
Design file: Designfile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PESlate

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION
CG-22

...\Sheet\00001_COE_CG-122xx26.dgn 3/3/2008 2:54:22 PM



N

0 100' 200'

SCALE: 1" = 100'

NOTE:

1. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

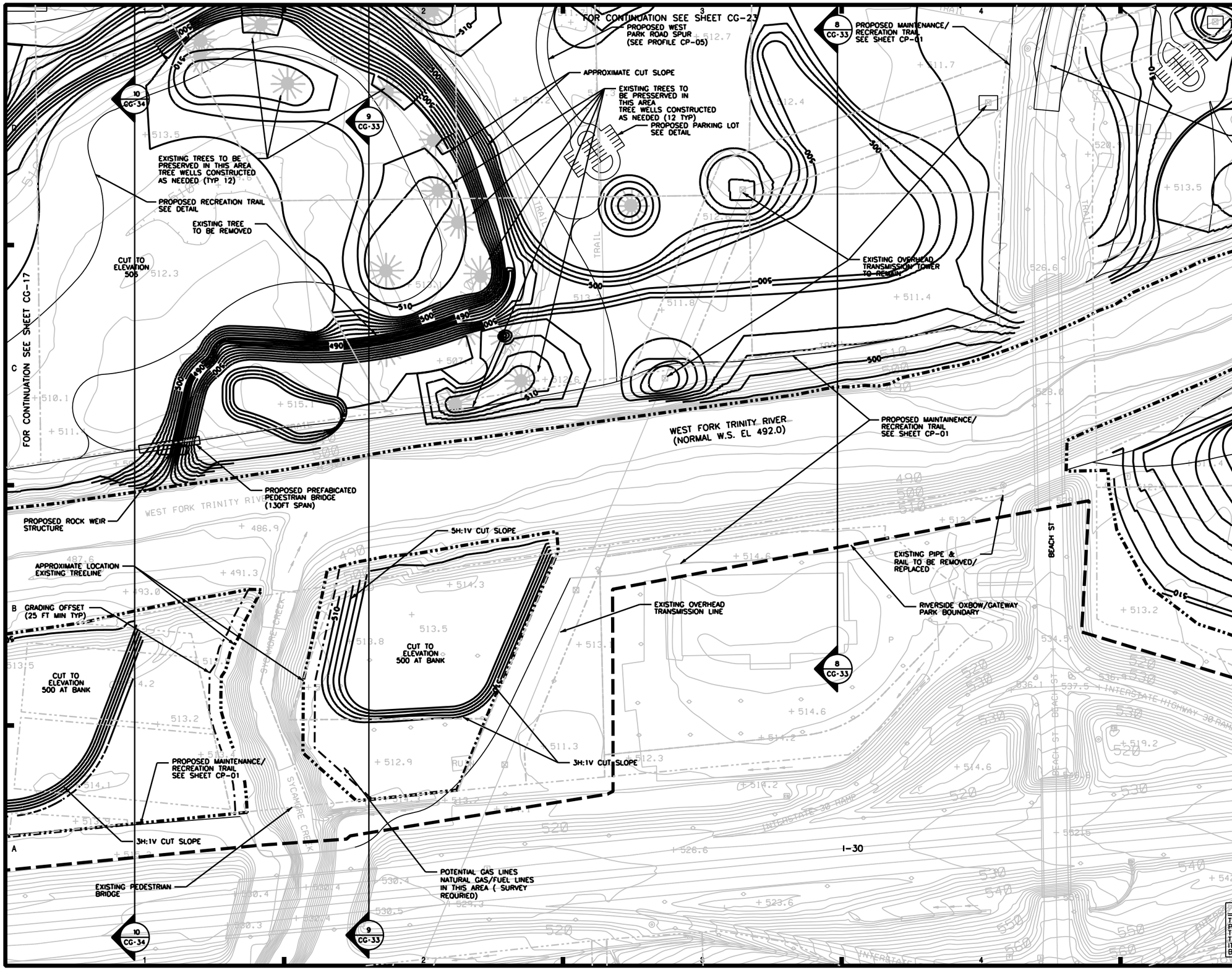
CDM

Design file: DesignFile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PESlate

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
GATEWAY-OXBOW SITE

SHEET IDENTIFICATION

CG-23



N

0 100' 200'

SCALE: 1" = 100'

NOTE:

1. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: Designfile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PEState

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CG-24

...\Sheet\00001_COE_CG-124xx28.dgn 3/3/2008 2:59:10 PM

SCALE: 1" = 100'

NOTE:

1. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CG-25

...\Sheet\00001_COE_CG-125xx29.dgn 3/3/2008 5:59:31 PM

FOR CONTINUATION SEE SHEET CG-25

FOR CONTINUATION SEE SHEET CG-23

CUT SLOPE 3H:1V

GRADING OFFSET (25FT TYP)

APPROXIMATE LOCATION OF EXISTING TREELINE

NO GRADING WORK IN THIS AREA

CUT TO ELEVATION 500

CUT SLOPE 4H:1V

PROPOSED EQUESTRIAN TRAIL SEE SHEET CP-01

REMOVE EXISTING CULVERT

NO GRADING WORK IN THIS AREA

EXISTING PARK ROAD ENTRANCE TO BE REMOVED

EXISTING TREES TO BE REMOVED FOR ROADWAY

PROPOSED CHANNEL LOWERING WITHIN OLD OXBOW CHANNEL (EXTENTS TO BE DETERMINED AFTER FINAL DESIGN SURVEY)

PROPOSED EAST PARK ROAD SEE CP-06 FOR PROFILE

PROPOSED PARK ROAD BRIDGE SEE REFERENCE PLANS

FOR CONTINUATION SEE SHEET CG-27

3H:1V FILL SLOPE

APPROXIMATE LOCATION OF EXISTING TREELINE

GRADING OFFSET (25FT TYP)

FILL TO ELEVATION 514.50

EXISTING TRANSMISSION TOWER TO REMAIN

PROPOSED BALLPARK LEVEE MODIFICATIONS (EXTENTS TO BE DETERMINED AFTER FINAL DESIGN SURVEY)

PROPOSED EQUESTRIAN TRAIL SEE SHEET CP-01

EXISTING PARKING LOT TO REMAIN

GRADING LIMITS

EXISTING DOG PARK TO REMAIN

EXISTING PARKING LOT TO REMAIN

PROPOSED FUTURE PARKING LOT

PROPOSED FUTURE RECREATION FIELDS

EXISTING PARK ROAD TO REMAIN

CUT TO ELEVATION 504.5

FOR CONTINUATION SEE SHEET CG-28

N

0 100' 200'

SCALE: 1" = 100'

NOTE:

1. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers Fort Worth District

No.	Description	Date	Appd.

CDM

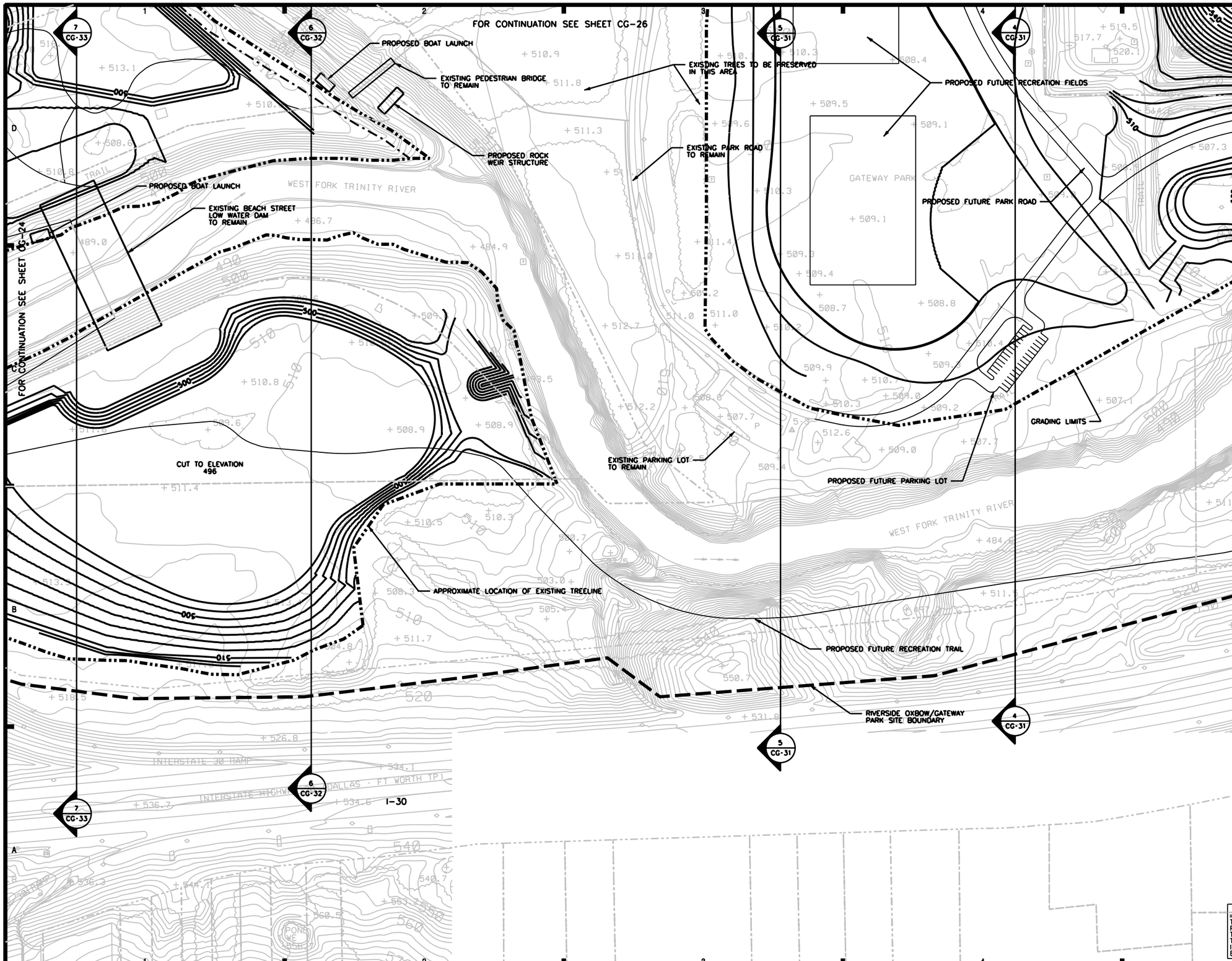
Design File:	Design1.a
Set ID:	SetID
Size:	ANSI D
Plot date:	AUGUST 2007
Designed by:	DRJ/SDN
Drawn by:	PROJECTOR
Checked by:	D. FUNDERLIC
Responsible P.E.:	PERresponsible
License Number:	PELicenseNum
House/Suite:	PERSuite

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CG-26

...\Sheet\00001_COE_CG-126xx30.dgn 3/3/2008 5:55:37 PM



N

0 100' 200'

SCALE: 1" = 100'

NOTE:

1. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: DesignFile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PEState

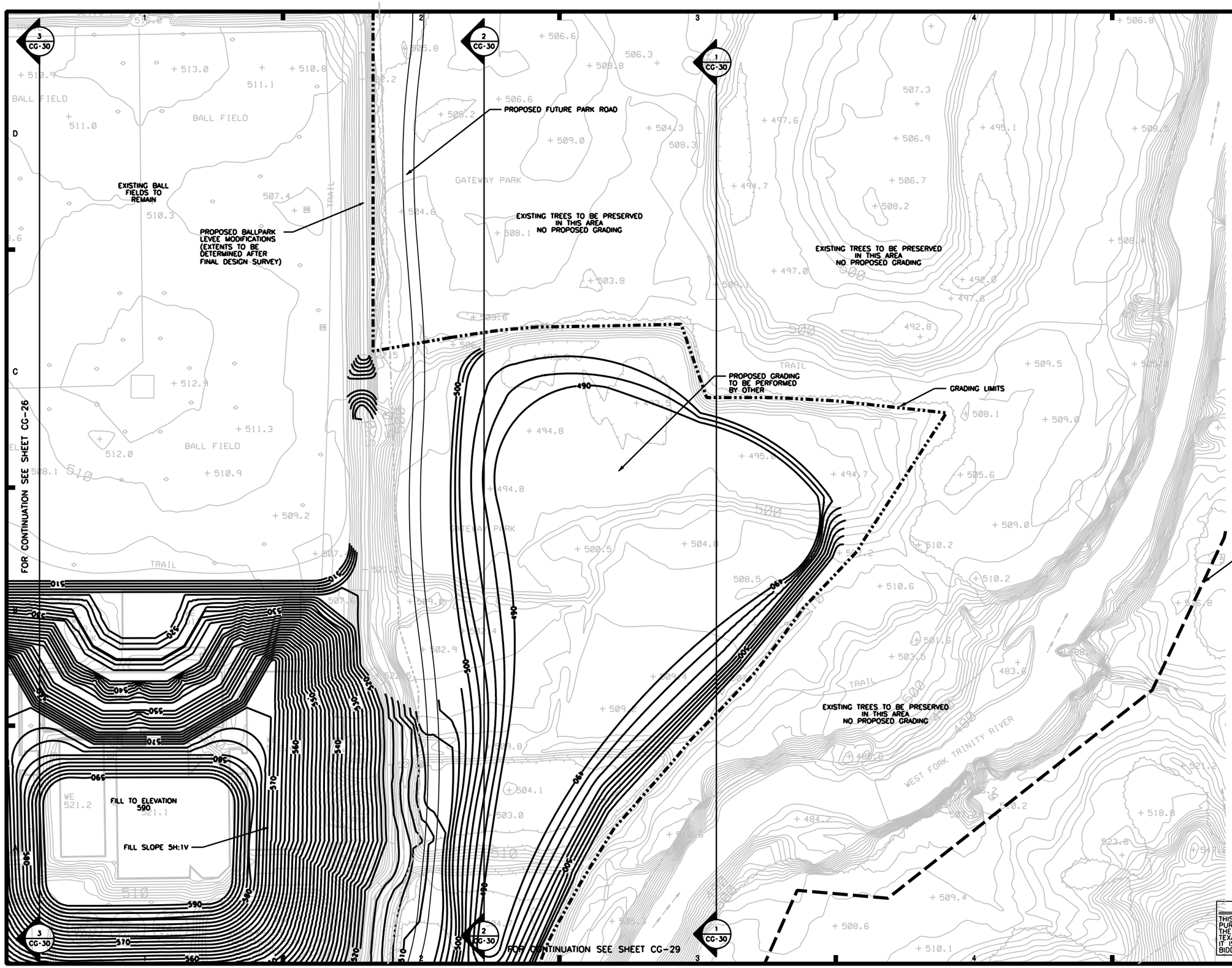
CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MTIGATION
GRADING PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CG-27

...\Sheet\00001_COE_CG-127xx31.dgn 3/3/2008 5:58:08 PM



NOTE:

1. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

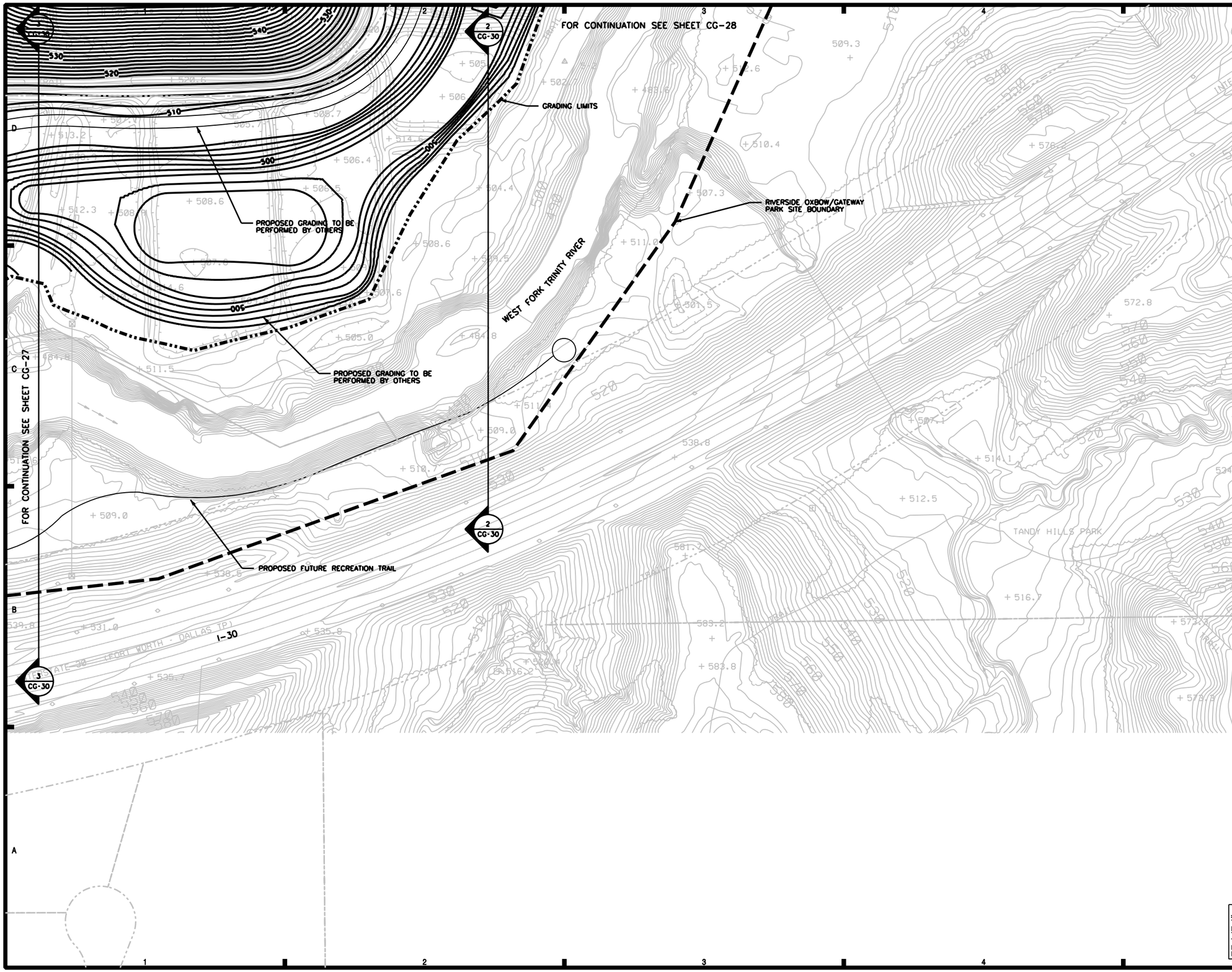
Appvd	Date	Description	Symbol

CDM

Design file: Design1.4
Set ID: Set0
Size: ANSI D
Plot date: AUGUST 2007
Designed by: GLASSON
Drawn by: MWEBB
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
Licensed State: PEState

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION
CG-28



NOTE:

1. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: Design File
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PEState

CDM

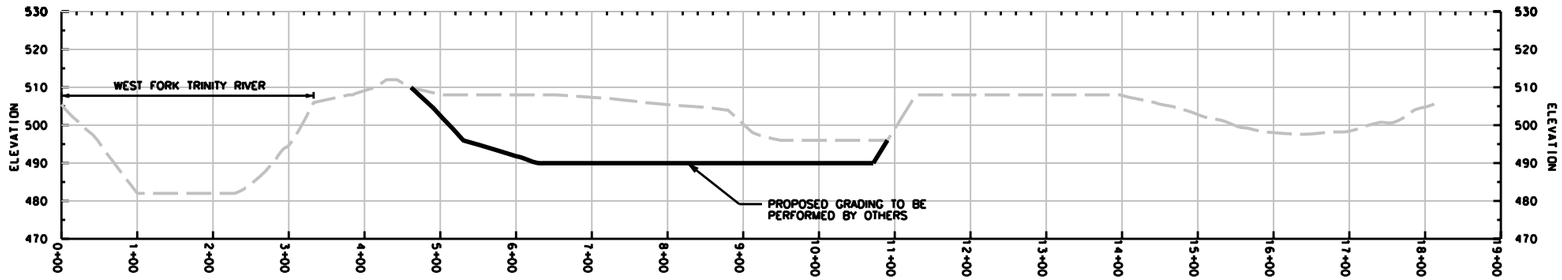
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
GRADING PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION
CG-29

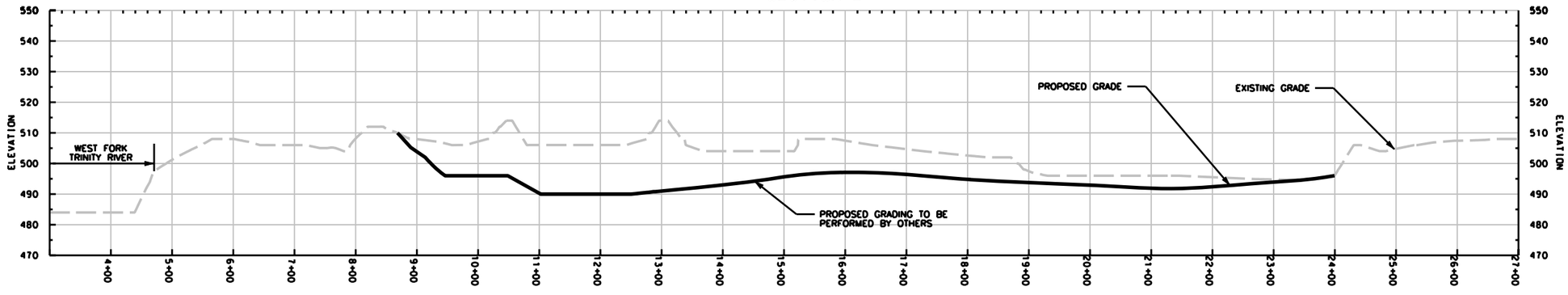
...\Sheet\00001_COE_CG-129xx33.dgn 3/3/2008 6:01:40 PM

SCALE:
HORIZ: 1" = 100'
VERT: 1" = 20'

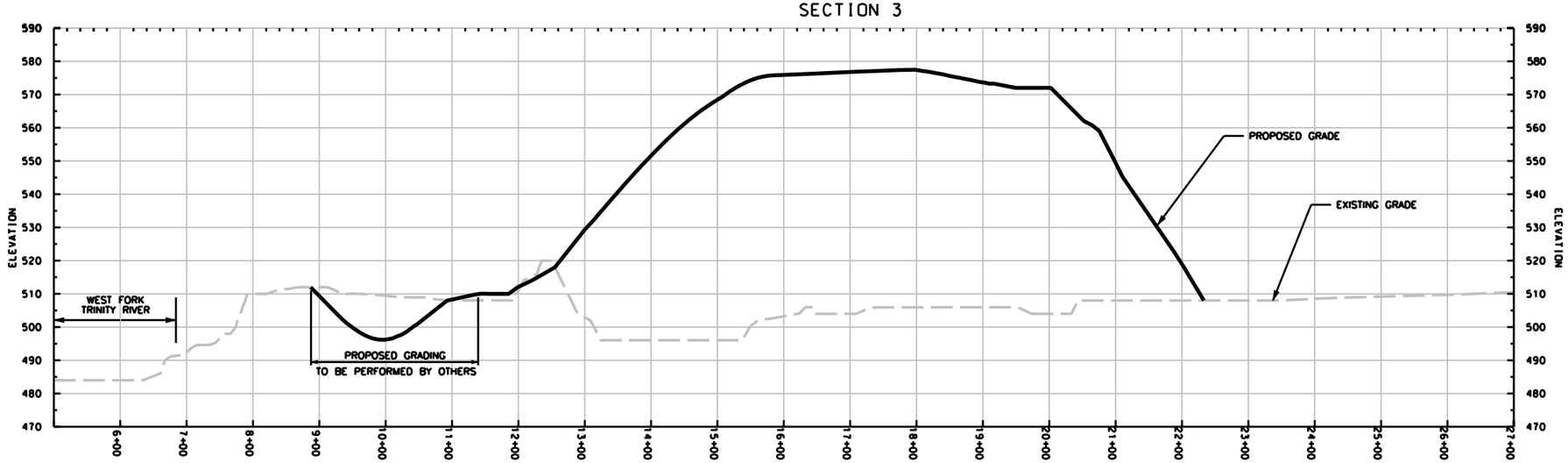
SECTION 1



SECTION 2



SECTION 3



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

No.	Description	Date	Appd.
Symbol			

Design file: Designfile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: Initials
Drawn by: Initials
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PEState

CDM

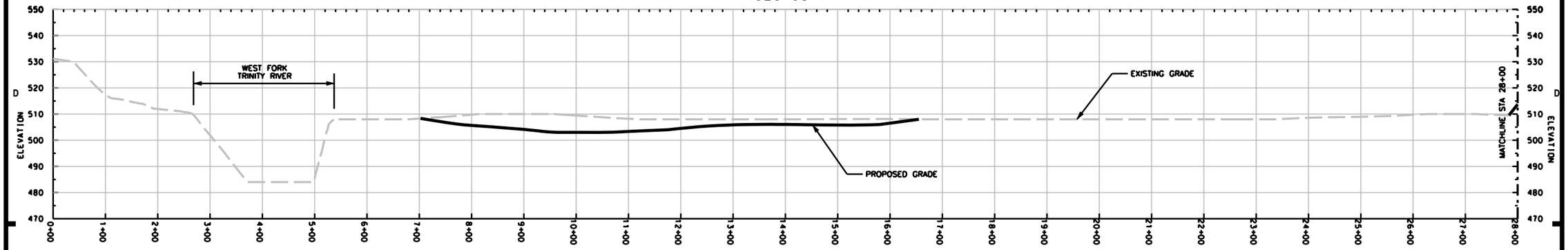
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS-SECTIONS
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

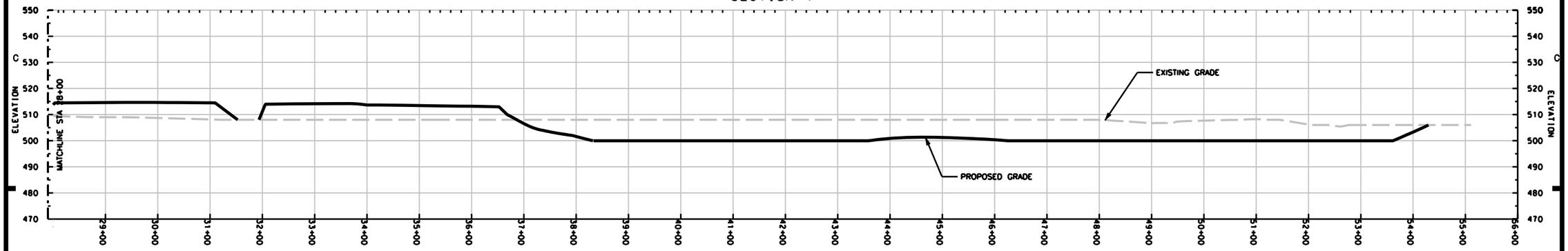
CG-30

SCALE:
HORIZ: 1" = 100'
VERT: 1" = 20'

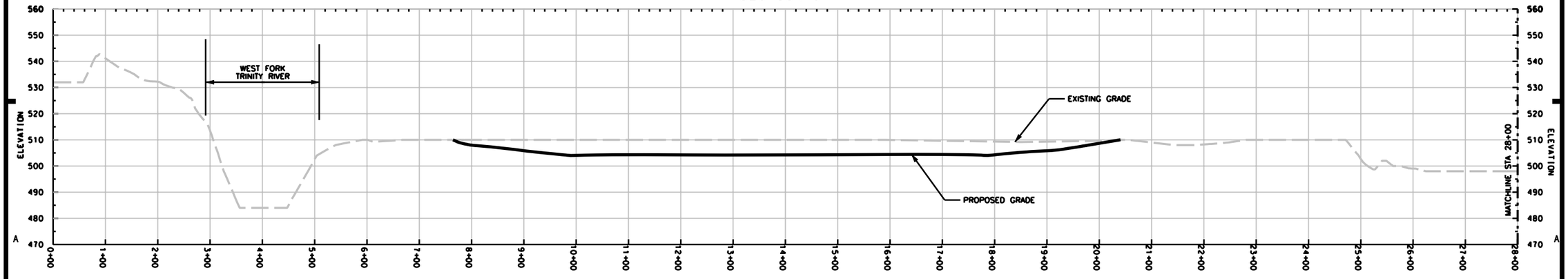
SECTION 4



SECTION 4



SECTION 5



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

CDM

Design file: DesignFile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PEState

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS SECTIONS
OXBOW-GATEWAY SITE

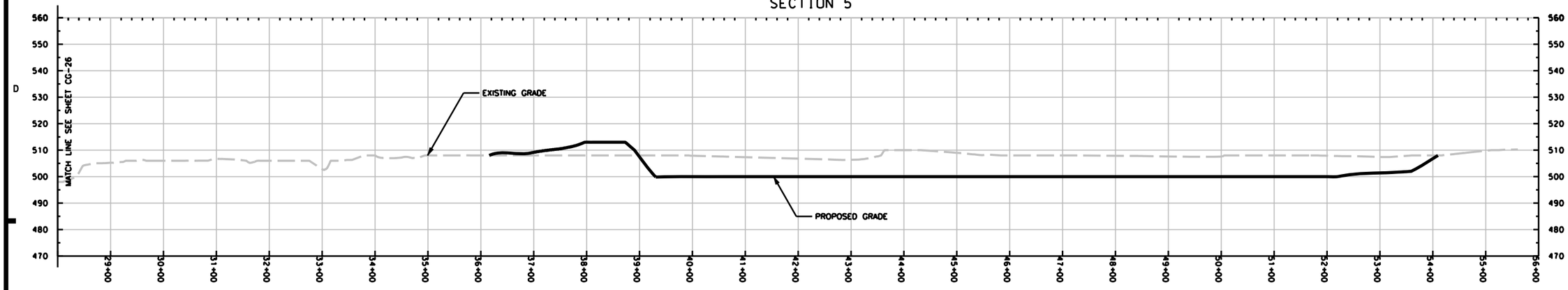
SHEET IDENTIFICATION

CG-31

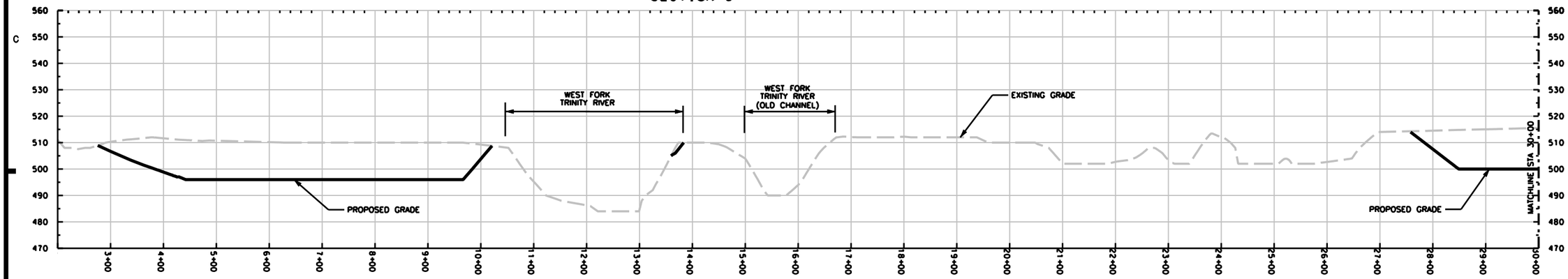
...\Sheet\00001_COE_CG-331xx35.dgn 3/3/2008 6:05:21 PM

SCALE:
HORIZ: 1" = 100'
VERT: 1" = 20'

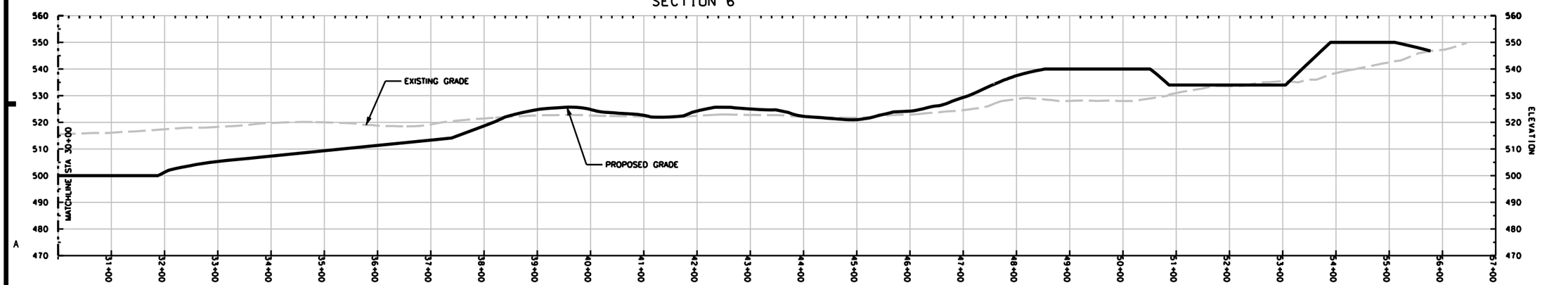
SECTION 5



SECTION 6



SECTION 6



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS SECTIONS
OXBOW-GATEWAY SITE

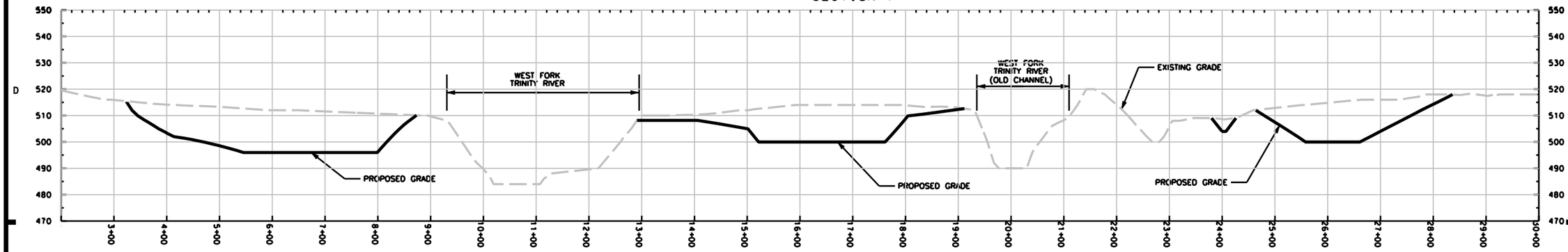
SHEET IDENTIFICATION

CG-32

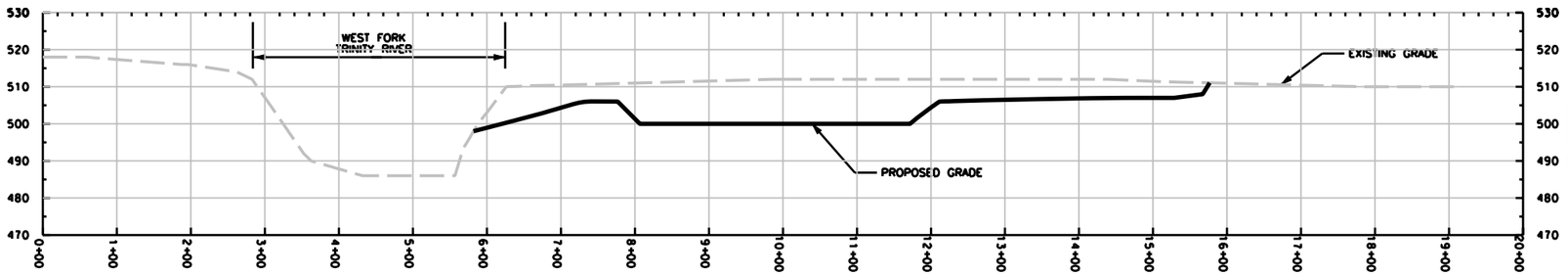
...\Sheet\00001_COE_CG-332xx36.dgn 3/3/2008 6:06:03 PM

SCALE:
HORIZ: 1" = 100'
VERT: 1" = 20'

