CEMVN-CD-NO-Q 16-Jun-03

MEMORANDUM THRU Area Engineer, NOAO
C/Const Div ATTN: Contract Admin Sec.

FOR C/Eng Div.

SUBJECT: Contract Number DACW29-99-C-0025, Lake Pontchartrain, Louisiana and Vicinity, High Level Plan, Orleans Avenue Outfall Canal Phase I-C, Filmore and Harrison Avenue Bridges, Orleans Parish, Louisiana.

1. The subject contract dated 11 Mar 99, was awarded to Angelo Iafrate Construction, L.L.C., PO Box 20136, New Orleans, LA 70141-0136. The Notice to Proceed was issued on 19 Mar 99, with construction to start no later than 29 Mar 99. The original completion date was set 12 Apr 00, with the original contract amount at $2,360,264.00.

2. The work consists of constructing two (2) slab span bridges; capping existing uncappped sheet piling; furnishing and driving prestressed concrete piles and floodwall steel sheet piling; constructing reinforced concrete I-walls; demolition of two (2) existing bridges (substructures and superstructures); modifying existing bridge approaches; structural excavation and backfill; fertilizing, seeding, mulching, and other incidental work.

3. The Preconstruction Conference was held at the New Orleans Area Office on 13 Apr 99. Detailed minutes of this meeting are located in the contract file. The Notice to Proceed was signed by the contractor on 19 Mar 99, and the contractor began mobilizing field offices to the site on 1 May 99. The contractor started setting up the safety fences and staging area fences on 8 Jun 99.

4. This contract provided for 20 major construction phases; (1) Pile test, (2) Clearing and grubing, (3) Demolition of two bridges and four approach slabs, (4) Driving 24" concrete piles, (5) Driving steel H-piles, (6) Driving steel sheet piles, (7) Excavation and backfill, (8) Substructure and superstructure concrete, (9) Construction of approach slabs, (10) Construction of curb, gutter, and sidewalks, (11) Construction of nine floodwall panels, (12) Installation of four floodgates, (13) Asphaltic concrete overlay, (14) Painting, (15) Temporary and permanent place of sewer force main (Harrison Avanue only), (16) Stone revetment, (17) Permanent pavement markings, (18) Fertilizing and seeding, (19) Electrical work, (20) Guard rail (Filmore Avenue only).

5. This project was performed in seven separate phases of work. The project phases are summarized as follows; Phase I - Test piles and bridge closure. Phase II – Demolition of existing bridges. Phase III – Driving of permanent piles and construct new bridge at Filmore Avenue. Phase IV – Driving of permanent piles and construction of new bridge at Harrison Avenue. Phase V – Completion of Filmore

bridge and opening of roadway. Phase VI – Completion of Harrison Bridge and opening of roadway. Phase VII – General cleanup and completion of project. Both bridges were supposed to open together but the Filmore Bridge and roadway was completed and opened earlier than required.

6. The contractor started the major phases of work on 19 May 99, by jetting and driving of 24" concrete pile (TP-1) at Harrison Avenue and finished driving support piles by 27 May 99. Began driving 24" concrete pile (TP-2) at Filmore Avenue on 2 Jun 99, and finished driving 20" support piles on 4 Jun 99. Began driving H-pile (TP-3) on 4 Jun 99, and finished driving support piles on 22 Jun 99. Compression test for TP-1 was began on 17 Jun 99, and test load failed on 19 Jun 99, at 250% of required load. Compression test for concrete pile (TP-2) was began on 23 Jun 99, and the test load failed on 25 Jun 99, at 270% of required load. Compression test for H-pile (TP-3) was began on 29 Jun 99, and test load failed on 1 Jul 99, at 250% of required load. At Filmore Avenue, the H-pile was pulled from the ground and the concrete pile was broken off at a minus 10 feet and backfilled. The test pile at Harrison Avenue was broken off at a minus 15 feet and crushed into small pieces and steel cut off at required depth and area backfilled.

7. Bridge closure occurred on 26 Jul 99, at 8:30 a.m. The contractor began demolition of Filmore Avenue bridge on 27 Jul 99. The contractor drove false work (1 false bent between the existing bents) for the bridge to facilitate the driving of the new concrete piles. The sequence for the demolition of both bridges was the west abutment was demolished and all existing piles and debris was removed from the abutment area. The contractor then removed each section of existing bridge to each station that a new bent of pile was to be driven. After driving the 24" concrete pile for the new bent, the contractor would remove the existing bridge to next station where the new bent of piles was to be driven. Each bridge was demolished in six phases starting with the west abutment and ending with the east abutment with four sections of bridge to be removed. A track backhoe with hydraulic concrete beaker was used to demolish the roadway and a steel caddie was hung under the existing bridge to catch the falling debris. The LS338 linkbelt crane then hoisted the broken out sections of bridge and placed in staging yard to be broken down and hauled to Kenner yard. Filmore Avenue Bridge was completely demolished on 3 Dec 99.

8. The Harrison Avenue Bridge demolition was begun on 28 Sep 99, and was finished on 15 Dec 99. The bridge had to be shored up with false work similar to the Filmore Avenue Bridge. The existing bridge was investigated and the contractor determined that additional false work must be installed in order to safely support the crane on the bridge for the demolition process. An additional seven false bents were constructed to accommodate the weight of the LS338 Linkbelt crane. During the demolition of the Harrison Avenue Bridge, the contractor had to mobilize the crane back to Filmore Avenue, to pull existing west abutment piles and drive the new H-piles and sheet piles.

9. The contractor began driving the 24" concrete piles for bents at Filmore Avenue on 3 Aug 99. Twenty-one 24" concrete piles of 92' were driven to grade using the LS338

linkbelt crane and ICE model 160 impact hammer. Three bents of seven piles each, with the two end piles on a batter were driven. Contractor used a fabricated template to assure that piles were in alignment and plumb. The contractor completed driving the 24" concrete piles for Filmore Avenue on 26 Aug 99.

10. The contractor began driving the 24" concrete piles for bents at Harrison Avenue on 11 Nov 99. Eighteen 24" concrete piles of 80' were driven to grade using the LS338 Linkbelt crane and ICE model 160 impact hammer. Three bents of six piles each, with the two end piles on a batter were driven. Contractor used a fabricated template to assure that piles were in alignment and plumb. The contractor completed driving the 24" concrete piles for Harrison Avenue on 23 Nov 99.

11. All piles were jetted down to an elevation of –43.00 feet by use of a jet placed inside the 12" void cast inside the 24" concrete pile. Piles were driven to a tip elevation of –87.00 feet at Filmore Avenue and a tip elevation of –78.50 feet at Harrison Avenue. Piles were driven to grade without coming close to maximum required blow counts at either bridge. All concrete piles were cast by Gulf Coast Prestress, Inc. in Pass Christian, MS. The driving operations were monitored by City Wide testing laboratories. At no time did the vibrations exceed the maximum allowed by the contract.

12. The H-piles were driven at the four abutments with the LS338 Linkbelt crane, the Vulcan 06 Air hammer, and a fabricated template. The 92' H-piles at Filmore Avenue, 14 in all, began driving on 31 Oct 99, and finished driving on 9 Dec 99. The 80' H-piles at Harrison Avenue, fourteen in all, began driving on 29 Oct 99, and finished driving on 22 Dec 99. All piles were driven to grade to an elevation of –89.00 feet at Filmore Avenue and an elevation of –78.50 feet at Harrison Avenue.

13. The steel sheet piling was driven on both sides of the canal, continuous from one existing floodwall thru the abutments, to the other existing floodwall. The contractor used Skyline Steel type CZ-114 cold rolled sheetpile for the floodwalls and SPZ-22 sheetpile in the abutments. All sheet piles were driven using the LS338 Linkbelt crane and ICE model 416 vibratory hammer and used a steel I-beam template for maintaining alignment.

14. Contractor began placement of Class "A" concrete (3800psi-substructure concrete) on 4 Oct 99, at Filmore Avenue. All bridge bent caps, abutments, approach slabs were included in substructure concrete. At Filmore Avenue, contractor finished the bent caps and abutments on 15 Dec 99, and finished the approach slabs on 11 Feb 00. The contractor began bent cap work at Harrison Avenue on 5 Jan 00, and finished bent cap and abutment work on 1 Feb 00, and finished the approach slabs on 30 Mar 00. All work was cast-in-place concrete using wood placed as indicated in the contract drawings. A 6" three bulb (Vinylex Corporation) was placed in each abutment and expansion material was located and placed as shown in drawings on each bent cap.

15. Contractor began placement of Class "AA" concrete (4200 psi-superstructure concrete) on 5 Nov 99, at Filmore Avenue with deck slab #4. All bridge deck slabs,

headwalls and barrier railing was superstructure concrete or Class "AA" concrete (4200psi). At Filmore Avenue, the contractor finished deck slabs on 23 Dec 99 and began headwalls on 8 Dec 99, and finished placing the headwalls at Filmore Avenue on 15 Feb 00. Barrier railing was placed using a slip form for the bridge roadway at Filmore Avenue, on 24 Feb 00. The superstructure concrete began at Harrison Avenue on 31 Jan 00. The deck slabs were completed on 25 Feb 00. The contractor began headwalls on 14 Mar 00, and finished on 21 Mar 00. Barrier railing at Harrison Avenue, was placed using a slip form for the bridge roadway on 24 Mar 00.

16. Contractor began placement of floodwall concrete (300psi) on 3 Dec 99, with monolith #9 at Filmore northeast of roadway. Finished placing floodwalls at Filmore Avenue on 24 Jan 00. A total of four floodwall monoliths at Filmore Avenue, with floodgates installed in monoliths #8 and #9 located on east side of Orleans canal. Monolith #6 on the west side of Orleans Canal had a "Dancers" mural placed in the center of the monolith. At Harrison Avenue, contractor began placement of floodwall concrete on 25 Feb 00, and finished on 6 Apr 00. A total of five floodwall monoliths at Harrison Avenue, with floodgates installed in monoliths #3 and #4 located on the east side of Orleans Canal. Monoliths #1 and #2 on the west side of Orleans Canal had a "Runners" mural placed in the center of the monolith. All floodgates were hung and locked and inspected by a representative of Orleans Levee Board and Corp. of Engineers. Floodgates were manufactured by Metfab and hung by the contractor.

17. The asphaltic concrete pavement was placed by the contractor with Filmore Avenue work being completed on 28 Feb 00, and Harrison Avenue being completed on 11 Apr 00 (one day operations at each bridge). The limits of new asphalt at Filmore Avenue were 50 feet on the west approach and from the bolster block to Marconi Avenue on the east approach. Contract was modified for the east approach at Filmore Avenue by extending the asphalt from just 50 feet to include all of the east approach from Marconi Avenue. At Harrison Avenue the limits of new asphalt were 81.5 feet on the west approach and 88.5 feet on the east approach. The asphalt consisted of a 1 ½" minimum thickness of asphalt overlay on all parts of roadway.

18. The contractor performed the painting of all concrete headwalls, floodwalls, barrier railings, and bridge decks. All the walls were painted on both the protected and flood sides of both bridges. All structures were first painted with one coat of tamoseal cemetitious paint to seal and waterproof the structures and then the structures received two coats of tamosheen paint. All structures were painted with a sand color paint to match existing floodwalls.

19. The fertilizing and seeding was performed by Baton Rouge Turf on 8 Apr 00, for the east staging yard at Filmore Avenue. The subcontractor then returned on 21 Apr 00, to complete the job at the west staging yard at Filmore and both areas of staging yards at Harrison Avenue. The subcontractor harrowed the area first and then applied the fertilizer and seed mix.

20. Subcontractors performing work on this project, along with their contract responsibilities were as follows:

a. Ax Reinforcement Co., 2148 Grape Place, Terrytown, LA 70056.
Installation of all reinforcement steel for all structures.

b. Work Zone, Inc. P.O. Box 1630, Harvey, LA 70059.
Installation maintenance, and removal of all traffic detour signs, barrels, lights for barrels, and all arrow boards. Installation of guard railing a Filmore Avenue west approach.

c. Walter J. Barnes Electric Co., Inc. 432 Dakin, Jefferson, LA
Installation of all electrical conduit and wiring for bridge lights. Installation of 12 light posts and connecting electricity from existing power poles.

d. Pavement Markings Inc., Mandeville, LA
Installed permanent pavement markings for both bridges and roadways.

e. LaPorte plumbing and Heating Inc., 452 Iris Avenue, Jefferson, LA
Installed and tested permanent sewer force main at Harrison Avenue.

f. Baton Rouge Turf, Baton Rouge, LA
Placed the fertilizer and see for all of job site.

21. The following is a list of major suppliers on the subject contract:
    a. Concrete – Carlo Ditta, Inc., New Orleans, LA
    b. 24" Concrete Piles – Gulf Coast Prestress, Inc. Pass Christian, MS
    c. Paint/Filter Fabric/Waterstops/Grout/Etc. – Building Specialties, Inc., New Orleans, LA
    d. Gates and Misc. Metalwork – Metfab, Inc. New Orleans, LA
    e. Steel Sheetpiles and H-piles – Skyline Steel, Metairie, LA
    f. Reinforcing Steel – Capitol Steel, Inc. Slidell, LA
    g. Density test/Asphalt CoresAsphalt Plant QC/Concrete Cylinders – PSI Testing, Inc., New Orleans, LA Alpha Testing, Inc. New Orleans, LA
    h. Compression Seals/Bearing Pads – D.S. Brown, Roswel, GA
    i. Strip Seal Joints – L.B. Foster Co., Slidell, LA
    j. Miscellaneous Equipment – United Rentals, St. Rose, LA
    k. Painting and Sandblasting – Mesmers Paint – Westwego, LA
    l. Lumber – Kellet Lumber Co., Kenner, LA
    m. Stone Rip Rap – Construction Aggregates, Inc., New Orleans, LA
    n. Electrical Supplies and Lights-Nu-Light Electrical Wholesalers, Inc., Harahan, LA
    o. Waterstop – Vinylex Co, Knoxville, TN
    p. Vibrating and Impact Hammers – ICE International Equipment, Inc., Matthews, NC
    q. Form Coating and Curing Compound – Unitex, Kansas City, MO

1. Included herewith is a comparison of contract quantities versus actual quantities. A copy of the "As Built" drawings are also included.

Item No	Description	Qty & Item	Unit Price	Est. Amount	Act. Qty.	Earnings To-Date
	HARRISON AVENUE BRIDGE					
0001	Mob & Demob	L.S.	L.S.	$100,000.00	100%	$100,000.00
0002	Furnish and Maintain Traffic Signs	L.S.	L.S.	$13,000.00	100%	$13,000.00
0003	Selective Demolition	L.S.	L.S.	$75,000.00	100%	$75,000.00
0004	Clearing and Grubbing	L.S.	L.S.	$3,500.00	100%	$3,500.00
0005	Stone Revetment	96 CY	$180.00	$17,280.00	103.50 CY	$18,630.00
0006	Furnish and Deliver HP14x73 Piles	1,120.0 LF	$24.00	$26,880.00	1,120.0 LF	$26,880.00
0007	Driving HP14x73 Piles	1,120.0 LF	$6.00	$6,720.00	1,120.0 LF	$6,720.00
0008	Furnish and Drive Test Piles	1 EA	$15,000.00	$15,000.00	1 EA	$15,000.00
0009	Pile Load Tests	1 EA	$15,000.00	$15,000.00	1 EA	$15,000.00
0010	Furnish and Deliver 24-inch Prestressed Concrete Piles (A00003)	1,472 LF	$25.25	$37,168.00	1,481.6 LF	$37,410.40
0011	Driving 24-Inch Prstressed Concrete Piles (A00002)	1,472 LF	$46.41	$68,315.52	1,481.6 LF	$68,761.06
0012	Piling Steel Sheet, Type CZ101	1,645 SF	$15.00	$24,675.00	1,581.6 SF	$23,724.00
0013	Piling, Steel Sheet, Type CZ114	2,438 SF	$17.00	$41,446.00	2,135.4 SF	$36,301.80
0014	4-Inch Thick Sidewalk Pavement	209 SY	$33.00	$6,897.00	212.6 SY	$7,015.80
0015	Asphaltic Concrete Pavement	75 TON	$125.00	$9,375.00	110.20 TON	$13,775.00
0016	8" Thick Portland Cement Concrete Pavement	146 SY	$200.00	$29,200.00	112 SY	$22,400.00
0017	Concrete Curb	334 LF	$16.00	$5,344.00	337 LF	$5,392.00
0018	Temporary Sewer Force Main	225 LF	$135.00	$30,375.00	248 LF	$33,480.00
0019	Permanent Sewer Force Main	215 LF	$74.00	$15,910.00	231 LF	$17,094.00
0020	Utility Adjustments (A00005)	L.S.	L.S.	$75.57	100%	$75.57
0021	Permanent Signing and Striping	L.S.	L.S.	$2,000.00	100%	$2,000.00
0022	Fertilizing and Seeding	L.S.	L.S.	$1,500.00	100%	$1,500.00
0023	Substructure Concrete	L.S.	L.S.	$110,000.00	100%	$110,000.00
0024	Superstructure Concrete	L.S.	L.S.	$308,000.00	100%	$308,000.00
0025	Floodwall Concrete	L.S.	L.S.	$99,000.00	100%	$99,000.00
0026	Floodwall Gates	L.S.	L.S.	$25,000.00	100%	$25,000.00
0027	Electrical Work	L.S.	L.S.	$24,000.00	100%	$24,000.00

	FILMORE AVE BRIDGE					
0028	Mob & Demob	L.S.	L.S.	$100,000.00	100%	$100,000.00
0029	Furnish and Maintain Traffic Signs	L.S.	L.S.	$14,000.00	100%	$14,000.00
0030	Selective Demolition	L.S.	L.S.	$75,000.00	100%	$75,000.00
0031	Clearing and Grubbing	L.S.	L.S.	$3,500.00	100%	$3,500.00
0032	Stone Revetment	96 CY	$180.00	$17,280.00	125.3 CY	$22,554.00
0033	Furnish and Deliver HP14x73 Piles	1,302.0 LF	$24.00	$31,248.00	1,293.8 LF	$31,051.20
0034	Driving HP14x73 Piles	1,302.0 LF	$6.00	$7,812.00	1,293.8 LF	$7,762.80
0035	Furnish and Drive Test Piles (A00001, A00009)	2 EA	$11,757.34	$23,514.68	2 EA	$23,514.68
0036	Pile Load Tests	2 EA	$15,000.00	$30,000.00	2 EA	$30,000.00
0037	Furnish and Deliver 24-inch Prestressed Concrete Piles	1,920 LF	$38.00	$72,960.00	1,912.7 LF	$72,682.60
0038	Driving 24-Inch Prstressed Concrete Piles (A00002)	1,920 LF	$46.41	$89,107.20	1,912.7 LF	$88,768.41
0039	Piling Steel Sheet, Type CZ101	1,124 SF	$15.00	$16,860.00	1,280.6 SF	$19,209.00
0040	Piling, Steel Sheet, Type CZ114	2,058 SF	$19.00	$39,102.00	1,576.5 SF	$29,953.50
0041	Guard Rail	L.S.	L.S.	$19,000.00	100%	$19,000.00
0042	4-Inch Thick Sidewalk Pavement	118 SY	$48.00	$5,664.00	118.9 SY	$5,707.20
0043	Asphaltic Concrete Pavement	30 TON	$200.00	$6,000.00	70.7 TON	$14,140.00
0044	8" Thick Portland Cement Concrete Pavement	66 SY	$150.00	$9,900.00	52.5 SY	$7,875.00
0045	Concrete Curb	200 LF	$18.00	$3,600.00	193.8 LF	$3,488.40
0046	Utility Adjustments	L.S.	L.S.	$1,000.00	100%	$1,000.00
0047	Permanent Signing and Striping	L.S.	L.S.	$2,000.00	100%	$2,000.00
0048	Fertilizing and Seeding	L.S.	L.S.	$1,500.00	100%	$1,500.00
0049	Substructure Concrete	L.S.	L.S.	$120,000.00	100%	$120,000.00
0050	Superstructure Concrete	L.S.	L.S.	$375,000.00	100%	$375,000.00
0051	Floodwall Concrete	L.S.	L.S.	$93,000.00	100%	$93,000.00
0052	Floodwall Gates	L.S.	L.S.	$30,000.00	100%	$30,000.00
0053	Electrical Work	L.S.	L.S.	$24,200.00	100%	$24,200.00
0054	VECP to Allow Jetting of 24-inch Prestressed Concrete Piles (A00002)	L.S.	L.S.	$6,694.03	100%	$6,694.03
0055	VECP to Deliver Concrete Piles as Needed (A00003)	L.S.	L.S.	$10,322.40	100%	$10,322.40
0056	Additional Asphaltic Paving on Filmore Avenue (A00007)	30 TON	$162.50	$4,875.00	35.4 TON	$5,752.50

2. The modifications to the contract and a summary of each follows:

P00001 (CAN-01) – dated 31 March 99, adds omitted amendment 0002 pages to the contract.

P00002 (CAN-02) – dated 28 April 99, Incorporated the EFT clause to the contract.

P00003 (CAN-03) – dated 15 July 99,Included additional classifications and wage rates.

P00004 (FM-001) - dated 29 October 99, provides for additional funds available for payment for work performed under this contract, in the amount of $1,951,030.65.

P00005 (CAN-04) – dated 3 November 99, corrects P00004 contract value and obligation total.

P00006 (FM-002) – dated 18 November 99, provides for additional funds available for payment for work performed under this contract, in the amount of $395,075.57.

P00007 (FM-003) – dated 23 March 99, provides for additional funds available for payment for work performed under this contract for modifications and variations in estimated quantities, in the amount of $26,658.44.

A00001 (CIN-02) – dated 13 May 99, modified the contract to allow the use of steel H-piles that conform to ASTM-A-709 for the test piles only. This modification decreased Item No. 0035 and the contract price by $303.50. The contract time remained unchanged.

A00002 (CIN 01 & CIN-03) – dated 18 May 99, modified the contract to allow for jetting of the concrete piles (CIN-01, VECP) and changes the test pile to receive the 42 inch casing from TP-1 to TP-2 (CIN-03). This modification decreased Item No. 0011 by $5,284.48, decreased Item No. 0038 by $6,892.80, and created Item No. 0054 in the amount of $6,694.03 and decreased the contract price by $5,483.25. The contract time remained unchanged.

A00003 (CIN-04) - dated 15 July 99, VECP for the contractor to have the concrete piles delivered on an as needed basis in lieu of stockpiling at the jobsite. This modification decreased Item No. 0010 by $18,768.00 and created Item No. 0055 in the amount of $10,322.40 and decreased the contract price by $8,445.60. The contract time remained unchanged.

A00004 (CIN-06) - dated 22 September 99, modified the contract to lower the design grade for the riprap. This modification was performed at no cost to the Government The contract time remained unchanged.

A00005 (CIN-05) – dated 29 September 99, modified the contract to delete the two inch diameter gas line under the Harrison Ave Bridge. This modification decreased Item No. 0020 and the contract price by $924.43. The contract time remained unchanged.

A00006 (TE-001) – dated 5 January 00, increases the contract time by five (5) calendar days due to unusually severe weather and high canal stages during the period from 20 March 99 through 31 Dec 99.

A00007 (CIN-08) – dated 27 January 00, modified the contract to extend the street paving on Filmore. This modification added Item No. 0056 and increased the contract price by $4,875.00. The contract time remained unchanged.

A00008 (CIN-10) – dated 21 March 00, modified the contract to accept the work in four phases. This modification was performed at no cost to the Government. The contract time remained unchanged.

A00009 (CIN-08) – dated 15 March 00, modified the contract to delete the removal of the concrete test piles. This modification decreased Item No. 0035 and the contract price by $6,181.82. The contract time remained unchanged.

A00010 (TE-002) – dated 6 April 00, increases the contract time by five (6) calendar days due to unusually severe weather and high canal stages during the period from 1 January 00 through 31 March 00.

(CIN 11) – modified the contract to add handrails to the end of the sidewalks on both sides on the west side.

3. The contractor submitted and enforced an Accident Prevention Program. The contractor performed daily safety inspections and weekly toolbox safety meetings. Monthly manager's safety meetings were also held.

4. The contractor was efficient, professional and cooperative in the performance of the contract work, and Quality Control activities were performed throughout the life of the project. All noted deficiencies were corrected.

5. The contract was given Substantial Completion on 17 April 2000.

Mike Steagall
Quality Assurance Representative

PLANS FOR

LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
HIGH LEVEL PLAN
ORLEANS PARISH, LA.

FILMORE AND HARRISON AVE. BRIDGES
ORLEANS AVENUE OUTFALL CANAL
PHASE I-C

1998

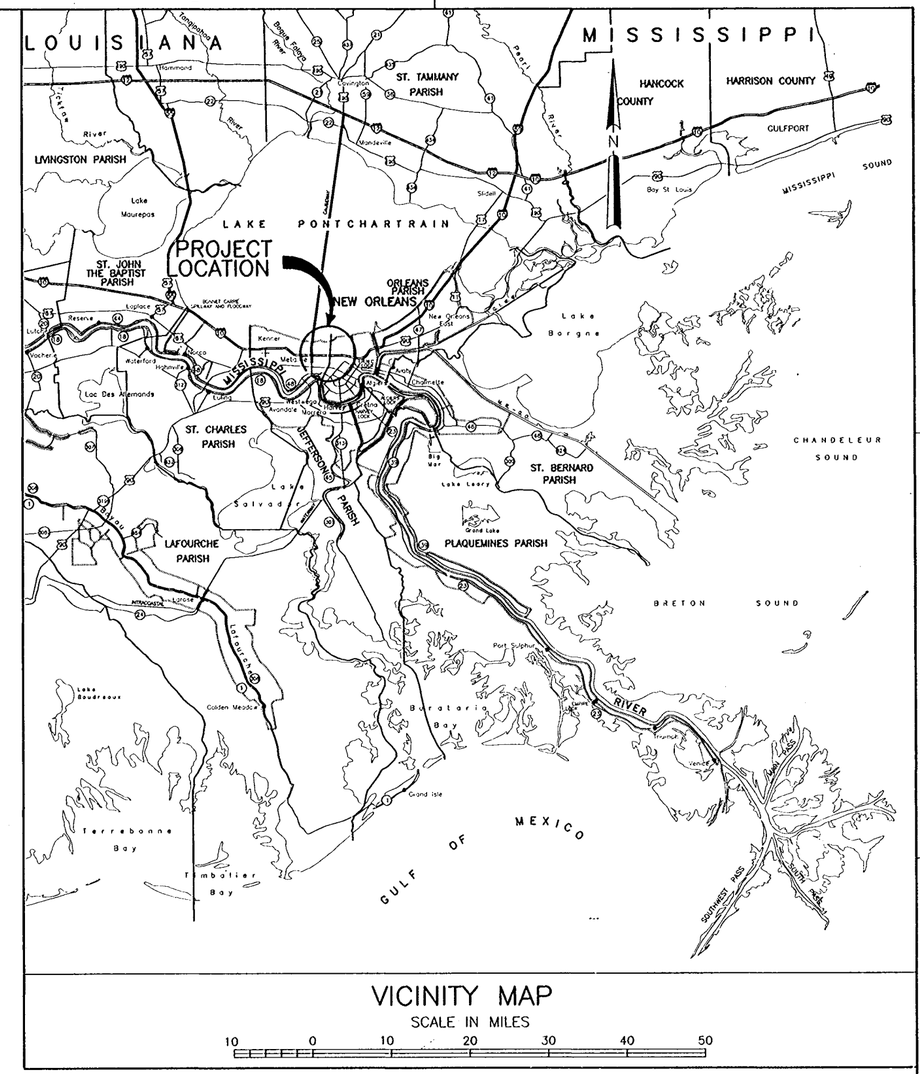
DRAWINGS IN THIS FOLIO
HAVE BEEN REDUCED ONE
HALF THE ORIGINAL SCALE

US Army Corps
of Engineers
New Orleans District

DACW29-99-C-0025

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

Safety is a Part of Your Contract



TABULATION OF BENCH MARKS

DESIGNATION	DESCRIPTION	ELEVATION
CHRYSLER RM 1983 EPOCH	LOCATED IN TOP OF CONCRETE SEAWALL IN NORTHWEST CORNER OF LAKESHORE DRIVE BRIDGE OVER ORLEANS AVENUE CANAL.	7.11 N.G.V.D.

THIS PROJECT WAS DESIGNED BY THE FIRM OF HARTMAN ENGINEERING, INC. FOR THE NEW ORLEANS DISTRICT OF U.S. ARMY CORPS OF ENGINEERS. THE INITIALS OR SIGNATURES & REGISTRATION DESIGNATIONS OF INDIVIDUALS APPEARING ON THESE PROJECT DOCUMENTS ARE WITHIN THE SCOPE OF THEIR EMPLOYMENT AS REQUIRED BY ER 1110-1-8152.

Graham D. Lancaster REG. No. 22821 REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING STATE OF LOUISIANA

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

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DWG

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE DISTRICT
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
HIGH LEVEE PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE IC
ORLEANS PARISH, LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES INDEX, LOCATION, AND VICINITY MAP

DESIGNED BY: P.J.H. DRAWN BY: L.A.C. CHECKED BY: W.D.L. DATE: SEPT. 1998	APPROVED BY: CHIEF, STRUCTURES BRANCH	CADD FILE: SHT1.DGN PLOT DATE: SEPT. 1998 PLOT SCALE: 400
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	APPROVED BY: CHIEF, ENGINEERING DIVISION	SOLICITATION NO. DACW29-99-B-0008 FILE NO. H-4-45050
APPROVED BY: HARTMAN ENGINEERING DESIGN ENGINEER	APPROVED BY: COLONEL, C. E. DISTRICT ENGINEER	DWG. 1 OF 93

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LEGEND

TREE	GRADE
B-54 SOIL BORING AND NUMBER	FLOW DIRECTION
BENCH MARK	REMOVAL
BANK OR SLOPE LINES	STEEL SHEET PILING
FENCE	LIGHT POLE
8"G GAS LINE AND SIZE	UTILITY PEDESTAL
8"S SEWER LINE AND SIZE	UTILITY METER
18"D DRAIN LINE AND SIZE	CLEAN OUT
12"W WATER LINE AND SIZE	REQ'D. BANK OR SLOPE LINES
UG TELE UNDERGROUND TELEPHONE LINE	REQ'D. CONCRETE PAVEMENT
SEWER MANHOLE	REQ'D. ASPHALT PAVEMENT
DRAIN CLEANOUT	REQ'D GRASS AREA
SEWER CLEANOUT	X.XX REQ'D. GRADE (BOLD)
UG ELEC UNDERGROUND ELECTRIC LINE	
ELECTRIC LINE (OVERHEAD)	
CATCH BASIN	
WM WATER METER	
DRAIN MANHOLE	
ANCHOR	
SIGN	
WV WATER VALVE	
FH FIRE HYDRANT	
GM GAS METER	
GV GAS VALVE	
PP POWER POLE OR TELEPHONE POLE	
STRUCTURE (HOUSE, GARAGE)	

VALUE INCENTIVE CHANGES ENGINEERING — YIELDS 50% TO YOU AS HIGHER PROFITS

ABBREVIATIONS

ABT	ABOUT
ADJ	ADJACENT
ACP	ASPHALTIC CONCRETE PAVEMENT
B/L	BASE LINE
BM	BENCH MARK
CIP	CAST IN PLACE
CB	CATCH BASIN
C/L	CENTER LINE
CL	CLEARANCE
CONC	CONCRETE
CP	CONCRETE PIPE
CJ	CONSTRUCTION JOINT
C.R.S	CORROSION RESISTANT STEEL
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CY	CUBIC YARD
DIA OR Ø	DIAMETER
D/W	DRIVEWAY
DI	DROP INLET
D.I.	DUCTILE IRON
DPW	DEPARTMENT OF PUBLIC WORKS
D.S.	DOWN STATION
DWG	DRAWING
E.F.	EACH FACE
EB	EASTBOUND
E B/L	EAST BASELINE
EL OR ELEV	ELEVATION
E.S.	EQUAL SPACES
EXIST	EXISTING
EXP	EXPANSION
F.S.	FAR SIDE
FND	FOUND
FT	FOOT
H.D.G.	HOT DIPPED GALVANIZED
HORIZ	HORIZONTAL
H.P.	HIGH PRESSURE
HWY	HIGHWAY
ID	INTERNAL DIAMETER
INV	INVERT
IR	IRON ROD
JT	JOINT
KIP	1000 LBS
LT	LEFT
LF	LINEAR FEET
LG	LONG
LDOTD	LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MH	MANHOLE
MAX	MAXIMUM
MSL	MEAN SEA LEVEL
MIN	MINIMUM
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NORD	NEW ORLEANS RECREATION DEPARTMENT
N.S.	NEAR SIDE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OLB	ORLEANS LEVEE BOARD
OD	OUTSIDE DIAMETER
PGL	PROFILE GRADE LINE
PL	PLATE
PI	POINT OF INTERSECTION
PVCC	POINT OF VERTICAL CONTINUING CURVATURE
PVC	POINT OF VERTICAL CURVATURE
PVT	POINT OF VERTICAL TANGENCY
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REINF	REINFORCING
REQ'D.	REQUIRED
R/W	RIGHT-OF-WAY
RT	RIGHT
RD	ROAD
S&WB	SEWERAGE AND WATER BOARD
SH.	SHEET(S)
SP	SPACE(S)
STA	BASELINE STATION
STD	STANDARD
ST	STREET
STR	STRAIGHT
SYMM	SYMETRICAL
T&B	TOP & BOTTOM
TEL	TELEPHONE
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB OR TOP OF CASTING
TYP	TYPICAL
UG	UNDERGROUND
U.S.	UP STATION
USACE	U.S. ARMY CORPS OF ENGINEERS
VERT	VERTICAL
WB	WESTBOUND
W B/L	WEST BASELINE
W/L	WALL LINE
WS	WATER SURFACE
W.S.	WATER STOP
W/	WITH

SECTION AND DETAIL CROSS REFERENCES

A / 7 / 37
- SECTION IDENTIFICATION NUMBER
- NUMBER OF DWG. ON WHICH SECTION DRAWN
- NUMBER OF DWG. ON WHICH SECTION TAKEN

A — SYMBOL FOR SECTION TAKEN AND DRAWN ON SAME DRAWING — A

SYMBOL WHERE SECTION IS TAKEN

SECTION A / 7 / 37 — A

SUBTITLE FOR SECTION DRAWING

3 / 7 / 37
- DETAIL IDENTIFICATION NUMBER
- NUMBER OF DWG. ON WHICH DETAIL OF THE CONDITION IS DRAWN
- NUMBER OF DWG. ON WHICH CONDITION IS SHOWN

SYMBOL FOR DETAIL TAKEN AND DRAWN ON SAME DRAWING — 3

SYMBOL FOR LOCATING CONDITION FOR WHICH THERE IS A DETAIL

DETAIL 3 / 7 / 37 — 3

SUBTITLE FOR DETAIL DRAWING

STATE OF LOUISIANA — William D. Lancaster — REG. No. 22821 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

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PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES LEGEND AND ABBREVIATIONS

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT2.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 2 OF 93

Safety is a Part of Your Contract

GENERAL NOTES

A. GENERAL DESIGN NOTES

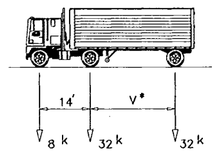
1. BRIDGE DESIGN SPECIFICATIONS:
   a. THE 1992 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) FIFTEENTH EDITION AS AMENDED BY THE CURRENT AASHTO INTERIM SPECIFICATIONS FOR BRIDGES.

   b. THE 1987 BRIDGE DESIGN MANUAL PREPARED BY THE BRIDGE DESIGN SECTION OF THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT 3RD EDITION AS AMENDED BY THE CURRENT BRIDGE DESIGN MEMORANDA.

2. CONSTRUCTION SPECIFICATION: U.S. ARMY CORPS OF ENGINEERS GUIDE SPECIFICATIONS AND THE PROJECT TECHNICAL SPECIFICATIONS.

3. DESIGN SPEED: FILMORE AVE. BRIDGE = 20 M.P.H.
   HARRISON AVE. BRIDGE = 20 M.P.H.

4. DESIGN LOADS:
   a. DEAD LOADS – ESTIMATED WEIGHT OF COMPLETED STRUCTURE INCLUDING AN ALLOWANCE OF 12 PSF FOR FUTURE WEARING SURFACE.
   b. LIVE LOADS – HS20-44 LOADING AS SHOWN ON THIS SHEET.
   c. ALL OTHER LOADS SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.



LADOTD HS-20-44 TRUCK
* V = VARIABLE 14-30FT

5. DESIGN CANAL WATER ELEVATION HIGH LEVEL PLAN:
   a. STILL WATER LEVEL – EL. 12.10 N.G.V.D. (FILMORE AVE. BRIDGE)
      EL. 12.30 N.G.V.D. (HARRISON AVE. BRIDGE)
      (100% OF DESIGN FORCES USED.)

6. STATIONS: ALL STATIONS REFER TO THE PROJECT BASELINE STATIONS UNLESS OTHERWISE NOTED.

7. ELEVATIONS: ALL ELEVATIONS ARE IN FEET AND REFER TO NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.). ELEVATION BENCH MARK IS BM "CHRYSLER RM" EL. 7.11 (1983 EPOCH), LOCATED IN TOP OF CONCRETE SEAWALL IN NORTHWEST CORNER OF LAKESHORE DR. BRIDGE OVER ORLEANS CANAL.

8. DESIGN CRITERIA: ALL STRUCTURAL MEMBERS ARE DESIGNED BY LOAD FACTOR METHOD UNLESS OTHERWISE NOTED.

9. DIMENSIONS: DIMENSIONS AND/OR ELEVATIONS MARKED THUS (±) ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ACTUAL DIMENSIONS IN FIELD. DIMENSIONS AND/OR ELEVATIONS MARKED THUS (N.T.S.) ARE NOT SHOWN TO SCALE. DRAWINGS ARE GENERALLY TO SCALE, BUT SHOULD NOT BE SCALED. N.T.S. IS SHOWN ONLY WHERE DRAWING IS OBVIOUSLY OUT OF SCALE.

B. GEOTECHNICAL NOTES

1. SOILS INVESTIGATION: A SOILS INVESTIGATION WAS PERFORMED FOR THIS PROJECT. BORING LOGS ARE INCLUDED IN THESE CONTRACT DRAWINGS.

2. PILES: ALL PILE REQUIREMENTS INCLUDING SIZE AND TYPE ARE LOCATED WITHIN THE PLANS AND SPECIFICATIONS.

C. STRUCTURAL STEEL NOTES

1. ANCHOR BOLTS SHALL BE ASTM A-307 RODS.

2. STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE NOTED. FABRICATION SHALL MEET THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.

D. STRUCTURAL CONCRETE

1. CHAMFER ALL EXPOSED EDGES OF CONCRETE 3/4" EXCEPT ALL CORNERS OF BENTS WHICH SHALL BE CHAMFERED 1-1/2" UNLESS OTHERWISE NOTED. NO DEDUCTIONS ARE TO BE MADE IN CONCRETE QUANTITIES FOR CHAMFERS 1-1/2" OR LESS.

2. FINISH DESCRIPTIONS SHOWN HEREIN ARE DESCRIBED IN THE PROJECT SPECIFICATIONS.

E. REINFORCEMENT

1. ALL REINFORCING STEEL BARS SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM 615, ASTM 616, ASTM 617.

2. DIMENSIONS RELATING TO REINFORCING STEEL FABRICATION ARE OUT TO OUT OF BAR UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO REINFORCING STEEL SPACING ARE CENTER TO CENTER OF BAR. THE MINIMUM COVERING FROM THE SURFACE OF THE CONCRETE TO THE FACE OF ANY DEFORMED REINFORCING BAR SHALL NOT BE LESS THAN THE FOLLOWING:

TOP OF SLAB	= 2"
BOTTOM OF BRIDGE DECK	= 3"
HEADWALLS	= 3"

3. ALL OTHER REINFORCING STEEL COVER SHALL BE 3" UNLESS OTHERWISE NOTED IN THE PLANS.

4. MECHANICAL SPLICES FOR REINFORCING BARS SHALL BE APPROVED BY THE CONTRACTING OFFICER. THE EMBEDMENT AND LAP SPLICE LENGTH TABLE ON THIS SHEET SHALL BE USED IN DETERMINING LAP SPLICES AND EMBEDMENT LENGTHS WHERE LENGTHS ARE NOT OTHERWISE INDICATED. SPLICE LENGTHS SHALL BE BASED ON THE SMALLER BAR BEING LAPPED. THE CONTRACTOR WILL BE ALLOWED TO MAKE SPLICES IN ADDITION TO THOSE INDICATED IN THE DRAWINGS, WHERE ESSENTIAL TO CONSTRUCTIBILITY, SUBJECT TO APPROVAL BY THE CONTRACTING OFFICER. SPLICES OTHER THAN THOSE SHOWN ON THE DRAWINGS AND OTHER THAN ANY ADDITIONAL SPLICES REQUIRED BY THE CONTRACTING OFFICER, WILL BE AT THE CONTRACTOR'S EXPENSE.

REINFORCEMENT EMBEDMENT AND SPLICE TABLES

BAR SIZE	MINIMUM EMBEDMENT LENGTH, (INCHES)		MINIMUM LAP LENGTH, (INCHES)	
	TOP	OTHER	TOP	OTHER
3	19	14	25	19
4	25	19	33	25
5	32	24	42	32
6	37	28	49	37
7	54	41	71	54
8	62	47	81	62
9	69	53	90	69
10	77	59	101	77
11	86	66	112	86

5. REINFORCEMENT EMBEDMENT AND SPLICE NOTES:
   a. THE TABLE IS BASED ON THE FOLLOWING CONDITIONS:
      i) CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN THE BAR DIAMETER.
      ii) CLEAR COVER NOT LESS THAN THE BAR DIAMETER.
      iii) STIRRUPS OR TIES THROUGHOUT THE BAR DEVELOPMENT LENGTH NOT LESS THAN ACI CODE MINIMUM.
      OR
      iv) CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN TWO BAR DIAMETERS.
      v) CLEAR COVER NOT LESS THAN BAR DIAMETER.
   b. TOP BARS ARE HORIZONTAL BARS AND BARS INCLINED LESS THAN 45 DEGREES WITH RESPECT TO A HORIZONTAL PLANE, WHICH ARE PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

FILMORE AND HARRISON AVE. BRIDGES ORDER OF WORK

⚠ IN AN EFFORT TO ACHIEVE THE LEAST TRAFFIC DISRUPTION, CONSTRUCTION OF THE PROJECT SHALL BE PERFORMED IN TWO PHASES AS FOLLOWS:

(1) PHASE I. CONSTRUCTION INCLUDES COMPLETION OF ALL REQUIRED PILE TESTING, AND DELIVERING OF ALL SERVICE PILES (FOR BOTH BRIDGES) TO THE JOB SITES. DURING THIS PHASE OF THE CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT THE QC PLAN FOR APPROVAL. ALSO, THE CONTRACTOR SHALL SUBMIT OTHER SUBMITTALS CONCURRENT WITH THE PILE TEST. THE EXISTING TRAFFIC PATTERN SHALL BE MAINTAINED WITHOUT DISRUPTION AND BOTH BRIDGES SHALL BE KEPT OPEN. THE CONSTRUCTION TIME ALLOWED FOR THIS PHASE IS 90 DAYS.

(2) PHASE II. CONSTRUCTION INCLUDES ALL REMAINING WORK REQUIRED FOR THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL BEGIN WORK ON BOTH BRIDGES CONCURRENTLY. THE TIME ALLOWED FOR COMPLETION OF THIS PHASE IS 300 DAYS. THE CONTRACTOR IS CAUTIONED THAT THE TIME ALLOWED IS OF THE SHORTEST REASONABLE DURATION AND THEREFORE, SHALL MAKE ALL PROVISIONS (MULTIPLE CREWS, OVERTIME, CONCURRENT OPERATIONS, ETC.) NECESSARY TO ACCOMPLISH THE WORK WITHIN THE AVAILABLE TIME PERIOD.

THE SLAB SPANS FOR THESE BRIDGES SHALL BE PLACED IN EITHER THE ORDER "1,3,2,4," OR "4,2,3,1."

VALUE ENGINEERING INCENTIVE CLAUSES — YOUR KEY TO HIGHER PROFITS

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
	REVISIONS		
⚠	AS BUILT	6/13/00	W.D.L.
⚠	REVISED ORDER OF WORK – AMENDMENT NO. 0002	2-3-99	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
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NEW ORLEANS, LOUISIANA

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PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES GENERAL NOTES

STATE OF LOUISIANA
William O. Lancaster
REG. No. 22821
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT3.DGN.		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 3 OF 93

Safety is a Part of Your Contract

TRAFFIC CONTROL NOTES

1. THE DESIGN AND APPLICATION OF ALL SIGNALS, PAVEMENT MARKINGS, CHANNELIZING DEVICES, AND WARNING SIGNS SHALL CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 1988 EDITION AS REVISED.

2. CHANNELIZING AND DELINEATION DEVICES SHALL BE USED TO MARK ALL CONSTRUCTION AREAS. THESE SHALL BE TYPE III BARRICADES, AND/OR BARRELS, ALL FULLY REFLECTORIZED WITH FLASHING LIGHTS.

3. ANY EXISTING TRAFFIC CONTROL DEVICE THAT IS NOT REQUIRED SHALL IMMEDIATELY BE REMOVED, COVERED AND/OR RELOCATED.

4. SIGNS, BARRELS, BARRICADES, STRIPING, BARRIERS AND ALL OTHER TRAFFIC CONTROL DEVICES SHOWN ON THESE DRAWINGS ARE REQUIRED FOR CONSTRUCTION OF THE PROJECT AND SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR.

5. ALL CONSTRUCTION MATERIAL AND EQUIPMENT SHALL BE STORED OUTSIDE OF THE ROADWAY SURFACE, CREATING NO SIGHT DISTANCE PROBLEMS, AND FULLY DELINEATED AS IN NOTE 2.

6. YELLOW, HIGH VISIBILITY PENNANT BARRIER FLAGGING (NYLON ROPE WITH PLASTIC PENNANTS) SHALL BE STRUNG BETWEEN TYPE II BARRICADES AND BARRELS/DRUMS. YELLOW PENNANT FLAGGING SHALL BE USED ONLY WHERE PEDESTRIAN ACTIVITY IS TO BE PROHIBITED. THIS MATERIAL SHALL NOT BE USED OR PLACED NEAR VEHICULAR TRAFFIC LANES OR USED TO WARN OR DIRECT VEHICULAR TRAFFIC.

7. THIS TRAFFIC CONTROL DEVICE PLAN INDICATES GENERAL TRAFFIC CONTROL DEVICES TO BE USED ON THIS PROJECT. IT IS ANTICIPATED THAT CONDITIONS WILL VARY DEPENDING ON THE PHASE UNDER CONSTRUCTION AND THAT THE ARRANGEMENT OF THOSE DEVICES WILL BE REVIEWED ON A DAY TO DAY BASIS.

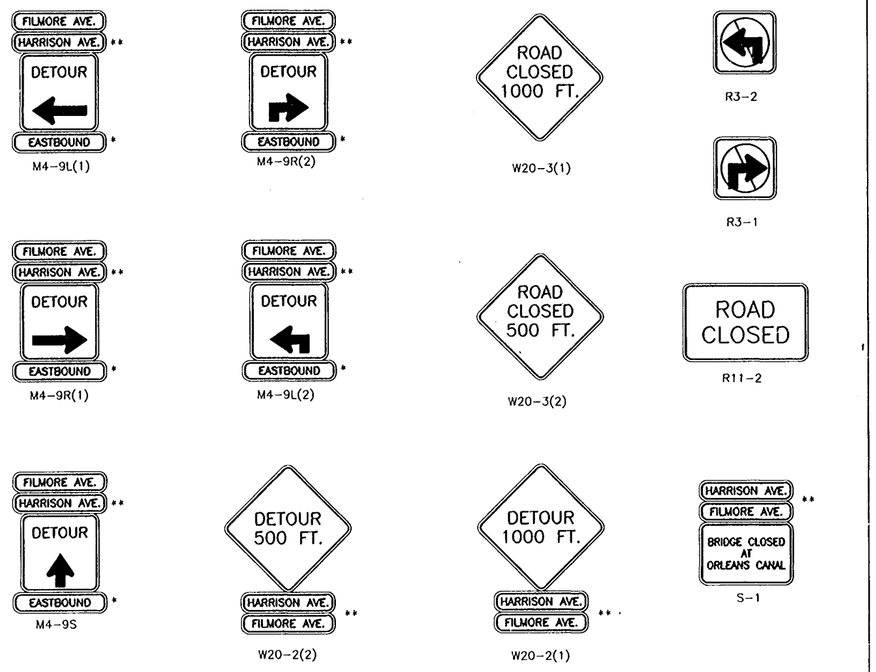
8. ALL EXCAVATION SHALL BE COVERED, BACKFILLED, OR PROTECTED AND FULLY DELINEATED (SEE NOTE 2) AT NIGHT AND WHEN WORK IS NOT IN PROGRESS. EXCAVATION PITS, ETC. SHALL BE FULLY FENCED OR BARRICADED (SEE NOTE 2) TO PREVENT ACCESS BY PEDESTRIANS.

9. ALL TRAFFIC SIGNS SHALL BE STAKED OUT BY THE CONTRACTOR IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO INSTALLATION.

10. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES BY CERTIFIED MAIL AT LEAST 14 WORKING DAYS PRIOR TO CLOSING FILMORE AVE. AND HARRISON AVE. BRIDGES. COPIES OF THESE NOTIFICATIONS ARE TO BE PROVIDED TO CONTRACTING OFFICER AT THAT TIME.

• NEW ORLEANS DEPT. OF STREETS, TRAFFIC ADMINISTRATION DIVISION:	565-6840 (ELMER DARWIN)
• ORLEANS PARISH SCHOOL BOARD:	286-2700
• NEW ORLEANS POLICE DEPARTMENT:	821-2222
• NEW ORLEANS FIRE DEPARTMENT:	565-7800
• ENTERGY:	593-3460 (NORMAN SILES)
• U.S. ARMY CORPS OF ENGINEERS:	862-1200 (ADMINISTRATIVE CONTRACTING OFFICER)
• ORLEANS LEVEE DISTRICT:	243-4045 (STEVAN G. SPENCER)

11. DETOUR ROUTES MUST BE ADVERTISED IN THE TIMES-PICAYUNE AT LEAST ONE (1) WEEK PRIOR TO BRIDGE CLOSURE.



* SUBSTITUTE "WESTBOUND" AS APPROPRIATE

** DELETE "FILMORE AVE." OR "HARRISON AVE." WHERE APPROPRIATE

FILMORE AND HARRISON AVE. BRIDGES TRAFFIC CONTROL SIGNS ⚠

SCALE: 1/2" = 1'- 0"

MINIMUM SIGN SIZES

M SERIES	- 30" x 30"
* W SERIES	- 36" x 36"
R3-1	- 24" x 24"
R3-2	- 24" x 24"
R11-2	- 48" x 30"
S-1	- 36" x 24"
* AUXILIARY STREET NAME	- 30" x 8"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG NO. 3.

FOR HARRISON AVE. PLAN-PROFILE, SEE DWG. NO. 8.

FOR FILMORE AVE. PLAN-PROFILE, SEE DWG. NO. 37.

FOR HARRISON AVE. TRAFFIC CONTROL PLAN, SEE DWG. NO. 7.

FOR FILMORE AVE. TRAFFIC CONTROL PLAN, SEE DWG. NO. 36.

FOR HIGHWAY SIGN AND BARRICADES DETAILS, SEE DWG. NOS. 91, 92 AND 93.

SCALE: 1/2" = 1'- 0"

12" 0 2' 4' 6' 8'

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C•A•D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.
⚠	REVISED TRAFFIC CONTROL SIGNS- AMENDMENT NO. 0002	2-3-99	W.D.L.

REVISIONS

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LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES TRAFFIC CONTROL NOTES

DESIGNED BY: R.R.C.	DATE:	PLOT SCALE:	PLOT DATE:
DRAWN BY: S.F.U.	SEPT. 1998	1	SEPT. 1998
CHECKED BY: P.J.H.	CADD FILE: SHT4.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 4 OF 93

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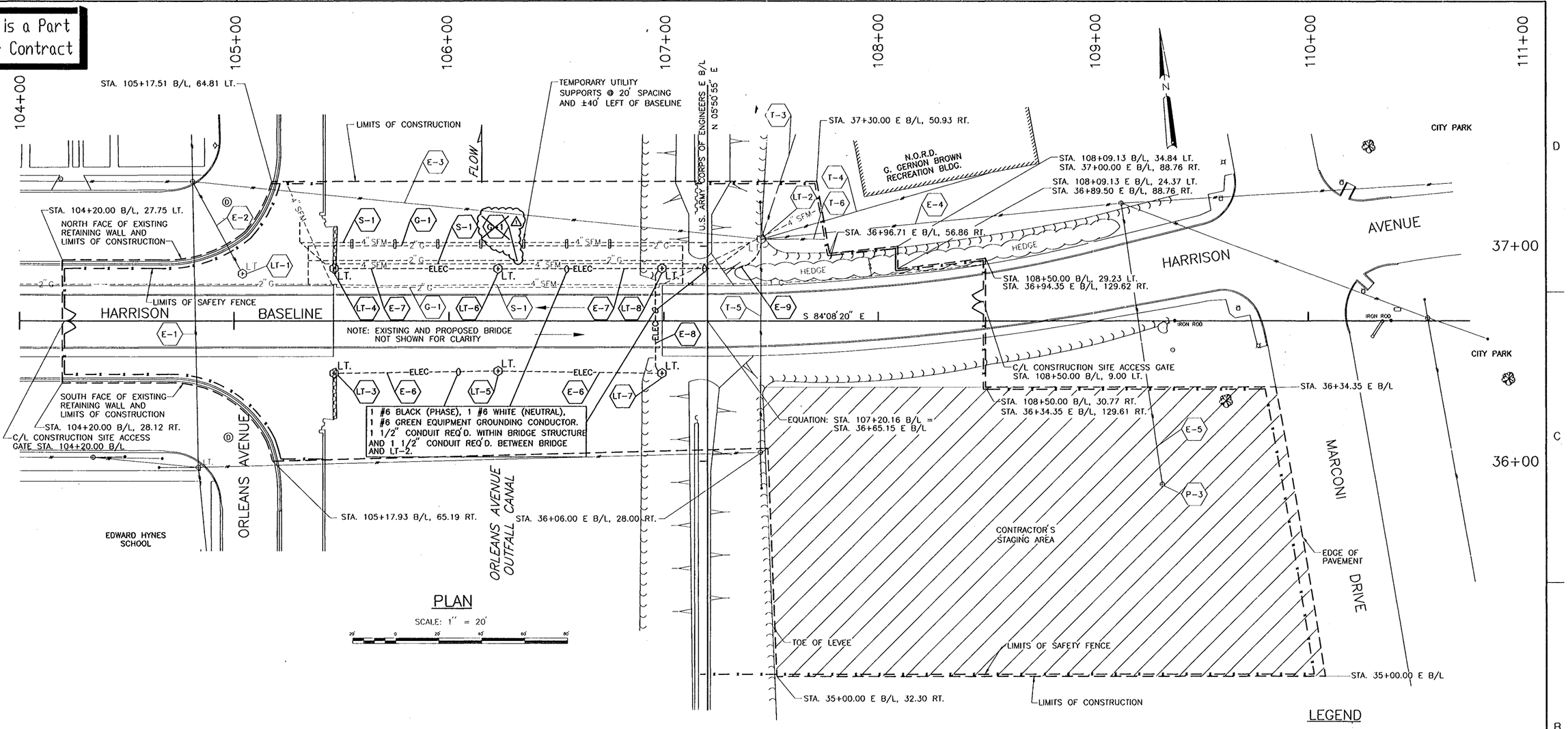
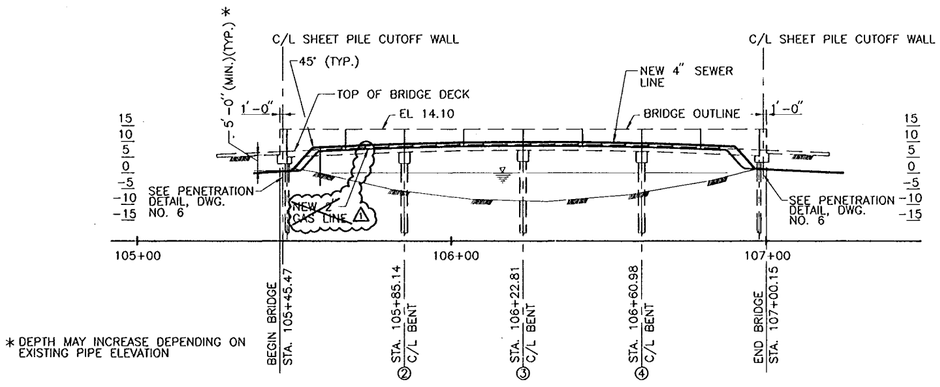


PLAN

SCALE: 1" = 20'



* DEPTH MAY INCREASE DEPENDING ON EXISTING PIPE ELEVATION

NOTE: SEE DWG. NO. 18 FOR LOCATION OF UTILITIES ON BRIDGE.

UTILITY LINES PROFILE

SCALE: 1" = 20' (H & V)

VALUE INCENTIVE CLAUSE ENGINEERING — THIS KEY IS HIGHER PRIORITY

UTILITIES RELOCATION NOTES

1. THE CONTRACTOR SHALL INSTALL TEMPORARY SUPPORT FOR THE RELOCATION OF UTILITY LINES (4" SEWERAGE AND 2 GAS LINES) AS SHOWN. UPON COMPLETION OF THE PERMANENT UTILITY RELOCATION, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TEMPORARY SUPPORTS.
2. THE EXISTING 4"ø SEWER FORCE MAIN IS IN DISREPAIR AND CANNOT BE USED IN THE TEMPORARY RELOCATION.

NOTE:
EXISTING UTILITY LOCATIONS BASED ON FIELD SURVEY AND INFORMATION FROM UTILITY AGENCIES. CONTRACTOR SHALL ARRANGE FOR OWNER TO MARK UTILITY LOCATIONS IN FIELD PRIOR TO CONSTRUCTION.

LEGEND

- BASELINE
- LIMITS OF CONSTRUCTION
- CONTRACTOR'S STAGING AREA
- REQ'D. SAFETY FENCE

C·A·D

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3

FOR REQUIRED UTILITY RELOCATION/MODIFICATION CHART AND DESCRIPTION OF UTILITIES, SEE DWG. NO. 6.

FOR BRIDGE PLAN-PROFILE, SEE DWG NO. 8.

FOR DETAILS OF TEMPORARY PILE SUPPORTS, SEE DWG. NO. 6.

FOR DETAILS OF UTILITY ATTACHMENTS, TO THE NEW BRIDGE, SEE DWG. NO. 18.

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

STATE OF LOUISIANA — Wilson D. Lancaster — REG. No. 22821 — PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT-GAS LINE DELETED, MODIFICATION A0005	6/13/00	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

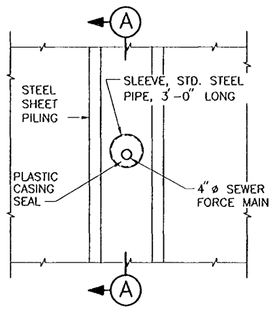
FILMORE AND HARRISON AVE. BRIDGES HARRISON LIMITS OF CONSTRUCTION & UTILITY PLAN

DESIGNED BY: P.J.H.	DATE:	PLOT SCALE:	PLOT DATE:
DRAWN BY: C.R.N.	SEPT. 1998	20	SEPT. 1998
CHECKED BY: W.D.L.	CADD FILE: SHT5.DWG		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 5 OF 93

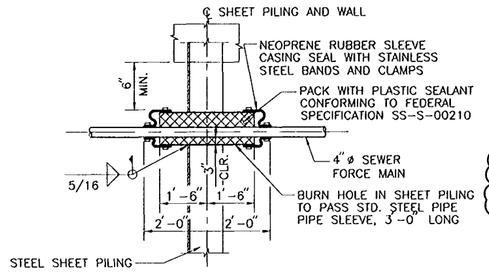
Safety is a Part of Your Contract

PIPE TABULATION AND SLEEVE TABLE

UTILITY MARK	APPROX. W/L STA.	PANEL NUMBER	MINIMUM SLEEVE SIZE		
			NOMINAL SIZE	INSIDE DIAMETER	OUTSIDE DIAMETER
S-1	10+03.50	2	12"ø	12.000"ø	12.750"ø
S-1	10+05.00	4	12"ø	12.000"ø	12.750"ø
G-1	10+01.50	2	12"ø	12.000"ø	12.750"ø
G-1	10+03.00	4	12"ø	12.000"ø	12.750"ø



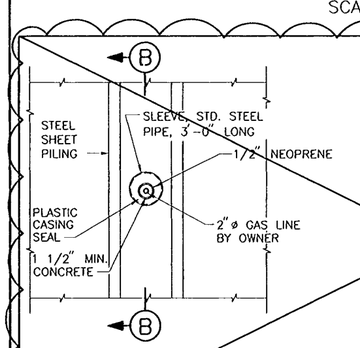
ELEVATION



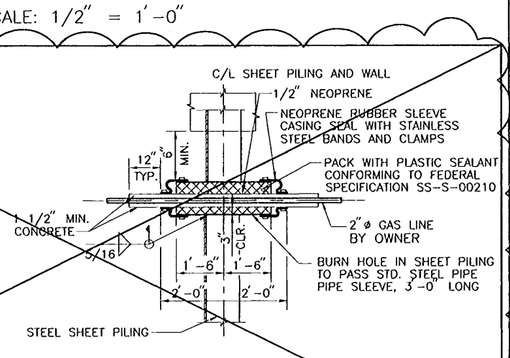
SECTION "A" THRU STEEL SHEET PILING

SHEET PILE SEWER LINE PENETRATION DETAIL

SCALE: 1/2" = 1'-0"



ELEVATION



SECTION "B" THRU STEEL SHEET PILING

SHEET PILE GAS LINE PENETRATION DETAIL

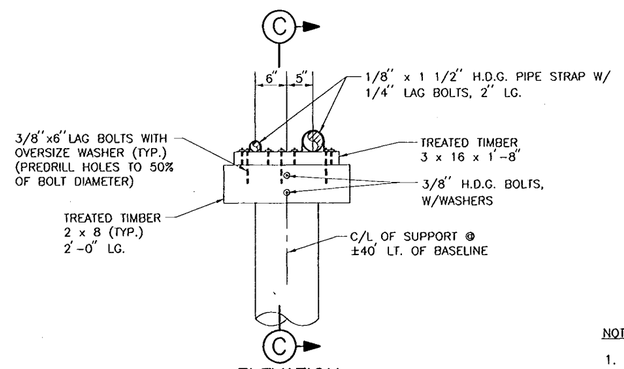
SCALE: 1/2" = 1'-0"

⚠ GAS LINE REMOVED & NOT REPLACED AS PER MODIFICATION A00005

HARRISON AVENUE REQUIRED UTILITY RELOCATION/MODIFICATION *

ITEM NO.	DESCRIPTION	LOCATION	OWNER	P.O.C. AND PHONE NUMBER	DISPOSITION
E-1	AERIAL POWERLINE – 3-PHASE PRIMARY AND CABLE TV	CROSSES HARRISON AVENUE WEST OF BRIDGE	ENTERGY/COX COMMUNICATIONS	MR. NORMAN SILES (504) 593-3460/ENTERGY MS. MITZI MANCUSO (504)734-7345,EXT.2288/COX	TO REMAIN, DO NOT DISTURB. CONTACT OWNER TO DE-ENERGIZE AS NECESSARY FOR CONSTRUCTION TO BE RELOCATED BY OWNER CONCURRENT WITH CONSTRUCTION. CONTRACTOR TO COORDINATE WITH OWNER.
E-2	AERIAL POWERLINE STREET LIGHT FEED	NORTHWEST OF BRIDGE	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB. CONTACT OWNER TO DE-ENERGIZE AS NECESSARY FOR CONSTRUCTION
E-3	AERIAL POWERLINE 3-PHASE PRIMARY	CROSSES ORLEANS AVENUE OUTFALL CANAL NORTH OF BRIDGE	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB. CONTACT OWNER TO DE-ENERGIZE AS NECESSARY FOR CONSTRUCTION
E-4	AERIAL POWERLINE – 3-PHASE PRIMARY/AERIAL TELEPHONE LINE	ALONG HARRISON AVENUE NORTHEAST OF BRIDGE	ENTERGY/BELLSOUTH	MR. NORMAN SILES (504) 593-3460/ENTERGY MR. PHIL DEMOUY (504) 483-6823/BELLSOUTH	TO REMAIN, DO NOT DISTURB
E-5	AERIAL POWERLINE 3-WIRE SECONDARY	CROSSES HARRISON AVENUE EAST OF BRIDGE	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB
E-6	ELECTRICAL LINE FOR STREET LIGHTS 1 1/2" CONDUIT	ALONG SOUTH SIDE OF BRIDGE	NEW ORLEANS UTILITY DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	CONDUIT AND CONDUCTORS TO BE FURNISHED, INSTALLED, AND CONNECTED BY CONTRACTOR.
E-7	ELECTRICAL LINE FOR STREET LIGHTS 1 1/2" CONDUIT	ALONG NORTH SIDE OF BRIDGE	NEW ORLEANS UTILITY DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	CONDUIT AND CONDUCTORS TO BE FURNISHED, INSTALLED, AND CONNECTED BY CONTRACTOR.
E-8	ELECTRICAL LINE FOR STREET LIGHTS 1" CONDUIT	EAST ABUTMENT OF BRIDGE	NEW ORLEANS UTILITY DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	CONDUIT AND CONDUCTORS TO BE FURNISHED, INSTALLED, AND CONNECTED BY CONTRACTOR.
E-9	UG ELECTRICAL-STREET LIGHT 1 1/2" CONDUIT	NORTHEAST CORNER OF BRIDGE TO LT-2.	NEW ORLEANS UTILITY DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	CONDUIT AND CONDUCTORS TO BE FURNISHED, INSTALLED, AND CONNECTED BY CONTRACTOR. PROVIDE JUNCTION BOX AND FUSED DISCONNECT AT LT-2. ⚠
G-1	2" H.P. GAS LINE EXISTING	ATTACHED TO NORTH SIDE OF EXISTING BRIDGE	ENTERGY GAS OPERATIONS	MR. VAN MAHEU (504) 595-3888	~~TO BE RELOCATED BY OWNER ONTO CONTRACTOR INSTALLED TEMPORARY SUPPORTS CONCURRENT WITH CONSTRUCTION AND PRIOR TO DEMOLITION OF BRIDGE.~~ GAS LINE REMOVED & NOT REPLACED AS PER MODIFICATION A00005
G-1 ⚠	2" H.P. GAS LINE TEMPORARY ⚠	ATTACHED TO PILE SUPPORTS NORTH OF BRIDGE	ENTERGY GAS OPERATIONS ⚠	MR. VAN MAHEU (504) 595-3888 ⚠	~~TEMPORARY RELOCATION BY OWNER WITHIN 14 CALENDAR DAYS OF COMPLETION OF TEMPORARY SUPPORTS BY THE CONTRACTOR. CONTRACTOR TO COORDINATE WITH OWNER TEMPORARY DISCONNECT OF LINE FOR SHEET PILE INSTALLATION.~~ ⚠
G-1	2" H.P. GAS LINE PERMANENT	ATTACHED TO NORTH SIDE FACE OF SLAB SPANS	ENTERGY GAS OPERATIONS	MR. VAN MAHEU (504) 595-3888	~~TO BE INSTALLED BY OWNER WITHIN 14 CALENDAR DAYS AFTER WRITTEN NOTICE FROM CONTRACTOR. CONTRACTOR TO FURNISH AND INSTALL SUPPORT BRACKETS.~~
LT-1	POLE W/STREET LIGHT	STA. 105+03.96 B/L, 21.95' LT.	NEW ORLEANS UTILITY DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	TO REMAIN, DO NOT DISTURB
LT-2	POLE W/STREET LIGHT AND ANCHOR	STA. 107+45.41 B/L, 38.05' LT. STA. 107+44.99 B/L, 55.34' LT./ANCHOR	NEW ORLEANS UTILITY DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	TO REMAIN, DO NOT DISTURB
LT-3	STREET LIGHTS WITH POLES MOUNTED TO NEW BRIDGE	STA. 105+46.59 B/L, 24.38' RT.	NEW ORLEANS UTILITY DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	LIGHT POLES AND FIXTURES TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
LT-4		STA. 105+46.59 B/L, 24.38' LT.			
LT-5		STA. 106+21.80 B/L, 24.25' RT.			
LT-6		STA. 106+21.80 B/L, 24.25' LT.			
LT-7		STA. 106+99.02 B/L, 24.38' RT.			
LT-8		STA. 106+99.02 B/L, 24.38' LT.			
P-3	POWER POLE	STA. 109+31.93 B/L, 76.05' RT.	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB
S-1	4" SEWER FORCE MAIN EXISTING	ATTACHED TO NORTH SIDE OF EXISTING BRIDGE	NEW ORLEANS RECREATION DEPARTMENT	MR. OSCAR McKINNEY/MR. ANDRE WHITE (504) 286-2189	TO BE RELOCATED BY CONTRACTOR AFTER INSTALLATION OF TEMPORARY SUPPORTS AND PRIOR TO DEMOLITION OF BRIDGE.
S-1	4" SEWER FORCE MAIN TEMPORARY	ATTACHED TO TEMPORARY PILE SUPPORTS NORTH OF HARRISON AVE. BRIDGE	NEW ORLEANS RECREATION DEPARTMENT	MR. OSCAR McKINNEY/MR. ANDRE WHITE (504) 286-2189	TEMPORARY RELOCATION BY CONTRACTOR. CONTRACTOR TO COORDINATE WITH OWNER TEMPORARY DISCONNECT OF LINE FOR SHEET PILE INSTALLATION.
S-1	4" SEWER FORCE MAIN PERMANENT	ATTACHED TO NORTH SIDE FACE OF SLAB SPANS	NEW ORLEANS RECREATION DEPARTMENT	MR. OSCAR McKINNEY/MR. ANDRE WHITE (504) 286-2189	PERMANENT LOCATION ON NEW BRIDGE BY CONTRACTOR
T-3	AERIAL TELEPHONE LINE	NORTHEAST OF BRIDGE	BELLSOUTH	MR. PHIL DEMOUY (504) 483-6823	TO REMAIN, DO NOT DISTURB
T-4	AERIAL TELEPHONE LINE	NORTHEAST OF BRIDGE	BELLSOUTH	MR. PHIL DEMOUY (504) 483-6823	TO REMAIN, DO NOT DISTURB
T-5	AERIAL ANCHOR LINE AND AERIAL TELEPHONE LINE	CROSSES HARRISON AVENUE EAST OF BRIDGE	ENTERGY/BELLSOUTH	MR. NORMAN SILES (504) 593-3460 MR. PHIL DEMOUY (504) 483-6823/BELLSOUTH	TO REMAIN, DO NOT DISTURB
T-6	UNDERGROUND TELEPHONE	ALONG HARRISON AVENUE WESTBOUND NORTHEAST OF BRIDGE	BELLSOUTH	MR. PHIL DEMOUY (504) 483-6823	TO REMAIN, DO NOT DISTURB

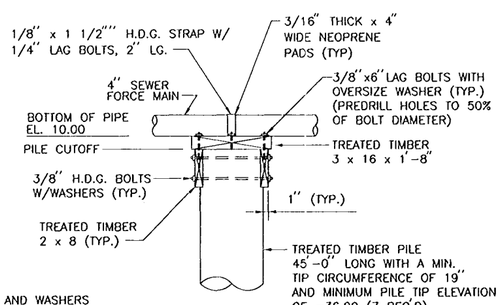
* FOR FILMORE AVE. BRIDGE RELOCATIONS/ MODIFICATIONS, SEE DWG. NO. 35.