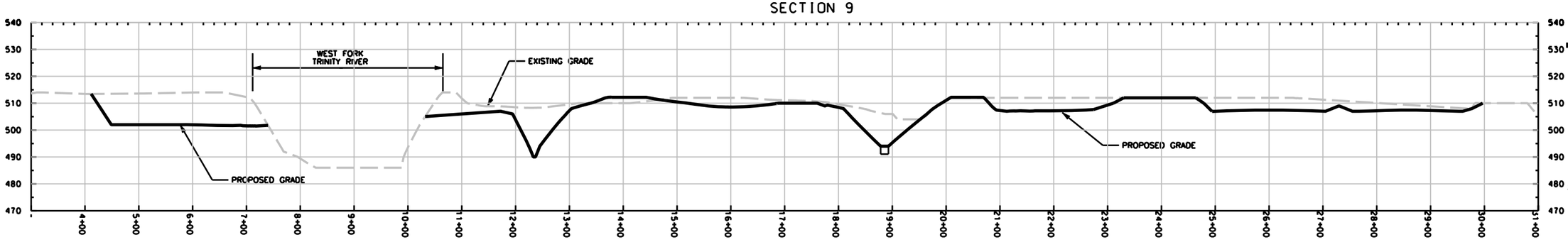
SECTION 7



SECTION 8



SECTION 9



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

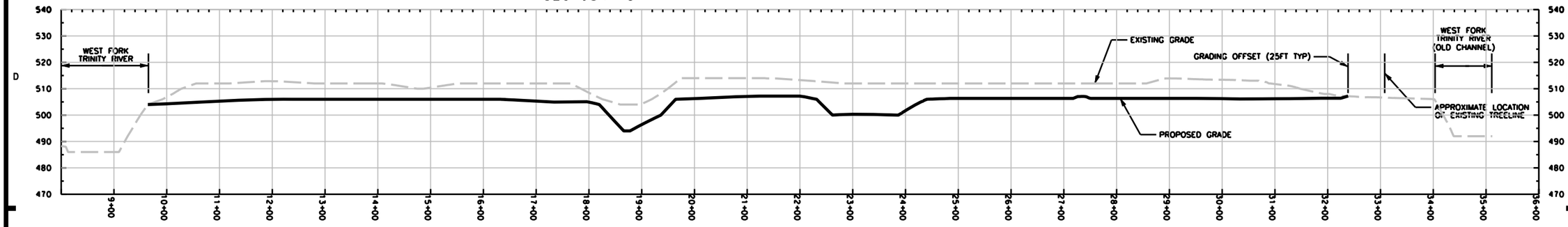
CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS SECTIONS
OXBOW-GATEWAY SITE

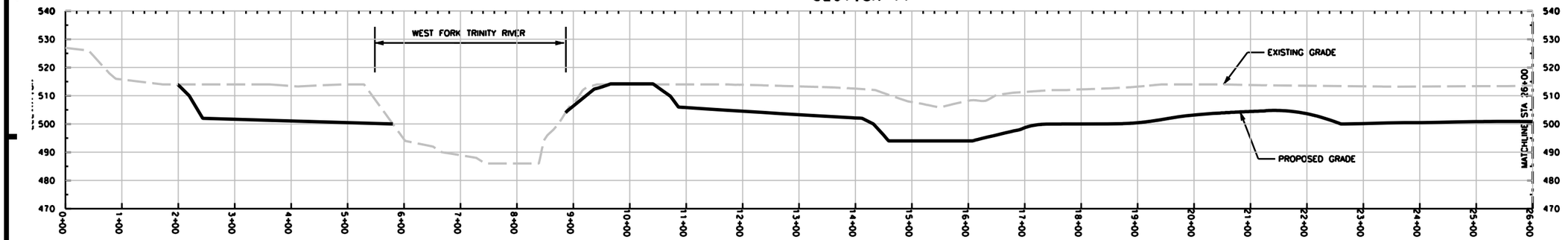
SHEET IDENTIFICATION
CG-33

SCALE:
HORIZ: 1" = 100'
VERT: 1" = 20'

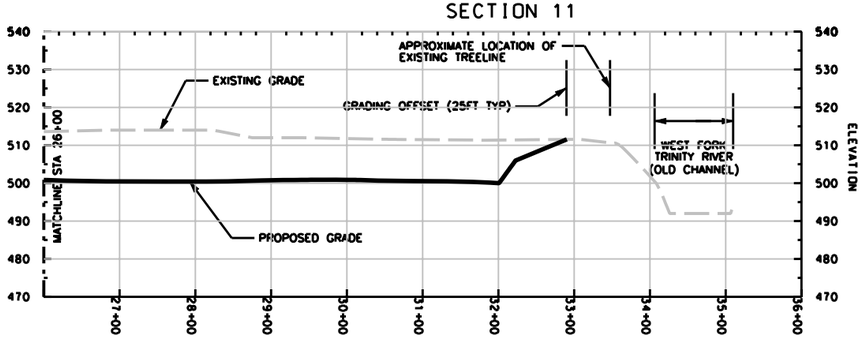
SECTION 10



SECTION 11



SECTION 11



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

No.	Description	Date	Appd.
Symbol			

CDM

Design file: Designfile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: PE/ASSOC.
Drawn by: PE/ASSOC.
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
Licensee/State: PEState

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS SECTIONS
OXBOW-GATEWAY SITE

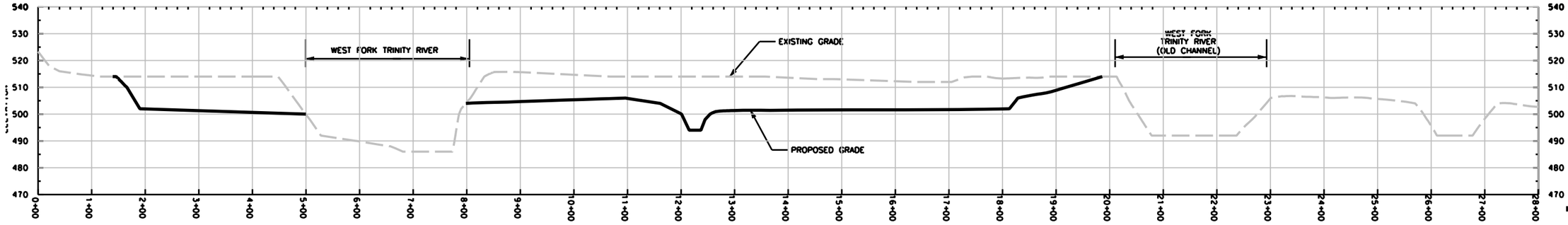
SHEET IDENTIFICATION

CG-34

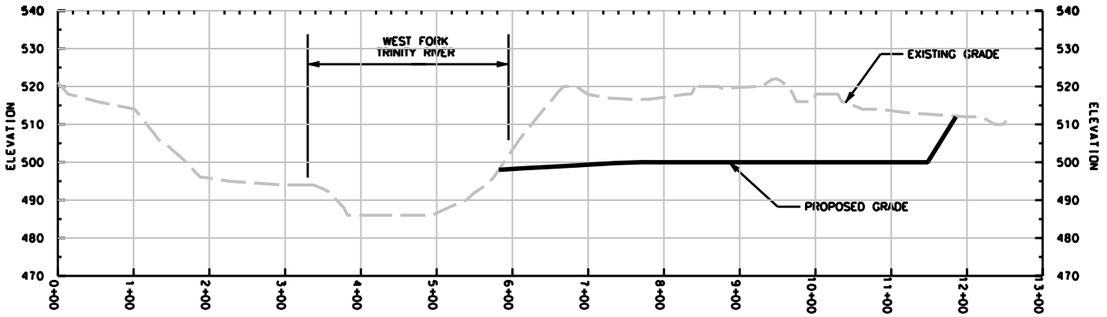
...\Sheet\00001_COE_CG-334xx38.dgn 3/4/2008 7:36:40 AM

SCALE:
HORIZ: 1" = 100'
VERT: 1" = 20'

SECTION 12



SECTION 13



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

No.	Description	Date	Appd
Symbol			

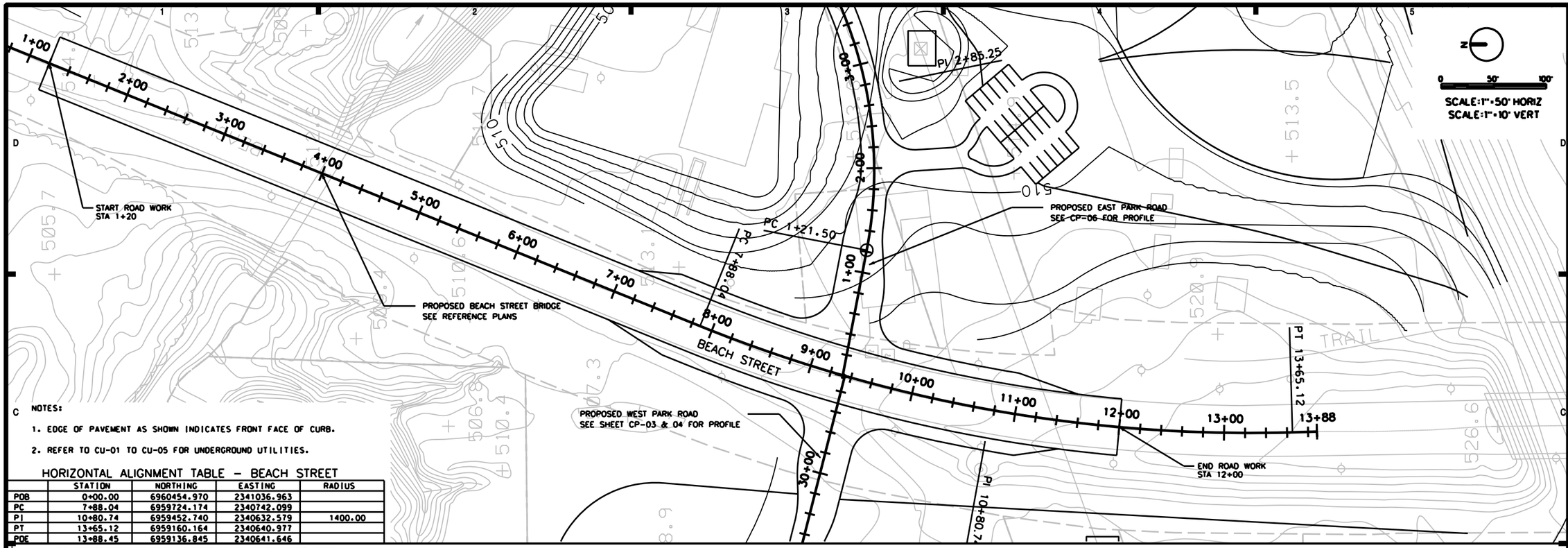
Design file: Designfile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: REASON
Drawn by: DRAWER
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
Access/Suite: PESuite

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
CROSS SECTIONS
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CG-35



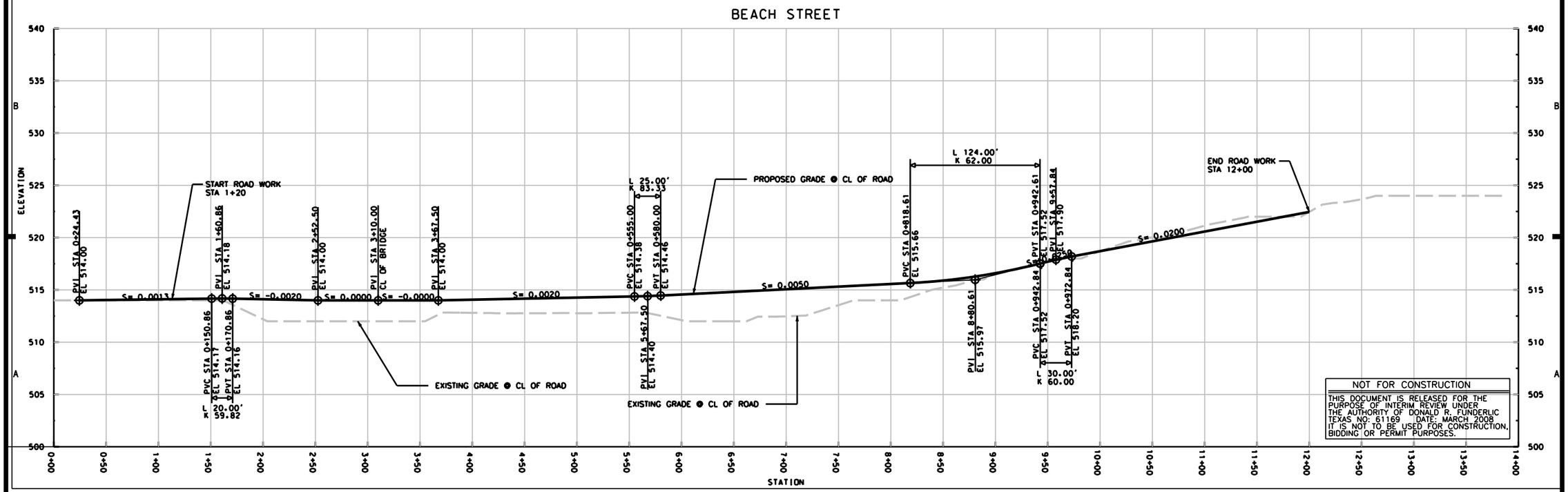
NOTES:

1. EDGE OF PAVEMENT AS SHOWN INDICATES FRONT FACE OF CURB.
2. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES.

HORIZONTAL ALIGNMENT TABLE – BEACH STREET

	STATION	NORTHING	EASTING	RADIUS
POB	0+00.00	6960454.970	2341036.963	
PC	7+88.04	6959724.174	2340742.099	
PI	10+80.74	6959452.740	2340632.579	1400.00
PT	13+65.12	6959160.164	2340640.977	
POE	13+88.45	6959136.845	2340641.646	

ALL COORDINATES ARE IN TEXAS STATE PLANE, ZONE 2, GRID, FEET



NOT FOR CONSTRUCTION

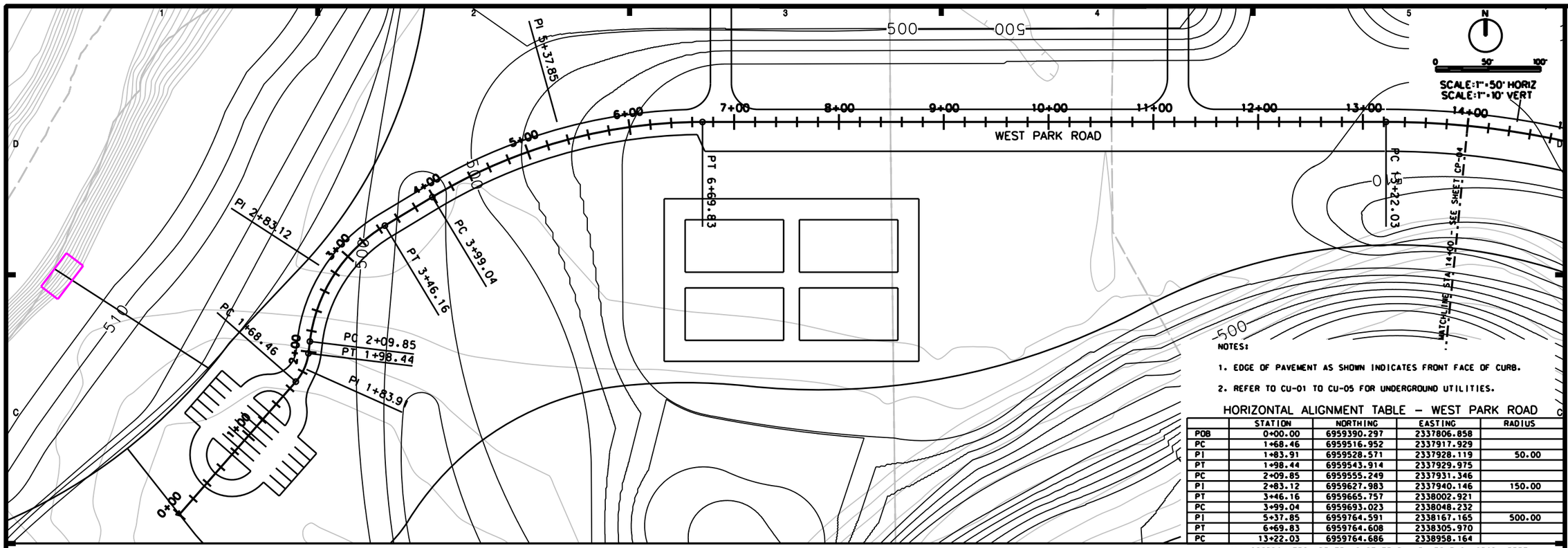
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
PLAN AND PROFILE
WEST PARKWAY

SHEET IDENTIFICATION
CP-01



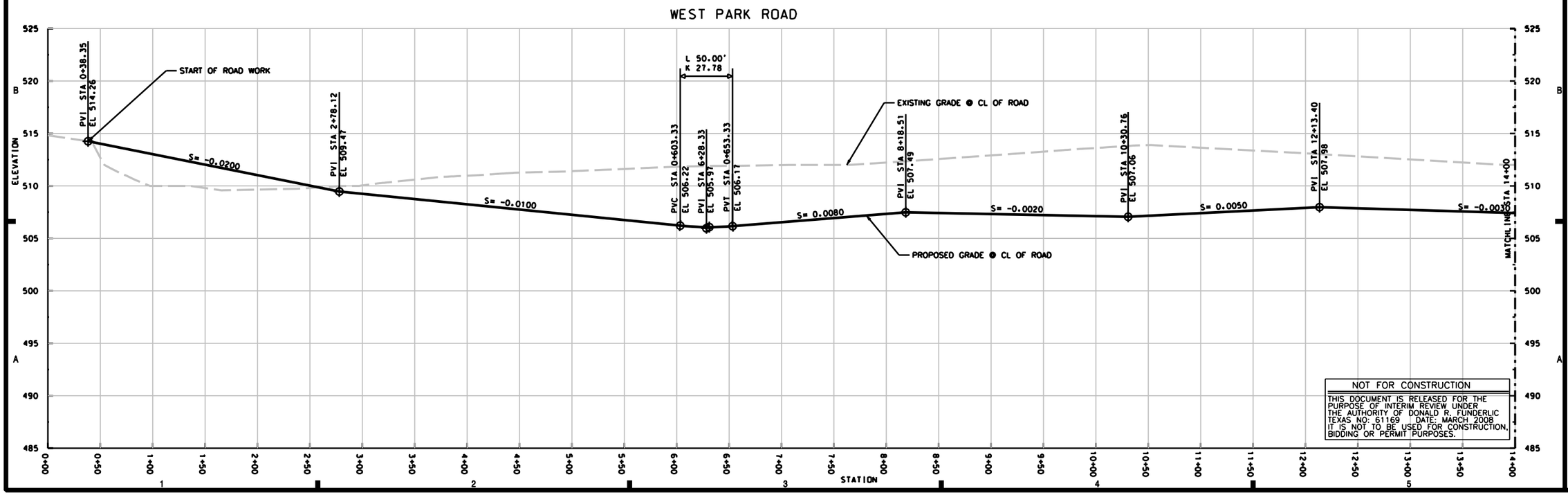
NOTES:

1. EDGE OF PAVEMENT AS SHOWN INDICATES FRONT FACE OF CURB.
2. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES.

HORIZONTAL ALIGNMENT TABLE – WEST PARK ROAD

	STATION	NORTHING	EASTING	RADIUS
POB	0+00.00	6959390.297	2337806.858	
PC	1+68.46	6959516.952	2337917.929	
PI	1+83.91	6959528.571	2337928.119	50.00
PT	1+98.44	6959543.914	2337929.975	
PC	2+09.85	6959555.249	2337931.346	
PI	2+83.12	6959627.983	2337940.146	150.00
PT	3+46.16	6959665.757	2338002.921	
PC	3+99.04	6959693.023	2338048.232	
PI	5+37.85	6959764.591	2338167.165	500.00
PT	6+69.83	6959764.608	2338305.970	
PC	13+22.03	6959764.686	2338958.164	

ALL COORDINATES ARE TEXAS STATE PLANE. ZONE 2. GRID. FEET



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

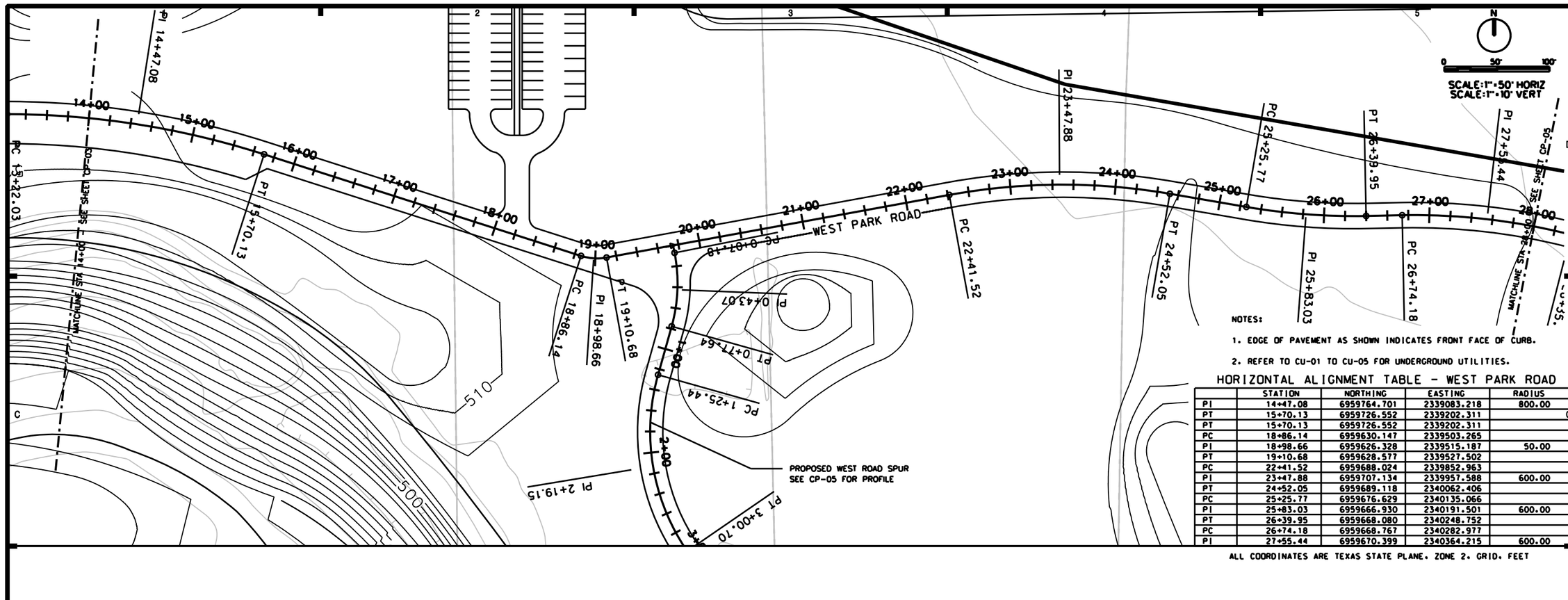
US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
PLAN AND PROFILE
WEST PARK ROAD

SHEET IDENTIFICATION

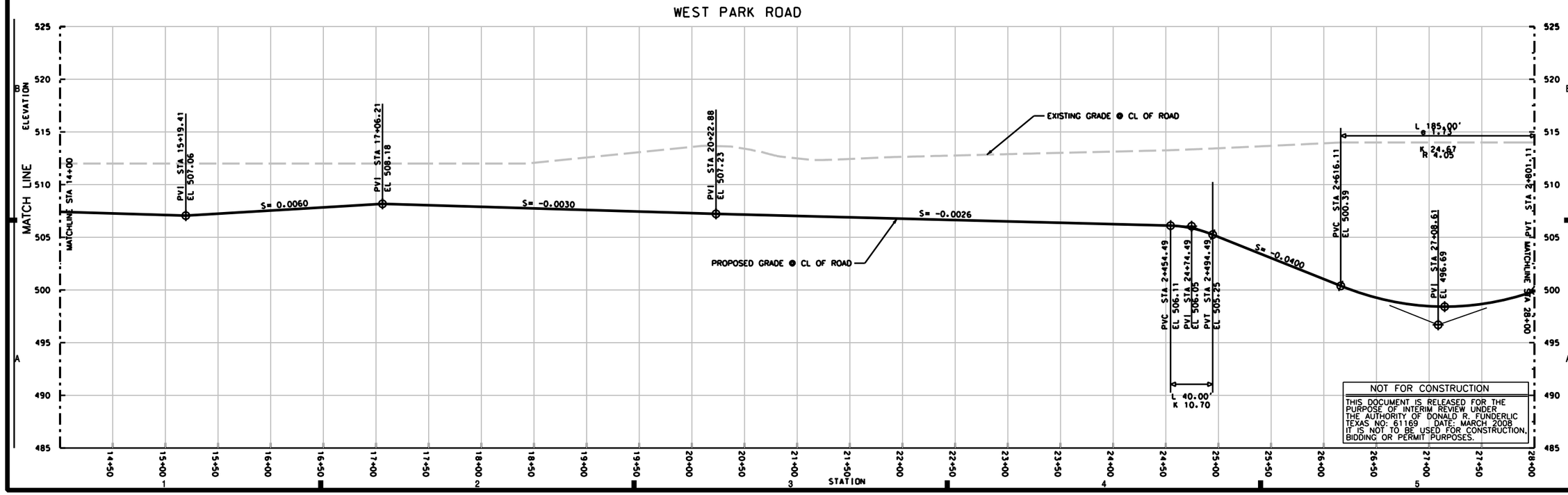
CP-02



HORIZONTAL ALIGNMENT TABLE - WEST PARK ROAD

	STATION	NORTHING	EASTING	RADIUS
PI	14+47.08	6959764.701	2339083.218	800.00
PT	15+70.13	6959726.552	2339202.311	C
PT	15+70.13	6959726.552	2339202.311	
PC	18+86.14	6959630.147	2339503.265	
PI	18+98.66	6959626.328	2339515.187	50.00
PT	19+10.68	6959628.577	2339527.502	
PC	22+41.52	6959688.024	2339852.963	
PI	23+47.88	6959707.134	2339957.588	600.00
PT	24+52.05	6959689.118	2340062.406	
PC	25+25.77	6959676.629	2340135.066	
PI	25+83.03	6959666.930	2340191.501	600.00
PT	26+39.95	6959668.080	2340248.752	
PC	26+74.18	6959668.767	2340282.977	
PI	27+55.44	6959670.399	2340364.215	600.00

ALL COORDINATES ARE TEXAS STATE PLANE, ZONE 2, GRID, FEET

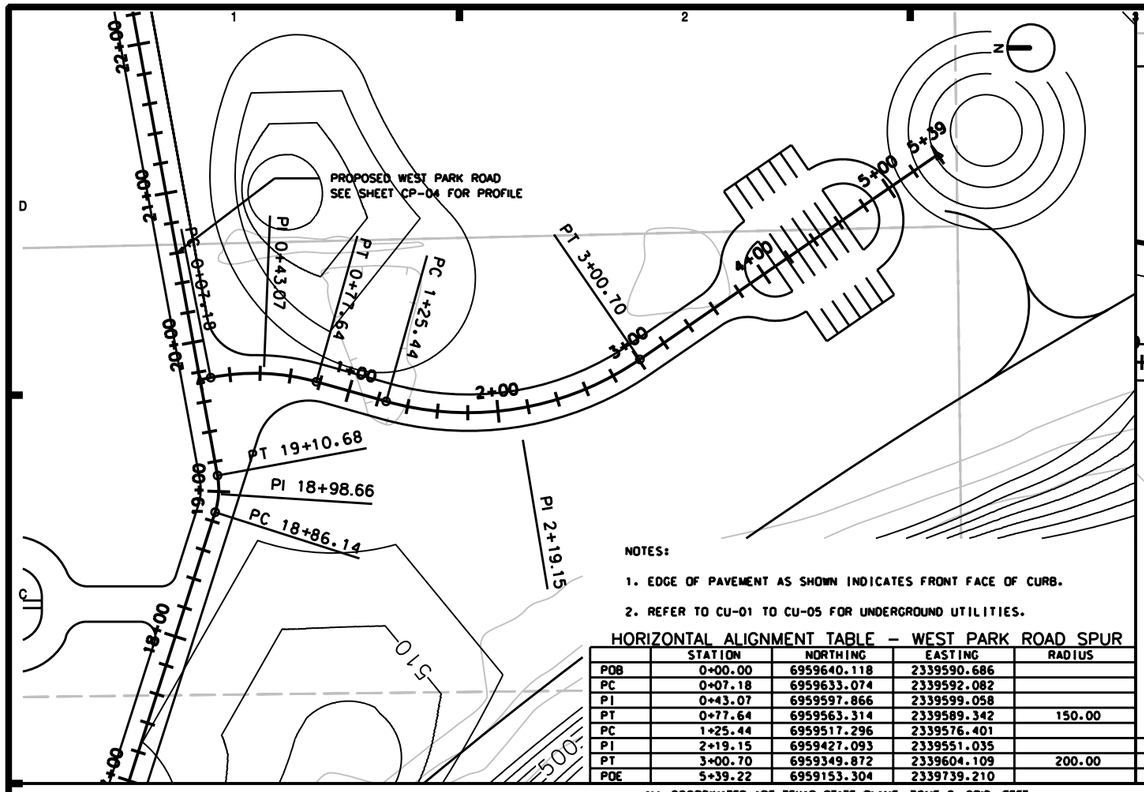


US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
PLAN AND PROFILE
WEST PARK ROAD

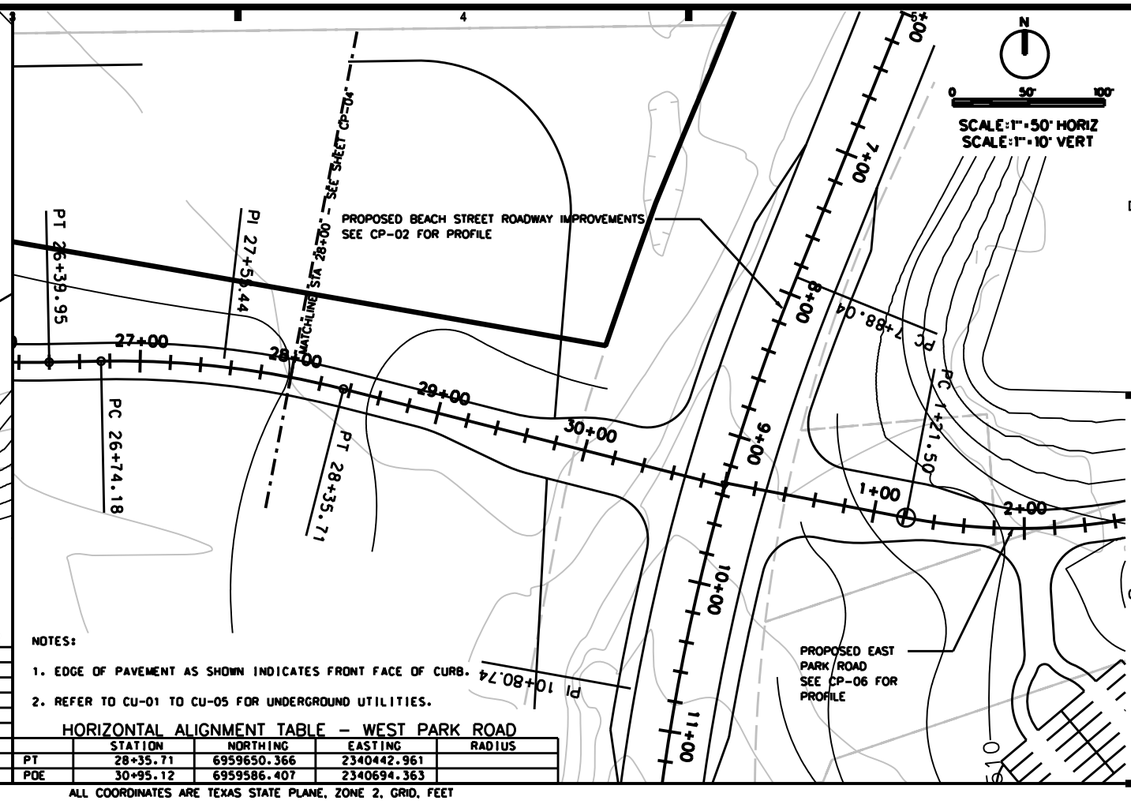
SHEET IDENTIFICATION
CP-03



HORIZONTAL ALIGNMENT TABLE – WEST PARK ROAD SPUR

	STATION	NORTHING	EASTING	RADIUS
POB	0+00.00	6959640.118	2339590.686	
PC	0+07.18	6959633.074	2339592.082	
PI	0+43.07	6959597.866	2339599.058	
PT	0+77.64	6959563.314	2339589.342	150.00
PC	1+25.44	6959517.296	2339576.401	
PI	2+19.15	6959427.093	2339551.035	
PT	3+00.70	6959349.872	2339604.109	200.00
POE	5+39.22	6959153.304	2339739.210	

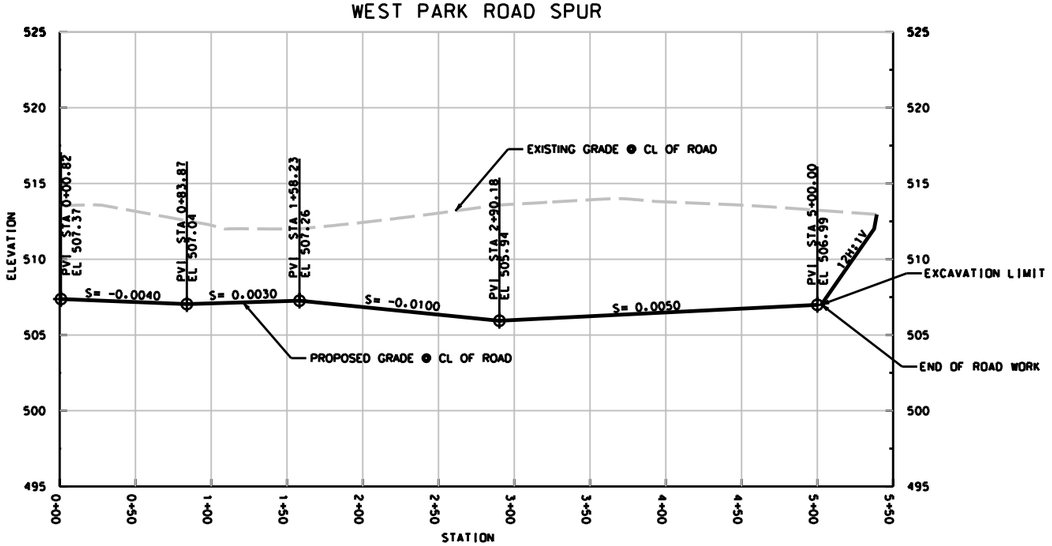
ALL COORDINATES ARE TEXAS STATE PLANE, ZONE 2, GRID, FEET

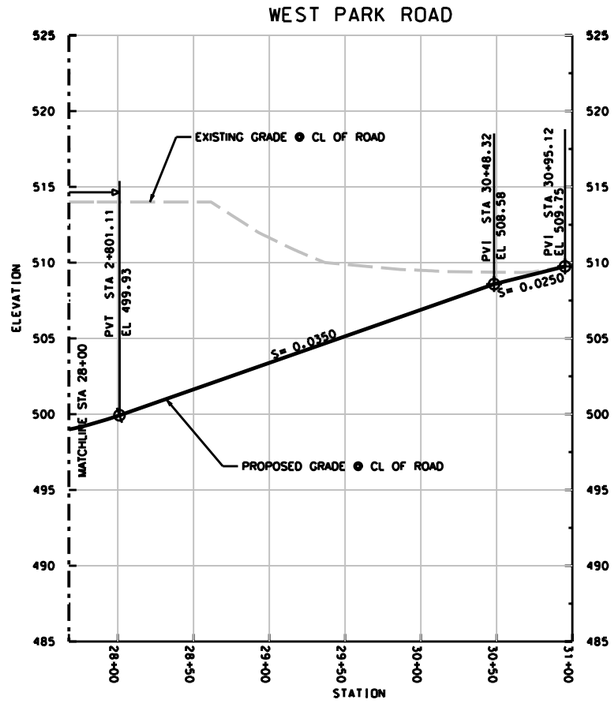


HORIZONTAL ALIGNMENT TABLE – WEST PARK ROAD

	STATION	NORTHING	EASTING	RADIUS
PT	28+35.71	6959650.366	2340442.961	
POE	30+95.12	6959586.407	2340694.363	

ALL COORDINATES ARE TEXAS STATE PLANE, ZONE 2, GRID, FEET





NOT FOR CONSTRUCTION

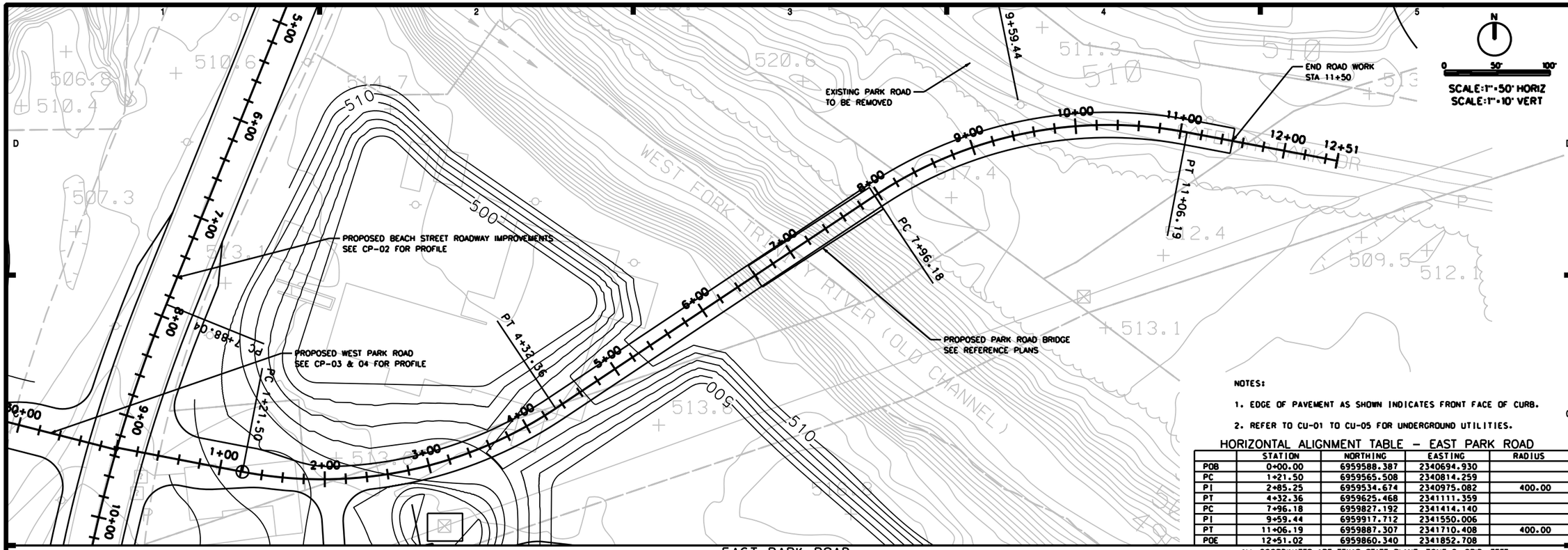
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
PLAN AND PROFILE
WEST PARK ROAD SPUR

SHEET IDENTIFICATION
CP-04



NOTES:

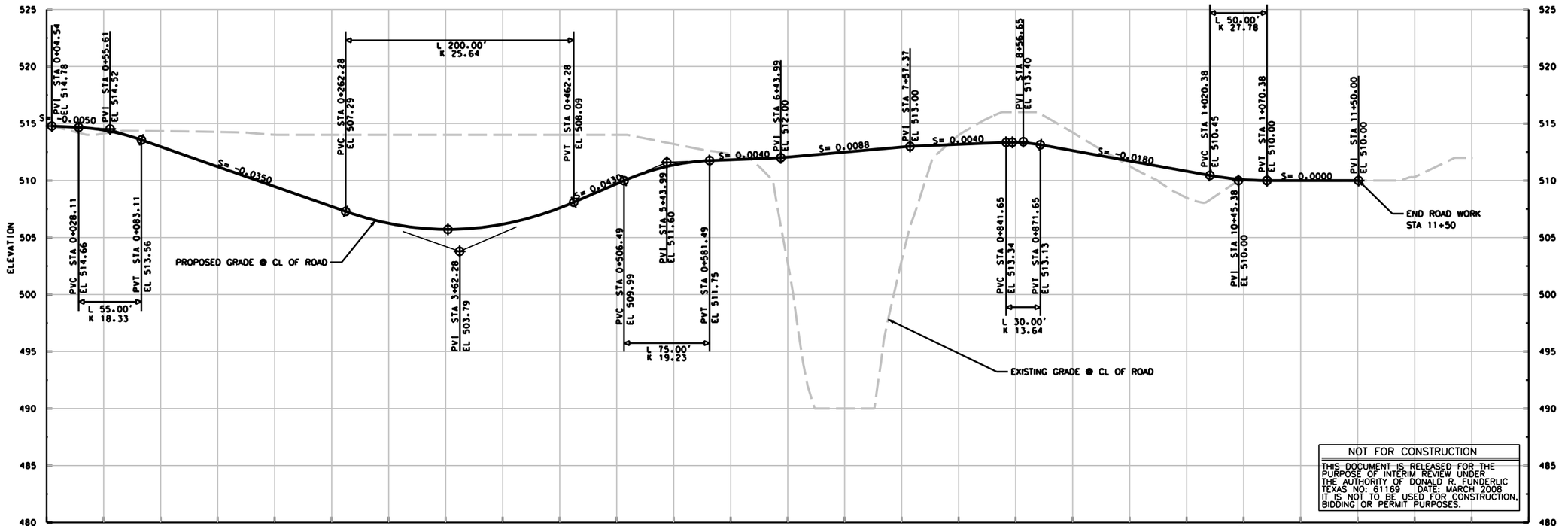
1. EDGE OF PAVEMENT AS SHOWN INDICATES FRONT FACE OF CURB.
2. REFER TO CU-01 TO CU-05 FOR UNDERGROUND UTILITIES.

HORIZONTAL ALIGNMENT TABLE – EAST PARK ROAD

	STATION	NORTHING	EASTING	RADIUS
POB	0+00.00	6959588.387	2340694.930	
PC	1+21.50	6959565.508	2340814.259	
PI	2+85.25	6959534.674	2340975.082	400.00
PT	4+32.36	6959625.468	2341111.359	
PC	7+96.18	6959827.192	2341414.140	
PI	9+59.44	6959917.712	2341550.006	
PT	11+06.19	6959887.307	2341710.408	400.00
POE	12+51.02	6959860.340	2341852.708	

ALL COORDINATES ARE TEXAS STATE PLANE, ZONE 2, GRID, FEET

EAST PARK ROAD



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

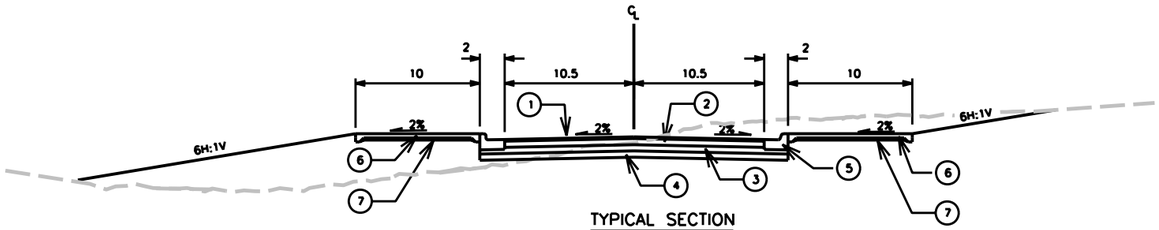
US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
PLAN AND PROFILE
EAST PARK ROAD

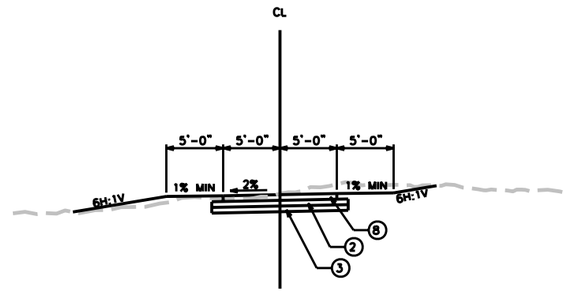
SHEET IDENTIFICATION

CP-05

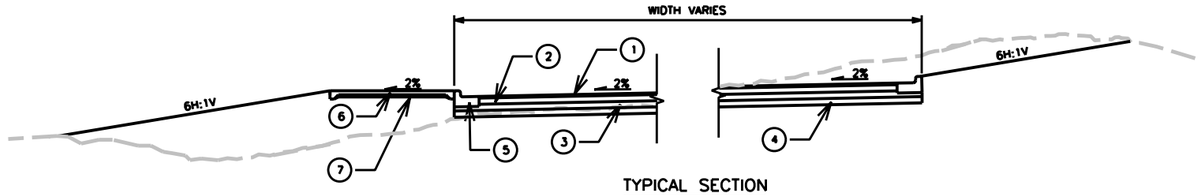


TYPICAL SECTION
PARK ROADS

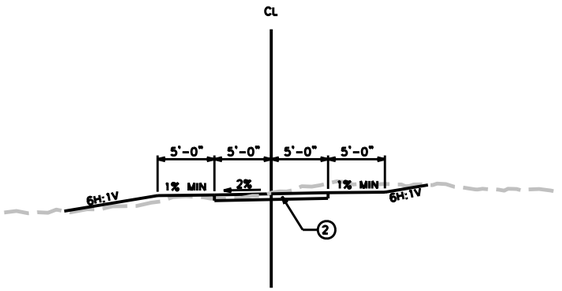
1. 1.5" HMAC SURFACE COURSE AND 2.5" HMAC BINDER COURSE
2. 6" AGGREGATE BASE COURSE AT 95%
3. 6" COMPACTED SUBBASE AT 90%
4. 6" RAW COMPACTED SUBGRADE
5. 2' CONCRETE CURB WITH 3-#4 BARS REINF. STL.
6. 4" THICK CONC. TRAIL WITH #3 STL. REINF. @ 24" CENTERS EACH WAY
7. 2" WASHED SAND
8. 6" PORTLAND CEMENT CONCRETE W/ #4 BARS SPACED AT 16" OC
9. 9" MULCH
10. 9" REINFORCED CONCRETE PAVEMENT
11. STABILIZED SUBGRADE



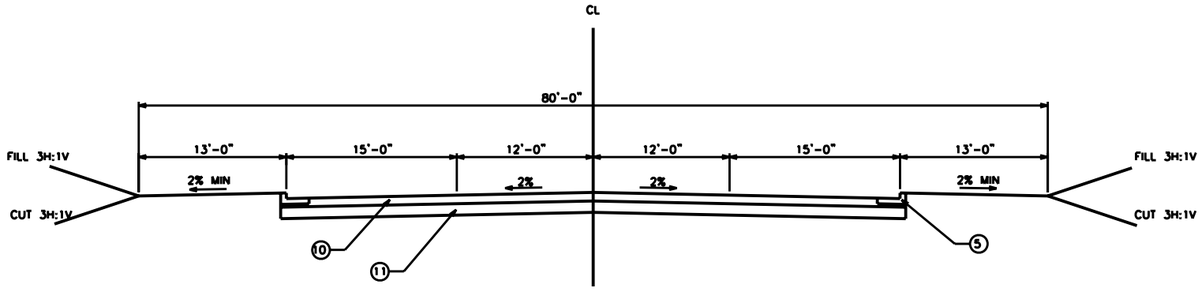
TYPICAL SECTION
MAINTENANCE/ RECREATION TRAIL
NOT TO SCALE



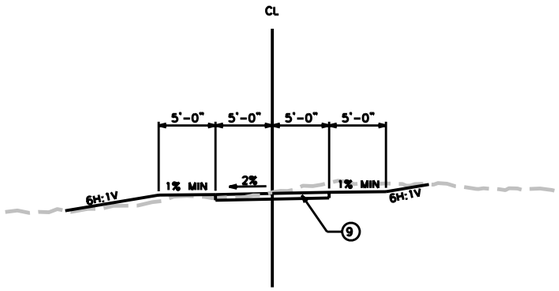
TYPICAL SECTION
PARKING AREAS
NOT TO SCALE



TYPICAL SECTION
RECREATION ONLY TRAIL
NOT TO SCALE



TYPICAL SECTION
BEACH STREET
NOT TO SCALE



TYPICAL SECTION
EQUESTRIAN TRAIL
NOT TO SCALE

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

CDM

Design file: DesignFile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PESlate

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
TYPICAL PAVEMENT SECTION

SHEET IDENTIFICATION
CP-06

NOTES

1. UNDERGROUND PUBLIC UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND AS SUPPLEMENTED BY PRELIMINARY GPS SURVEY AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY.

2. FRANCHISE UTILITIES AS SHOWN ARE BASED ON TEXAS RAILROAD COMMISSION GIS FILE (JAN 2008) AND PLANIMETRIC SURVEY DATA AS PROVIDED FROM USACE AERIAL MAPPING.

3. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.

N

0 400' 800'

SCALE:1"=400'

CU-05

CU-04

CU-02

CU-03

EAST 1ST STREET

BEACH ST

RIVERSIDE DR

I-30

LPC

M-388-B (90" CONC)

M-280-B (54" CONC)

M-181A (21" CONC)

10" WATER

E-21 (54" CONC)

M-131 (18" CONC) *ABANDONED

M-245-AR (72" CONC)

M-245-P (84" CONC)

M-389 (66" CONC)

M-389 (60" CONC)

E-21 (46" CONC)

E-11 (36" CONC)

M-126 (18" VC)

SS

W

G

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

No.	Description	Date	Appd.
	Symbol		

CDM

Design File:	Design.ai
Set ID:	SetID
Size:	ANSI D
Plot date:	AUGUST 2007
Designed by:	DRESCH
Drawn by:	PERESCH
Checked by:	D. FUNDERLIC
Responsible P.E.:	PEResponsible
License Number:	PELicenseNum
Horizontal Datum:	NAD83

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
UTILITY KEY PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CU-01

NOTES:

1. UNDERGROUND UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND AS SUPPLEMENTED BY PRELIMINARY GPS SURVEY AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY.

2. LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.

3. FRANCHISE UTILITIES ARE BASED ON TEXAS RAILROAD COMMISSION GIS FILES (JAN 2008) AND PLANIMETRIC SURVEY DATA AS PROVIDED FROM USACE AERIAL MAPPING.

4. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.

N

0 100' 200'

SCALE: 1" = 100'

PROPOSED FUTURE GAS PIPELINE- 20" LINE TO BE COORDINATED WITH PROPOSED GRADING WORK

PROPOSED FUTURE FRESH WATER LINE- 24" PROPOSED FUTURE PRODUCED WATER LINE- 20" LINES TO BE COORDINATED WITH PROPOSED GRADING WORK

EXISTING NATURAL GAS LINES CARE TO BE TAKEN DURING CONSTRUCTION

EXISTING LINE TO BE PROTECTED DURING CONSTRUCTION

M-245-P (84" CONC)

EXISTING DROP SHAFT TO REMAIN

EXISTING FUEL AND NATURAL GAS LINES CARE TO BE TAKEN DURING CONSTRUCTION

M-380 (60" CONC)

L-2048

EXISTING LINE TO BE PROTECTED DURING CONSTRUCTION

WEST FORK TRINITY RIVER

SYCAMORE CREEK

TRAIL

LEGEND

- SS — SANITARY SEWER
- W — WATER LINE
- G — NATURAL GAS LINE
- LPG — LIQUID FUEL LINE

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Appd. | Date | Description | Symbol

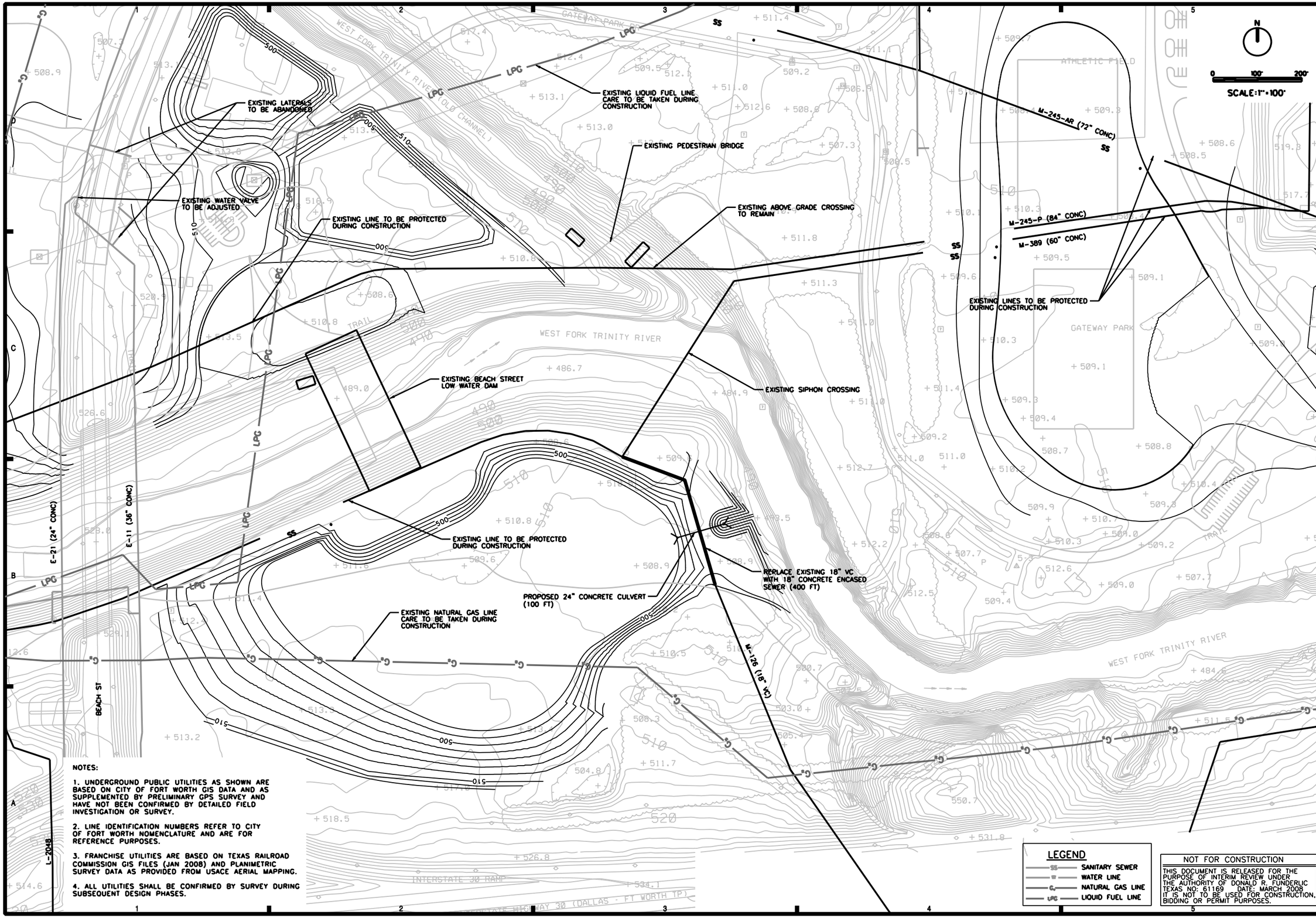
CDM

Design Ltr: Designer
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: DESIGN
Drawn by: DRAWN
Checked by: D. FUNDERLIC
Responsible P.E.: PERresponsible
License Number: PELicenseNum
Horizontal Datum: HDatum
Vertical Datum: VDatum

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
UTILITY PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CU-02



NOTES:

1. UNDERGROUND PUBLIC UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND AS SUPPLEMENTED BY PRELIMINARY GPS SURVEY AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY.

2. LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.

3. FRANCHISE UTILITIES ARE BASED ON TEXAS RAILROAD COMMISSION GIS FILES (JAN 2008) AND PLANIMETRIC SURVEY DATA AS PROVIDED FROM USACE AERIAL MAPPING.

4. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.

LEGEND

- SS — SANITARY SEWER
- W — WATER LINE
- G — NATURAL GAS LINE
- LPG — LIQUID FUEL LINE

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

CDM

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
UTILITY PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CU-03

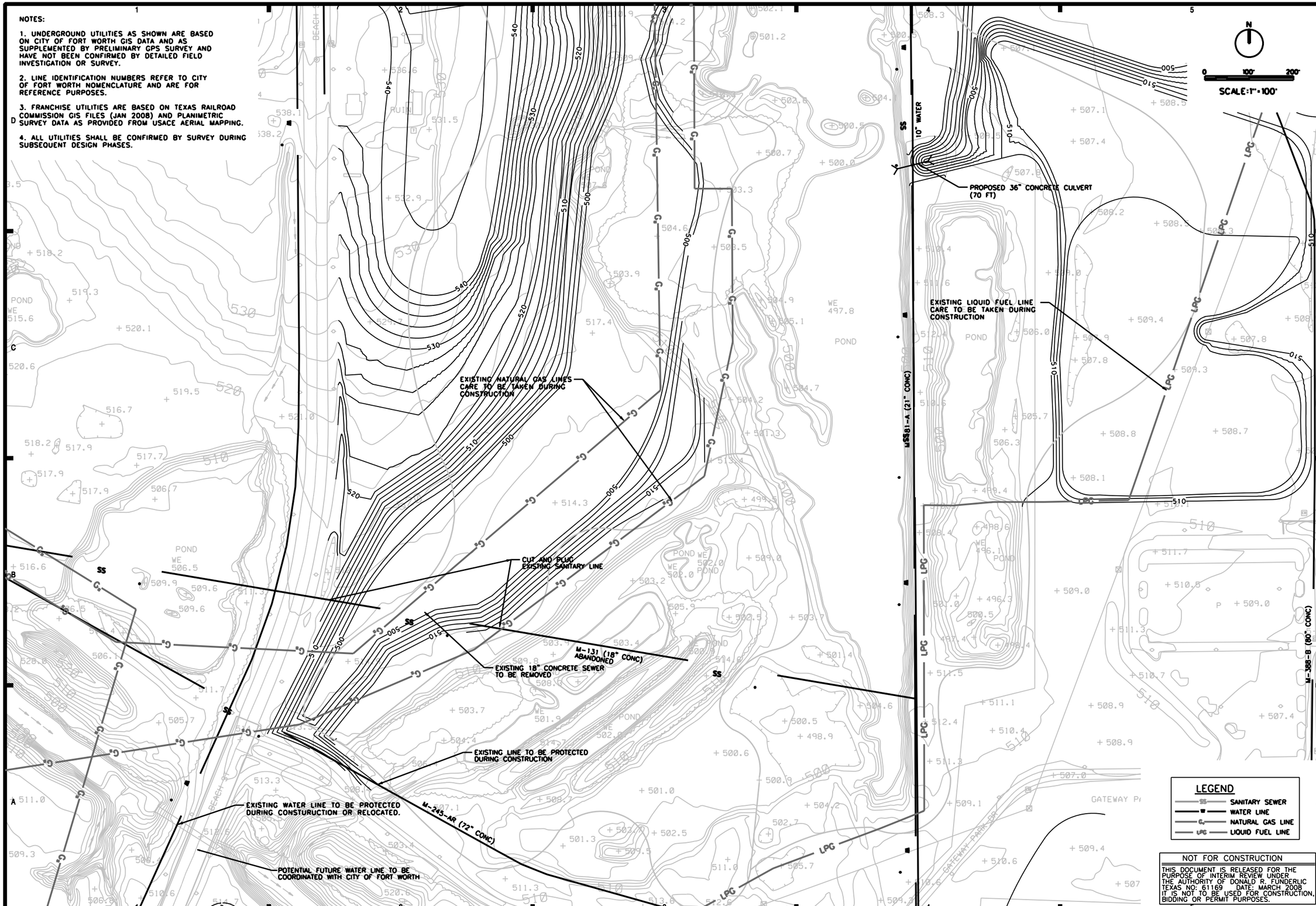
NOTES:

1. UNDERGROUND UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND AS SUPPLEMENTED BY PRELIMINARY GPS SURVEY AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY.

2. LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.

3. FRANCHISE UTILITIES ARE BASED ON TEXAS RAILROAD COMMISSION GIS FILES (JAN 2008) AND PLANIMETRIC SURVEY DATA AS PROVIDED FROM USACE AERIAL MAPPING.

4. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.



NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

CDM

Design file: DesignFile
Set ID: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PESlate

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
UTILITY PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CU-04

...\Sheet\00001_COE_CU-104xx49.dgn 3/8/2008 5:05:02 PM

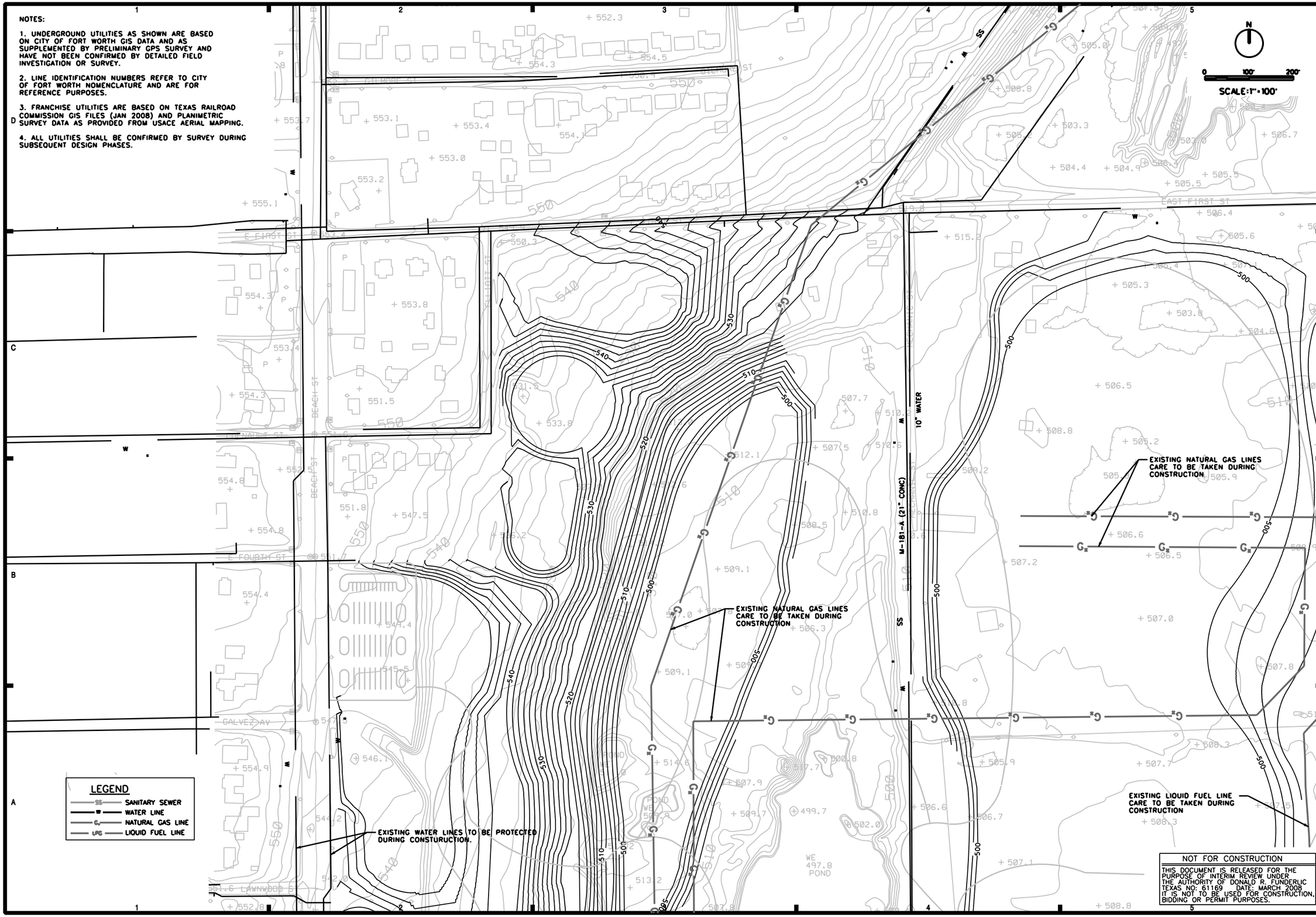
NOTES:

1. UNDERGROUND UTILITIES AS SHOWN ARE BASED ON CITY OF FORT WORTH GIS DATA AND AS SUPPLEMENTED BY PRELIMINARY GPS SURVEY AND HAVE NOT BEEN CONFIRMED BY DETAILED FIELD INVESTIGATION OR SURVEY.

2. LINE IDENTIFICATION NUMBERS REFER TO CITY OF FORT WORTH NOMENCLATURE AND ARE FOR REFERENCE PURPOSES.

3. FRANCHISE UTILITIES ARE BASED ON TEXAS RAILROAD COMMISSION GIS FILES (JAN 2008) AND PLANIMETRIC SURVEY DATA AS PROVIDED FROM USACE AERIAL MAPPING.

4. ALL UTILITIES SHALL BE CONFIRMED BY SURVEY DURING SUBSEQUENT DESIGN PHASES.



LEGEND

- SS — SANITARY SEWER
- W — WATER LINE
- G — NATURAL GAS LINE
- LPG — LIQUID FUEL LINE

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DONALD R. FUNDERLIC TEXAS NO: 61169 DATE: MARCH 2008 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

CDM

Design file: DesignFile
Set ID.: SetID
Size: ANSI D
Plot date: AUGUST 2007
Designed by: M. OLESON
Drawn by: J. PRANGE
Checked by: D. FUNDERLIC
Responsible P.E.: PEResponsible
License Number: PELicenseNum
LicenseState: PESlate

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
VALLEY STORAGE MITIGATION
UTILITY PLAN
OXBOW-GATEWAY SITE

SHEET IDENTIFICATION

CU-05

N

0 50' 100'
SCALE IN FEET

CONCRETE SLOPE PROTECTION

520

530

498 MAX

MARINE CREEK DAM

PRECAST CONCRETE SLOPE PROTECTION

PRECAST CONCRETE SLOPE PROTECTION

10' NEW RECREATIONAL/ MAINTENANCE TRAIL

516.5

EXISTING PEDESTRAIN BRIDGE TO BE REMOVED

MARINE CREEK

503.5 MAX

522

503.5 MAX

520

EL 494.0 MAX

5:1

5:1

3:1

5:1

3:1

FLOW

CB

PRECAST CONCRETE SLOPE PROTECTION

5-50' SEGMENTS TOP EL 530.0

EL 506

530

ACCESS ROAD

503.5

NEW PEDESTRIAN BRIDGE-180 FT SPAN

SAMUELS AVENUE LOCK

SAMUELS AVENUE DAM

3.75:1

530

CONCRETE SLOPE PROTECTION

CONCRETE SLOPE PROTECTION

CONTROL BUILDING

530

LOCK WALLS 530.0 TOP, FLOOR 506, BRIDGE SAME AS OVER S/W

EL 515

3:1

EL 503.5 MAX.

10' NEW RECREATIONAL/ MAINTENANCE TRAIL

NOTES:

1. 12' BRIDGE NOT SHOWN FOR CLARITY.
2. ACCESS TO BRIDGE FROM WEST ABUTMENT, SEE SS-03 AND SS-04 FOR DETAILS.

FLOW

BOUYLINE

10' RELOCATE EXISTING RECREATIONAL MAINTENANCE TRAIL

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF JOHN LEE RUTLEDGE, P.E. TEXAS NO. 65845 DATE: OCT 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

CDM

Freese and Nichols

Design file:	0001_COE_SS-101XX43.dgn
Set ID:	BaltD
Size:	ANSI D
Plot date:	SEPTEMBER 2007
Designed by:	JLR
Drawn by:	MLP
Checked by:	JRC
Responsible P.E.:	JOHN L. RUTLEDGE
License Number:	65045
License/State:	TEXAS

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
SAMUELS AVENUE LOCK & DAM
SITE PLAN

SHEET IDENTIFICATION

SS-01

MicroStation V8 User: mmt
Office: FWCAD1
Project: C:\Projects\FWCAD1.pro
Plotter: \\FWdc1v_XMP\DP_FWPDP-Mono-HalfLtr
Plot Scale: 100.000 ft / in.
Plot Date: 30 OCT 2007 - 04:25:28 PM
Model: Default
V-SPx14b-2sDGN
00000-85sx01.dgn
C-SPcx31.dgn
00000-85sx13.dgn
00000_COE_SS-101xx46.dgn
Office:FWCAD1 CDM07244 Date:Oct. 30, 2007 - 04:25:28 PM User:mmt File: N:\wri\00001_COE_SS-101XX43.dgn

SCALE IN FEET
0 50' 100'

CONCRETE SLOPE PROTECTION

PRECAST CONCRETE SLOPE PROTECTION

PRECAST CONCRETE SLOPE PROTECTION

PRECAST CONCRETE SLOPE PROTECTION

5-50' SEGMENTS TOP EL 530.0

CONCRETE SLOPE PROTECTION

CONCRETE SLOPE PROTECTION

CONTROL BUILDING

LOCK WALLS 530.0 TOP, FLOOR 506, BRIDGE SAME AS OVER S/W

498 MAX

503.5 MAX

503.5 MAX

EL 484.9 MAX

EL 506

EL 515

EL 503.5 MAX.