ELEVATION

TEMPORARY PILE SUPPORT DETAILS AT ±40 FEET LEFT. OF BASELINE

SCALE: 1" = 1'-0"



NOTES:

1. ALL BOLTS, NUTS AND WASHERS TO BE HOT DIPPED GALVANIZED.
2. CONTRACTOR TO COORDINATE TEMPORARY AND PERMANENT GAS LINE RELOCATION WITH OWNER(ENTERGY).

SECTION (C)

SCALE: 1" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR UTILITY PLAN, SEE DWG. NO. 5.

FOR BRIDGE PLAN-PROFILE, SEE DWG. NO. 8.

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT-GAS LINE DELETED, MODIFICATION A00005	6/13/00	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

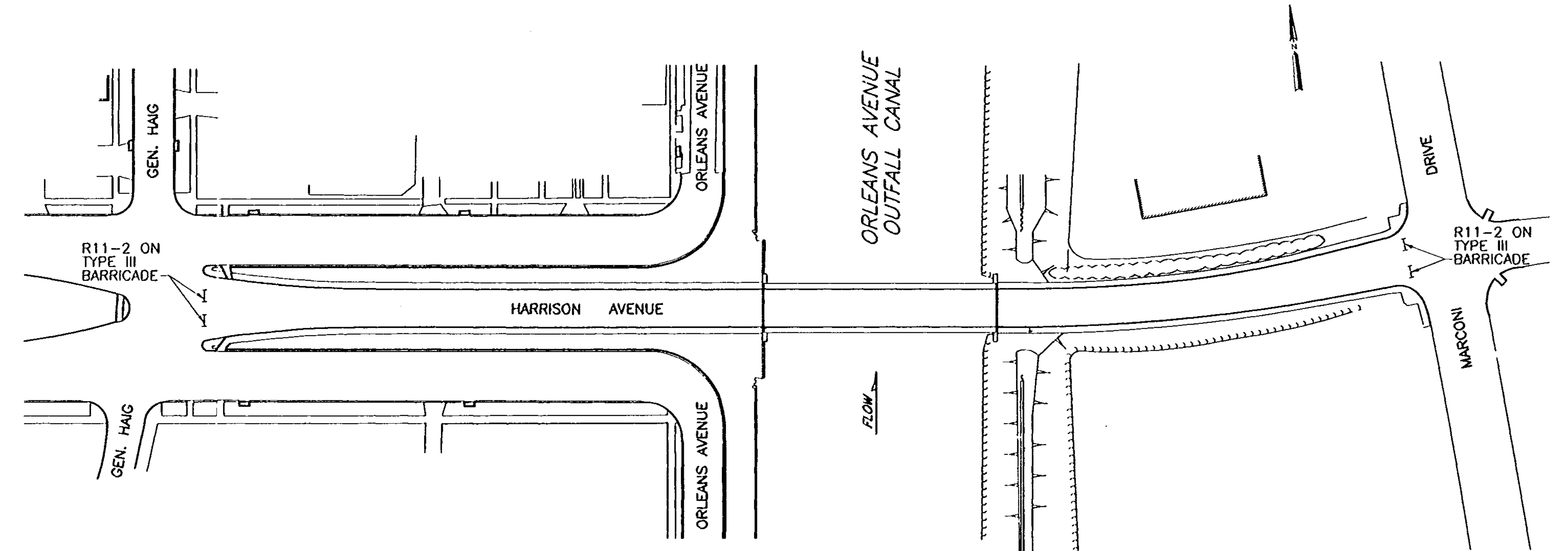
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON UTILITY RELOCATION DETAILS

DESIGNED BY: P.J.H. DRAWN BY: C.R.N. CHECKED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 12	PLOT DATE: SEPT. 1998
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	CADD FILE: SHT6.DGN		FILE NO. H-4-45050
	SOLICITATION NO. DACW29-99-B-0008		DWG. 6 OF 93

Safety is a Part of Your Contract



DETAIL (1)
SCALE: 1'' = 50'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR TRAFFIC CONTROL SIGNS AND NOTES, SEE DWG. NO. 4.

FOR HIGHWAY SIGN AND BARRICADE DETAILS, SEE DWG. NOS. 91, 92 AND 93.

FOR FILMORE AVE. TRAFFIC CONTROL PLAN, SEE DWG. NO. 36.

SCALE: 1'' = 50'
50' 0 50' 100' 150' 200'

SCALE: 1'' = 500'
500' 0 500' 1000' 1500' 2000'

⚠ NOTE: THE HARRISON TRAFFIC CONTROL PLAN SHALL BE COMBINED WITH THE FILMORE TRAFFIC CONTROL PLAN SO THAT BOTH BRIDGES CAN BE CLOSED AT THE SAME TIME. THE CONTROL PLANS SHALL REMAIN THE SAME EXCEPT, WHERE APPLICABLE, DUPLICATE DETOUR SIGNS SHALL BE COMBINED BY USING THE "FILMORE" AND "HARRISON" AUXILIARY STREET NAME SIGNS.

SYMBOL	DESCRIPTION	DATE	APPROVED
2	AS BUILT	6/13/00	W.D.L.
1	ADDED NOTE - AMENDMENT NO. 0002	2-3-99	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
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HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HARRISON TRAFFIC CONTROL PLAN

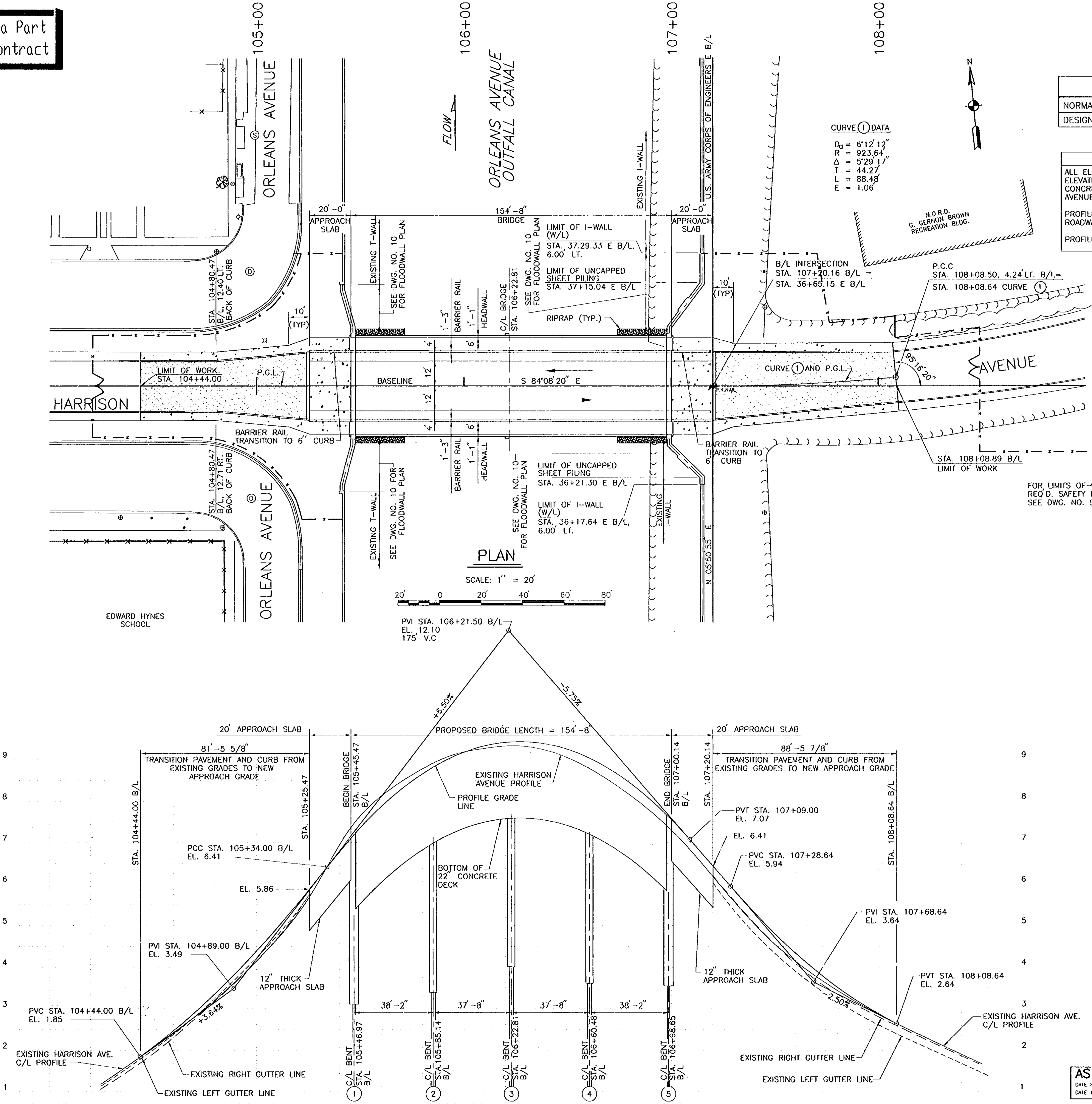
STATE OF LOUISIANA — William J. Lancaster, REG. No. 22621, REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: R.R.C. DRAWN BY: S.F.U. CHECKED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 500	PLOT DATE: SEPT. 1998
	CADD FILE: SHT7.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 7 OF 93

VALUE INCENTIVES ENGINEERING — YOUR KEY TO HIGHER PROFITS

Safety is a Part of Your Contract



HYDRAULIC DATA

	WATER SURFACE ELEVATION	FLOW RATE	FREQUENCY
NORMAL WATER LEVEL	1.0 N.G.V.D.	0 CFS	–
DESIGN FLOOD	12.30 N.G.V.D.	3250 CFS	300 YR.

VERTICAL CONTROL

ALL ELEVATIONS ARE IN FEET AND REFER TO NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.) ELEVATION BENCH IS BM "CHRYSLER BM", EL. 7.11 (1983 EPOCH), LOCATED IN TOP OF CONCRETE SEAWALL IN NORTHWEST CORNER OF LAKESHORE DRIVE BRIDGE OVER ORLEANS AVENUE CANAL.

PROFILE GRADE LINE (PGL) WITHIN LIMITS OF BRIDGE IS LOCATED ALONG THE CROWN OF THE ROADWAY ALONG THE CENTERLINE OF THE BRIDGE.

PROFILE GRADE LINE (PGL) AHEAD OF STATION 107+20.16 LOCATED ALONG CURVE (1).

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR UTILITIES, SEE DWG. NOS. 5 & 6.

FOR FLOODWALL PLAN, SEE DWG NO. 10.

FOR LIMITS OF RIPRAP, SEE DWG. NOS. 20 & 21.

FOR REQUIRED ROADWAY ELEVATIONS, SEE DWG. NO. 23.

FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 29.

FOR ROADWAY AND SIDEWALK DETAILS, SEE DWG. NO. 77.

FOR FILMORE PLAN-PROFILE, SEE DWG. NO.37.

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

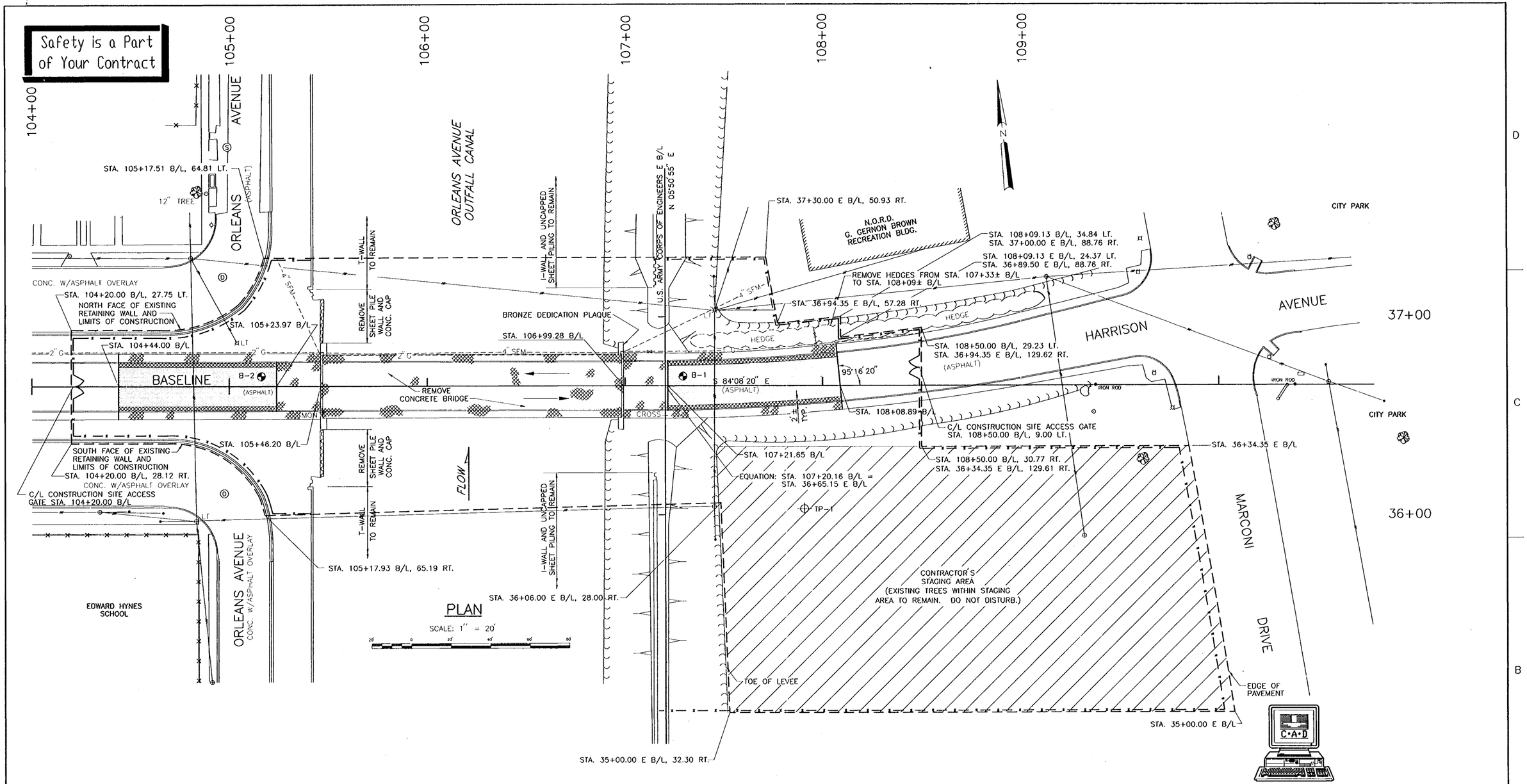
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HARRISON PLAN – PROFILE

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.
DRAWN BY: C.R.N.
CHECKED BY: W.D.L.
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER
DATE: SEPT. 1998
PLOT SCALE: 20
CADD FILE: SHT8.DGN
SOLICITATION NO. DACW29-99-B-0008
PLOT DATE: SEPT. 1998
FILE NO. H-4-45050
DWG. 8 OF 93

Safety is a Part of Your Contract



PLAN

SCALE: 1" = 20'

LEGEND

- CURB, PAVEMENT AND SIDEWALK REMOVAL
- COLD PLANING
- BASELINE
- LIMITS OF CONSTRUCTION
- CONTRACTOR'S STAGING AREA
- REQ'D. SAFETY FENCE
- CORING
- TEST PILE (24" x 24" P.P.C. PILE, TIP EL. -77.5) ⚠
  TEST PILE (CUT OFF 10' BELOW GROUND SURFACE) ⚠
  MODIFICATION A00009

VALUE ENGINEERING CHANGES — YOUR KEY TO HIGHER PROFITS

DEMOLITION REQUIREMENTS

1. SEE DWG. NO. 3 FOR SEQUENCE OF DEMOLITION.
2. SEE UTILITY RELOCATION PLAN FOR DISPOSITION OF EXISTING UTILITIES.
3. EXISTING BRONZE DEDICATION PLAQUE TO BE REMOVED PRIOR TO DEMOLITION OF BRIDGE SUPERSTRUCTURE AND DELIVERED TO MR. TOM FROMHERZ AT THE CITY OF NEW ORLEANS DEPARTMENT OF PUBLIC WORKS.
4. RELOCATE 2" GAS LINE AND 4" SEWER FORCE MAIN TO TEMPORARY LOCATION.
5. REMOVE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE. PULL BRIDGE PILING.
6. SAW CUT AND REMOVE CURBS AND SIDEWALKS WITHIN THE LIMITS SHOWN ON THIS SHEET.
7. ⚠ REMOVE SHEET PILE WALLS (20' LONG PIECES OF PSA 23 SHEET PILE) AND SHEET PILE WALLS WITH CONCRETE CAPS AT EACH BRIDGE CORNER TO THE LIMITS SHOWN. SHEET PILES REMOVED ARE NOT TO BE REUSED EXCEPT AS NOTED.
8. REMOVE ASPHALT PAVEMENT WITHIN LIMITS SHOWN.
9. ⚠
10. BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE, BRIDGE PILING, ROADWAY, CONCRETE WALLS AND SHEET PILING DEMOLISHED AS A PART OF THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR DISPOSITION OF UTILITIES, SEE DWG NOS. 5 & 6.
FOR PLAN-PROFILE, SEE DWG NO. 8.
FOR FLOODWALL DETAILS, SEE DWG. NOS. 10 THRU 17.
FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 29.
FOR EXISTING BRIDGE, SEE DWG NO. 30.
FOR FILMORE AVENUE DEMOLITION PLAN, SEE DWG NO. 38.
FOR LOG OF CORINGS, SEE DWG. NO. 79.

STATE OF LOUISIANA — Walter D. Lancaster — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
	REVISIONS		
⚠2	AS BUILT-TEST PILE CUT OFF 10' BELOW GROUND SURFACE MODIFICATION A00009.	6/13/00	W.D.L.
⚠1	REVISED TEST PILE TIP EL. & NOTES 7 & 9 - AMENDMENT NO. 0002	2-3-99	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

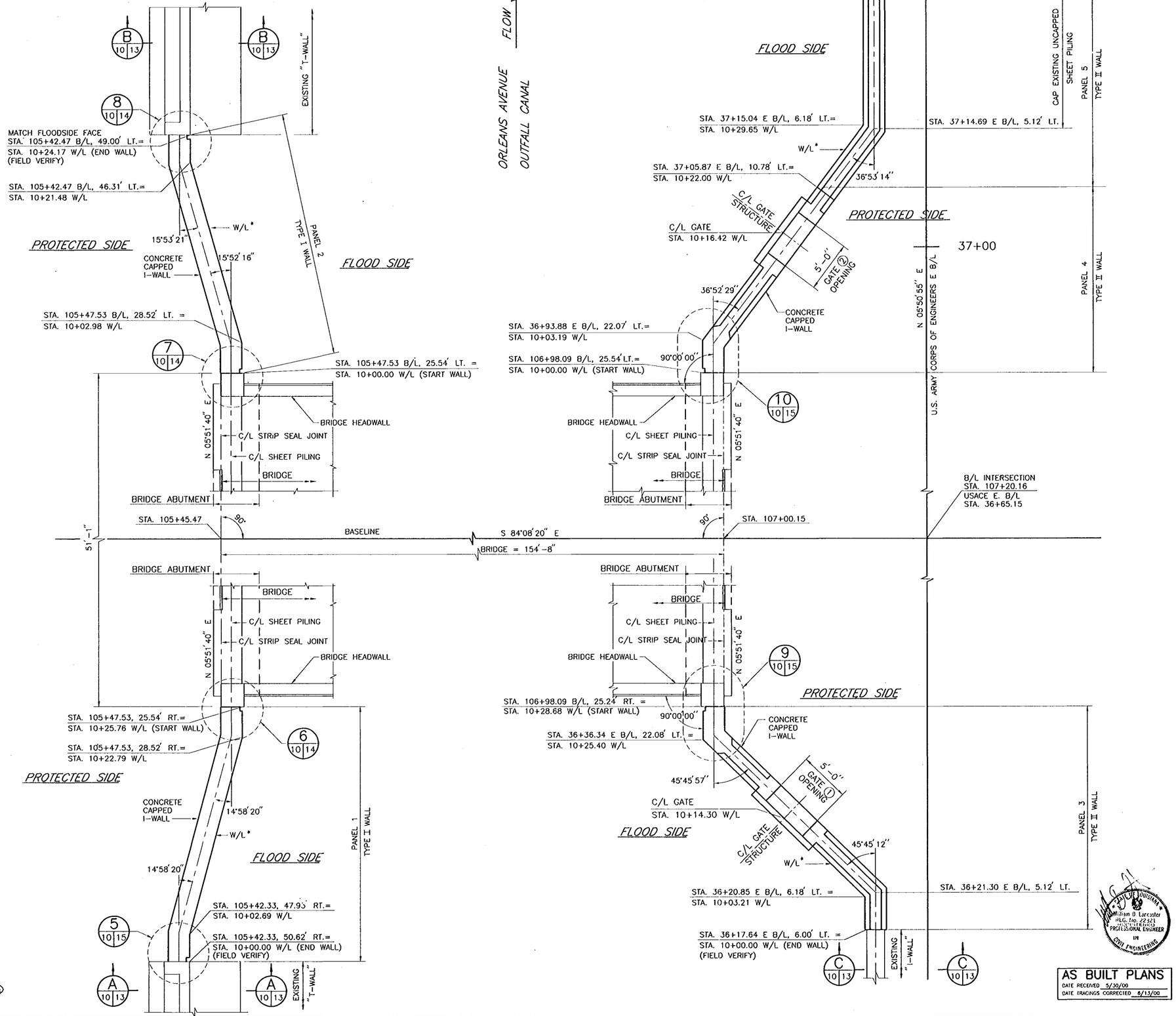
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON DEMOLITION PLAN

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 20	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT9.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 9 OF 93

Safety is a Part of Your Contract

SCALE: 1/4" = 1'-0"



* W/L (WALL LINE) LOCATION SHOWN ON DWG. NO. 68. W/L STATIONING IS ALONG THIS LINE.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 11 AND 12.

FOR I-WALL TREATMENTS, SEE DWG. NO. 17.

FOR I-WALL REINFORCING AND DETAILS, SEE DWG. NO. 68

SCALE: 1/4" = 1'-0"

12"0 5' 10' 15' 20'

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON FLOODWALL PLAN

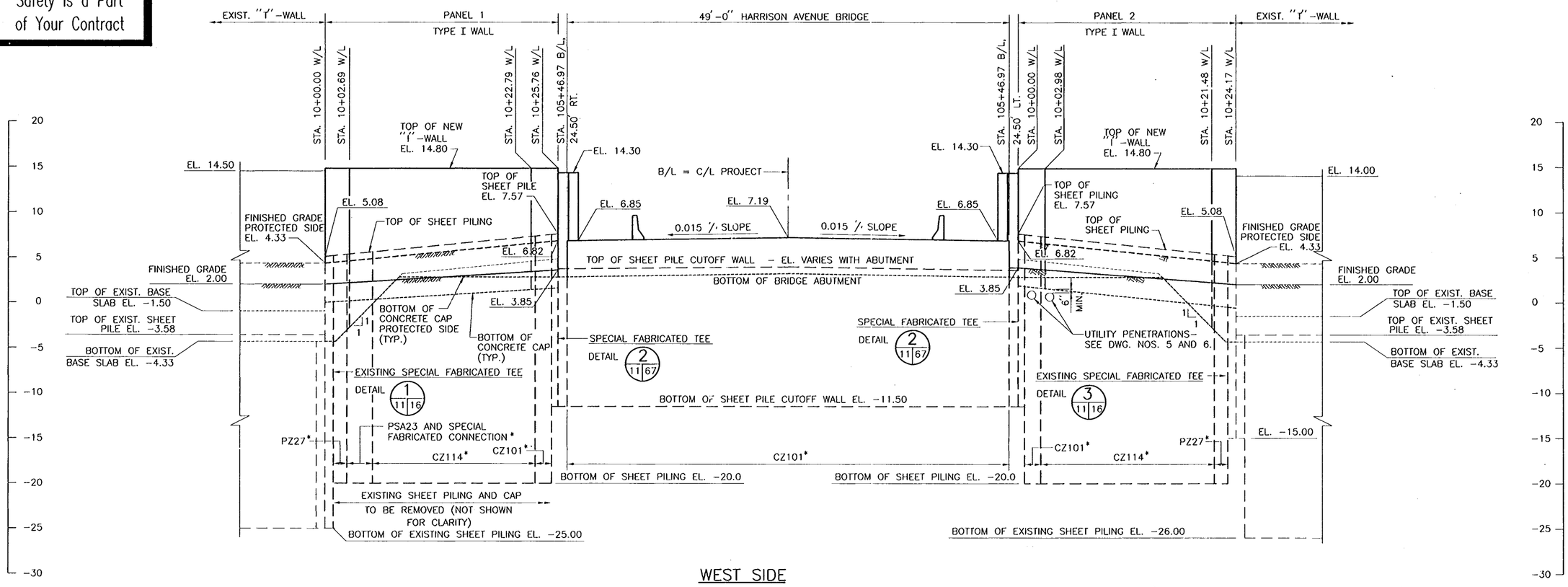
DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 48	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.	CADD FILE: SHT10.DGN		FILE NO. H-4-45050
CHECKED BY: W.D.L.	SOLICITATION NO. DACW29-99-B-0008		DWG. 10 OF 93
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER			

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

STATE OF LOUISIANA
William D Larcester
REG. No. 22321
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

VALUE ENGINEERING CHANGES HIGHER PROFITS

Safety is a Part of Your Contract



WEST SIDE
FLOOD SIDE PROFILE (STA. 105+46.97 B/L AT BRIDGE)
SCALE: 1'' = 5' HORIZ. & VERT.

* SHEET PILING SHOWN FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL PROVIDE DETAILED LAYOUT OF CONTINUALLY INTERLOCKED SHEET PILING, FABRICATED TEES AND ALL SPECIAL FABRICATED CONNECTIONS REQUIRED.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN–PROFILE, SEE DWG. NO. 8.

FOR FLOODWALL PLAN, SEE DWG. NO. 10.

FOR I-WALL REINFORCING AND DETAILS, SEE DWG. NO. 68.

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

STATE OF LOUISIANA — No. 22621 — WILLARD D LANCASTER — REG. No 22621 — PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

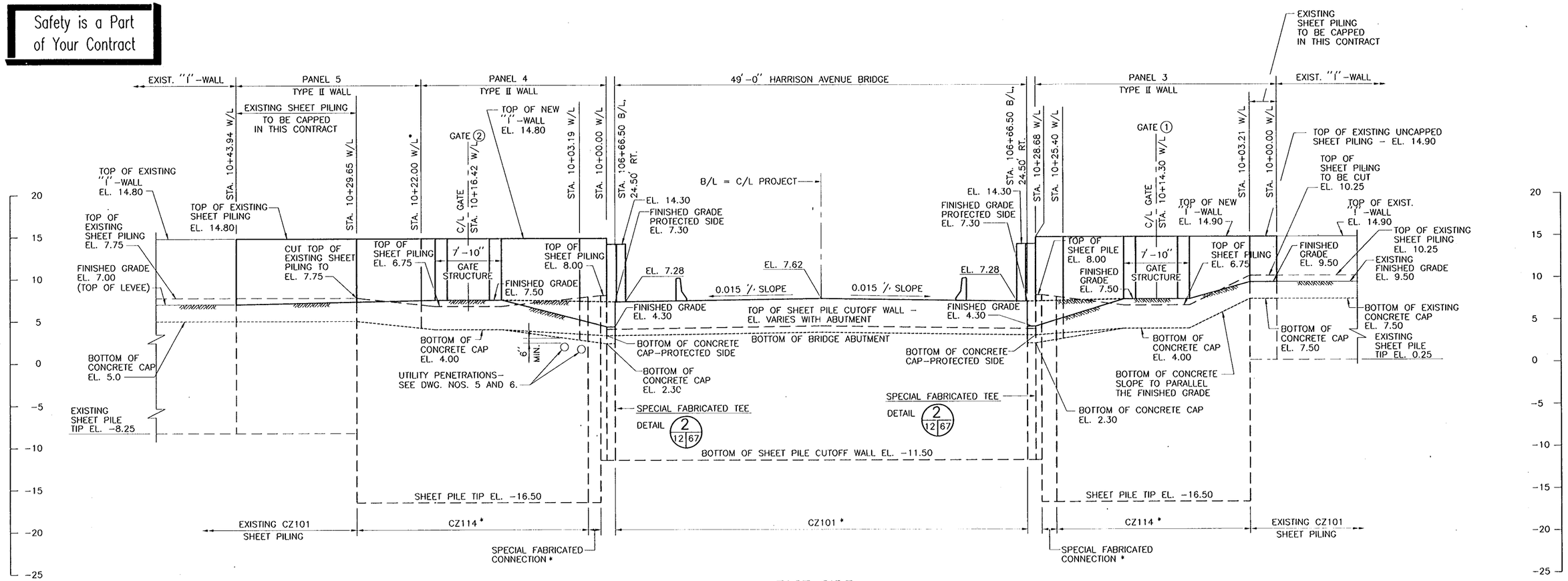
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON FLOODWALL PROFILE–WEST

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 60	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: P.J.H.	CADD FILE: SHT11.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)	SOLICITATION NO. DACW29-99-B-0008		DWG. 11 OF 93

Safety is a Part of Your Contract



* PANEL TO END AT SHEET PILE INTERLOCK NEAREST TO THE WALL LINE STATION CALLED OUT ON THE DRAWING.

EAST SIDE
FLOOD SIDE PROFILE (STA. 106+98.65 B/L AT BRIDGE)
SCALE: 1" = 5' HORIZ. & VERT.

* SHEET PILING SHOWN FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL PROVIDE DETAILED LAYOUT OF CONTINUALLY INTERLOCKED SHEET PILING, FABRICATED TEES AND ALL SPECIAL FABRICATED CONNECTIONS REQUIRED.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR FLOODWALL PLAN, SEE DWG. NO. 10.

FOR I-WALL REINFORCING AND DETAILS, SEE DWG. NO. 68.

VALUE ENGINEERING SAVES MONEY YOUR KEY TO HIGHER PROFITS

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
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LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

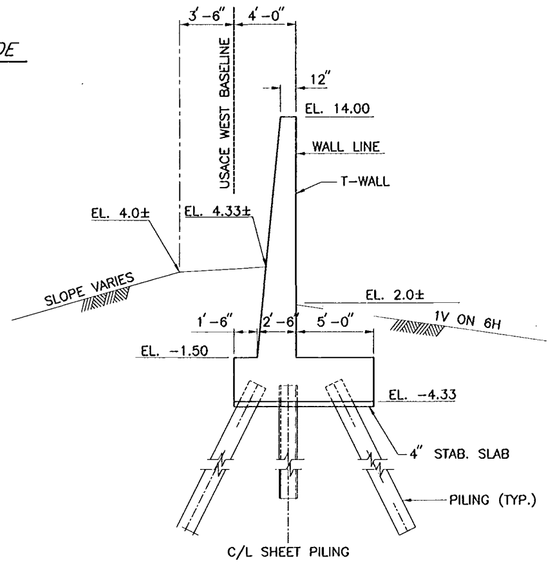
FILMORE AND HARRISON AVE. BRIDGES HARRISON FLOODWALL PROFILE-EAST

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 60	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: P.J.H.	CADD FILE: SHT12.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 12 OF 93

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

Safety is a Part of Your Contract

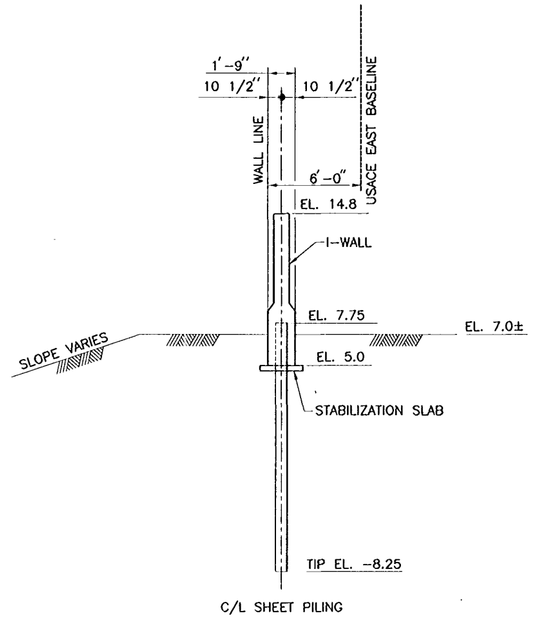
PROTECTED SIDE



SECTION B (10 | 13)

SCALE: 1/4 " = 1 ' - 0 "

FLOOD SIDE



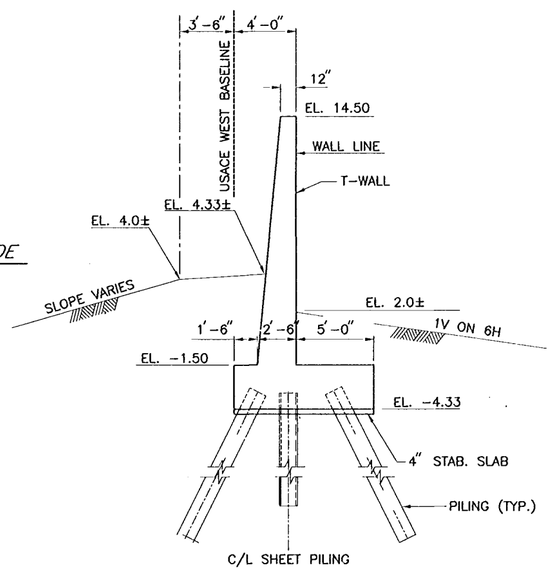
SECTION D (10 | 13)

SCALE: 1/4 " = 1 ' - 0 "

PROTECTED SIDE

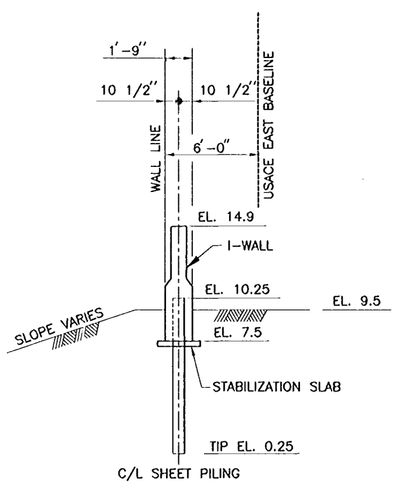
PROTECTED SIDE

FLOOD SIDE



SECTION A (10 | 13)

SCALE: 1/4 " = 1 ' - 0 "



SECTION C (10 | 13)

SCALE: 1/4 " = 1 ' - 0 "

VALUE ENGINEERING — YOUR KEY TO HIGHER PROFITS

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR FLOODWALL PLAN, SEE DWG. NO. 10.

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

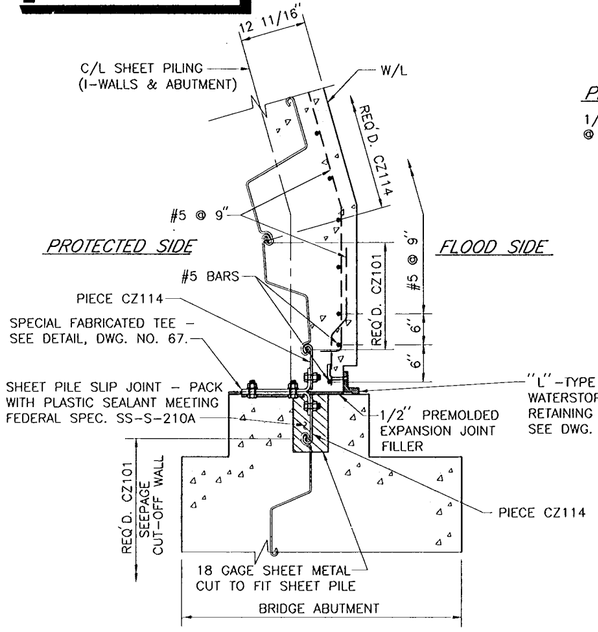
FILMORE AND HARRISON AVE. BRIDGES
HARRISON EXIST. FLOODWALL SECTIONS

STATE OF LOUISIANA — William O Lancaster — Reg. No. 32621 — PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

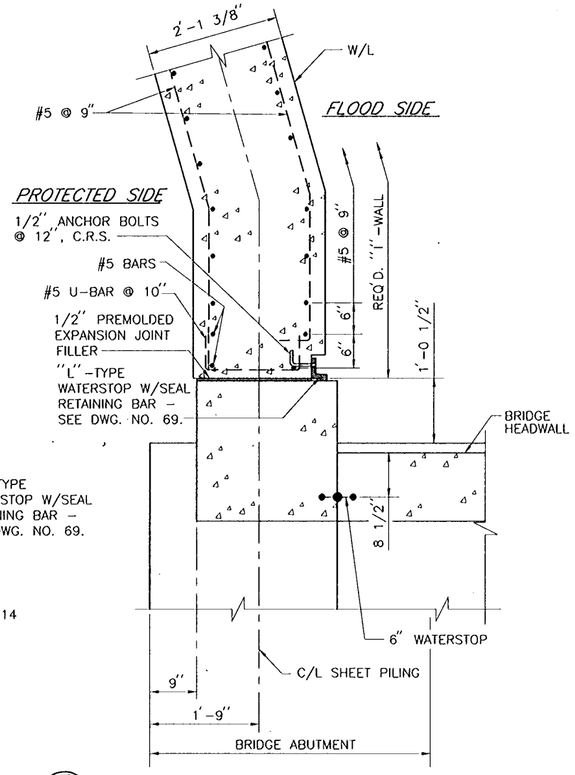
AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 4	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT13.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)	SOLICITATION NO. DACW29-99-B-0008		DWG. 13 OF 93

Safety is a Part of Your Contract



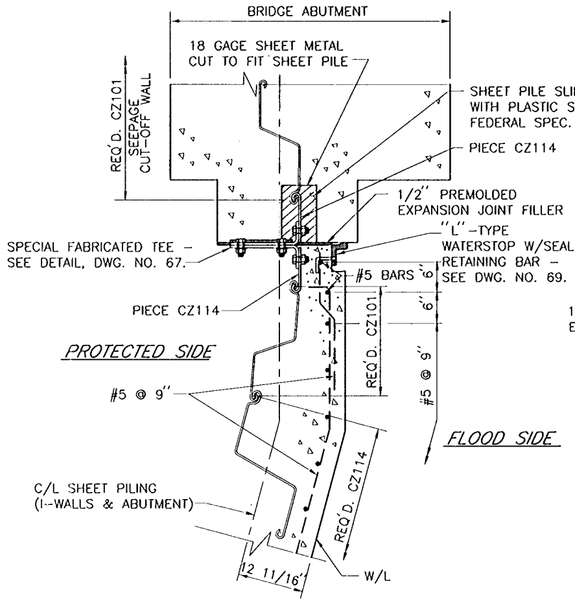
SECTION THROUGH SHEET PILE



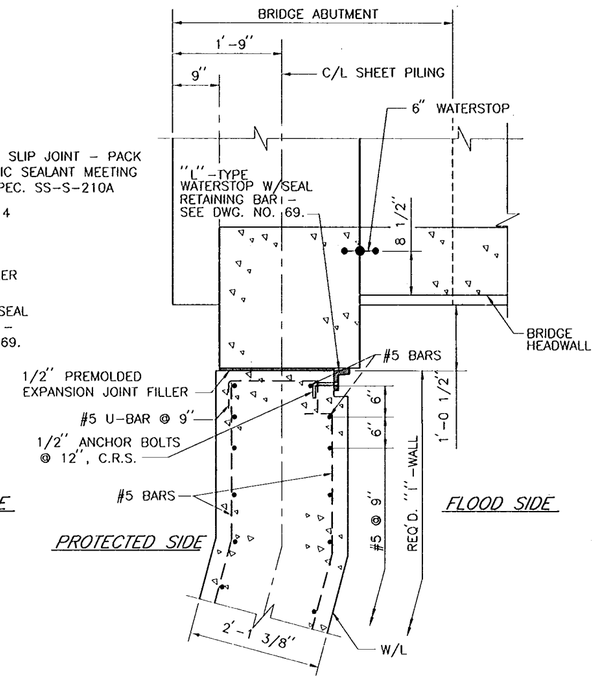
SECTION ABOVE SHEET PILE

DETAIL 7 (10|14)

SCALE : 1" = 1' - 0"



SECTION THROUGH SHEET PILE



SECTION ABOVE SHEET PILE

DETAIL 6 (10|14)

SCALE : 1" = 1' - 0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

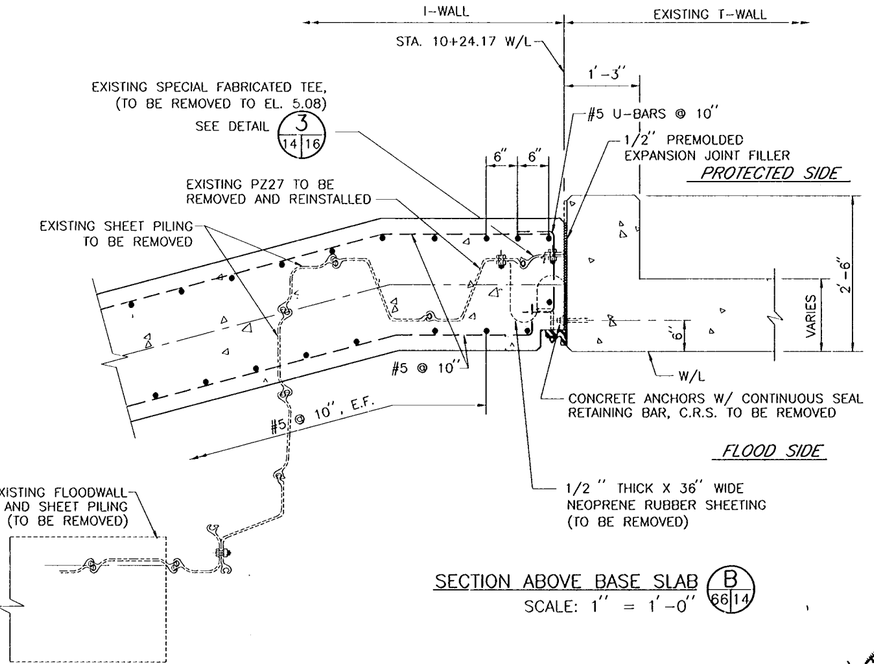
FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR FLOODWALL PLAN, SEE DWG. NO. 10.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 11 AND 12.

FOR T-WALL TO I-WALL ELEVATIONS, SEE DWG. NO. 66.

FOR TYPICAL WALL SECTIONS, SEE DWG. NO. 68.



SECTION THRU BASE SLAB A (66|14)

SCALE: 3/4" = 1'-0"

SECTION ABOVE BASE SLAB B (66|14)

SCALE: 1" = 1'-0"

DETAIL 8 (10|14)

SCALE: 3/4" = 1'-0"

12" 0 1' 2' 3' 4' 5'

SCALE: 1" = 1'-0"

12" 0 1' 2' 3' 4' 5'

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON JOINT DETAILS

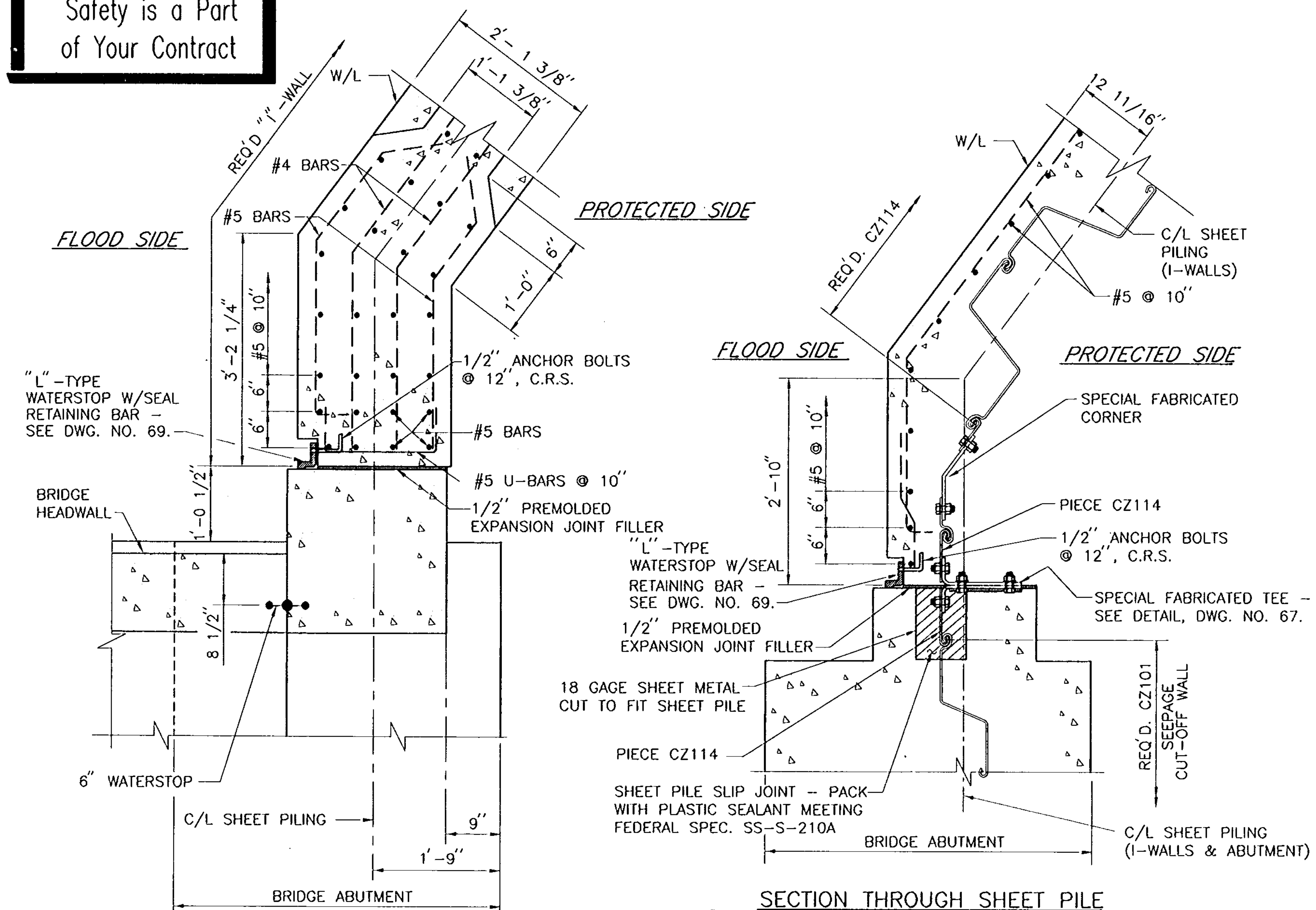
DESIGNED BY: M.K.R.	DATE: SEPT. 1998	PLOT SCALE: 12	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT14.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 14 OF 93

STATE OF LOUISIANA
W. Dan Lancaster
REG. No. 22871
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

VALUE INCENTIVE CLAUSE ENGINEERING — CAN TYPE IT HIGHER PROFITS

Safety is a Part of Your Contract

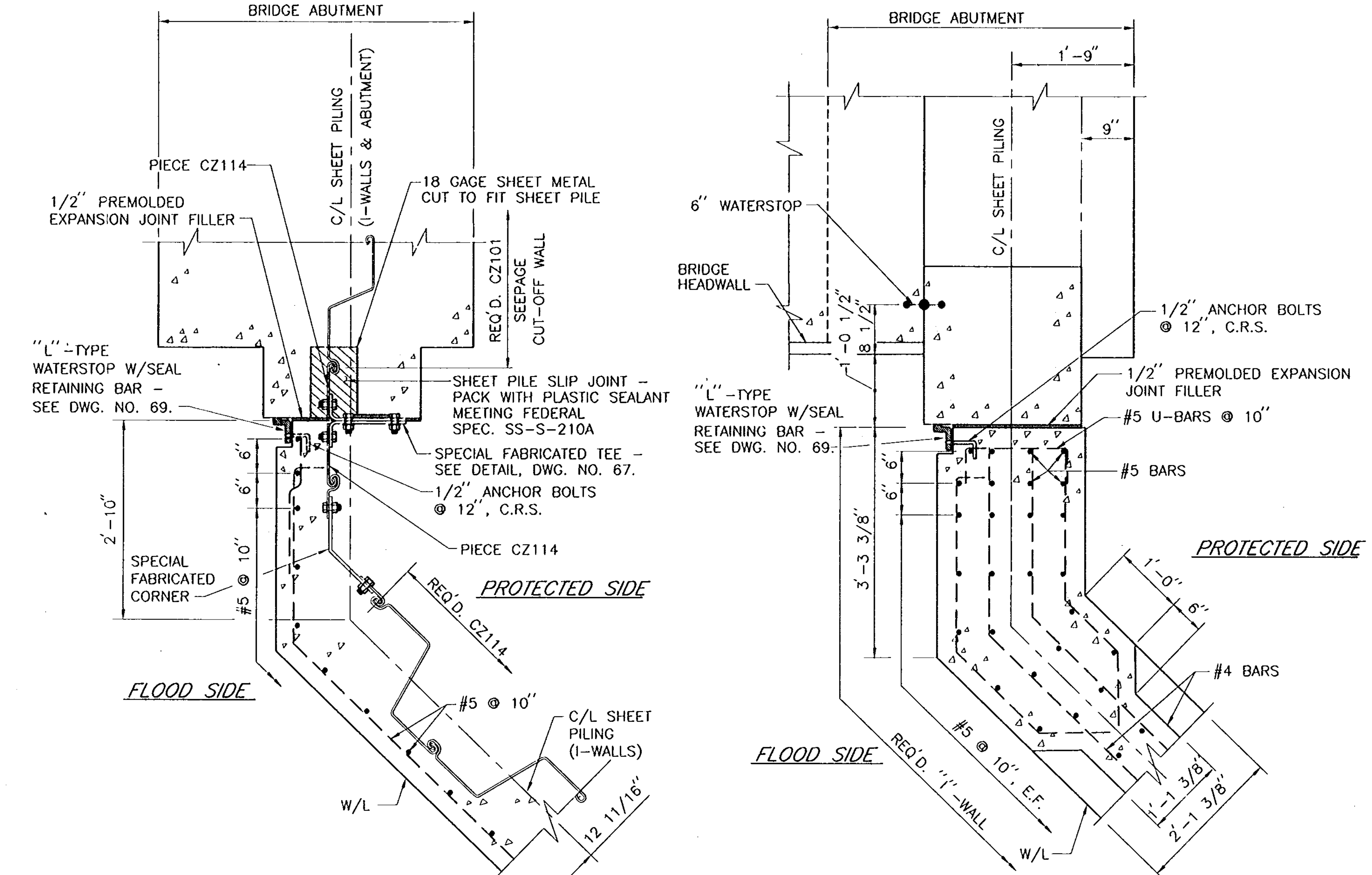


SECTION ABOVE SHEET PILE

SECTION THROUGH SHEET PILE

DETAIL 10 (10|15)

SCALE : 1" = 1' - 0"



SECTION THROUGH SHEET PILE

SECTION ABOVE SHEET PILE

DETAIL 9 (10|15)

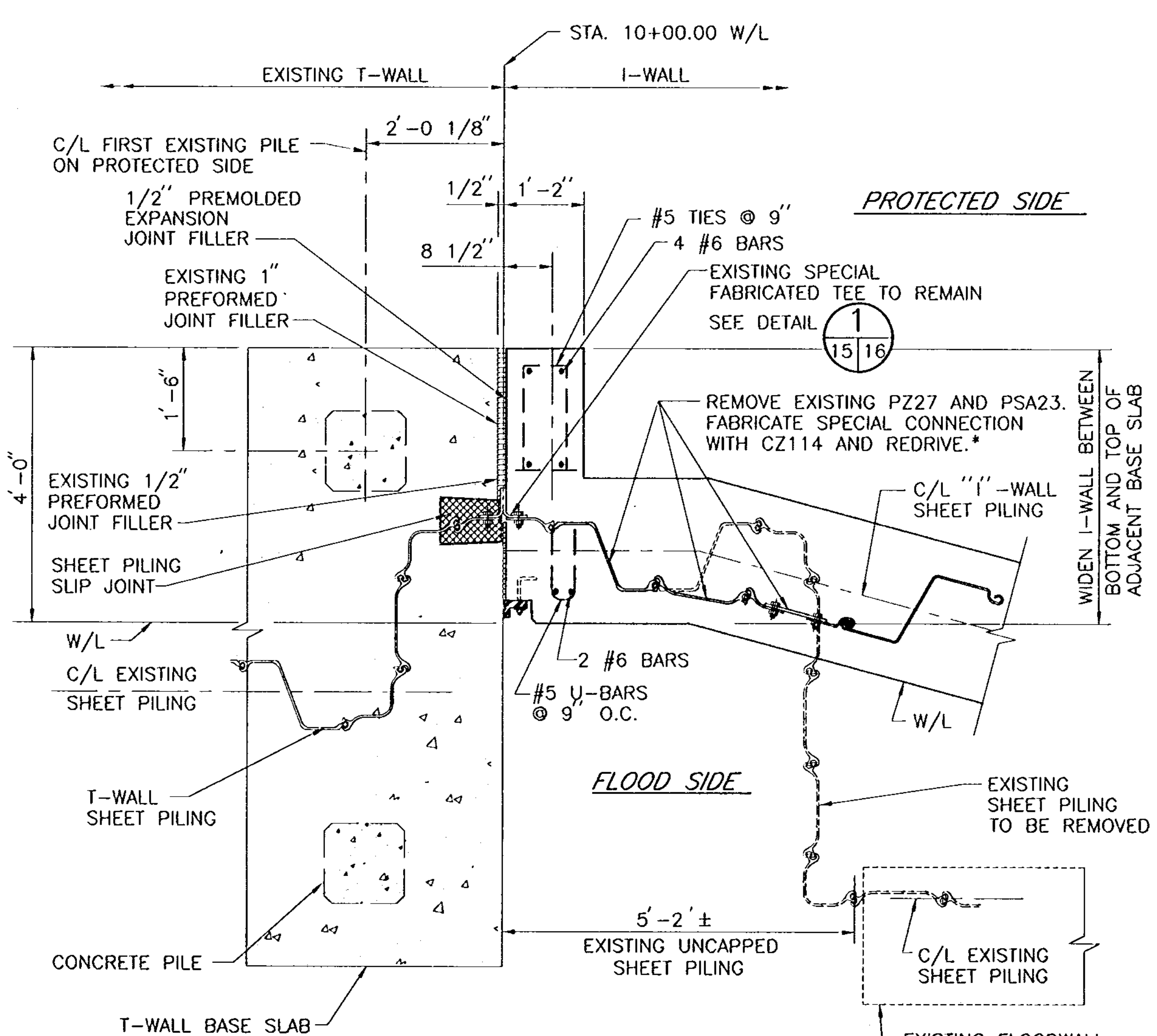
SCALE : 1" = 1' - 0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR PLAN-PROFILE, SEE DWG. NO. 8.
FOR FLOODWALL PLAN, SEE DWG. NO. 10.
FOR FLOODWALL PROFILES, SEE DWG. NOS. 11 AND 12.
FOR T-WALL TO I-WALL ELEVATIONS, SEE DWG. NO. 66.
FOR TYPICAL WALL SECTIONS, SEE DWG. NO. 68.

SCALE: 3/4" = 1'- 0"

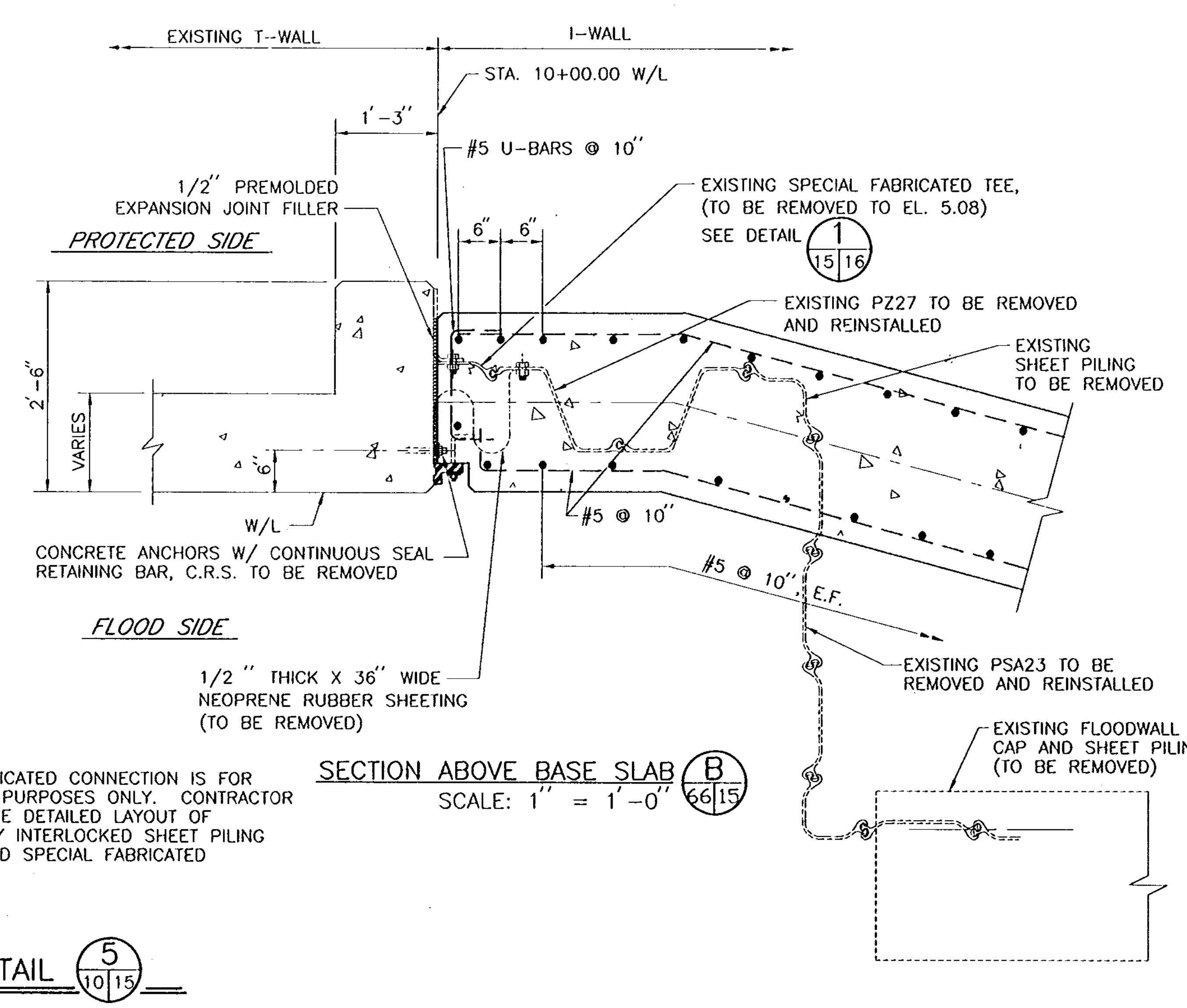
SCALE: 1" = 1'- 0"



SECTION THRU BASE SLAB (A 66|15)

SCALE: 3/4" = 1'-0"

* SPECIAL FABRICATED CONNECTION IS FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL PROVIDE DETAILED LAYOUT OF CONTINUOUSLY INTERLOCKED SHEET PILING WITH REQUIRED SPECIAL FABRICATED CONNECTIONS.



SECTION ABOVE BASE SLAB (B 66|15)

SCALE: 1" = 1'-0"

DETAIL 5 (10|15)

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

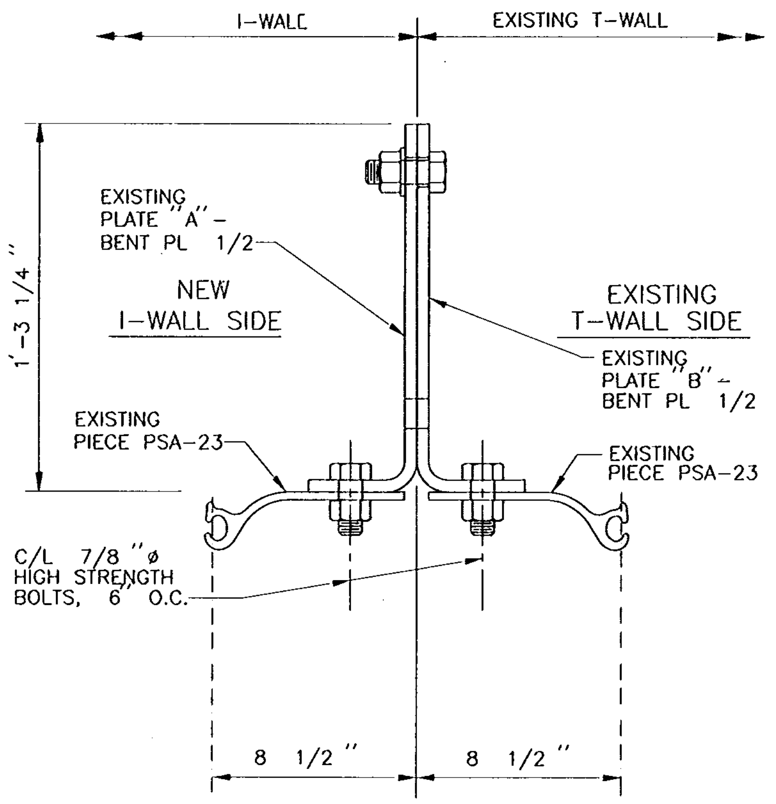
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON JOINT DETAILS

DESIGNED BY: P.J.H. DRAWN BY: C.R.N. CHECKED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 12	PLOT DATE: SEPT. 1998
	CADD FILE: SHT15.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 15 OF 93

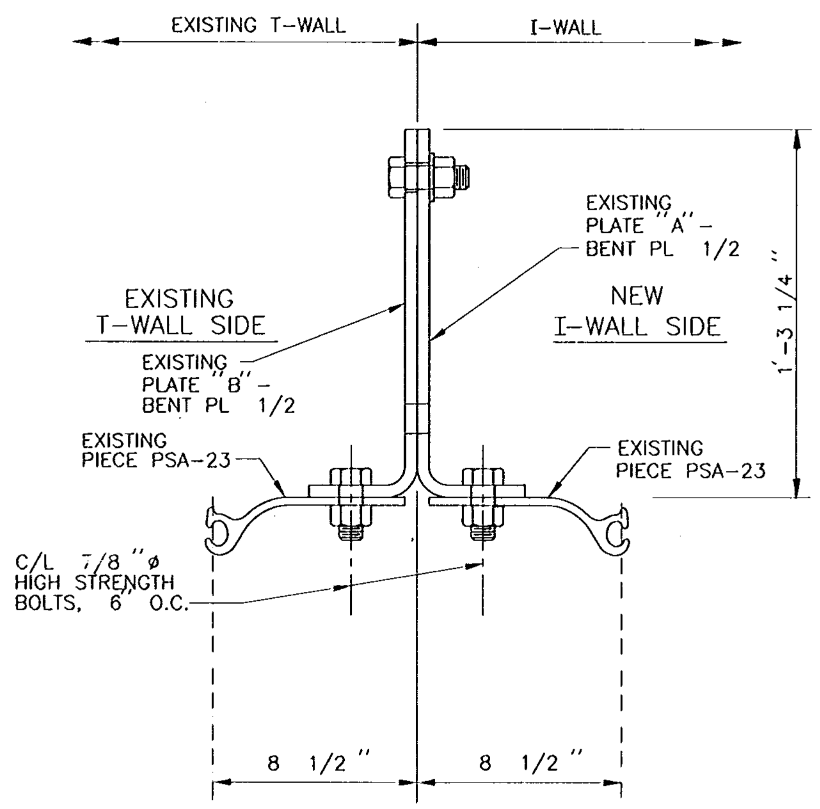
Safety is a Part of Your Contract



DETAIL 3/11 | 16, 3/14 | 16

EXISTING SPECIAL PSA-23 TEE
NORTHWEST OF BRIDGE

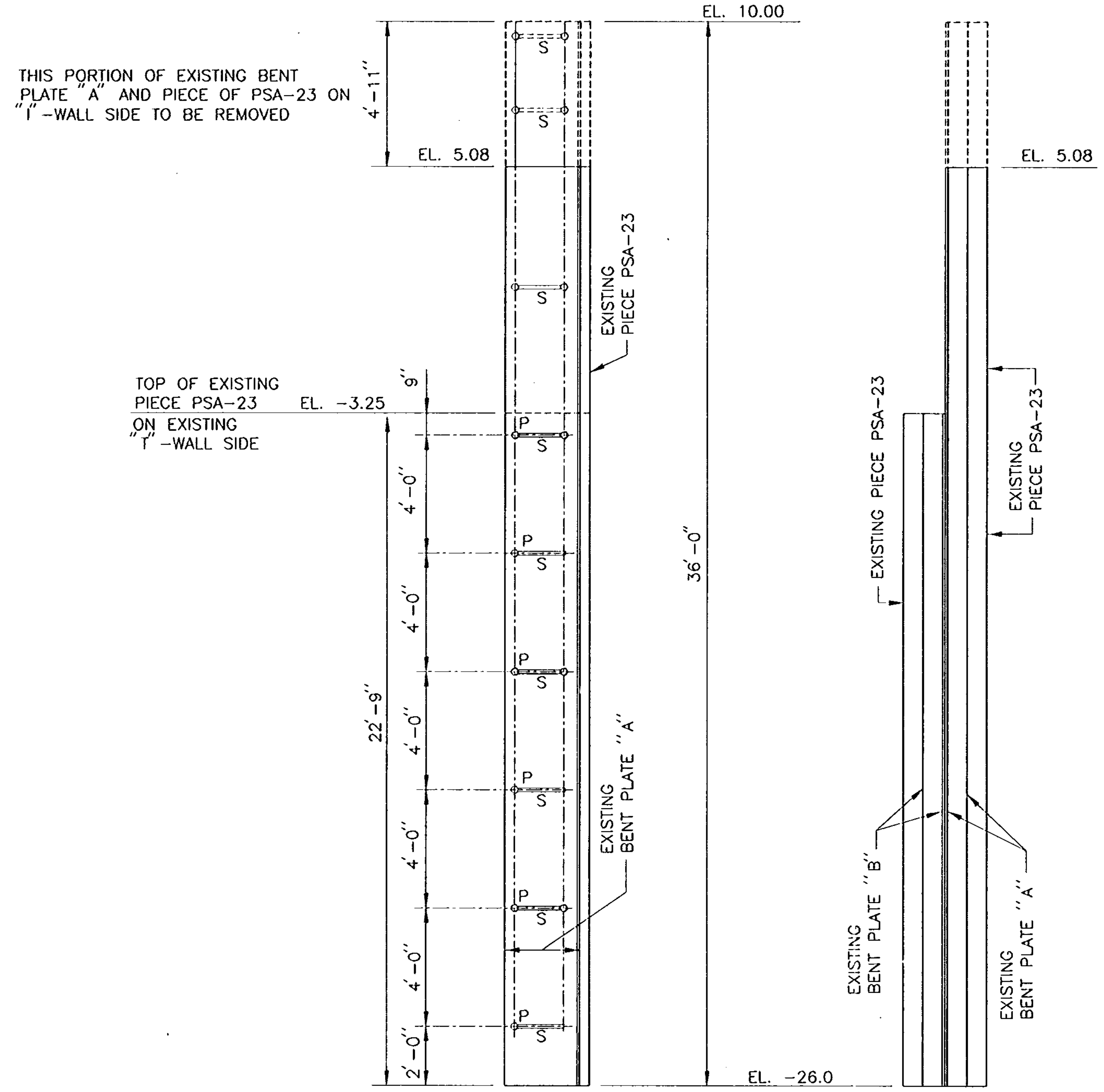
SCALE: 3" = 1' - 0"



DETAIL 1/11 | 16, 1/15 | 16

EXISTING SPECIAL PSA-23 TEE
SOUTHWEST OF BRIDGE

SCALE: 3" = 1' - 0"



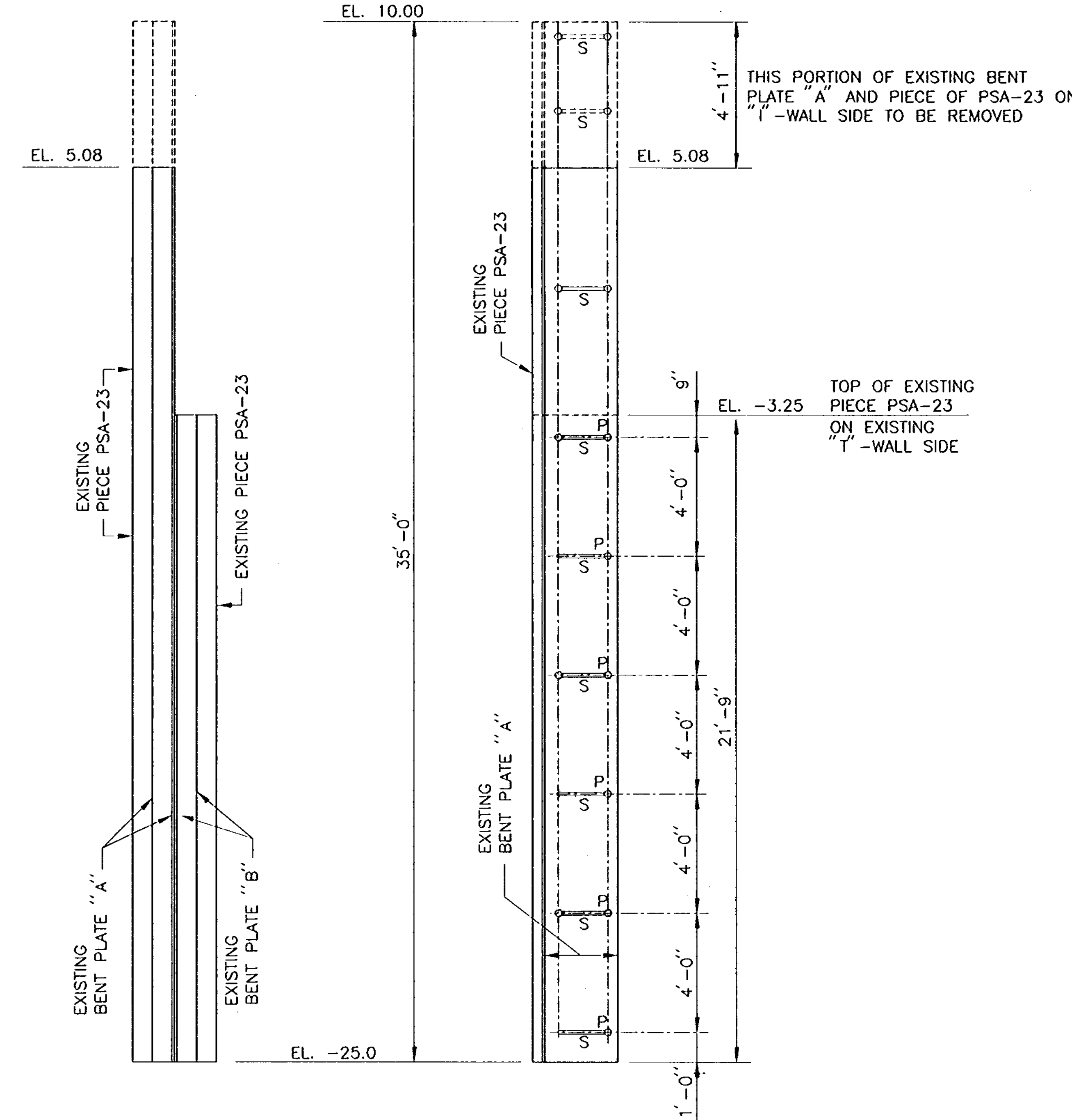
LEGEND

P = PERMANENT BOLT
S = SLOTTED HOLE
(PLATE "A" ONLY)

NEW I-WALL SIDE ELEVATION | PROTECTED SIDE ELEVATION

ELEVATION OF EXISTING SPECIAL PSA-23 TEE
NORTHWEST OF BRIDGE
SHOWING BENT PLATES BOLT SPACING

SCALE: 3/4" = 1'-0" (HORZ.)
3/8" = 1'-0" (VERT.)