520

530

518.4

5:1

3.75:1

3:1

CB

MARINE CREEK

TRAIL

NOTES:
1. 12' BRIDGE NOT SHOWN FOR CLARITY.
2. ACCESS TO BRIDGE FROM WEST ABUTMENT, SEE SS-03 AND SS-04 FOR DETAILS.
3. ACTUAL END POINT OF SHEETPILING IN ABUTMENT TO ABUTMENT TO BE DETERMINED AFTER COMPLETION OF STRUCTURAL ANALYZE.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF JOHN LEE RUTLEDGE, P.E. TEXAS NO. 65045 DATE: OCT 2007
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

PHASE I

PHASE II

PHASE III

SHEETPILING

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

CDM

Freese and Nichols

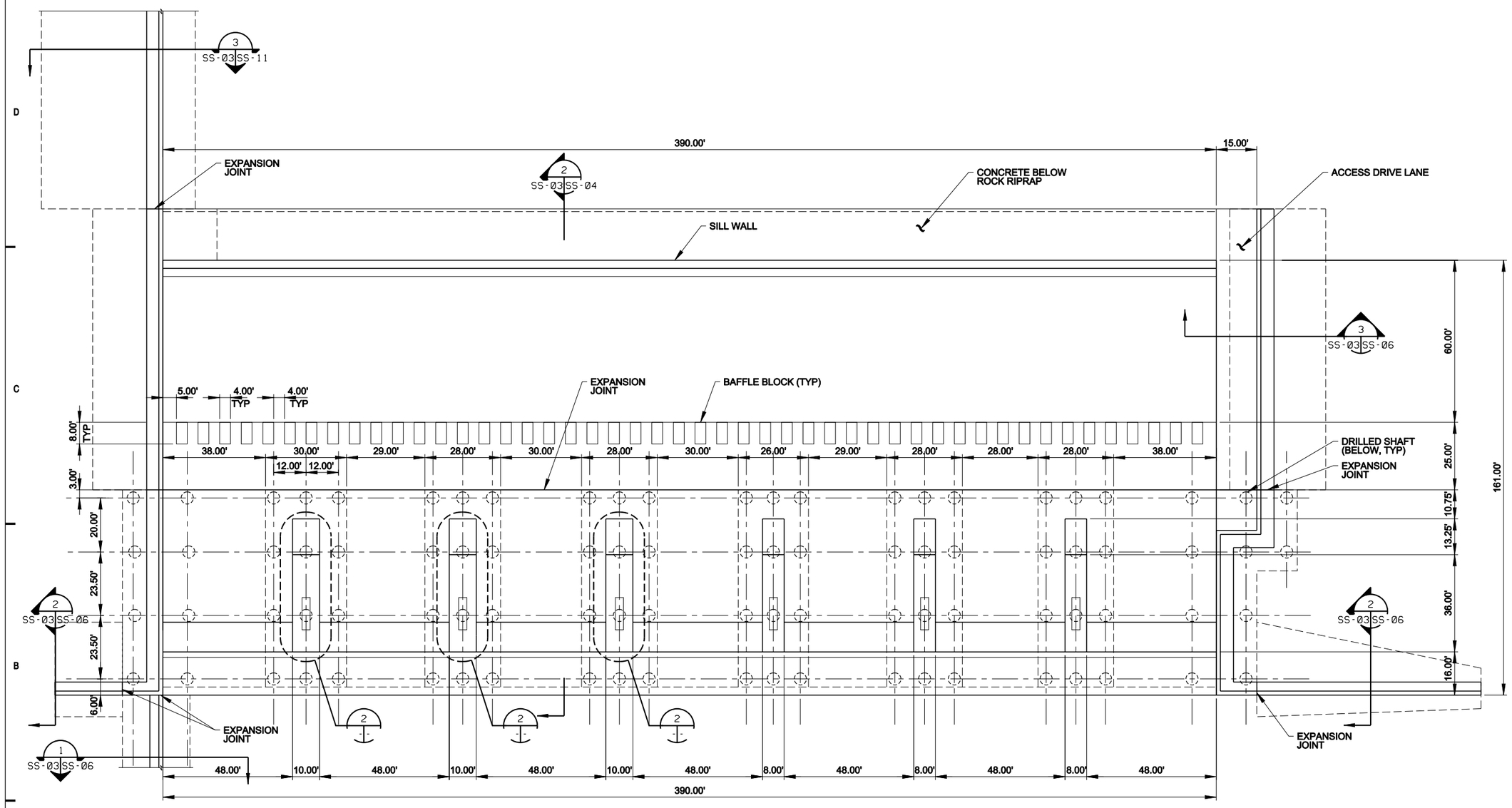
Design File:	00001_COE_BS-1002X44.dgn
Set ID:	BaseD
Size:	ANSI D
Plot date:	SEPTEMBER 2007
Designed by:	JLR
Drawn by:	MLF
Checked by:	JLR
Responsible P.E.:	JOHN L. RUTLEDGE
License Number:	65045
License State:	TEXAS

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
SAMUEL AVENUE LOCK & DAM
PHASING PLAN

SHEET IDENTIFICATION

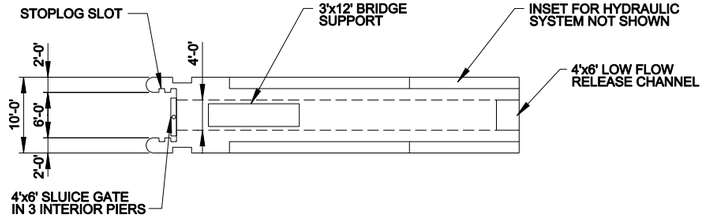
SS-02

MicroStation V8 User: mmt Office: FWCAD1
Workset: Default Level: COE_SS-102X44
Printer: JVPrinter_XAMPDF_FilePDF-Monochrome.pltt
Print Scale: 100.000 B1 in. Model: Default
Print Date: 30 OCT 2007 04:45:45 PM
00000-BSbot01.dgn
00000-BSbot02.dgn
C-SP1x31.dgn
00000-BSbot18.dgn
00001_COE_SS-102X43.dgn



FLOW

1 SAMUEL AVENUE DAM PLAN
1" = 20'



2 PLAN OF LOW FLOW PIER
1" = 10'

NOTE:
STOP LOGS TO BE STORED ON UPSTREAM SIDE OF BRIDGE, NOT SHOWN. STEM FOR SLUICE GATES WILL EXTEND TO AND BE ATTACHED TO THE BRIDGE.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

0 10' 20'
SCALE: 1" = 10'

0 10' 20' 40'
SCALE: 1" = 20'

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file:	ST-SAM-PL-FNDN.dgn
Set ID:	BaseD
Size:	ANSI D
Plot date:	SEPTEMBER 2007
Designed by:	BWW
Drawn by:	BWW/JAW
Checked by:	
Responsible P.E.:	BRAD B. WATSON
License Number:	80318
License State:	TEXAS

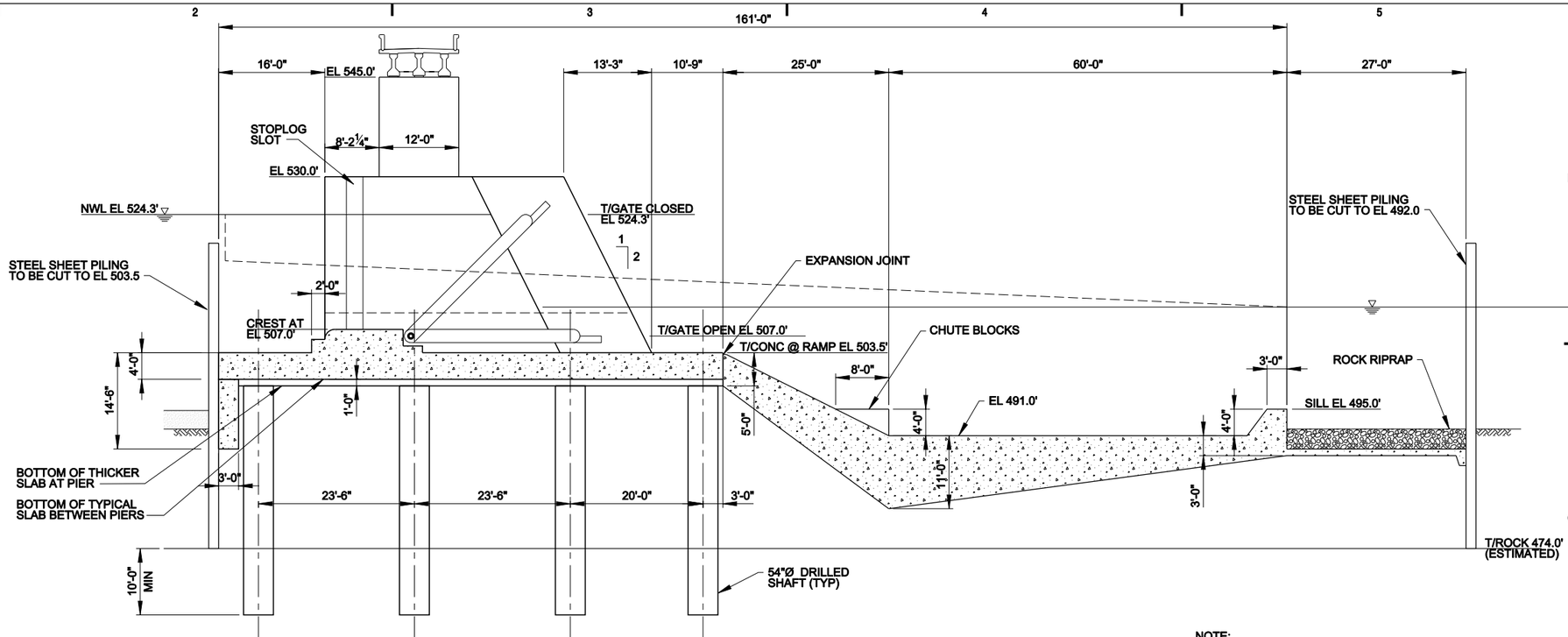
CDM

Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
PLAN
-

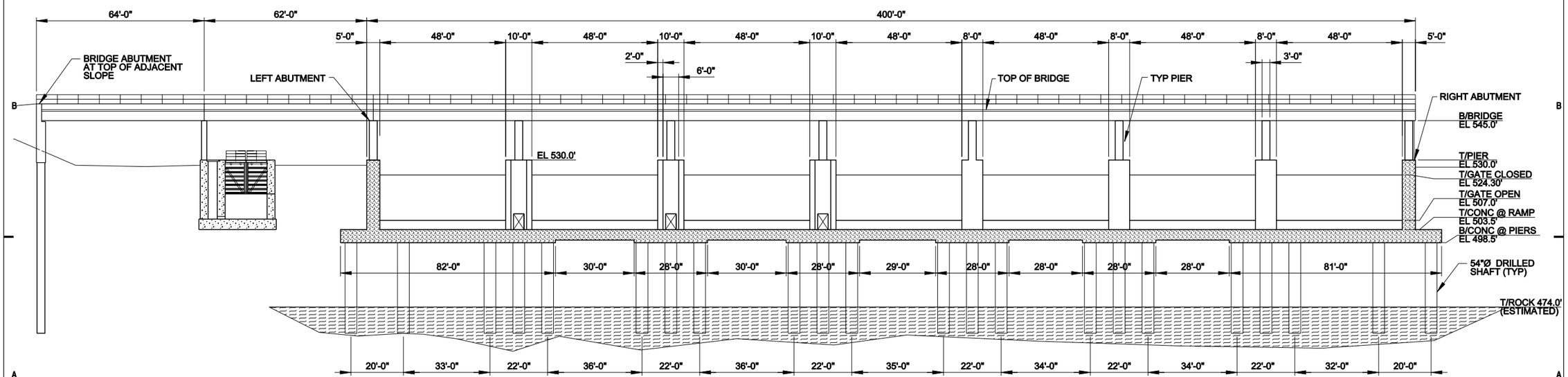
SHEET IDENTIFICATION
SS-03

MicroStation V8 User: mmt Office: FWCAD1
Level: All Levels Off Plotter: 24Pedro_XWPDF_FileDP-Mono-Half.plt Mode: Default
Plot Scale: 40.000 '/ In. Plot Date: Oct. 26, 2007 - 08:13:55 AM
ST-SAM-PL-BASE.DGN
00000-BSS011.dgn



1 SECTION
SS-03|SS-04 1"=10'

NOTE:
ALL ELECTRICAL AND HYDRAULIC LINES FOR GATE OPERATORS ARE TO BE RUN IN CONDUITS ON THE BRIDGE AND IN ENCASED CONDUIT AT EACH PIER.



2 UPSTREAM ELEVATION
SS-03|SS-04 1"=20'

NOT FOR CONSTRUCTION
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

SCALE: 1"= 10'

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: ST-SAM-SC-CONC.dgn
Set ID: SetID
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BBW
Drawn by: BBW/JAW
Checked by: TBH
Responsible P.E.: BRAD B. WATSON
License Number: 80318
License/State: TEXAS

CDM

Freese and Nichols

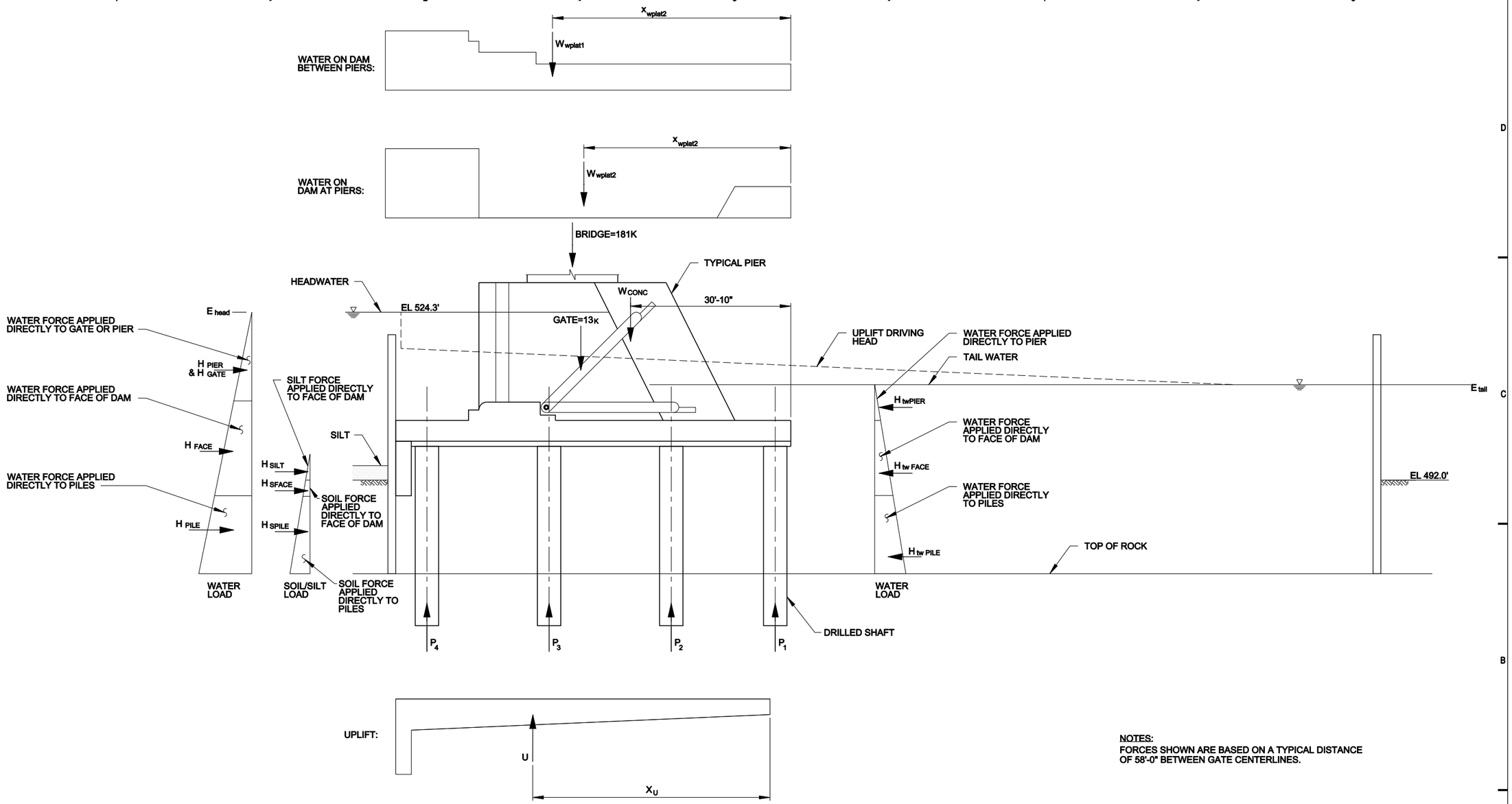
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
SECTION AND ELEVATION
-

SHEET IDENTIFICATION
SS-04

ST-SAM-SC-BASE.dgn
ST-SAM-EL-BASE.dgn
000000-BSize11.cel
ST-SAM-EL-BASE.dgn

MicroStation V8 User: mmt Office: FWCAD1
Project: ST-SAM-SC-BASE.dgn
Plotter: APNdoc_24APDF_FreePDF-Micro-Hard.pltPlot Scale: 200.000 ' = 1 in.
Date: Oct. 26, 2007 - 08:12:46 AM
Mode: Default

Office:FWCAD1 CDM07244 Date:Oct. 26, 2007 - 08:12:46 AM User:mmt File: N:\st\00001_COE_SS-304cv46.dgn



NOTES:
FORCES SHOWN ARE BASED ON A TYPICAL DISTANCE OF 58'-0" BETWEEN GATE CENTERLINES.

STABILITY ANALYSIS

1" = 10'

	Load Case	E_{head} (ft-MSL)	E_{tail} (ft-MSL)	Vertical Forces on Drilled Shaft Supported Platform (kips per pier)							Lateral Forces (kips per pier)									Forces on Drilled Shafts (kips per pier for line of shafts)			
				Concrete	Water Above Platform				Uplift														
				W_{conc}	W_{wplat1}	x_{wplat1}	W_{wplat2}	x_{wplat2}	U	x_U	H_{pier}	H_{gate}	H_{face}	H_{pile}	H_{sface}	H_{spile}	H_{twface}	H_{twpile}	H_{twpier}	P_1	P_2	P_3	P_4
1	No Flow	524.3	499	4923.5	1573.9	-62.9	204.6	-68.1	2786.0	-42.9	104.7	502.3	1651.5	1095.7	60	234.9	150	407.8	31.3	-27.8	189.3	444.4	699.5
2	10-yr	524.3	517.6	4923.5	3329.1	-42.5	309.4	-47.4	4295.1	-39.3	104.7	502.3	1651.5	1095.7	60	234.9	1050.4	855.4	218.8	135.4	270.4	429	587.6
3	25-yr	524.4	520.8	4923.5	4009.8	-39.5	361.7	-42.0	4565.6	-38.9	105.8	507.8	1657.7	1098.4	60	234.9	1445.9	980	301.2	211.1	323.3	455.1	587
4	100-yr	526.5	525	4923.5	5051.6	-37.8	456.6	-38.1	5134.9	-38.7	131.3	633.1	1787.1	1155.5	60	234.9	1943.3	1114.7	405	286.5	381.4	493	604.6
5	500-yr	533.6	531.4	4923.5	6617.2	-37.9	696.8	-37.8	6427.2	-38.6	234	1012.9	2224.7	1348.5	60	234.9	2621	1288.7	561.2	328.8	424.1	536	647.9
6	SPF	540.7	537.8	4923.5	8159.0	-37.9	1018.0	-37.9	7719.4	-37.9	340.5	1402.2	2662.2	1541.5	60	234.9	3298.8	1462.7	725.2	373.3	470.4	584.6	698.8

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON, TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

0 10' 20'

SCALE: 1" = 10'

US Army Corps of Engineers Fort Worth District

Symbol	Description	Date	Appr.

Design File: ST-SAM-SC-DAM07.dgn
Set ID: SetID
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWW
Drawn by: BWW/JB
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

CDM

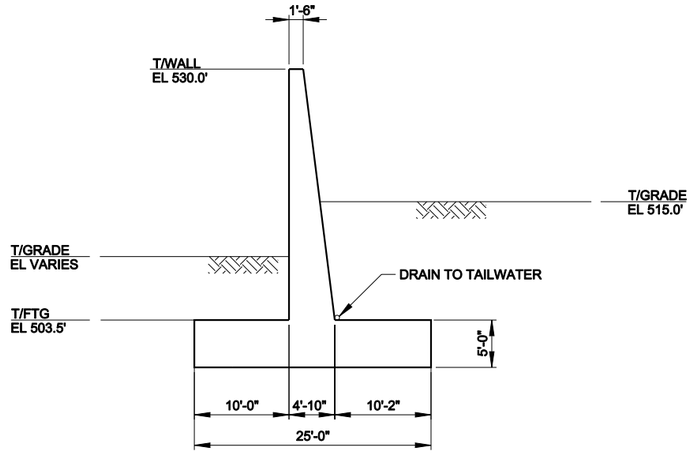
Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
STABILITY ANALYSIS
-

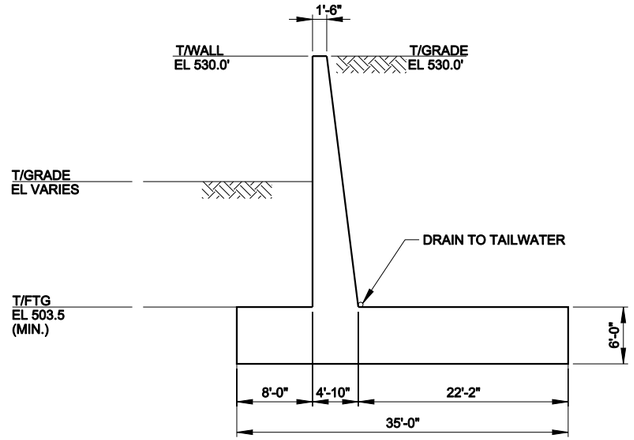
SHEET IDENTIFICATION

SS-05

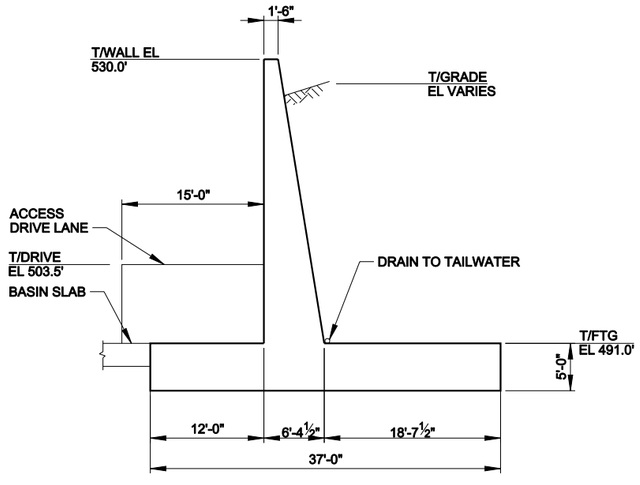
ST-SAM-SC-BASE.dgn
000G-BSlist.dgn
000G-BSlist11.dgn
MicroStation V8 User: mmt
Project: CDM07244_COE_SAMUELS
Plotter: JPPostScr_XAMPDF_FlatPDF-Mono-Flatt.plt
Plot Scale: 203.000 '/ in.
Plot Date: Oct. 26, 2007 - 08:15:26 AM
Office: FWCAD1
Model: Default
Office:FWCAD1 CDM07244 Date:Oct. 26, 2007 - 08:15:26 AM User:mmt File: N:\st\00001_COE_SS-605xx47.dgn



1 RIGHT TRAINING WALL AT LOCK
SS-03|SS-06 1/8"=1'-0"



2 LEFT AND RIGHT TRAINING WALLS
SS-03|SS-06 1/8"=1'-0"



3 RIGHT ABUTMENT WALL
SS-03|SS-06 1/8"=1'-0"

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

8' 0 8' 16'
1/8"=1'-0"

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: BT-SAM-SC-DIA01.dgn
Set ID: BatD
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWW
Drawn by: BWW/JB
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

CDM

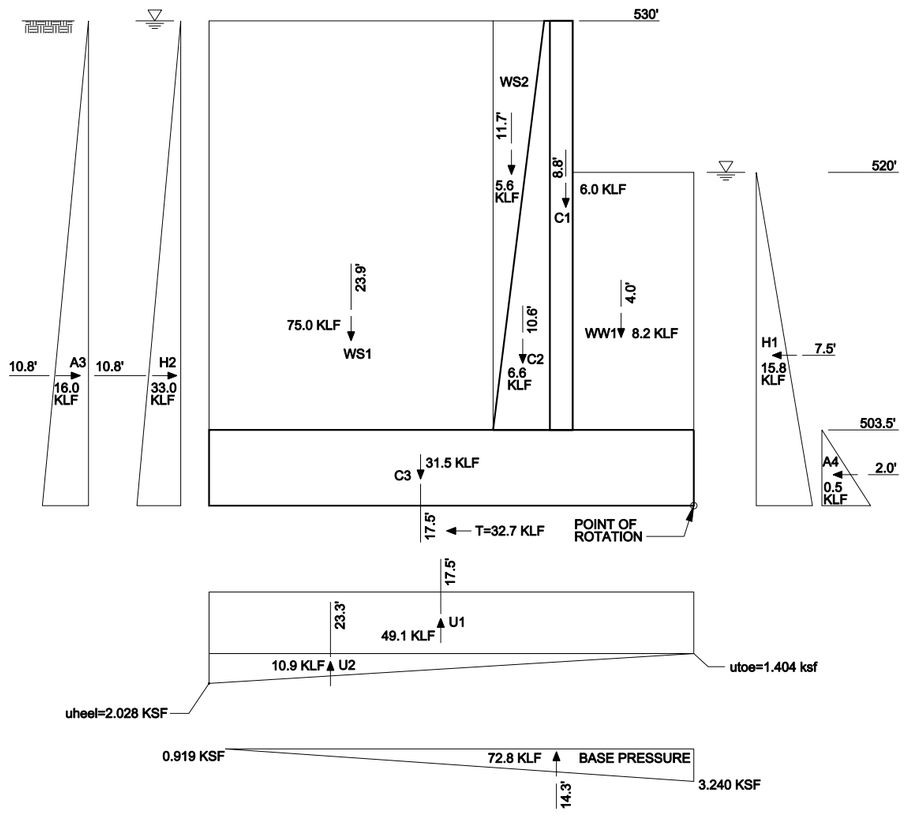
Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
TRAINING WALLS AND RIGHT ABUTMENT WALL
DIMENSIONS

SHEET IDENTIFICATION

SS-06

MicroStation V8 User: mmt Office: FWCAD1
Workspace: Workset: 00000-BStxx11.dgn
Plotter: JAPostScript_XAMPDF_FilePDF-Mono-Half.pltt Mode: Default
Plot Scale: 183.000 '=1" HC
Date: Oct. 26, 2007 - 08:16:01 AM



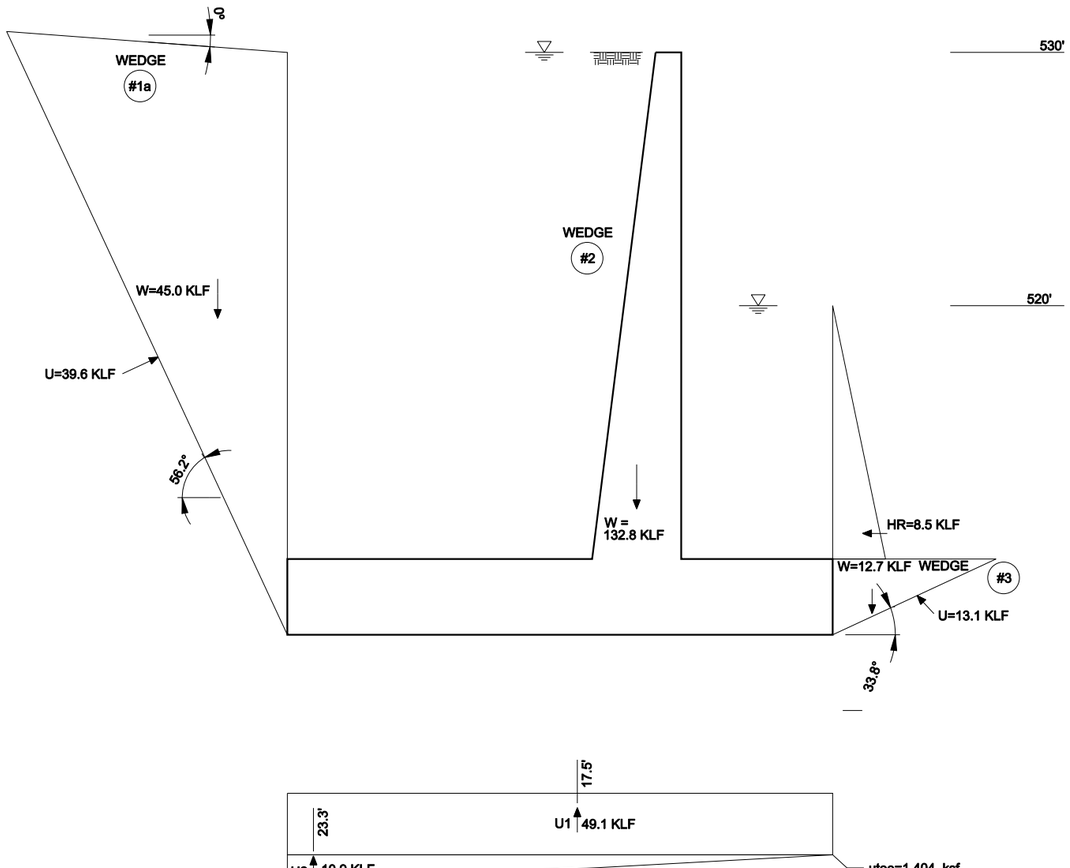
ROTATIONAL STABILITY ANALYSIS

NOT TO SCALE

ROTATIONAL ANALYSIS SUMMARY										
LOAD CASE	WATER @ HEEL	WATER @ TOE	FX TOTAL (KLF)	FY TOTAL (KLF)	FZ TOTAL (KLF)	e (FT)	BASE IN COMPRESSION (%)	BEARING PRESSURE (KSF)		
								HEEL	TOE	FS
1(a)	530.0	520.0	32.7	0.0	72.8	3.25	100.0	0.919	3.240	13.73
1(b)	523.4	513.4	34.5	0.0	84.4	2.10	100.0	1.544	3.276	13.98
1(c)	516.8	506.8	35.0	0.0	95.9	1.14	100.0	2.205	3.246	14.31
1(d)	510.1	503.5	33.1	0.0	105.5	0.40	100.0	2.806	3.221	14.81
1(e)	503.5	503.5	31.2	0.0	113.1	-0.10	100.0	3.288	3.174	15.14

SLIDING ANALYSIS SUMMARY									
LOAD CASE	WATER @ HEEL	WATER @ TOE	DRIVING WEDGE		STRUCTURAL		RESISTING		FS SLIDE
			Φ	C (KSF)	Φ	C (KSF)	Φ	C (KSF)	
1(a)	530.0	520.0	32	0.0	32	0.0	32	0.0	1.51
1(b)	523.4	513.4	32	0.0	32	0.0	32	0.0	1.61
1(c)	516.8	506.8	32	0.0	32	0.0	32	0.0	1.73
1(d)	510.1	503.5	32	0.0	32	0.0	32	0.0	1.89
1(e)	503.5	503.5	32	0.0	32	0.0	32	0.0	2.03

SHEAR AND MOMENT ANALYSIS				
LOAD CASE	WALL		FOOTING	
	VMAX (K/FT)	MMAX (K-IN/FT)	VMAX (K/FT)	MMAX (K-IN/FT)
1(a)	24.1	2899	36.7	4164
1(b)	24.7	2654	46.4	5643
1(c)	23.9	2418	56.5	7183
1(d)	22.2	2293	65.2	8547
1(e)	21.5	2274	72.1	9640



SLIDING STABILITY ANALYSIS

NOT TO SCALE

LEGEND:

FX = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL X DIRECTION (POSITIVE TOWARD CHANNEL) CONSIDERING ANY UPLIFT EFFECTS BUT WITHOUT SHEAR KEY RESISTANCE.

FY = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL Y DIRECTION CONSIDERING ANY UPLIFT EFFECTS

FZ = SUM OF ALL VERTICAL FORCES IN THE GLOBAL Z DIRECTION (POSITIVE DOWNWARD) CONSIDERING ANY UPLIFT EFFECTS

e = DISTANCE BETWEEN RESULTANT AND CENTROID OF BASE CONSIDERING ANY UPLIFT EFFECTS

DESIGN PARAMETERS:

WATER = 0.0625 KCF
CONCRETE = 0.150 KCF
WIND = NOT CONSIDERED
SEISMIC = NOT CONSIDERED

WALL LOADS DUE TO SOIL:
ABOVE WATER TABLE = 0.065
KSF/FT BELOW WATER TABLE = 0.0325 KSF/FT

LOADING CONDITIONS:

I EXTREME INUNDATION FOLLOWED BY A RAPID DRAW DOWN EVENT. THE HEIGHT OF RETAINED WATER WAS ASSUMED TO BE 10-FT ABOVE THE WATER LEVEL AT THE TOE. THE ANALYSIS WAS RUN FOR A SERIES OF WATER ELEVATIONS OVER THE HEEL RANGING FROM THE TOP OF WALL ELEVATION DOWN TO THE TOP OF FOOTING ELEVATION. ONLY THE MOST CRITICAL (WATER ELEVATION 530.0-FT) CASE, WITH RESPECT TO SLIDING, IS PRESENTED IN GRAPHICAL FORM.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Appr.	Date	Description	Symbol

Design file: ST-SAM-SC-DA001.dgn
Set ID: BatD
Site: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BRW
Drawn by: BRW/AW
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
License State: TEXAS

CDM

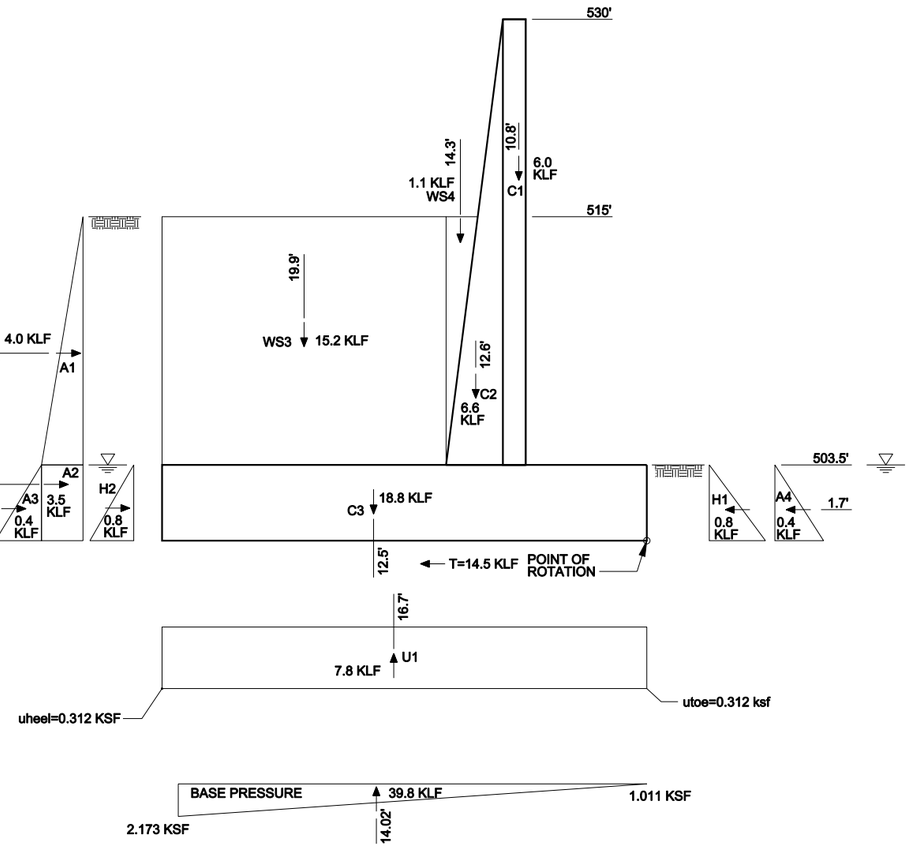
Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
RIGHT TRAINING WALL
STABILITY ANALYSIS

SHEET IDENTIFICATION

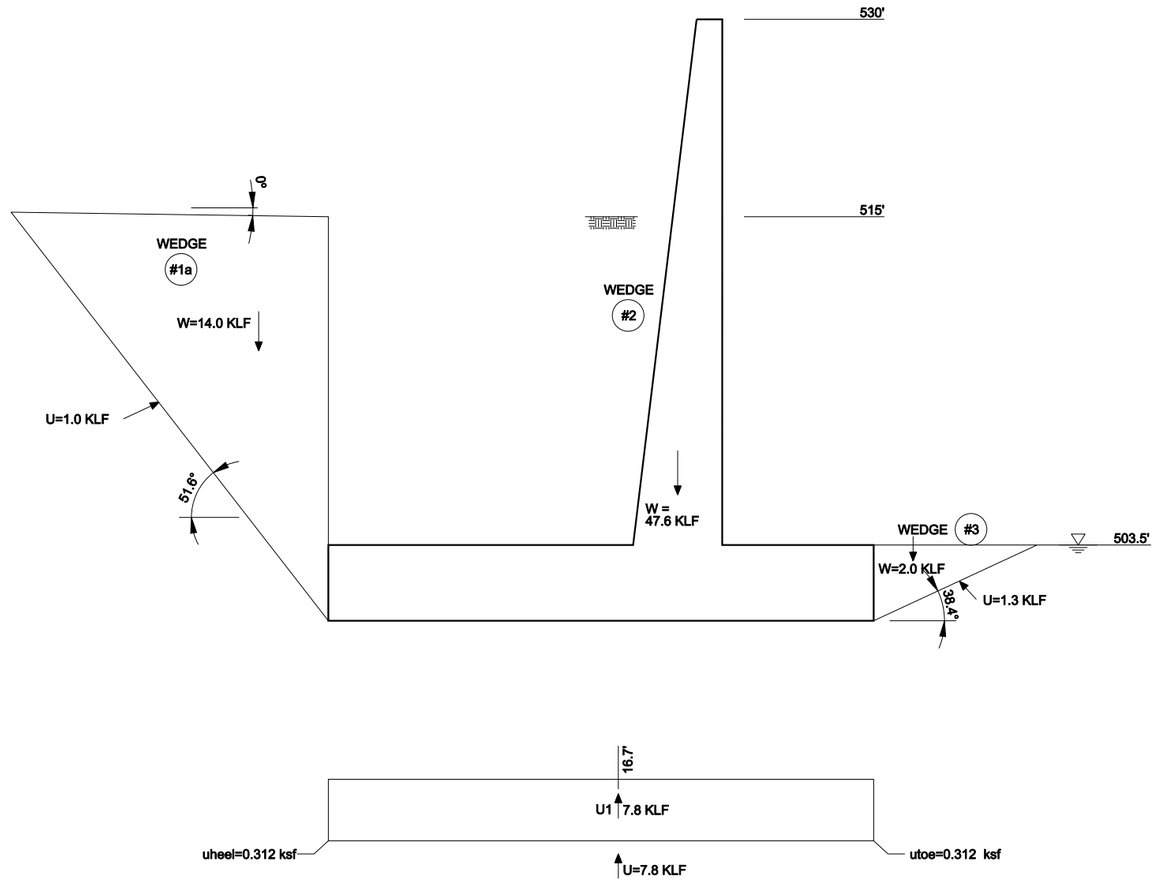
SS-07

MicroStation V8 User: mmt
Cell Library: fwcad1.cel
Printer: JetPrinter_XAMPDF_FlexPDF-Mono-Half.pltt
Plot Scale: 100.000 '= 1"
Date: Oct. 25, 2007 - 05:02:39 PM
Office: FWCAD1
Mode: Default
00000-SSbc01.dgn
00000-SSbc11.dgn



ROTATIONAL STABILITY ANALYSIS

NOT TO SCALE



SLIDING STABILITY ANALYSIS

NOT TO SCALE

ROTATIONAL ANALYSIS SUMMARY										
LOAD CASE	WATER @ HEEL	WATER @ TOE	FX TOTAL (KLF)	FY TOTAL (KLF)	FZ TOTAL (KLF)	e (FT)	BASE IN COMPRESSION (%)	BEARING PRESSURE (KSF)		
								HEEL	TOE	FS
1(a)	530.0	530.0	3.8	0.0	26.4	-1.12	100.0	1.341	0.774	61.18
1(b)	523.4	523.4	3.8	0.0	27.2	-1.04	100.0	1.361	0.817	60.51
1(c)	516.8	516.8	3.8	0.0	28.4	-0.95	100.0	1.394	0.875	59.33
1(d)	510.1	510.1	5.9	0.0	33.4	-1.07	100.0	1.679	0.995	49.00
1(e)	503.5	503.5	7.6	0.0	39.8	-1.52	100.0	2.173	1.011	36.98

SLIDING ANALYSIS SUMMARY									
LOAD CASE	WATER @ HEEL	WATER @ TOE	DRIVING WEDGE		STRUCTURAL		RESISTING		FS SLIDE
			Φ	C (KSF)	Φ	C (KSF)	Φ	C (KSF)	
1(a)	530.0	530.0	32	0.0	32	0.0	32	0.0	5.55
1(b)	523.4	523.4	32	0.0	32	0.0	32	0.0	4.62
1(c)	516.8	516.8	32	0.0	32	0.0	32	0.0	3.75
1(d)	510.1	510.1	32	0.0	32	0.0	32	0.0	2.84
1(e)	503.5	503.5	32	0.0	32	0.0	32	0.0	2.66

SHEAR AND MOMENT ANALYSIS SUMMARY				
LOAD CASE	WALL		FOOTING	
	VMAX (K/FT)	MMAX (K-IN/FT)	VMAX (K/FT)	MMAX (K-IN/FT)
1(a)	2.0	93	12.5	787
1(b)	2.0	93	12.7	802
1(c)	2.0	93	13.1	824
1(d)	3.4	168	15.7	988
1(e)	4.0	186	19.7	1255

LEGEND:

FX = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL X DIRECTION (POSITIVE TOWARD CHANNEL) CONSIDERING ANY UPLIFT EFFECTS BUT WITHOUT SHEAR KEY RESISTANCE.

FY = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL Y DIRECTION CONSIDERING ANY UPLIFT EFFECTS

FZ = SUM OF ALL VERTICAL FORCES IN THE GLOBAL Z DIRECTION (POSITIVE DOWNWARD) CONSIDERING ANY UPLIFT EFFECTS

e = DISTANCE BETWEEN RESULTANT AND CENTROID OF BASE CONSIDERING ANY UPLIFT EFFECTS

DESIGN PARAMETERS:

WATER = 0.0625 KCF
CONCRETE = 0.150 KCF
WIND = NOT CONSIDERED
SEISMIC = NOT CONSIDERED

WALL LOADS DUE TO SOIL:
ABOVE WATER TABLE = 0.065
KSF/FT BELOW WATER TABLE = 0.0325 KSF/FT

LOADING CONDITIONS:

I THE ANALYSIS WAS RUN FOR A SERIES OF WATER ELEVATIONS RAGING FROM THE TOP OF WALL ELEVATION DOWN TO THE TOP OF FOOTING ELEVATION. ONLY THE MOST CRITICAL (WATER ELEVATION 503.5-FT) CASE, WITH RESPECT TO SLIDING, IS PRESENTED IN GRAPHICAL FORM.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: BT-SAA-SC-DIAG01.dgn
Set ID: Bet0
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWK
Drawn by: BWK/JB
Checked by: BWK
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

CDM

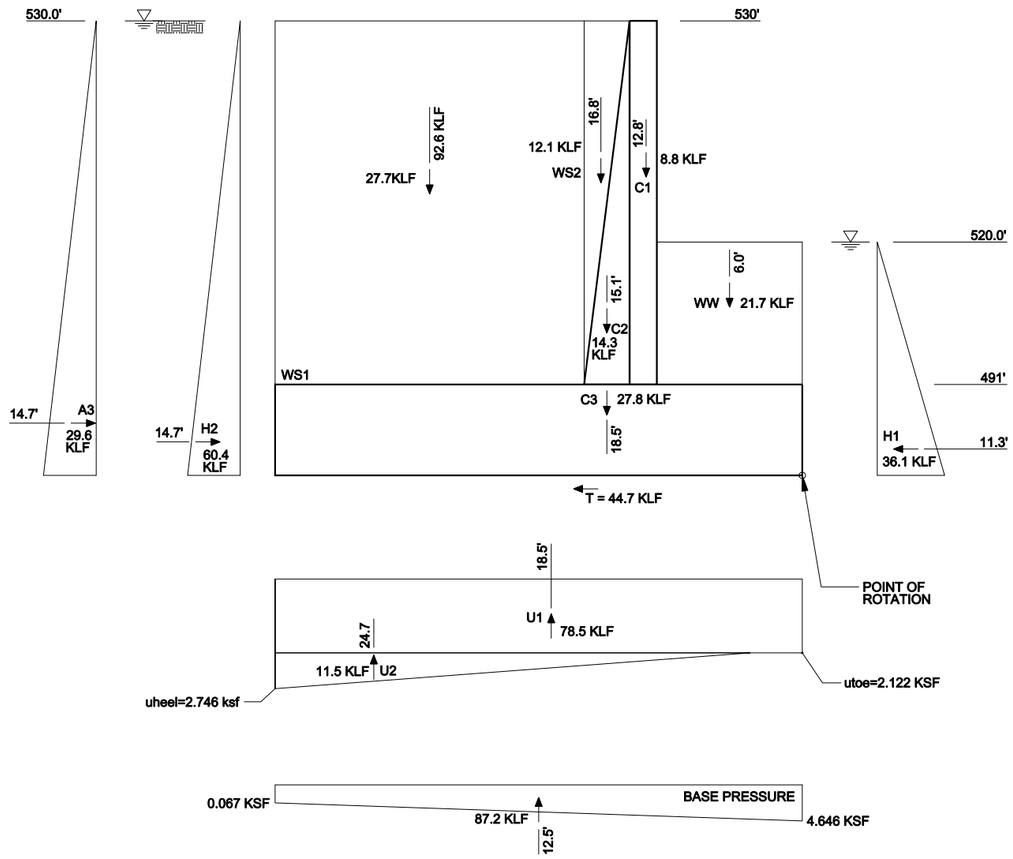
Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
MARINE CREEK DAM
LEFT TRAINING WALL
STABILITY ANALYSIS

SHEET IDENTIFICATION

SS-08

MicroStation V8 User: mmt Office: FWCAD1
Cell Lib: C:\Program Files\Bentley\MicroStation V8\WorkSpace\standard\cell\
Printer: JPredrv_XAMPDF_PlotPDF-Mono-Half.pltt Model: Default
Plot Scale: 100.000 '= 1'in.
Date: Oct. 25, 2007 - 05:02:07 PM
00003-BSss11.dgn
00003-BSss01.dgn
Office:FWCAD1 CDM07244 Date:Oct. 25, 2007 - 05:02:07 PM User:mmt File: N:\st\00001_COE_SS-608xx50.dgn



ROTATIONAL STABILITY ANALYSIS

NOT TO SCALE

ROTATIONAL ANALYSIS SUMMARY										
LOAD CASE	WATER @ HEEL	WATER @ TOE	FX TOTAL (KLF)	FY TOTAL (KLF)	FZ TOTAL (KLF)	e (FT)	BASE IN COMPRESSION (%)	BEARING PRESSURE (KSF)		
								HEEL	TOE	FS
1(a)	530.0	520.0	53.9	0.0	87.2	5.99	100.0	0.067	4.646	4.47
1(b)	521.5	511.5	58.9	0.0	100.9	4.57	100.0	0.707	4.749	4.43
1(c)	513.0	503.0	61.7	0.0	114.7	3.20	100.0	1.493	4.705	4.53
1(d)	504.5	494.5	62.4	0.0	128.4	2.00	100.0	2.342	4.596	4.68
1(e)	496.0	491.0	60.0	0.0	140.0	1.16	100.0	3.074	4.494	4.83

SHEAR AND MOMENT ANALYSIS				
LOAD CASE	WALL		FOOTING	
	VMAX (K/FT)	MMAX (K-IN/FT)	VMAX (K/FT)	MMAX (K-IN/FT)
1(a)	44.5	7984	46.8	3587
1(b)	48.2	7982	49.1	3726
1(c)	49.7	7713	50.2	4229
1(d)	49.0	7401	54.2	5662
1(e)	46.9	7258	63.9	6895

LEGEND:

FX= SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL X DIRECTION (POSITIVE TOWARD CHANNEL) CONSIDERING ANY UPLIFT EFFECTS BUT WITHOUT SHEAR KEY RESISTANCE.

FY= SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL Y DIRECTION CONSIDERING ANY UPLIFT EFFECTS

FZ= SUM OF ALL VERTICAL FORCES IN THE GLOBAL Z DIRECTION (POSITIVE DOWNWARD) CONSIDERING ANY UPLIFT EFFECTS

e = DISTANCE BETWEEN RESULTANT AND CENTROID OF BASE CONSIDERING ANY UPLIFT EFFECTS

NOTE:

THE DAM AND BASIN ARE ASSUMED TO BE CAPABLE OF RESISTING THE NET SLIDING FORCE ON THE WALL.

DESIGN PARAMETERS:

WATER = 0.0625 KCF
CONCRETE = 0.150 KCF
WIND = NOT CONSIDERED
SEISMIC = NOT CONSIDERED

WALL LOADS DUE TO SOIL:
ABOVE WATER TABLE = 0.065
KSF/FT BELOW WATER TABLE = 0.0325 KSF/FT

LOADING CONDITIONS:

I EXTREME INUNDATION FOLLOWED BY A RAPID DRAW DOWN EVENT. THE HEIGHT OF RETAINED WATER WAS ASSUMED TO BE 10-FT ABOVE THE WATER LEVEL AT THE TOE. THE ANALYSIS WAS RUN FOR A SERIES OF WATER ELEVATIONS OVER THE HEEL RANGING FROM THE TOP OF WALL ELEVATION DOWN TO THE TOP OF FOOTING ELEVATION. ONLY THE MOST CRITICAL (WATER ELEVATION 499.0-FT) CASE, WITH RESPECT TO SLIDING, IS PRESENTED IN GRAPHICAL FORM.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 88318 DATE: OCT 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: 87-SAM-SC-DAM01.dgn
Set ID: BaseD
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BMW
Drawn by: BMW/KB
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 88318
LicenseState: TEXAS

CDM

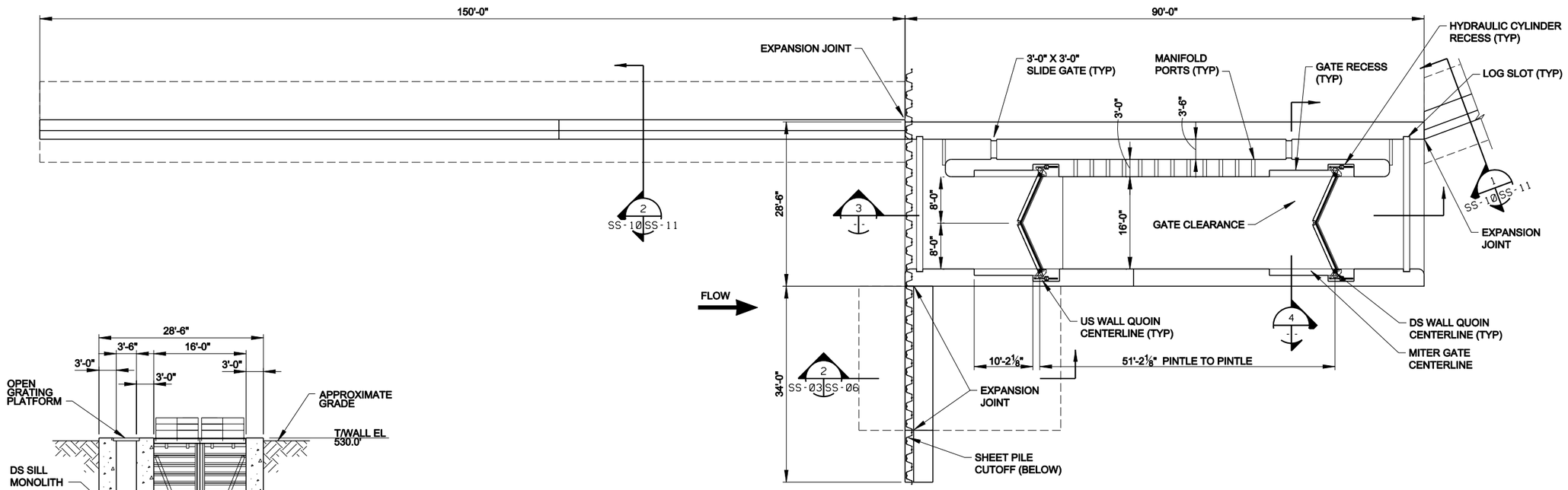
Freese and Nichols

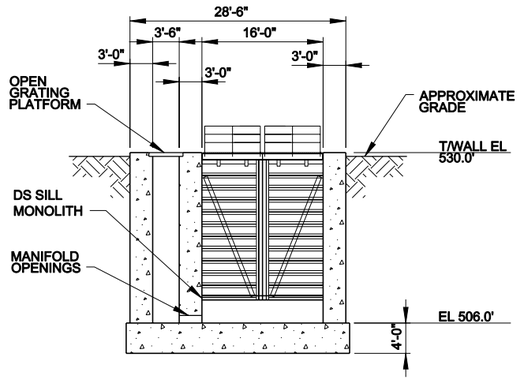
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
RIGHT ABUTMENT WALL
STABILITY ANALYSIS

SHEET IDENTIFICATION

SS-09

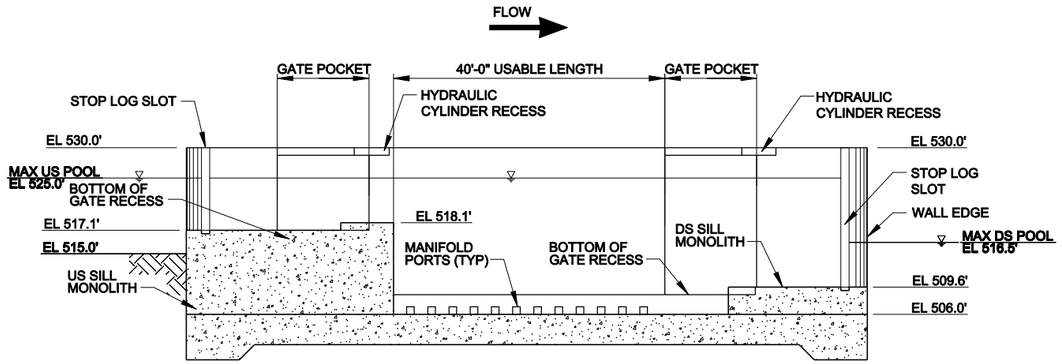
MicroStation V8 User: mmt Office: FWCAD1
Cell Library: CDM_SS_Metric.cel Level: Default
Printer: ...\Drivers\...\HP8150_PS.PPD Model: Default
Plot Scale: 1.000 / 1 in.
Date: Oct. 25, 2007 - 03:53:11 PM
00000-BSoil01.dgn
00000-BStr01.dgn



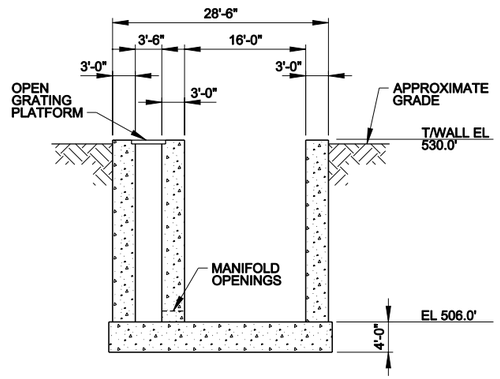


2 LOCK SECTION
1" = 10'

1 LOCK PLAN
1" = 10'



3 LOCK SECTION
1" = 10'



4 LOCK SECTION
1" = 10'

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

0 10' 20'

SCALE: 1" = 10'

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: ST-SAM-PL-PRDN.dgn
Set ID: SetID
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWM
Drawn by: BWM
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

CDM

Freese and Nichols

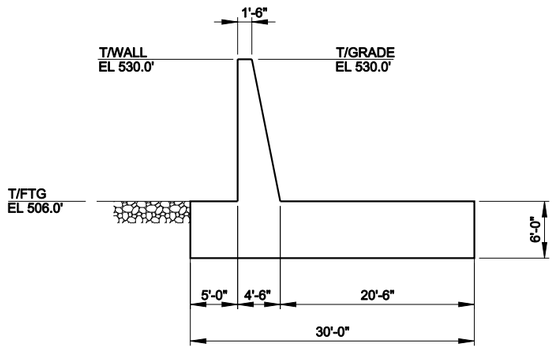
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
LOCK
PLAN AND SECTION

SHEET IDENTIFICATION

SS-10

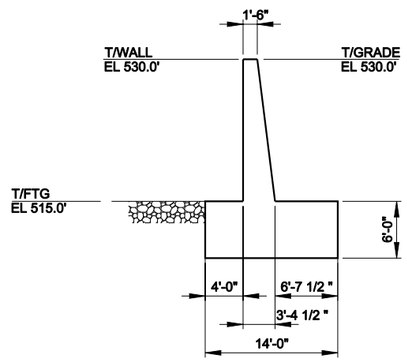
MicroStation V8 User: mmt Office: FWCAD1
Project: CDM07244 CDM07244_COE_SAM-PL-PRDN
Plotter: JPPostScript_XAMPP_PlotPDF-Mono-Half.pltt
Plot Scale: 200.0 '/ In. Model: Default
Plot Date: Oct 26, 2007 - 08:14:28 AM

Office:FWCAD1 CDM07244 Date:Oct. 26, 2007 - 08:14:28 AM User:mmt File: N:\st\00001_COE_SS-410\ss52.dgn



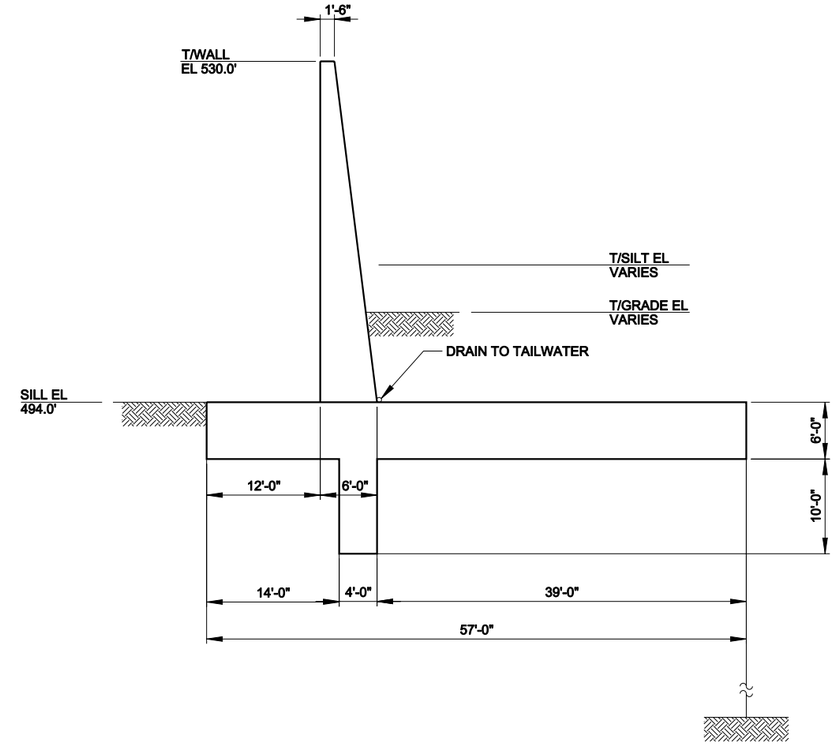
1 SS-10 SS-11 1/8"=1'-0"

DOWNSTREAM TRAINING WALL AT LOCK



2 SS-10 SS-11 1/8"=1'-0"

LEFT TRAINING WALL AT LOCK



3 SS-10 SS-11 1/8"=1'-0"

FLOOD WALL

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

8' 0 8' 16'
1/8"=1'-0"

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design File: ST-SAM-SO-DIAG01.dgn
Set ID: BaseD
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWM
Drawn by: BWM/JAW
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

CDM

Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
TRAINING WALLS AT LOCK AND FLOOD WALL
DIMENSIONS

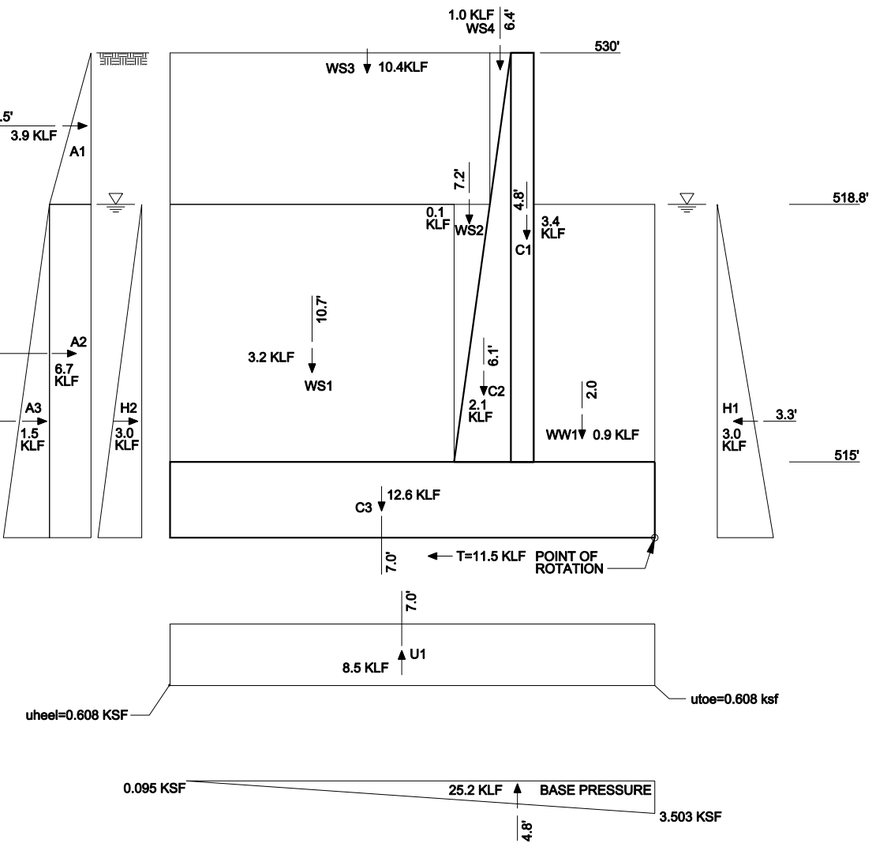
SHEET IDENTIFICATION

SS-11

MicroStation V8 User: mmt Office: FWCAD1
Project: Master.dgn Cell Lib: CDM_Base.cel
Plotter: JPredrv_XAPGE_FlexPDF-Mono-Half.pltt Model: Default
Plot Scale: 192.000 '=1" in
Plot Date: Oct. 26, 2007 - 08:16:38 AM

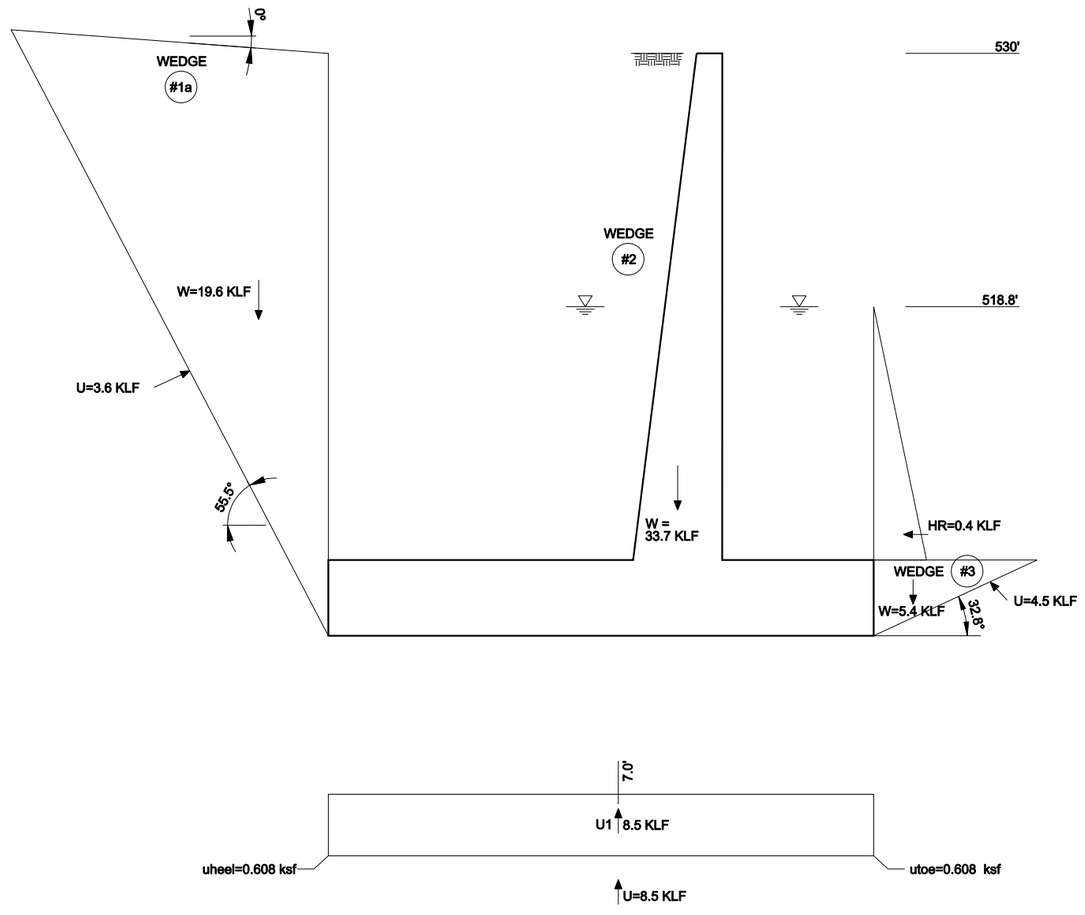
00000-BBsht1.dgn
00000-BBsht11.dgn

Office:FWCAD1 CDM07244 Date:Oct. 26, 2007 - 08:16:38 AM User:mmt File: N:\st\00001_COE_SS-611\ss53.dgn



ROTATIONAL STABILITY ANALYSIS

NOT TO SCALE



SLIDING STABILITY ANALYSIS

NOT TO SCALE

ROTATIONAL ANALYSIS SUMMARY										
LOAD CASE	WATER @ HEEL	WATER @ TOE	FX TOTAL (KLF)	FY TOTAL (KLF)	FZ TOTAL (KLF)	e (FT)	BASE IN COMPRESSION (%)	BEARING PRESSURE (KSF)		
								HEEL	TOE	FS
1(a)	530.0	530.0	6.2	0.0	17.9	1.56	100.0	0.426	2.137	14.41
1(b)	526.3	526.3	8.4	0.0	20.4	2.16	100.0	0.106	2.804	10.84
1(c)	522.5	522.5	10.1	0.0	22.8	2.32	100.0	0.011	3.242	9.34
1(d)	518.8	518.8	11.5	0.0	25.2	2.21	100.0	0.095	3.503	8.67
1(e)	515.0	515.0	12.4	0.0	27.6	1.97	100.0	0.306	3.635	8.39

SLIDING ANALYSIS SUMMARY									
LOAD CASE	WATER @ HEEL	WATER @ TOE	DRIVING WEDGE		STRUCTURAL		RESISTING		FS SLIDE
			Φ	C (KSF)	Φ	C (KSF)	Φ	C (KSF)	
1(a)	530.0	530.0	32	0.0	32	0.0	32	0.0	2.00
1(b)	526.3	526.3	32	0.0	32	0.0	32	0.0	1.77
1(c)	522.5	522.5	32	0.0	32	0.0	32	0.0	1.67
1(d)	518.8	518.8	32	0.0	32	0.0	32	0.0	1.63
1(e)	515.0	515.0	32	0.0	32	0.0	32	0.0	1.63

SHEAR AND MOMENT ANALYSIS				
LOAD CASE	WALL		FOOTING	
	VMAX (K/FT)	MMAX (K-IN/FT)	VMAX (K/FT)	MMAX (K-IN/FT)
1(a)	3.4	206	7.6	190
1(b)	4.9	325	9.7	244
1(c)	6.0	387	11.1	282
1(d)	6.7	409	12.1	305
1(e)	6.9	412	12.6	319

LEGEND:

FX = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL X DIRECTION (POSITIVE TOWARD CHANNEL) CONSIDERING ANY UPLIFT EFFECTS BUT WITHOUT SHEAR KEY RESISTANCE.

FY = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL Y DIRECTION CONSIDERING ANY UPLIFT EFFECTS

FZ = SUM OF ALL VERTICAL FORCES IN THE GLOBAL Z DIRECTION (POSITIVE DOWNWARD) CONSIDERING ANY UPLIFT EFFECTS

e = DISTANCE BETWEEN RESULTANT AND CENTROID OF BASE CONSIDERING ANY UPLIFT EFFECTS

DESIGN PARAMETERS:

WATER = 0.0625 KCF
CONCRETE = 0.150 KCF
WIND = NOT CONSIDERED
SEISMIC = NOT CONSIDERED

WALL LOADS DUE TO SOIL:
ABOVE WATER TABLE = 0.065
KSF/FT BELOW WATER TABLE = 0.0325 KSF/FT

LOADING CONDITIONS:

I THE ANALYSIS WAS RUN FOR A SERIES OF WATER ELEVATIONS RANGING FROM THE RETAINED GRADE ELEVATION DOWN TO THE TOP OF FOOTING ELEVATION. ONLY THE MOST CRITICAL (WATER ELEVATION 518.8-FT) CASE, WITH RESPECT TO SLIDING, IS PRESENTED IN GRAPHICAL FORM.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: ST-SAM-SC-SAG01.dgn
Set ID: Set0
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWK
Drawn by: BWK/JB
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
License State: TEXAS

CDM

Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
UPSTREAM LOCKWALL
STABILITY ANALYSIS

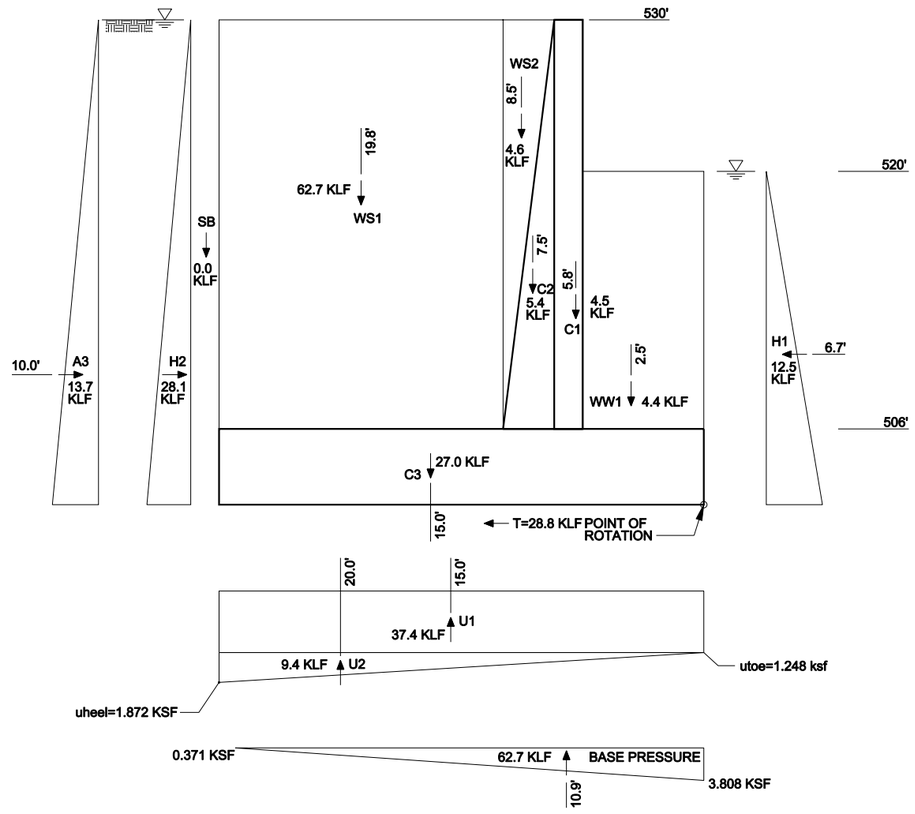
SHEET IDENTIFICATION

SS-12

MicroStation V8 User: mmt Office: FWCAD1
Design File: C:\Projects\...\ST-SAM-SC-SAG01.dgn
Plotter: JAPrinter_XAMP2E_FlexPDF-Mono-Half.plt Model: Default
Plot Scale: 100.000 % Ft.
Date: Oct. 25, 2007 - 04:12:30 PM

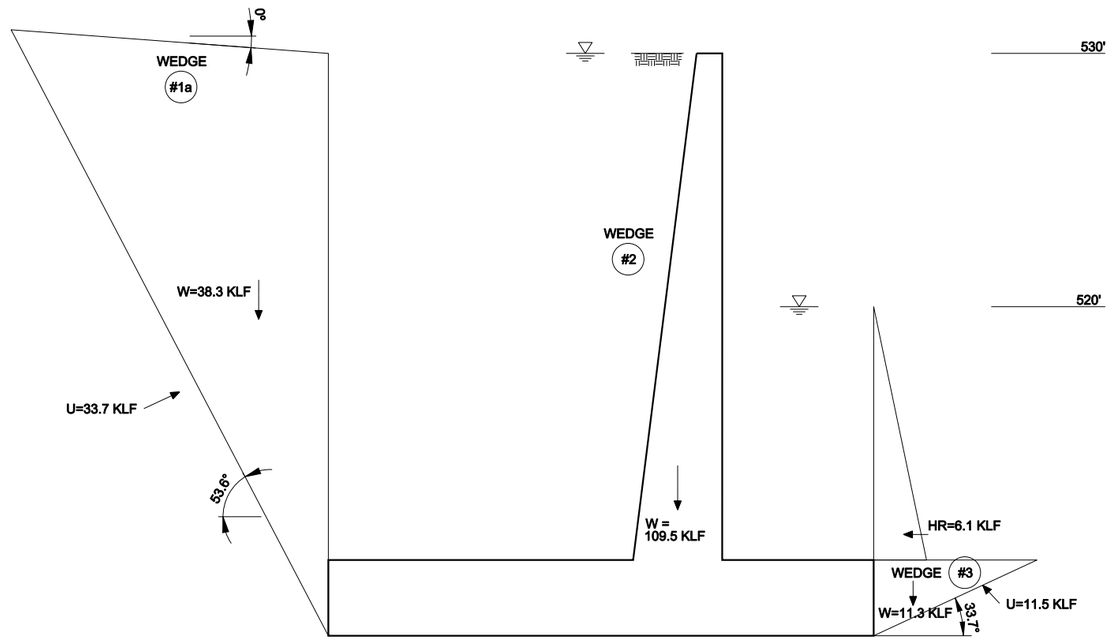
00000-BSbot11.dgn
00000-BStop01.dgn

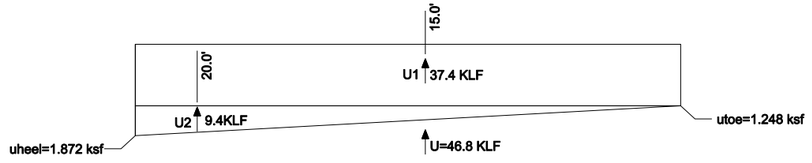
Office:FWCAD1 CDM07244 Date:Oct. 25, 2007 - 04:12:30 PM User:mmt File: N:\st\00001_COE_SS-612oo54.dgn



ROTATIONAL STABILITY ANALYSIS

NOT TO SCALE





SLIDING STABILITY ANALYSIS

NOT TO SCALE

ROTATIONAL ANALYSIS SUMMARY										
LOAD CASE	WATER @ HEEL	WATER @ TOE	FX TOTAL (KLF)	FY TOTAL (KLF)	FZ TOTAL (KLF)	e (FT)	BASE IN COMPRESSION (%)	BEARING PRESSURE (KSF)		
								HEEL	TOE	FS
1(a)	530.0	520.0	28.8	0.0	62.7	4.11	100.0	0.371	3.808	11.37
1(b)	526.3	516.3	29.6	0.0	68.4	3.44	100.0	0.710	3.847	11.48
1(c)	516.3	516.3	22.8	0.0	78.3	1.42	100.0	1.866	3.352	13.96
1(d)	511.3	511.3	25.0	0.0	86.7	1.22	100.0	2.185	3.592	13.10
1(e)	506.0	506.0	26.4	0.0	95.2	0.94	100.0	2.575	3.773	12.57

SLIDING ANALYSIS SUMMARY									
LOAD CASE	WATER @ HEEL	WATER @ TOE	DRIVING WEDGE		STRUCTURAL		RESISTING		FS SLIDE
			Φ	C (KSF)	Φ	C (KSF)	Φ	C (KSF)	
1(a)	530.0	520.0	32	0.0	32	0.0	32	0.0	1.50
1(b)	526.3	516.3	32	0.0	32	0.0	32	0.0	1.56
1(c)	516.3	516.3	32	0.0	32	0.0	32	0.0	1.98
1(d)	511.3	511.3	32	0.0	32	0.0	32	0.0	1.99
1(e)	506.0	506.0	32	0.0	32	0.0	32	0.0	2.03

SHEAR AND MOMENT ANALYSIS				
LOAD CASE	WALL		FOOTING	
	VMAX (K/FT)	MMAX (K-IN/FT)	VMAX (K/FT)	MMAX (K-IN/FT)
1(a)	20.7	2228	31.7	2910
1(b)	20.9	2094	36.5	3591
1(c)	15.9	1619	48.7	5558
1(d)	17.2	1680	54.7	6318
1(e)	17.6	1690	61.2	7180

LEGEND:

FX = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL X DIRECTION (POSITIVE TOWARD CHANNEL) CONSIDERING ANY UPLIFT EFFECTS BUT WITHOUT SHEAR KEY RESISTANCE.