LEGEND

P = PERMANENT BOLT
S = SLOTTED HOLE
(PLATE "A" ONLY)

PROTECTED SIDE ELEVATION | NEW I-WALL SIDE ELEVATION

ELEVATION OF EXISTING SPECIAL PSA-23 TEE
SOUTHWEST OF BRIDGE
SHOWING BENT PLATES BOLT SPACING

SCALE: 3/4" = 1'-0" (HORZ.)
3/8" = 1'-0" (VERT.)

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. 3.
FOR PLAN-PROFILE, SEE DWG. NO. 8.
FOR FLOODWALL PLAN, SEE DWG. NO. 10.
FOR FLOODWALL PROFILES, SEE DWG. NOS. 11 AND 12.
FOR FLOODWALL JOINT DETAILS, SEE DWG. NOS. 14 AND 15.

SCALE: 3/8" = 1' - 0"
12" 0 2' 4' 6' 8' 10'

SCALE: 3/4" = 1' - 0"
12" 0 1' 2' 3' 4' 5'

SCALE: 3" = 1' - 0"
12" 0 1' 2'

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

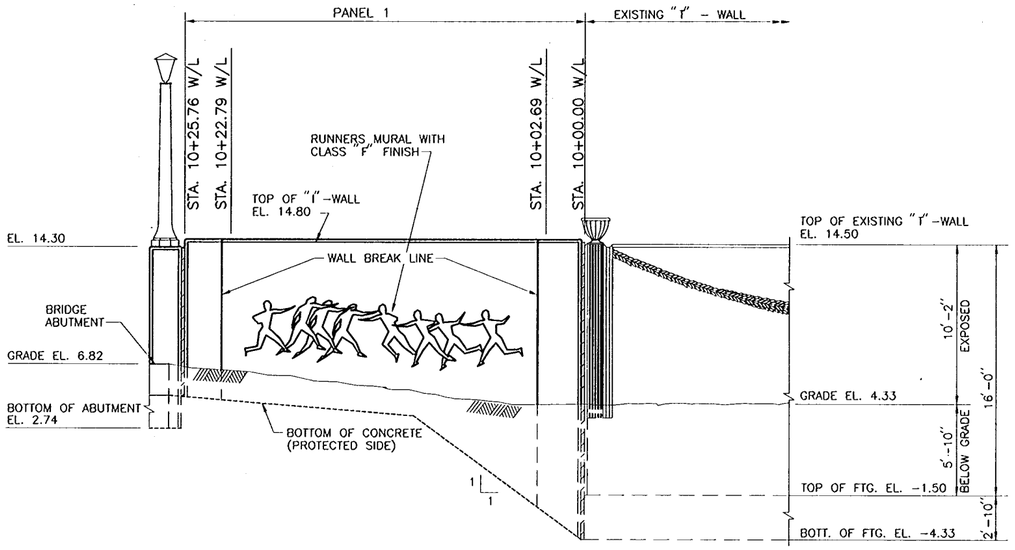
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HARRISON SHEET PILE DETAILS

DESIGNED BY: P.J.H. DRAWN BY: L.A.C. CHECKED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 3	PLOT DATE: SEPT. 1998
	CADD FILE: SHT16.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 16 OF 93

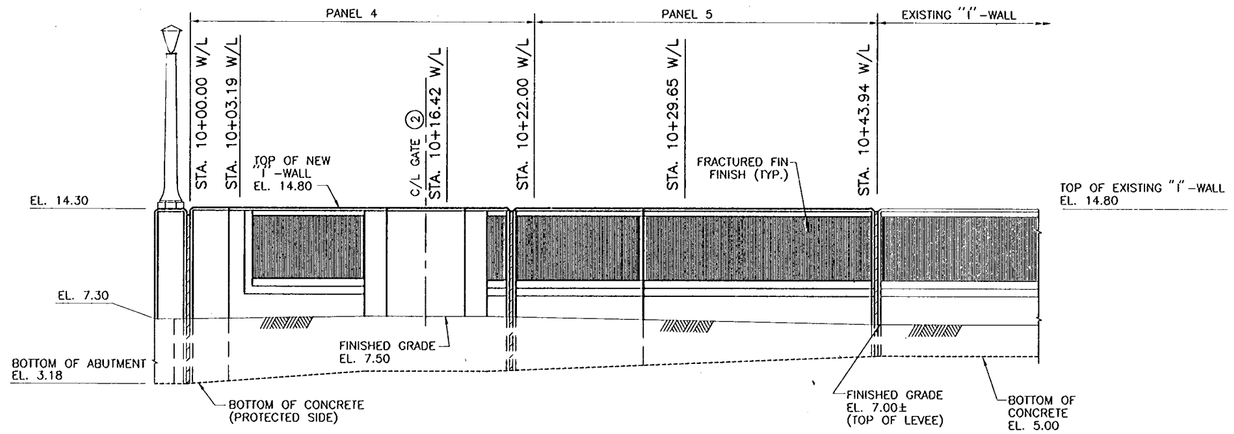
Safety is a Part of Your Contract



PROTECTED SIDE

SOUTHWEST "I" WALL TREATMENT

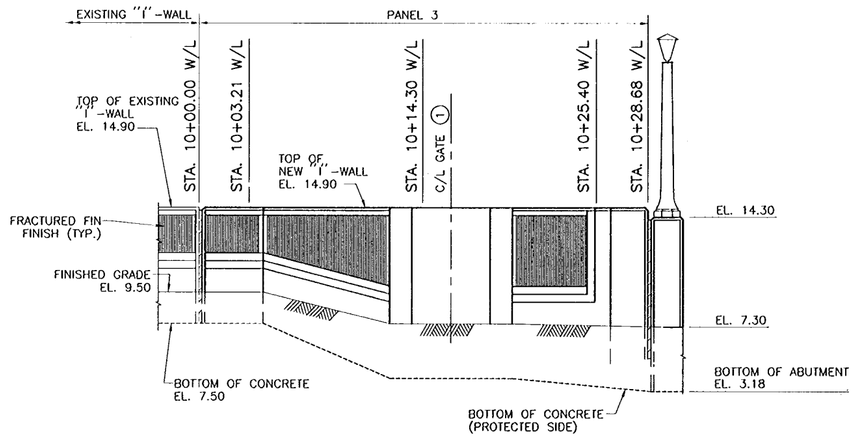
SCALE: 1/4" = 1'-0"



PROTECTED SIDE

NORTHEAST "I" WALL TREATMENT

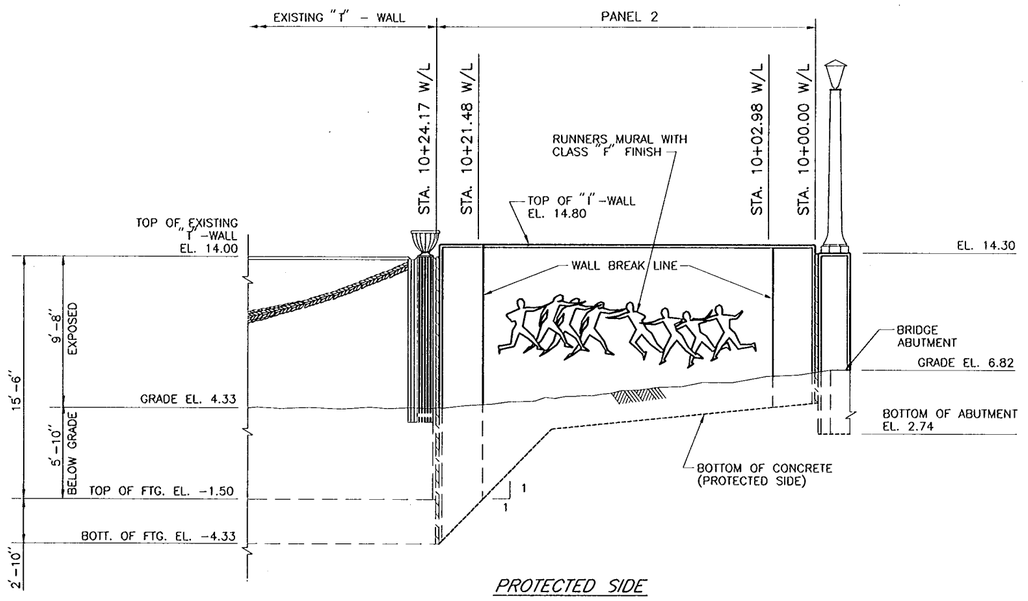
SCALE: 1/4" = 1'-0"



PROTECTED SIDE

SOUTHEAST "I" WALL TREATMENT

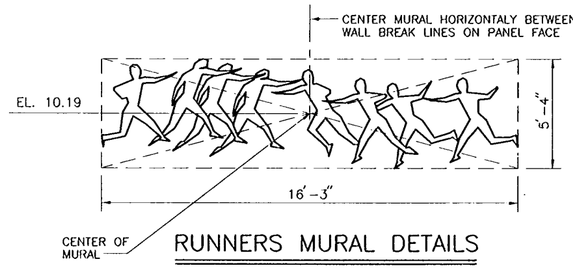
SCALE: 1/4" = 1'-0"



PROTECTED SIDE

NORTHWEST "I" WALL TREATMENT

SCALE: 1/4" = 1'-0"



RUNNERS MURAL DETAILS

N.T.S.

NOTE: IMAGE SHOWN MAY NOT REFLECT ACTUAL IMAGE.

NOTES

1. THE MURAL IS TO BE FURNISHED BY THE GOVERNMENT AS A PRECAST FIBERGLASS NEGATIVE MOLD AND INCORPORATED INTO THE PROJECT BY THE CONTRACTOR. SEE THE SPECIFICATIONS FOR IDENTIFICATION OF GOVERNMENT FURNISHED PROPERTY.
2. CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE LOCATION OF ALL JOINTS IN ALL FORMS USED FOR CONSTRUCTION FOR PRIOR APPROVAL.
3. OMIT CHAMFERS ON ALL HORIZONTAL CONSTRUCTION JOINTS.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR FLOODWALL PLAN, SEE DWG. NO. 10.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 11 AND 12.

FOR "I"-WALL REINFORCING AND DETAILS, SEE DWG. NO. 68.

SCALE: 1/4" = 1'-0"

12"0 5' 10' 15' 20'

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

VALUE ENGINEERING — YOUR WAY TO HIGHER PROFITS

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

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ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

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CONSULTING ENGINEERS
KENNER, LOUISIANA

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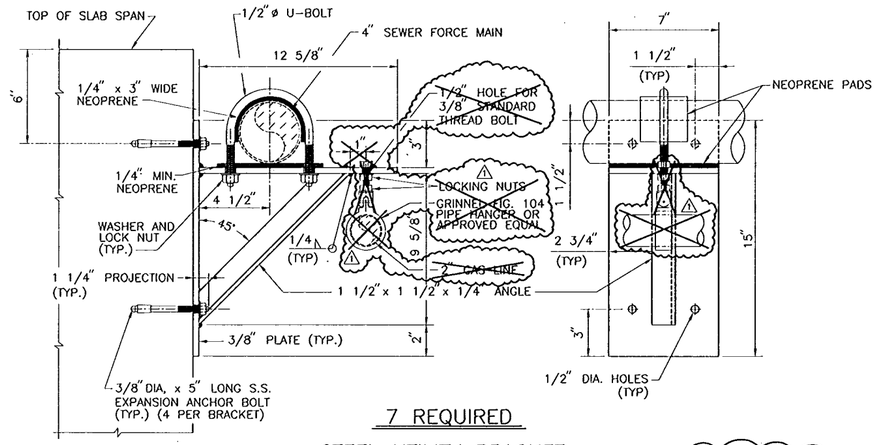
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON I-WALL TREATMENTS

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 4	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.	CADD FILE: SHT17.DGN		FILE NO. H-4-45050
CHECKED BY: P.J.H.	SOLICITATION NO. DACW29-99-B-0008		DWG. 17 OF 93
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER			

Safety is a Part of Your Contract



7 REQUIRED

STEEL UTILITY BRACKET

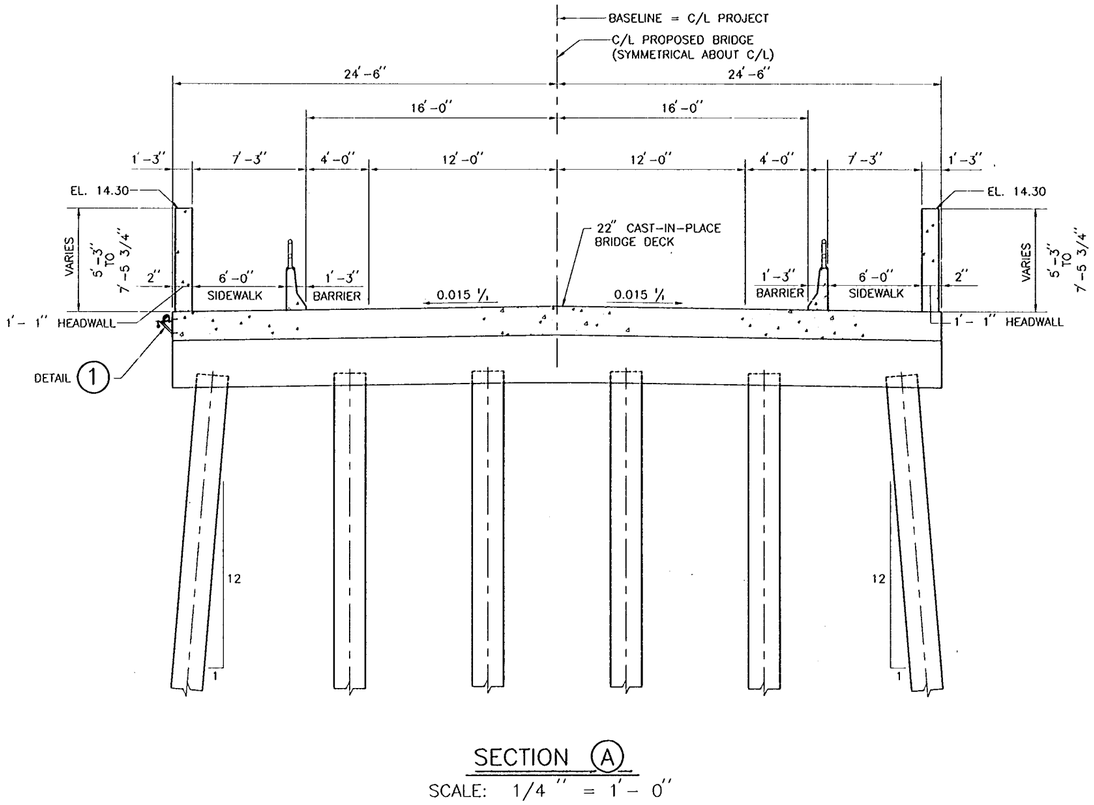
DETAIL (1)

SCALE: 3" = 1'-0"

⚠ GAS LINE DELETED AS PER MODIFICATION A00005

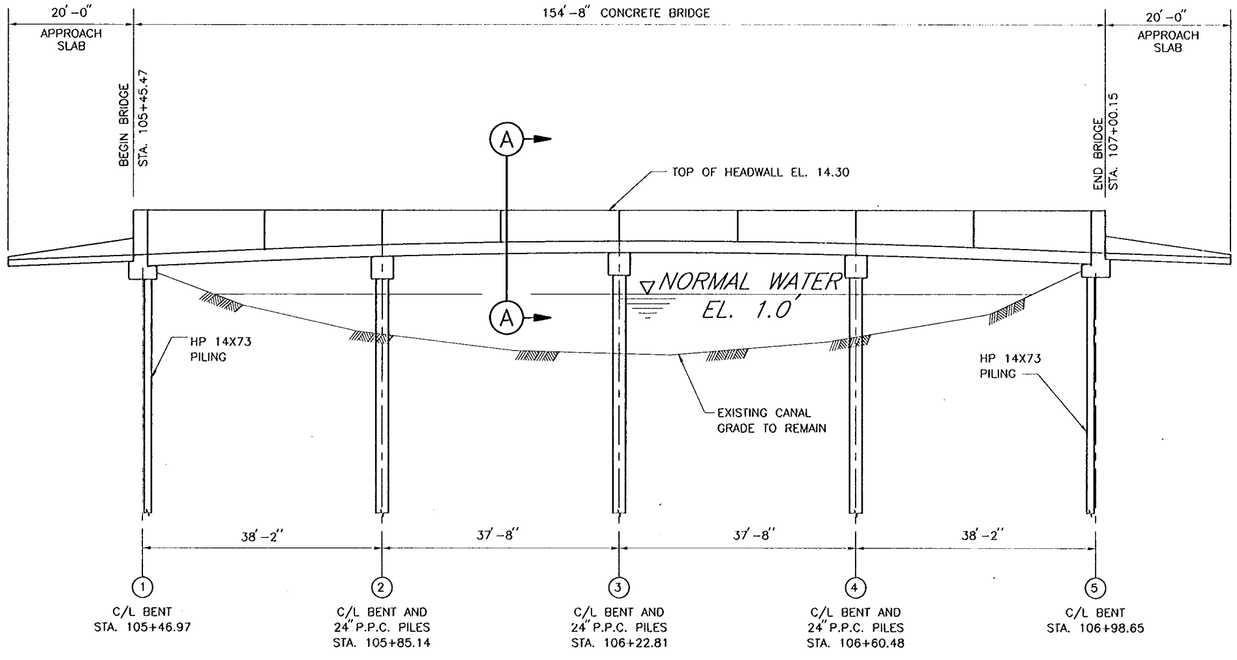
NOTE: STEEL UTILITY BRACKETS TO BE SPACED AT 20'-0" O.C. MAXIMUM AND 2'-0" FROM THE C/L OF ALL SEWER FORCE MAIN PIPE JOINTS.

ALL STEEL UTILITY BRACKET COMPONENTS ARE TO BE HOT-DIPPED GALVANIZED UNLESS OTHERWISE NOTED.



SECTION (A)

SCALE: 1/4" = 1'-0"



BRIDGE ELEVATION

SCALE: 1" = 10'

⚠ CONCRETE PILE TIP EL. -78.5 NGVD. SEE DWG. NO. 22 FOR DETAILS.

REFFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3

FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR FLOODWALL PLAN, SEE DWG. NO. 10.

FOR APPROACH SLABS, SEE DWG. NO. 19.

FOR ABUTMENT PLAN, ELEVATION AND DETAILS, SEE DWGS. NO. 20 AND 21.

FOR BENTS (2), (3) AND (4), SEE DWG. NO. 22.

FOR SLAB SPANS, SEE DWGS. NO. 24 THRU 27.

FOR BRIDGE WALL DETAILS, SEE DWG NO. 28.

SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

SCALE: 1/4" = 1'-0"

12"0 5' 10' 15' 20'

SCALE: 3" = 1'-0"

12" 0 1' 2'

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C•A•D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠1	AS BUILT	6/13/00	W.D.L.

REVISIONS

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PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HARRISON BRIDGE PLAN AND ELEVATION

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 48	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT18.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 18 OF 93

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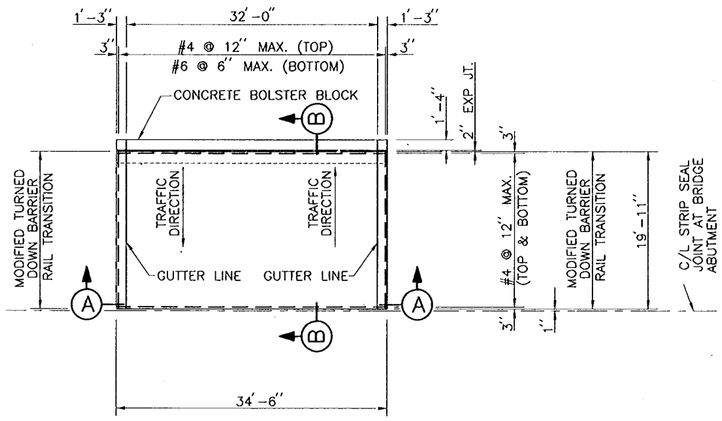
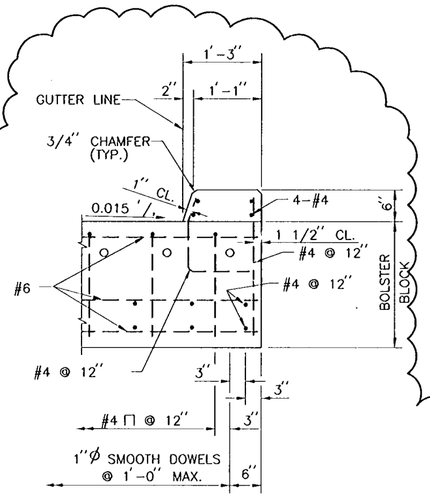


APPROACH SLAB PLAN

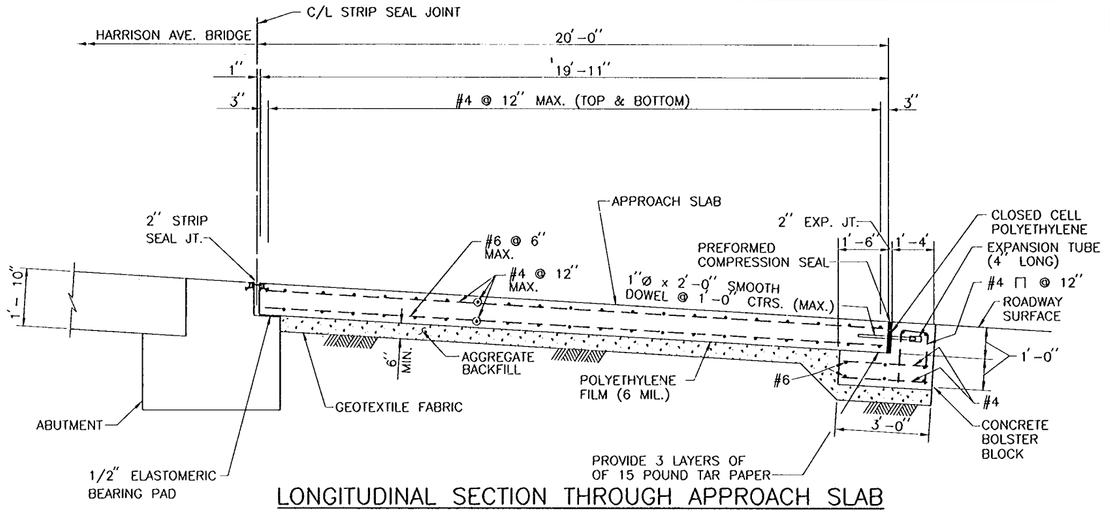
SCALE: 1/8" = 1'-0"

NOTE:
AGGREGATE BACKFILL LIMITS TO BE THE OUTER EDGES OF THE APPROACH SLAB. POLYETHYLENE FILM (6 MIL. THICKNESS) TO BE INSTALLED BETWEEN THE AGGREGATE BACKFILL AND THE CONCRETE APPROACH SLAB FOR THE ENTIRE LIMITS OF THE AGGREGATE BACKFILL.



SECTION (C)

SCALE: 1" = 1'-0"

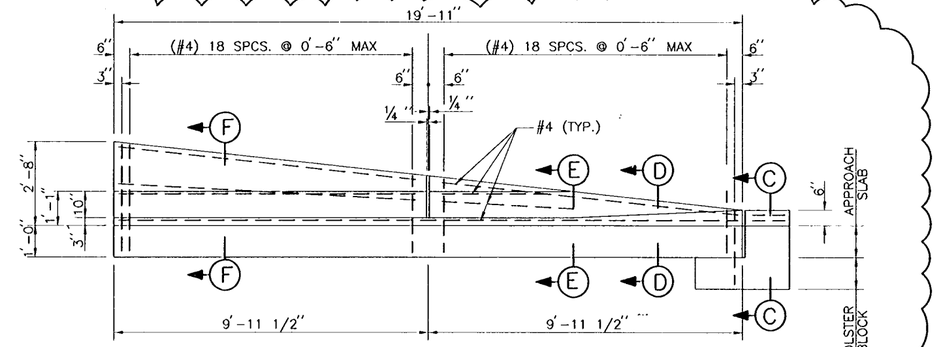


LONGITUDINAL SECTION THROUGH APPROACH SLAB

SECTION (B)

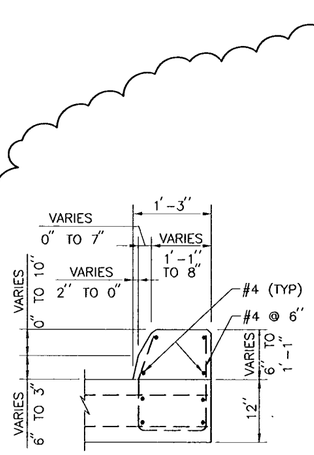
SCALE: 1/2" = 1'-0"

⚠ CONTRACTOR USED THE LADOTD TRANSITION FOR BARRIER RAILING STANDARD.



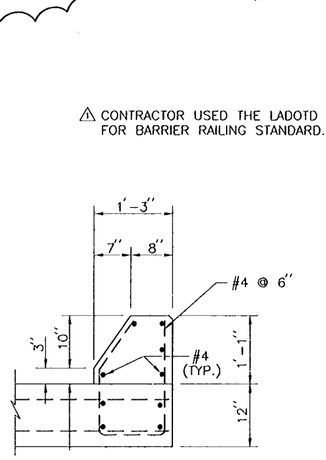
MODIFIED TURNED – DOWN BARRIER RAIL TRANSITION

SCALE: 1/2" = 1'-0"



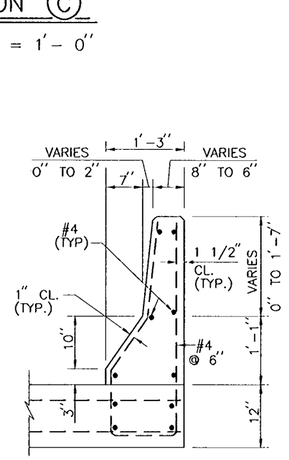
SECTION (D)

SCALE: 1" = 1'-0"



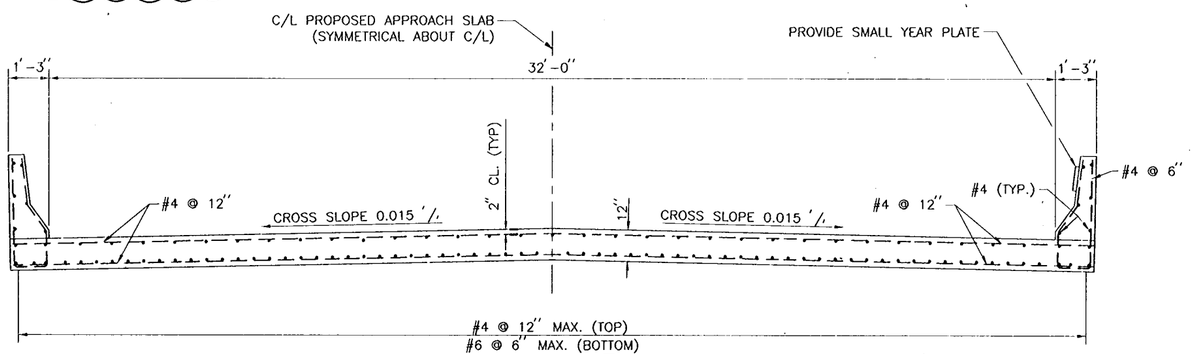
SECTION (E)

SCALE: 1" = 1'-0"



SECTION (F)

SCALE: 1" = 1'-0"



SECTION (A)

SCALE: 1/2" = 1'-0"

SCALE: 1/8" = 1'-0"

12" 0 8' 16' 24' 32'

SCALE: 1/2" = 1'-0"

12" 0 2' 4' 6' 8'

SCALE: 1" = 1'-0"

12" 0 1' 2' 3' 4' 5'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.

FOR YEAR PLATE DETAILS, SEE DWG. NO. 83.

FOR STRIP SEAL JOINT DETAILS, SEE DWGS. NO. 84 AND 85.

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠1	AS BUILT	6/13/00	W.D.L.

REVISIONS

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ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON APPROACH SLABS

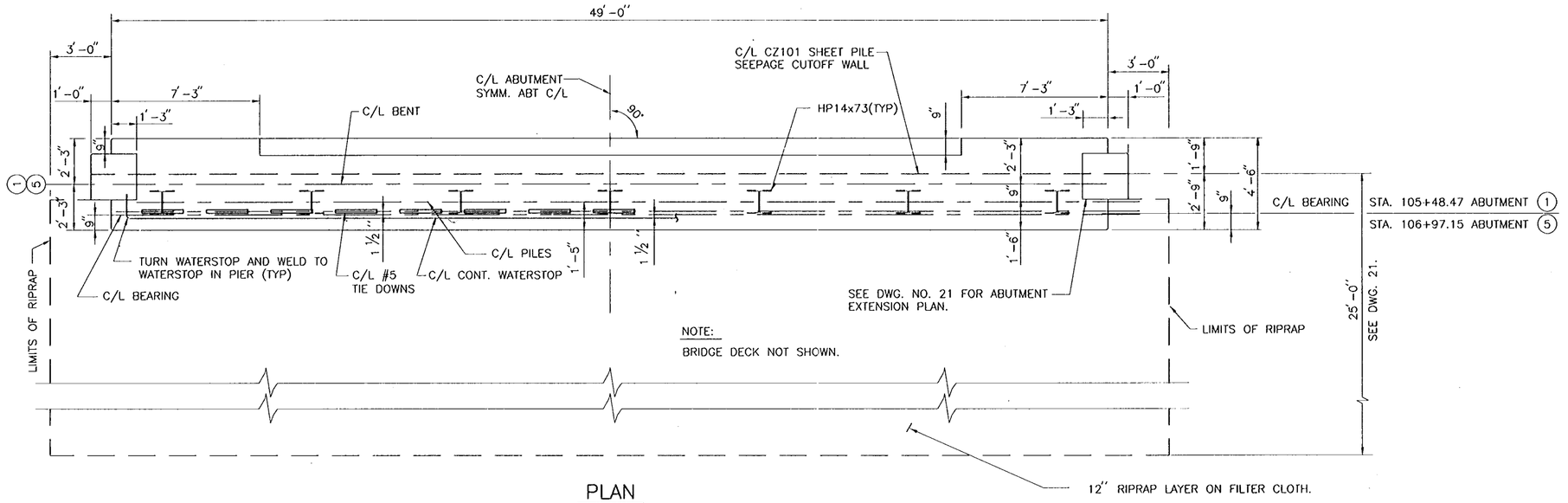
STATE OF LOUISIANA
William H. Hartman
No. 22831
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 24	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT19.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 19 OF 93

VALUE ENGINEERING — YOUR KEY TO HIGHER PROFITS

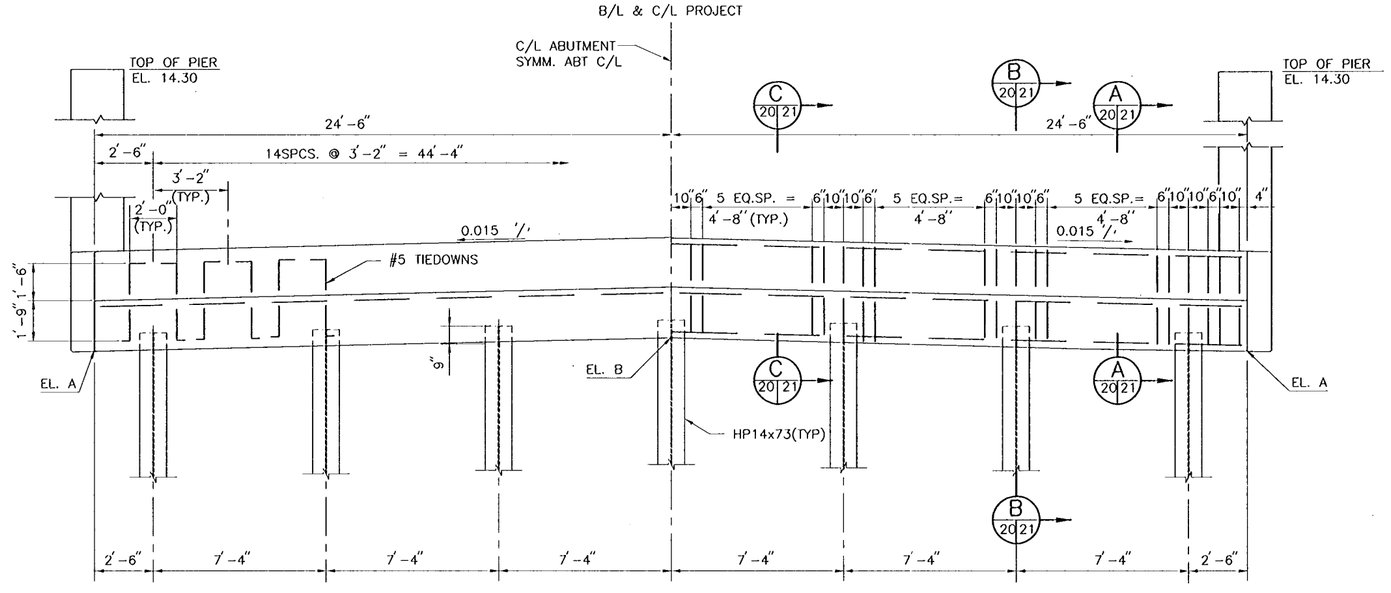
Safety is a Part of Your Contract



PLAN

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR BENT LOCATIONS, SEE DWG. NO. 8.
FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.
FOR ABUTMENT DETAILS, SEE DWG. NO. 21.



ELEVATION

SCALE: 3/8" = 1'-0"

12" 0 2' 4' 6' 8' 10'

NOTE:
BRIDGE DECK AND SHEET PILE NOT SHOWN IN ELEVATION.

⚠ H-PILES 80' IN LENGTH (HARRISON AVE. ONLY)

ABUTMENT	C/L BRG. STATION	EL. A	EL. B	PILE LENGTH
①	105+48.47	2.74	3.11	80'
⑤	106+97.15	3.18	3.55	80'

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.

REVISIONS

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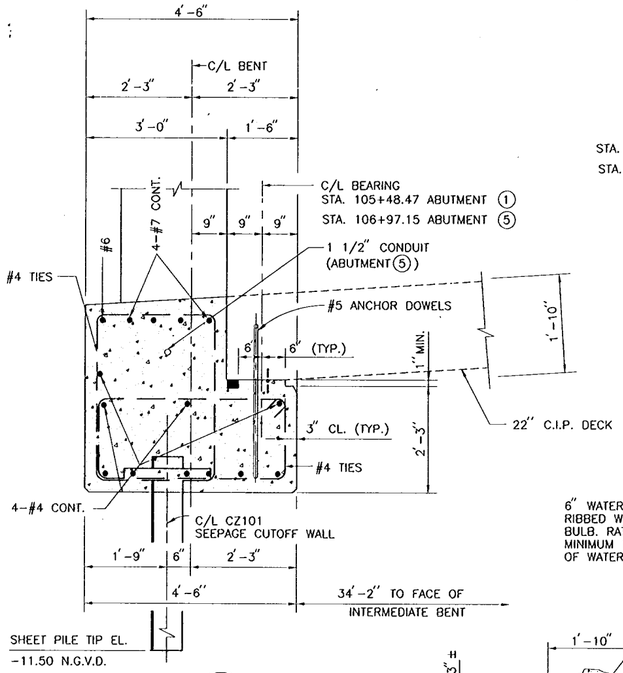
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON ABUTMENT PLAN & ELEVATION

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 32	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT20.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 20 OF 93

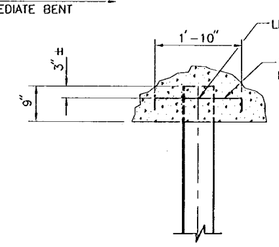
VALUE ENGINEERING CHANGES YOUR KEY TO HIGHER PROFITS



SECTION A 2021

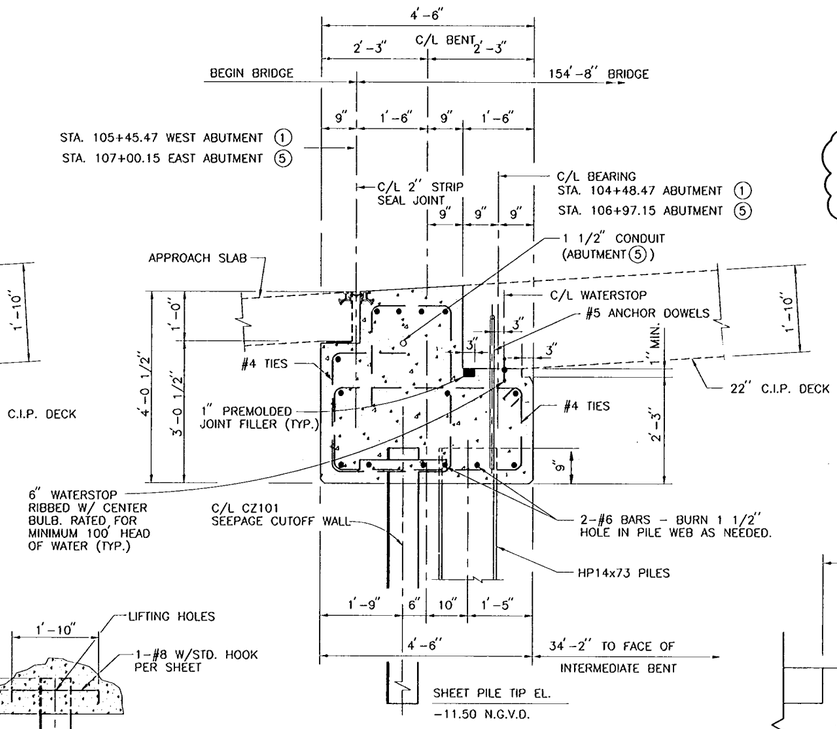
SCALE: 3/4" = 1'-0"

Safety is a Part of Your Contract



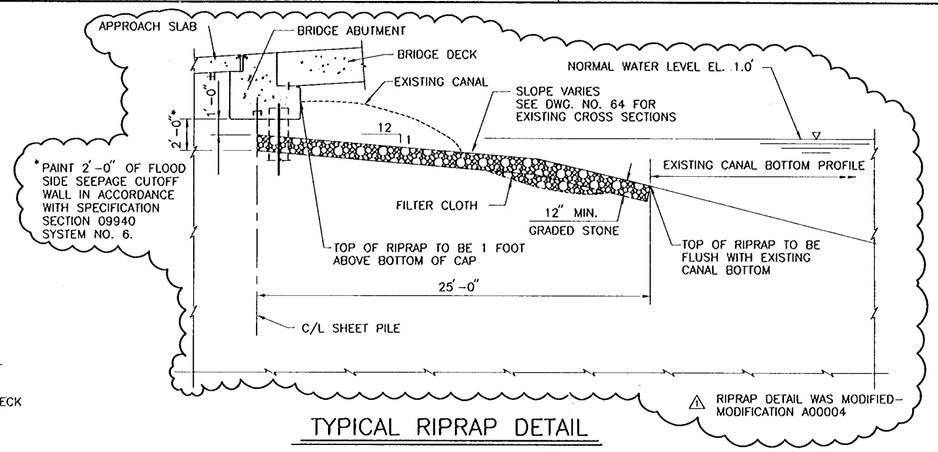
SHEET PILE ANCHOR DETAIL

SCALE: 3/4" = 1'-0"



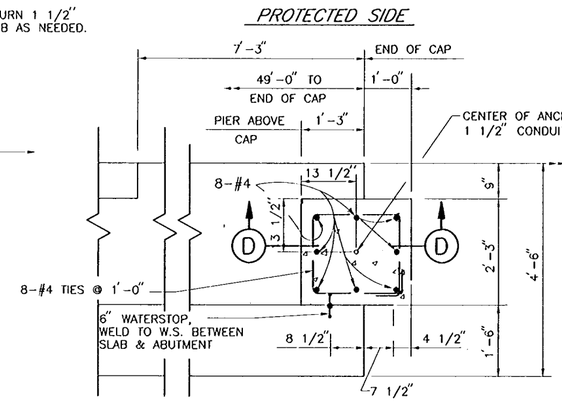
SECTION B 2021

SCALE: 3/4" = 1'-0"



TYPICAL RIPRAP DETAIL

SCALE: 1/4" = 1'-0"



ABUTMENT EXTENSION PLAN

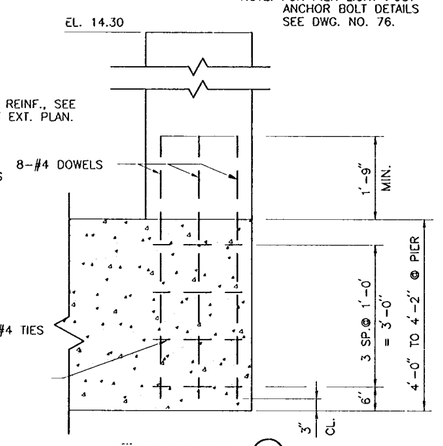
SCALE: 3/4" = 1'-0"

HP14X73 PILE SPLICE DETAIL

SCALE: 3/4" = 1'-0"

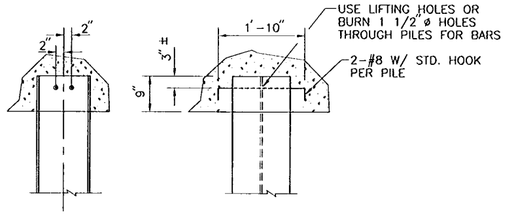
NOTES:

1. UPPER 10 FEET OF H 14x73 TO RECEIVE COAL TAR EPOXY COATING.



SECTION D 2021

SCALE: 3/4" = 1'-0"

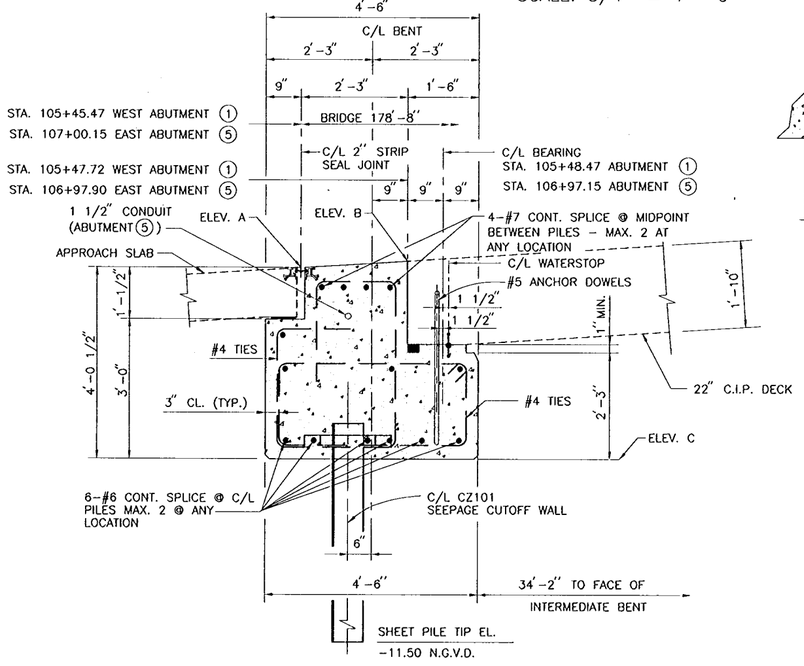


HP14X73 PILE ANCHOR DETAIL

SCALE: 3/4" = 1'-0"

NOTE:

FOR SPACING OF SETS OF STIRRUPS, SEE ELEVATION, DWG. 50.



SECTION C 2021

SCALE: 3/4" = 1'-0"

ABUTMENT	STATION	ELEV. A @ B/L	ELEV. B @ B/L	ELEV. C @ B/L
(1)	105+45.47	7.11	–	3.07
	105+47.72	–	7.24	
(5)	106+97.15	–	7.66	3.51
	107+00.15	7.55	–	

SCALE: 1/4" = 1'-0"

12"0 5' 10' 15' 20'

SCALE: 3/4" = 1'-0"

12" 0 1' 2' 3' 4' 5'

REFERENCE DRAWINGS:

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.

FOR LIMITS OF RIP RAP, SEE DWG. NO. 20.

FOR HP14x73 PILE LENGTH, SEE DWG. NO. 20.

FOR STRIP SEAL JOINT DETAILS, SEE DWG. NOS. 84 AND 85.

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AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

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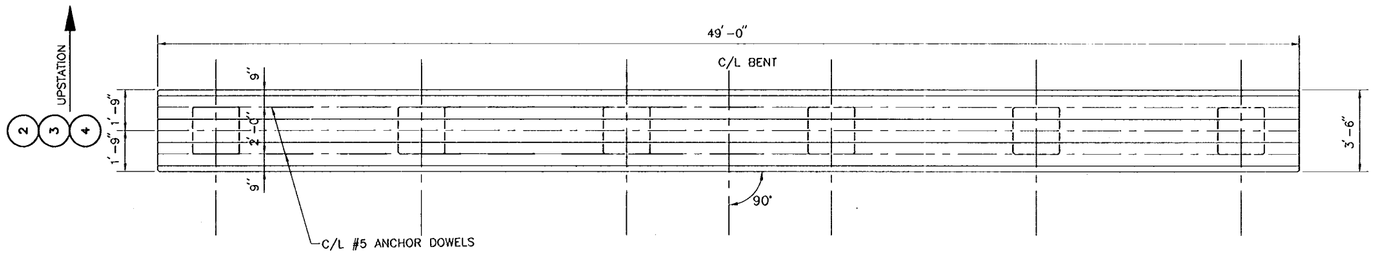
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON ABUTMENT DETAILS

DESIGNED BY: P.J.H.
DRAWN BY: L.A.C.
CHECKED BY: W.D.L.
SUBMITTED BY: HARTMAN ENGINEERING
DESIGN ENGINEER

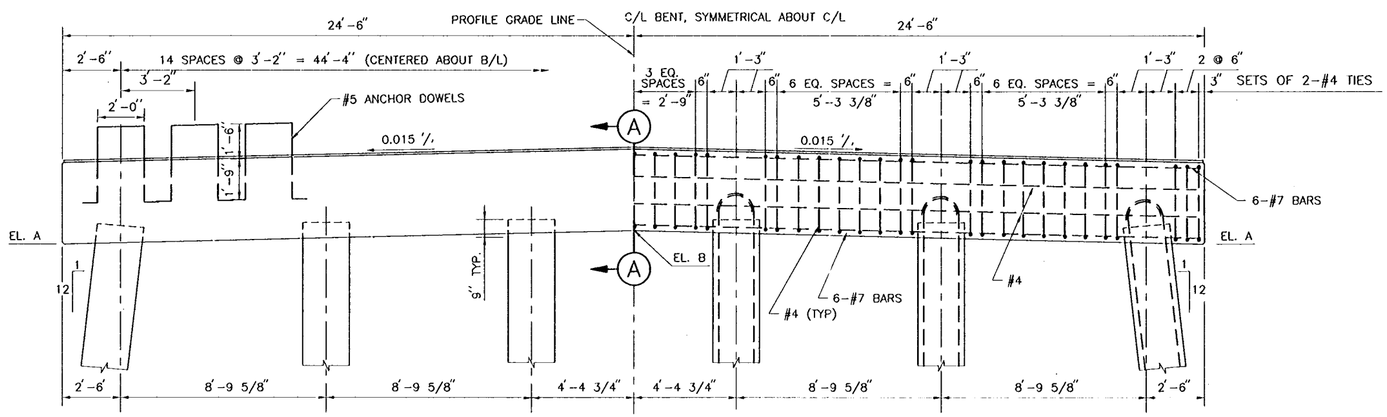
DATE: SEPT. 1998
PLOT SCALE: 16
CADD FILE: SHT21.DGN
SOLICITATION NO. DACW29-99-B-0008
PLOT DATE: SEPT. 1998
FILE NO. H-4-45050
DWG. 21 OF 93

Safety is a Part of Your Contract



PLAN

SCALE: 3/8" = 1'-0"

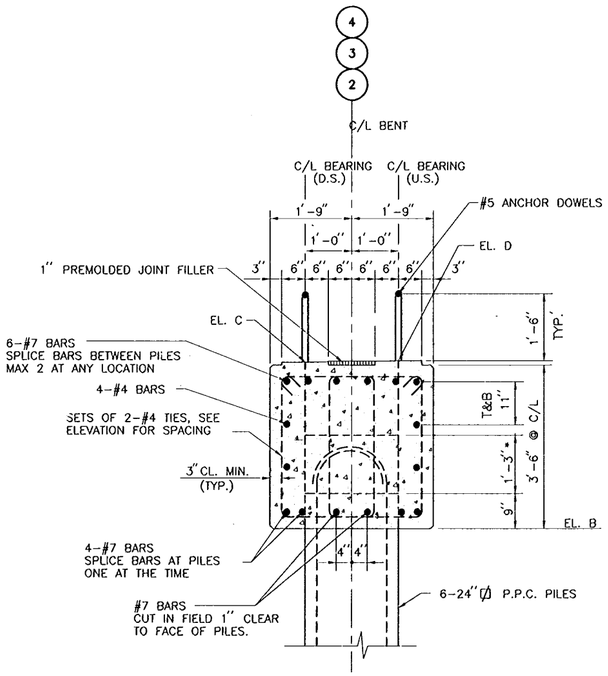


SECTION

SCALE: 3/8" = 1'-0"

PILE	TOP	TIP	LENGTH
BENT 3			
A	4.43	-78.5	82.93
B	4.56	-78.5	83.06
C	4.69	-78.5	83.19
D	4.69	-78.5	83.19
E	4.56	-78.5	83.06
F	4.43	-78.5	82.93
BENT 4			
A	4.03	-78.5	82.53
B	4.16	-78.5	82.66
C	4.29	-78.5	82.79
D	4.29	-78.5	82.79
E	4.16	-78.5	82.66
F	4.03	-78.5	82.53

⚠ CONCRETE PILES WERE ORDERED IN INCORRECT LENGTHS. PILE LENGTHS FOR BENTS 3 & 4 ARE SHOWN ABOVE.



SECTION (A)

SCALE: 3/4" = 1'-0"

* REMOVE DRIVING HEAD CONCRETE TO EXPOSE PILE ANCHOR REBAR

BENT	ELEV. A	ELEV. B*	ELEV. C*	ELEV. D*
②	3.02	3.39	7.04	7.10
③	3.64	4.01	7.67	7.67
④	3.24	3.61	7.31	7.26

* ELEVATION AT C/L OF BRIDGE AND PROFILE GRADE LINE

NOTES:

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.

FOR PILE LENGTHS, SEE DWG. NO. 75.

SCALE: 3/8" = 1'-0"

12" 0 2' 4' 6' 8' 10'

SCALE: 3/4" = 1'-0"

12" 0 1' 2' 3' 4' 5'

AS BUILT PLANS

DATE RECEIVED 5/30/00

DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.

REVISIONS

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PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON BENTS ② ③ & ④

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 32	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.	CADD FILE: SHT22.DGN		FILE NO. H-4-45050
CHECKED BY: W.D.L.	SOLICITATION NO. DACW29-99-B-0008		DWG. 22 OF 93
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)			

VALUE ENGINEERING — INCENTIVE SAVINGS — YOUR KEY TO HIGHER PROFITS

Safety is a Part of Your Contract

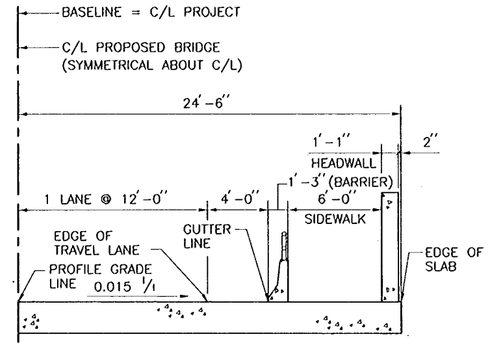
ROADWAY ELEVATIONS – FINAL *

STATION	C/L PROJECT (PGL)	EDGE TRAVEL LANE	GUTTER LINE	EDGE OF SIDEWALK	EDGE OF SLAB
104+44	1.85	*	*	*	*
104+54	2.23	*	*	*	*
104+64	2.64	*	*	*	*
104+74	3.08	*	*	*	*
104+84	3.56	*	*	*	*
104+94	4.06	*	*	*	*
105+04	4.60	*	*	*	*
105+14	5.17	*	*	*	*
105+24	5.78	*	*	*	*
105+25.47	5.86	5.68	5.62	6.01	5.60
105+34	6.41	6.23	6.17	6.39	6.15
105+44	7.03	6.85	6.79	6.72	6.77
105+45.47	7.11	6.93	6.87	6.76	6.85
105+46.97	7.19	7.01	6.95	6.85	6.83
105+54	7.57	7.39	7.33	7.22	7.20
105+64	8.05	7.87	7.81	7.70	7.68
105+74	8.45	8.27	8.21	8.10	8.08
105+84	8.79	8.61	8.55	8.44	8.42
105+85.14	8.82	8.64	8.58	8.47	8.45
105+94	9.05	8.87	8.81	7.70	8.68
106+04	9.25	9.07	9.01	8.90	8.88
106+14	9.37	9.19	9.13	9.02	9.00
106+22.81	9.42	9.24	9.18	9.07	9.05

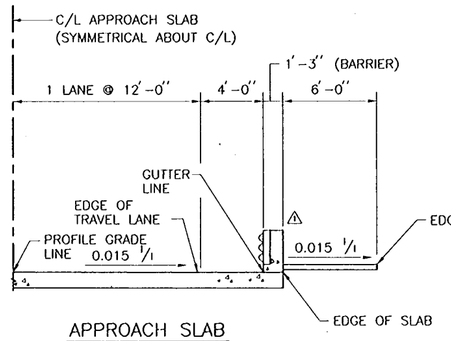
ROADWAY ELEVATIONS – FINAL *

STATION	C/L PROJECT (PGL)	EDGE TRAVEL LANE	GUTTER LINE	EDGE OF SIDEWALK	EDGE OF SLAB
106+24	9.43	9.25	9.19	9.08	9.06
106+34	9.41	9.23	9.17	9.06	9.04
106+44	9.33	9.15	9.09	8.98	8.96
106+54	9.17	8.99	8.93	8.82	8.80
106+60.48	9.03	8.85	8.79	8.68	8.66
106+64	8.95	8.77	8.71	8.60	8.58
106+74	8.65	8.47	8.41	8.30	8.28
106+84	8.29	8.11	8.05	7.94	7.92
106+94	7.85	7.67	7.61	8.50	7.48
106+98.65	7.62	7.44	7.38	7.28	7.26
107+00.15	7.55	7.37	7.31	7.20	7.29
107+04	7.35	7.17	7.11	7.10	7.09
107+20.15	6.41	6.23	6.17	5.56	6.15
107+28.64	5.94	*	*	*	*
107+34	5.64	*	*	*	*
107+44	5.11	*	*	*	*
107+54	4.61	*	*	*	*
107+64	4.16	*	*	*	*
107+74	3.75	*	*	*	*
107+84	3.38	*	*	*	*
107+94	3.05	*	*	*	*
108+04	2.76	*	*	*	*
108+08.64	2.64	*	*	*	*

* GRADES TO BE CALCULATED USING A LINEAR TRANSITION OF THE CROSS SLOPE FROM THE APPROACH SLAB SLOPE TO THE EXISTING SLOPE AT THE LIMITS OF WORK.



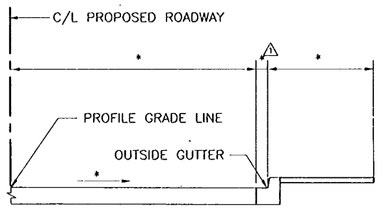
BRIDGE



APPROACH SLAB
(STATION 105+25.47 SHOWN)

NOTE:

SIDEWALK ELEVATION TRANSITIONS FROM TOP OF CURB TO TOP OF END BEND.



TYPICAL ROADWAY
(STATION 104+44.00 TO 105+25.47)
AND
(STATION 107+20.15 TO 108+08.89)

FINAL ELEVATIONS – KEY PLANS

SCALE: 1/4" = 1'-0"

REFERENCE DRAWINGS
FOR GENERAL NOTES, SEE DWG. NO. 3
FOR PLAN–PROFILE, SEE DWG. NO. 8
FOR PAVEMENT COMPONENTS AND THICKNESSES, SEE DWG. NO. 29

SCALE: 1/4" = 1'-0"

12" 0 5' 10' 15' 20' 25'

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
2	AS BUILT	6/13/00	W.D.L.
1	DELETED BICYCLE RAILING & REVISED GUTTER DIMENSION – AMENDMENT NO. 0002	2-3-99	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
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KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA, AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON ROADWAY ELEVATIONS

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.	CADD FILE: SHT23.DGN		FILE NO. H-4-45050
CHECKED BY: W.D.L.	SOLICITATION NO. DACW29-99-B-0008		DWG. 23 OF 93
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER			

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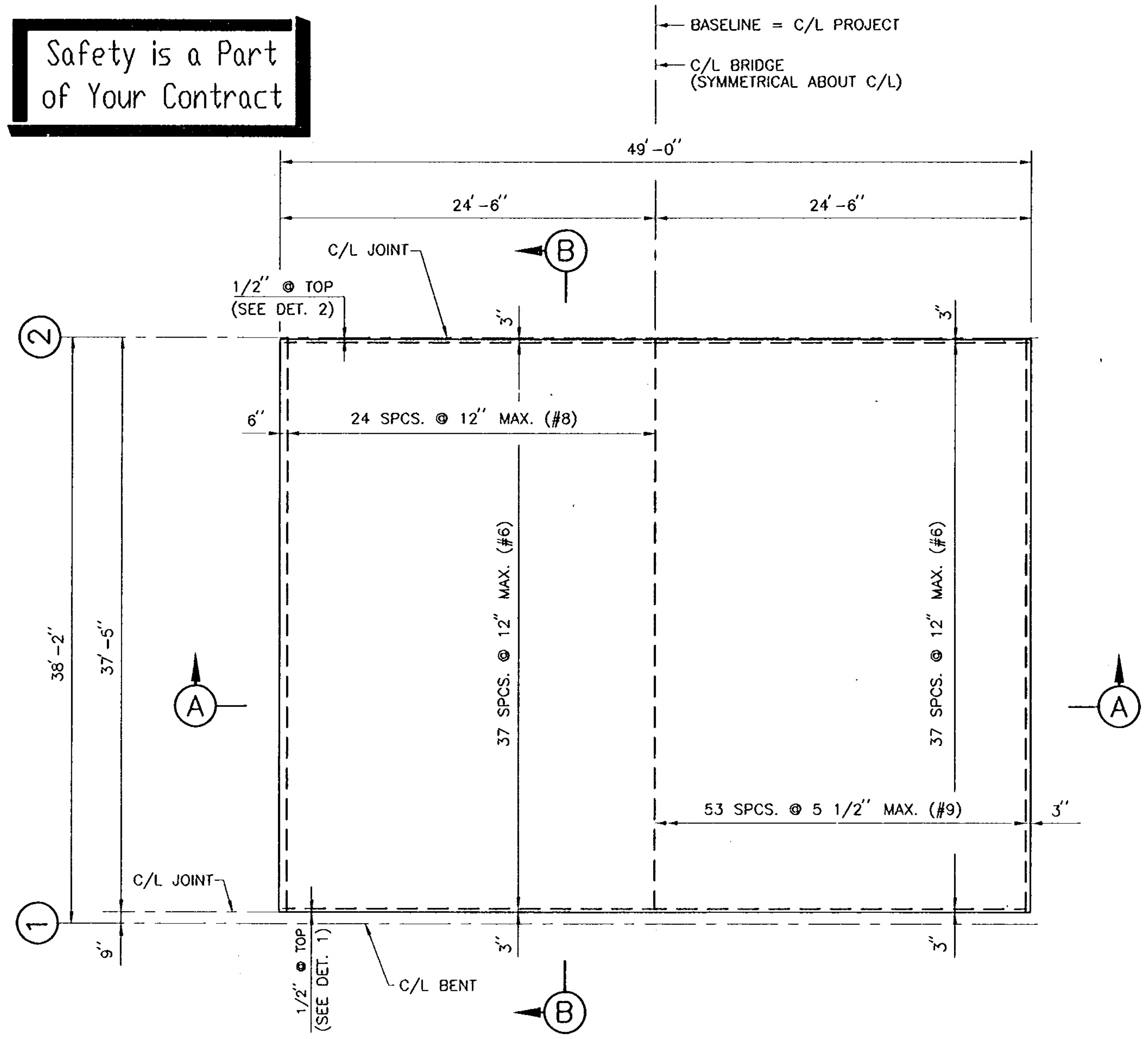
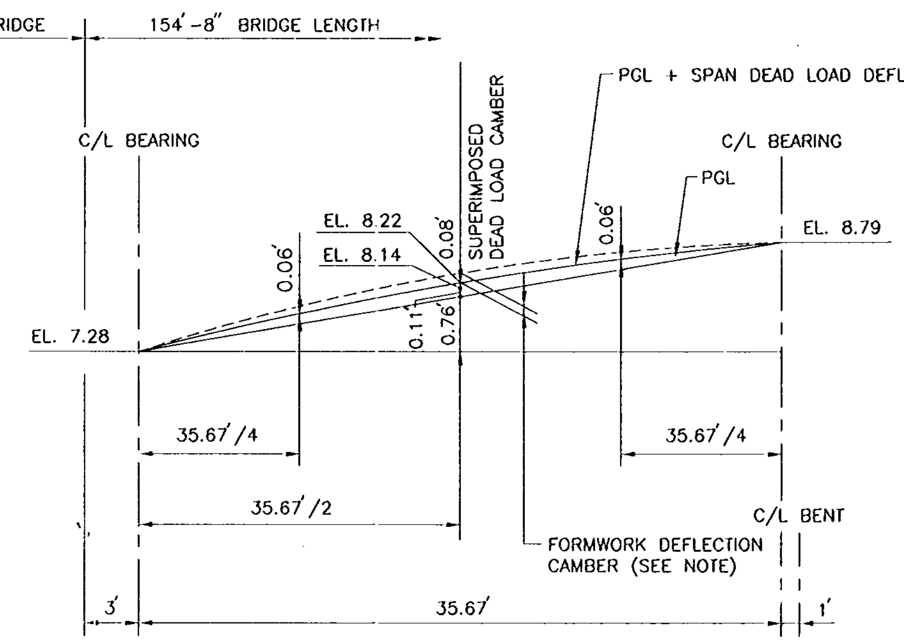


HALF PLAN
SHOWNG SPACING OF TOP REINF. STEEL

HALF PLAN
SHOWNG SPACING OF BOT. REINF. STEEL

PLAN

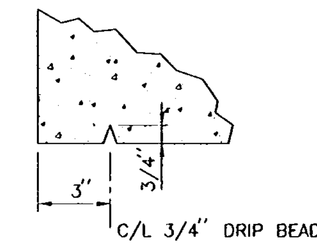
SCALE: 3/16" = 1'-0"



BRIDGE DECK CAMBER (SPAN 1)

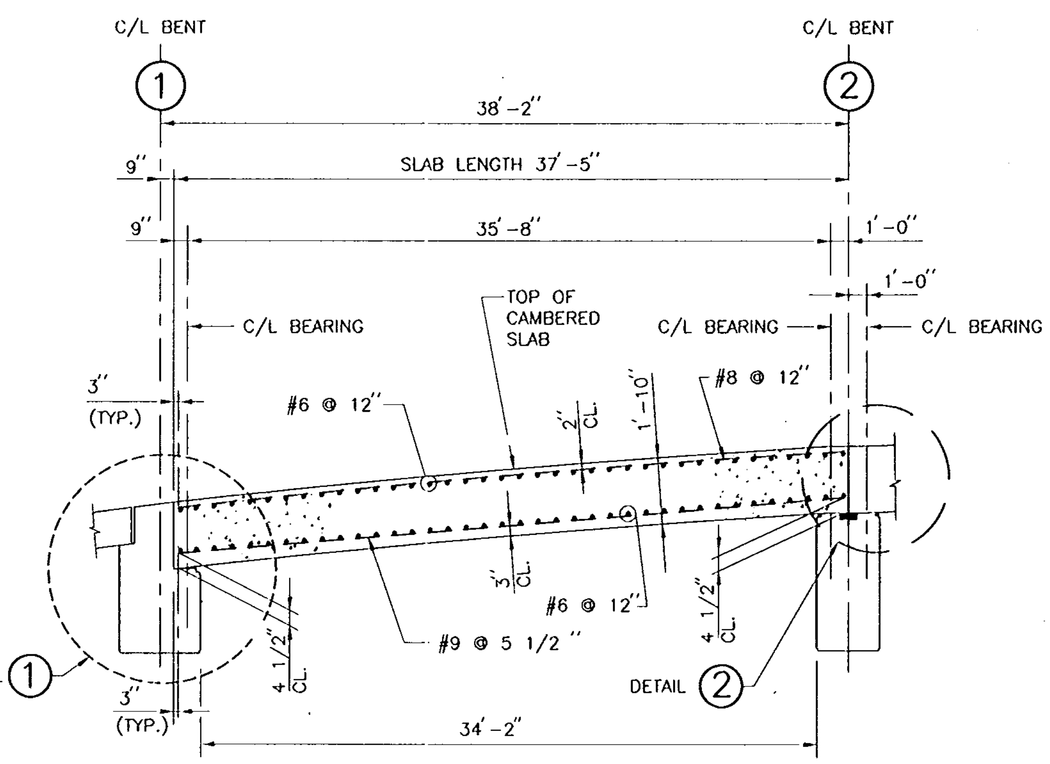
SCALE: 3/16" = 1'-0" HORZ.
3/4" = 1'-0" VERT.