FY = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL Y DIRECTION CONSIDERING ANY UPLIFT EFFECTS

FZ = SUM OF ALL VERTICAL FORCES IN THE GLOBAL Z DIRECTION (POSITIVE DOWNWARD) CONSIDERING ANY UPLIFT EFFECTS

e = DISTANCE BETWEEN RESULTANT AND CENTROID OF BASE CONSIDERING ANY UPLIFT EFFECTS

DESIGN PARAMETERS:

WATER = 0.0625 KCF
CONCRETE = 0.150 KCF
WIND = NOT CONSIDERED
SEISMIC = NOT CONSIDERED

WALL LOADS DUE TO SOIL:
ABOVE WATER TABLE = 0.065
KSF/FT BELOW WATER TABLE = 0.0325 KSF/FT

LOADING CONDITIONS:

I EXTREME INUMDATION FOLLOWED BY A RAPID DRAW DOWN EVENT. THE HEIGHT OF RETAINED WATER WAS ASSUMED TO BE 10-FT ABOVE THE WATER LEVEL AT THE TOE. THE ANALYSIS WAS RUN FOR A SERIES OF WATER ELEVATIONS RANGING FROM THE RETAINED GRADE ELEVATION DOWN TO THE TOP OF THE CREST (ELEVATION 516.5'). ONLY THE MOST CRITICAL (WATER ELEVATION OVER HEEL AT 530.0-FT) CASE, WITH RESPECT TO SLIDING, IS PRESENTED IN GRAPHICAL FORM.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: ST-SAM-SC-DIAG01.dgn
Set ID: SetID
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BRW
Drawn by: BRW/JAW
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
License State: TEXAS

CDM

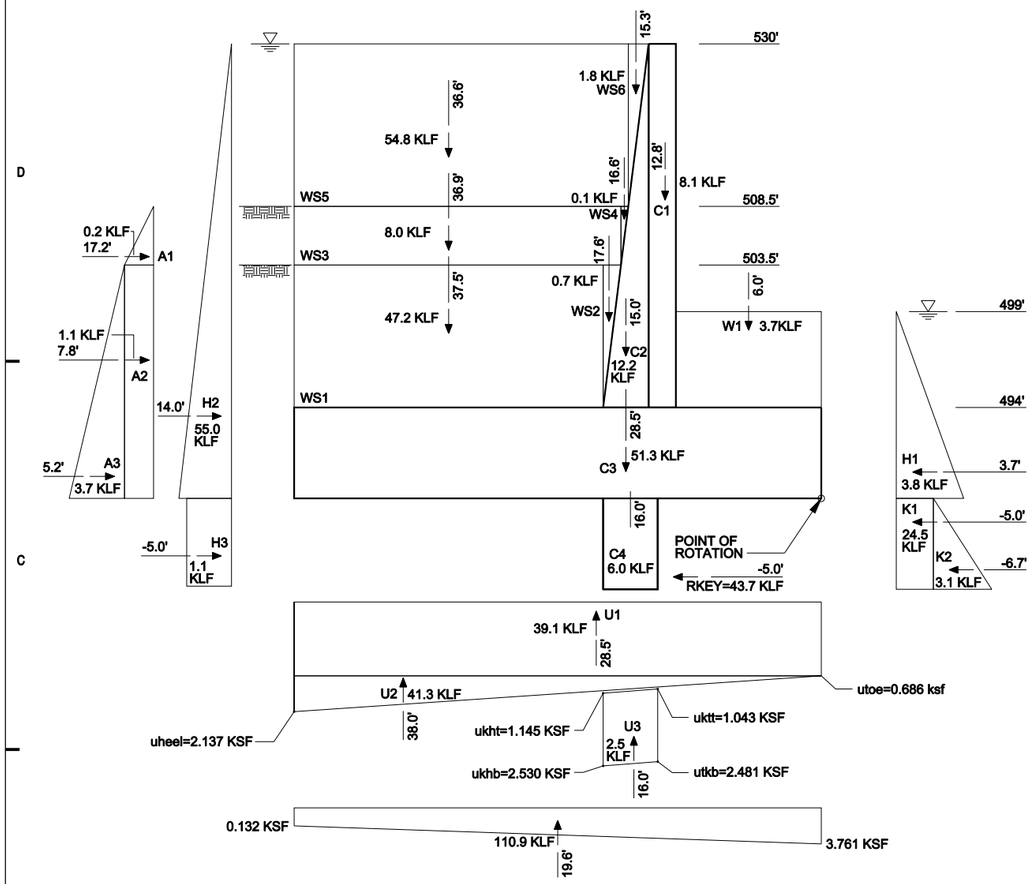
Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
DOWNSTREAM LOCKWALL
STABILITY ANALYSIS

SHEET IDENTIFICATION

SS-13

MicroStation V8 User: mmt Office: FWCAD1
Design File: C:\Projects\...\00000-SSbot11.dgn
Plotter: JAPostScript_XAMPDF_FWPDF-Mono-Half.pit Model: Default
Plot Scale: 100.000 = 1 in.
Plot Date: Oct. 25, 2007 - 04:14:07 PM
00000-SSbot01.dgn
00000-SSbot11.dgn



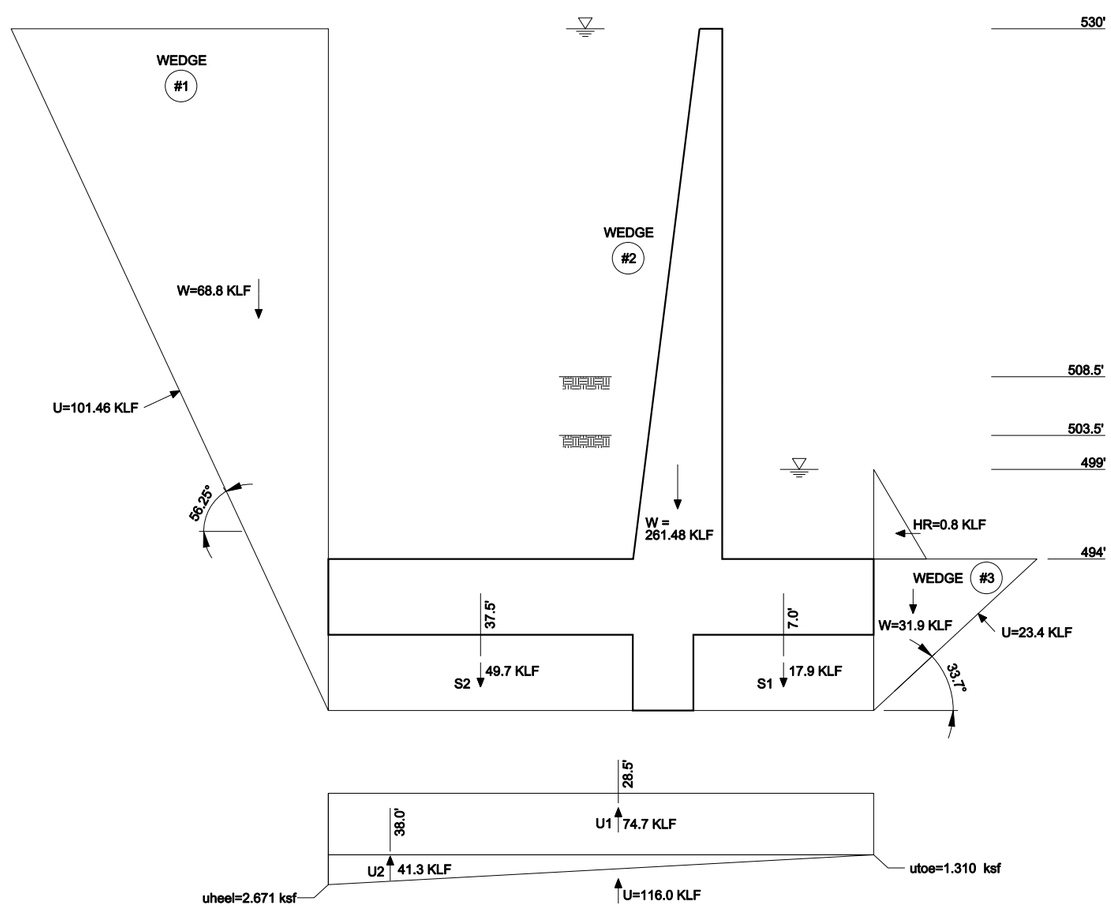
ROTATIONAL STABILITY ANALYSIS

NOT TO SCALE

ROTATIONAL ANALYSIS SUMMARY									
LOAD CASE	WATER @ TOE	FX TOTAL (KLF)	FY TOTAL (KLF)	FZ TOTAL (KLF)	e (FT)	BASE IN COMPRESSION (%)	BEARING PRESSURE (KSF)		
							HEEL	TOE	FS
1(a)	515.0	9.0	0.0	87.4	8.74	100.0	0.122	2.943	9.65
1(b)	510.0	17.1	0.0	94.7	9.24	100.0	0.046	3.278	8.63
1(c)	505.0	23.5	0.0	102.1	9.25	100.0	0.047	3.535	8.00
1(d)	500.0	28.4	0.0	109.5	8.94	100.0	0.112	3.729	7.61
1(e)	499.0	29.2	0.0	110.9	8.86	100.0	0.132	3.761	7.55

SLIDING ANALYSIS SUMMARY								
LOAD CASE	WATER @ TOE	DRIVING WEDGE (#1)		STRUCTURAL WEDGE (#2)		RESISTING WEDGE (#3)		FS SLIDE
		Φ	C (KSF)	Φ	C (KSF)	Φ	C (KSF)	
1(a)	515.0	32	0.0	32	0.0	32	0.0	2.06
1(b)	510.0	32	0.0	32	0.0	32	0.0	1.78
1(c)	505.0	32	0.0	32	0.0	32	0.0	1.62
1(d)	500.0	32	0.0	32	0.0	32	0.0	1.52
1(e)	499.0	32	0.0	32	0.0	32	0.0	1.51

SHEAR AND MOMENT ANALYSIS				
LOAD CASE	WALL		FOOTING	
	VMAX (K/FT)	MMAX (K-IN/FT)	VMAX (K/FT)	MMAX (K-IN/FT)
1(a)	28.9	4782	42.4	6985
1(b)	34.7	5427	44.9	7145
1(c)	38.9	5772	48.4	7691
1(d)	41.6	5911	52.6	8552
1(e)	41.9	5923	53.6	8755



SLIDING STABILITY ANALYSIS

NOT TO SCALE

LEGEND:

FX = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL X DIRECTION (POSITIVE TOWARD CHANNEL) CONSIDERING ANY UPLIFT EFFECTS BUT WITHOUT SHEAR KEY RESISTANCE.

FY = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL Y DIRECTION CONSIDERING ANY UPLIFT EFFECTS

FZ = SUM OF ALL VERTICAL FORCES IN THE GLOBAL Z DIRECTION (POSITIVE DOWNWARD) CONSIDERING ANY UPLIFT EFFECTS

e = DISTANCE BETWEEN RESULTANT AND CENTROID OF BASE CONSIDERING ANY UPLIFT EFFECTS

DESIGN PARAMETERS:

WATER = 0.0625 KCF
CONCRETE = 0.150 KCF
WIND = NOT CONSIDERED
SEISMIC = NOT CONSIDERED

WALL LOADS DUE TO SOIL:
ABOVE WATER TABLE = 0.065
KSF/FT BELOW WATER TABLE = 0.0325 KSF/FT

LOADING CONDITIONS:

I EXTREME INUNDATION FOLLOWED BY A RAPID DRAW DOWN EVENT. THE HEIGHT OF RETAINED WATER WAS ASSUMED TO BE AT ELEVATION 530.0-FT. THE ANALYSIS WAS RUN FOR A SERIES OF WATER ELEVATIONS OVER THE TOE RANGING FROM THE TOP OF WALL ELEVATION DOWN TO THE TOP OF FOOTING ELEVATION. ONLY THE MOST CRITICAL (WATER ELEVATION 499.0-FT) CASE, WITH RESPECT TO SLIDING, IS PRESENTED IN GRAPHICAL FORM.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design File: ST-SAM-SC-DIAG01.dgn
Set ID: BatID
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWM
Drawn by: BWM/JB
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

CDM

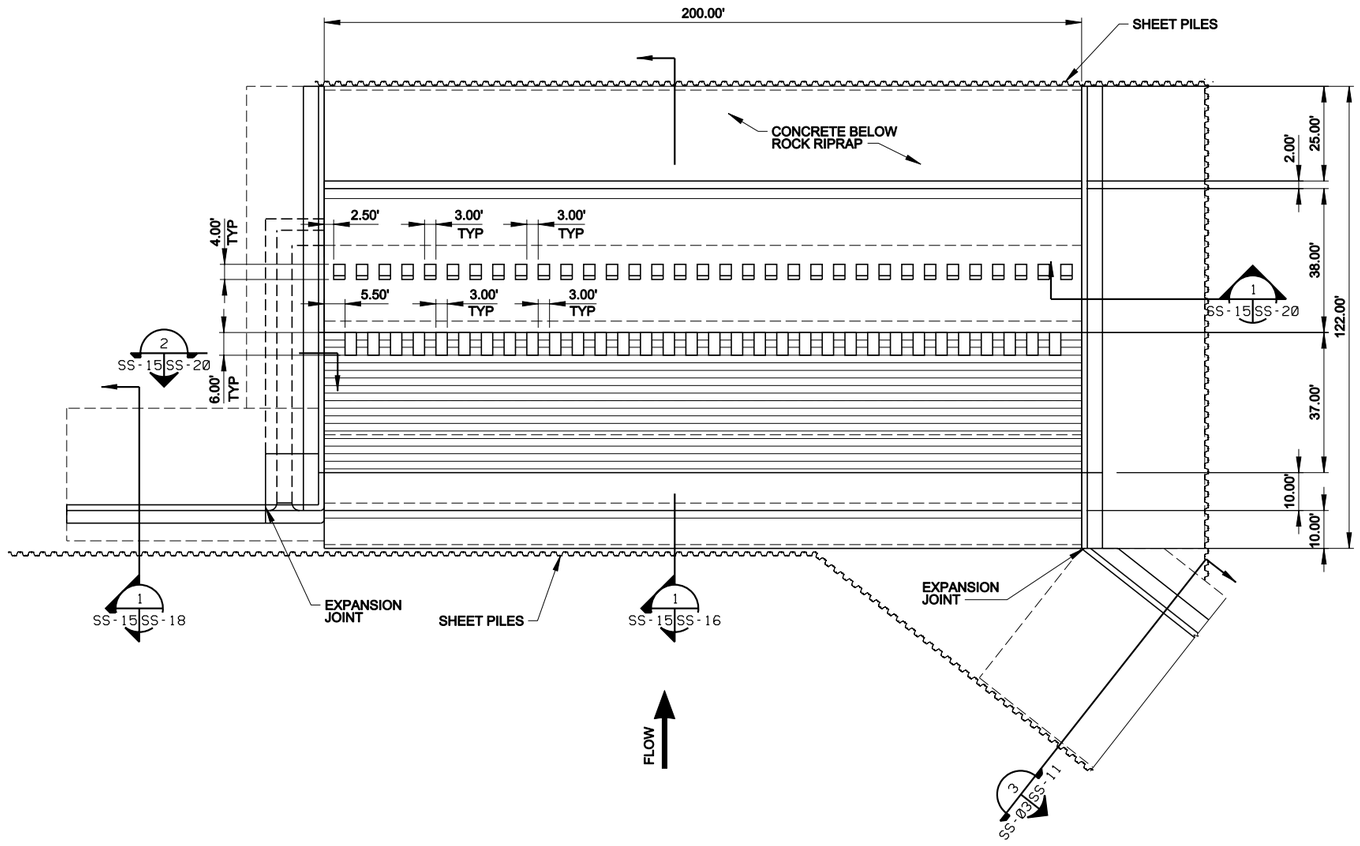
Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
SAMUELS AVENUE DAM
FLOODWALL
STABILITY ANALYSIS

SHEET IDENTIFICATION

SS-14

MicroStation V8 User: mmt
Design File: N:\stt00001_COE_SS-614xx56.dgn
Plotter: JPrader, XAMP2E_FlipPDF-Mono-Half.pltt
Plot Scale: 150.000 '= 1"
Plot Date: Oct. 25, 2007 - 04:14:41 PM
Office: FWCAD1
Model: Default
00000-BStool11.dgn
00000-BStool1.dgn



1 MARINE CREEK DAM PLAN
1" = 20'

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

0 10' 20' 40'
SCALE: 1" = 20'

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: ST-MAR-PL-FINAL.dgn
Set ID: BaseD
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWM
Drawn by: BWM/JAW
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

CDM

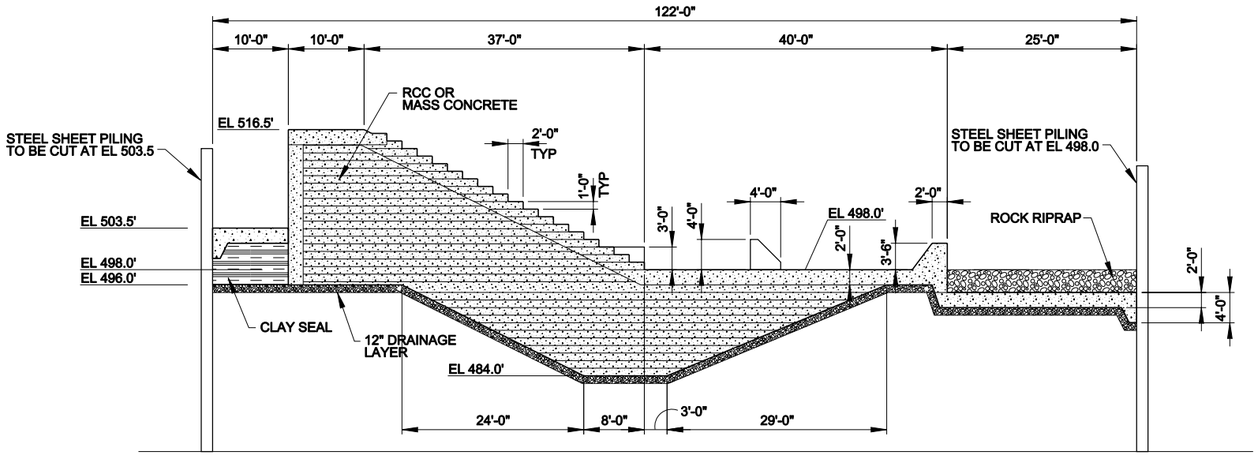
Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
MARINE CREEK DAM
PLAN
-

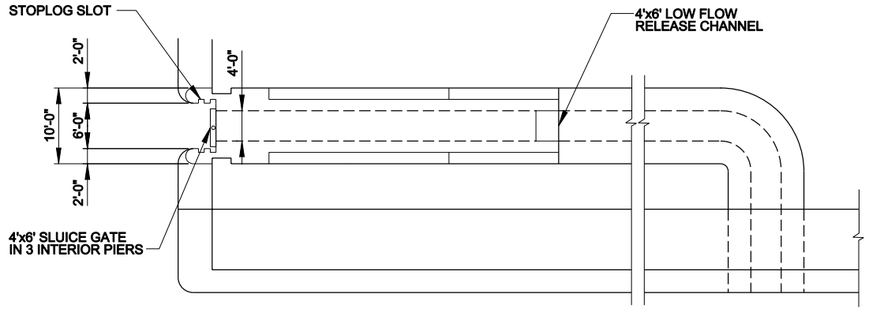
SHEET IDENTIFICATION
SS-15

MicroStation V8 User: mmt Office: FWCAD1
Workset: CDM07244 Level: BASE-ADDON
Plotter: JAPlotter_XAMP2E_FlipPDF-Mono-Half.plt Mode: Default
Plot Scale: 400.000 '/ In.
Date: Oct. 26, 2007 - 08:14:58 AM
ST-MAR-PL-BASE-DON
(700)Sheet-Ref.dgn
00000-BSheet11.dgn

Office:FWCAD1 CDM07244 Date:Oct. 26, 2007 - 08:14:57 AM User:mmt File: N:\st\00001_COE_SS-415\ss57.dgn



1 SECTION
SS-15 SS-16 1"=10'



2 PLAN OF LOW FLOW PIER
SS-15 SS-16 1"=5'

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

0 5' 10'
SCALE: 1" = 5'

0 10' 20'
SCALE: 1" = 10'

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: ST-MAR-SC-CONC.dgn
Set ID.: BatD
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BRW
Drawn by: BRW/JAW
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

CDM

Freese and Nichols

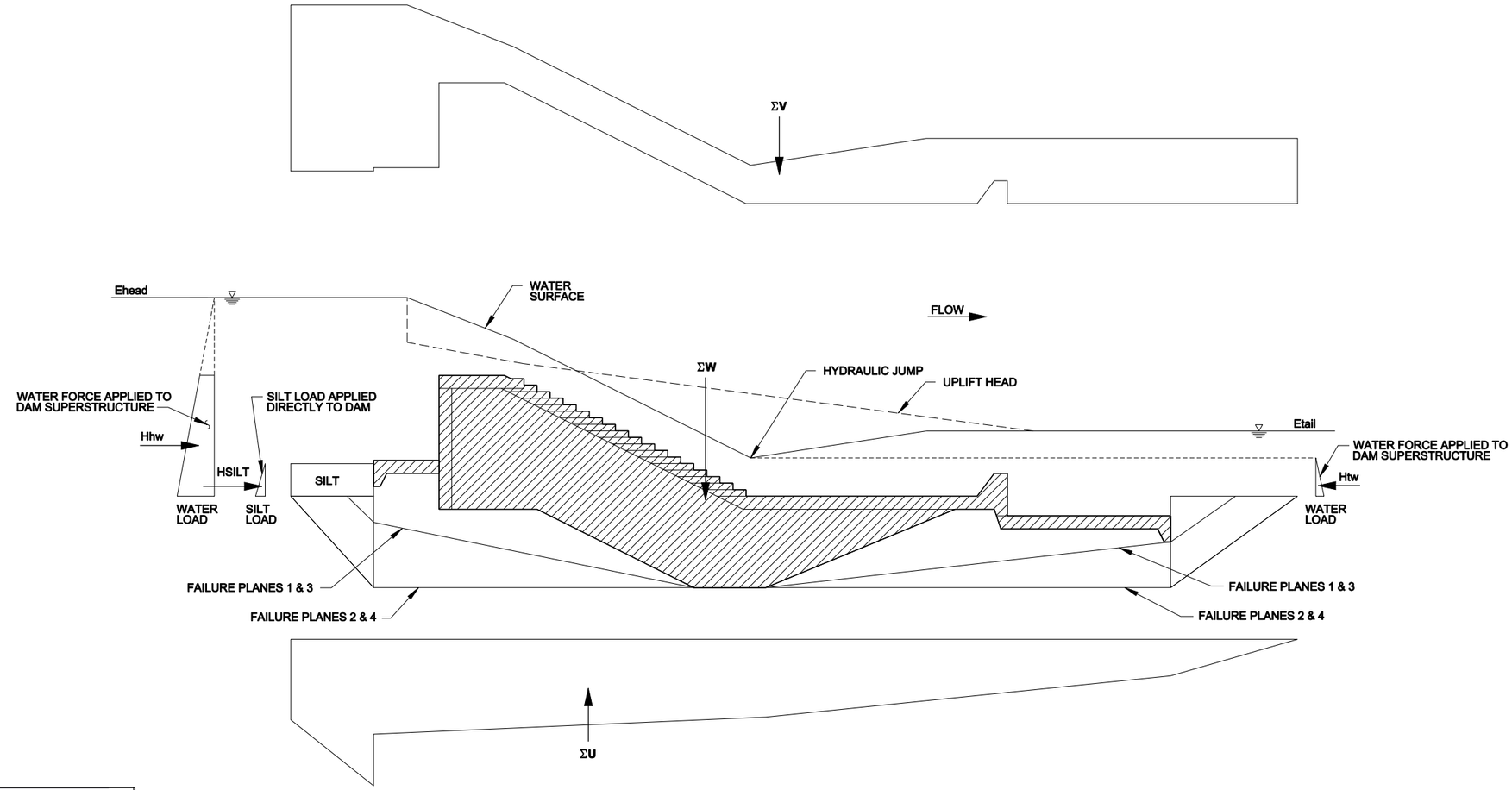
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
MARINE CREEK DAM
SECTION
-

SHEET IDENTIFICATION

SS-16

MicroStation V8 User: mmt Office: FWCAD1
Workset: CDM07244 Config: ST-MAR-SC-BASE.dgn
Plotter: JXPrinter_XAMP2E_FlipPDF-Mono-Half.pltt 00000-BStext11.dgn
Plot Scale: 203.000 '=1" Model: Default
Date: Oct 26, 2007 - 08:13:28 AM

Office:FWCAD1 CDM07244 Date:Oct. 26, 2007 - 08:13:28 AM User:mmt File: N:\st\00001_COE_SS-316xx58.dgn



STABILITY ANALYSIS

1" = 10'

Marine Creek Dam Schedule

	Load Case	E_{head} (ft-MSL)	E_{tail} (ft-MSL)	Req'd FS (Sliding)	General Wedge Theory Failure Plane	Summation of Vertical Loads (klf) ΣW	ΣV	ΣU	Summation of Lateral ΣH_L	ΣH_R	FS
1	Normal Pool	516.5	499	2	1	236.2	22.5	125.4	10.9	0.0	2.5
					2	288.6	34.6	168.2	10.9	0.0	4.1
					3	289.6	23.3	151.6	10.9	0.0	3.2
					4	341.6	35.6	194.5	10.9	0.0	5.0
2	10-yr	522.6	510	2	1	236.3	73.9	206.1	18.0	0.0	1.9
					2	288.3	88.5	253.1	18.0	0.0	3.0
					3	290.3	82.1	241.7	18.0	0.0	2.7
					4	341.9	97.1	288.8	18.0	0.0	4.0
3	50-yr	524.8	513	1.7	1	236.6	87.0	229.6	20.5	0.0	1.7
					2	287.9	102.4	278.0	20.5	0.0	2.6
					3	290.6	97.6	268.1	20.5	0.0	2.4
					4	342.0	113.2	316.4	20.5	0.0	3.5
4	100-yr	525.7	515	1.7	1	236.6	102.2	243.7	21.5	0.0	1.7
					2	287.9	118.3	292.8	21.5	0.0	2.7
					3	290.5	114.0	283.8	21.5	0.0	2.5
					4	341.8	130.4	333.0	21.5	0.0	3.5
5	500-yr	526.9	517	1.3	1	236.2	119.5	258.6	22.9	0.1	1.8
					2	288.2	136.2	308.8	22.9	0.1	2.8
					3	290.5	132.7	300.4	22.9	0.1	2.5
					4	342.0	149.5	350.4	22.9	0.1	3.5
6	Extreme	530	521	1.3	1	236.7	133.2	290.8	26.5	0.3	1.4
					2	287.4	150.1	342.3	26.5	0.3	2.1
					3	291.3	149.5	336.4	26.5	0.3	2.1
					4	342.0	167.0	388.1	26.5	0.3	3.0

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

0 10' 20'

SCALE: 1" = 10'

US Army Corps of Engineers Fort Worth District

Symbol	Description	Date	Appr.

Design file: 87AMR-SC-DAM01.dgn
Set ID: BaseD
Size: ANSI D
Plot. date: SEPTEMBER 2007
Designed by: BMW
Drawn by: BMW
Checked by: BMW
Responsible P.E.: BRAD B. WATSON
License Number: 80318
License State: TEXAS

CDM

Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
MARINE CREEK DAM
STABILITY ANALYSIS
-

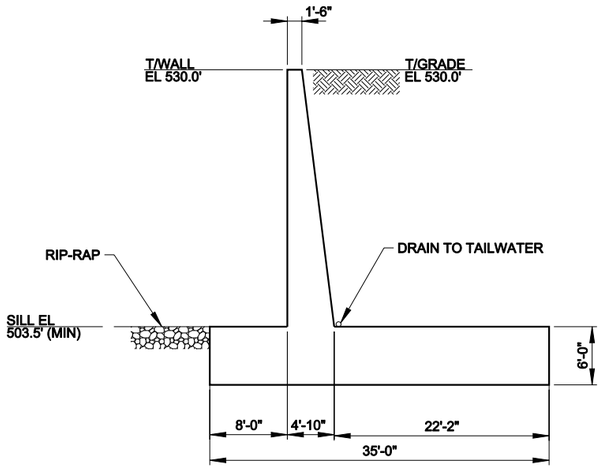
SHEET IDENTIFICATION

SS-17

87AMR-SC-BASE.dgn
07244_Marine_Creek_Dam.dgn
00000-BSIcell1.dgn

MicroStation V8 User: mmt Office: FWCAD1
Last Modified: Oct 26, 2007 - 08:17:27 AM
Plotter: \\Xpedox_XMPP3F_2.file\P3F-Mono-Hall.pltt
Plot Scale: 2.000,000 : 1 in
Date: Oct 26, 2007 - 08:17:27 AM
Model: Default

Office:FWCAD1 CDM07244 Date:Oct. 26, 2007 - 08:17:27 AM User:mmt File: N:\stt00001_COE_SS-617xx59.dgn



1
TRAINING WALL
SS-15 SS-18 1/8"=1'-0"

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO: 80318 DATE: OCT 2007 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

8' 0 8' 16'
1/8"=1'-0"

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: ST-SAM-SC-DIA001.dgn
Set ID.: SetID
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BBW
Drawn by: BBW/JAW
Checked by: ...
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

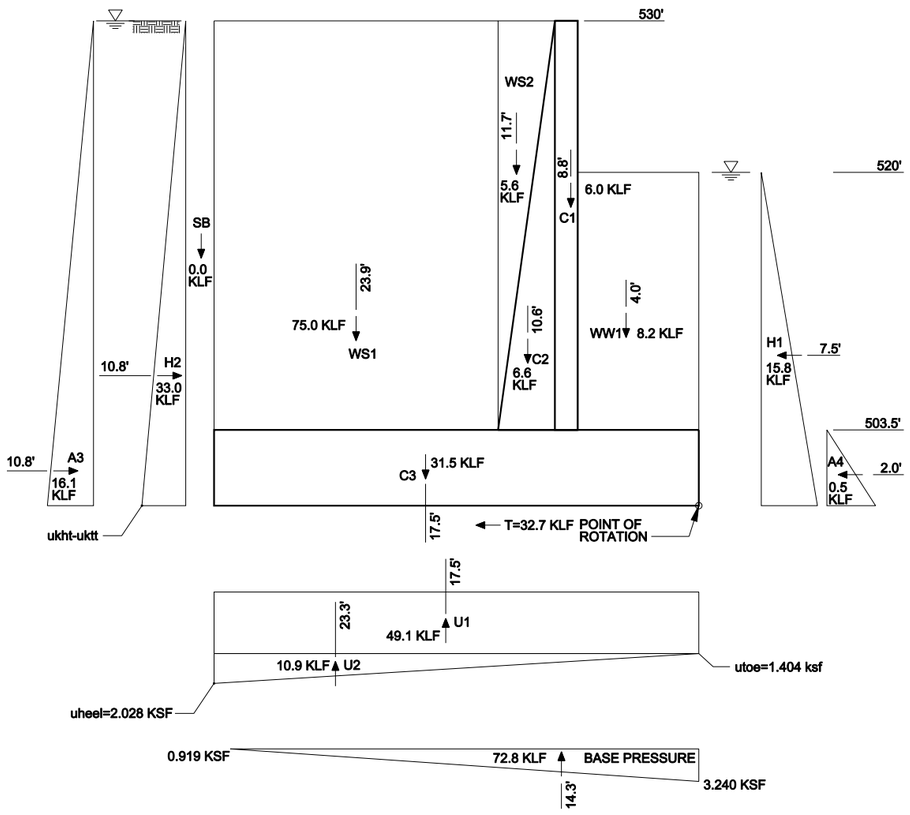
CDM
Freese and Nichols

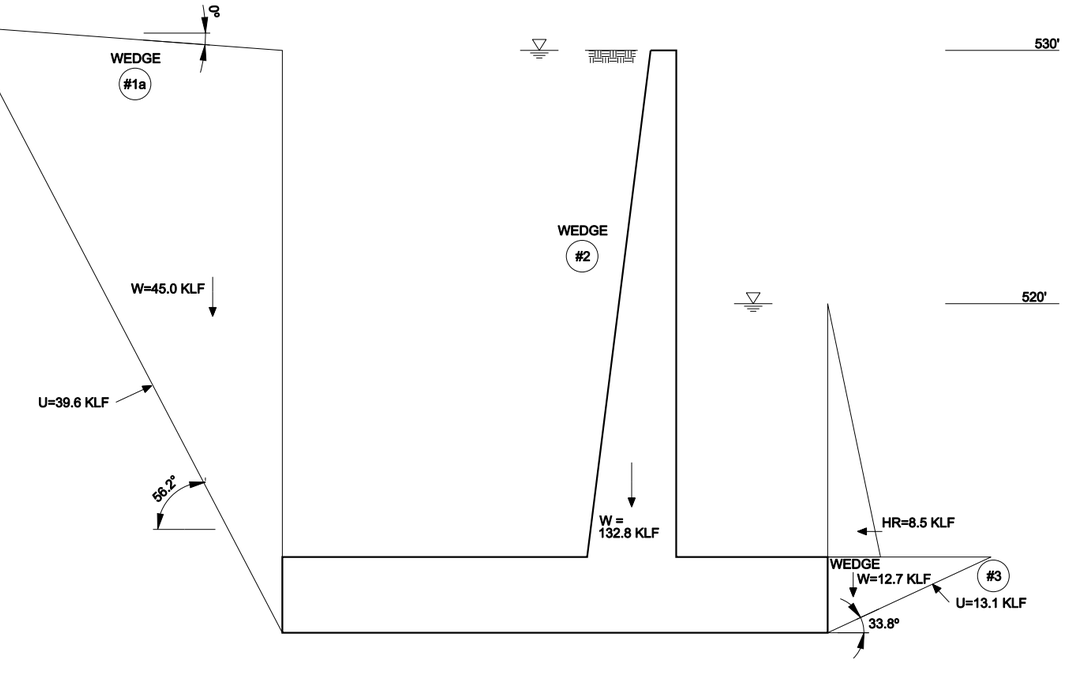
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
MARINE CREEK
LEFT TRAINING WALL
DIMENSIONS

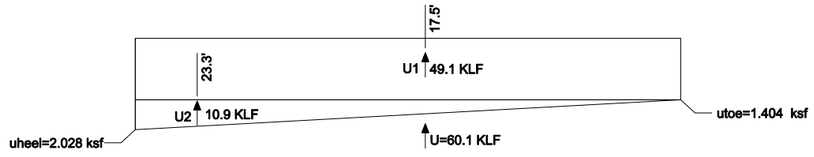
SHEET IDENTIFICATION
SS-18

MicroStation V8 User: mmt Office: FWCAD1
CDM07244 N:\st\00001_COE_SS-618xx60.dgn
Plotter: ...\Plotdrv_XMPDF_File\PDF-Mono-Hist.plt
Plot Scale: 25.0,000 ' / in. Model: Default
Date: Oct. 26, 2007 - 08:25:24 AM
00000-BSxx01.dgn
00000-BSxx11.dgn

Office:FWCAD1 CDM07244 Date:Oct. 26, 2007 - 08:25:24 AM User:mmt File: N:\st\00001_COE_SS-618xx60.dgn







ROTATIONAL STABILITY ANALYSIS

NOT TO SCALE

SLIDING STABILITY ANALYSIS

NOT TO SCALE

ROTATIONAL ANALYSIS SUMMARY

LOAD CASE	WATER @ HEEL	WATER @ TOE	FX TOTAL (KLF)	FY TOTAL (KLF)	FZ TOTAL (KLF)	e (FT)	BASE IN COMPRESSION (%)	BEARING PRESSURE (KSF)		
								HEEL	TOE	FS
1(a)	530.0	520.0	32.7	0.0	72.8	3.25	100.0	0.919	3.240	13.73
1(b)	523.4	513.4	34.5	0.0	84.4	2.10	100.0	1.544	3.276	13.98
1(c)	516.8	506.8	35.0	0.0	95.9	1.14	100.0	2.205	3.246	14.31
1(d)	510.1	503.5	33.1	0.0	105.5	0.40	100.0	2.806	3.221	14.81
1(e)	503.5	503.5	31.2	0.0	113.1	-0.10	100.0	3.288	3.174	15.14

SLIDING ANALYSIS SUMMARY

LOAD CASE	WATER @ HEEL	WATER @ TOE	DRIVING WEDGE		STRUCTURAL		RESISTING		FS SLIDE
			Φ	C (KSF)	Φ	C (KSF)	Φ	C (KSF)	
1(a)	530.0	520.0	32	0.0	32	0.0	32	0.0	1.51
1(b)	523.4	513.4	32	0.0	32	0.0	32	0.0	1.61
1(c)	516.8	506.8	32	0.0	32	0.0	32	0.0	1.73
1(d)	510.1	503.5	32	0.0	32	0.0	32	0.0	1.89
1(e)	503.5	503.5	32	0.0	32	0.0	32	0.0	2.03

SHEAR AND MOMENT ANALYSIS

LOAD CASE	WALL		FOOTING	
	VMAX (K/FT)	MMAX (K-IN/FT)	VMAX (K/FT)	MMAX (K-IN/FT)
1(a)	24.1	2899	36.7	4164
1(b)	24.7	2654	46.4	5643
1(c)	23.9	2418	56.5	7183
1(d)	22.2	2293	65.2	8547
1(e)	21.5	2274	72.1	9640

LEGEND:

FX = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL X DIRECTION (POSITIVE TOWARD CHANNEL) CONSIDERING ANY UPLIFT EFFECTS BUT WITHOUT SHEAR KEY RESISTANCE.

FY = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL Y DIRECTION CONSIDERING ANY UPLIFT EFFECTS

FZ = SUM OF ALL VERTICAL FORCES IN THE GLOBAL Z DIRECTION (POSITIVE DOWNWARD) CONSIDERING ANY UPLIFT EFFECTS

e = DISTANCE BETWEEN RESULTANT AND CENTROID OF BASE CONSIDERING ANY UPLIFT EFFECTS

DESIGN PARAMETERS:

WATER = 0.0625 KCF
CONCRETE = 0.150 KCF
WIND = NOT CONSIDERED
SEISMIC = NOT CONSIDERED

WALL LOADS DUE TO SOIL:
ABOVE WATER TABLE = 0.065
KSF/FT BELOW WATER TABLE = 0.0325 KSF/FT

LOADING CONDITIONS:

I EXTREME INUNDATION FOLLOWED BY A RAPID DRAW DOWN EVENT. THE HEIGHT OF RETAINED WATER WAS ASSUMED TO BE 10-FT ABOVE THE WATER LEVEL AT THE TOE. THE ANALYSIS WAS RUN FOR A SERIES OF WATER ELEVATIONS OVER THE HEEL RANGING FROM THE TOP OF WALL ELEVATION DOWN TO THE TOP OF FOOTING ELEVATION. ONLY THE MOST CRITICAL (WATER ELEVATION 530.0-FT) CASE, WITH RESPECT TO SLIDING, IS PRESENTED IN GRAPHICAL FORM.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Appr. | Date | Description | Symbol

Design file: ST-SM4-SC-DIA001.dgn
Set ID: BatD
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWM
Drawn by: BWM/JAW
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
License State: TEXAS

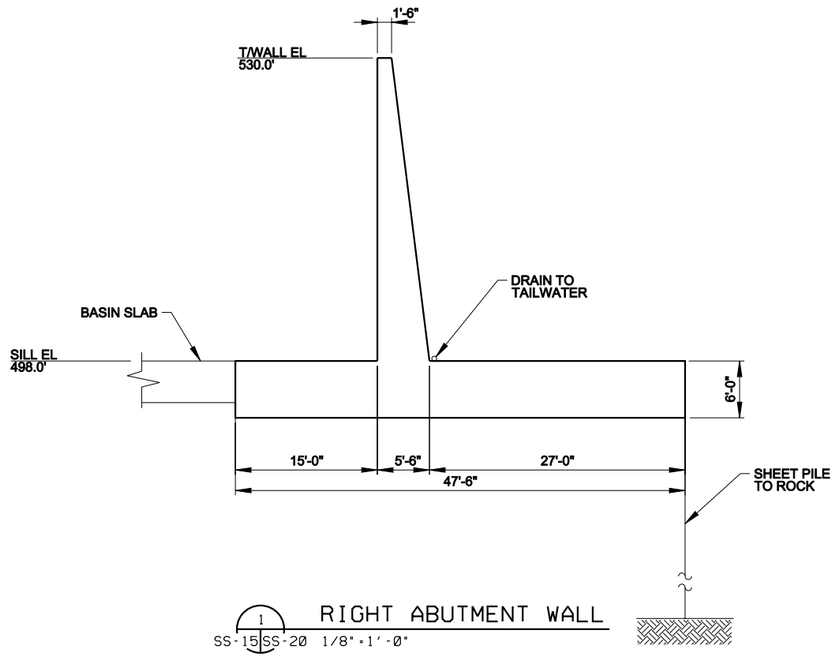
CDM | Freese and Nichols

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
MARINE CREEK DAM
LEFT TRAINING WALL
STABILITY ANALYSIS

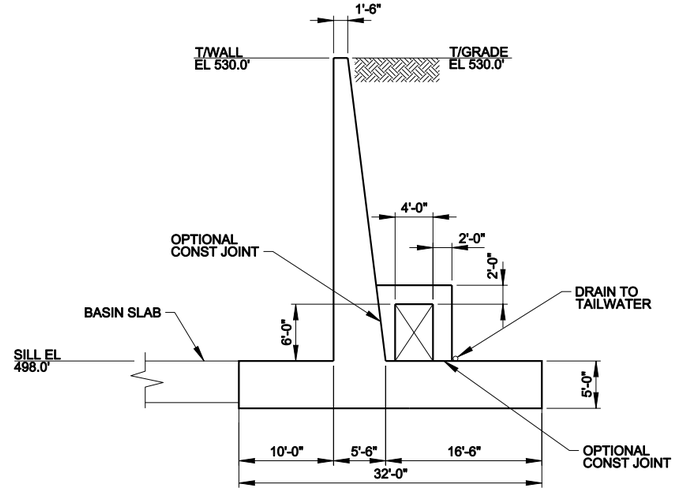
SHEET IDENTIFICATION

SS-19

MicroStation V8 User: mmt Office: FWCAD1
Cell Library: COE_Metric.cel Active Model: Default
Plotter: JPeddy, XAMP2E_FlexPDF-Mono-Half.pltt Model: Default
Plot Scale: 100.000 = 1 ft.
Date: Oct. 25, 2007 - 04:15:18 PM
00003-BSss11.dgn
00003-BSss01.dgn
Office:FWCAD1 CDM07244 Date:Oct. 25, 2007 - 04:15:18 PM User:mmt File: N:\st\00001_COE_SS-619\ss01.dgn



1 RIGHT ABUTMENT WALL
SS-15 SS-20 1/8"=1'-0"



2 LEFT ABUTMENT WALL
SS-15 SS-20 1/8"=1'-0"

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

8' 0 8' 16'
1/8"=1'-0"

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

Design file: ST-SAM-SO-DIAG01.dgn
Set ID: SetID
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWM
Drawn by: BWM/JAW
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

CDM

Freese and Nichols

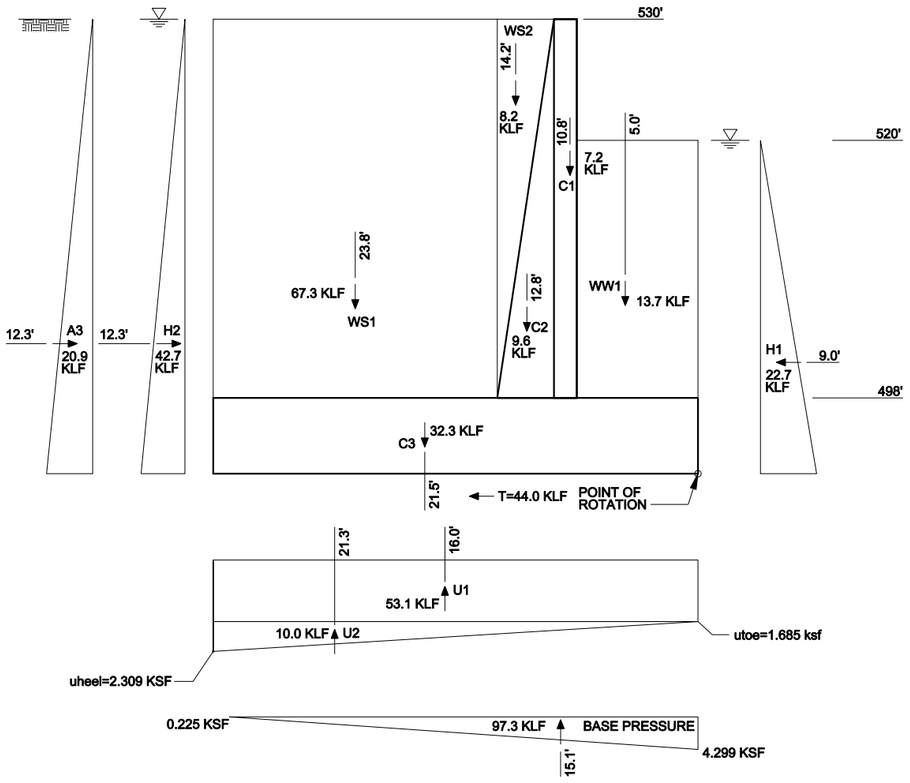
FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
MARINE CREEK
ABUTMENT WALLS
DIMENSIONS

SHEET IDENTIFICATION

SS-20

MicroStation V8 User: mmt Office: FWCAD1
Config: Standard CDM07244
Plotter: JPredrv_XAMPDF_PlePDF-Mono-Half.pltPlot Scale: 150.000 '/ In.
Plot Date: Oct. 26, 2007 - 08:21:01 AM
00000-BStext1.dgn
00000-BBsht1.dgn
Model: Default

Office:FWCAD1 CDM07244 Date:Oct. 26, 2007 - 08:21:01 AM User:mmt File: N:\st\00001_COE_SS-620\ss62.dgn



ROTATIONAL STABILITY ANALYSIS

NOT TO SCALE

ROTATIONAL ANALYSIS SUMMARY										
LOAD CASE	WATER @ HEEL	WATER @ TOE	FX TOTAL (KLF)	FY TOTAL (KLF)	FZ TOTAL (KLF)	e (FT)	BASE IN COMPRESSION (%)	BEARING PRESSURE (KSF)		
								HEEL	TOE	FS
1(a)	530.0	520.0	40.9	0.0	66.1	5.23	100.0	0.040	4.092	5.55
1(b)	522.0	512.0	44.0	0.0	77.5	3.64	100.0	0.767	4.076	5.69
1(c)	514.0	504.0	45.1	0.0	88.9	2.28	100.0	1.592	3.962	5.97
1(d)	506.0	498.0	43.7	0.0	99.4	1.24	100.0	2.388	3.828	6.26
1(e)	498.0	498.0	41.4	0.0	107.8	0.62	100.0	2.977	3.759	6.43

SHEAR AND MOMENT ANALYSIS				
LOAD CASE	WALL		FOOTING	
	VMAX (K/FT)	MMAX (K-IN/FT)	VMAX (K/FT)	MMAX (K-IN/FT)
1(a)	32.5	4763	34.6	2202
1(b)	34.3	4543	35.6	2239
1(c)	34.2	4239	36.4	3266
1(d)	32.3	4038	45.5	4305
1(e)	31.3	4005	52.5	5082

LEGEND:

FX = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL X DIRECTION (POSITIVE TOWARD CHANNEL) CONSIDERING ANY UPLIFT EFFECTS BUT WITHOUT SHEAR KEY RESISTANCE.

FY = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL Y DIRECTION CONSIDERING ANY UPLIFT EFFECTS

FZ = SUM OF ALL VERTICAL FORCES IN THE GLOBAL Z DIRECTION (POSITIVE DOWNWARD) CONSIDERING ANY UPLIFT EFFECTS

e = DISTANCE BETWEEN RESULTANT AND CENTROID OF BASE CONSIDERING ANY UPLIFT EFFECTS

NOTE:

THE DAM AND BASIN ARE ASSUMED TO BE CAPABLE OF RESISTING THE NET SLIDING FORCE ON THE WALL.

DESIGN PARAMETERS:

WATER = 0.0625 KCF
CONCRETE = 0.150 KCF
WIND = NOT CONSIDERED
SEISMIC = NOT CONSIDERED

WALL LOADS DUE TO SOIL:
ABOVE WATER TABLE = 0.065
KSF/FT BELOW WATER TABLE = 0.0325 KSF/FT

LOADING CONDITIONS:

I EXTREME INUNDATION FOLLOWED BY A RAPID DRAW DOWN EVENT. THE HEIGHT OF RETAINED WATER WAS ASSUMED TO BE 10-FT ABOVE THE WATER LEVEL AT THE TOE. THE ANALYSIS WAS RUN FOR A SERIES OF WATER ELEVATIONS OVER THE HEEL RANGING FROM THE TOP OF WALL ELEVATION DOWN TO THE TOP OF FOOTING ELEVATION. ONLY THE MOST CRITICAL (WATER ELEVATION OVER HEEL AT 530.0-FT) CASE, WITH RESPECT TO ROTATION, IS PRESENTED IN GRAPHICAL FORM.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Appr.	Date	Description	Symbol

CDM

Freese and Nichols

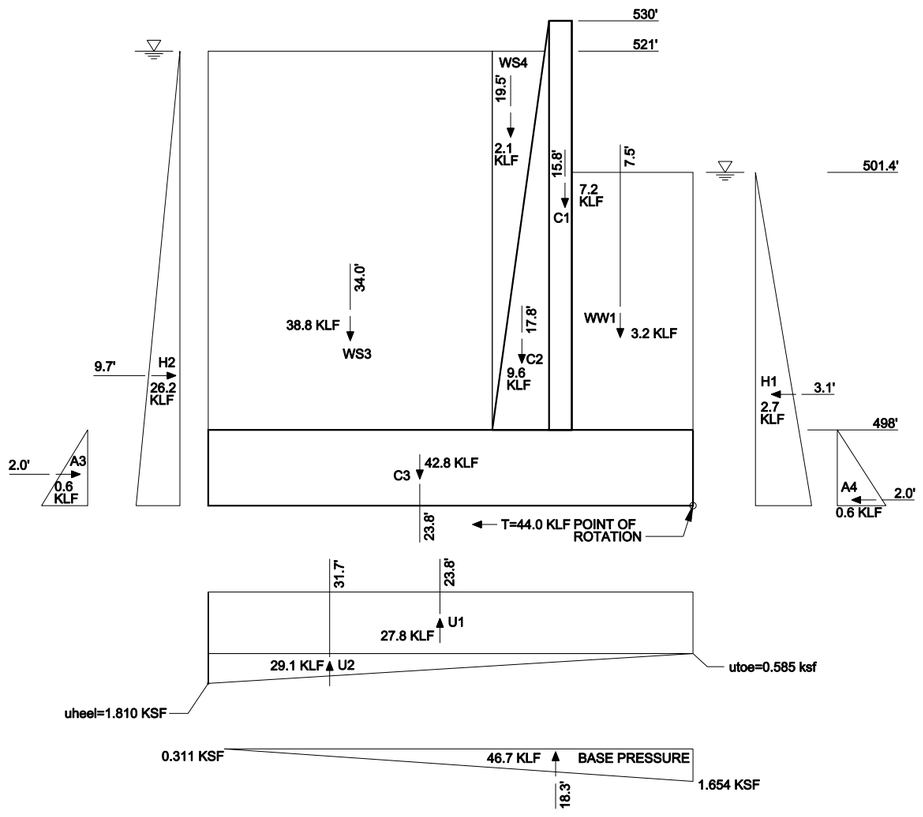
Design file: ST-SAM-SC-DIA001.dgn
Set ID: BatD
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWW
Drawn by: BWW/JAB
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
LicenseState: TEXAS

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
MARINE CREEK DAM
LEFT ABUTMENT WALL
STABILITY ANALYSIS

SHEET IDENTIFICATION

SS-21

MicroStation V8 User: mmt Office: FWCAD1
Cell Library: CDM_Base_Cells.cel Active Cell: SS-621
Plotter: JPredrix_XAMPP_FlexPDF-Mono-Half.plt Mode: Default
Plot Scale: 100.000 '= 1'in.
Plot Date: Oct. 25, 2007 - 03:57:28 PM
00000-BSbot11.dgn
00000-BStop01.dgn
Office:FWCAD1 CDM07244 Date:Oct. 25, 2007 - 03:57:28 PM User:mmt File: N:\at\00001_COE_SS-621\ot63.dgn



ROTATIONAL STABILITY ANALYSIS

NOT TO SCALE

ROTATIONAL ANALYSIS SUMMARY										
LOAD CASE	WATER @ HEEL	WATER @ TOE	FX TOTAL (KLF)	FY TOTAL (KLF)	FZ TOTAL (KLF)	e (FT)	BASE IN COMPRESSION (%)	BEARING PRESSURE (KSF)		
								HEEL	TOE	FS
1(a)	521.0	501.4	29.0	0.0	46.7	5.41	100.0	0.311	1.654	3.20

SHEAR AND MOMENT ANALYSIS				
LOAD CASE	WALL		FOOTING	
	VMAX (K/FT)	MMAX (K-IN/FT)	VMAX (K/FT)	MMAX (K-IN/FT)
1(a)	16.2	1514	21.6	2472

LEGEND:

FX = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL X DIRECTION (POSITIVE TOWARD CHANNEL) CONSIDERING ANY UPLIFT EFFECTS BUT WITHOUT SHEAR KEY RESISTANCE.

FY = SUM OF ALL HORIZONTAL FORCES IN THE GLOBAL Y DIRECTION CONSIDERING ANY UPLIFT EFFECTS

FZ = SUM OF ALL VERTICAL FORCES IN THE GLOBAL Z DIRECTION (POSITIVE DOWNWARD) CONSIDERING ANY UPLIFT EFFECTS

e = DISTANCE BETWEEN RESULTANT AND CENTROID OF BASE CONSIDERING ANY UPLIFT EFFECTS

NOTE:

THE DAM AND BASIN ARE ASSUMED TO BE CAPABLE OF RESISTING THE NET SLIDING FORCE ON THE WALL.

DESIGN PARAMETERS:

WATER = 0.0625 KCF
CONCRETE = 0.150 KCF
WIND = NOT CONSIDERED
SEISMIC = NOT CONSIDERED

WALL LOADS DUE TO SOIL:
ABOVE WATER TABLE = 0.065
KSF/FT BELOW WATER TABLE = 0.0325 KSF/FT

LOADING CONDITIONS:

I EXTREME INUNDATION FOLLOWED BY A RAPID DRAW DOWN EVENT. THE HEIGHT OF RETAINED WATER WAS ASSUMED TO BE 10-FT ABOVE THE WATER LEVEL AT THE TOE. THE ANALYSIS WAS RUN FOR A SERIES OF WATER ELEVATIONS OVER THE HEEL RANGING FROM THE TOP OF WALL ELEVATION DOWN TO THE TOP OF FOOTING ELEVATION. ONLY THE MOST CRITICAL (WATER ELEVATION OVER HEEL AT 522.0-FT) CASE, WITH RESPECT TO ROTATION, IS PRESENTED IN GRAPHICAL FORM.

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF BRAD B. WATSON TEXAS NO. 80318 DATE: OCT 2007. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Date	Appr.

CDM

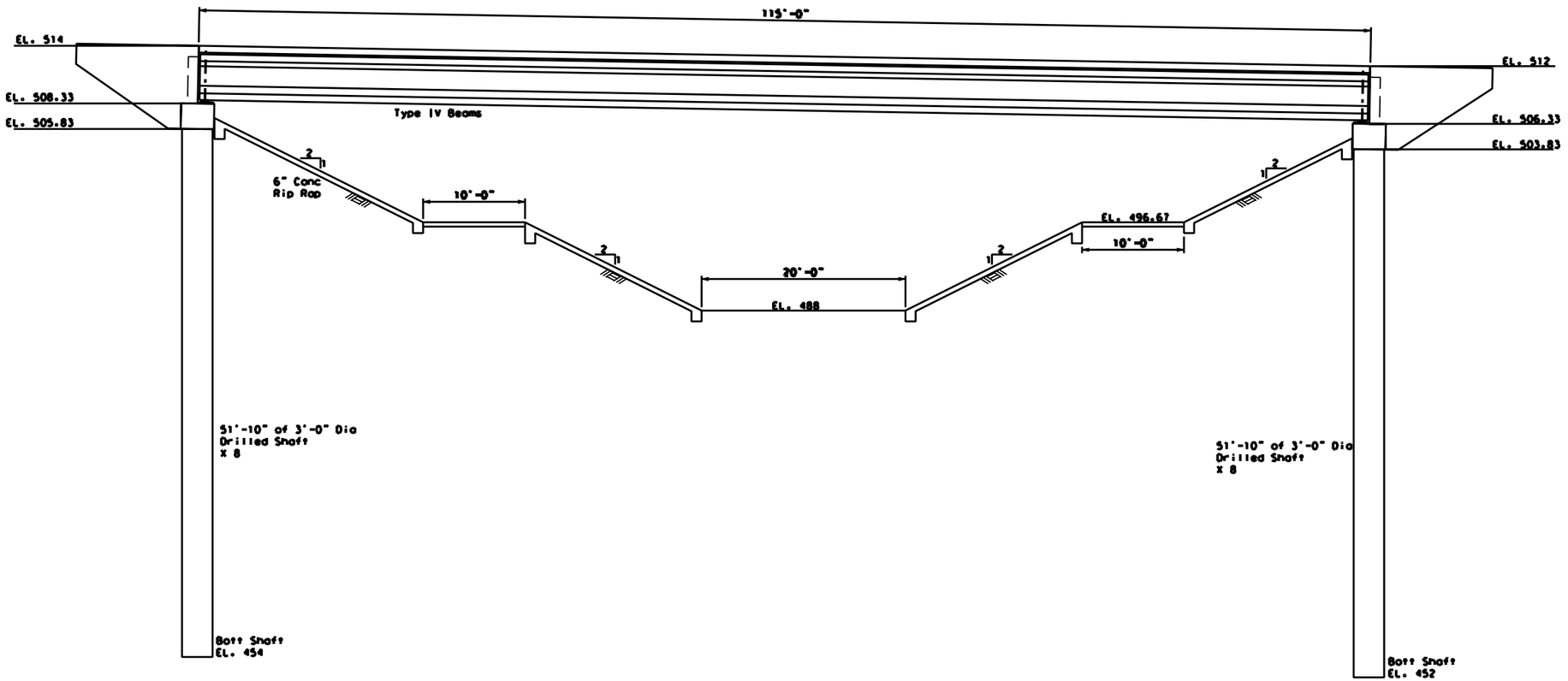
Design file: BT-SAA-SC-DIAG01.dgn
Set ID: BatD
Size: ANSI D
Plot date: SEPTEMBER 2007
Designed by: BWM
Drawn by: BWM/AW
Checked by:
Responsible P.E.: BRAD B. WATSON
License Number: 80318
License State: TEXAS

FORT WORTH CENTRAL CITY
PRELIMINARY DESIGN - SUPPLEMENT
MARINE CREEK DAM
RIGHT ABUTMENT WALL
STABILITY ANALYSIS

SHEET IDENTIFICATION

SS-22

MicroStation V8 User: mmt Office: FWCAD1
Project: N:\stt00001_COE_SS-622to64.dgn Model: Default
Plotter: JPeddy, XAMP2E_FlexPDF-Mono-Half.pltt
Plot Scale: 100.000 % Ft.
Date: Oct. 25, 2007 - 04:16:09 PM
00002-BSoil1.dgn
00003-BStr01.dgn



NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED:
"RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)"
DRAWING IS NOT TO SCALE.

1" = 5'

ENGINEERING DIVISION
CIVIL DESIGN BRANCH

U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

TRINITY RIVER BASIN, TEXAS
RIVERSIDE OXBOW
FORT WORTH, TEXAS

BEACH STREET
ELEVATION

WILLIAM A. WALLACE, P.E.
CHIEF, STRUCTURAL SECTION

DRAWING NUMBER: RS-01
SHEET NO.: 51 OF

RS-01.dgn 10/29/2007 4:53:14 PM

1" = 4'

NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED:
"RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)"
DRAWING IS NOT TO SCALE.

SYM	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION

ENGINEERING DIVISION
CIVIL DESIGN BRANCH

U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

DESIGNED BY: K. LEY
DRAWN BY: K. LEY
REVIEWED BY: W. SHANER

TRINITY RIVER BASIN, TEXAS
RIVERSIDE OXBOW
FORT WORTH, TEXAS

BEACH STREET
PLAN

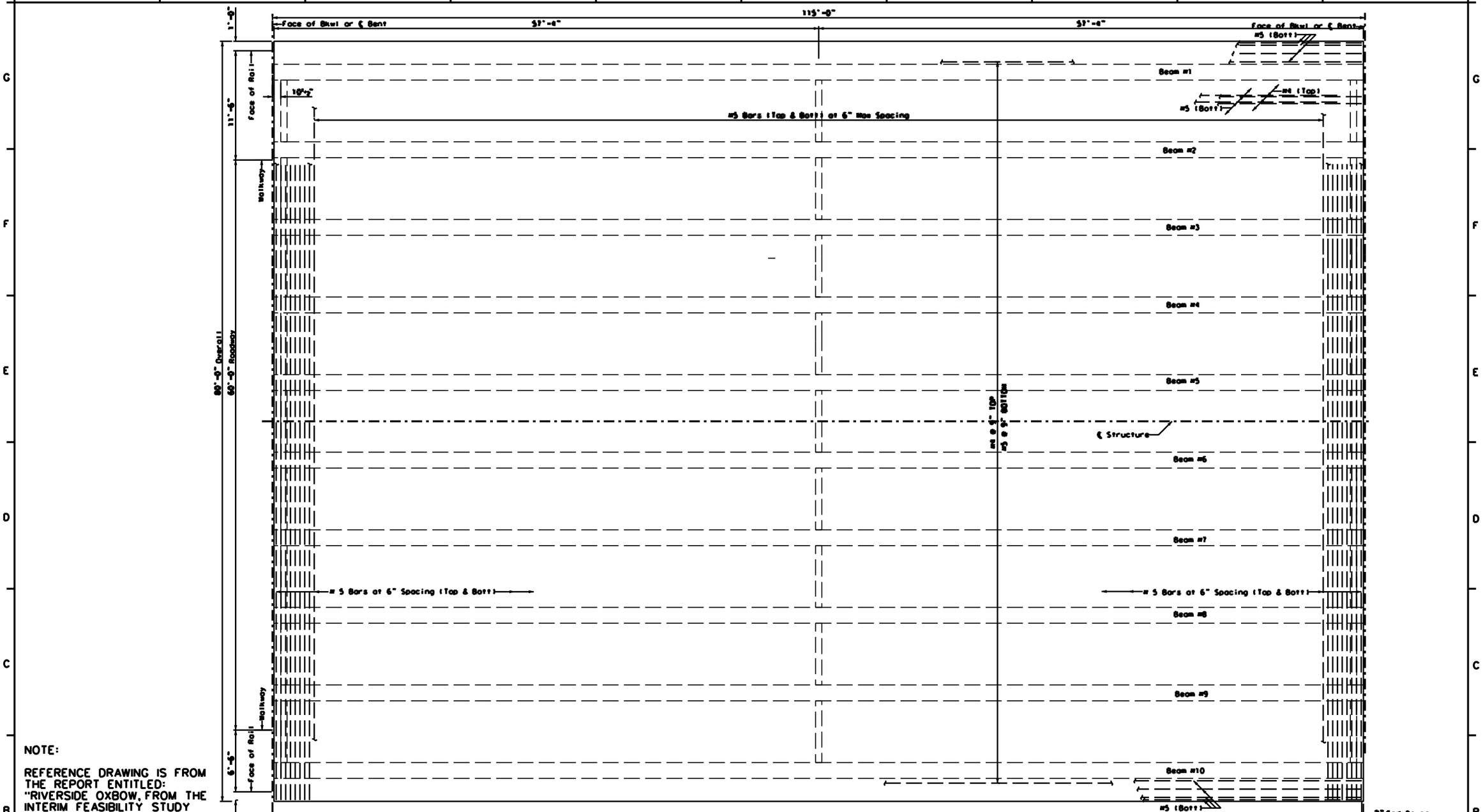
SUBMITTED BY:
WILLIAM A. WALLACE, P.E.
CHIEF, STRUCTURAL SECTION

SOL. NO.
DATED:
CONTR. NO.
PLATE
DRAWING NUMBER: RS-02
SHEET NO. 52 OF

REFERENCE FILE NAME | REFERENCE FILE DESCRIPTION

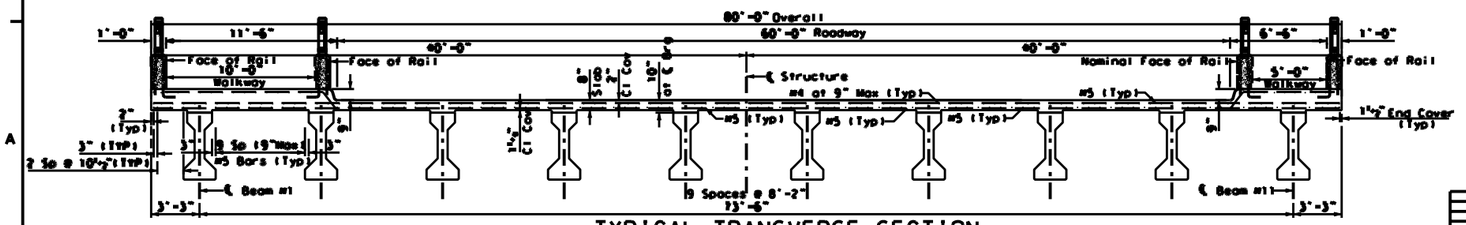
CADD FILE NAME: plan.dgn

CONTR. NO.



NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED: "RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)" DRAWING IS NOT TO SCALE.



TYPICAL TRANSVERSE SECTION

GENERAL NOTES:

All reinforcing shall be Grade 60.
Concrete strength f'c = 4,000 psi.
Bar laps, where required, shall be as follows:
#4 = 1'-5"
#5 = 1'-9"

1"=4'

ENGINEERING DIVISION
CIVIL DESIGN BRANCH

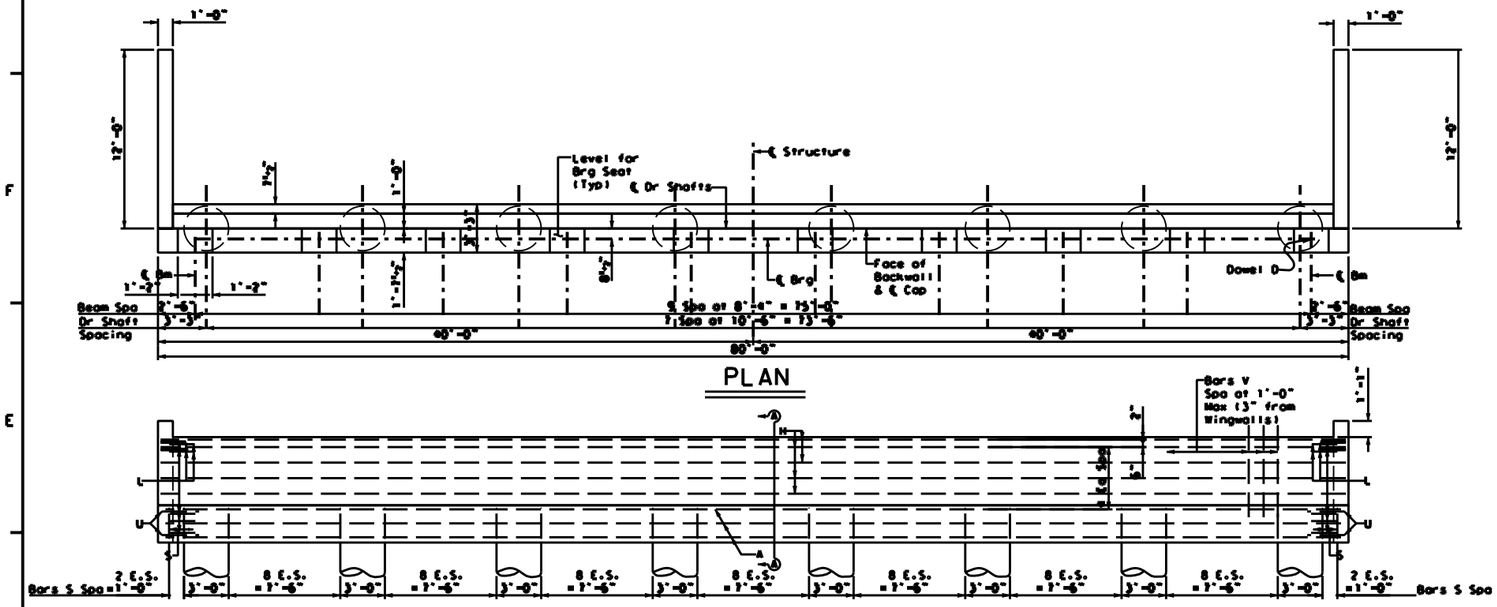
U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

TRINITY RIVER BASIN, TEXAS
RIVERSIDE OXBOW
FORT WORTH, TEXAS

BEACH STREET SLAB

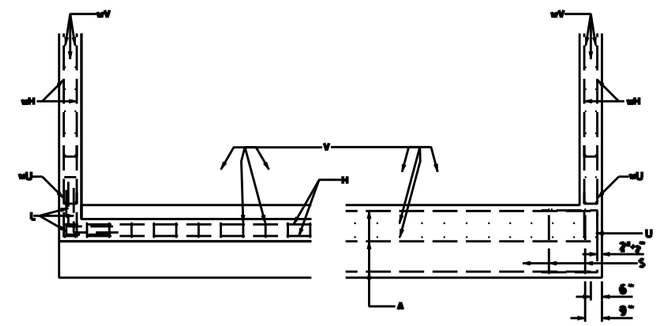
DESIGNED BY: M. LEE
DRAWN BY: M. LEE
CHECKED BY: M. SWANSON
SUBMITTED BY: WILLIAM A. WALLACE, P.E. CHIEF, STRUCTURAL SECTION

SOL. NO.
DATED:
CONTR. NO.
PLATE
DRAWING NUMBER: RS-03
SHEET NO.: 53 OF
CONTR. NO.
CADD FILE NAME: stab.dgn



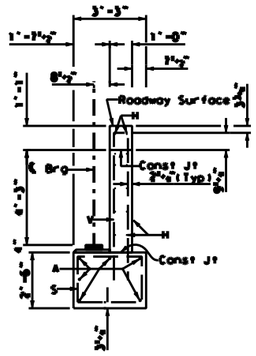
PLAN

ELEVATION

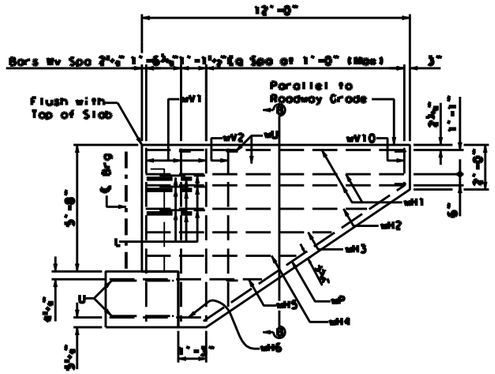


CORNER DETAILS

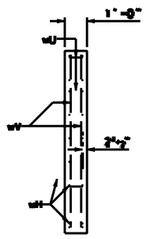
GENERAL NOTES:
Concrete strength f'c = 3,600 psi
All cap and wall reinforcing shall be Grade 60



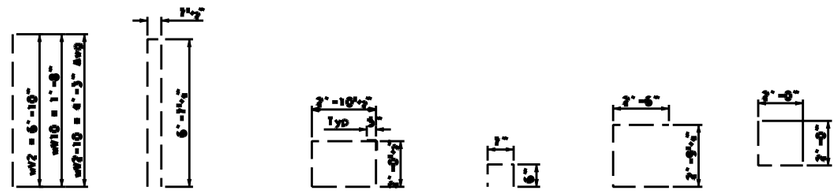
SECTION A-A



WINGWALL ELEVATION



SECTION B-B



NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED:
"RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)"
DRAWING IS NOT TO SCALE.