NOTE:
ADDITIONAL CAMBER IS TO BE PROVIDED BY CONTRACTOR FOR DEFLECTION OF FORMWORK. THE PGL + SPAN DEAD LOAD DEFLECTION CURVE SHOWS CONDITION AFTER PLACING OF CONCRETE AND PRIOR TO FORMWORK REMOVAL. FORMWORK DEFLECTION CALCULATIONS ARE TO BE SUBMITTED TO CONTRACTING OFFICER.



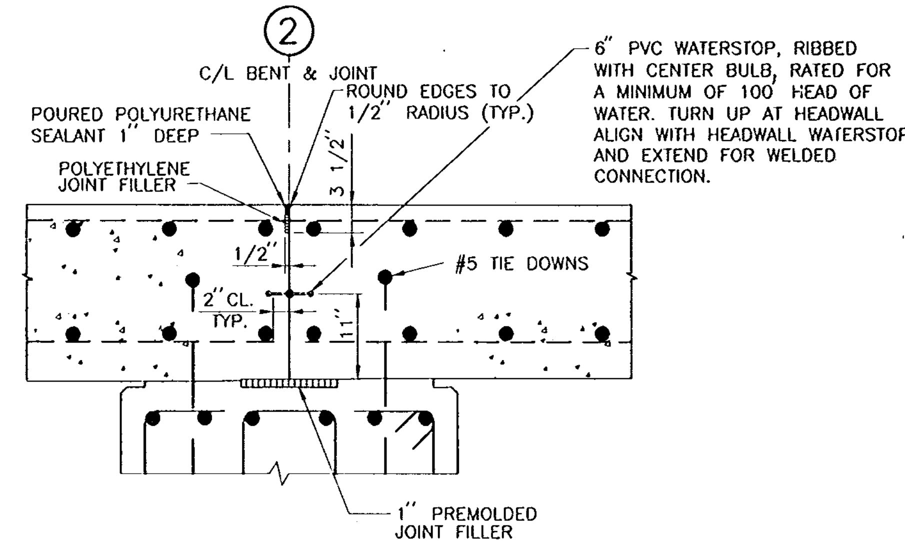
DETAIL 3

SCALE: 3" = 1'-0"



SECTION B

SCALE: 3/16" = 1'-0" HORZ.
3/8" = 1'-0" VERT.



DETAIL 2

SCALE: 1" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

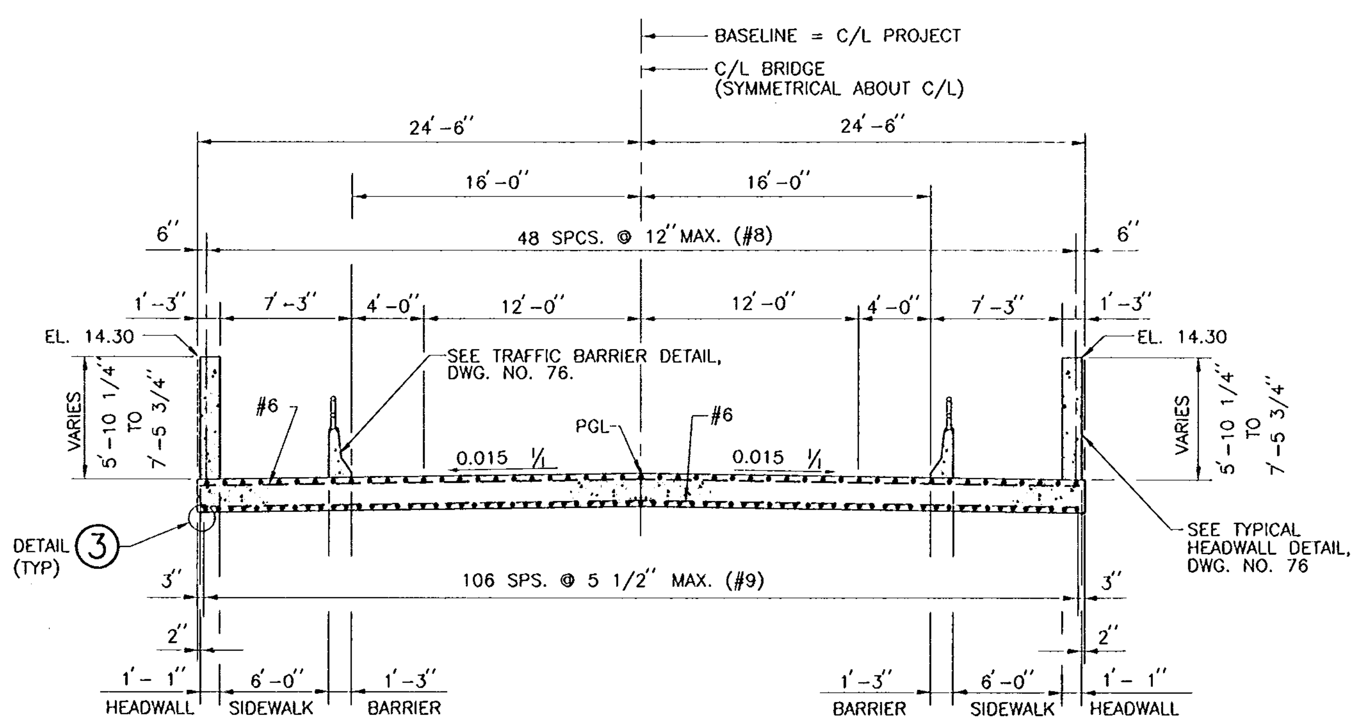
FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.

FOR ABUTMENTS, SEE DWG. NOS. 20 AND 21.

FOR BENTS, SEE DWG. NO. 22.

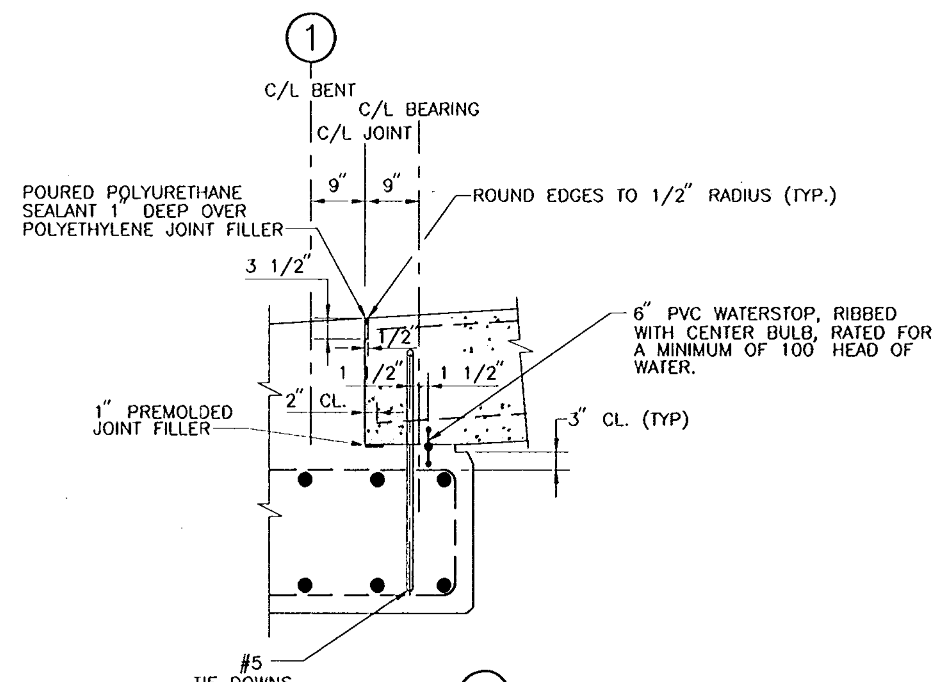
FOR BRIDGE FLOODWALL SECTION, SEE DWG. NO. 76.

FOR BAR SUPPORT DETAILS, SEE DWG. NO. 86.



SECTION A

SCALE: 3/16" = 1'-0"



DETAIL 1

SCALE: 3/4" = 1'-0"

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
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CONSULTING ENGINEERS
KENNER, LOUISIANA

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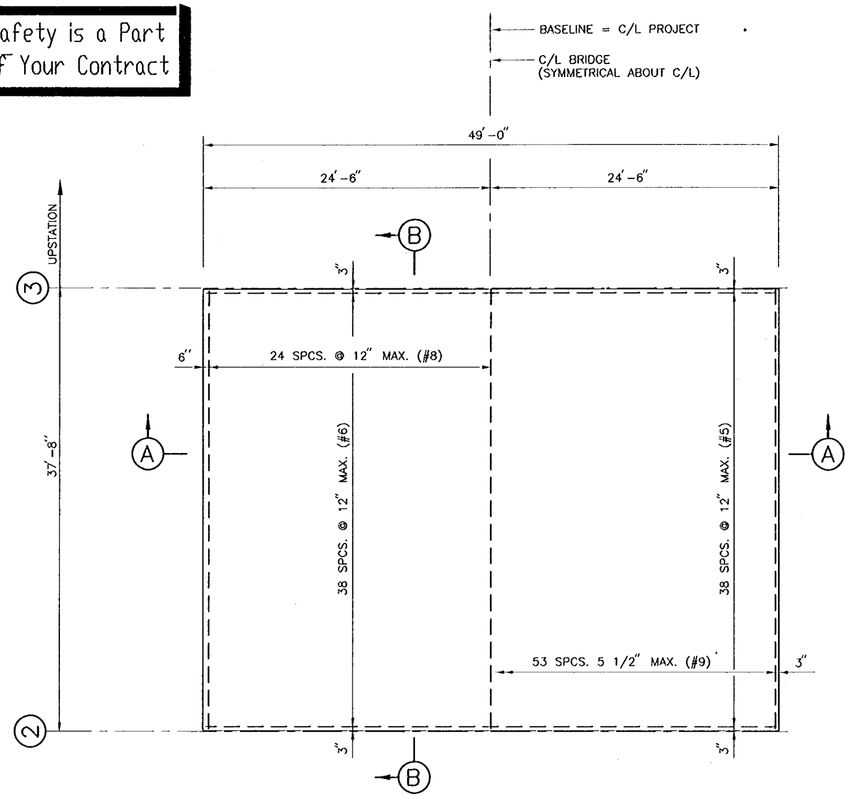
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HARRISON SLAB SPAN 1

DESIGNED BY: P.J.H. DRAWN BY: C.R.N. CHECKED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 64	PLOT DATE: SEPT. 1998
	CADD FILE: SHT24.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 24 OF 93

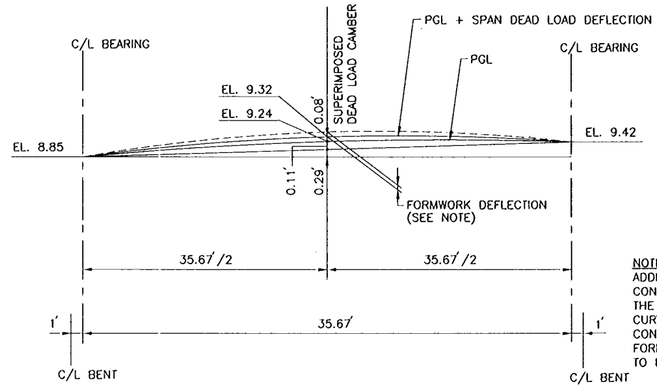
Safety is a Part of Your Contract



HALF PLAN
SHOWNG SPACING OF TOP REINF. STEEL

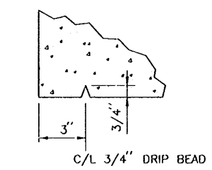
HALF PLAN
SHOWNG SPACING OF BOT. REINF. STEEL

PLAN
SCALE: 3/16 '' = 1'- 0''

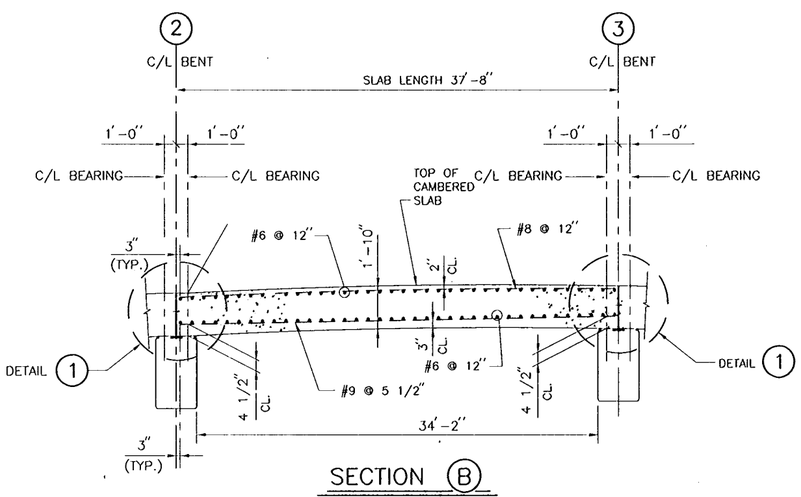


NOTE:
ADDITIONAL CAMBER IS TO BE PROVIDED BY CONTRACTOR FOR DEFLECTION OF FORMWORK. THE PGL + SPAN DEAD LOAD DEFLECTION CURVE SHOWS CONDITION AFTER PLACING OF CONCRETE AND PRIOR TO FORMWORK REMOVAL. FORMWORK DEFLECTION CALCULATIONS ARE TO BE SUBMITTED TO CONTRACTING OFFICER.

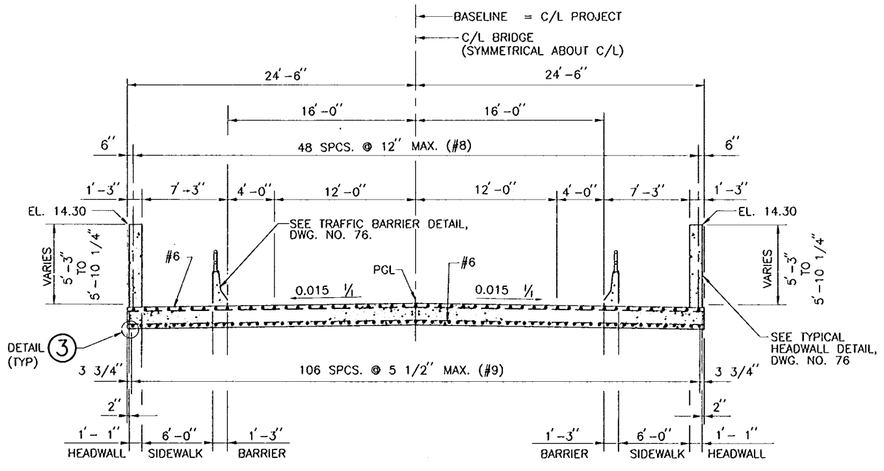
BRIDGE DECK CAMBER (SPAN 2)
HOR. SCALE: 3/16 '' = 1'- 0''
VERT. SCALE: 3/4 '' = 1'- 0''



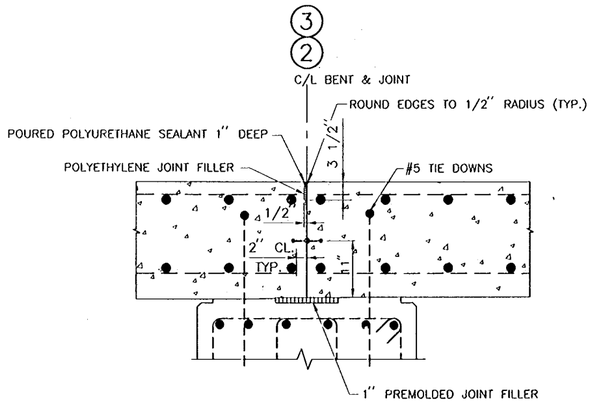
DETAIL (3)
SCALE: 3'' = 1'- 0''



SECTION (B)
HOR. SCALE: 3/16 '' = 1'- 0''
VERT. SCALE: 3/8 '' = 1'- 0''



SECTION (A)
SCALE: 3/16 '' = 1'- 0''



DETAIL (1)
SCALE: 1'' = 1'- 0''

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.

FOR BENTS, SEE DWG. NO. 22.

FOR BRIDGE FLOODWALL SECTION, SEE DWG. NO. 76.

FOR BAR SUPPORT DETAILS, SEE DWG. NO. 86.

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AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
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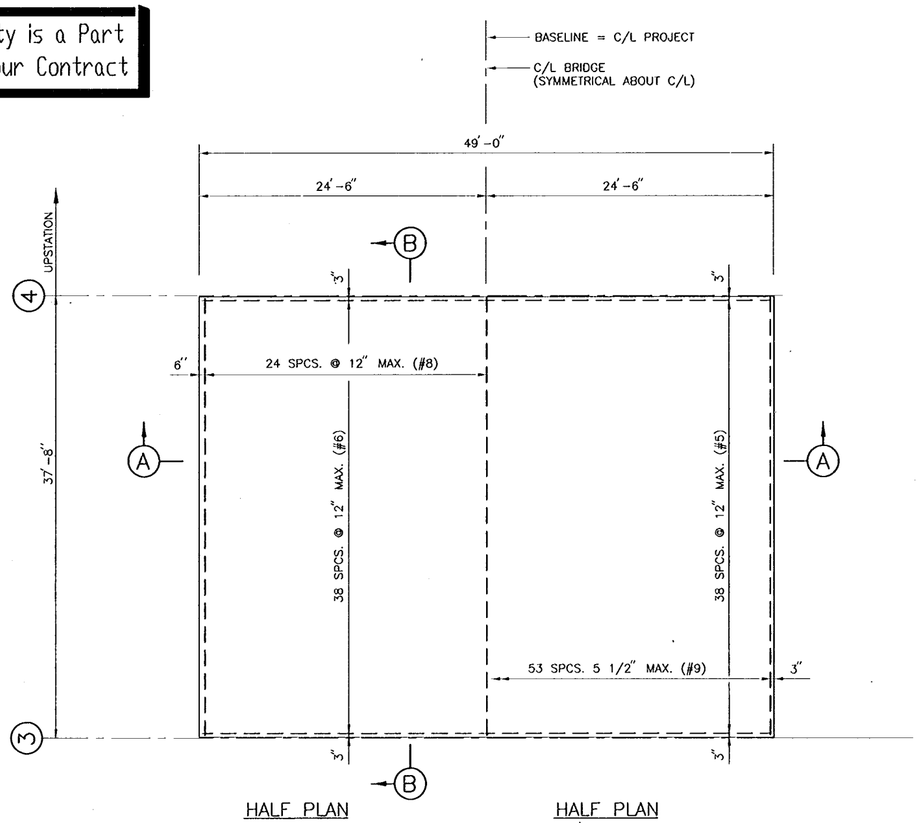
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON SLAB SPAN 2

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 64	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT25.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 25 OF 93

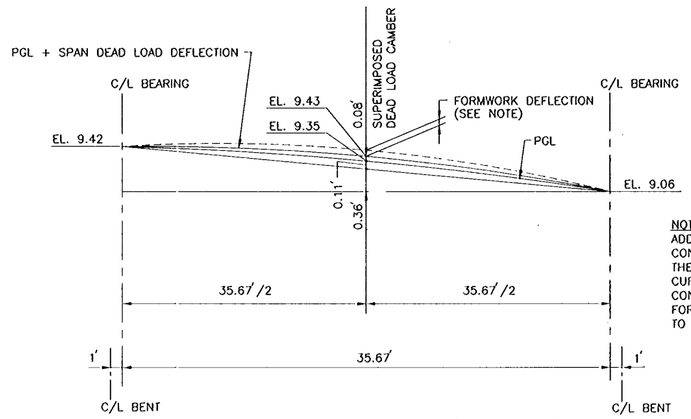
Safety is a Part of Your Contract



HALF PLAN
SHOWNG SPACING OF TOP REINF. STEEL

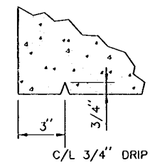
HALF PLAN
SHOWNG SPACING OF BOT. REINF. STEEL

PLAN
SCALE: 3/16" = 1'-0"

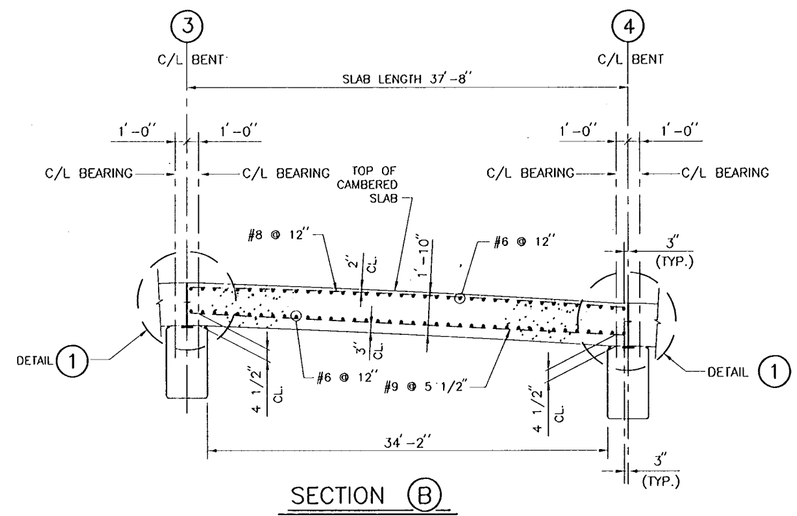


BRIDGE DECK CAMBER (SPAN 3)
HOR. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/4" = 1'-0"

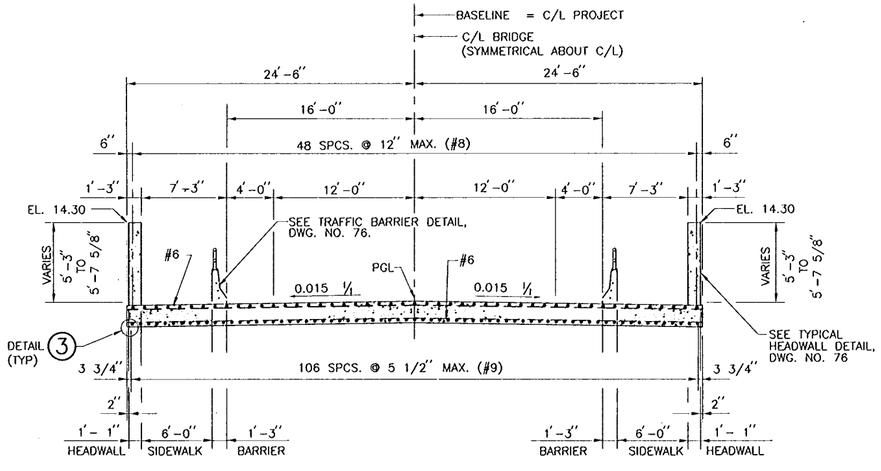
NOTE:
ADDITIONAL CAMBER IS TO BE PROVIDED BY CONTRACTOR FOR DEFLECTION OF FORMWORK. THE PGL + SPAN DEAD LOAD DEFLECTION CURVE SHOWS CONDITION AFTER PLACING OF CONCRETE AND PRIOR TO FORMWORK REMOVAL. FORMWORK DEFLECTION CALCULATIONS ARE TO BE SUBMITTED TO CONTRACTING OFFICER.



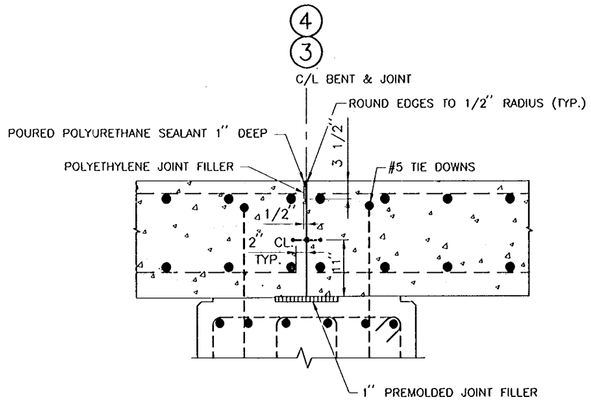
DETAIL (3)
SCALE: 3" = 1'-0"



SECTION (B)
HOR. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/8" = 1'-0"



SECTION (A)
SCALE: 3/16" = 1'-0"



DETAIL (1)
SCALE: 1" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.

FOR BENTS, SEE DWG. NO. 22

FOR BRIDGE FLOODWALL SECTION, SEE DWG. NO. 76

FOR BAR SUPPORT DETAILS, SEE DWG. NO. 86

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
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ORLEANS LEVEE BOARD
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KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON SLAB SPAN 3

DESIGNED BY: P.J.H.
DRAWN BY: C.R.N.
CHECKED BY: W.D.L.
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)

DATE: SEPT. 1998
PLOT SCALE: 64
CADD FILE: SHT26.DGN
SOLICITATION NO. DACW29-99-B-0008

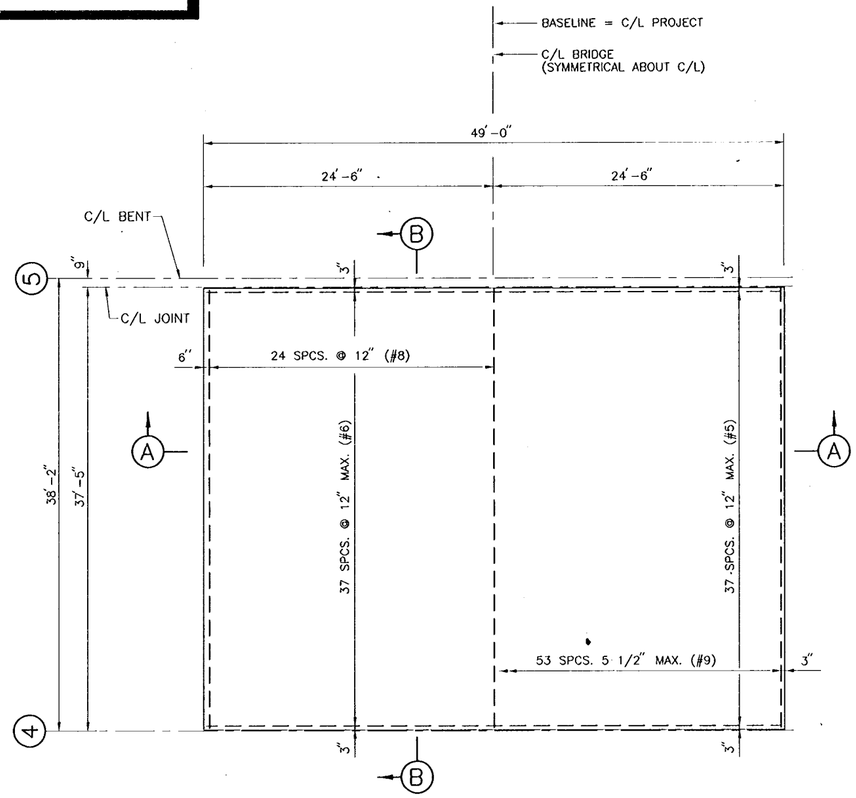
PLOT DATE: SEPT. 1998
FILE NO. H-4-45050
DWG. 26 OF 93

Brian D Lancaster
REG. No. 23921
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

VALUE ENGINEERING CLAUSES — YOUR KEY TO HIGHER PROFITS

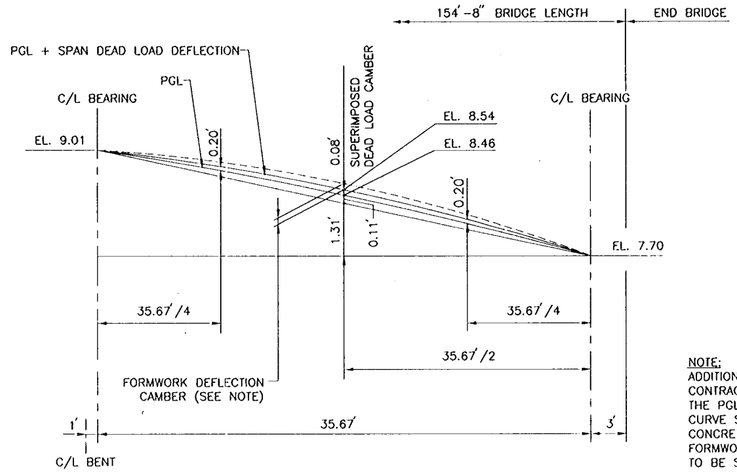
Safety is a Part of Your Contract



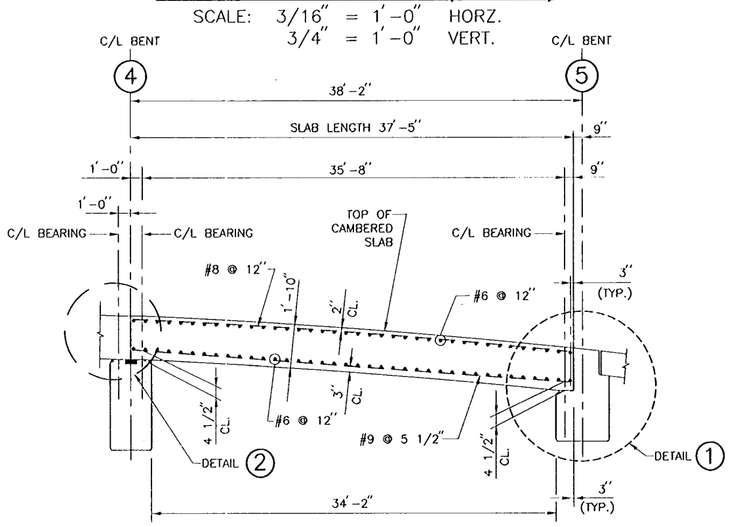
HALF PLAN
SHOWNG SPACING OF TOP REINF. STEEL

HALF PLAN
SHOWNG SPACING OF BOT. REINF. STEEL

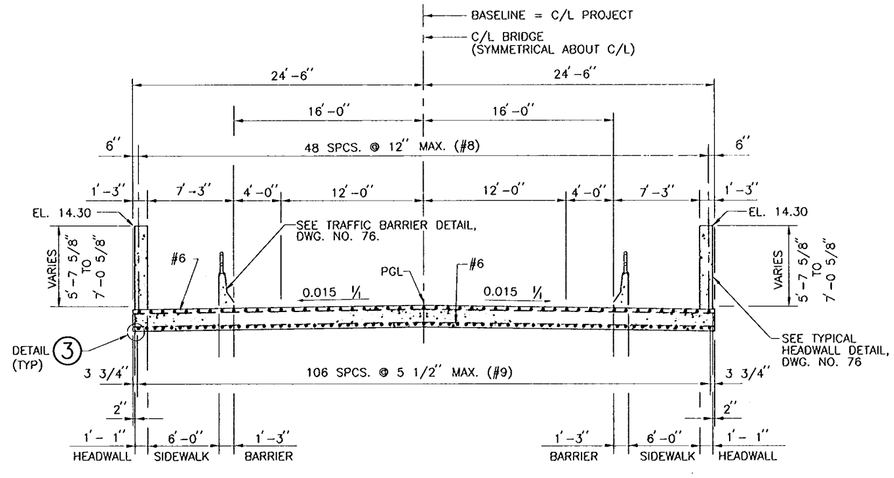
PLAN
SCALE: 3/16" = 1'-0"



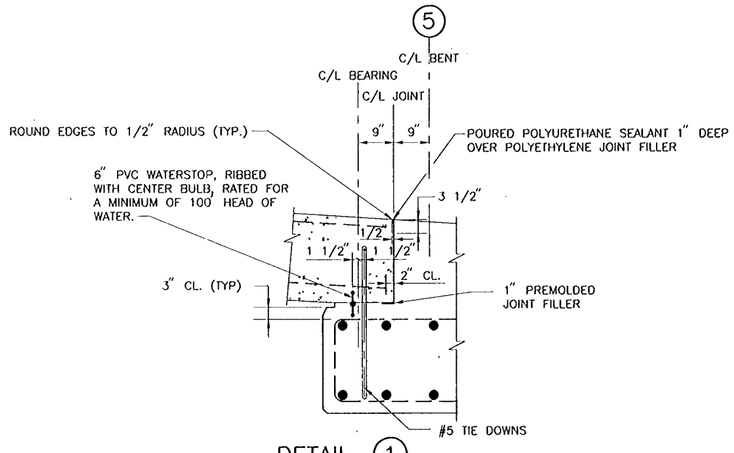
BRIDGE DECK CAMBER (SPAN 4)
SCALE: 3/16" = 1'-0" HORZ.
3/4" = 1'-0" VERT.



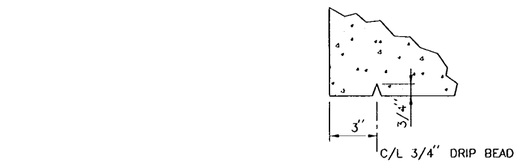
SECTION (B)
HOR. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/8" = 1'-0"



SECTION (A)
SCALE: 3/16" = 1'-0"

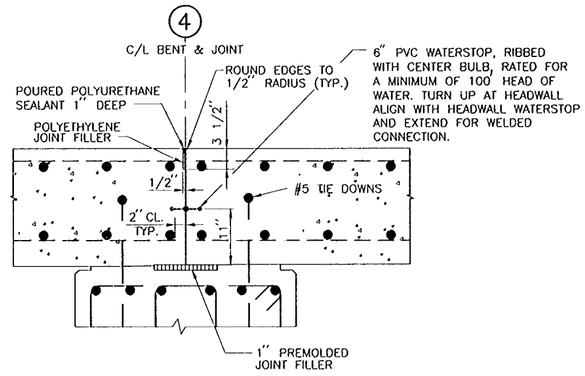


DETAIL (1)
SCALE: 3/4" = 1'-0"



DETAIL (3)
SCALE: 3" = 1'-0"

NOTE:
ADDITIONAL CAMBER IS TO BE PROVIDED BY CONTRACTOR FOR DEFLECTION OF FORMWORK. THE PGL + SPAN DEAD LOAD DEFLECTION CURVE SHOWS CONDITION AFTER PLACING OF CONCRETE AND PRIOR TO FORMWORK REMOVAL. FORMWORK DEFLECTION CALCULATIONS ARE TO BE SUBMITTED TO CONTRACTING OFFICER.



DETAIL (2)
SCALE: 1" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.

FOR ABUTMENTS, SEE DWG. NOS. 20 AND 21

FOR BENTS, SEE DWG. NO. 22

FOR BRIDGE FLOODWALL SECTION, SEE DWG. NO. 76

FOR BAR SUPPORT DETAILS, SEE DWG. NO. 86

VALUE INCENTIVE SUGGESTS ENGINEERING — YOUR KEY TO HIGHER PROFITS

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

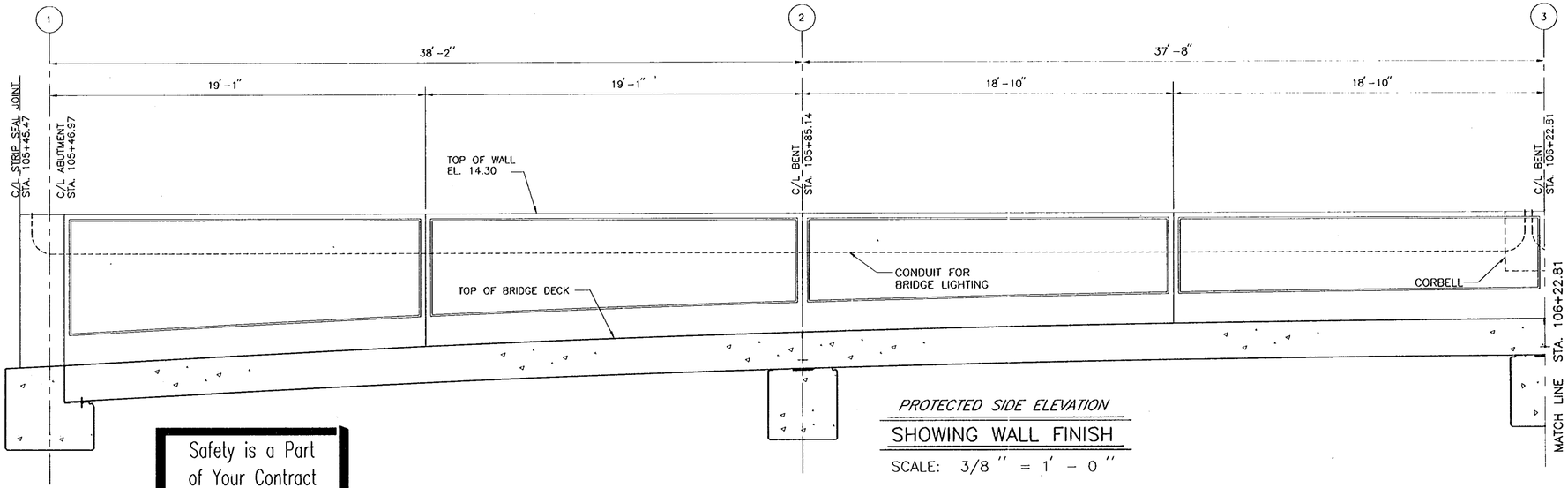
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON SLAB SPAN 4

STATE OF LOUISIANA
Wendell D Lancaster
REG. NO. 22361
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.	DATE:	PLOT SCALE:	PLOT DATE:
DRAWN BY: C.R.N.	SEPT. 1998	64	SEPT. 1998
CHECKED BY: W.D.L.	CADD FILE: SHT27.DWG		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 27 OF 93

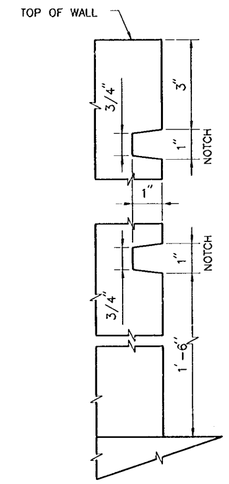


PROTECTED SIDE ELEVATION

SHOWING WALL FINISH

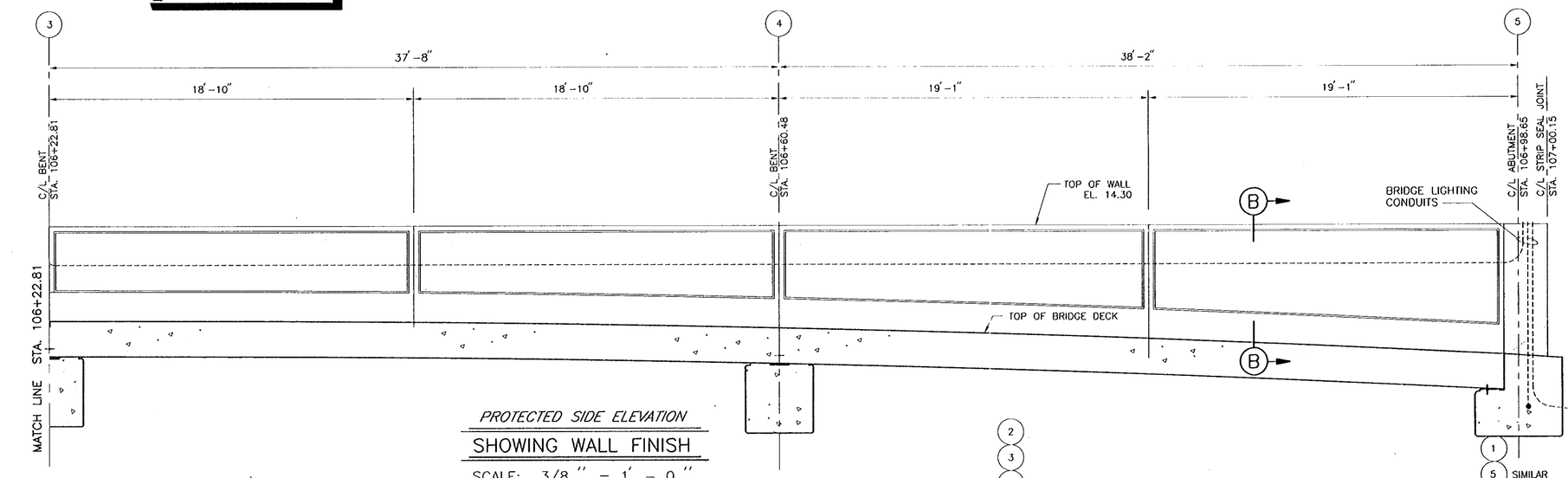
SCALE: 3/8″ = 1′ – 0″

Safety is a Part of Your Contract



SECTION (B)

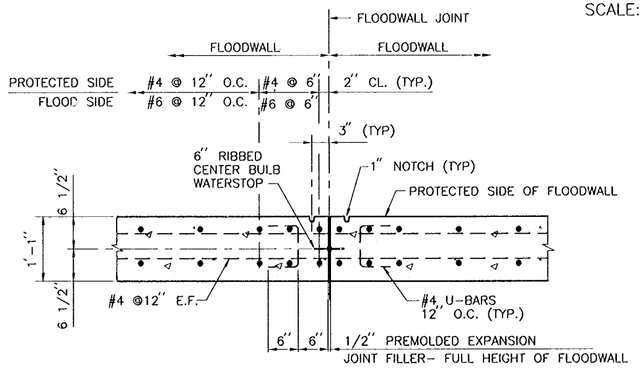
SCALE: 6″ = 1′ – 0″



PROTECTED SIDE ELEVATION

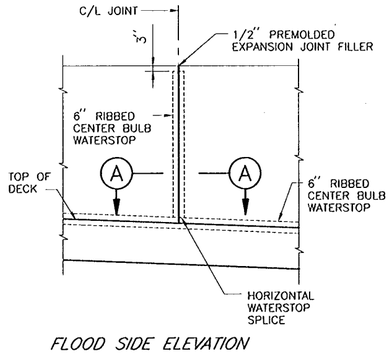
SHOWING WALL FINISH

SCALE: 3/8″ = 1′ – 0″



SECTION (A)

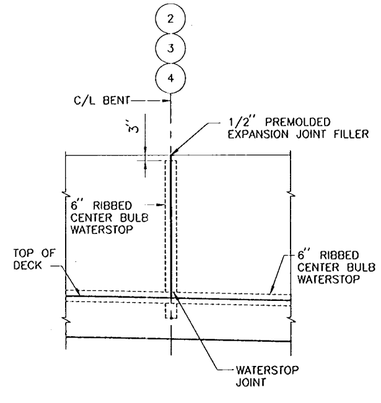
SCALE: 1″ = 1′ – 0″



FLOOD SIDE ELEVATION

WALL JOINT AT MIDSPAN

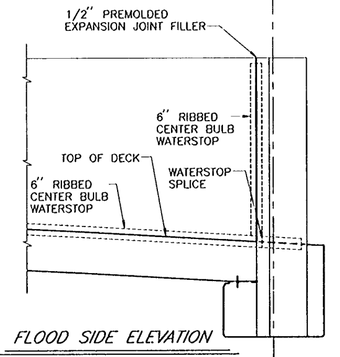
SCALE: 3/8″ = 1′ – 0″



FLOOD SIDE ELEVATION

WALL JOINT AT BENTS

SCALE: 3/8″ = 1′ – 0″



FLOOD SIDE ELEVATION

GIRDER/WALL SEAL AT ABUTMENTS

SCALE: 3/8″ = 1′ – 0″

VALUE ENGINEERING — YOUR KEY TO HIGHER PROFITS

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN–PROFILE, SEE DWG. NO. 8.

FOR BRIDGE LIGHTING CONDUITS, SEE DWG. NOS. 5 AND 6.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.

FOR ABUTMENT DETAILS, SEE DWG. NOS. 20 AND 21.

FOR TYPICAL BRIDGE FLOODWALL AND CORBEL DETAIL, SEE DWG. NO. 76.

FOR SLAB SPAN DETAILS, SEE DWG. NOS. 24, 25, 26 AND 27.

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

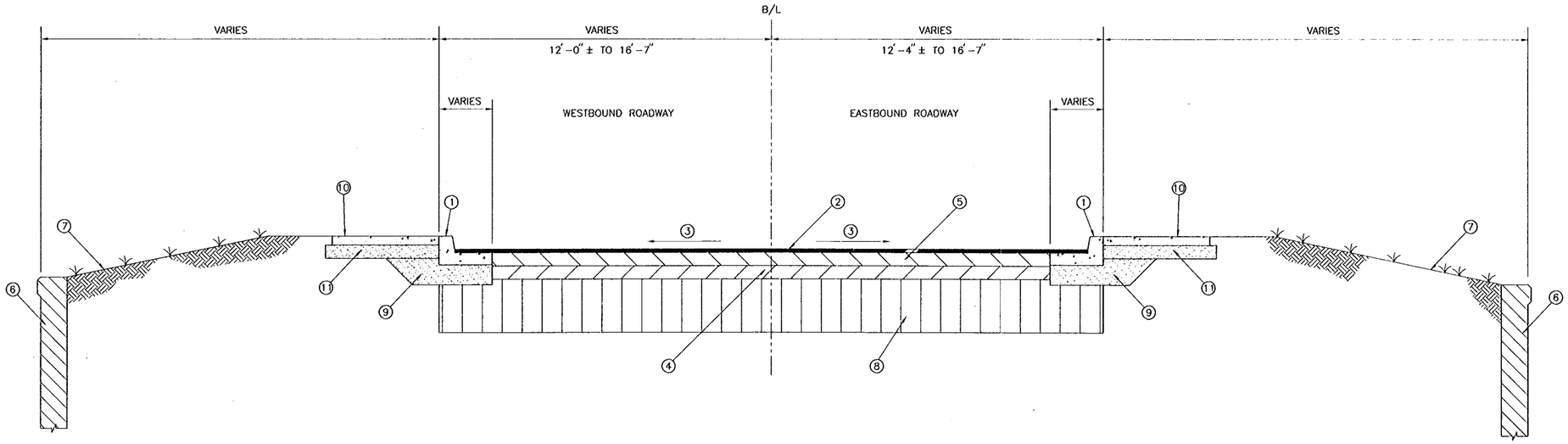
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA, AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON BRIDGE WALL DETAILS

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 32	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT28.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 28 OF 93

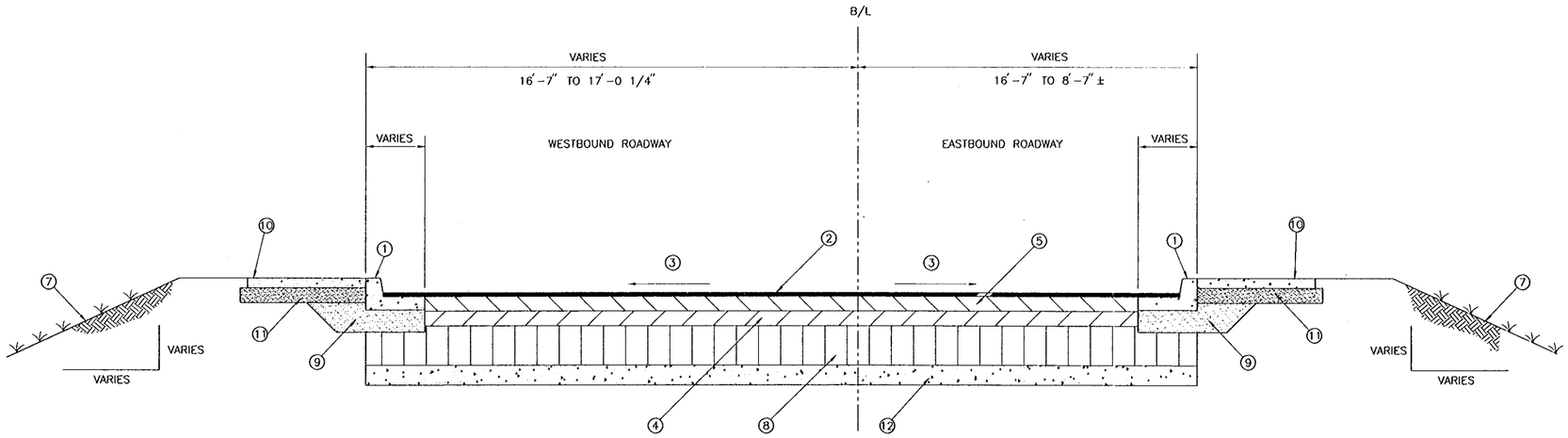
Safety is a Part of Your Contract



HARRISON AVENUE
STA. 104+44 TO STA. 105+24.14

TYPICAL ROADWAY SECTION

SCALE: 1/2" = 1'- 0"



HARRISON AVENUE
STA. 107+21.48 TO STA. 108+08.89

TYPICAL ROADWAY SECTION

SCALE: 1/2" = 1'- 0"

SCALE: 1/2" = 1'- 0"

12" 0 2' 4' 6' 8'

LEGEND

1. REQ'D PAVEMENT WITH INTEGRAL BARRIER CURB AND GUTTER
2. REQ'D TYPE 8F ASPHALT OVERLAY (MIN. 1 1/2")
3. SLOPE VARIES
4. EXISTING PAVEMENT BASE (THICKNESS VARIES)
5. EXISTING PAVEMENT SURFACE COURSE. DO NOT DISTURB. (THICKNESS VARIES)
6. EXISTING RETAINING WALL
7. FINISHED GRADE
8. EXISTING PAVEMENT SUBBASE (THICKNESS VARIES)
9. REQ'D 12" SAND SUBBASE
10. REQ'D 4" SIDEWALK
11. REQ'D 6" COMPACTED SAND
12. EXISTING CONCRETE PAVEMENT (THICKNESS VARIES)

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR DEMOLITION PLAN, SEE DWG. NO. 9.

FOR ROADWAY ELEVATIONS, SEE DWG. NO. 23.

FOR TYPICAL ROADWAY AND SIDEWALK DETAILS SEE DWG. NO. 77.

FOR EXISTING ROADWAY CROSS-SECTIONS, SEE DWG. NOS. 31, 32 AND 33.

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON TYPICAL ROADWAY SECTIONS

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 24	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.	CADD FILE: SHT29.DGN		FILE NO. H-4-45050
CHECKED BY: P.J.H.	SOLICITATION NO. DACW29-99-B-0008		DWG. 29 OF 93
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER			

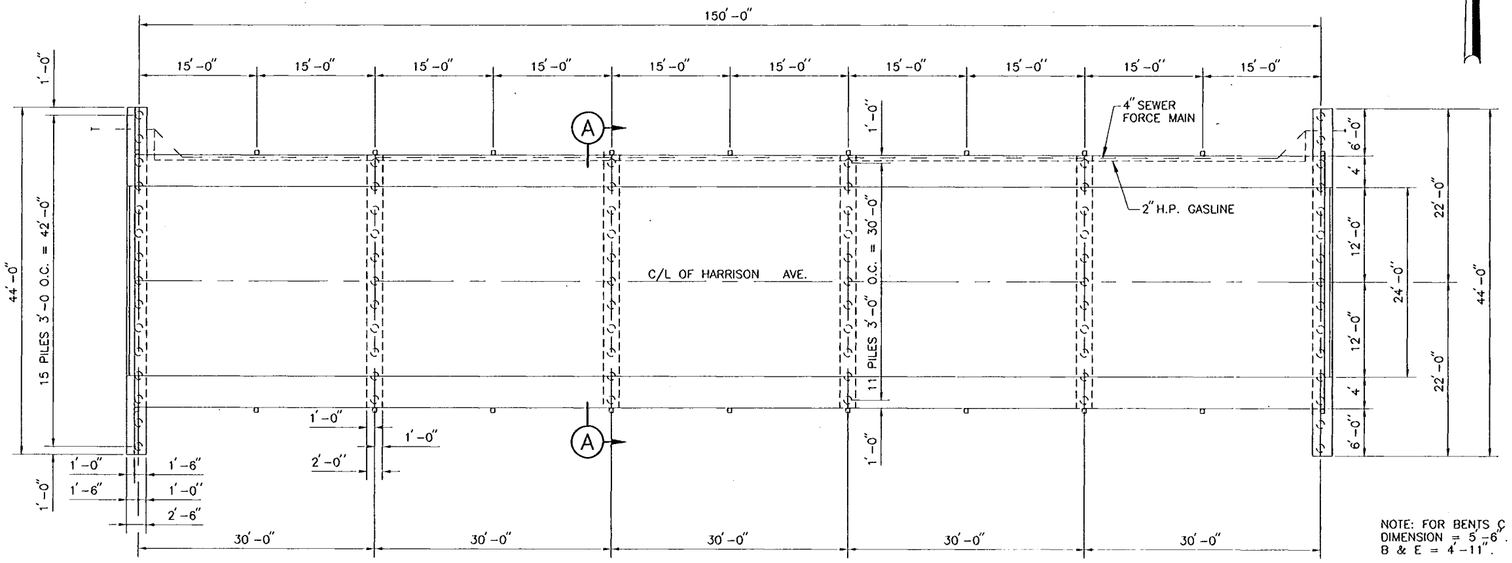
AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

William D. Lancaster
REG. No. 22651
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

VALUE ENGINEERING CHANGES YOUR KEY TO HIGHER PROFITS

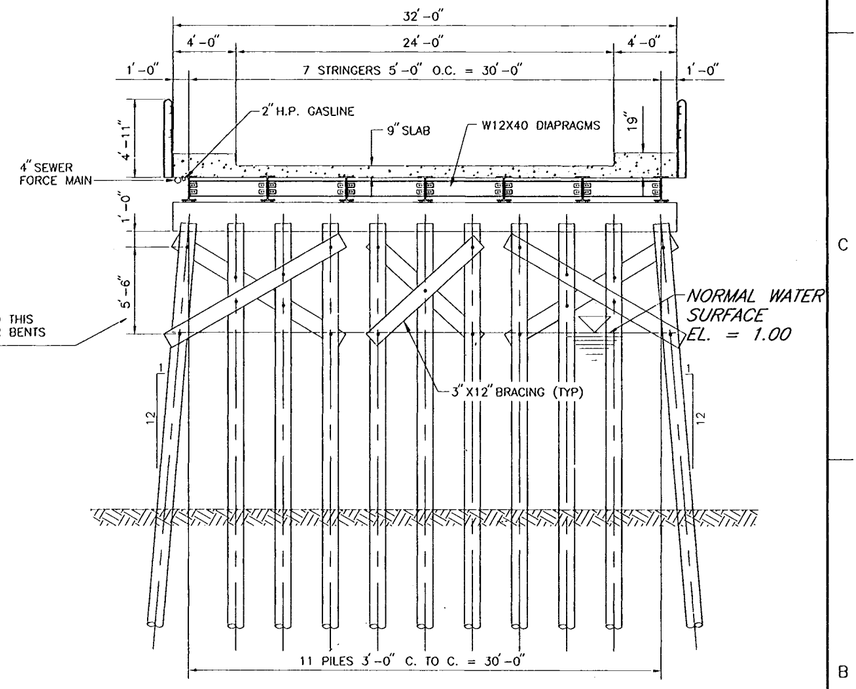
C•A•D

Safety is a Part of Your Contract



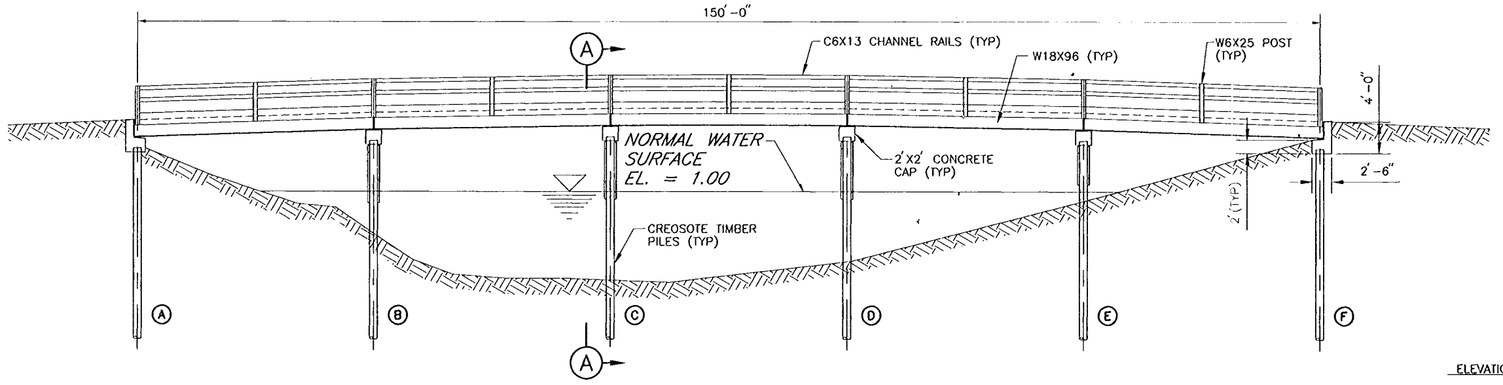
PLAN

SCALE: 1/8" = 1'-0"



NOTE: FOR BENTS C & D THIS DIMENSION = 5'-6". FOR BENTS B & E = 4'-11".

SECTION (A)



9.57	10.01	11.01	11.50	11.57	11.50	11.01	10.01	9.57
----	7.83	8.83	9.32	9.39	9.32	8.83	7.83	----
----	7.73	8.73	9.22	----	9.22	8.73	7.73	----
----	6.40	7.40	7.89	----	7.89	7.40	6.40	----

ELEVATIONS

TOP OF CONCRETE ROADWAY
BOTTOM OF STRINGER
BRIDGE SEAT
PILE CUTOFF

ELEVATION

SCALE: 1/8" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG NO. 3
FOR UTILITY RELOCATIONS, SEE DWG NOS. 5 AND 6
FOR DEMOLITION PLAN, SEE DWG NO. 9

NOTE: INFORMATION GIVEN ON THIS SHEET HAS BEEN RETRIEVED FROM ORIGINAL BRIDGE DRAWINGS.

ALL PILE TIP ELEVATIONS ARE UNKNOWN.

SCALE: 1/8" = 1'-0"

0 5' 10' 15' 20' 25'

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

VALUE INCREASE GAINS ENGINEERING — YOUR KEY TO HIGHER PROFITS

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

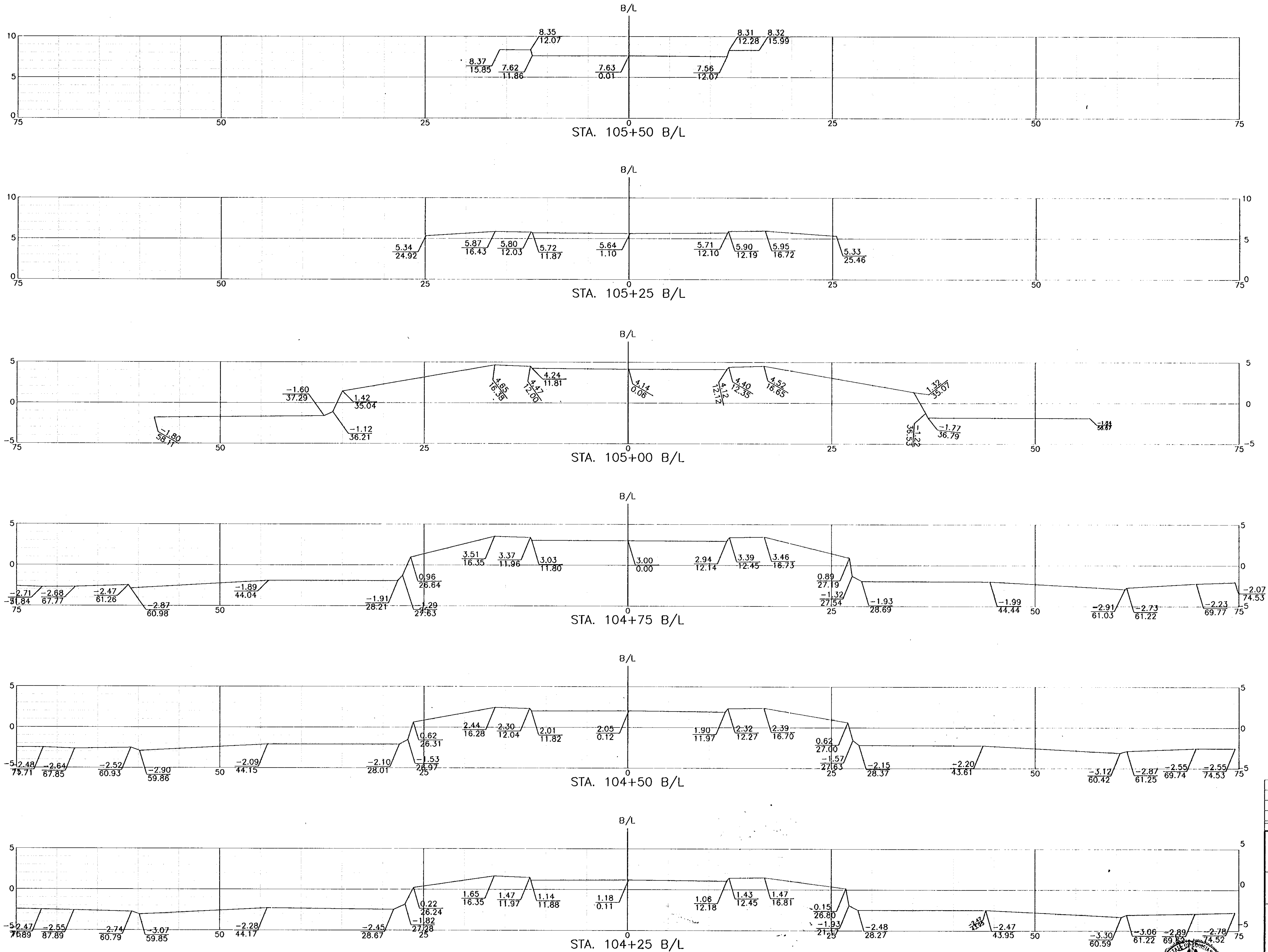
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON EXISTING BRIDGE

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 96	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT30.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 30 OF 93

HARRISON AVENUE



Safety is a Part of Your Contract

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR PLAN-PROFILE, SEE DWG. NO. 8.
FOR ROADWAY ELEVATIONS, SEE DWG. NO. 23.
FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 29.

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

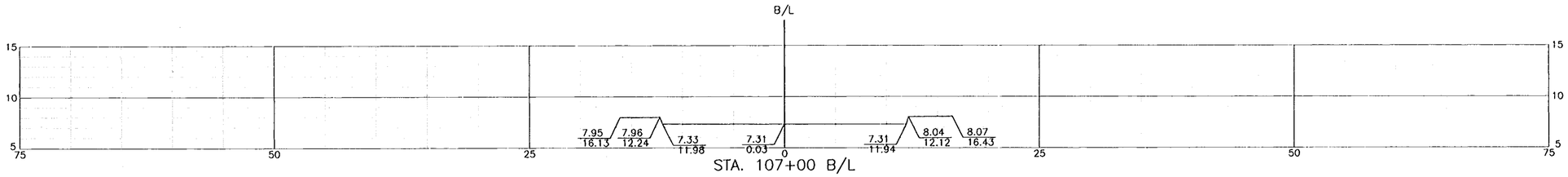
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HARRISON EXISTING CROSS SECTIONS

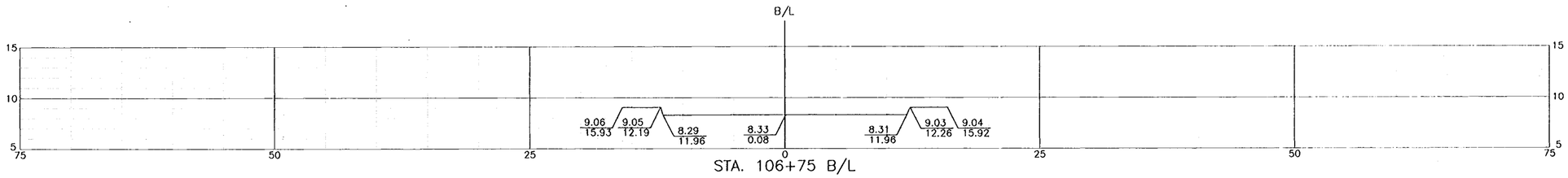
DESIGNED BY: P.J.H. DRAWN BY: C.R.N. CHECKED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 5	PLOT DATE: SEPT. 1998
	CADD FILE: SHT31.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 31 OF 93

Safety is a Part of Your Contract

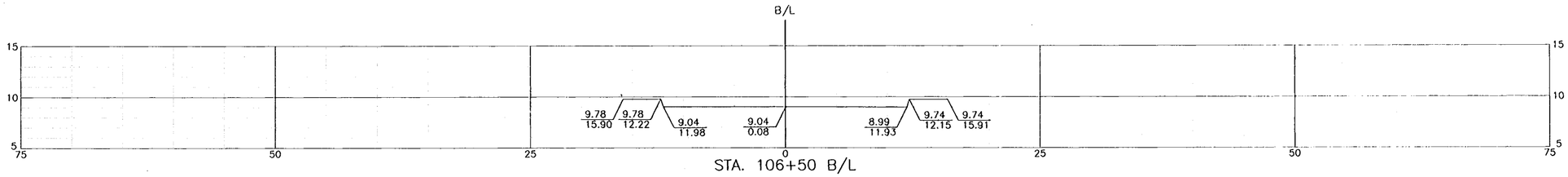
HARRISON AVENUE



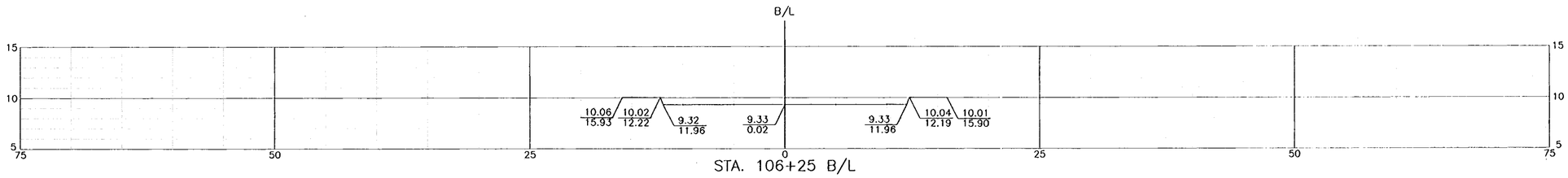
STA. 107+00 B/L



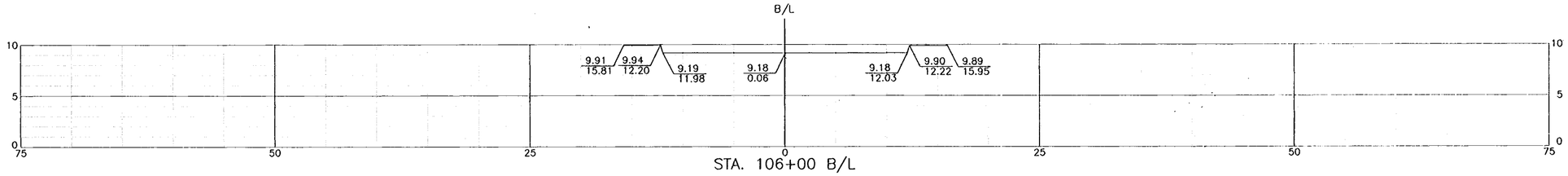
STA. 106+75 B/L



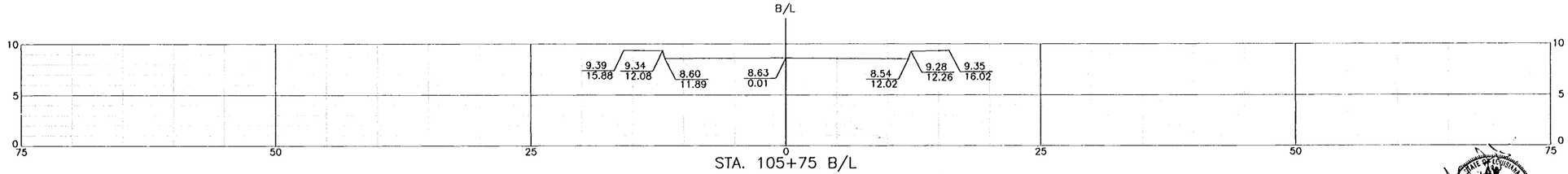
STA. 106+50 B/L



STA. 106+25 B/L



STA. 106+00 B/L



STA. 105+75 B/L

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR ROADWAY ELEVATIONS, SEE DWG. NO. 23.

FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 29.

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

STATE OF LOUISIANA
William D. Lancaster
REG. No. 22821
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

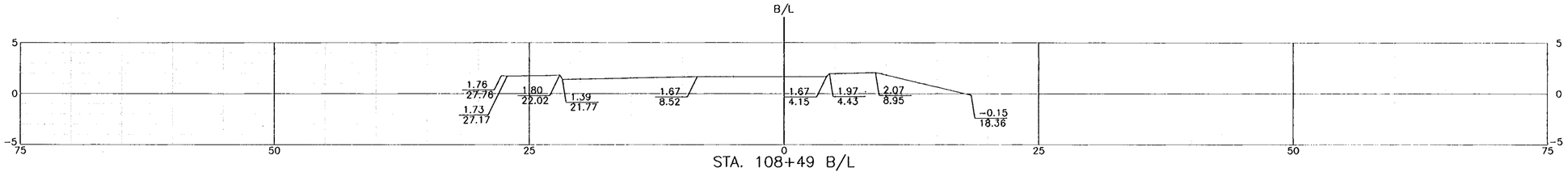
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HARRISON EXISTING CROSS SECTIONS

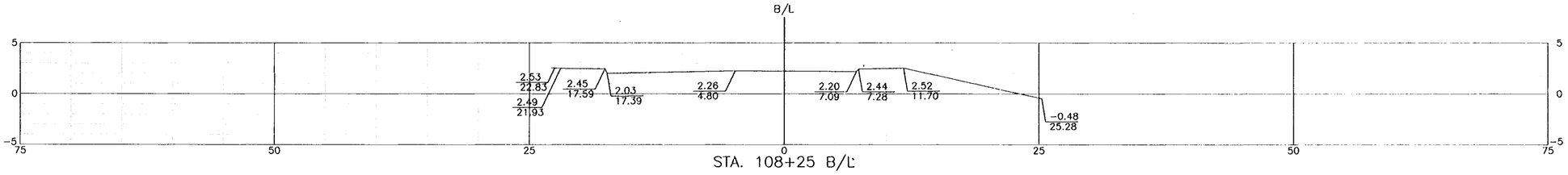
DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 5	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.	CADD FILE: SHT32.DGN		FILE NO. H-4-45050
CHECKED BY: W.D.L.	SOLICITATION NO. DACW29-99-B-0008		DWG. 32 OF 93
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER			

Safety is a Part of Your Contract

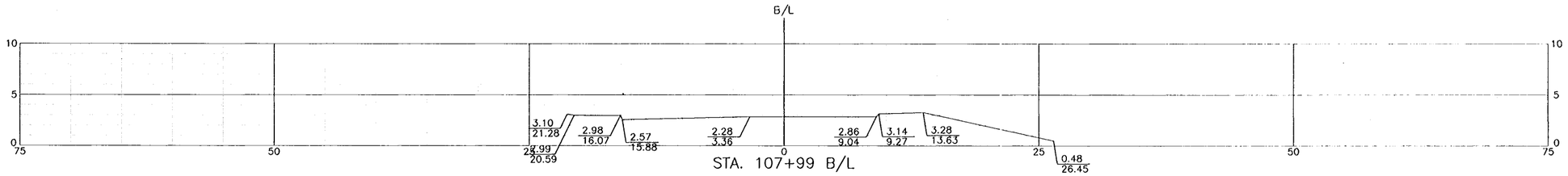
HARRISON AVENUE



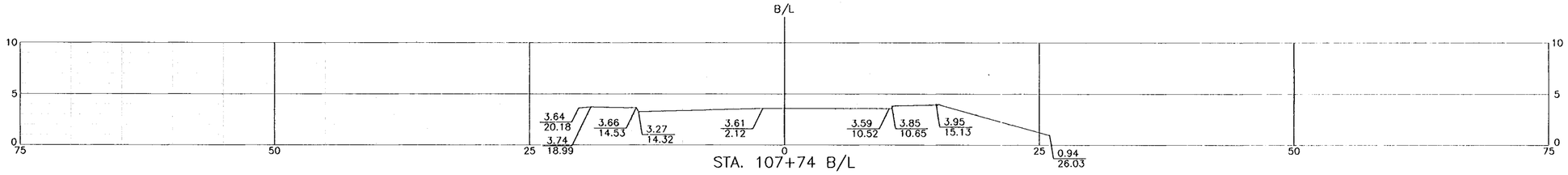
STA. 108+49 B/L



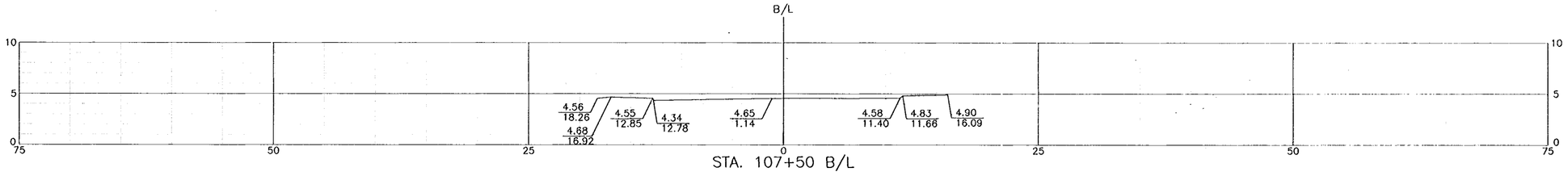
STA. 108+25 B/L



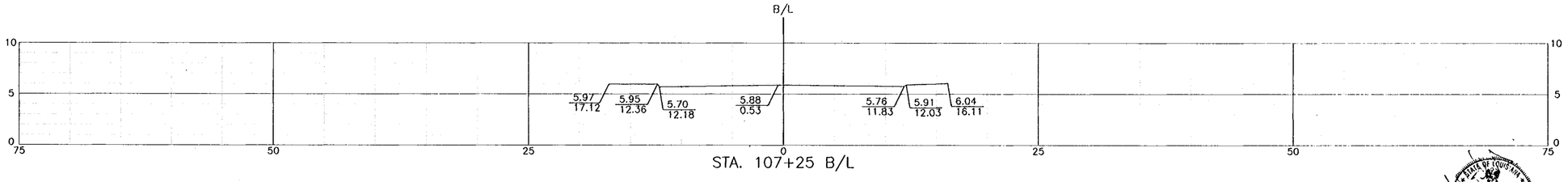
STA. 107+99 B/L



STA. 107+74 B/L



STA. 107+50 B/L



STA. 107+25 B/L

VALUE INCENTIVES CLAIMS ENGINEERING — YOUR KEY TO HIGHER PROFITS

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 8.

FOR ROADWAY ELEVATIONS, SEE DWG. NO. 23.

FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 29.

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA, AND VICINITY
HIGH LEVEL PLAN

ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

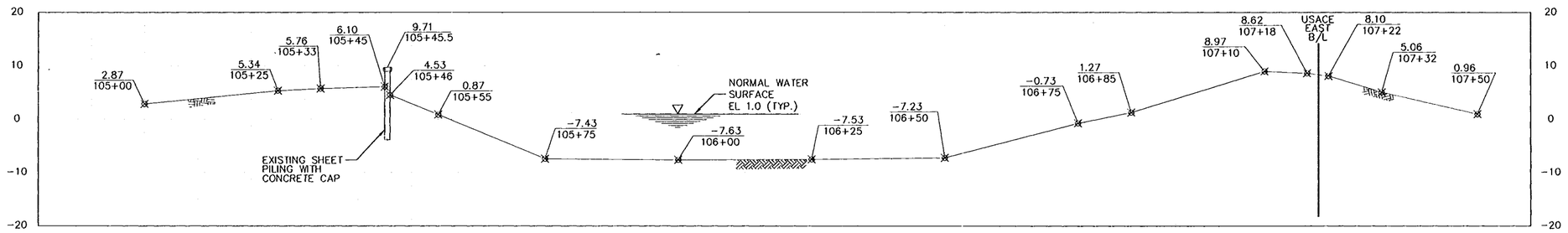
FILMORE AND HARRISON AVE. BRIDGES
HARRISON EXISTING CROSS SECTIONS

STATE OF LOUISIANA — William D Lancaster — REG. No. 22921 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 5	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT33.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 33 OF 93

Safety is a Part of Your Contract



EXISTING CANAL CROSS SECTION
25' LT. OF BASELINE

EXISTING CANAL CROSS SECTION
25' RT. OF BASELINE

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR FLOODWALL PLAN, SEE DWG. NO. 10.

C·A·D

STATE OF LOUISIANA
William D. Lancaster
REG No. 22821
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SCALE: 1" = 10' (H)
1" = 10' (V)

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

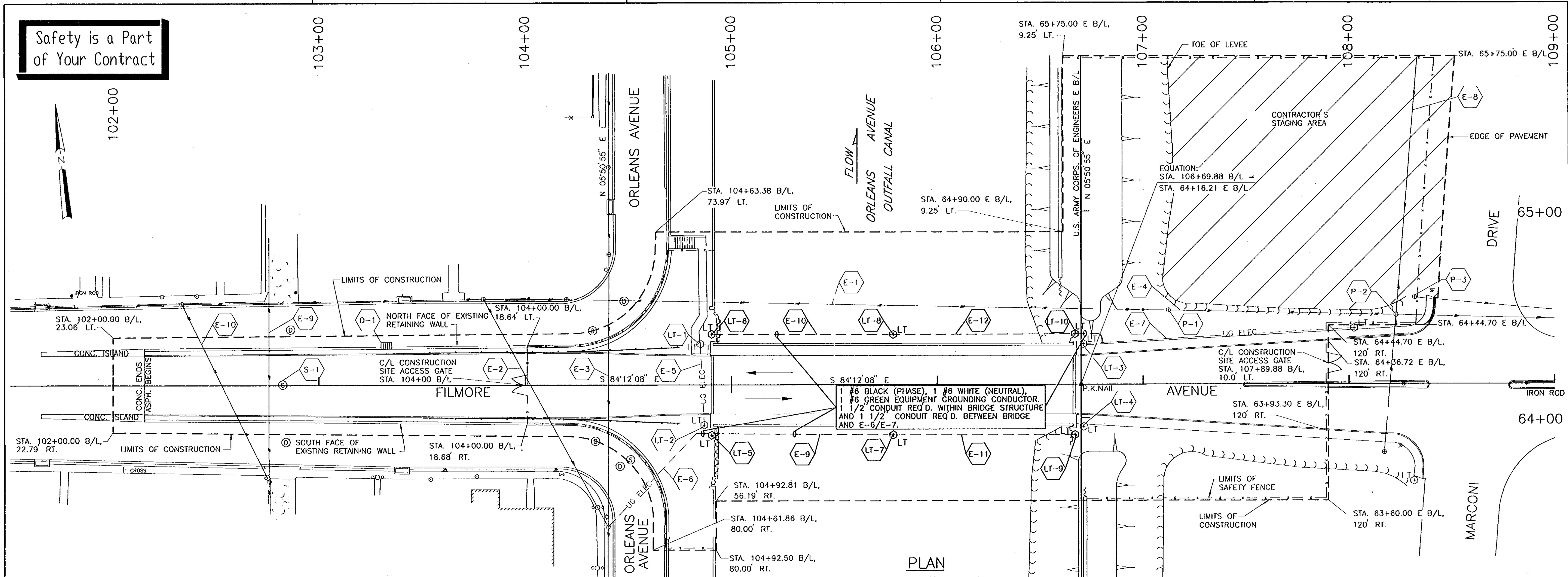
BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HARRISON EXIST. CANAL CROSS SECTIONS

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 10	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT34.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 34 OF 93



FILMORE AVENUE REQUIRED UTILITY RELOCATION/MODIFICATION

ITEM NO.	DESCRIPTION	LOCATION	OWNER	P.O.C. AND PHONE NUMBER	DISPOSITION
D-1	DRAINAGE STRUCTURES	ORLEANS AVENUE WEST OF CANAL	SEWERAGE AND WATER BOARD OF NEW ORLEANS	MR. GERRY PREAU (504) 865-0671	TO REMAIN, DO NOT DISTURB
E-1	AERIAL POWERLINE - 3 PHASE PRIMARY CONDUCTORS	CROSSES ORLEANS OUTFALL CANAL AT STA. 64+53± E B/L	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB. CONTACT OWNER TO DE-ENERGIZE.
E-2	AERIAL POWERLINE - 3 WIRE,1 PHASE SECONDARY CONDUCTOR	CROSSES FILMORE AVENUE WEST OF ORLEANS AVENUE OUTFALL CANAL	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB. CONTACT OWNER TO DE-ENERGIZE.
E-3	AERIAL POWERLINE - 3 PHASE PRIMARY CONDUCTORS	CROSSES FILMORE AVENUE WEST OF ORLEANS AVENUE OUTFALL CANAL	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB. CONTACT OWNER TO DE-ENERGIZE.
E-4	AERIAL POWERLINE - 3 PHASE PRIMARY CONDUCTORS	ALONG FILMORE AVENUE NORTHEAST OF BRIDGE	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB. CONTACT OWNER TO DE-ENERGIZE.
E-5	UNDERGROUND ELECTRICAL-STREET LIGHT UNDERGROUND BURIED	CROSSES FILMORE AVENUE AT WEST END OF BRIDGE	NEW ORLEANS UTILITIES DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	OWNER TO DE-ENERGIZE AND CONTRACTOR TO DEMOLISH WITH BRIDGE
E-6	UNDERGROUND ELECTRICAL-STREET LIGHT UNDERGROUND BURIED	CROSSES ORLEANS AVENUE SOUTHWEST OF BRIDGE	NEW ORLEANS UTILITIES DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	CONTRACTOR TO SPLICE TO NEW STREET LIGHT CIRCUIT
E-7	UNDERGROUND ELECTRICAL-STREET LIGHT UNDERGROUND BURIED	ALONG FILMORE AVENUE NORTHEAST OF BRIDGE	NEW ORLEANS UTILITIES DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	CONTRACTOR TO SPLICE TO NEW STREET LIGHT CIRCUIT
E-8	AERIAL POWERLINE - 1-WIRE PRIMARY	ALONG MARCONI DRIVE NORTHEAST OF BRIDGE	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB
E-9	AERIAL POWERLINE	CROSSES FILMORE AVENUE WEST OF ORLEANS AVENUE OUTFALL CANAL	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB
E-10	AERIAL POWERLINE	CROSSES FILMORE AVENUE WEST OF ORLEANS AVENUE OUTFALL CANAL	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB
E-11	ELECTRICAL LINE FOR STREET LIGHTS 1 1/2" CONDUIT	ALONG SOUTH SIDE OF BRIDGE	NEW ORLEANS UTILITIES DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	CONDUIT AND CONDUCTORS TO BE FURNISHED, INSTALLED, AND CONNECTED BY CONTRACTOR
E-12	ELECTRICAL LINE FOR STREET LIGHTS 1 1/2" CONDUIT	ALONG NORTH SIDE OF BRIDGE	NEW ORLEANS UTILITIES DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	CONDUIT AND CONDUCTORS TO BE FURNISHED, INSTALLED, AND CONNECTED BY CONTRACTOR
LT-1 LT-2 LT-3 LT-4	STREET LIGHTS	STA. 104+85.02 B/L, 19.69' LT. STA. 104+86.85 B/L, 19.41' RT. STA. 106+70.95 B/L, 19.52' LT. STA. 106+71.15 B/L, 20.40' RT.	NEW ORLEANS UTILITIES DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	CONTRACTOR TO REMOVE AND STORE ON SITE. CONTACT ENTERGY TO REMOVE FROM SITE.
LT-5 LT-6 LT-7 LT-8 LT-9 LT-10	STREET LIGHTS WITH POLES MOUNTED TO NEW BRIDGE	STA. 104+90.46 B/L, 24.38' RT. STA. 104+90.46 B/L, 24.38' LT. STA. 105+78.66 B/L, 24.25' RT. STA. 105+78.66 B/L, 24.25' LT. STA. 106+66.88 B/L, 24.38' RT. STA. 106+66.88 B/L, 24.38' LT.	NEW ORLEANS UTILITIES DEPARTMENT	MR. ROBERT MENDOZA (504) 565-6266	LIGHT POLES AND FIXTURES TO BE FURNISHED AND INSTALLED BY CONTRACTOR
P-1	POWER POLE	STA. 107+12.37 B/L, 35.73' LT.	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB
P-2	POWER POLE W/ANCHOR	STA. 108+22.89 B/L, 33.45' LT. STA. 108+22.90 B/L, 28.61' LT.(ANCHOR)	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB
P-3	POWER POLE	STA. 108+31.88 B/L, 41.84' LT.	ENTERGY	MR. NORMAN SILES (504) 593-3460	TO REMAIN, DO NOT DISTURB
S-1	SEWER MANHOLE	STA. 102+82.64 B/L, 0.27' LT.	SEWERAGE AND WATER BOARD OF NEW ORLEANS	MR. GERRY PREAU (504) 865-0671	TO REMAIN, DO NOT DISTURB

LEGEND

- BASELINE
- LIMITS OF CONSTRUCTION
- CONTRACTOR'S STAGING AREA
- REQ'D. SAFETY FENCE

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR PLAN-PROFILE, SEE DWG NO. 37.

VALUE ENGINEERING INCENTIVE CLAUSES — YOUR KEY TO HIGHER PROFITS

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
△	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

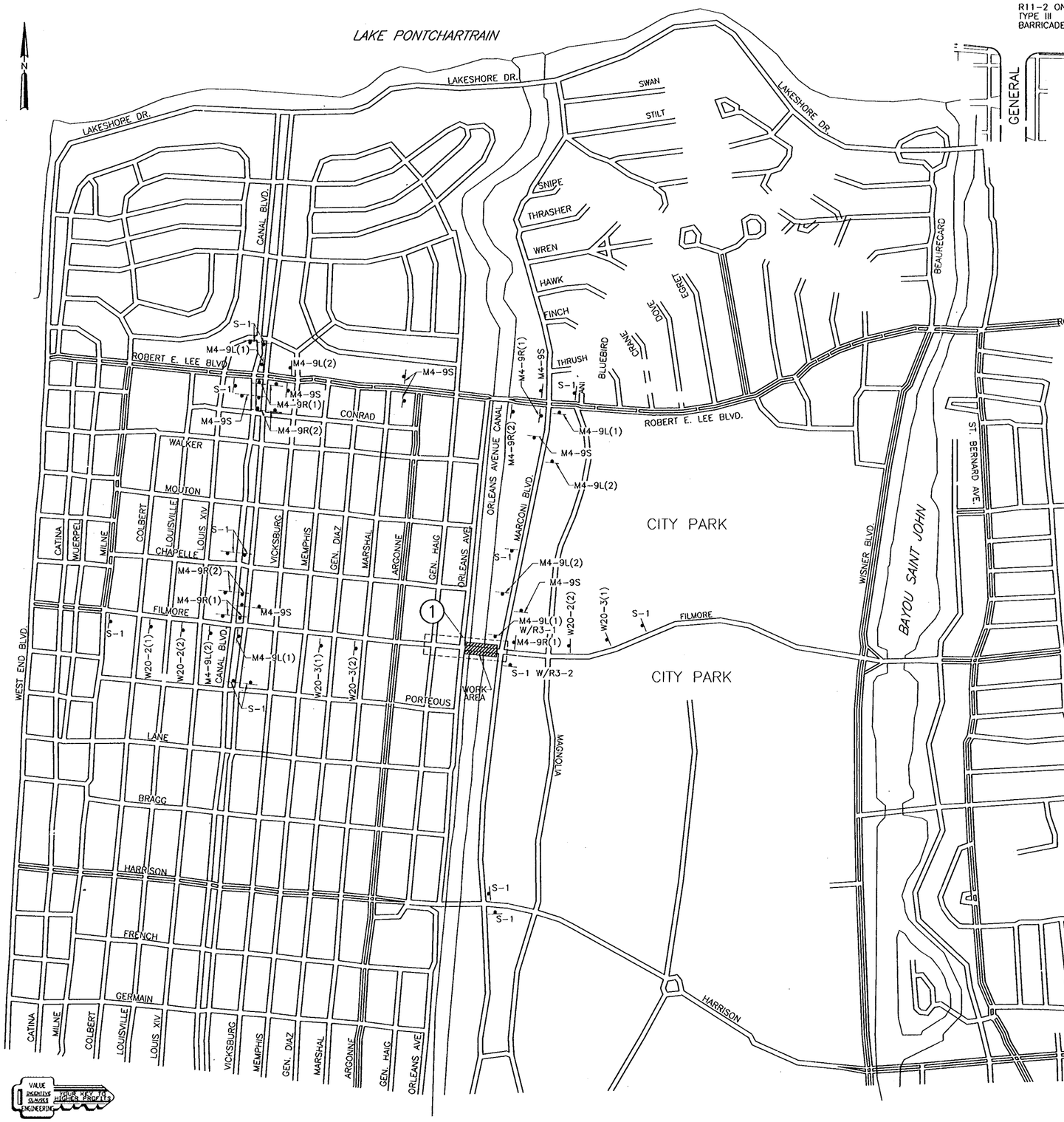
BOARD OF LEVEE COMMISSIONERS ORLEANS LEVEE BOARD NEW ORLEANS, LOUISIANA
HARTMAN ENGINEERING, INC. CONSULTING ENGINEERS KENNER, LOUISIANA

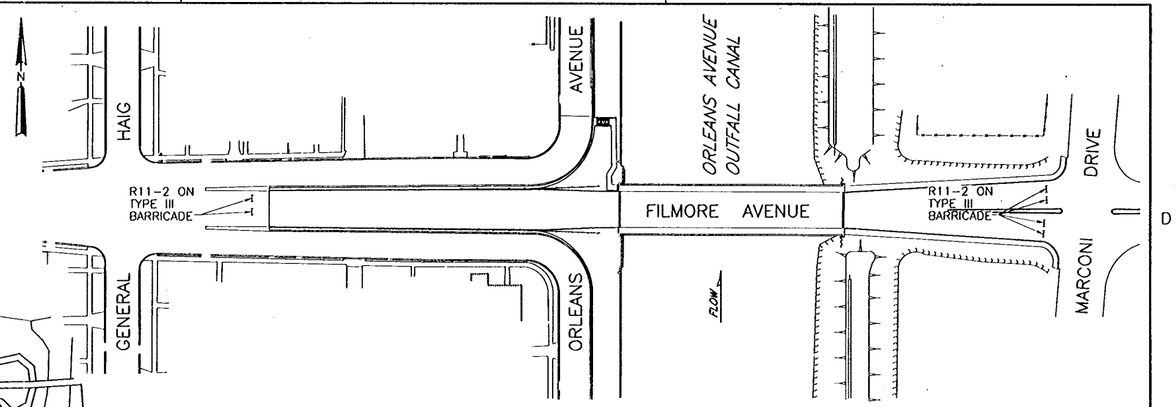
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE LIMITS OF CONSTRUCTION & UTILITY PLAN

DESIGNED BY: P.J.H.
DRAWN BY: C.R.N.
CHECKED BY: W.D.L.
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER
DATE: SEPT. 1998
PLOT SCALE: 20
PLOT DATE: SEPT. 1998
CADD FILE: SHT35.DGN
FILE NO. H-4-45050
SOLICITATION NO. DACW29-99-B-0008
DWG. 35 OF 93

Safety is a Part of Your Contract





DETAIL (1)

SCALE: 1'' = 50'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR TRAFFIC CONTROL SIGNS AND NOTES, SEE DWG. NO. 4.

FOR HARRISON AVENUE TRAFFIC CONTROL PLAN, SEE DWG. NO. 7.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR HIGHWAY SIGN AND BARRICADE DETAILS, SEE DWG. NOS. 91, 92 AND 93.

⚠ NOTE: THE FILMORE TRAFFIC CONTROL PLAN SHALL BE COMBINED WITH THE HARRISON TRAFFIC CONTROL PLAN SO THAT BOTH BRIDGES CAN BE CLOSED AT THE SAME TIME. THE CONTROL PLANS SHALL REMAIN THE SAME EXCEPT, WHERE APPLICABLE, DUPLICATE „DETOUR SIGNS SHALL BE COMBINED BY USING THE "FILMORE" AND "HARRISON" AUXILIARY STREET NAME SIGNS.

SCALE: 1'' = 50'

50' 0 50' 100' 150' 200'

SCALE: 1'' = 500'

500' 0 500' 1000' 1500' 2000'

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 5/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.
⚠	ADDED NOTE - AMENDMENT NO. 0002	2-3-99	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FILMORE TRAFFIC CONTROL PLAN

DESIGNED BY: R.R.C.
DRAWN BY: S.F.U.
CHECKED BY: P.J.H.
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER

DATE: SEPT. 1998
PLOT SCALE: 500
CADD FILE: SHT36.DGN
PLOT DATE: SEPT. 1998
FILE NO. H-4-45050
SOLICITATION NO. DACW29-99-B-0008
DWG. 36 OF 93

VALUE ENGINEERING — YOUR KEY TO HIGHER PROFITS

Safety is a Part of Your Contract

* BORINGS 27 AND 28 ARE SHOWN ON THIS DRAWING FOR GENERAL ORIENTATION. THE BORINGS ARE LOCATED FURTHER NORTH THAN SHOWN. SEE DWG. NO. 82 FOR STATIONS AND OFFSETS.

ORLEANS AVENUE

ORLEANS AVENUE CANAL

ORLEANS OUTFALL

FLOW

B-28

B-27

B-26

B-25

FOR LIMITS OF REQ'D. SAFETY FENCE, SEE DWG. NO. 38.

U.S. ARMY CORPS OF ENGINEERS E B/L N 05°50'55" E

B/L INTERSECTION STA. 106+69.88 B/L = STA. 64+16.21 E B/L

SEE DWG. NO. 77 FOR CURB MODIFICATIONS ON EAST SIDE OF BRIDGE.

FILMORE AVENUE PAVED FROM BRIDGE TO MARCONI DRIVE MODIFICATION A00007

FOR SIDE MOUNTED GUARD RAIL POST, SEE DETAIL (1).

SET FACE OF GUARDRAIL AT 18" FROM OUTSIDE FACE OF EXISTING RETAINING WALL. PROVIDE BLOCKOUTS AS REQUIRED.

IRON ROD

IRON ROD

STA. 104+19.33 B/L

50'-0" TRANSITION PAVEMENT AND CURB FROM EXISTING GRADES TO NEW APPROACH GRADE

20'-0" APPROACH SLAB

EXISTING STAIRS TO REMAIN

178'-8" BRIDGE

20'-0" APPROACH SLAB

50'-0" TRANSITION PAVEMENT AND CURB FROM EXISTING GRADES TO NEW APPROACH GRADE

2 / 37/77

TBM #1 EL 0.05

CROSS 6 X 6 (TYP.)

SLOPE SIDEWALK TO MATCH END BENT GRADE

EXISTING T-WALL

SEE DWG. NO. 39 FOR FLOODWALL PLAN.

1'-3" BARRIER RAIL

1'-1" HEADWALL

6'

C/L OF BRIDGE STA. 105+78.67 B/L

SEE DWG. NO. 39 FOR FLOODWALL PLAN.

EXISTING I-WALL

LIMIT OF I-WALL(W/L) = STA. 64+67.70 E B/L, 11.00' LT.

LIMIT OF UNCAPPED SHEET PILING = STA. 64+58.55 E B/L

RIPRAP (TYP)

10' (TYP)

R = 647'

P.T. STA. 107+26.60 B/L 2.15 LT.

STA. 107+38.00 B/L

Δ = 3°25'12"

Δ = 3°45'37"

R = 372'

P.T. STA. 107+12.40 B/L 16.80 RT.

CONC. ISLAND

CONC. ENDS

CONC. ASPH. BEGINS

BASELINE S 84°12'08" E

FILMORE AVENUE

PROFILE GRADE LINE

S84°12'08"E

CONC. ISLAND

REMOVE EXISTING AND INSTALL NEW GUARDRAIL AND STEEL POST (TYP.)

GROSS

PIPE

BARRIER RAIL TRANSITION

1 / 37/77

SLOPE SIDEWALK TO MATCH END BENT GRADE

LIMIT OF UNCAPPED SHEET PILING = STA. 63+65.35 E B/L

LIMIT OF I-WALL(W/L) = STA. 63+61.69 E B/L, 1.00 RT.

BARRIER RAIL TRANSITION TO 6" CURB

FIELD LOCATE C/L OF REQ'D. STAIRS AT C/L OF EXISTING RETAINING WALL CLOSURE TO BE REMOVED AT ± 70 RT. OF BASELINE

PLAN

SCALE: 1" = 20'

20' 0 20' 40' 60' 80'

PVI STA. 105+75 B/L EL. 12.21 200' V.C.

+6.50% -7.50%

TOE

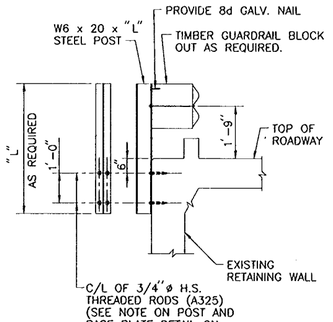
HYDRAULIC DATA

	WATER SURFACE ELEVATION	FLOW RATE	FREQUENCY
NORMAL WATER LEVEL	1.0 N.G.V.D.	0 CFS	-
DESIGN FLOOD	12.10 N.G.V.D.	3250 CFS	300 YR.

VERTICAL CONTROL

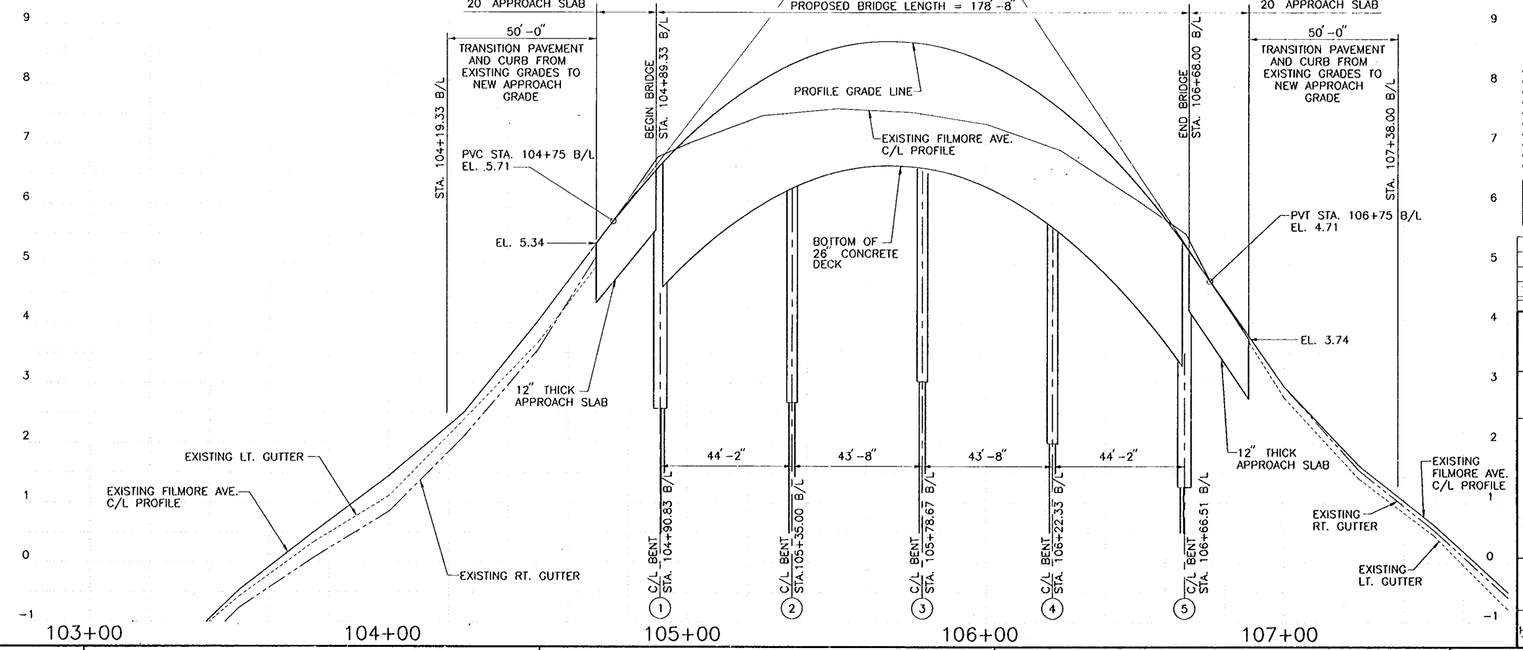
ALL ELEVATIONS ARE IN FEET AND REFER TO NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.) ELEVATION BENCH IS BM "CHRYSLER BM", EL. 7.11 (1983 EPOCH), LOCATED IN TOP OF CONCRETE SEAWALL IN NORTHWEST CORNER OF LAKESHORE DRIVE BRIDGE OVER ORLEANS AVENUE CANAL.

PROFILE GRADE LINE (PGL) WITHIN LIMITS OF BRIDGE IS LOCATED ALONG THE CROWN OF THE ROADWAY ALONG THE CENTERLINE OF THE BRIDGE.



DETAIL (1)

SCALE: 1/2" = 1'-0"



REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR HARRISON AVENUE PLAN-PROFILE, SEE DWG NO. 8.

FOR UTILITIES, SEE DWG. NO. 35.

FOR FLOODWALL PLAN, SEE DWG NO. 39.

FOR LIMITS OF RIPRAP, SEE DWG NOS. 50 AND 51.

FOR REQUIRED ROADWAY ELEVATIONS, SEE DWG. NO. 53.

FOR STAIR DETAILS, SEE DWG NO. 58A.

FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 59.

FOR ROADWAY AND SIDEWALK DETAILS, SEE DWG. NO. 77.

FOR LOGS OF BORINGS, SEE DWG. NOS. 81 AND 82.

FOR HIGHWAY GUARD RAILS, SEE DWG. NOS. 87 THRU 90.

THIS PLAN ACCOMPANIES MODIFICATION P0000 TO CONTRACT NUMBER DACW29-99-B-0008

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
2	AS BUILT	6/13/00	W.D.L.
1	HANDRAILS ON WEST SIDE SIDEWALKS	4/28/00	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

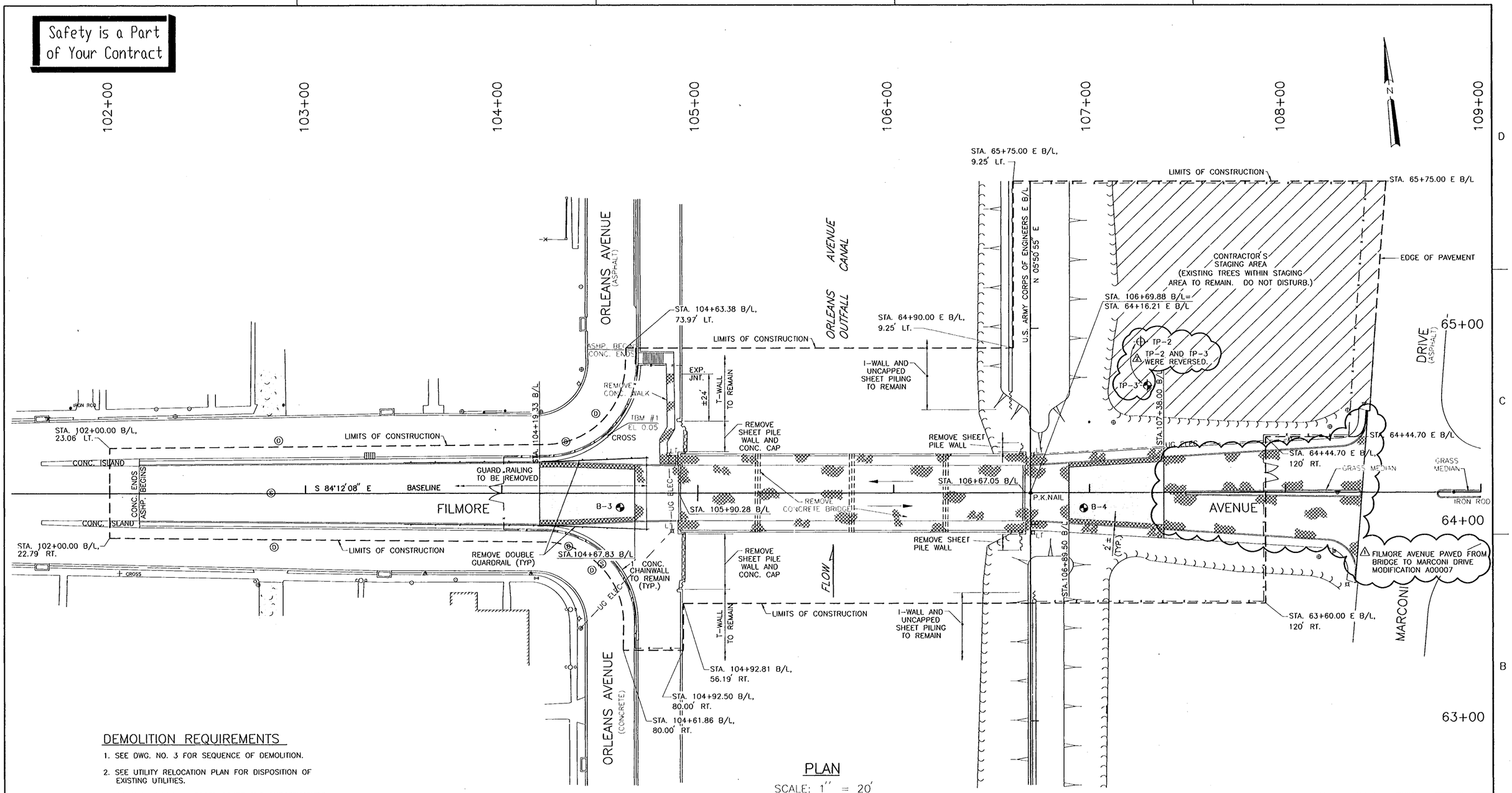
FILMORE AND HARRISON AVE. BRIDGES
FILMORE PLAN - PROFILE

DESIGNED BY: P.J.H.
DRAWN BY: C.R.N.
CHECKED BY: W.D.L.
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER

DATE: SEPT. 1998
PLOT SCALE: 20
PLOT DATE: SEPT. 1998
CADD FILE: SHT37.DGN
FILE NO. H-4-45050
SOLICITATION NO. DACW29-99-B-0008
DWG. 37 OF 93

VALUE INCENTIVES CLAUSES ENGINEERING YOUR KEY TO HIGHER PROFITS

Safety is a Part of Your Contract



PLAN

SCALE: 1" = 20'

20' 0 20' 40' 60' 80'

DEMOLITION REQUIREMENTS

1. SEE DWG. NO. 3 FOR SEQUENCE OF DEMOLITION.
2. SEE UTILITY RELOCATION PLAN FOR DISPOSITION OF EXISTING UTILITIES.
3. REMOVE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE. PULL BRIDGE PILING.
4. SAWCUT AND REMOVE CURBS AND SIDEWALKS WITHIN THE LIMITS SHOWN ON THIS SHEET.
5. ⚠ REMOVE SHEET PILE WALLS (20' LONG PIECES OF PSA 23 SHEET PILE) AND SHEET PILE WALLS WITH CONCRETE CAPS AT EACH BRIDGE CORNER. SEE FLOODWALL DETAILS FOR TIE-IN INFORMATION.
6. REMOVE PAVEMENT WITHIN LIMITS SHOWN.
7. ⚠ REMOVE SHEET PILING (20' LONG PIECES OF MT-112 SHEET PILE) UNDERNEATH BRIDGE ABUTMENTS.
8. BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE, BRIDGE PILING, ROADWAY, CONCRETE WALLS AND SHEET PILING DEMOLISHED AS A PART OF THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

LEGEND

- CURB, PAVEMENT AND SIDEWALK REMOVAL
- COLD PLANING
- BASELINE
- LIMITS OF CONSTRUCTION EASEMENT
- CONTRACTOR'S STAGING AREA WITHIN LIMITS OF CONSTRUCTION SERVITUDE
- REQ'D. SAFETY FENCE
- CORING
- TEST PILE (HP 14 x 73, TIP EL. -90.0)
- TEST PILE (24" x 24" P.P.C. PILE, TIP EL. -88.0)

TP-2 AND TP-3 WERE REVERSED. ⚠ CONCRETE TEST PILES CUT 10' BELOW GROUND ELEVATION. ⚠

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR HARRISON AVE. DEMOLITION PLAN, SEE DWG. NO. 9.
FOR DISPOSITION OF UTILITIES, SEE DWG NO. 35.
FOR PLAN-PROFILE, SEE DWG NO. 37.
FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 59.
FOR EXISTING BRIDGE, SEE DWG NO. 60.
FOR LOG OF CORINGS, SEE DWG. NO. 79.

VALUE ENGINEERING CLAUSE — YOUR KEY TO HIGHER PROFITS

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.
⚠	REVISED NOTES 5 & 7 - AMENDMENT NO. 0002	2-3-99	W.D.L.

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

William D. Lancaster, Reg. No. 22621, State of Louisiana, Professional Engineer in Civil Engineering

C·A·D

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

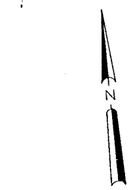
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

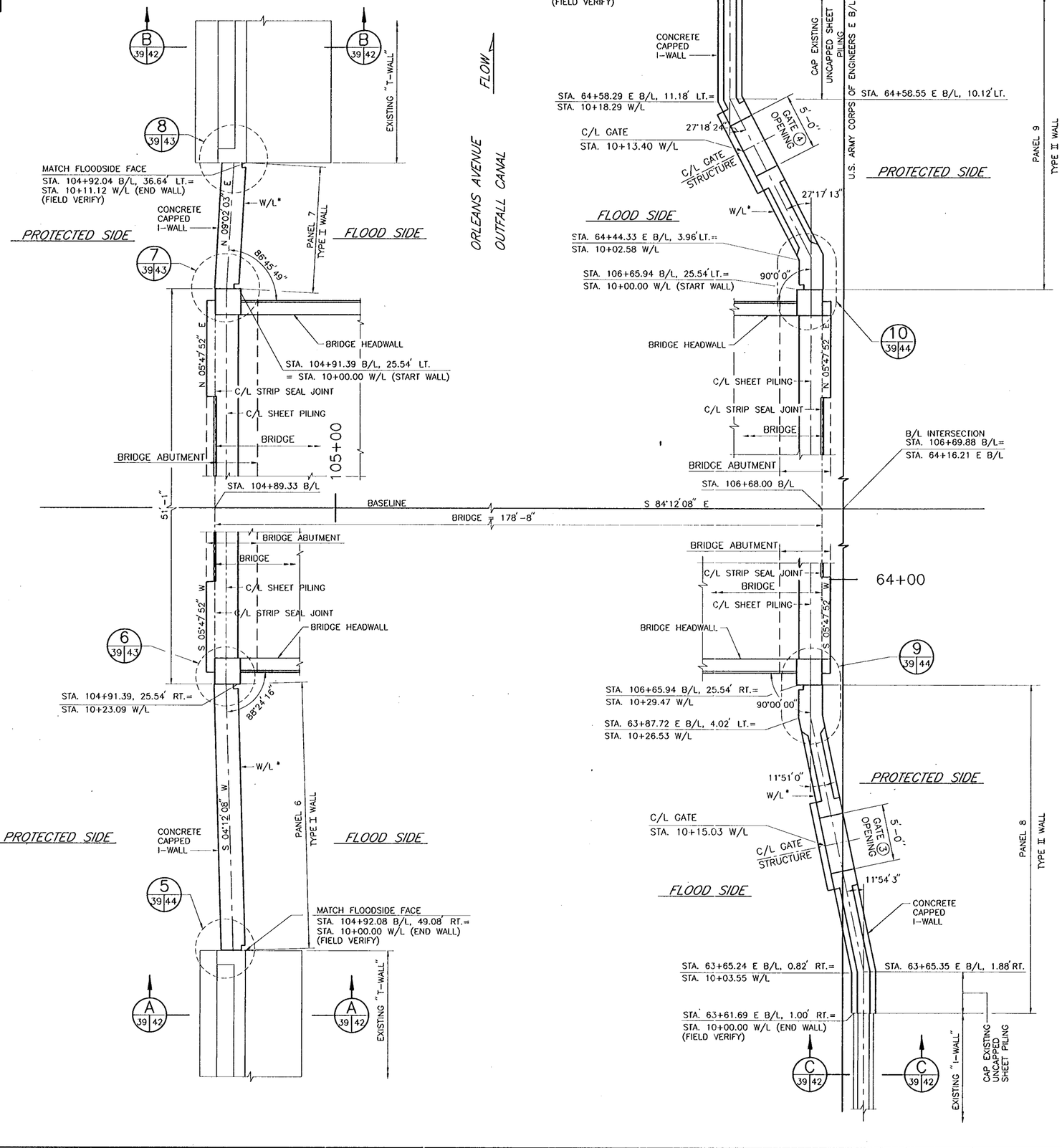
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE DEMOLITION PLAN

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 20	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT38.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 38 OF 93

Safety is a Part of Your Contract





* W/L (WALL LINE) LOCATION SHOWN ON DWG. NO. 68.
W/L STATIONING IS ALONG THIS LINE.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 40 AND 41.

FOR I-WALL TREATMENTS, SEE DWG. NO. 46.

FOR I-WALL REINFORCING AND DETAILS, SEE DWG. NO. 68.

SCALE: 1/4 " = 1'- 0"

12"0 5' 10' 15' 20'

VALUE INCENTIVE CLAUSES — YOUR KEY TO HIGHER PROFITS — ENGINEERING

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
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ORLEANS LEVEE BOARD
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HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

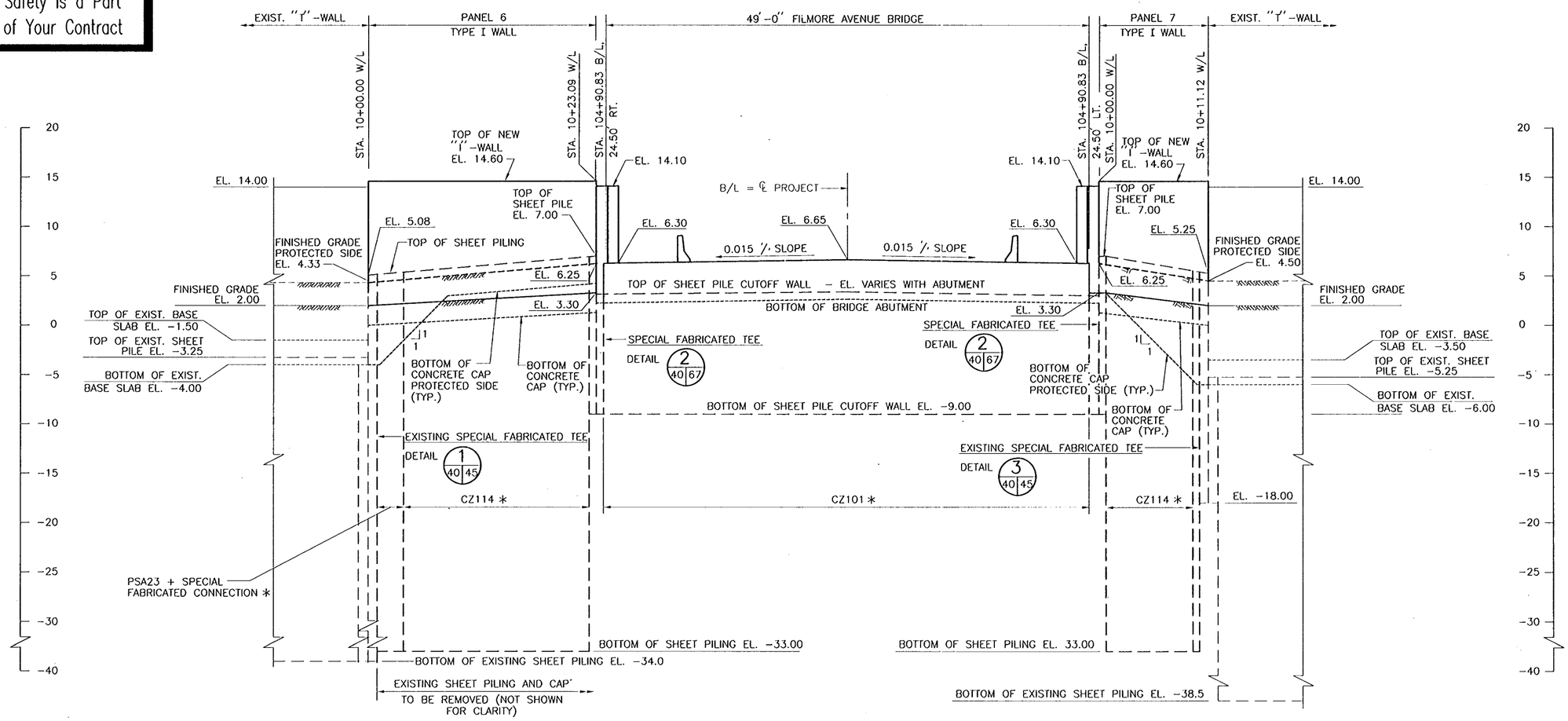
FILMORE AND HARRISON AVE. BRIDGES
FILMORE FLOODWALL PLAN

LOUISIANA REGISTERED PROFESSIONAL ENGINEER — William D Lancaster — REG. No. 22621 — IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: W.D.L.	DATE:	PLOT SCALE:	PLOT DATE:
DRAWN BY: L.A.C.	SEPT. 1998	48	SEPT. 1998
CHECKED BY: P.J.H.	CADD FILE: SHT39.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 39 OF 93

Safety is a Part of Your Contract



WEST SIDE
FLOOD SIDE PROFILE (STA. 104+90.83 B/L AT BRIDGE)

SCALE: 1" = 5' HORIZ. & VERT.

* SHEET PILING SHOWN FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL PROVIDE DETAILED LAYOUT OF CONTINOUSLY INTERLOCKED SHEET PILING, FABRICATED TEES AND ALL SPECIAL CONNECTIONS REQUIRED.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

FOR "I"-WALL REINFORCING AND DETAILS, SEE DWG. NO. 68.

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE FLOODWALL PROFILE-WEST

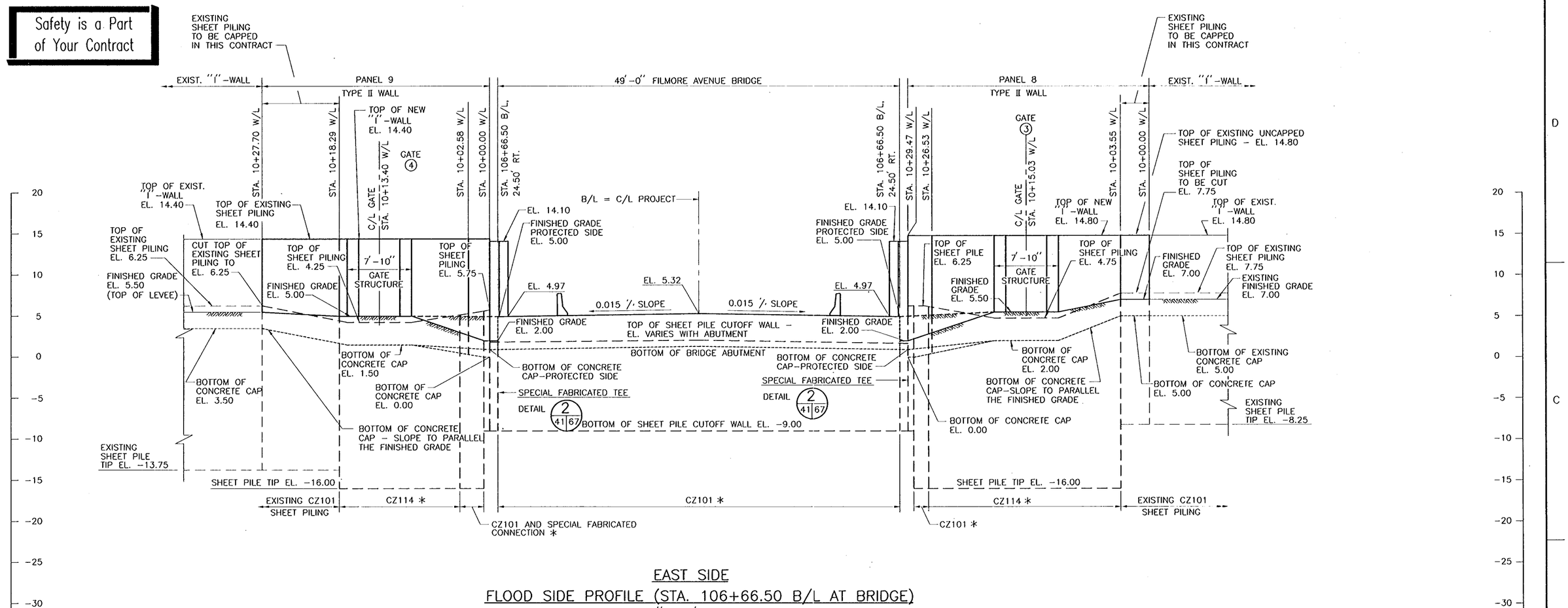
STATE OF LOUISIANA
John O. Lancaster
REG. NO. 22621
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 60	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.	CADD FILE: SHT40.DGN		FILE NO. H-4-45050
CHECKED BY: P.J.H.			
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)	SOLICITATION NO. DACW29-99-B-0008		DWG. 40 OF 93

VALUE ENGINEERING — YOUR KEY TO HIGHER PROFITS

Safety is a Part of Your Contract



EAST SIDE
FLOOD SIDE PROFILE (STA. 106+66.50 B/L AT BRIDGE)

SCALE: 1" = 5' HORIZ. & VERT.

* SHEET PILING SHOWN FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL PROVIDE DETAILED LAYOUT OF CONTINOUSLY INTERLOCKED SHEET PILING, FABRICATED TEES AND ALL SPECIAL CONNECTIONS REQUIRED.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

FOR "I" -WALL REINFORCING AND DETAILS, SEE DWG. NO. 68.

Herbert D. Lancaster Reg. No. 26821 PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

VALUE ENGINEERING SAVES YOUR $$$ FOR HIGHER PROFITS

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

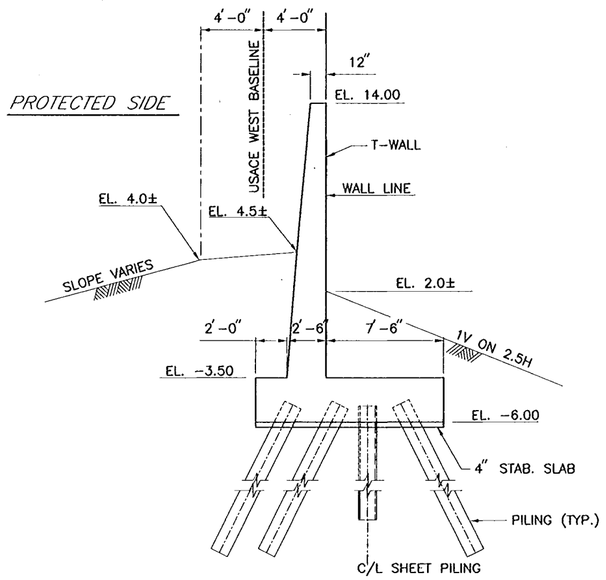
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE FLOODWALL PROFILE-EAST

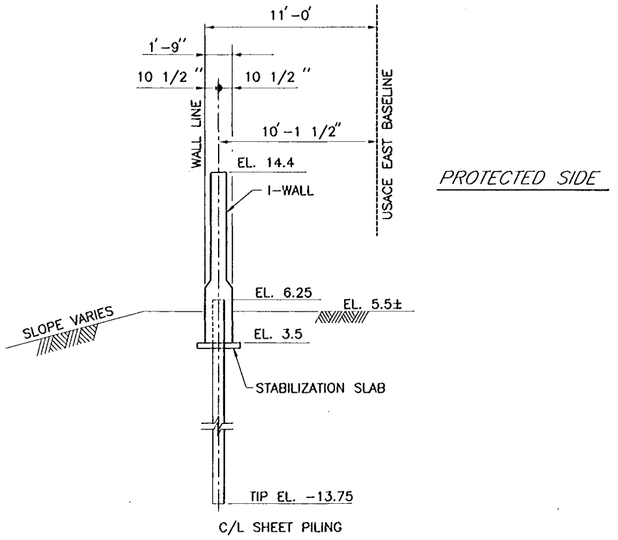
DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 60	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: P.J.H.	CADD FILE: SHT41.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 41 OF 93

Safety is a Part of Your Contract



SECTION B 39|42

SCALE: 1/4" = 1' - 0"

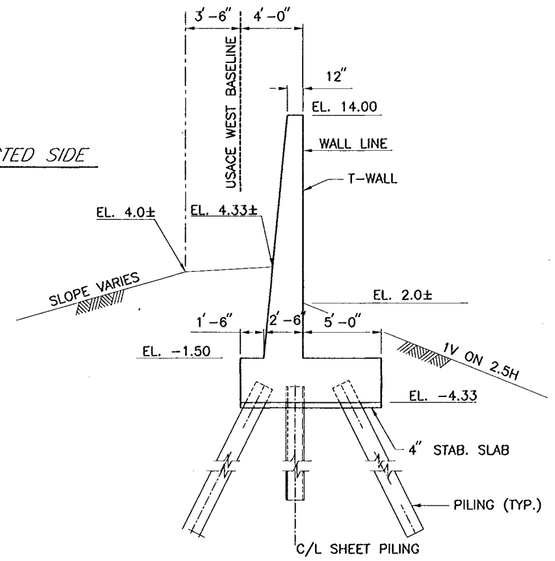


SECTION D 39|42

SCALE: 1/4" = 1' - 0"

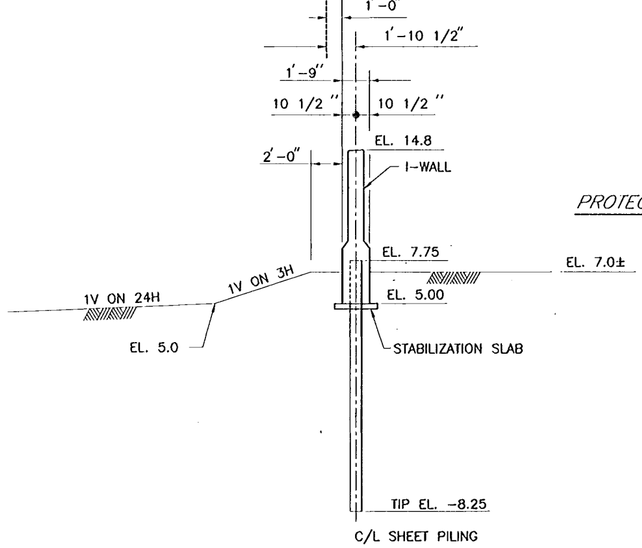
REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR PLAN-PROFILE, SEE DWG. NO. 37.
FOR FLOODWALL DETAILS, SEE DWG. NO. 39.



SECTION A 39|42

SCALE: 1/4" = 1' - 0"



SECTION C 39|42

SCALE: 1/4" = 1' - 0"

VALUE INCENTIVE CLAUSES ENGINEERING — WORK LESS TO MAKE HIGHER PROFITS

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

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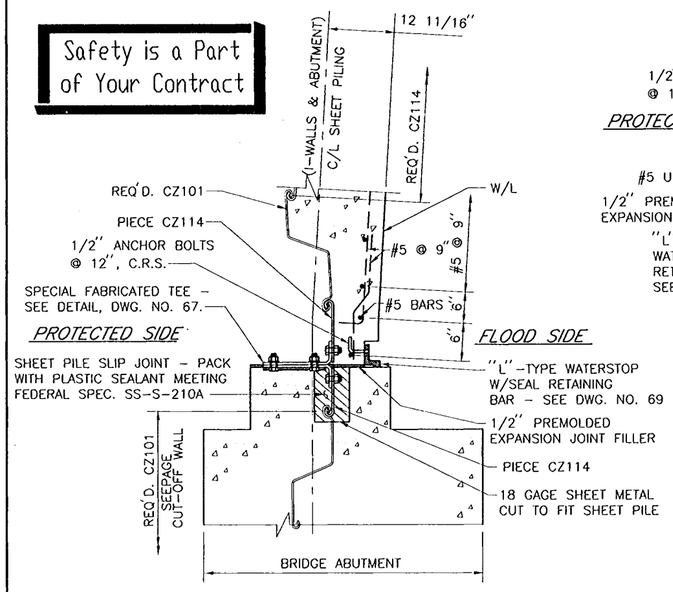
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA, AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

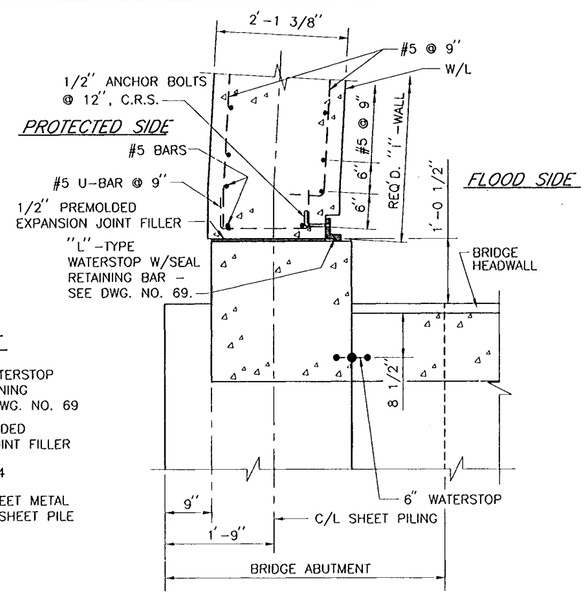
FILMORE AND HARRISON AVE. BRIDGES
FILMORE EXIST. FLOODWALL SECTIONS

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 4	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT42.DWG		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 42 OF 93

Safety is a Part of Your Contract



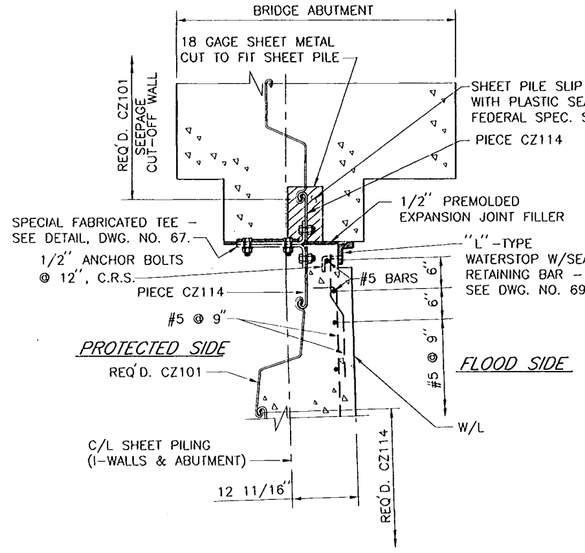
SECTION THROUGH SHEET PILE



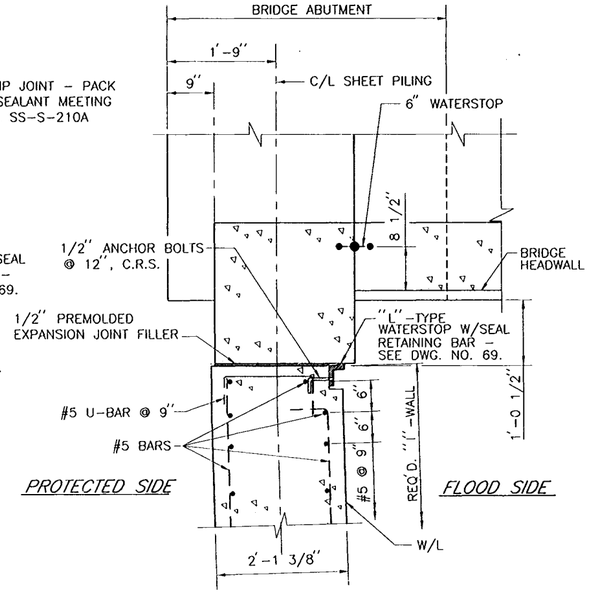
SECTION ABOVE SHEET PILE

DETAIL 7 (39|43)

SCALE : 1" = 1' - 0"



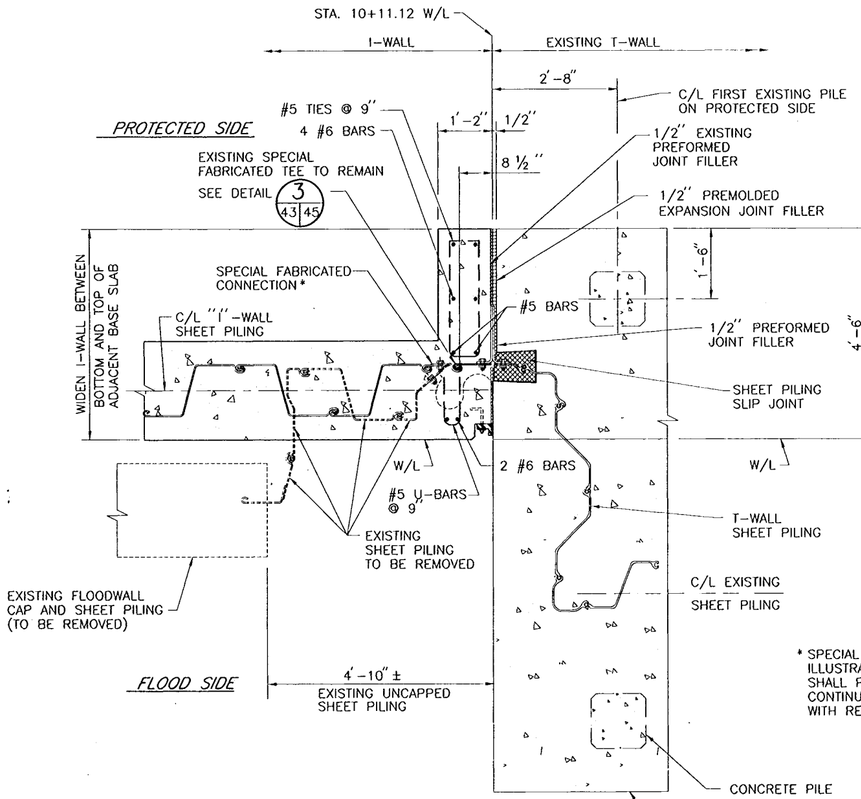
SECTION THROUGH SHEET PILE



SECTION ABOVE SHEET PILE

DETAIL 6 (39|43)

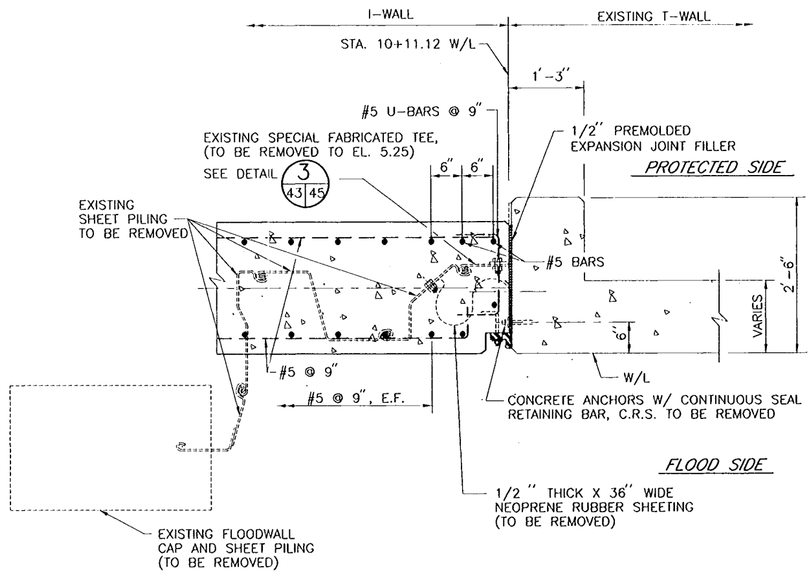
SCALE : 1" = 1' - 0"



SECTION THRU BASE SLAB A (66|43)

SCALE: 3/4" = 1'-0"

* SPECIAL FABRICATED CONNECTION IS FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL PROVIDE DETAILED LAYOUT OF CONTINUOUSLY INTERLOCKED SHEET PILING WITH REQUIRED SPECIAL FABRICATED CONNECTION.



SECTION ABOVE BASE SLAB B (66|43)

SCALE: 1" = 1'-0"

DETAIL 8 (39|43)

SCALE: 3/4" = 1'-0"

12" 0 1' 2' 3' 4' 5'

SCALE: 1" = 1'-0"

12" 0 1' 2' 3' 4' 5'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 40 AND 41.

FOR T-WALL TO I-WALL ELEVATIONS, SEE DWG. NO. 66.

FOR TYPICAL WALL SECTIONS, SEE DWG. NO. 68.

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

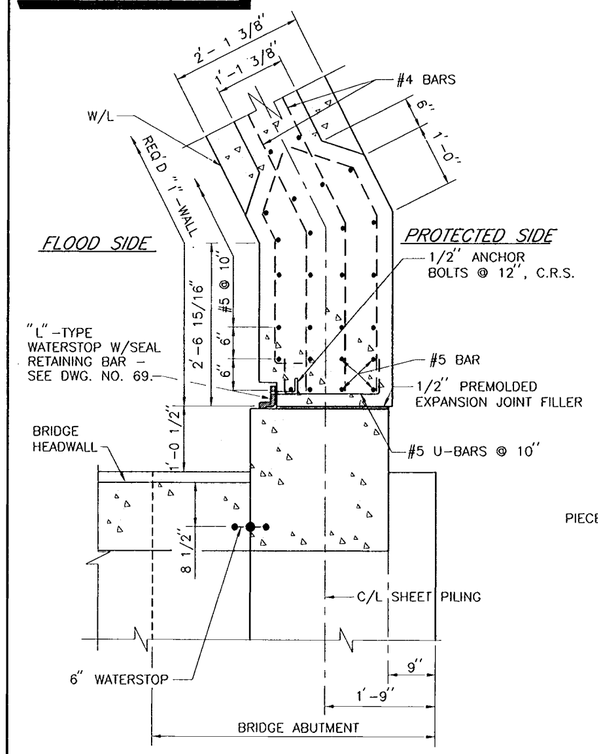
FILMORE AND HARRISON AVE. BRIDGES
FILMORE JOINT DETAILS

DESIGNED BY: M.K.R.
DRAWN BY: C.R.N.
CHECKED BY: W.D.L.
DATE: SEPT. 1998
PLOT SCALE: 12
PLOT DATE: SEPT. 1998
CADD FILE: SHT43.DGN
FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER
SOLICITATION NO. DACW29-99-B-0008
DWG. 43 OF 93

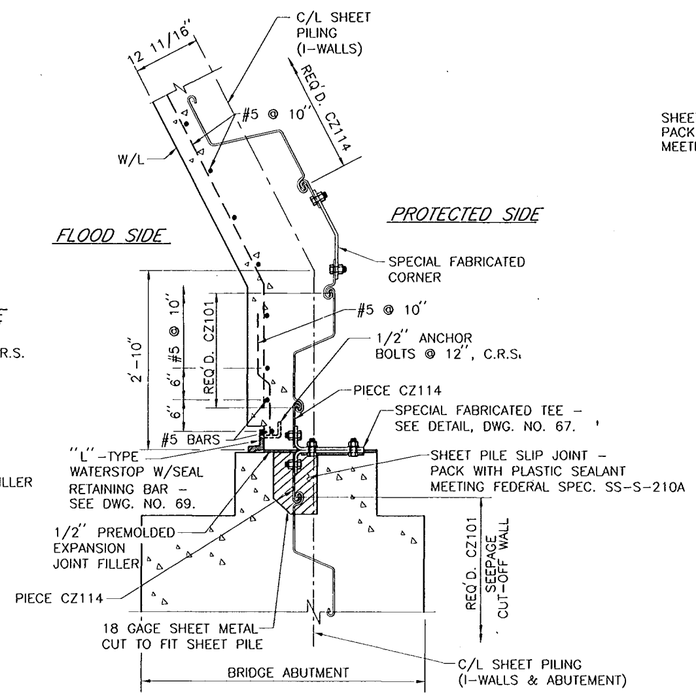
AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

VALUE INCENTIVES SUGGEST HIGHER PROFITS YOUR KEY TO ENGINEERING

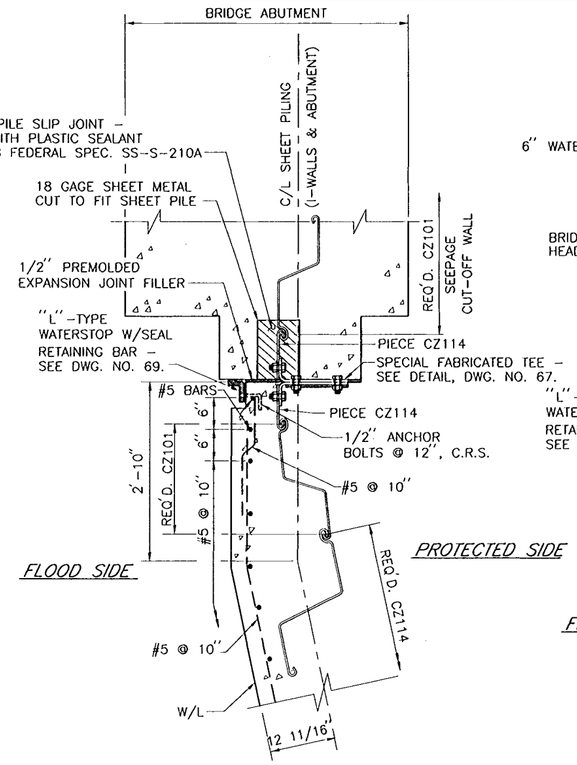
Safety is a Part of Your Contract



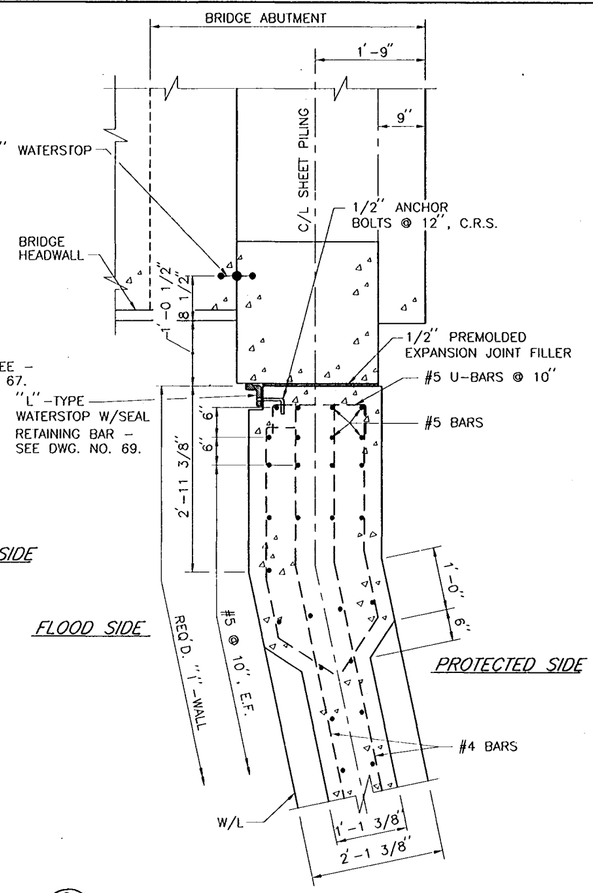
SECTION ABOVE SHEET PILE



SECTION THROUGH SHEET PILE



SECTION THROUGH SHEET PILE



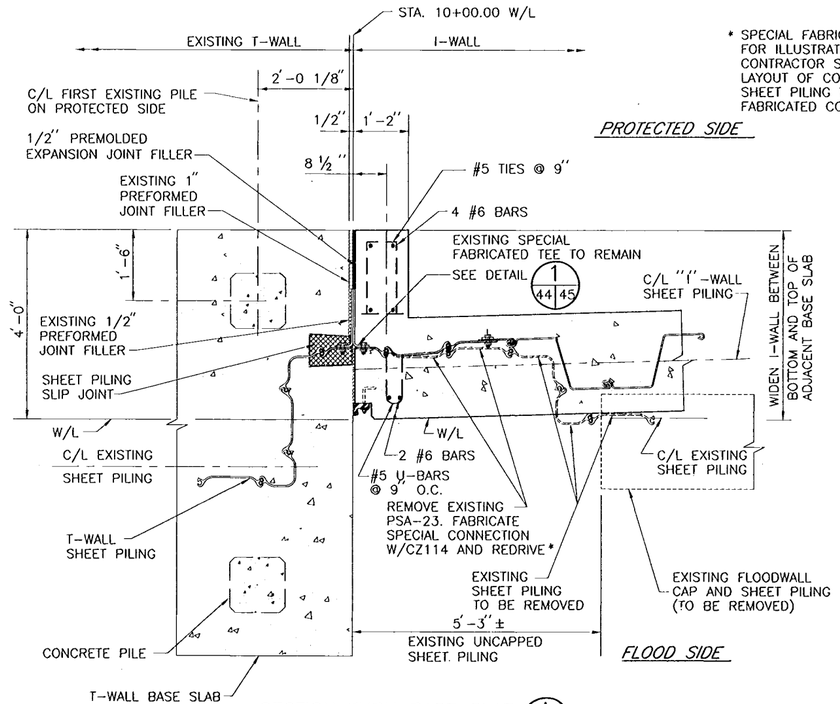
SECTION ABOVE SHEET PILE

DETAIL (10/39/44)

SCALE : 1" = 1' - 0"

DETAIL (9/39/44)

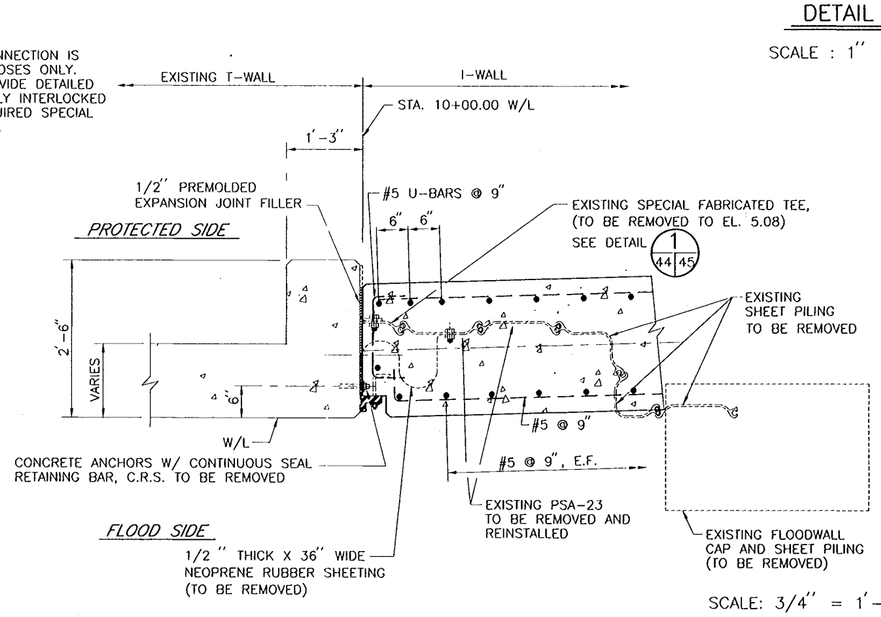
SCALE : 1" = 1' - 0"



SECTION THRU BASE SLAB (A/66/44)

SCALE: 3/4" = 1'-0"

* SPECIAL FABRICATED CONNECTION IS FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL PROVIDE DETAILED LAYOUT OF CONTINUOUSLY INTERLOCKED SHEET PILING WITH REQUIRED SPECIAL FABRICATED CONNECTION.



SECTION ABOVE BASE SLAB (B/66/44)

SCALE: 1" = 1'-0"

DETAIL (5/39/44)

SCALE: 3/4" = 1'-0"

SCALE: 1" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 40 AND 41.

FOR T-WALL TO I-WALL ELEVATIONS, SEE DWG. NO. 66.

FOR TYPICAL WALL SECTIONS, SEE DWG. NO. 68.

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
	REVISIONS		
1	AS BUILT	6/13/00	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

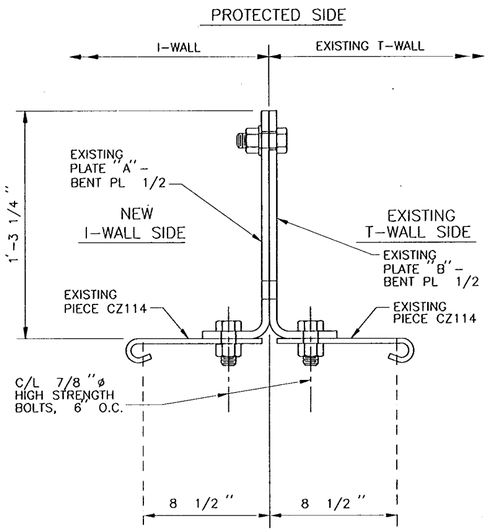
FILMORE AND HARRISON AVE. BRIDGES
FILMORE JOINT DETAILS

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 12	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: P.J.H.	CADD FILE: SHT44.DWG		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 44 OF 93

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

VALUE ENGINEERING CHANGE PROPOSALS REDUCE COSTS INCREASE PROFITS

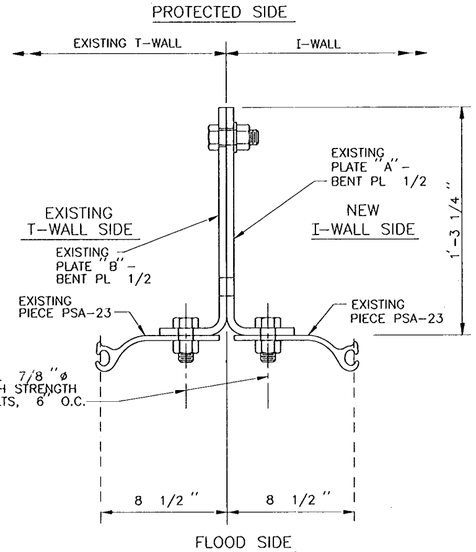
Safety is a Part of Your Contract



DETAIL 3 (40 45) 3 (43 45)

EXISTING SPECIAL CZ114 TEE
NORTHWEST OF BRIDGE

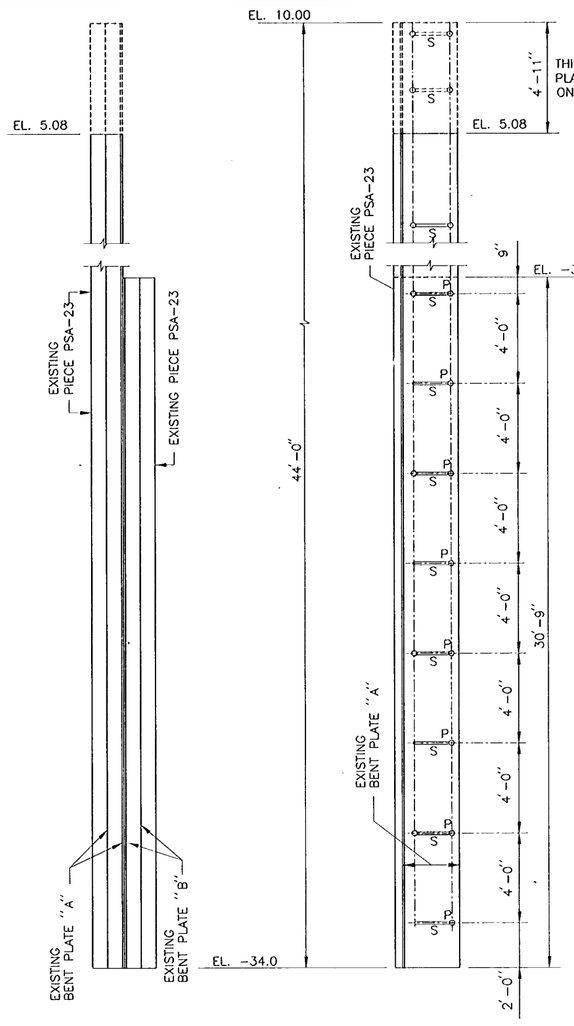
SCALE: 3" = 1' - 0"



DETAIL 1 (40 45) 1 (44 45)

EXISTING SPECIAL PSA-23 TEE
SOUTHWEST OF BRIDGE

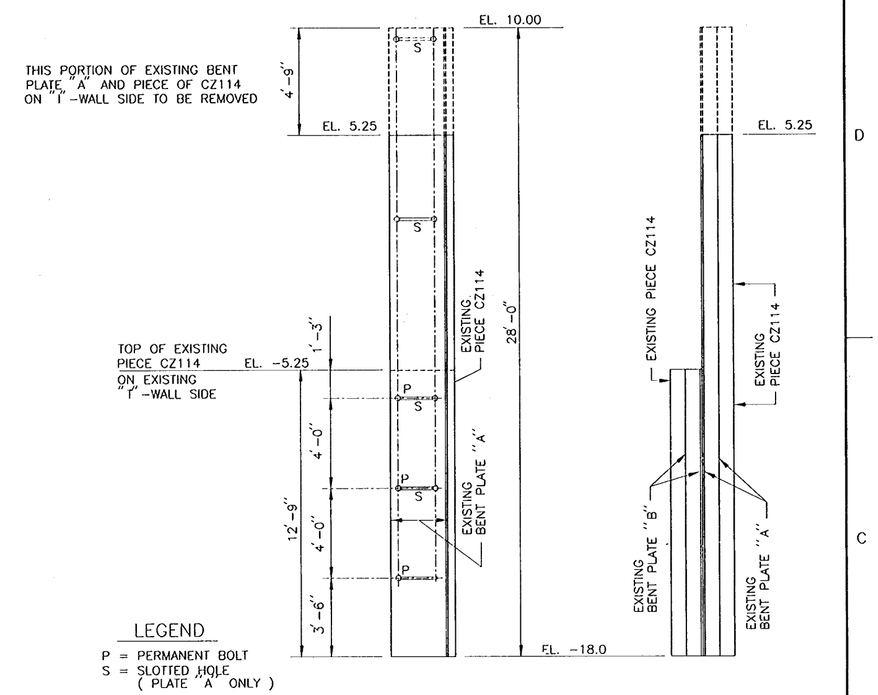
SCALE: 3" = 1' - 0"



PROTECTED SIDE ELEVATION — NEW I-WALL SIDE ELEVATION

ELEVATION OF EXISTING SPECIAL PSA-23 TEE
SOUTHWEST OF BRIDGE
SHOWING BENT PLATES BOLT SPACING

SCALE: 3/4" = 1'-0" (HORZ.)
3/8" = 1'-0" (VERT.)



LEGEND
P = PERMANENT BOLT
S = SLOTTED HOLE (PLATE "A" ONLY)

NEW I-WALL SIDE ELEVATION — PROTECTED SIDE ELEVATION

ELEVATION OF EXISTING SPECIAL CZ114 TEE
NORTHWEST OF BRIDGE
SHOWING BENT PLATES BOLT SPACING

SCALE: 3/4" = 1'-0" (HORZ.)
3/8" = 1'-0" (VERT.)

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. 3.

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 40 AND 41.

FOR FLOODWALL JOINT DETAILS, SEE DWG. NOS. 43 AND 44.

LEGEND
P = PERMANENT BOLT
S = SLOTTED HOLE (PLATE "A" ONLY)

SCALE: 3/8" = 1' - 0"
12" 0 2' 4' 6' 8' 10'
SCALE: 3/4" = 1' - 0"
12" 0 1' 2' 3' 4' 5'
SCALE: 3" = 1' - 0"
12" 0 1' 2'

SYMBOL	DESCRIPTION	DATE	APPROVED
	REVISIONS		
1	AS BUILT	6/13/00	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
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HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE SHEET PILE DETAILS

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 3	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: X	CADD FILE: SHT45.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 45 OF 93

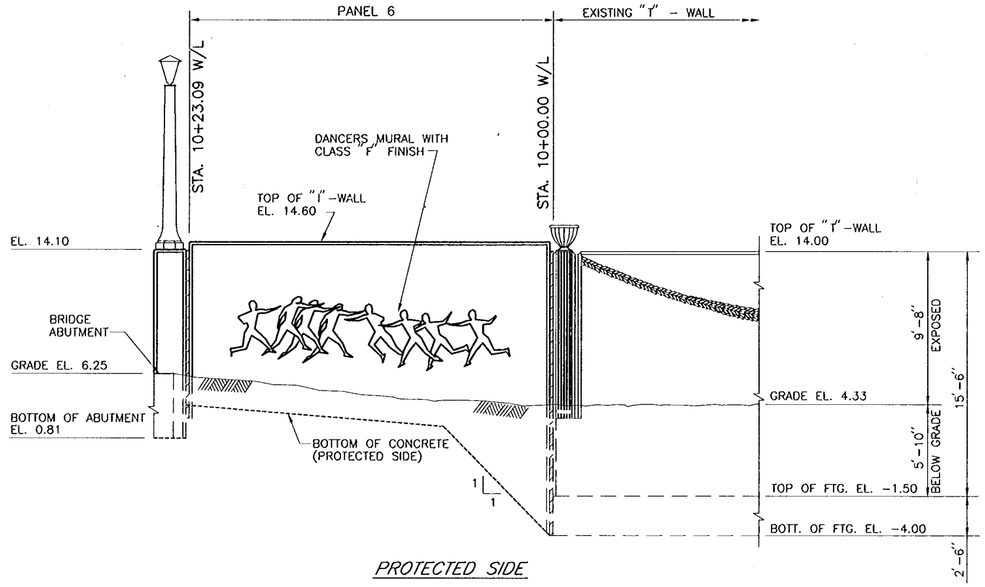
AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

STATE OF LOUISIANA — William D. Lancaster — No. 22821 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

VALUE ENGINEERING — YOUR KEY TO HIGHER PROFITS

C·A·D

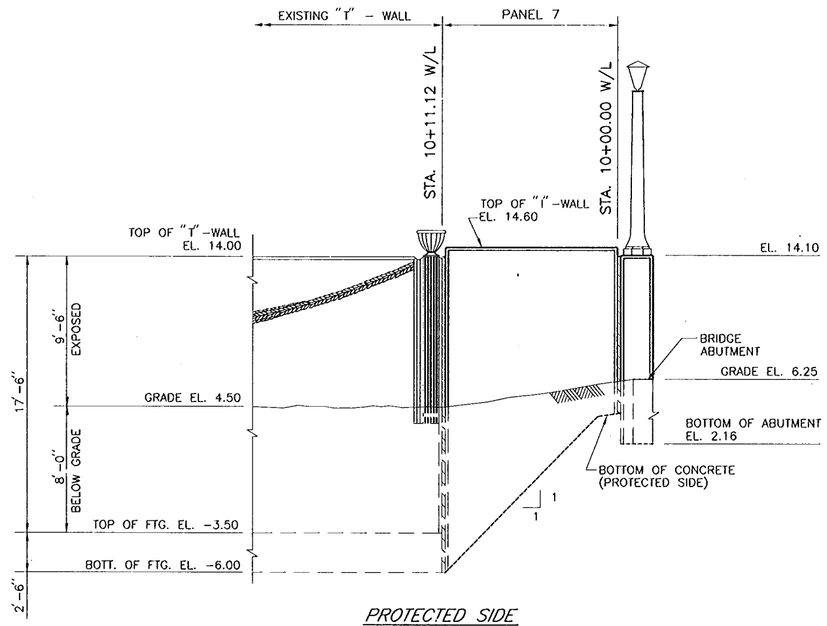
Safety is a Part of Your Contract



PROTECTED SIDE

SOUTHWEST "I" WALL TREATMENT

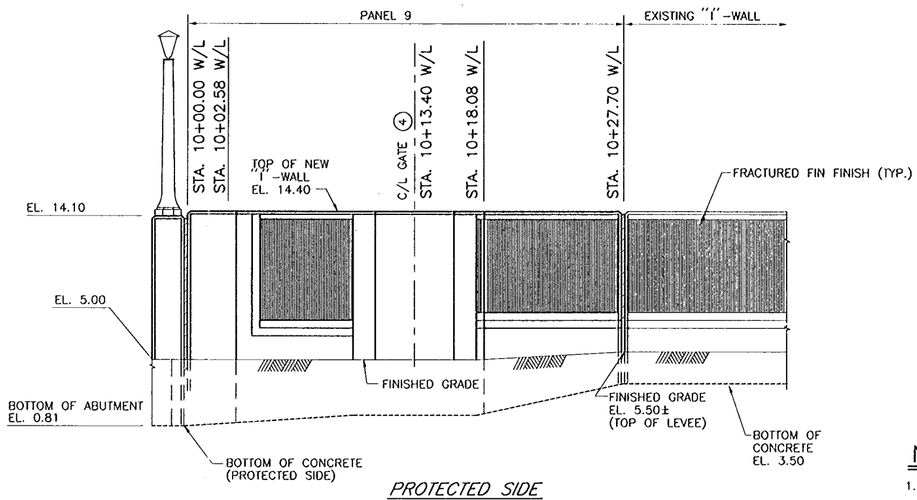
SCALE: 1/4" = 1'-0"



PROTECTED SIDE

NORTHWEST "I" WALL TREATMENT

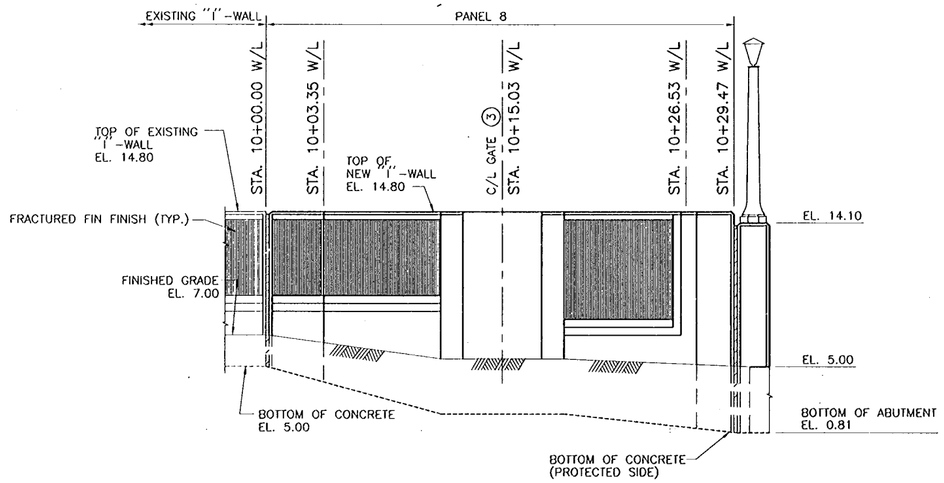
SCALE: 1/4" = 1'-0"



PROTECTED SIDE

NORTHEAST "I" WALL TREATMENT

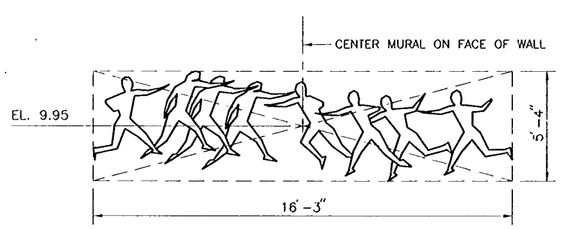
SCALE: 1/4" = 1'-0"



PROTECTED SIDE

SOUTHEAST "I" WALL TREATMENT

SCALE: 1/4" = 1'-0"



DANCERS MURAL DETAILS

N.T.S.

NOTE: IMAGE SHOWN MAY NOT REFLECT ACTUAL IMAGE.

NOTES

1. THE MURAL IS TO BE FURNISHED BY THE GOVERNMENT AS A PRECAST FIBERGLASS NEGATIVE MOLD AND INCORPORATED INTO THE PROJECT BY THE CONTRACTOR. SEE THE SPECIFICATIONS FOR IDENTIFICATION OF GOVERNMENT FURNISHED PROPERTY.
2. CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE LOCATION OF ALL JOINTS IN ALL FORMS USED FOR CONSTRUCTION FOR PRIOR APPROVAL.
3. OMIT CHAMFERS ON ALL HORIZONTAL CONSTRUCTION JOINTS.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 40 AND 41.

FOR FLOODWALL REINFORCING AND DETAILS, SEE DWG. NO. 68.

SCALE: 6" = 1' – 0"

6" 0 6"

SCALE: 1/4" = 1'– 0"

12"0 5' 10' 15' 20'

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
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CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FILMORE I–WALL TREATMENTS

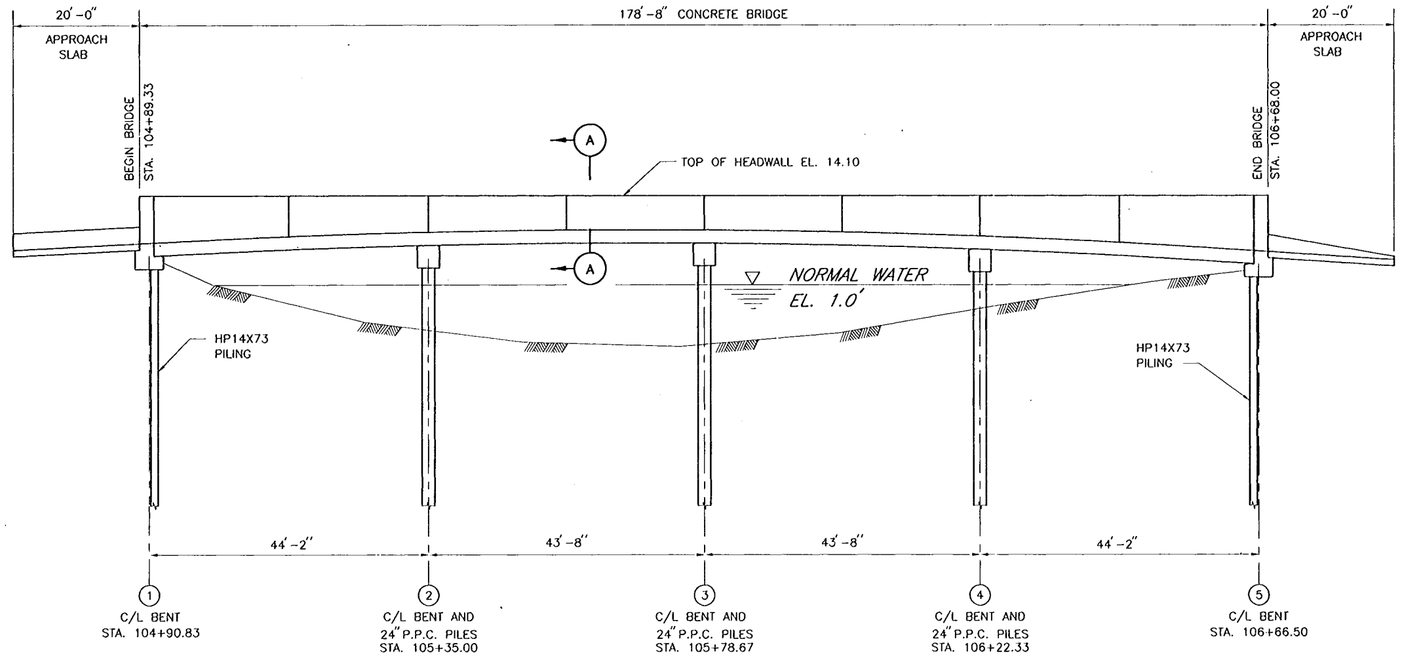
DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 4	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT46.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING	SOLICITATION NO. DACW29-99-B-0008		DWG. 46 OF 93

DESIGN ENGINEER

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

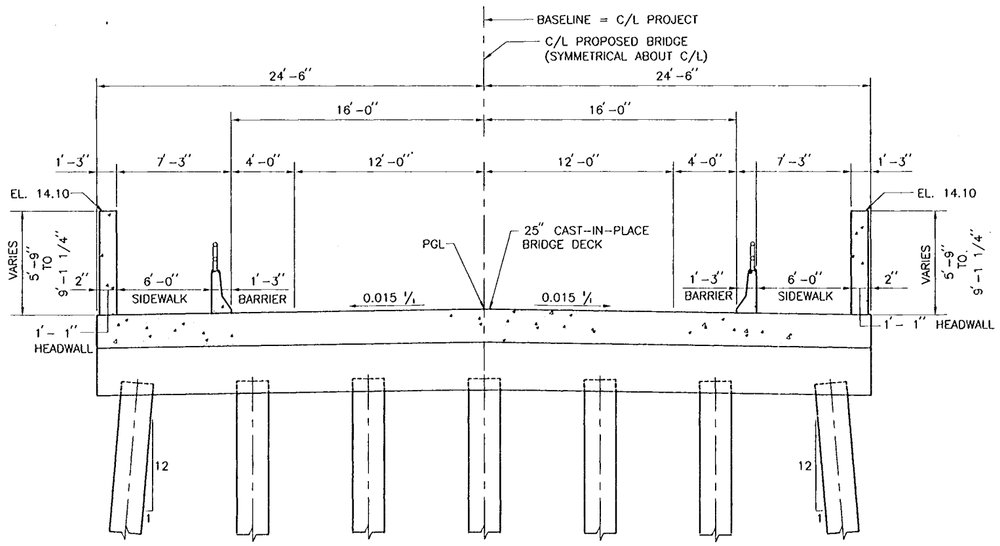
Safety is a Part of Your Contract



BRIDGE ELEVATION

SCALE: 1" = 10'

⚠1 CONCRETE PILE TIP EL. -88.0 N.G.V.D. SEE DWG. 52 FOR VARIATION.



SECTION (A)

SCALE: 1/4" = 1'-0"

SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

SCALE: 1/4" = 1'-0"

12"0 5' 10' 15' 20'

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

REFFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

FOR APPROACH SLAB, SEE DWG. NOS. 48 AND 49.

FOR ABUTMENT PLAN, ELEVATION AND DETAILS, SEE DWG. NOS. 50 AND 51.

FOR BENTS (2),(3), AND (4), SEE DWG. NO. 52.

FOR SLAB SPAN DETAILS, SEE DWG. NOS. 54 THRU 57.

FOR BRIDGE WALL DETAILS, SEE DWG. NO. 58.

VALUE INCENTIVE CAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠1	AS BUILT	6/13/00	W.D.L.

REVISIONS

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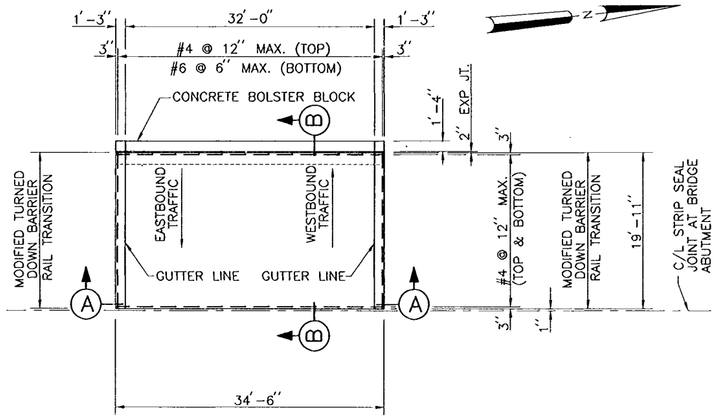
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE BRIDGE PLAN AND ELEVATION

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 48	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT47.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 47 OF 93

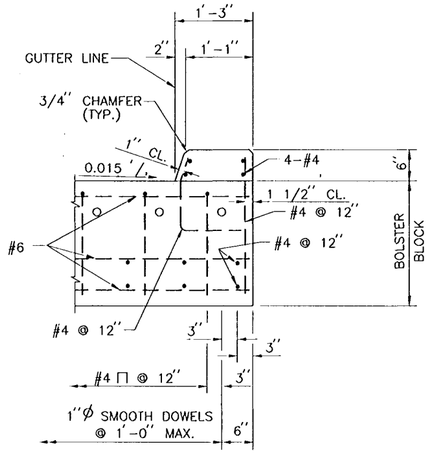
Safety is a Part of Your Contract



APPROACH SLAB PLAN

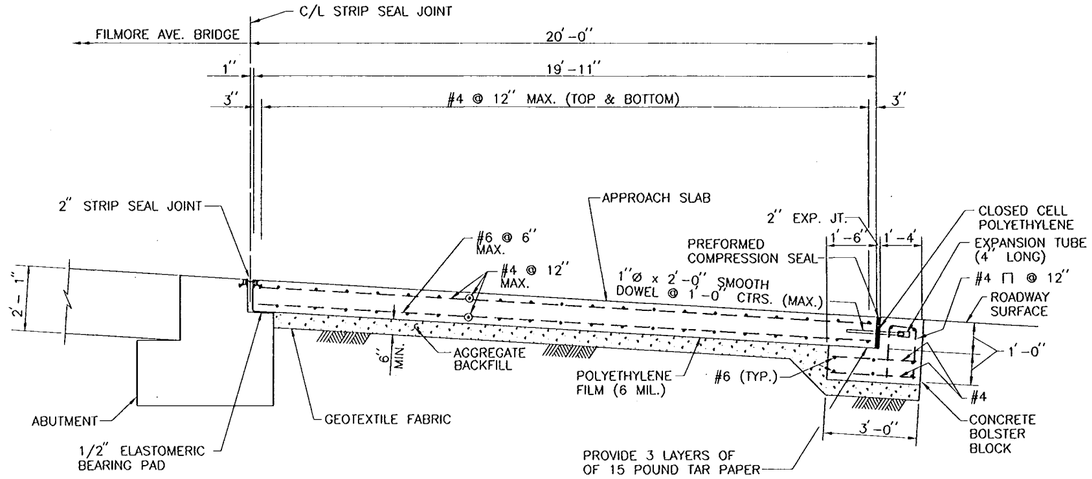
SCALE: 1/8" = 1'-0"

NOTE:
AGGREGATE BACKFILL LIMITS TO BE THE OUTER EDGES OF THE APPROACH SLAB. POLYETHYLENE FILM (6 MIL. THICKNESS) TO BE INSTALLED BETWEEN THE AGGREGATE BACKFILL AND THE CONCRETE APPROACH SLAB FOR THE ENTIRE LIMITS OF THE AGGREGATE BACKFILL.



SECTION (C)

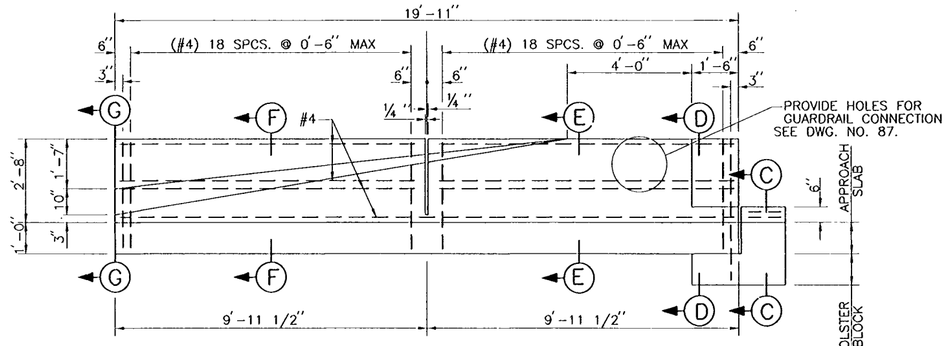
SCALE: 1" = 1'-0"



LONGITUDINAL SECTION THROUGH APPROACH SLAB

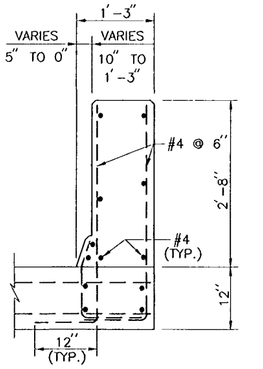
SECTION (B)

SCALE: 1/2" = 1'-0"



BARRIER RAIL TRANSITION

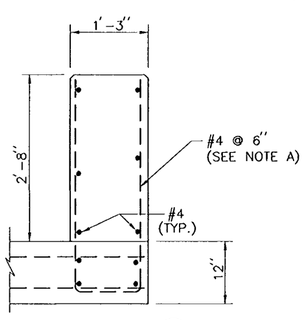
SCALE: 1/2" = 1'-0"



NOTE: BOLSTER BLOCK NOT SHOWN FOR CLARITY.

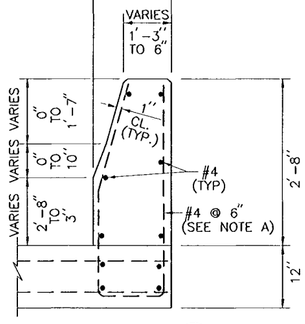
SECTION (D)

SCALE: 1" = 1'-0"



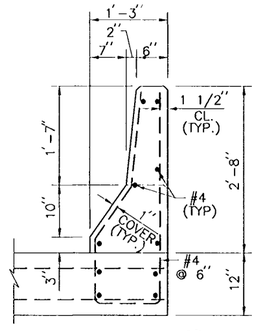
SECTION (E)

SCALE: 1" = 1'-0"



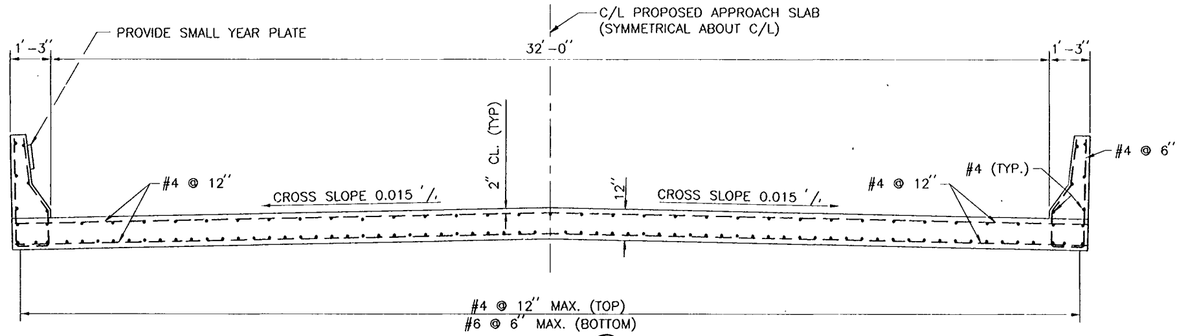
SECTION (F)

SCALE: 1" = 1'-0"



SECTION (G)

SCALE: 1" = 1'-0"



SECTION (A)

SCALE: 1/2" = 1'-0"

NOTE: A

SCALE: 1/8" = 1'-0"

12" 0 8' 16' 24' 32'

SCALE: 1/2" = 1'-0"

12" 0 2' 4' 6' 8'

SCALE: 1" = 1'-0"

12" 0 1' 2' 3' 4' 5'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.

FOR YEAR PLATE DETAILS, SEE DWG. NO. 83.

NOTE A:

U-SHAPED BARS CAN BE FIELD BENT AND CUT AS NECESSARY.

VALUE INCENTIVE CLAUSES — YOUR KEY TO HIGHER PROFITS — ENGINEERING

C·A·D

STATE OF LOUISIANA — William D. Lancaster — REG. No. 22221 — REGISTERED PROFESSIONAL ENGINEER — CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

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KENNER, LOUISIANA

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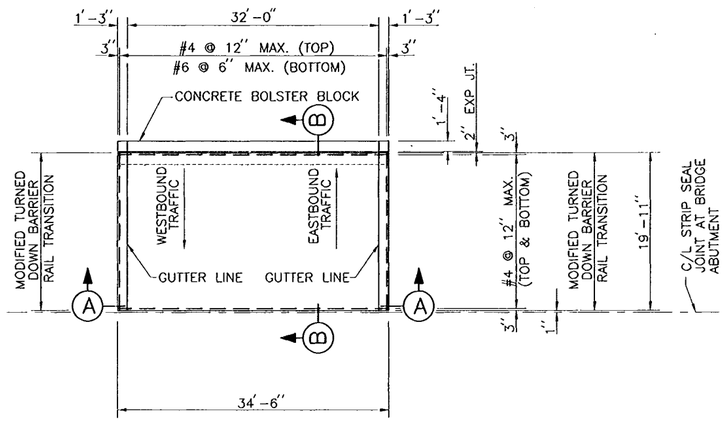
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FILMORE WEST APPROACH SLAB

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 24	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT48.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 48 OF 93

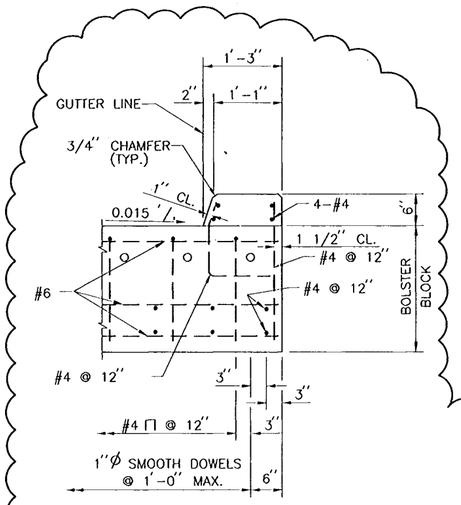
Safety is a Part of Your Contract



APPROACH SLAB PLAN

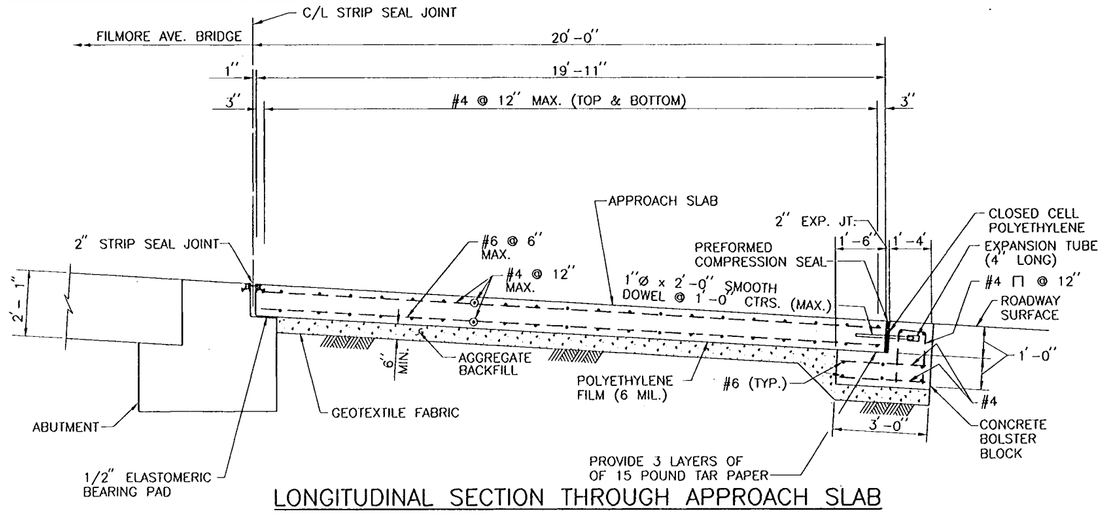
SCALE: 1/8" = 1'-0"

NOTE:
AGGREGATE BACKFILL LIMITS TO BE THE OUTER EDGES OF THE APPROACH SLAB. POLYETHYLENE FILM (6 MIL. THICKNESS) TO BE INSTALLED BETWEEN THE AGGREGATE BACKFILL AND THE CONCRETE APPROACH SLAB FOR THE ENTIRE LIMITS OF THE AGGREGATE BACKFILL.



SECTION (C)

SCALE: 1" = 1'-0"



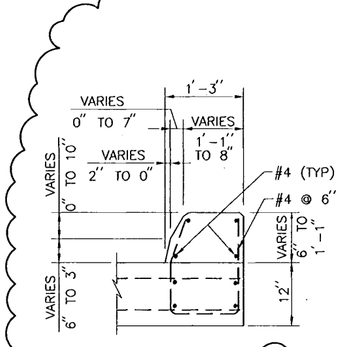
LONGITUDINAL SECTION THROUGH APPROACH SLAB

SECTION (B)

SCALE: 1/2" = 1'-0"

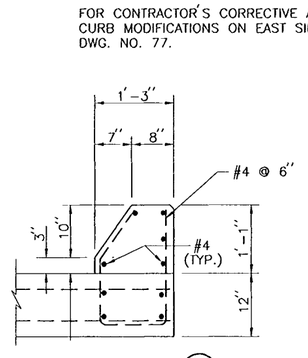
⚠ CONTRACTOR USED THE LADOTD TRANSITION FOR BARRIER RAILING STANDARD.

FOR CONTRACTOR'S CORRECTIVE ACTION FOR CURB MODIFICATIONS ON EAST SIDE, SEE DWG. NO. 77.



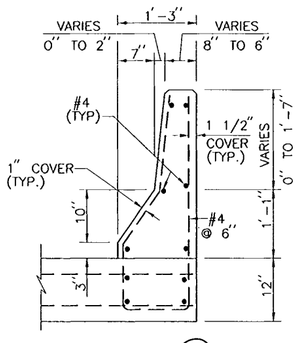
SECTION (D)

SCALE: 1" = 1'-0"



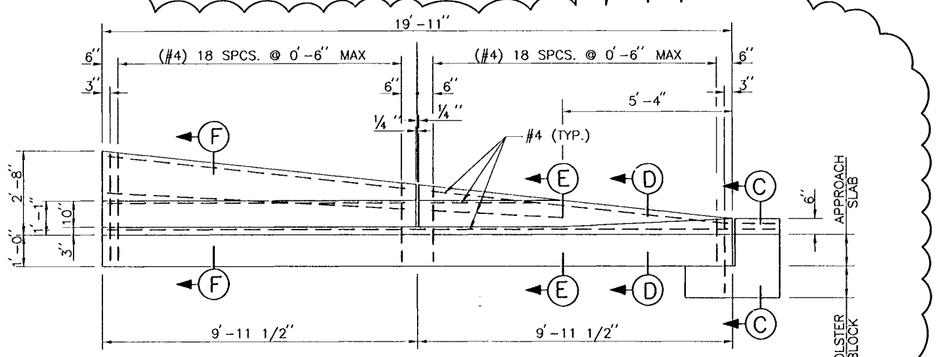
SECTION (E)

SCALE: 1" = 1'-0"



SECTION (F)

SCALE: 1" = 1'-0"



MODIFIED TURNED – DOWN BARRIER RAIL TRANSITION

SCALE: 1/2" = 1'-0"

SCALE: 1/8" = 1'-0"

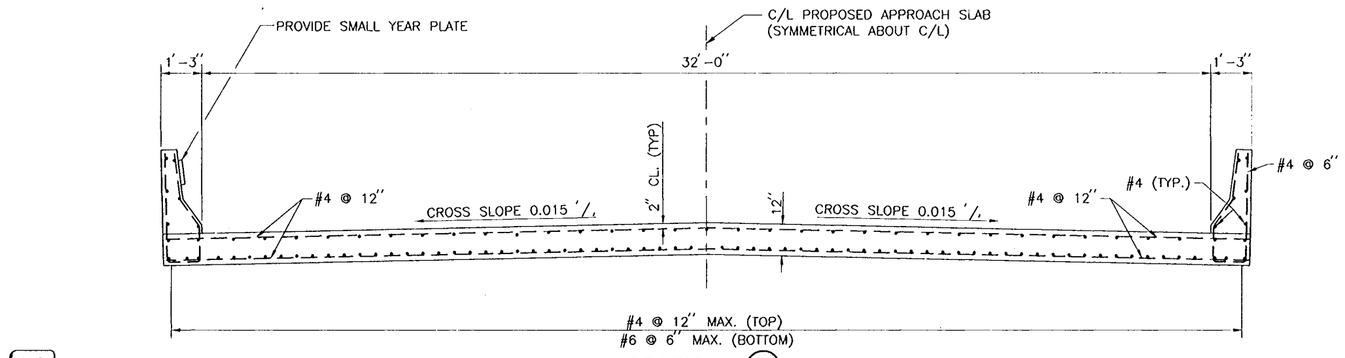
12" 0 8' 16' 24' 32'

SCALE: 1/2" = 1'-0"

12" 0 2' 4' 6' 8'

SCALE: 1" = 1'-0"

12" 0 1' 2' 3' 4' 5'



SECTION (A)

SCALE: 1/2" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.

FOR YEAR PLATE DETAILS, SEE DWG. NO. 83.

VALUE INCENTIVE SUGGESTS YOUR KEY TO HIGHER PROFITS ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
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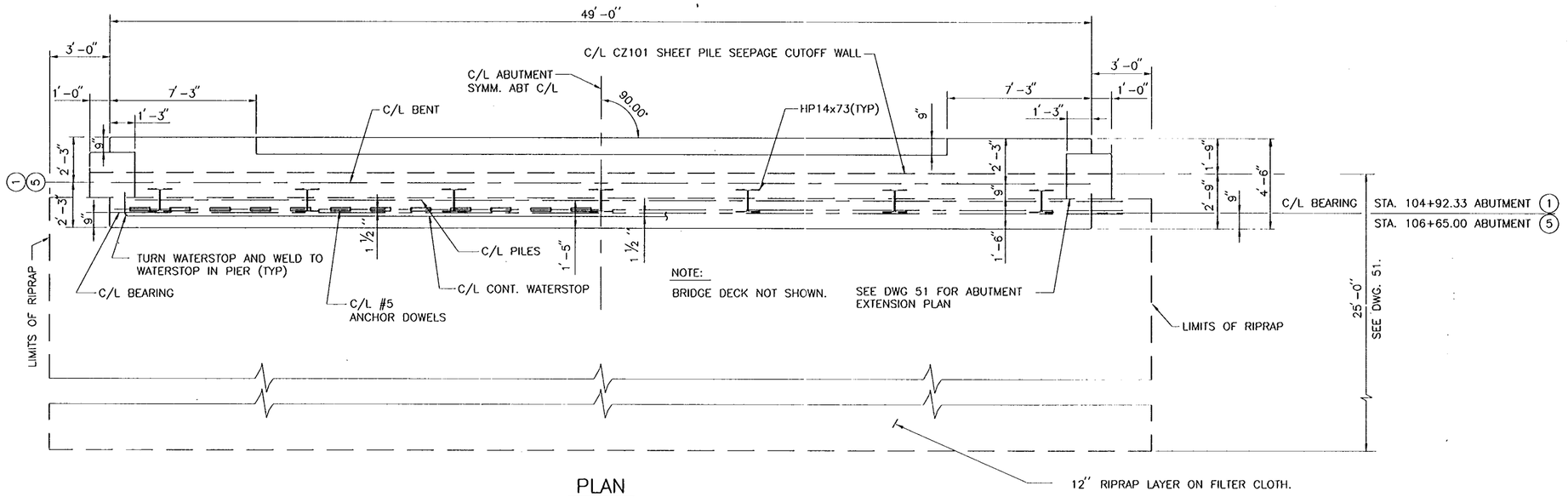
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FILMORE EAST APPROACH SLAB

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 24	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT49.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 49 OF 93

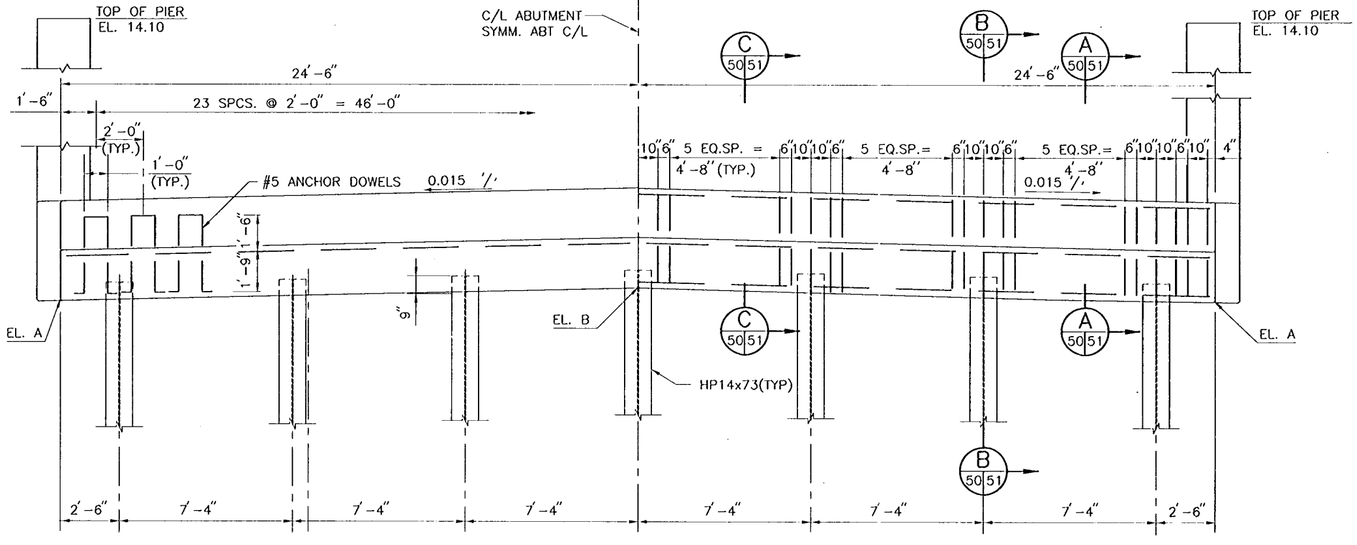
Safety is a Part of Your Contract



PLAN

SCALE: 3/8 " = 1'- 0"

12" 0 2' 4' 6' 8' 10'



ELEVATION

SCALE: 3/8 " = 1'- 0"

12" 0 2' 4' 6' 8' 10'

NOTE:
BRIDGE DECK AND SHEET PILE NOT SHOWN IN ELEVATION.

ABUTMENT	C/L BRG. STATION	EL. A	EL. B	PILE LENGTH
①	104+92.33	2.16	2.53	94'
⑤	106+65.00	0.81	1.18	92'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR BRIDGE BENT LOCATIONS SEE DWG. NO. 37.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.

FOR ABUTMENT DETAILS, SEE DWG. NO. 51.

⚠ FILMORE EAST H-PILES WERE INSTALLED WITH THE FLANGES RUNNING PERPENDICULAR TO THE CENTER LINE OF THE BENT; NOT AS SHOWN.

H-PILE TIP ELEVATION IS -90.0 NGVD

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AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.

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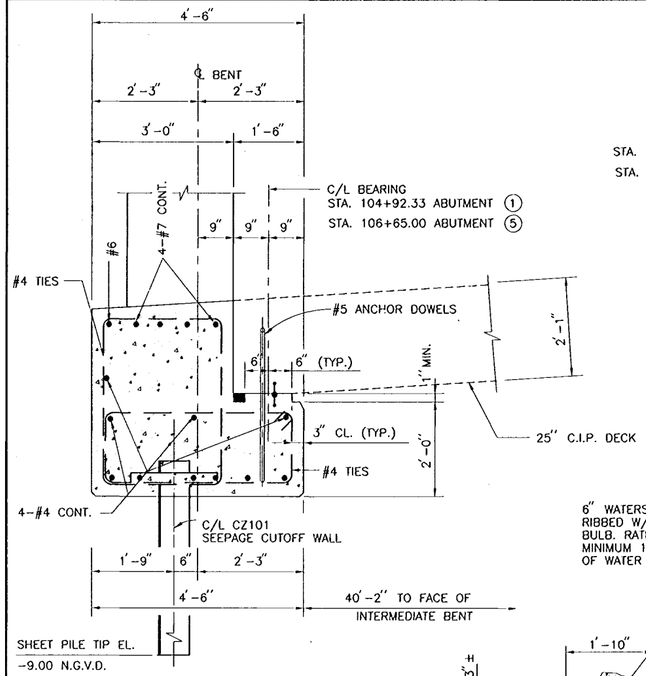
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE ABUTMENT PLAN & ELEVATION

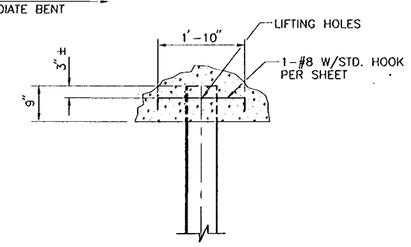
DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 32	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT50.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 50 OF 93



SECTION (A) 5051

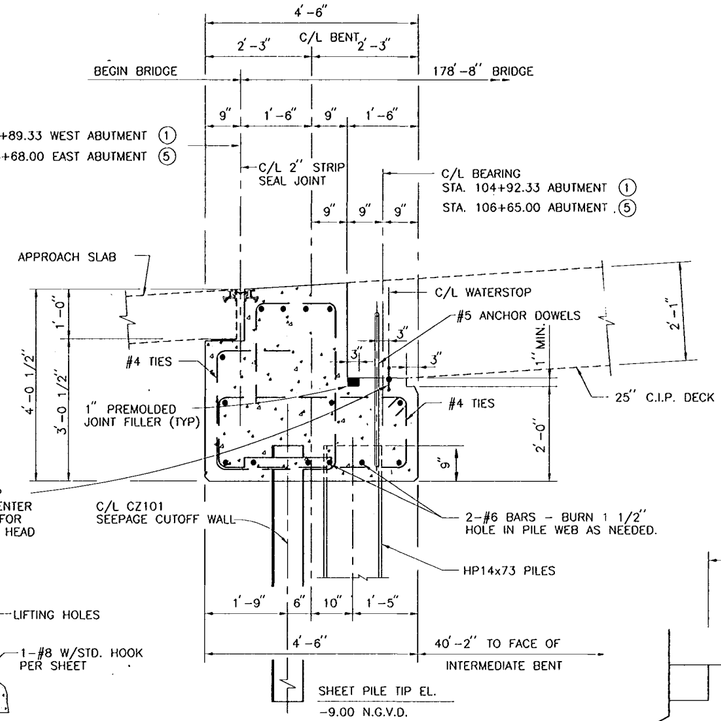
SCALE: 3/4" = 1'-0"

Safety is a Part of Your Contract



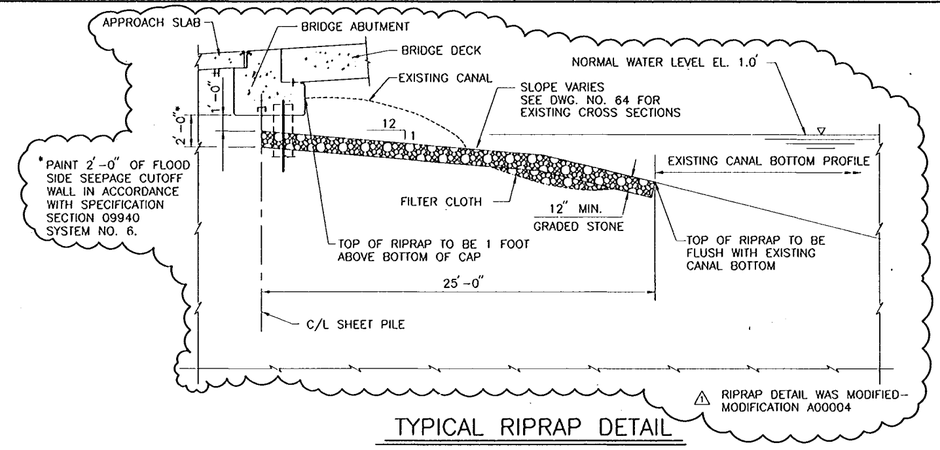
SHEET PILE ANCHOR DETAIL

SCALE: 3/4" = 1'-0"



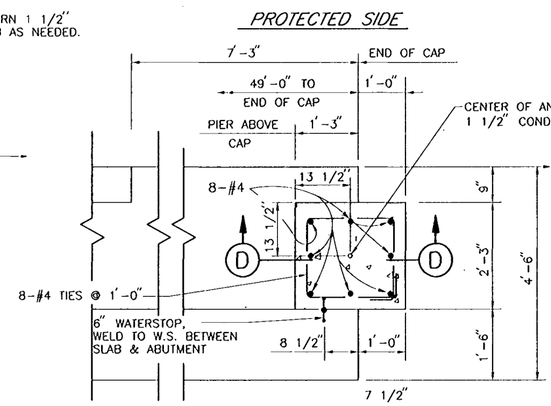
SECTION (B) 5051

SCALE: 3/4" = 1'-0"



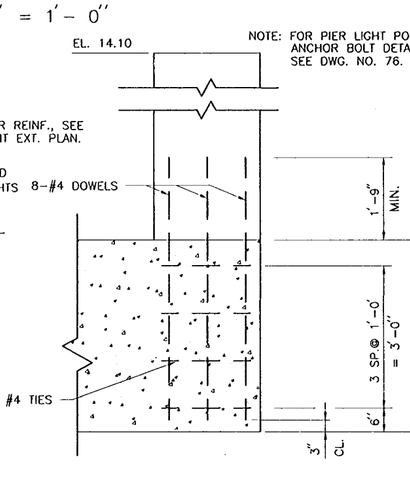
TYPICAL RIPRAP DETAIL

SCALE: 1/4" = 1'-0"



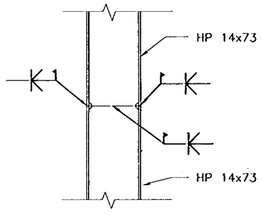
ABUTMENT EXTENSION PLAN

SCALE: 3/4" = 1'-0"



SECTION (D) 5051

SCALE: 3/4" = 1'-0"

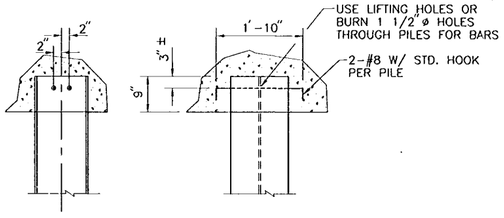


HP14X73 PILE SPLICE DETAIL

SCALE: 3/4" = 1'-0"

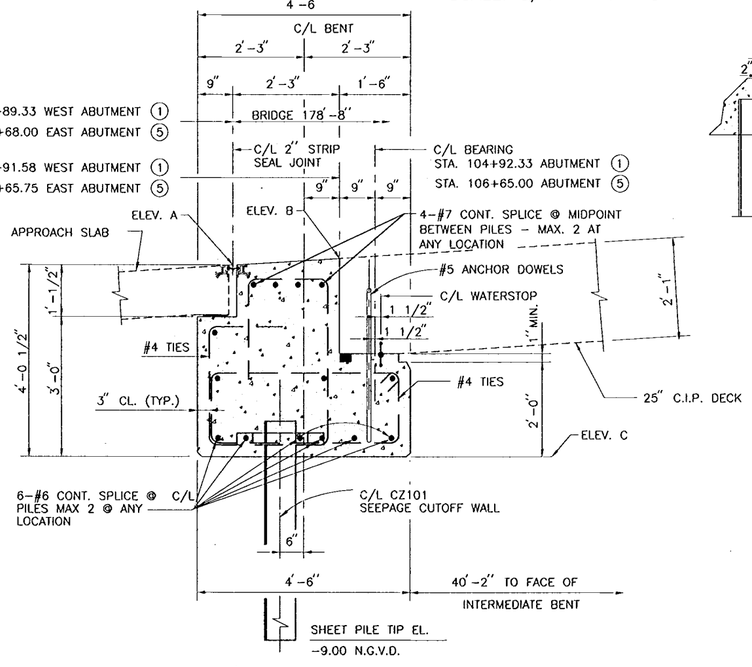
NOTES:

1. UPPER 10 FEET OF H 14x73 TO RECEIVE COAL TAR EPOXY COATING.



HP14X73 PILE ANCHOR DETAIL

SCALE: 3/4" = 1'-0"



SECTION (C) 5051

SCALE: 3/4" = 1'-0"

NOTE:

FOR SPACING OF SETS OF STIRRUPS, SEE ELEVATION, DWG. 50.

ABUTMENT	STATION	ELEV. A @ B/L	ELEV. B @ B/L	ELEV. C @ B/L
(1)	104+89.33	6.57	–	2.53
	104+91.58	–	6.69	
(5)	106+65.75	–	5.37	1.18
	106+68.00	5.22	–	

SCALE: 1/4" = 1'-0"

12"0 5' 10' 15' 20'

SCALE: 3/4" = 1'-0"

12" 0 1' 2' 3' 4' 5'

REFERENCE DRAWINGS:

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.

FOR LIMITS OF RIP RAP, SEE DWG. NO. 50.

FOR HP14x73 PILE LENGTH, SEE DWG. NO. 50.

FOR STRIP SEAL JOINT DETAILS, SEE DWG. NOS. 84 AND 85.

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C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
⚠	AS BUILT	6/13/00	W.D.L.