SCALE: 1" = 4'

ENGINEERING DIVISION
CIVIL DESIGN BRANCH

U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

TRINITY RIVER BASIN, TEXAS
RIVERSIDE OXBOW
FORT WORTH, TEXAS

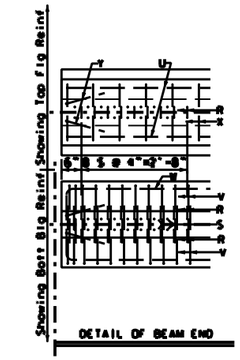
BEACH STREET
ABUTMENT

WILLIAM A. WALLACE, P.E.
CHIEF, STRUCTURAL SECTION

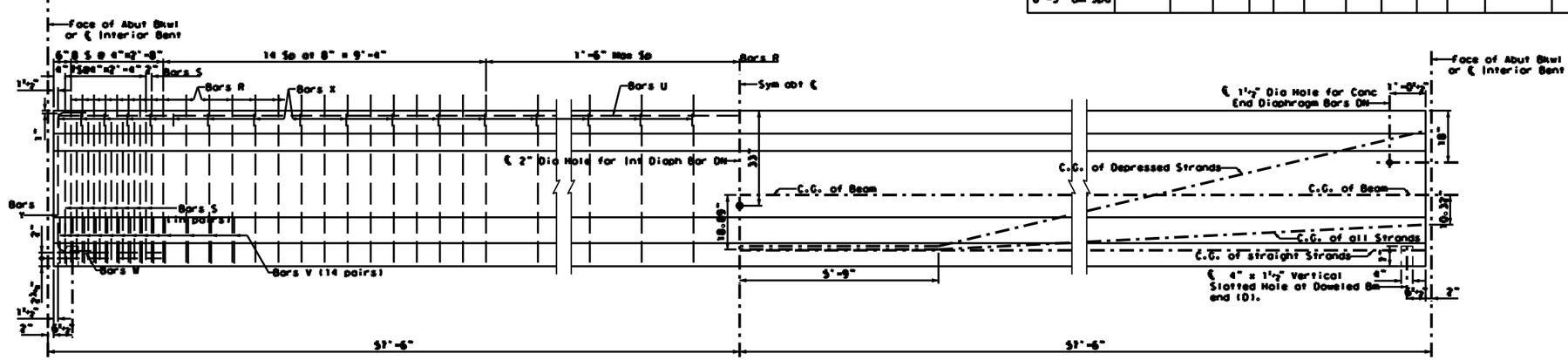
DRAWING NUMBER: RS-04
SHEET NO.: 54 OF

CADD FILE NAME: steel.dgn

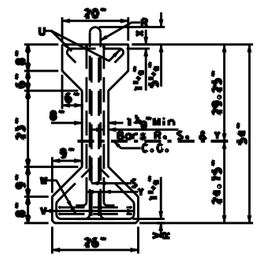
RS-04.dgn 10/29/2007 4:53:48 PM



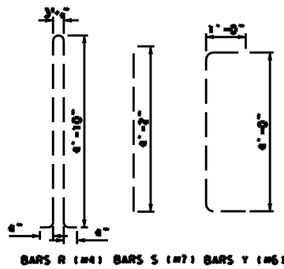
	SPAN LENGTH (ft)	BEAM TYPE		PRESTRESSING STRANDS							CONCRETE	
				TOTAL					DEPRESSED		RELEASE STRGTH f'ci (psi)	MINIMUM 28 DAY COMP STRGTH f'c (psi)
				NO.	SIZE (in)	STRGTH f's (ksi)	"e" ℄ (in)	"e" END (in)	NO.	TO (in)		
Type C Beams 60" Rdwy 8" Slab 8'-3" Bm Spc	115	IV		56	1/2	270K	18.89	10.32	12	52.0	6505	7065

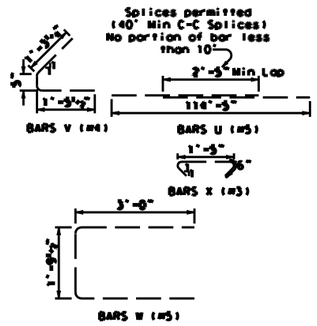


ELEVATION OF BEAM

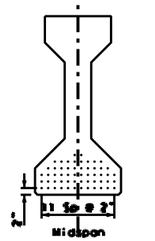


AREA 788.4 in²
I 260,403 in⁴
Wt 821 Lb./LF

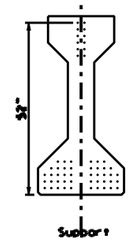




GENERAL NOTES:
Designed in accordance with current AASHTO Standard Specifications.
All concrete shall be Class H. All reinforcing bars shall be Grade 60.
Bottom corners of all beam flanges and outside corners of exterior beam ends shall be chamfered ¾" or rounded to a 1½" radius.
Prestress losses for the designed beam have been calculated for a relative humidity of 60 percent.
Strands for the designed beam shall be ½" 270 ksi low relaxation strands pretensioned to 31.0 k each.



TYPE IV BM



TYPE IV BM

NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED:
"RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)"
DRAWING IS NOT TO SCALE.

1" = 1½"

ENGINEERING DIVISION
CIVIL DESIGN BRANCH

U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

TRINITY RIVER BASIN, TEXAS
RIVERSIDE OXBOW
FORT WORTH, TEXAS

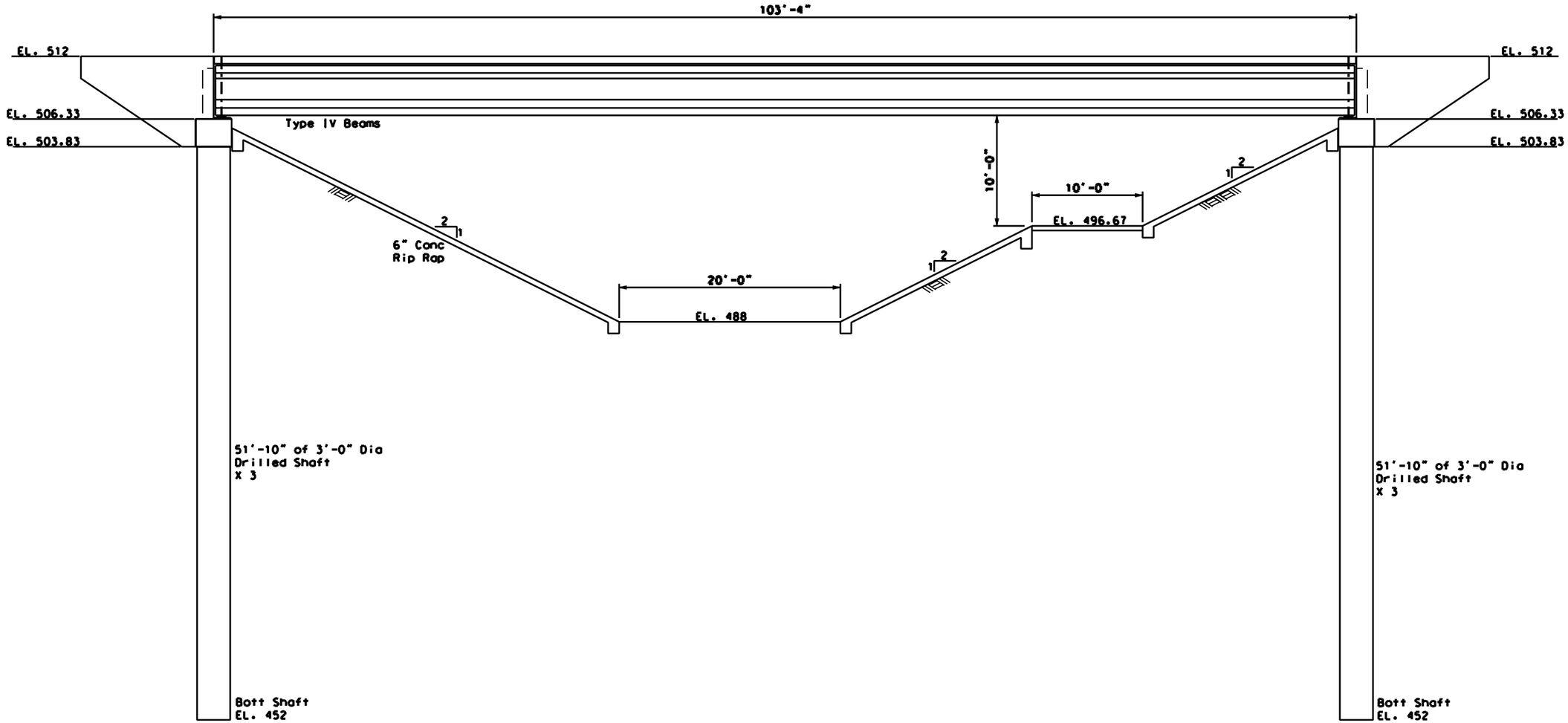
BEACH STREET
I-BEAM

WILLIAM A. WALLACE, P.E.
CHIEF, STRUCTURAL SECTION

DRAWING NUMBER RS-05
SHEET NO. 55 OF

CADD FILE NAME: beam.dgn

RS-05.dgn 10/29/2007 4:54:02 PM



NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED:
"RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)"
DRAWING IS NOT TO SCALE.

1" = 4'

ENGINEERING DIVISION
CIVIL DESIGN BRANCH

U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

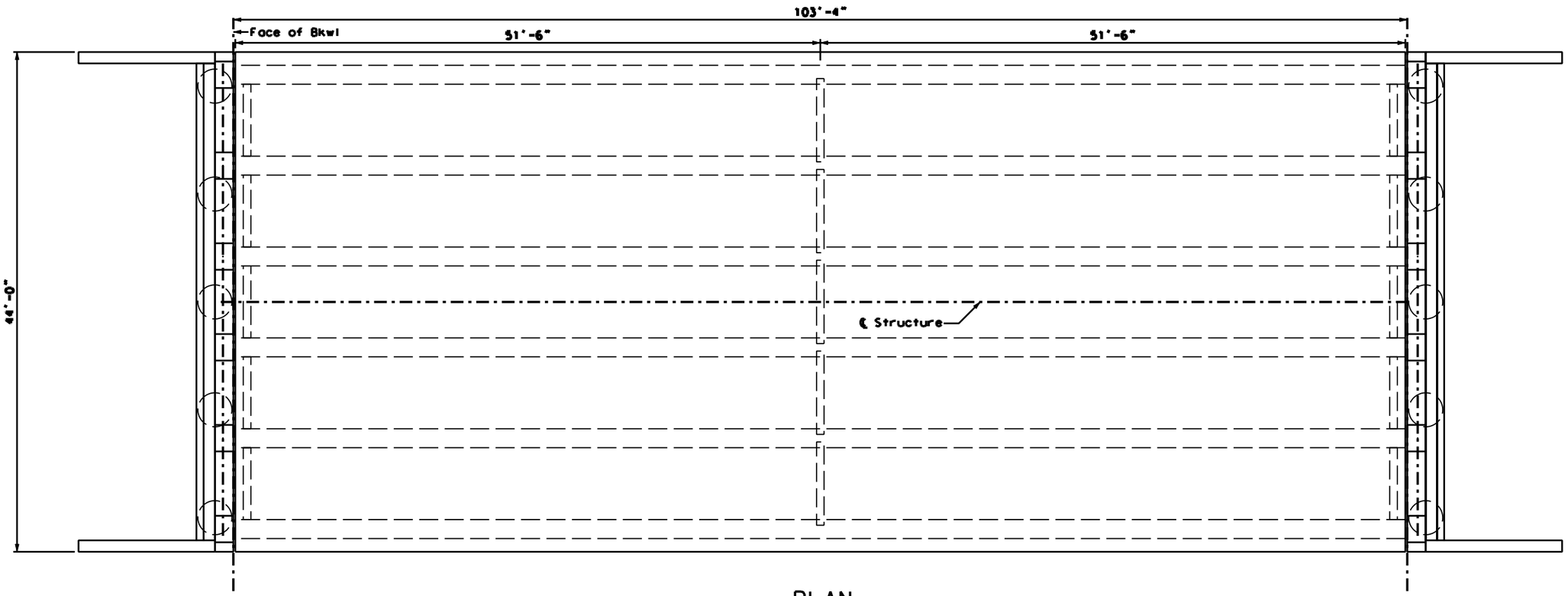
TRINITY RIVER BASIN, TEXAS
RIVERSIDE OXBOW
FORT WORTH, TEXAS

PARK ROAD
ELEVATION

WILLIAM A. WALLACE, P.E.
CHIEF, STRUCTURAL SECTION

DRAWING NUMBER: RS-06
SHEET NO.: 511 OF

RS-06.dgn 10/29/2007 4:54:13 PM



PLAN

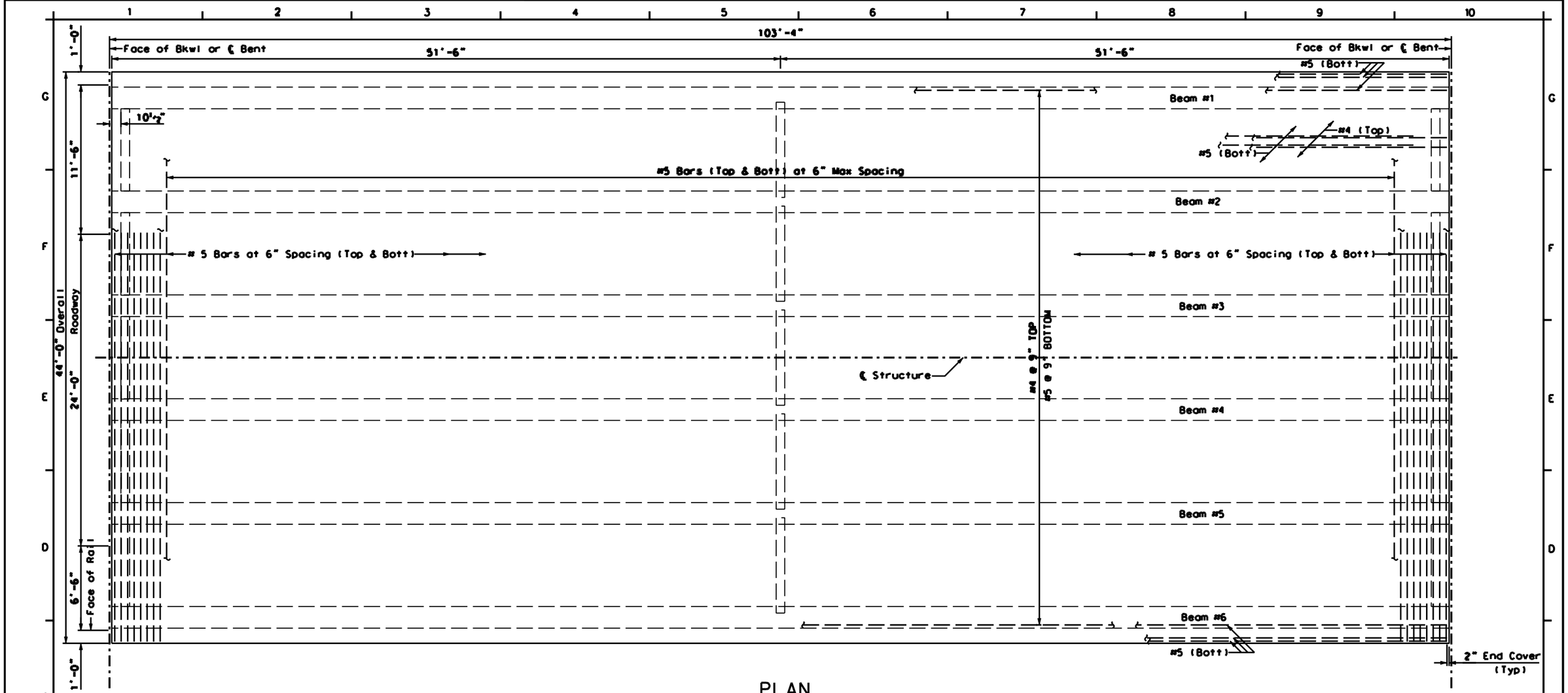
1" = 4'

NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED:
"RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)"
DRAWING IS NOT TO SCALE.

ENGINEERING DIVISION CIVIL DESIGN BRANCH		U.S. ARMY ENGINEER DISTRICT, FORT WORTH CORPS OF ENGINEERS FORT WORTH, TEXAS	
DESIGNED BY: M. LEE DRAWN BY: M. LEE RECOMMENDED BY: W. SWANSON	TRINITY RIVER BASIN, TEXAS RIVERSIDE OXBOW FORT WORTH, TEXAS PARK ROAD PLAN		
SUBMITTED BY: WILLIAM A. WALLACE, P.E. CHIEF, STRUCTURAL SECTION		SOL. NO. CONTR. NO. DRAWING NUMBER RS-07	DATED: SHEET NO. 512 OF PLATE

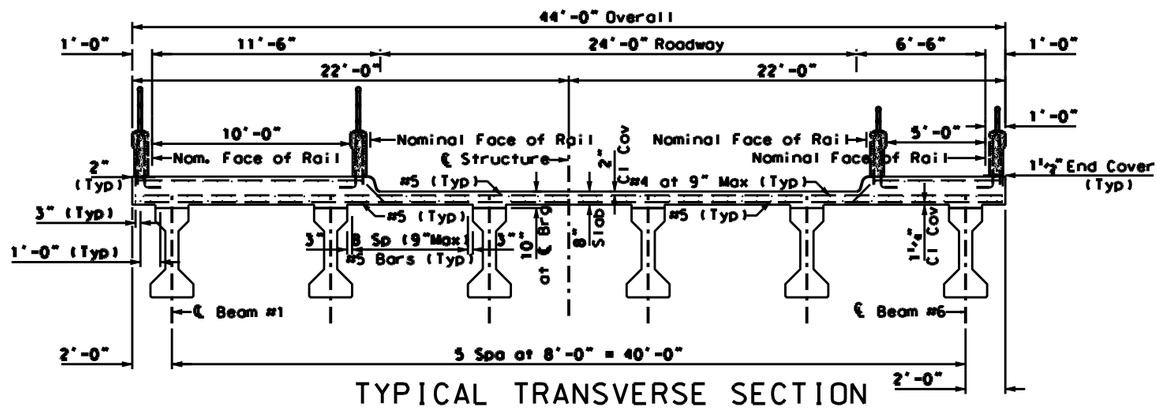
REFERENCE FILE NAME | REFERENCE FILE DESCRIPTION | CADD FILE NAME: plan.dgn



PLAN

NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED:
"RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)"
DRAWING IS NOT TO SCALE.



TYPICAL TRANSVERSE SECTION

GENERAL NOTES:

All reinforcing shall be Grade 60.
Concrete strength f'c = 4,000 psi.
Bar laps, where required, shall be as follows:
#4 = 1'-5"
#5 = 1'-9"

1" = 3'

ENGINEERING DIVISION
CIVIL DESIGN BRANCH

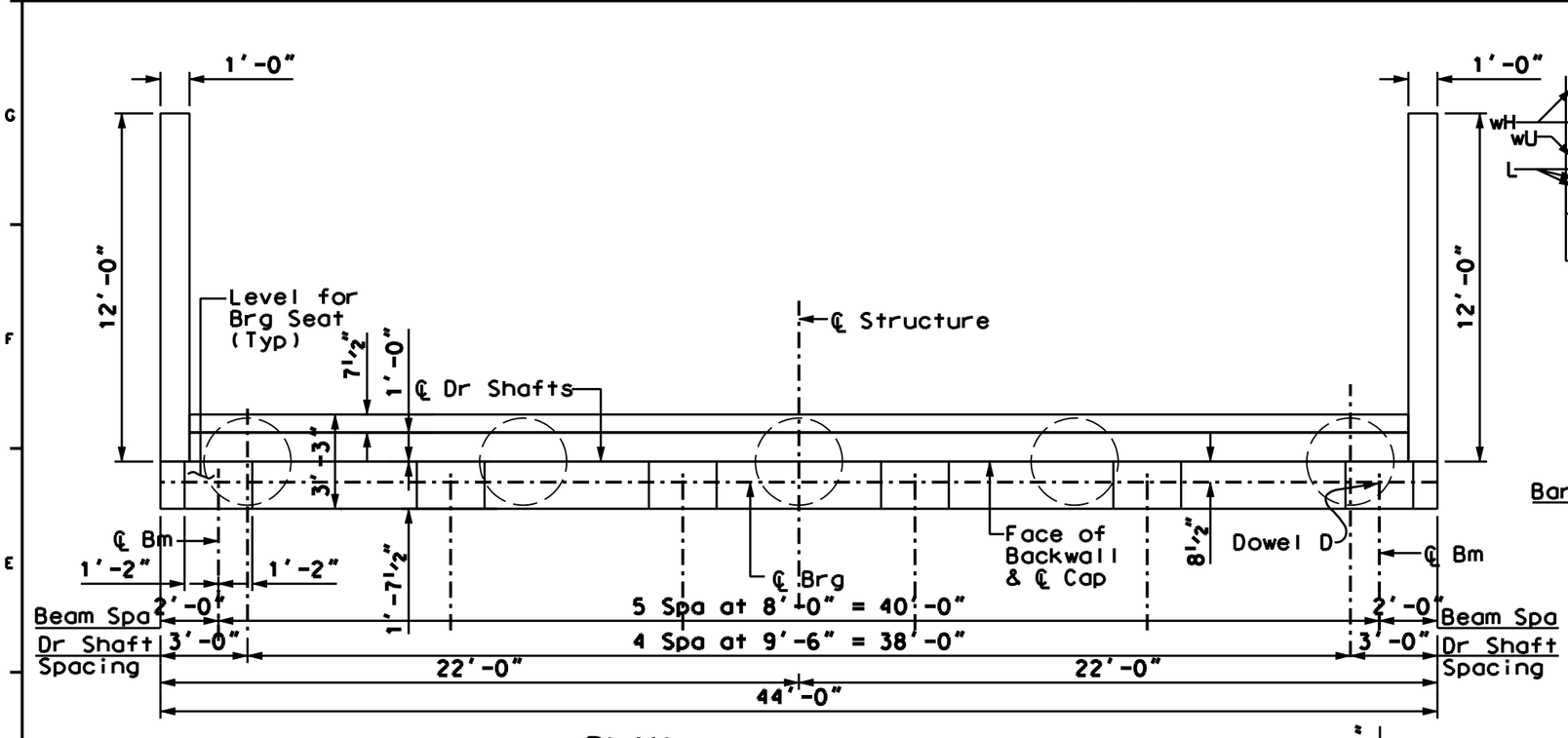
U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

TRINITY RIVER BASIN, TEXAS
RIVERSIDE OXBOW
FORT WORTH, TEXAS

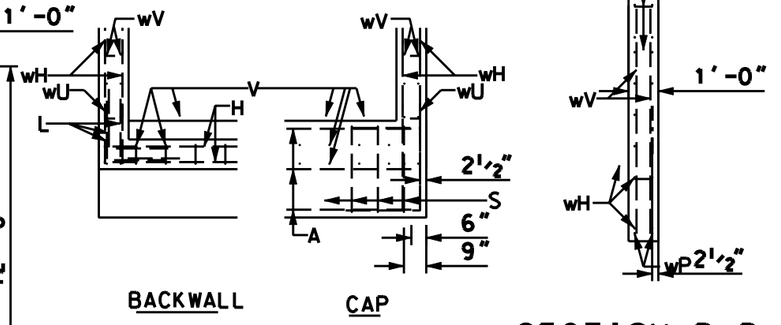
PARK ROAD
SLAB

WILLIAM A. WALLACE, P.E.
CHIEF, STRUCTURAL SECTION

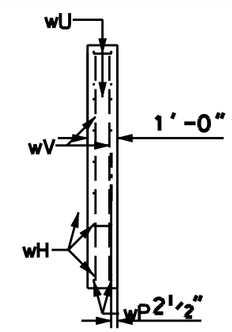
DRAWING NUMBER: RS-08
SHEET NO.: 313 of



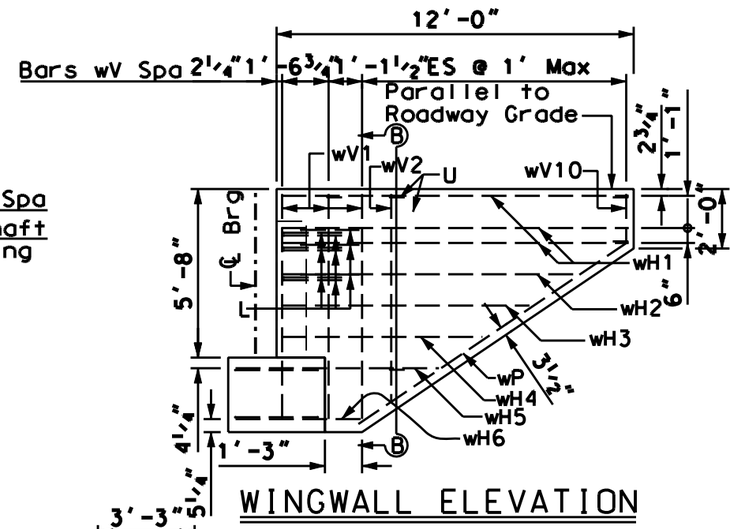
PLAN



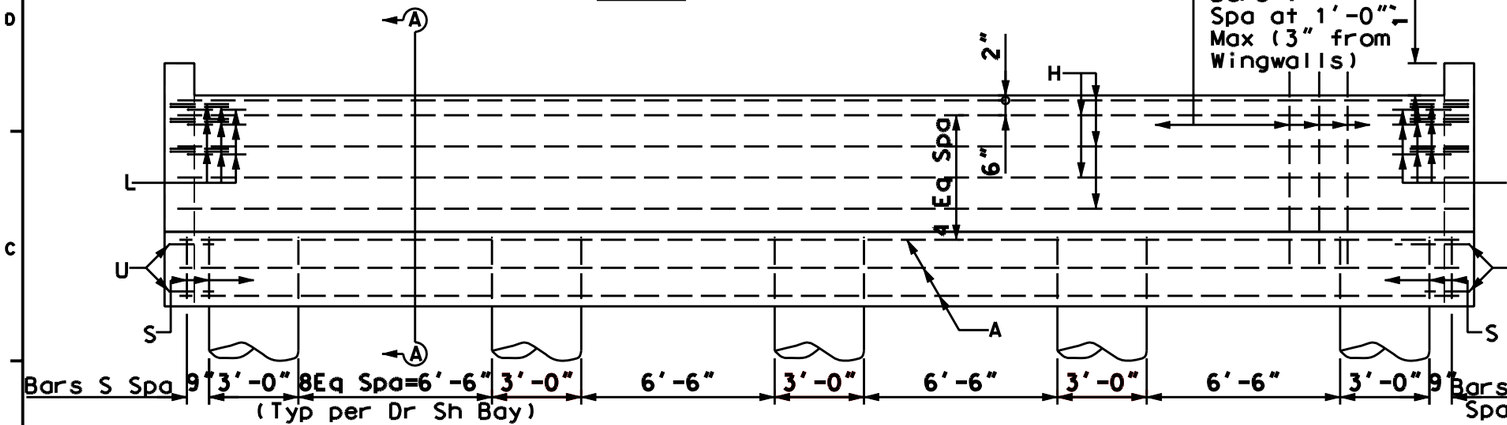
CORNER DETAILS



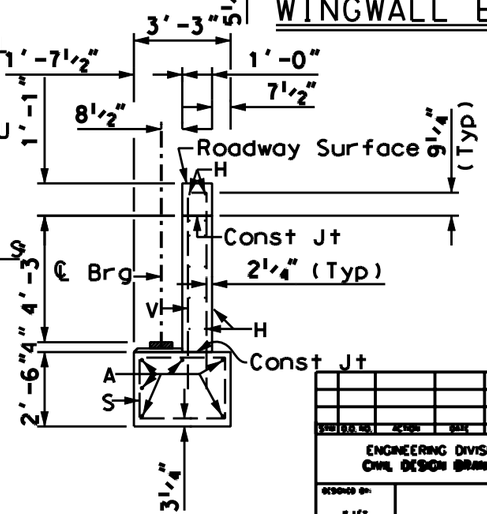
SECTION B-B



WINGWALL ELEVATION

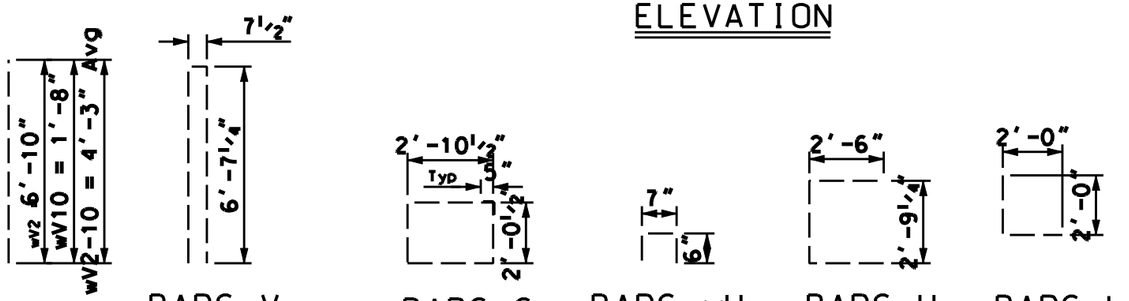


ELEVATION



SECTION A-A

1" = 2'



BARS V BARS S BARS wU BARS U BARS L

NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED:
"RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)"
DRAWING IS NOT TO SCALE.

ENGINEERING DIVISION
CIVIL DESIGN BRANCH

U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

DESIGNED BY: R. LEE
DRAWN BY: R. LEE
CHECKED BY: W. SHIRLEY

TRINITY RIVER BASIN, TEXAS
RIVERSIDE OXBOW
FORT WORTH, TEXAS

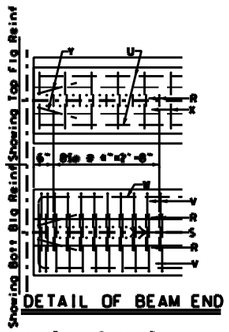
PARK ROAD
ABUTTMENT
LPP PLAN ONLY

SUBMITTED BY:
WILLIAM A. WALLACE, P.E.
CHIEF, STRUCTURAL SECTION

SOL. NO.
CONTR. NO.
DRAWING NUMBER RS-09
SHEET NO. 514 OF
PLATE
DATED:

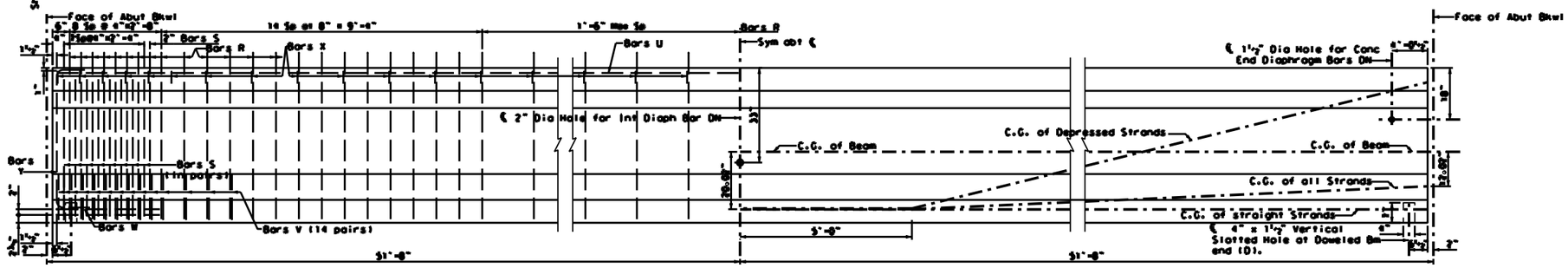
CADD FILE NAME: abut.dgn

RS-09.dgn 10/29/2007 4:54:47 PM

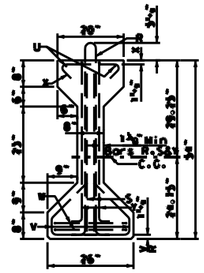


DETAIL OF BEAM END

	SPAN LENGTH (ft)	BEAM TYPE		PRESTRESSING STRANDS							CONCRETE	
				TOTAL					DEPRESSED		RELEASE STRGTH f'ci (psi)	MINIMUM 28 DAY COMP STRGTH f'c (psi)
				NO.	SIZE (in)	STRGTH f's (ksi)	"e" ℄ (in)	"e" END (in)	NO.	TO (in)		
Type IV Beams 30° Rdwy 8" Slab 8'-8" Bm Spa	102	IV		44	½	270K	20.02	12.02	8	52.0	5478	6218



ELEVATION OF BEAM

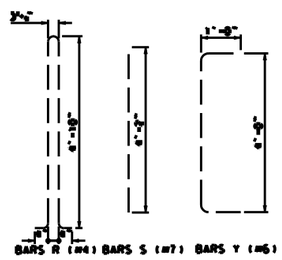


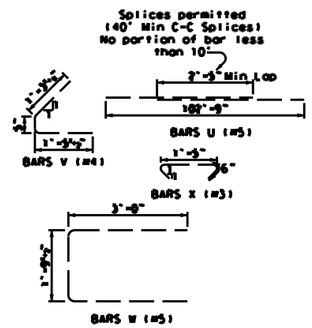
TYPE IV BEAM

AREA 788.4 in.²

I 260,403 in.⁴

Wt 821 LB./LF





GENERAL NOTES:

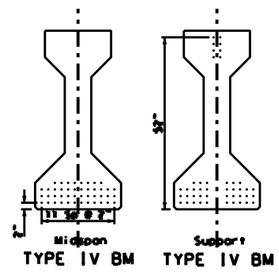
Designed in accordance with current AASHTO Standard Specifications.

All concrete shall be Class H. All reinforcing bars shall be Grade 60.

Bottom corners of all beam flanges and outside corners of exterior beam ends shall be chamfered ¾" or rounded to a 1½" radius.

Prestress losses for the designed beam have been calculated for a relative humidity of 60 percent.

Strands for the designed beam shall be ½" 270 ksi low relaxation strands pretensioned to 31.0 k each.



TYPE IV BM TYPE IV BM

NOTE:

REFERENCE DRAWING IS FROM THE REPORT ENTITLED:
"RIVERSIDE OXBOW, FROM THE INTERIM FEASIBILITY STUDY AND INTEGRATED ENVIRONMENTAL ASSESSMENT (APRIL 2005)"
DRAWING IS NOT TO SCALE.

1" = 1½"

REFERENCE FILE NAME	REFERENCE FILE DESCRIPTION

SYM	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION

ENGINEERING DIVISION
CIVIL DESIGN BRANCH

U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

DESIGNED BY: R. LEY
DRAWN BY: R. LEY
REVIEWED BY: W. SHANNON

TRINITY RIVER BASIN, TEXAS
RIVERSIDE OXBOW
FORT WORTH, TEXAS

PARK ROAD
I-BEAM

SUBMITTED BY:
WILLIAM A. WALLACE, P.E.
CHIEF, STRUCTURAL SECTION

SOL. NO. | DATED:
CONTR. NO. | PLATE
DRAWING NUMBER RS-10 | SHEET NO. 515 OF

CADD FILE NAME: beam.dgn

CONTR. NO.

RS-10.dgn 10/29/2007 4:54:59 PM