REVISIONS

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

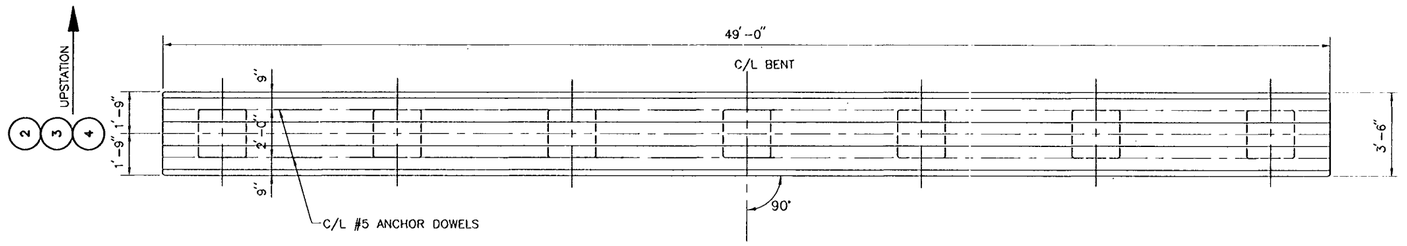
FILMORE AND HARRISON AVE. BRIDGES
FILMORE ABUTMENT DETAILS

DESIGNED BY: P.J.H.
DRAWN BY: L.A.C.
CHECKED BY: W.D.L.
SUBMITTED BY: HARTMAN ENGINEERING
DESIGN ENGINEER

DATE: SEPT. 1998
PLOT SCALE: 16
CADD FILE: SHT51.DGN
SOLICITATION NO. DACW29-99-B-0008

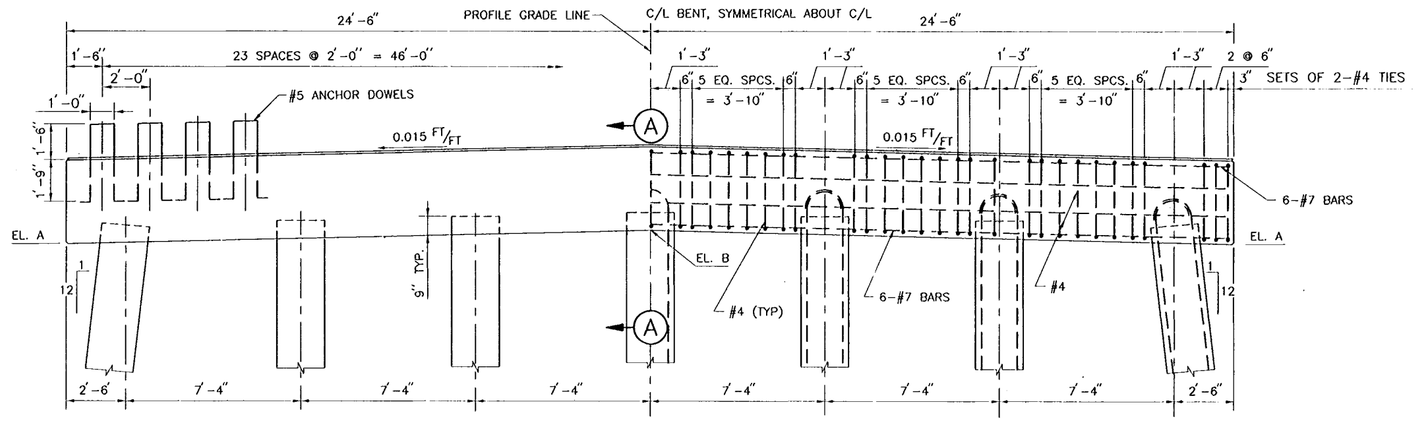
PLOT DATE: SEPT. 1998
FILE NO. H-4-45050
DWG. 51 OF 93

Safety is a Part of Your Contract



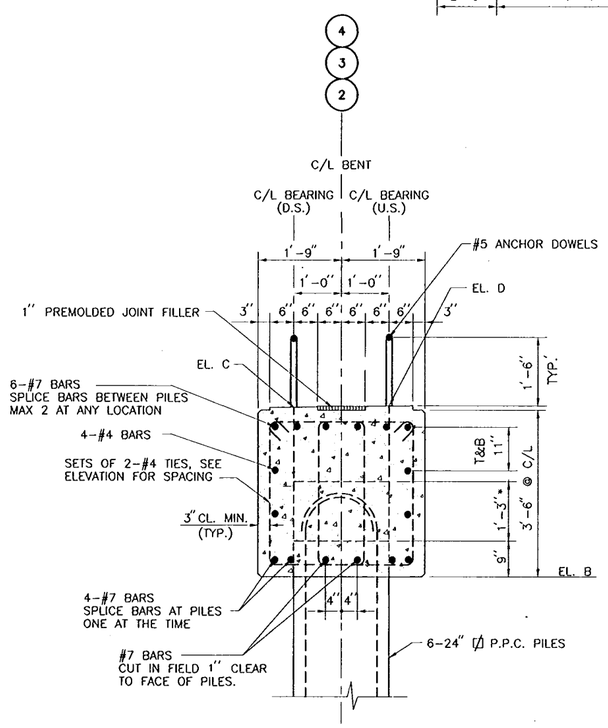
PLAN

SCALE: 3/8" = 1'-0"



SECTION

SCALE: 3/8" = 1'-0"



SECTION (A)

SCALE: 3/4" = 1'-0"

* REMOVE DRIVING HEAD CONCRETE TO EXPOSE PILE ANCHOR REBAR

BENT	ELEV. A	ELEV. B*	ELEV. C*	ELEV. D*
②	2.31	2.68	6.24	6.29
③	2.66	3.03	6.61	6.60
④	1.63	2.00	5.64	5.57

* ELEVATION AT C/L OF BRIDGE AND PROFILE GRADE LINE

NOTES:
FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.
FOR PILE LENGTHS, SEE DWG. NO. 75.

SCALE: 3/8" = 1'-0"
12" 0 2' 4' 6' 8' 10'

SCALE: 3/4" = 1'-0"
12" 0 1' 2' 3' 4' 5'

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
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HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE BENTS ② ③ & ④

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 32	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT52.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 52 OF 93

STATE OF LOUISIANA — Richard D. Lancaster — REG. NO. 22821 — REGISTERED PROFESSIONAL ENGINEER — CIVIL ENGINEERING

VALUE ADDITIVE CLAUSES YOUR KEY TO HIGHER PROFITS ENGINEERING

Safety is a Part of Your Contract

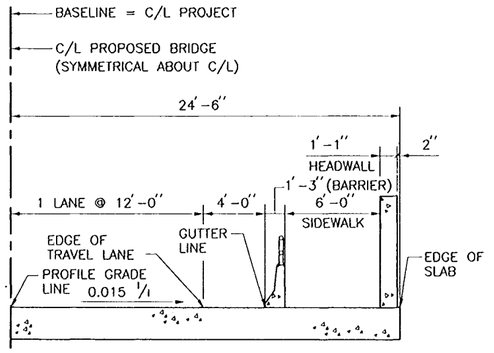
ROADWAY ELEVATIONS – FINAL

STATION	C/L PROJECT (PGL)	EDGE TRAVEL LANE	GUTTER LINE	EDGE OF SIDEWALK	EDGE OF SLAB
104+19.33	EXIST.	–	EXIST.	–	–
104+30	2.76	–	*	–	–
104+40	3.37	–	*	–	–
104+50	4.04	–	*	–	–
104+60	4.71	–	*	–	–
104+69.33	5.34	5.16	5.10	–	5.08
104+75	5.71	5.53	5.47	–	5.45
104+80	6.03	5.85	5.79	–	5.77
104+85	6.33	6.15	6.09	6.09	6.07
104+89.33	6.57	6.39	6.33	6.22	6.31
104+90	6.61	6.43	6.37	6.26	6.24
104+90.83	6.65	6.47	6.41	6.30	6.28
104+95	6.87	6.69	6.63	5.52	6.50
105+00	7.12	6.94	6.88	6.77	6.75
105+05	7.35	7.17	7.11	7.00	6.98
105+10	7.56	7.38	7.32	7.21	7.19
105+15	7.75	7.57	7.51	7.40	7.38
105+20	7.93	7.75	7.69	7.58	7.56
105+25	8.09	7.91	7.85	7.74	7.72
105+30	8.23	8.05	7.99	7.88	7.86
105+35	8.35	8.17	8.11	8.00	7.98
105+40	8.46	8.28	8.22	8.11	8.09
105+45	8.55	8.37	8.31	8.20	8.18
105+50	8.62	8.44	8.38	8.27	8.25
105+55	8.67	8.49	8.43	8.32	8.30
105+60	8.71	8.53	8.47	8.36	8.34
105+65	8.73	8.55	8.49	8.38	8.36
105+70	8.73	8.55	8.49	8.38	8.36
105+75	8.71	8.53	8.47	8.36	8.34
105+78.67	8.69	8.51	8.45	8.34	8.32

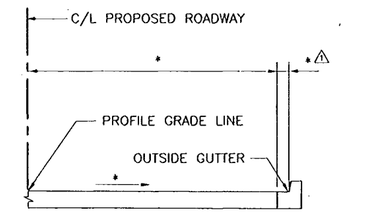
ROADWAY ELEVATIONS – FINAL

STATION	C/L PROJECT (PGL)	EDGE TRAVEL LANE	GUTTER LINE	EDGE OF SIDEWALK	EDGE OF SLAB
105+80	8.68	8.50	8.44	8.33	8.31
105+85	8.63	8.45	8.39	8.28	8.26
105+90	8.56	8.38	8.32	8.21	8.19
105+95	8.47	8.29	8.23	8.12	8.10
106+00	8.37	8.19	8.13	8.02	8.00
106+05	8.25	8.07	8.01	7.90	7.88
106+10	8.11	7.93	7.87	7.76	7.74
106+15	7.95	7.77	7.71	7.60	7.58
106+20	7.78	7.60	7.54	7.43	7.41
106+22.23	7.69	7.51	7.45	7.35	7.33
106+25	7.59	7.41	7.35	7.25	7.22
106+30	7.38	7.20	7.14	7.03	7.01
106+35	7.15	6.97	6.91	6.80	6.78
106+40	6.91	6.73	6.67	6.56	6.54
106+45	6.65	6.47	6.41	6.30	6.28
106+50	6.37	6.19	6.13	6.02	6.00
106+55	6.07	5.89	5.83	5.72	5.70
106+60	5.76	5.58	5.52	5.41	5.39
106+65	5.43	5.25	5.19	5.08	5.06
106+66.50	5.32	5.14	5.08	4.97	4.95
106+68	5.22	5.04	4.98	4.87*	4.96*
106+70	5.08	4.90	4.84	4.90*	4.82*
106+75	4.71	4.53	4.47	4.53*	4.45*
106+88	3.74	3.56	3.50	3.89*	3.48*
107+00	2.94	–	*	*	–
107+10	2.36	–	*	*	–
107+20	1.85	–	*	*	–
107+30	1.42	–	*	*	–
107+38	EXIST.	–	EXIST.	EXIST.	–

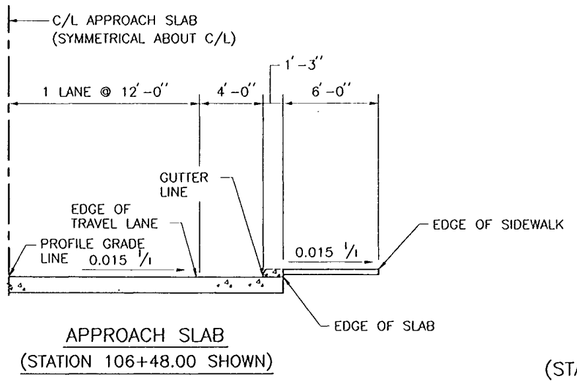
* GRADES TO BE CALCULATED USING A LINEAR TRANSITION OF THE CROSS SLOPE FROM THE APPROACH SLAB SLOPE TO THE EXISTING SLOPE AT THE LIMITS OF WORK.



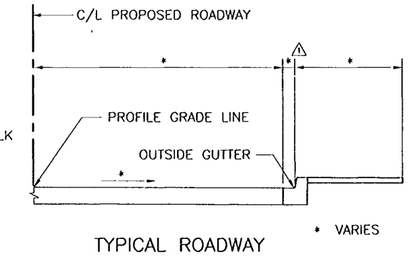
BRIDGE



TYPICAL ROADWAY
(STATION 104+19.33 TO 104+68.00)



APPROACH SLAB
(STATION 106+48.00 SHOWN)



TYPICAL ROADWAY
(STATION 106+88.00 TO 107+38.00)

FINAL ELEVATIONS – KEY PLANS

SCALE: 1/4" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3

FOR PLAN-PROFILE, SEE DWG. NO. 37

FOR PAVEMENT COMPONENTS AND THICKNESSES, SEE DWG. NO. 59

SCALE: 1/4" = 1'-0"

12" 0 5' 10' 15' 20' 25'

STATE OF LOUISIANA
William D. Lancaster
No. 26821
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
	AS BUILT	6/13/00	W.D.L.
	REVISED DIMENSIONS - AMENDMENT NO. 0002	2-3-99	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
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KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA, AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FILMORE ROADWAY ELEVATIONS

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.	CADD FILE: SHT53.DGN		FILE NO. H-4-45050
CHECKED BY: W.D.L.	SOLICITATION NO. DACW29-99-B-0008		DWG. 53 OF 93
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER			

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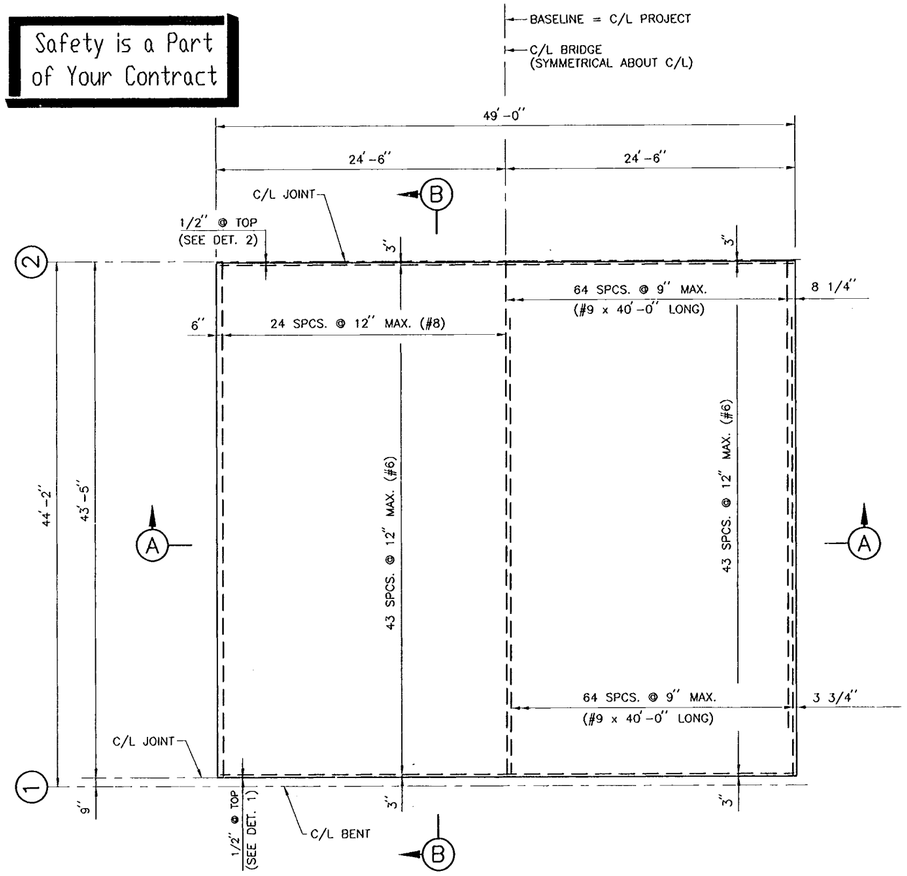
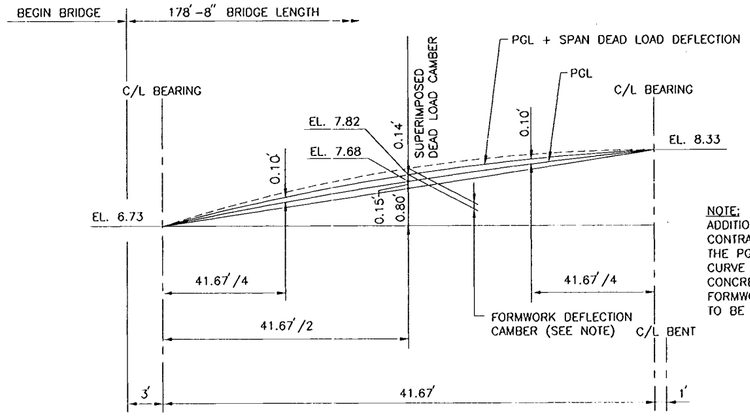
Safety is a Part of Your Contract



HALF PLAN
SHOWNG SPACING OF TOP REINF. STEEL

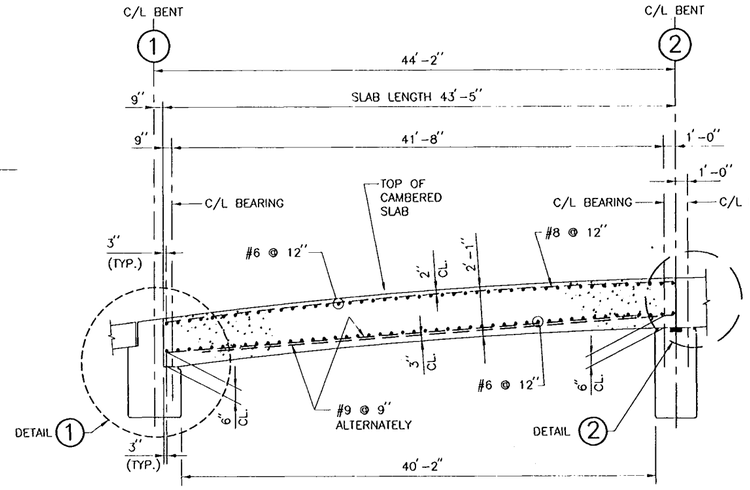
HALF PLAN
SHOWNG SPACING OF BOT. REINF. STEEL

PLAN
SCALE: 3/16" = 1'-0"

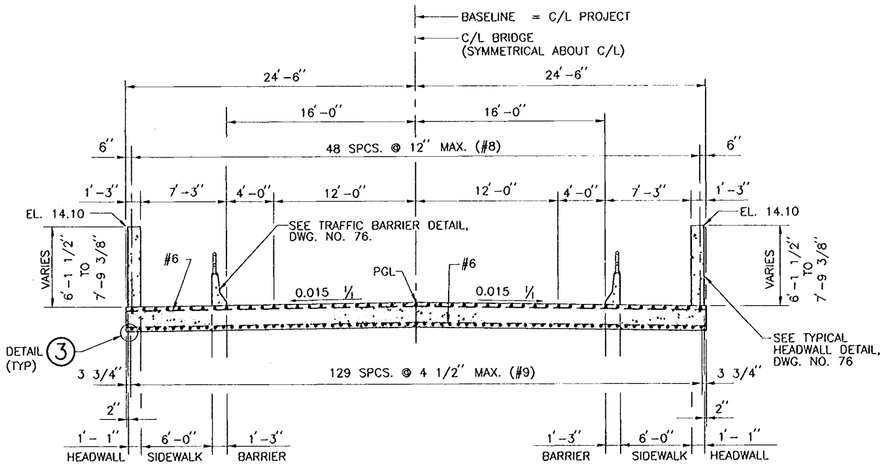


NOTE:
ADDITIONAL CAMBER IS TO BE PROVIDED BY CONTRACTOR FOR DEFLECTION OF FORMWORK. THE PGL + SPAN DEAD LOAD DEFLECTION CURVE SHOWS CONDITION AFTER PLACING OF CONCRETE AND PRIOR TO FORMWORK REMOVAL. FORMWORK DEFLECTION CALCULATIONS ARE TO BE SUBMITTED TO CONTRACTING OFFICER.

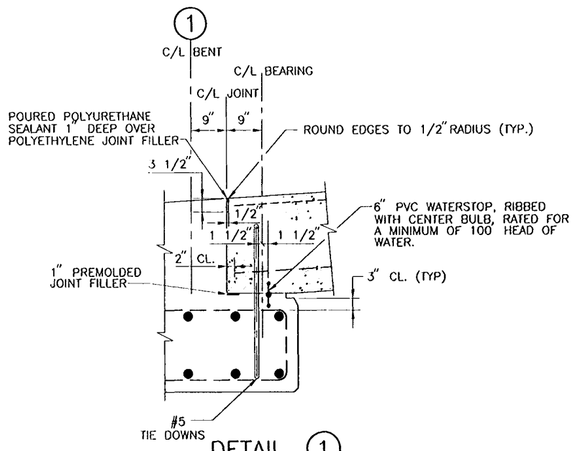
BRIDGE DECK CAMBER (SPAN 1)
SCALE: 3/16" = 1'-0" HORZ.
3/4" = 1'-0" VERT.



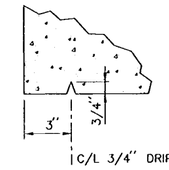
SECTION (B)
HOR. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/8" = 1'-0"



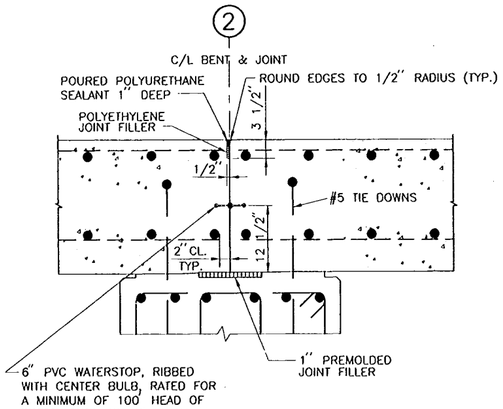
SECTION (A)
SCALE: 3/16" = 1'-0"



DETAIL (1)
SCALE: 3/4" = 1'-0"



DETAIL (3)
SCALE: 3" = 1'-0"



DETAIL (2)
SCALE: 1" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.
FOR ABUTMENTS, SEE DWG. NOS. 50 AND 51.
FOR BENTS, SEE DWG. NO. 52.
FOR BRIDGE FLOODWALL SECTION, SEE DWG. NO. 76.
FOR BAR SUPPORT DETAILS, SEE DWG. NO. 86.

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C·A·D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
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KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FILMORE SLAB SPAN 1

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 64	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.	CADD FILE: SHT54.DWG		FILE NO. H-4-45050
CHECKED BY: W.D.L.	SOLICITATION NO. DACW29-99-B-0008		DWG. 54 OF 93
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER			

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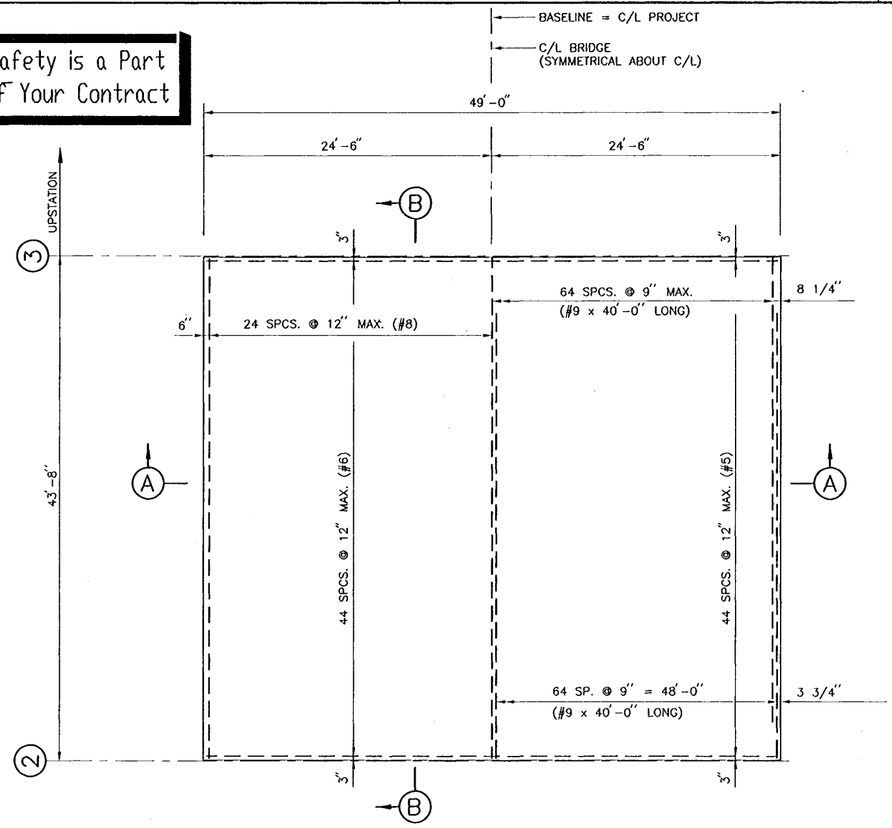
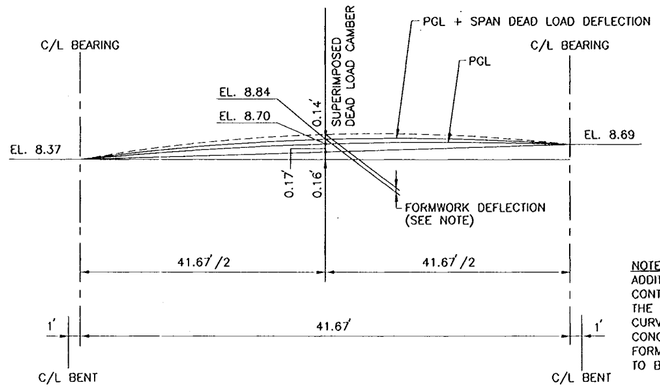


HALF PLAN
SHOWNG SPACING OF TOP REINF. STEEL

HALF PLAN
SHOWNG SPACING OF BOT. REINF. STEEL

PLAN

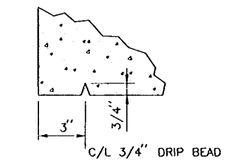
SCALE: 3/16" = 1'-0"



NOTE:
ADDITIONAL CAMBER IS TO BE PROVIDED BY CONTRACTOR FOR DEFLECTION OF FORMWORK. THE PGL + SPAN DEAD LOAD DEFLECTION CURVE SHOWS CONDITION AFTER PLACING OF CONCRETE AND PRIOR TO FORMWORK REMOVAL. FORMWORK DEFLECTION CALCULATIONS ARE TO BE SUBMITTED TO CONTRACTING OFFICER.

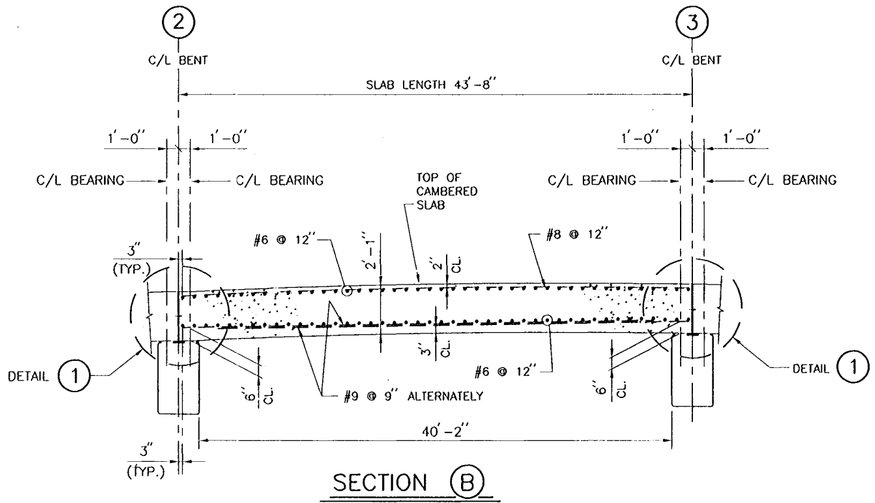
BRIDGE DECK CAMBER (SPAN 2)

HOR. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/4" = 1'-0"



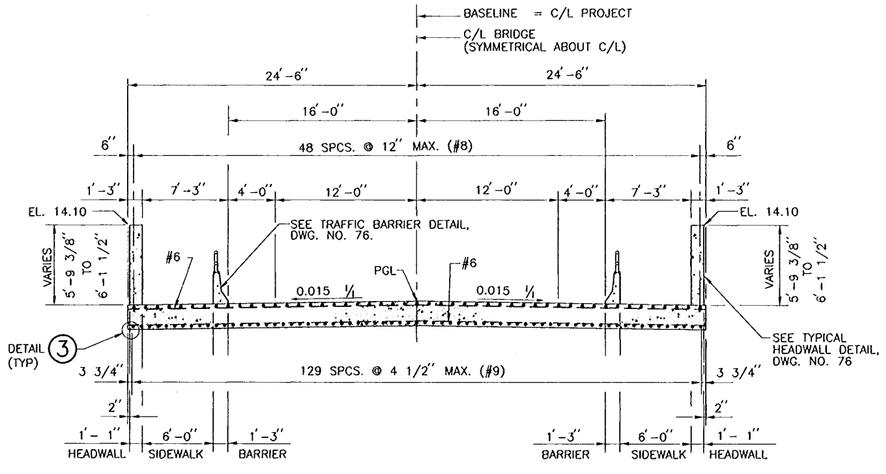
DETAIL (3)

SCALE: 3" = 1'-0"



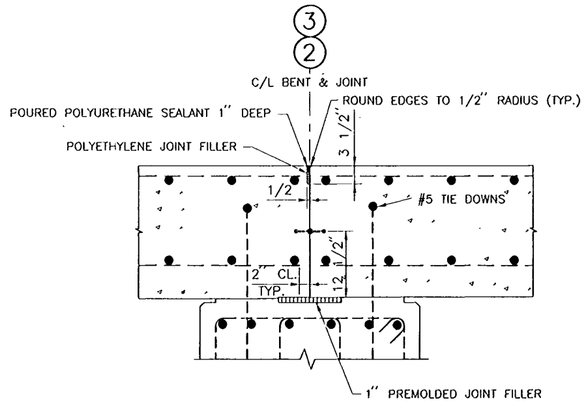
SECTION (B)

HOR. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/8" = 1'-0"



SECTION (A)

SCALE: 3/16" = 1'-0"



DETAIL (1)

SCALE: 1" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.

FOR BENTS, SEE DWG. NO. 52.

FOR BRIDGE FLOODWALL SECTION, SEE DWG. NO. 76.

FOR BAR SUPPORT DETAILS, SEE DWG. NO. 86.

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

STATE OF LOUISIANA — William D. Lancaster — REG. No. 22821 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
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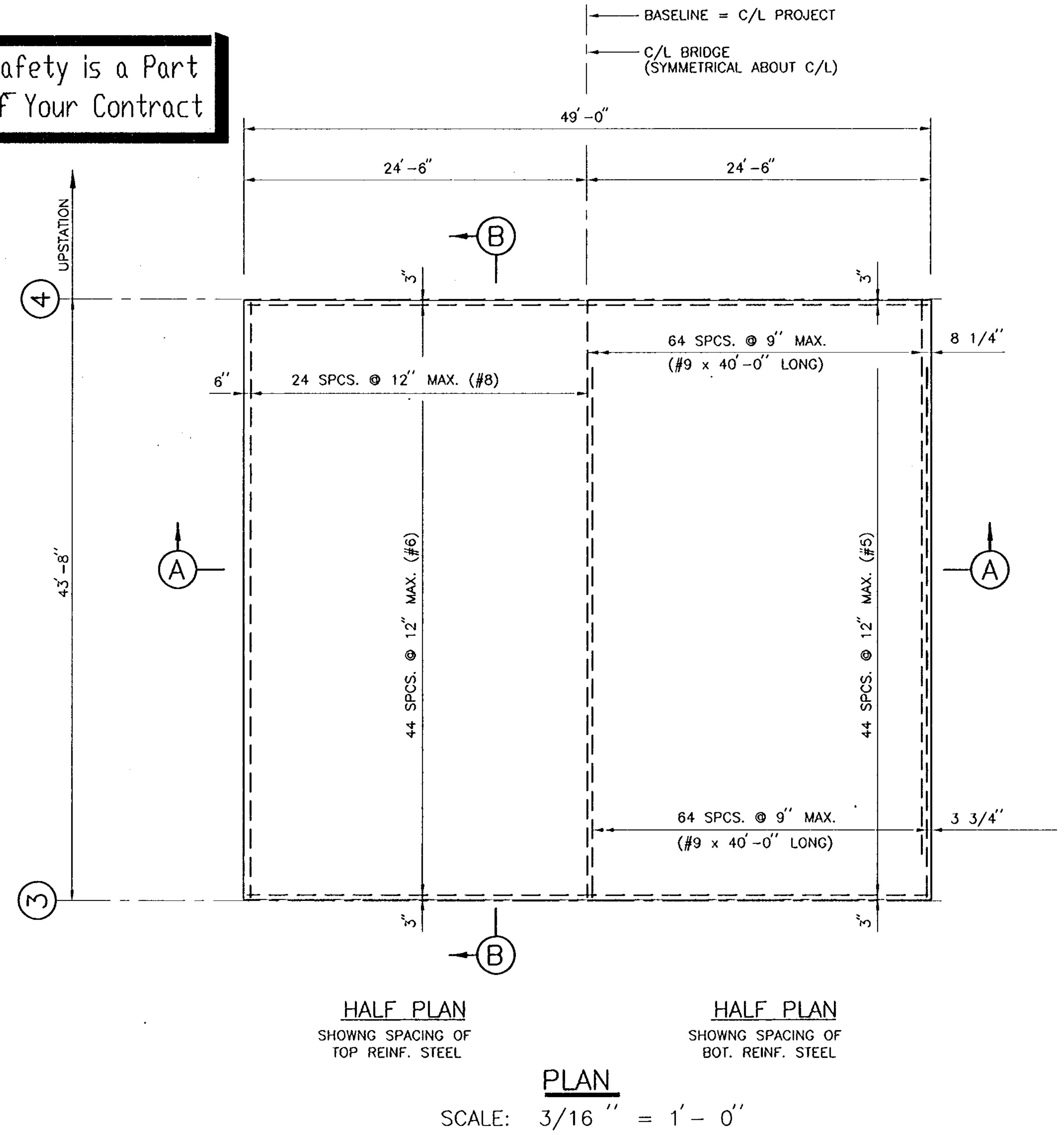
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE SLAB SPAN 2

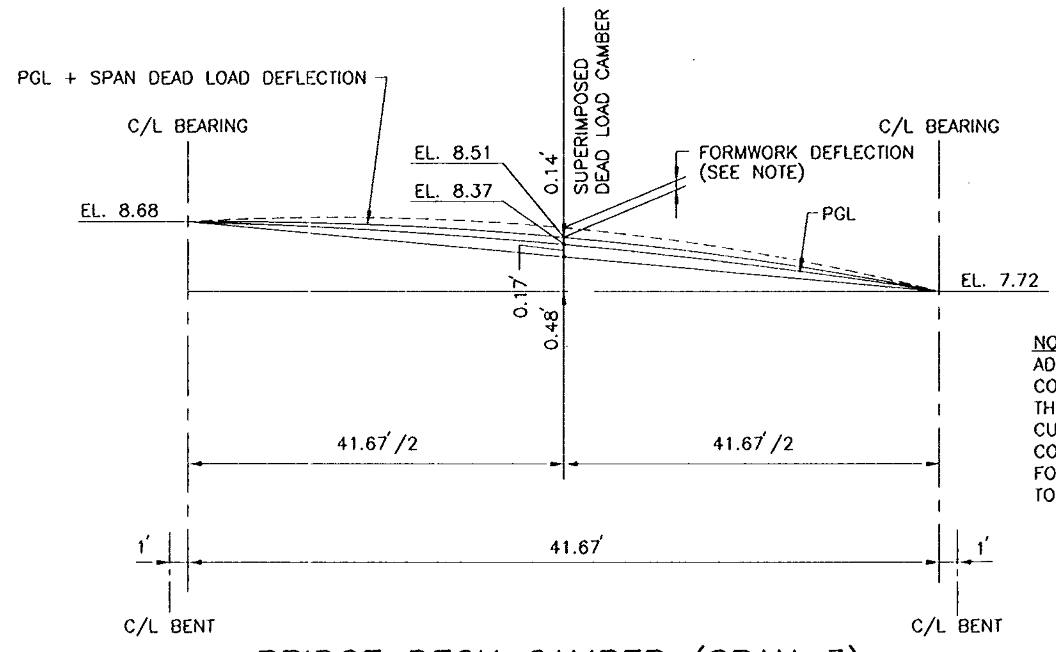
DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 64	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT55.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 55 OF 93

Safety is a Part of Your Contract



PLAN

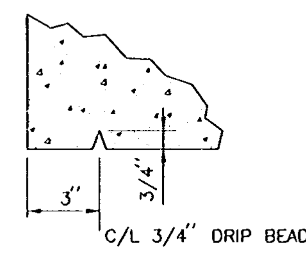
SCALE: 3/16" = 1'-0"



NOTE:
ADDITIONAL CAMBER IS TO BE PROVIDED BY CONTRACTOR FOR DEFLECTION OF FORMWORK. THE PGL + SPAN DEAD LOAD DEFLECTION CURVE SHOWS CONDITION AFTER PLACING OF CONCRETE AND PRIOR TO FORMWORK REMOVAL. FORMWORK DEFLECTION CALCULATIONS ARE TO BE SUBMITTED TO CONTRACTING OFFICER.

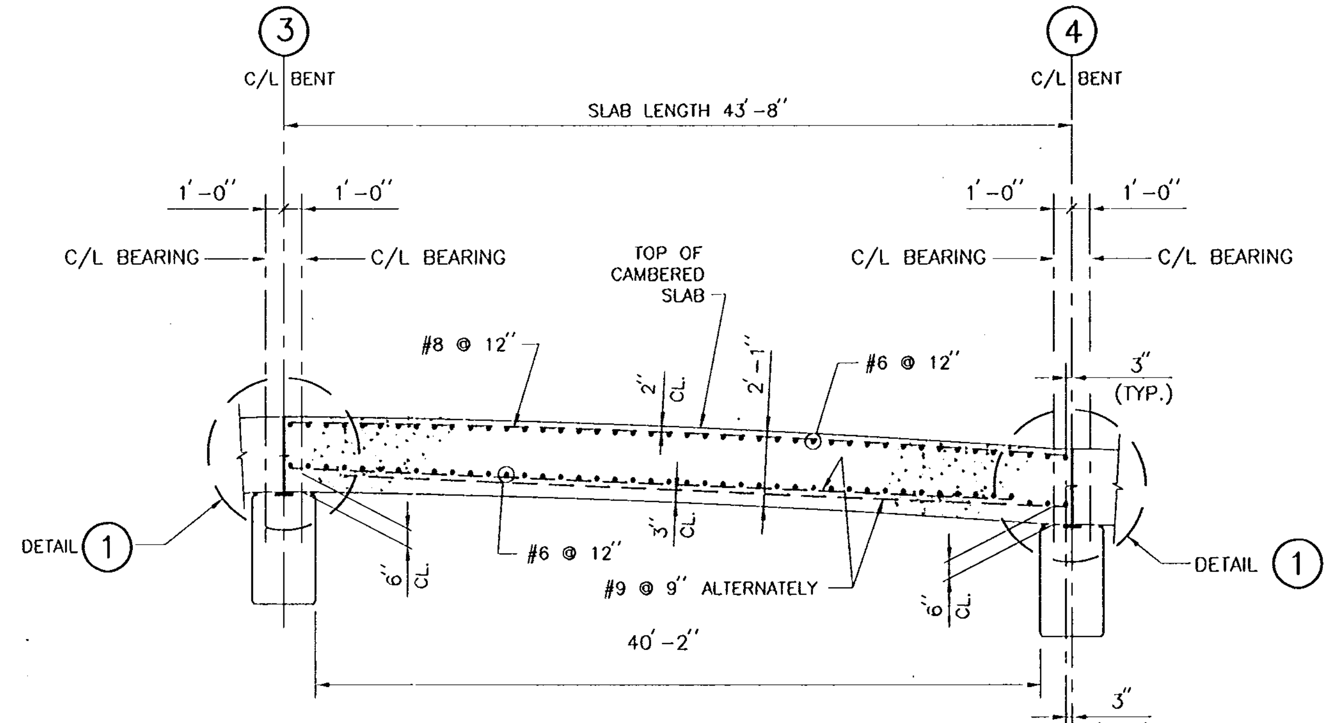
BRIDGE DECK CAMBER (SPAN 3)

HOR. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/4" = 1'-0"



DETAIL (3)

SCALE: 3" = 1'-0"

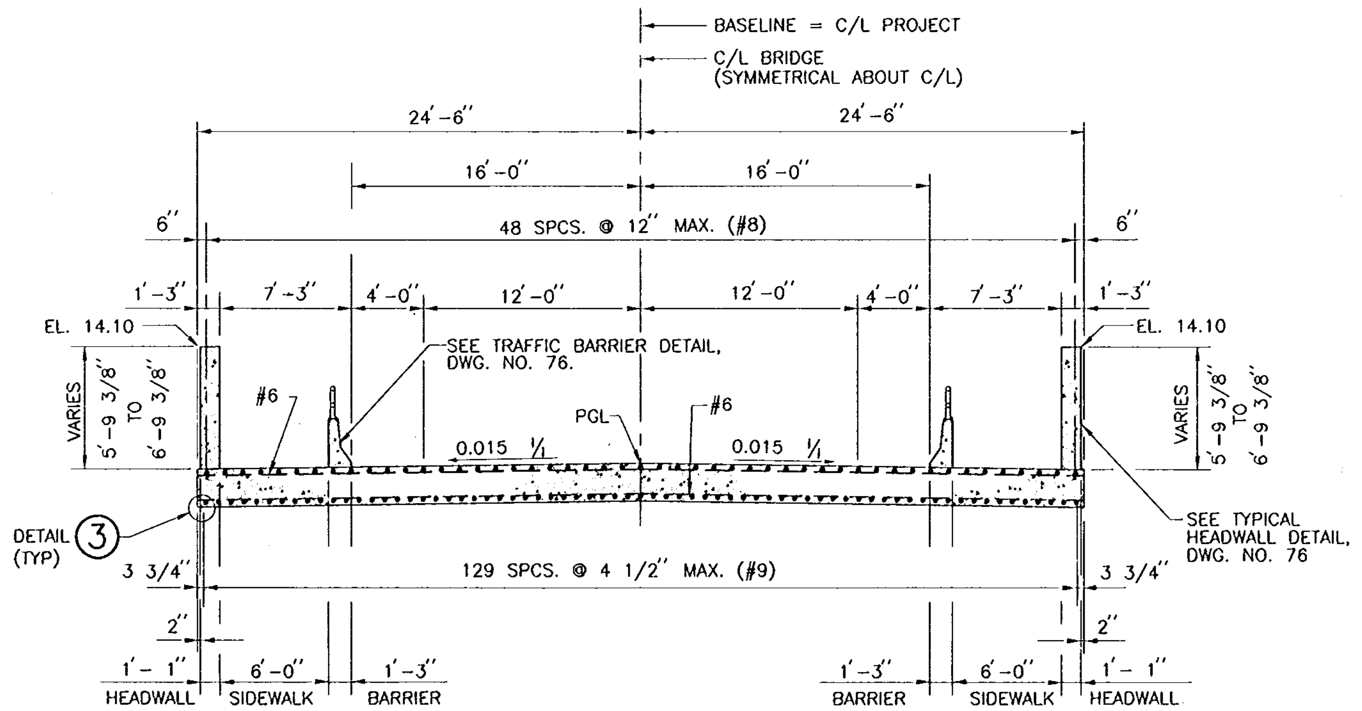


SECTION (B)

HOR. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/8" = 1'-0"

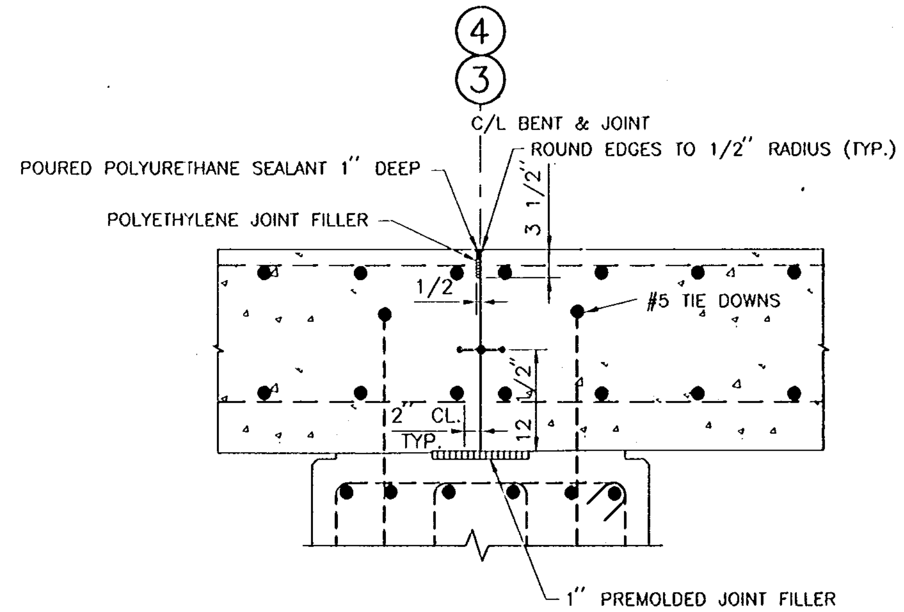
REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.
FOR BENTS, SEE DWG. NO. 52.
FOR BRIDGE FLOODWALL SECTION, SEE DWG. NO. 76.
FOR BAR SUPPORT DETAILS, SEE DWG. NO. 86.



SECTION (A)

SCALE: 3/16" = 1'-0"



DETAIL (1)

SCALE: 1" = 1'-0"

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
△	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

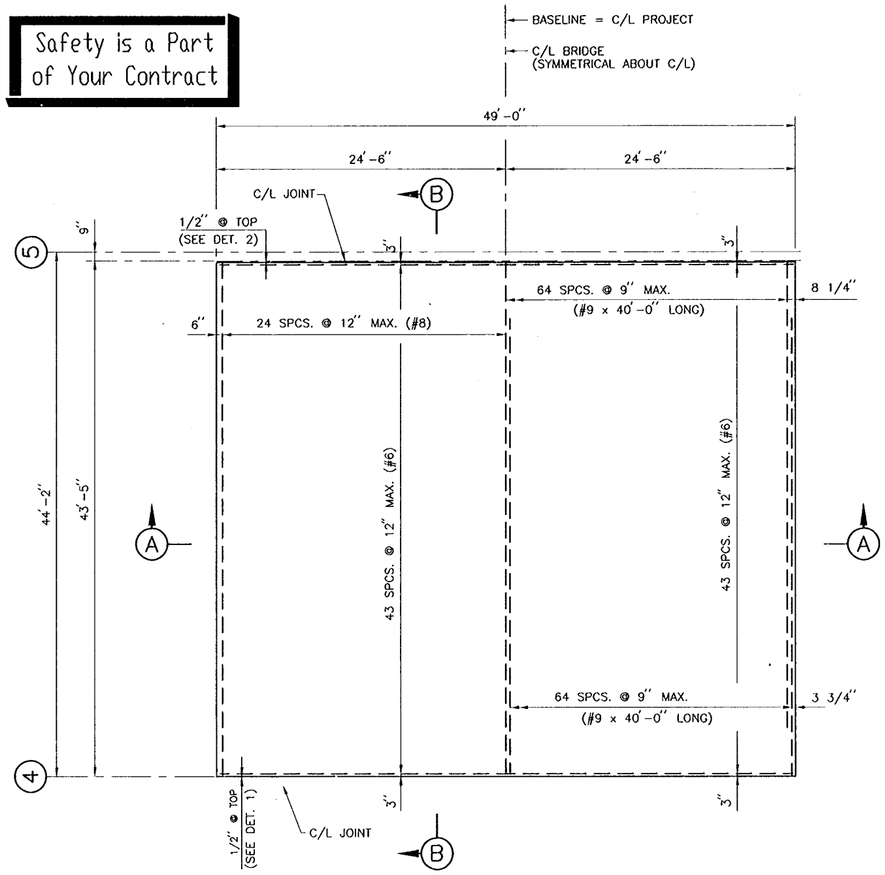
BOARD OF LEVEE COMMISSIONERS, ORLEANS LEVEE BOARD, NEW ORLEANS, LOUISIANA
HARTMAN ENGINEERING, INC., CONSULTING ENGINEERS, KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE SLAB SPAN 3

DESIGNED BY: P.J.H. DRAWN BY: C.R.N. CHECKED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 64	PLOT DATE: SEPT. 1998
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	CADD FILE: SHT56.DGN	SOLICITATION NO. DACW29-99-B-0008	FILE NO. H-4-45050 DWG. 56 OF 93

Safety is a Part of Your Contract

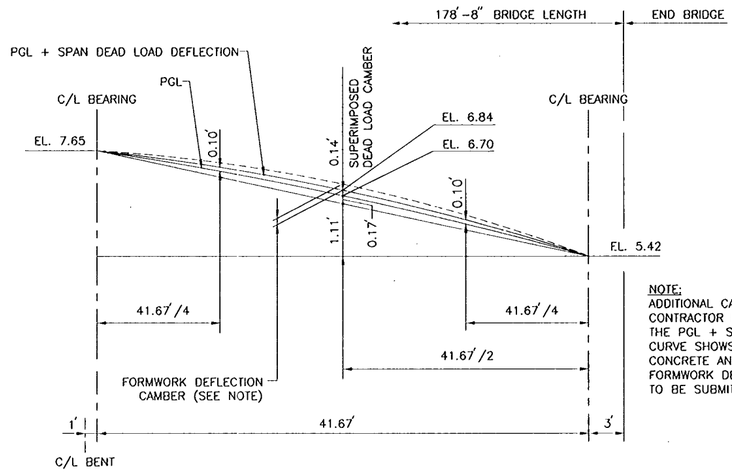


HALF PLAN
SHOWNG SPACING OF TOP REINF. STEEL

HALF PLAN
SHOWNG SPACING OF BOT. REINF. STEEL

PLAN

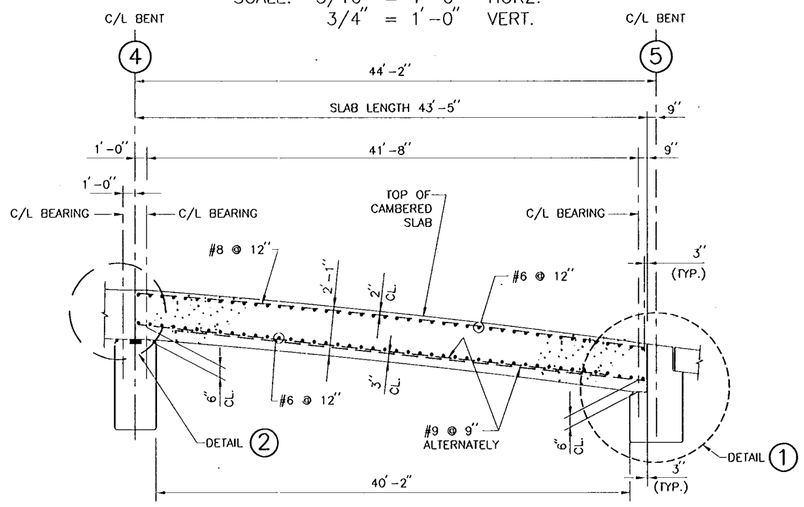
SCALE: 3/16" = 1'-0"



NOTE:
ADDITIONAL CAMBER IS TO BE PROVIDED BY CONTRACTOR FOR DEFLECTION OF FORMWORK. THE PGL + SPAN DEAD LOAD DEFLECTION CURVE SHOWS CONDITION AFTER PLACING OF CONCRETE AND PRIOR TO FORMWORK REMOVAL. FORMWORK DEFLECTION CALCULATIONS ARE TO BE SUBMITTED TO CONTRACTING OFFICER.

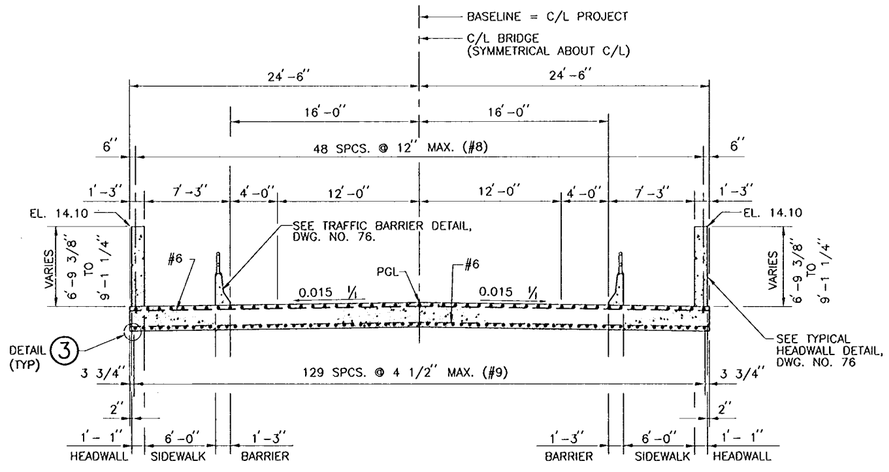
BRIDGE DECK CAMBER (SPAN 4)

SCALE: 3/16" = 1'-0" HORZ.
3/4" = 1'-0" VERT.



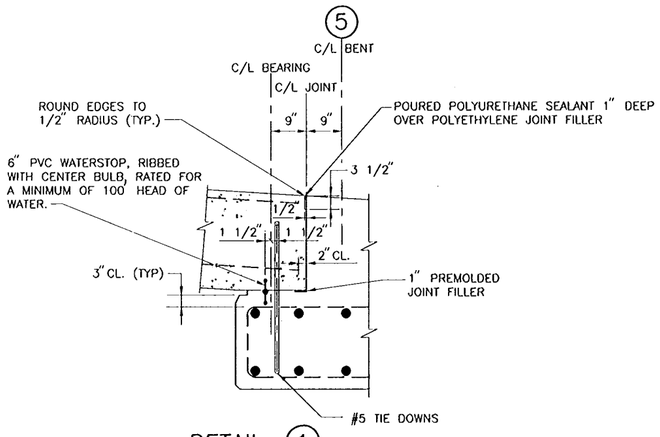
SECTION (B)

HOR. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/8" = 1'-0"



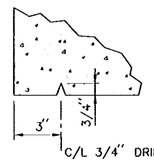
SECTION (A)

SCALE: 3/16" = 1'-0"



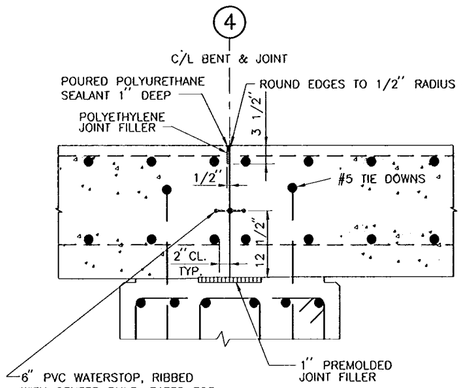
DETAIL (1)

SCALE: 3/4" = 1'-0"



DETAIL (3)

SCALE: 3" = 1'-0"



DETAIL (2)

SCALE: 1" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.

FOR ABUTMENTS, SEE DWG. NOS. 50 AND 51.

FOR BENTS, SEE DWG. NO. 52.

FOR BRIDGE FLOODWALL SECTION, SEE DWG. NO. 76.

FOR BAR SUPPORT DETAILS, SEE DWG. NO. 86.

VALUE ENGINEERING CLAUSES YOUR KEY TO HIGHER PROFITS

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

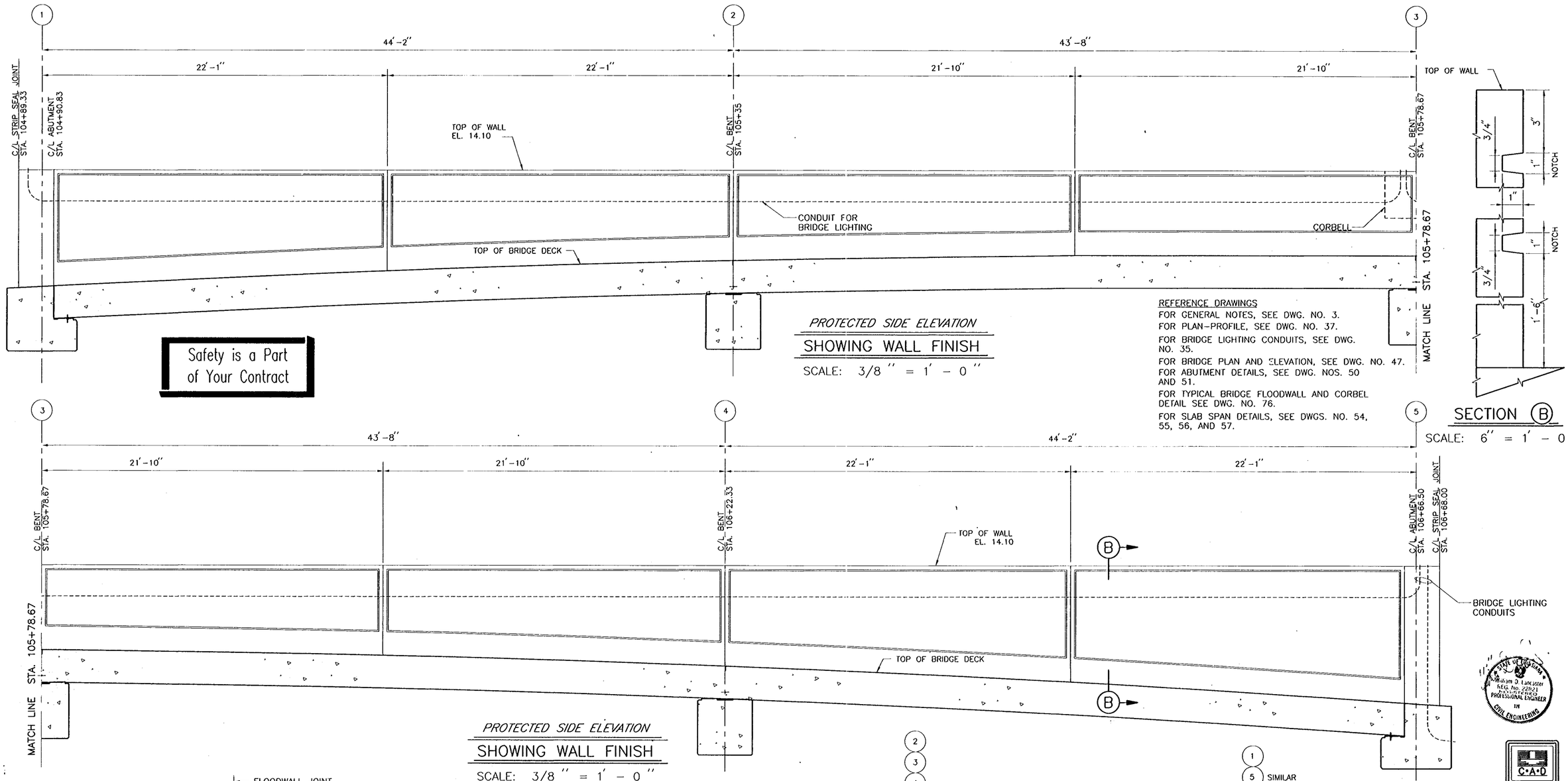
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FILMORE SLAB SPAN 4

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 64	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT57.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 57 OF 93



PROTECTED SIDE ELEVATION

SHOWING WALL FINISH

SCALE: 3/8 " = 1 ' - 0 "

Safety is a Part of Your Contract

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR PLAN-PROFILE, SEE DWG. NO. 37.
FOR BRIDGE LIGHTING CONDUITS, SEE DWG. NO. 35.
FOR BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.
FOR ABUTMENT DETAILS, SEE DWG. NOS. 50 AND 51.
FOR TYPICAL BRIDGE FLOODWALL AND CORBEL DETAIL SEE DWG. NO. 76.
FOR SLAB SPAN DETAILS, SEE DWGS. NO. 54, 55, 56, AND 57.

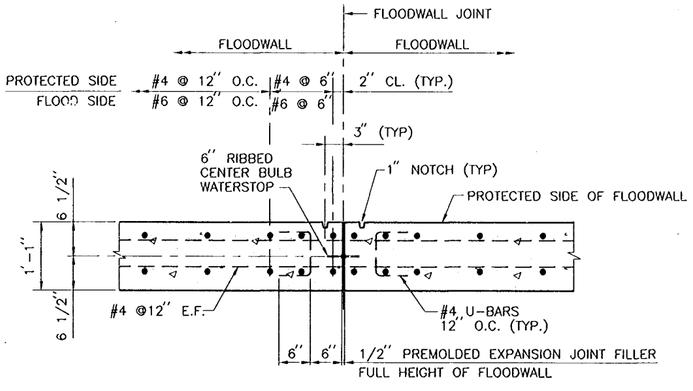
SECTION (B)

SCALE: 6 " = 1 ' - 0 "

PROTECTED SIDE ELEVATION

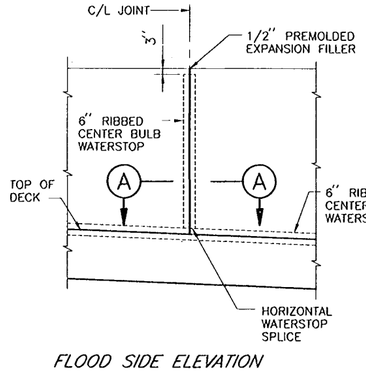
SHOWING WALL FINISH

SCALE: 3/8 " = 1 ' - 0 "



SECTION (A)

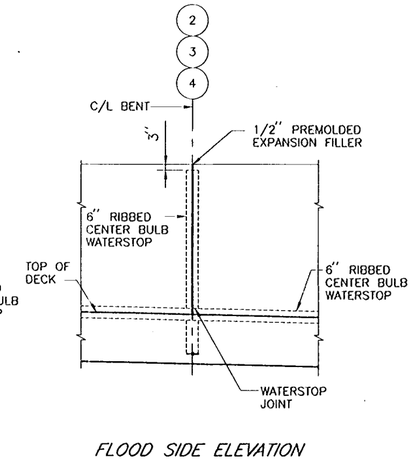
SCALE: 1 " = 1 ' - 0 "



FLOOD SIDE ELEVATION

WALL JOINT AT MIDSPAN

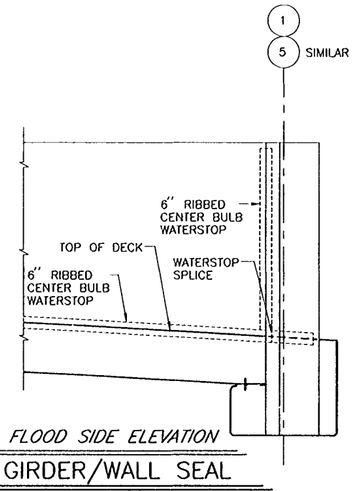
SCALE: 3/8 " = 1 ' - 0 "



FLOOD SIDE ELEVATION

WALL JOINT AT BENTS

SCALE: 3/8 " = 1 ' - 0 "



FLOOD SIDE ELEVATION

GIRDER/WALL SEAL AT ABUTMENTS

SCALE: 3/8 " = 1 ' - 0 "

VALUE ENGINEERING — YOUR KEY TO HIGHER PROFITS

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
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NEW ORLEANS, LOUISIANA

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ORLEANS LEVEE BOARD
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CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

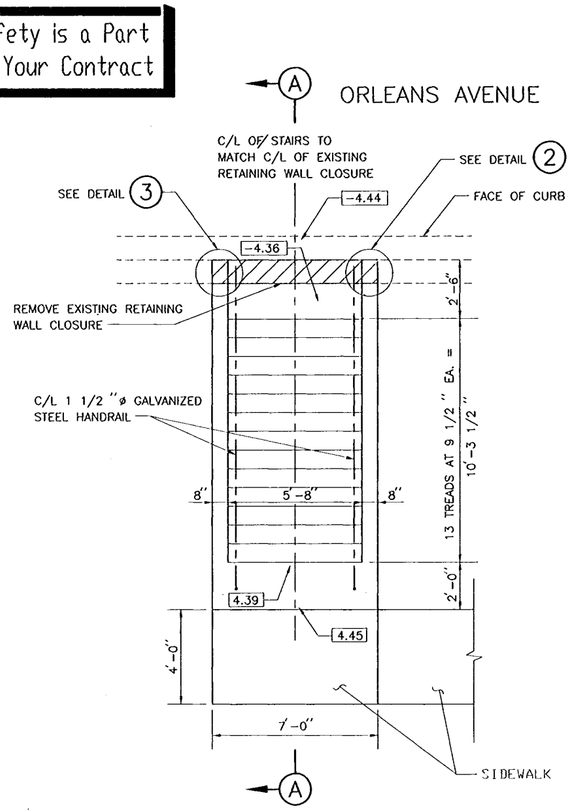
FILMORE AND HARRISON AVE. BRIDGES
FILMORE BRIDGE WALL DETAILS

DESIGNED BY: P.J.H	DATE: SEPT. 1998	PLOT SCALE: 32	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT58.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 58 OF 93

William D. Lancaster
REG. No. 22921
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
STATE OF LOUISIANA

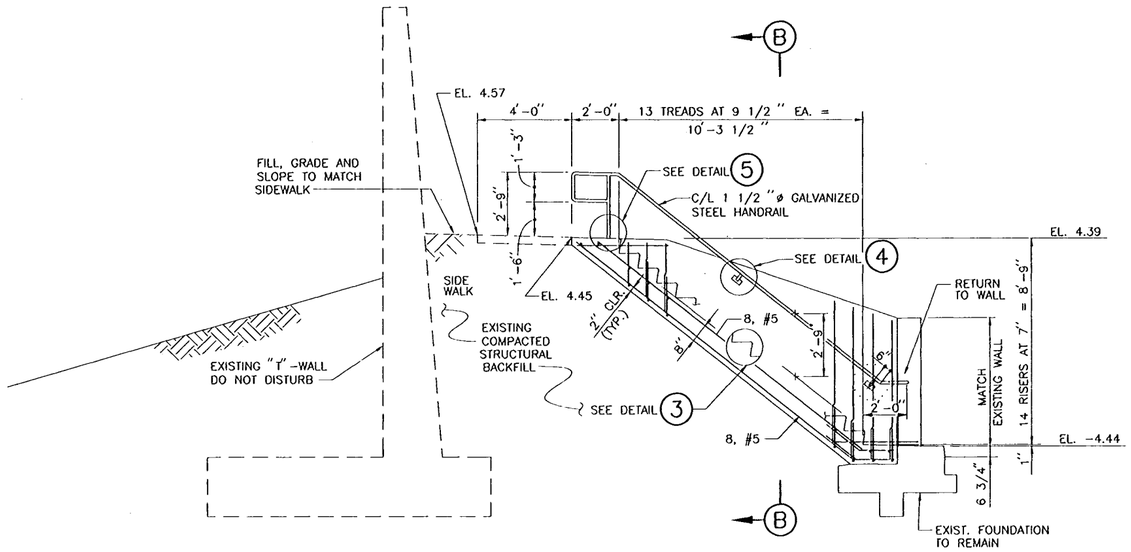
C•A•D

Safety is a Part of Your Contract



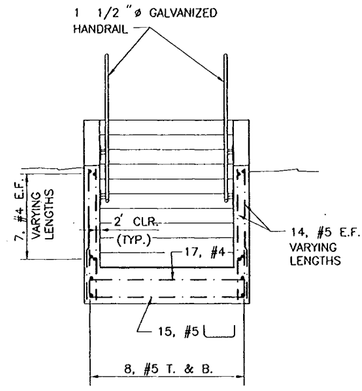
PLAN OF REQUIRED STEPS

SCALE: 3/8" = 1'- 0"



SECTION (A)

SCALE: 3/8" = 1'- 0"

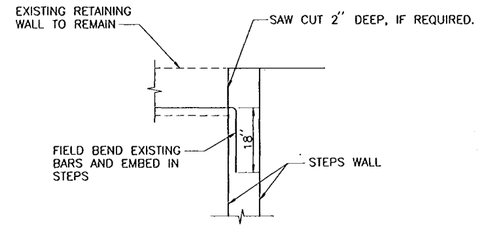


SECTION (B)

SCALE: 3/8" = 1'- 0"

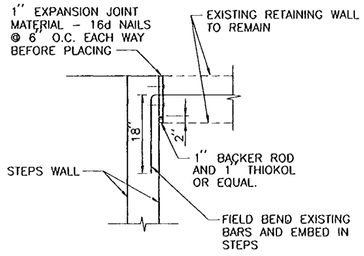
NOTE:

ALL VERTICAL SURFACES SHALL BE COATED WITH A CLEAR SILICONE, SILANE OR ACRYLIC BASED WATER REPELLENT (FED. SPEC. SS-W-110C) SUCH AS "THOROCLEAR 777" STANDARD DRY WALL PRODUCTS OR EQUAL.



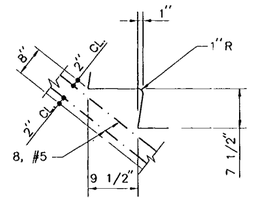
DETAIL (1)

SCALE: 3/4" = 1'- 0"



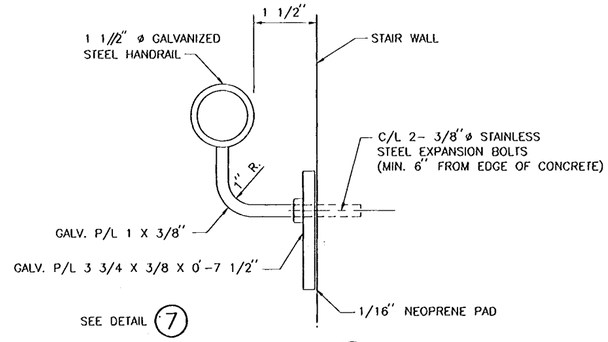
DETAIL (2)

SCALE: 3/4" = 1'- 0"



DETAIL (3)

SCALE: 1" = 1'- 0"



DETAIL (4)

NOT TO SCALE

REFERENCE DRAWINGS

FOR FILMORE AVE. PLAN-PROFILE, SEE DWG. NO. 37

FOR TYPICAL ROADWAY AND SIDEWALK DETAILS, SEE DWG. NO. 77

SCALE: 3/8 " = 1'- 0"

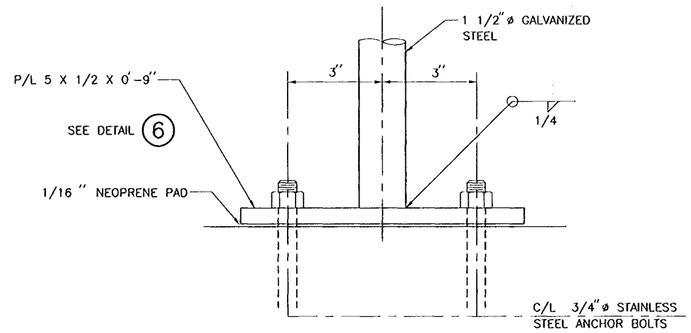
12" 0 2' 4' 6' 8' 10'

SCALE: 3/4 " = 1'- 0"

12" 0 1' 2' 3' 4' 5'

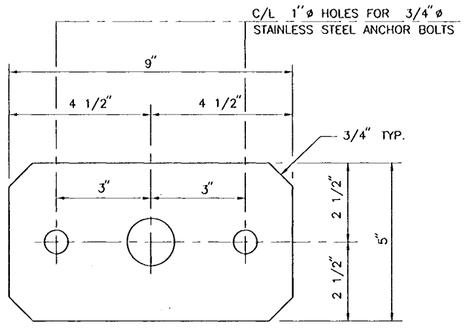
SCALE: 1" = 1'- 0"

12" 0 1' 2' 3' 4' 5'



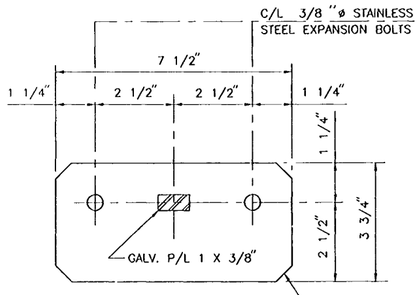
DETAIL (5)

NOT TO SCALE



DETAIL (6)

NOT TO SCALE



DETAIL (7)

NOT TO SCALE

VALUE INCENTIVES CHANGES YOUR KEY TO HIGHER PROFITS ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

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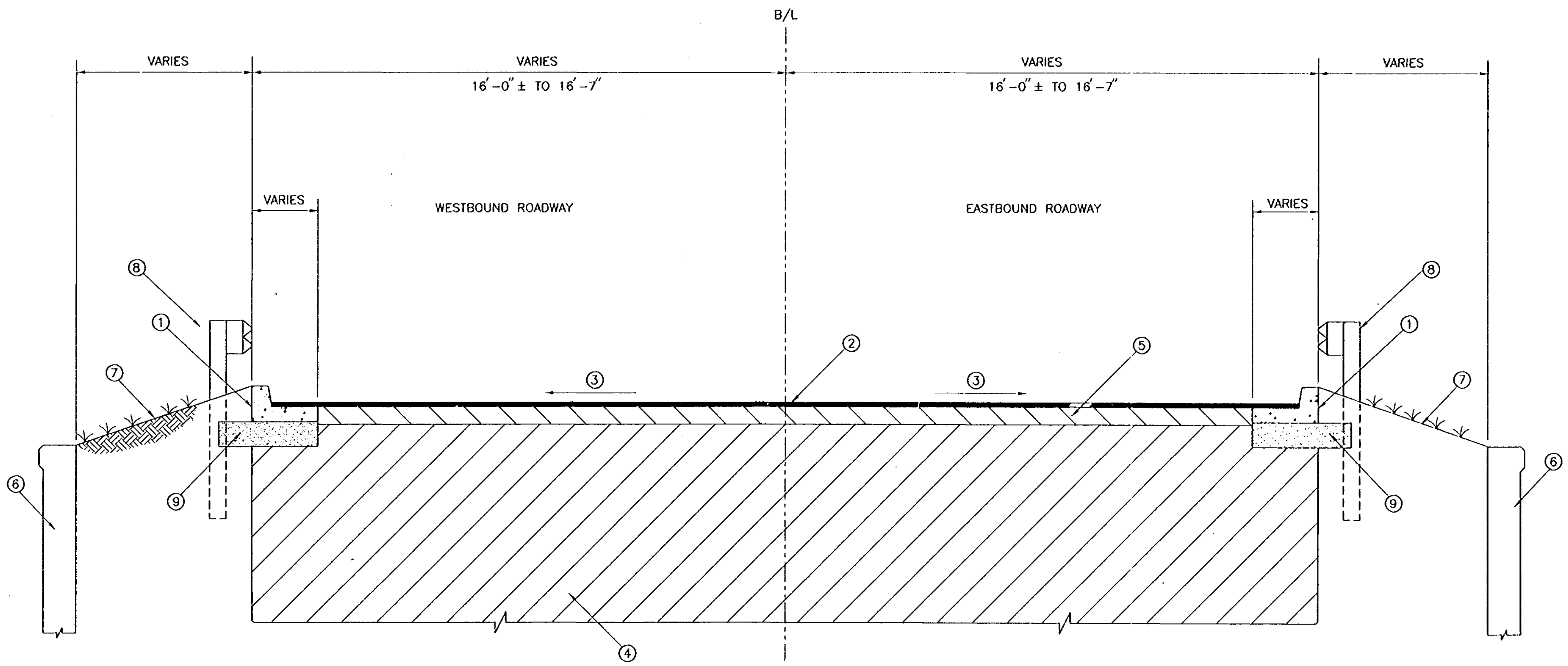
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN

ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

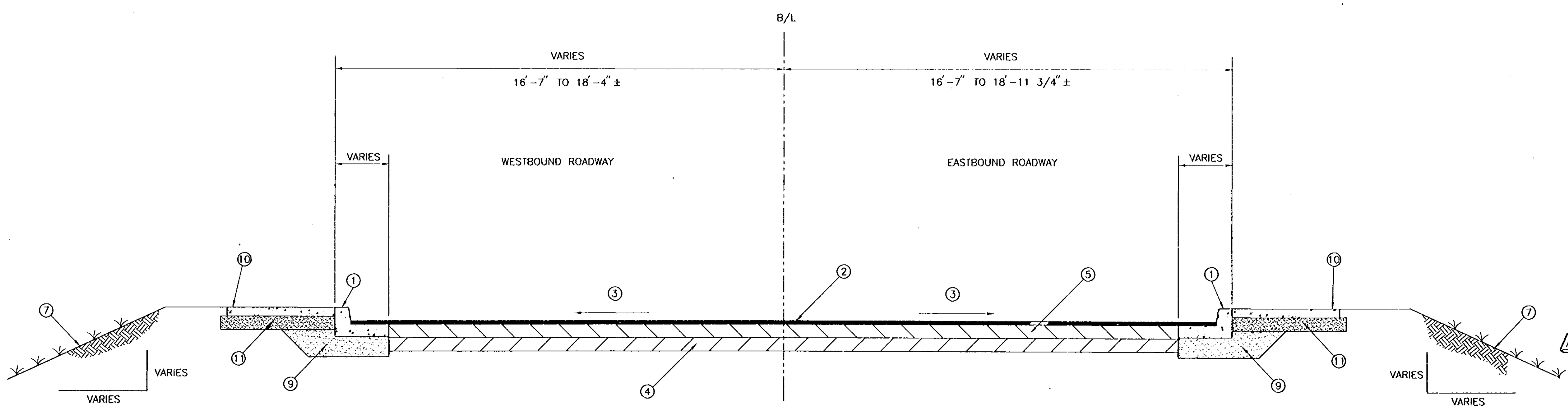
FILMORE AND HARRISON AVE. BRIDGES
FILMORE STAIR DETAILS

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT58A.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 58A OF 93



FILMORE AVENUE
STA. 104+19.33 TO STA. 104+68

TYPICAL ROADWAY SECTION
SCALE: 1/2" = 1'- 0"



FILMORE AVENUE
STA. 106+89.33 TO STA. 107+38

TYPICAL ROADWAY SECTION
SCALE: 1/2" = 1'- 0"

SCALE: 1/2" = 1'- 0"
12" 0 2' 4' 6' 8'

LEGEND

1. REQ'D PAVEMENT WITH INTEGRAL BARRIER CURB AND GUTTER
2. REQ'D TYPE 8F ASPHALT OVERLAY (MIN. 1 1/2")
3. SLOPE VARIES
4. EXISTING PAVEMENT BASE (THICKNESS VARIES) - NOT TO BE DISTURBED
5. EXISTING PAVEMENT SURFACE COURSE. DO NOT DISTURB. (THICKNESS VARIES)
6. EXISTING RETAINING WALL
7. FINISHED GRADE
8. REQ'D GUARD RAIL
9. REQ'D 12" SAND SUBBASE
10. REQ'D 4" SIDEWALK
11. REQ'D 6" COMPACTED SAND

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR DEMOLITION PLAN, SEE DWG. NO. 38.

FOR ROADWAY ELEVATIONS, SEE DWG. NO. 53.

FOR TYPICAL ROADWAY AND SIDEWALK DETAILS SEE DWG. NO. 77.

FOR EXISTING ROADWAY CROSS-SECTIONS, SEE DWG. NOS. 61, 62 AND 63.

FOR GUARD RAIL DETAILS, SEE DWG. NOS. 87, 88, 89 AND 90.

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE TYPICAL ROADWAY SECTIONS

DESIGNED BY: W.D.L. DRAWN BY: L.A.C. CHECKED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 24	PLOT DATE: SEPT. 1998
	CADD FILE: SHT59.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 59 OF 93

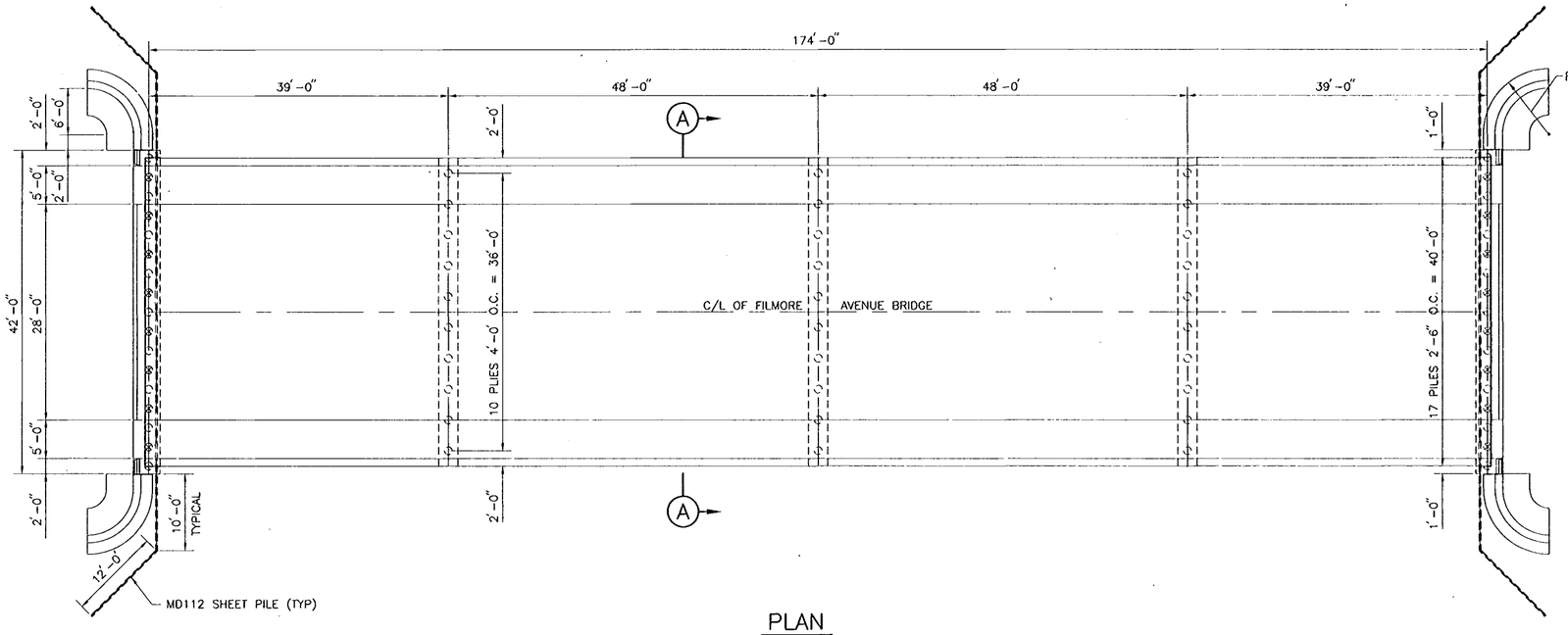
AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

STATE OF LOUISIANA
Mark D. Lancaster
Reg. No. 23821
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

C•A•D

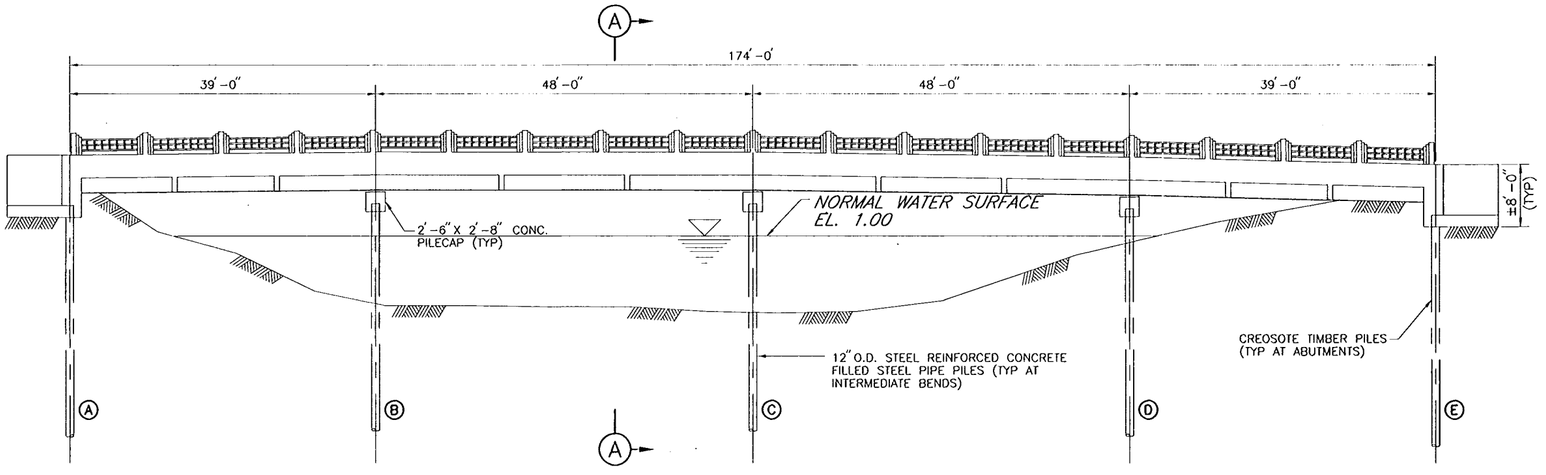
VALUE INCENTIVE CLAUSES ENGINEERING
YOUR KEY TO HIGHER PROFITS

Safety is a Part of Your Contract



PLAN

SCALE: 1/8" = 1'-0"



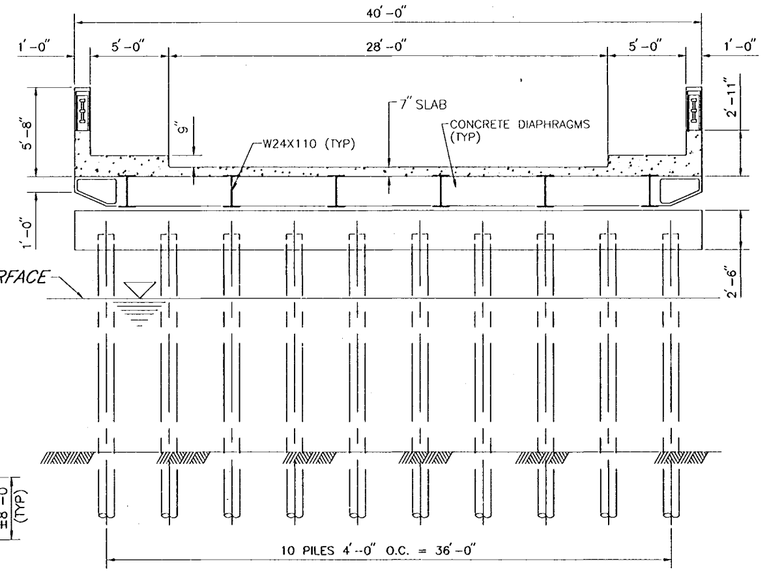
A	B	C	D	E
8.96	9.37	9.33	8.70	
6.44	6.85	6.81	6.18	
6.24	6.62	6.58	5.95	
4.40	5.12	5.08	4.45	

ELEVATION

SCALE: 1/8" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3
FOR UTILITY RELOCATIONS, SEE DWG. NO. 35
FOR DEMOLITION PLAN, SEE DWG. NO. 38



SECTION (A)

ELEVATIONS

7.75	TOP OF CONCRETE ROADWAY
5.23	BOTTOM OF STRINGER
5.02	BRIDGE SEAT
3.18	PILE CUTOFF

NOTE: INFORMATION GIVEN ON THIS SHEET HAS BEEN RETRIEVED FROM ORIGINAL BRIDGE DRAWINGS.

ALL PILE TIP ELEVATIONS ARE UNKNOWN.

SCALE: 1/8" = 1'-0"

0 5' 10' 15' 20' 25'

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

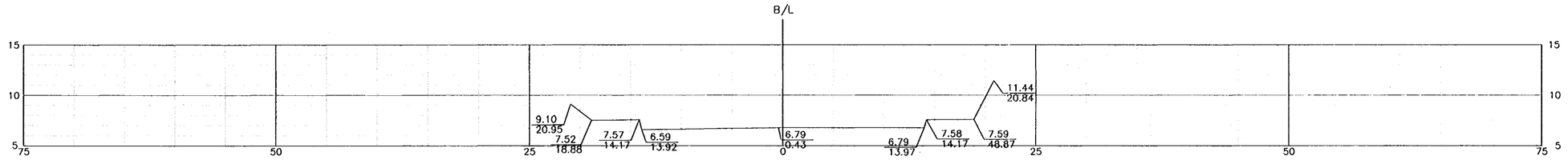
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE EXISTING BRIDGE

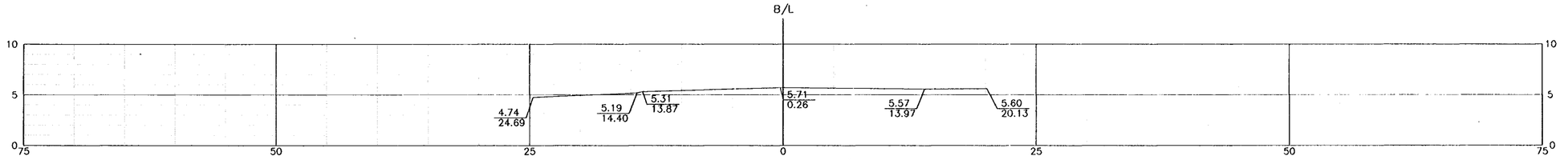
DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 96	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT60.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 60 OF 93

VALUE ENGINEERING CHANGES YOUR KEY TO HIGHER PROFITS

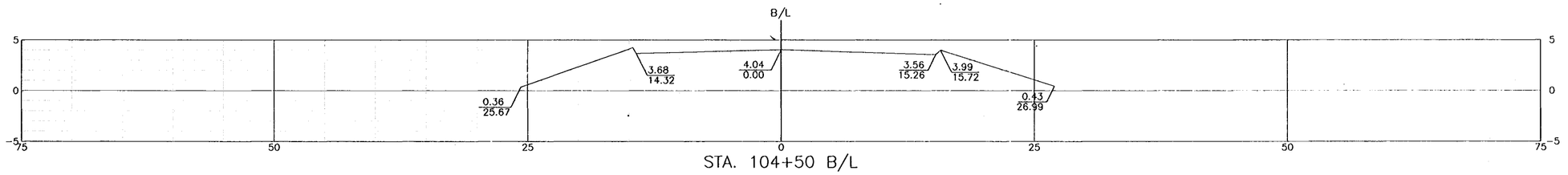
Safety is a Part of Your Contract



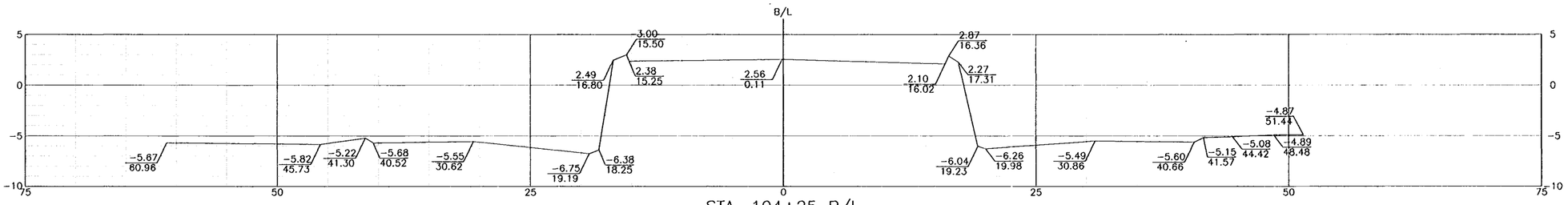
STA. 104+90 B/L



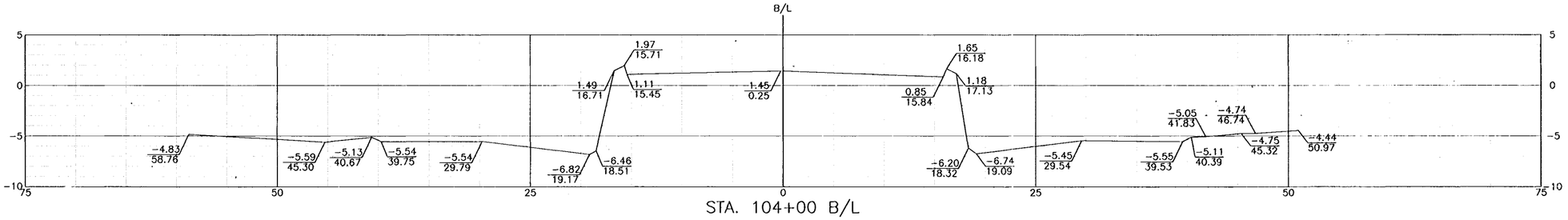
STA. 104+75 B/L



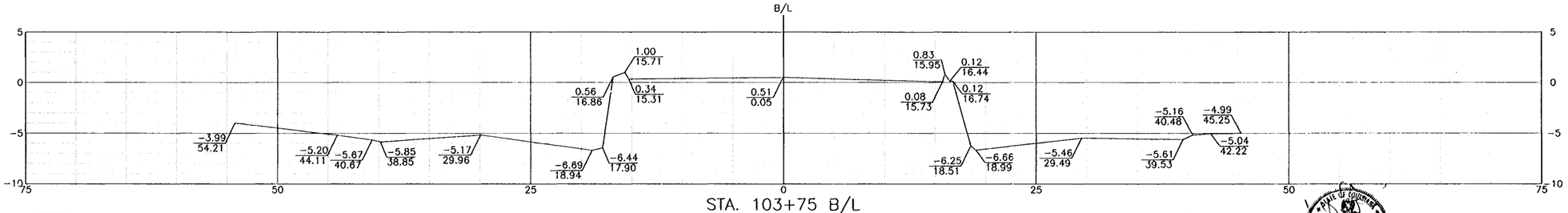
STA. 104+50 B/L



STA. 104+25 B/L



STA. 104+00 B/L



STA. 103+75 B/L

VALUE INCENTIVES CAUSES HIGHER PROFITS
YOUR KEY TO ENGINEERING

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN--PROFILE, SEE DWG. NO. 37.

FOR ROADWAY ELEVATIONS, SEE DWG. NO. 53.

FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 59.

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

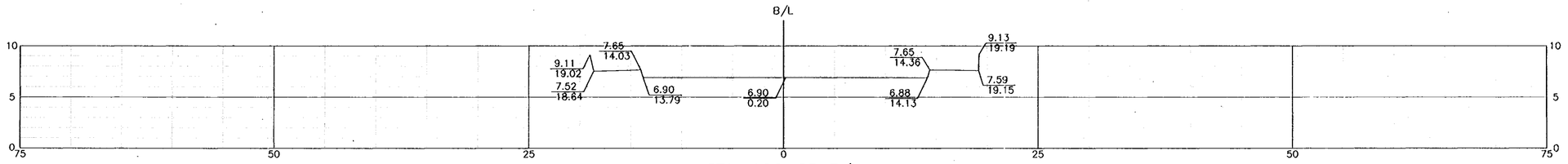
FILMORE AND HARRISON AVE. BRIDGES
FILMORE EXISTING CROSS SECTIONS

STATE OF LOUISIANA
No. 22821
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

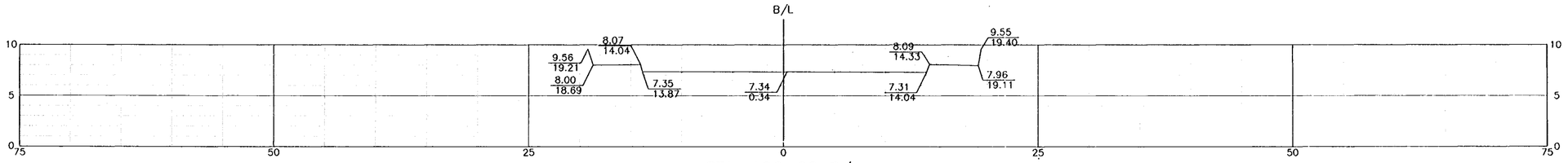
AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 5	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT61.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 61 OF 93

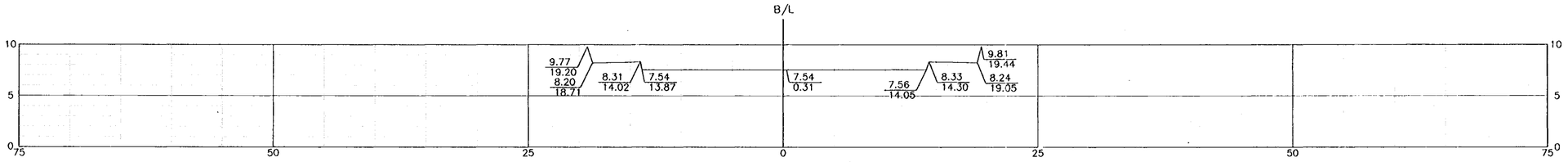
Safety is a Part of Your Contract



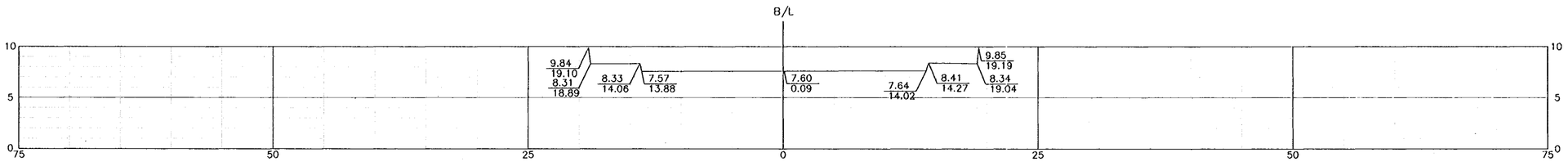
STA. 106+25 B/L



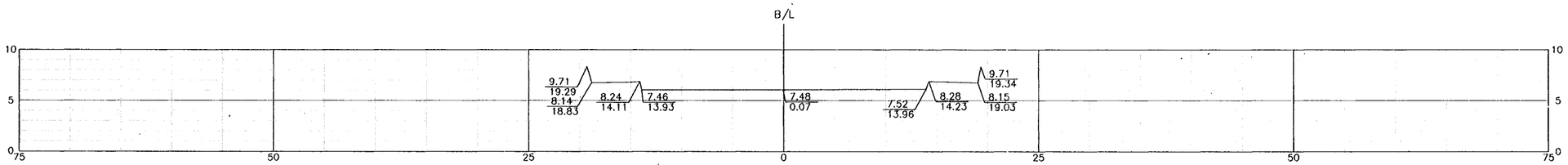
STA. 106+00 B/L



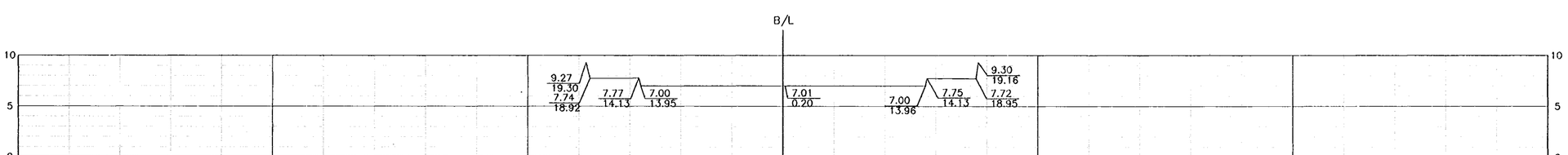
STA. 105+75 B/L



STA. 105+50 B/L



STA. 105+25 B/L



STA. 105+00 B/L

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR ROADWAY ELEVATIONS, SEE DWG. NO. 53.

FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 59.

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

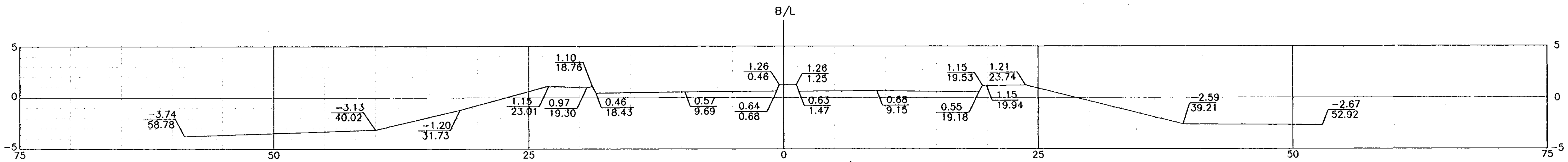
FILMORE AND HARRISON AVE. BRIDGES
FILMORE EXISTING CROSS SECTIONS

STATE OF LOUISIANA — Wade O. Lancaster — REG. No. 22321 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

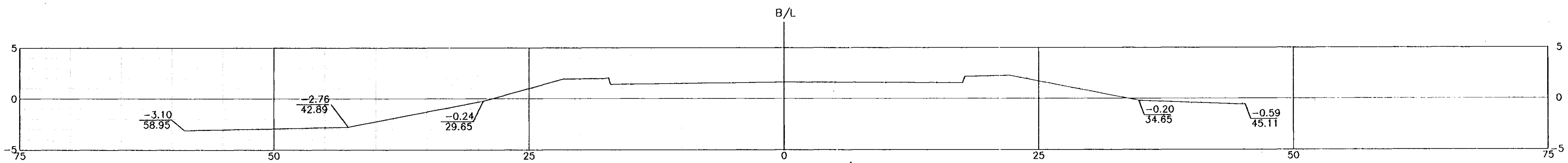
AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 5	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT62.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)	SOLICITATION NO. DACW29-99-B-0008		DWG. 62 OF 93

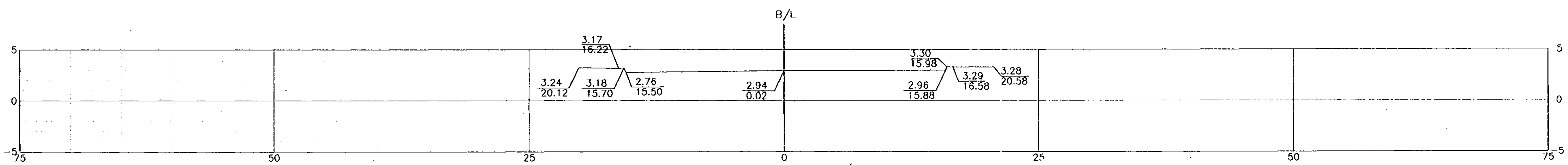
Safety is a Part of Your Contract



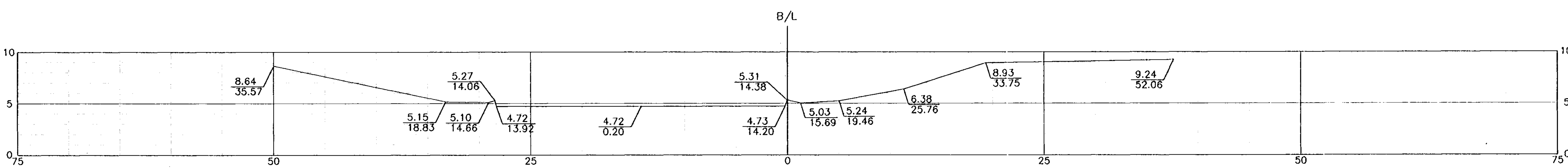
STA. 107+50 B/L



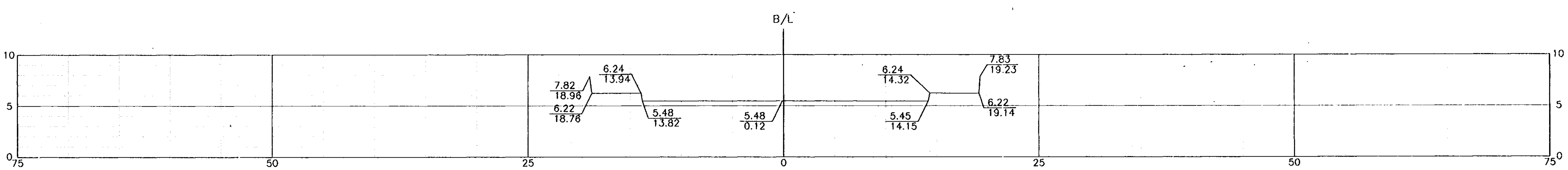
STA. 107+25 B/L



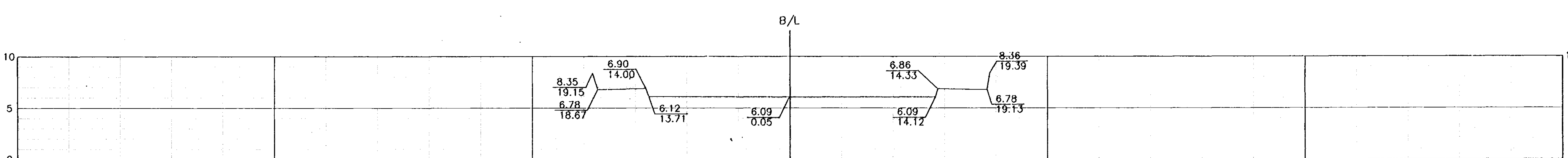
STA. 107+00 B/L



STA. 106+75 B/L



STA. 106+67 B/L



STA. 106+50 B/L

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37.

FOR ROADWAY ELEVATIONS, SEE DWG. NO. 53.

FOR TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 59.

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE EXISTING CROSS SECTIONS

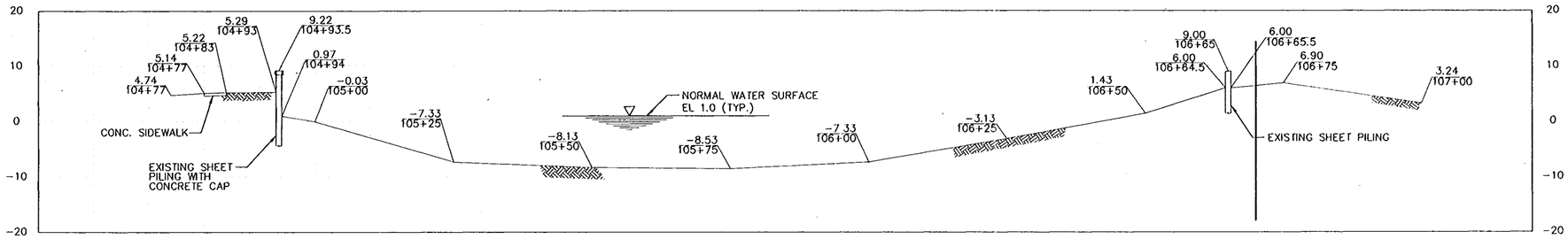
DESIGNED BY: P.J.H. DRAWN BY: C.R.N. CHECKED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 5	PLOT DATE: SEPT. 1998
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	CADD FILE: SHT63.DGN SOLICITATION NO. DACW29-99-B-0008		FILE NO. H-4-45050 DWG. 63 OF 93

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

William D. Lancaster
REG. No. 22821
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

VALUE ENGINEERING

Safety is a Part of Your Contract



EXISTING CANAL CROSS SECTION
25' LT. OF BASELINE

EXISTING CANAL CROSS SECTION
25' RT. OF BASELINE

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

STATE OF LOUISIANA
William D. Lancaster
REG. No. 22921
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SCALE: 1" = 10' (H)
1" = 10' (V)

VALUE ENGINEERING YOUR KEY TO HIGHER PROFITS

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

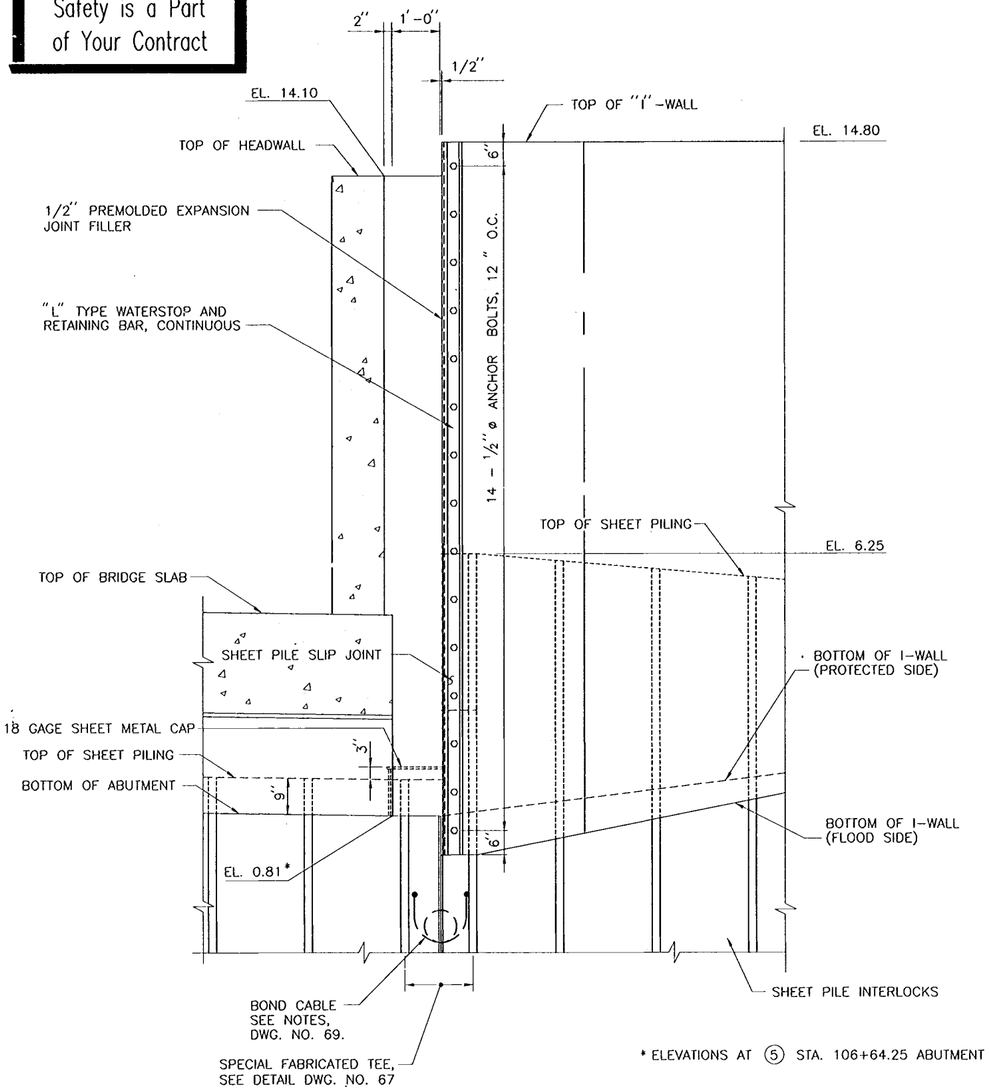
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
FILMORE EXIST. CANAL CROSS SECTIONS

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 10	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.	CADD FILE: SHT64.DGN		FILE NO. H-4-45050
CHECKED BY: W.D.L.	SOLICITATION NO. DACW29-99-B-0008		DWG. 64 OF 93
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER			

Safety is a Part of Your Contract

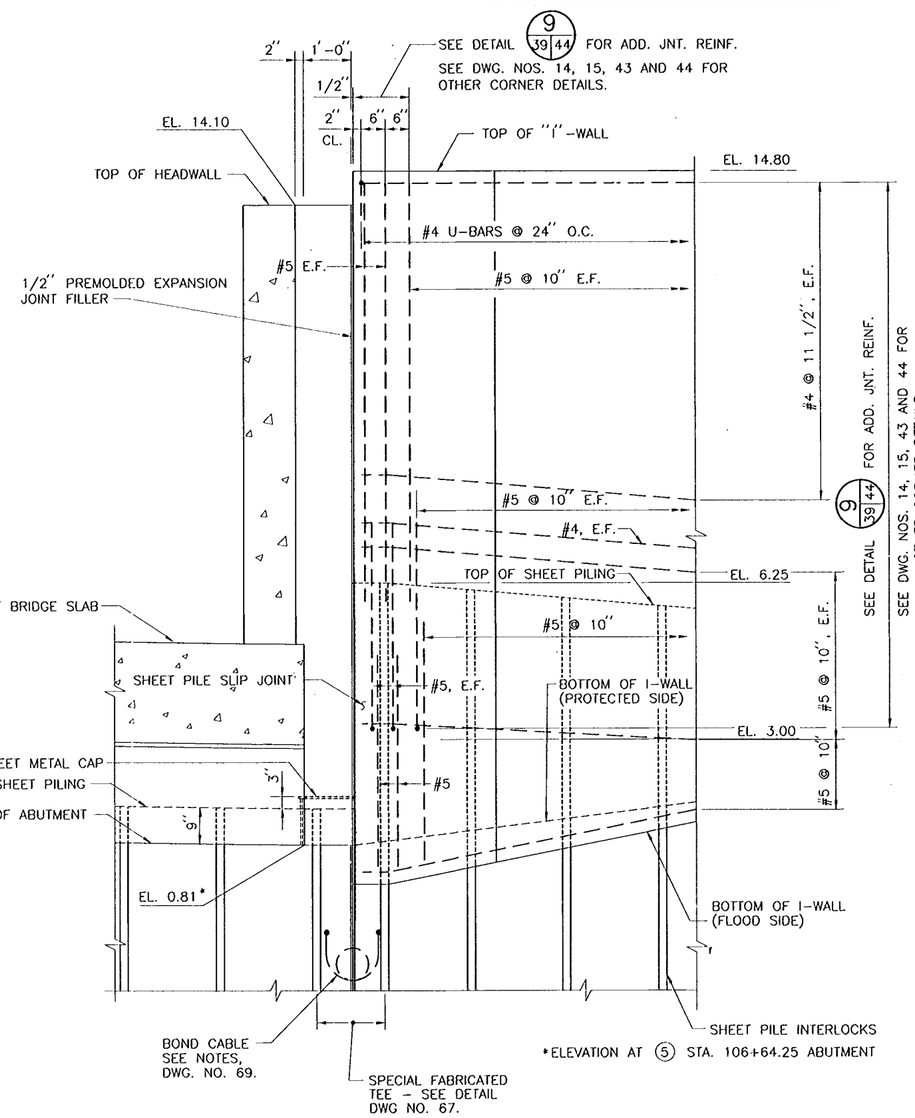


FLOOD SIDE ELEVATION

"I" - WALL TO ABUTMENT

SOUTHEAST CORNER OF FILMORE AVE. SHOWN, OTHERS SIMILAR

SCALE: 3/4" = 1'-0"



FLOOD SIDE ELEVATION

REINFORCEMENT
"I" - WALL TO ABUTMENT

SOUTHEAST CORNER OF FILMORE AVE. SHOWN, OTHERS SIMILAR.

SCALE: 3/4" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 40 AND 41.

STATE OF LOUISIANA
William D Lancaster
REG. NO. 22821
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SCALE: 3/4" = 1'-0"

12" 0 1' 2' 3' 4' 5'

VALUE ADDITIVE GAUGES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C·A·D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

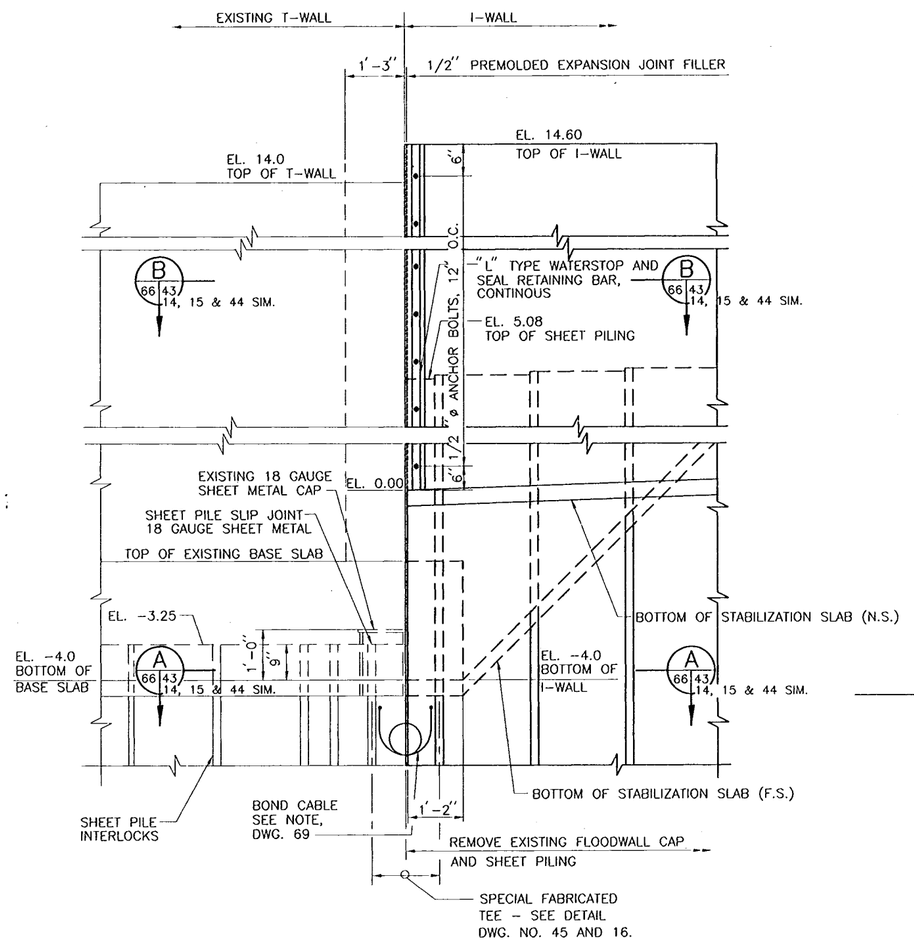
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
TYPICAL WALL JOINTS

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 16	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: P.J.H.	CADD FILE: SHT65.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)	SOLICITATION NO. DACW29-99-B-0008		DWG. 65 OF 93

Safety is a Part of Your Contract

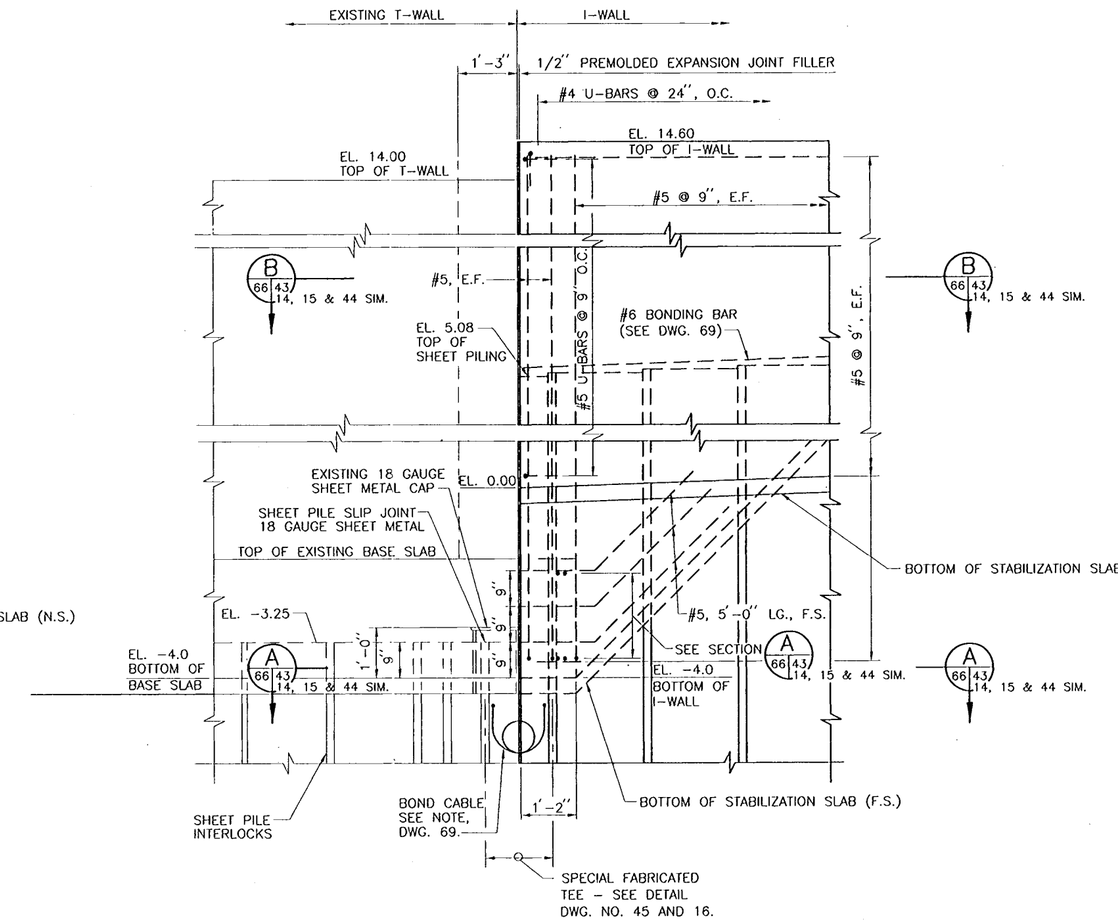


FLOOD SIDE ELEVATION

T-WALL TO I-WALL

SOUTHWEST CORNER OF FILMORE AVE. SHOWN. OTHER CORNERS SIMILAR.

SCALE: 3/4" = 1'-0"



FLOOD SIDE ELEVATION

REINFORCEMENT
T-WALL TO I-WALL

SOUTHWEST CORNER OF FILMORE AVE. SHOWN. OTHER CORNERS SIMILAR.

SCALE: 3/4" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR PLAN-PROFILE, SEE DWG. NO. 37

FOR FLOODWALL PLAN, SEE DWG. NO. 39.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 40 AND 41.

STATE OF LOUISIANA
Wendy K. Lancaster
REG. No. 22821
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

C•A•D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SCALE: 3/4" = 1'- 0"
12" 0 1' 2' 3' 4' 5'

SCALE: 1" = 1'- 0"
12" 0 1' 2' 3' 4' 5'

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

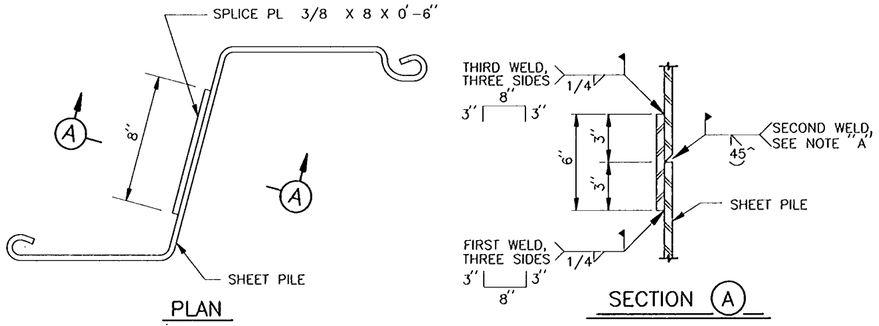
LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
TYPICAL WALL JOINTS

DESIGNED BY: M.K.R.	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT66.DWG		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 66 OF 93

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

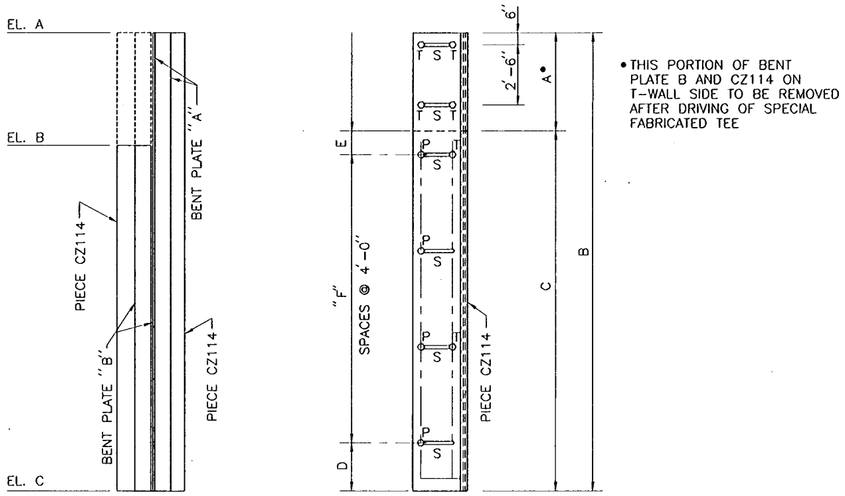
Safety is a Part of Your Contract



TYPICAL SHEET PILE SPLICE DETAIL

SCALE: 3" = 1' - 0"

NOTE "A"
GROOVE WELD SHALL EXTEND THE FULL LENGTH OF THE SHEET PILE WEB AND FLANGES EXCLUDING THE INTERLOCKS.



• THIS PORTION OF BENT PLATE B AND CZ114 ON T-WALL SIDE TO BE REMOVED AFTER DRIVING OF SPECIAL FABRICATED TEE

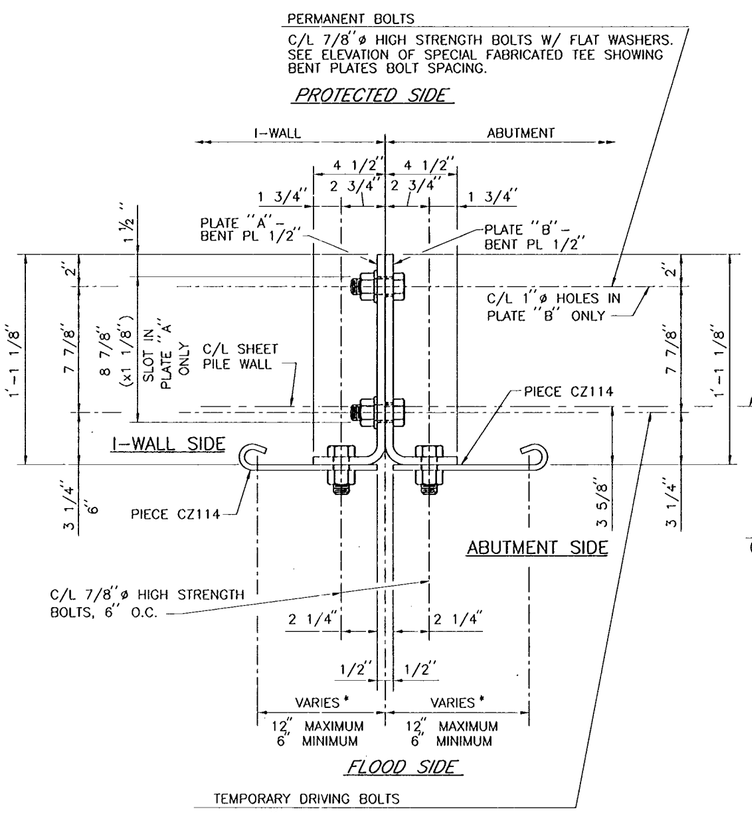
PROTECTED SIDE ELEVATION

I-WALL SIDE ELEVATION

ELEVATION OF SPECIAL FABRICATED TEE SHOWING BENT PLATES BOLT SPACING

SCALE: HORIZ. 3/4" = 1' - 0"
VERT. 3/8" = 1' - 0"

LOCATION	ELEV. A	ELEV. B	ELEV. C	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E	F
HARRISON									
SOUTHWEST	7.57	3.49	-11.50	4'-0 15/16"	19'-0 13/16"	14'-11 7/8"	2'-0"	11 7/8"	3
NORTHWEST	7.57	3.49	-11.50	4'-0 15/16"	19'-0 13/16"	14'-11 7/8"	2'-0"	11 7/8"	3
SOUTHEAST	8.00	3.93	-11.50	4'-0 13/16"	19'-6"	15'-5 3/16"	2'-0"	1'-5 3/16"	3
NORTHEAST	8.00	3.93	-11.50	4'-0 13/16"	19'-6"	15'-5 3/16"	2'-0"	1'-5 3/16"	3
FILMORE									
SOUTHWEST	7.00	2.91	-9.00	4'-1 1/16"	16'-0"	11'-10 15/16"	2'-0"	1'-10 15/16"	2
NORTHWEST	7.00	2.91	-9.00	4'-1 1/16"	16'-0"	11'-10 15/16"	2'-0"	1'-10 15/16"	2
SOUTHEAST	6.25	1.56	-9.00	4'-8 1/4"	15'-3"	10'-6 3/4"	2'-0"	6 3/4"	2
NORTHEAST	5.75	1.56	-9.00	4'-2 1/4"	14'-9"	10'-6 3/4"	2'-0"	6 3/4"	2



C/L 7/8"ø HIGH STRENGTH BOLTS W/ FLAT WASHERS.
SEE ELEVATION OF SPECIAL FABRICATED TEE SHOWING BENT PLATES BOLT SPACING.
THESE BOLTS ARE TO BE REMOVED AS SPECIAL FABRICATED TEE IS DRIVEN, SO THAT UPON COMPLETION OF DRIVING NO TEMPORARY BOLTS SHALL REMAIN.

* DIMENSION VARIES
CONTRACTOR TO PROVIDE DETAILED LAYOUT OF CONTINUOUSLY INTERLOCKED SHEET PILLING FOR I-WALLS AND ABUTMENTS.

DETAIL 2/41/67 2/11/67 2/12/67 2/40/67

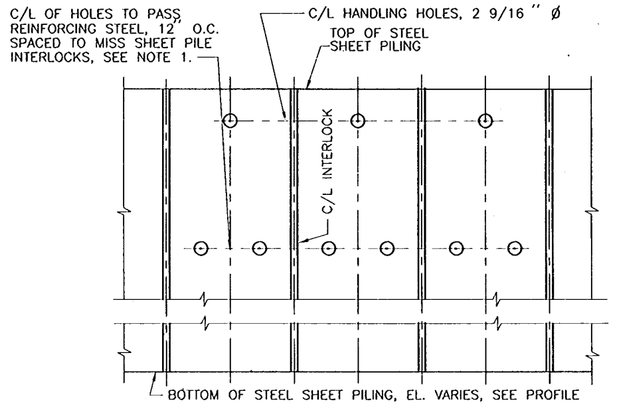
SPECIAL FABRICATED TEE

(SOUTHEAST CORNER OF FILMORE AVE. SHOWN, OTHERS SIMILAR)

SCALE: 3" = 1'-0"

SHEET PILE NOTES:

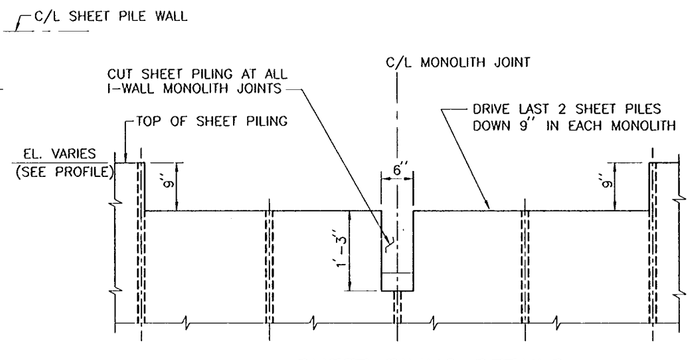
1. HOLES CUT IN STEEL SHEET PILING FOR PASSING REINFORCING BARS SHALL NOT EXCEED 2"O. WHERE HOLES FALL WITHIN THE WEB OF THE STEEL SHEET PILE, THE HOLE SHALL BE SLOTTED 4" HORIZONTALLY TO ACCOMMODATE PASSING THE REINFORCING BARS.
2. ANY SUBSTITUTIONS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL.
3. STEEL SHEET PILE SURFACE PREPARATION AND PAINTING SHALL BE IN ACCORDANCE WITH SECTION 09940 OF THE SPECIFICATIONS.



ELEVATION

DETAILS OF HOLES IN SHEET PILING

SCALE: 1" = 1'- 0"



SHEET PILING DETAILS
I-WALL MONOLITH JOINTS

SCALE: 1" = 1'- 0"

SCALE: 3/8" = 1'- 0"
12" 0 2' 4' 6' 8' 10'

SCALE: 3/4" = 1'- 0"
12" 0 1' 2' 3' 4' 5'

SCALE: 1" = 1'- 0"
12" 0 1' 2' 3' 4' 5'

SCALE: 3" = 1' - 0"
12" 0 1'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR FLOODWALL PLAN, SEE DWG. NOS. 10 AND 39.

FOR FLOODWALL PROFILES, SEE DWG. NOS. 11, 12, 40 AND 41.

STATE OF LOUISIANA — William D. Lancaster — REG. No. 22821 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

C•A•D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
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HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
TYPICAL SHEET PILE DETAILS

DESIGNED BY: W.D.L. DRAWN BY: C.R.N. CHECKED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 16	PLOT DATE: SEPT. 1998
	CADD FILE: SHT67.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 67 OF 93

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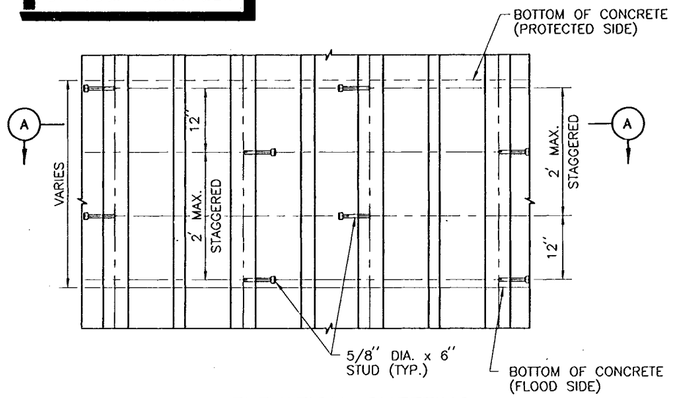
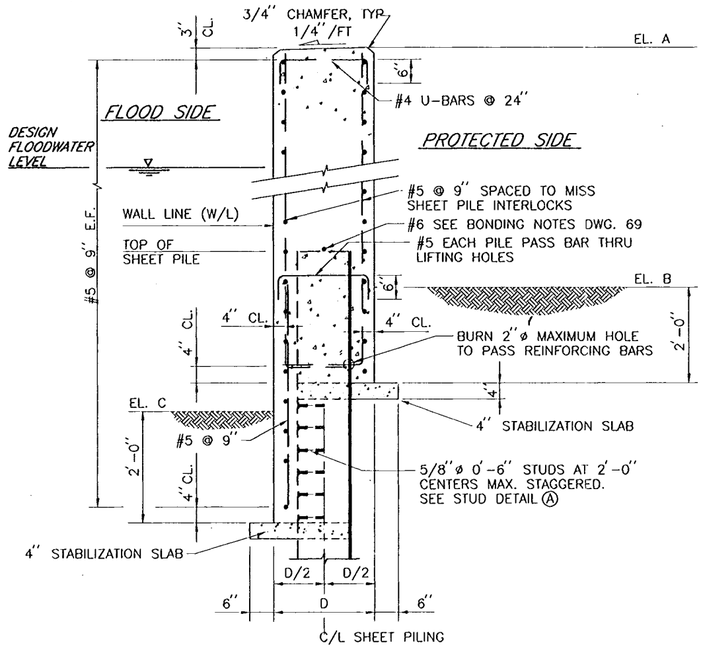


ELEVATION–SHEETING

DETAIL (A)

SCALE: 1" = 1'–0"

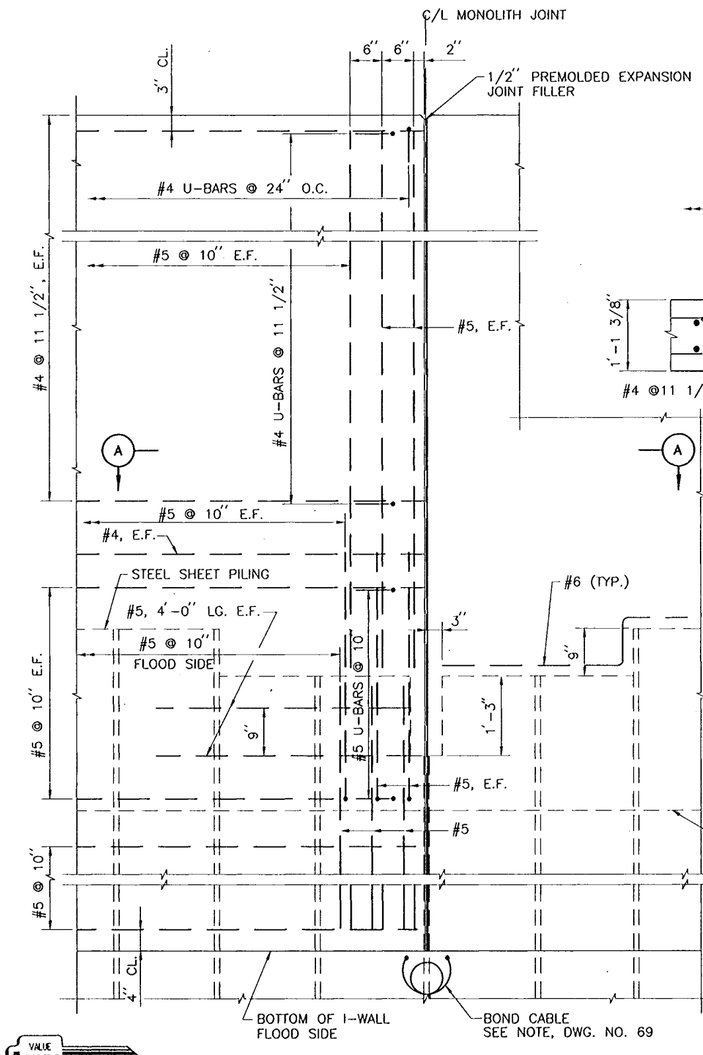


TYPICAL TYPE I CAP

SCALE: 3/4" = 1'–0"

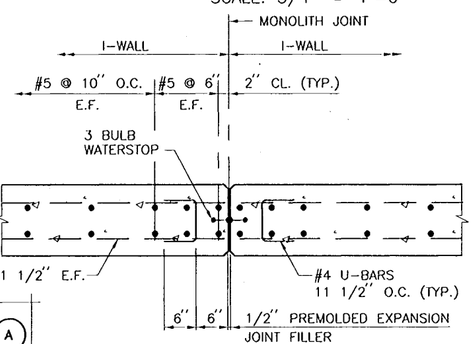
PANEL NO.	WALL LENGTH	WALL TYPE	ELEV. A	ELEV. B	ELEV. C	C	D	X	S.P.TIPELEV.
HARRISON									
1	25'–9 1/8"	I	14.80	4.33± TO 6.82±	2.00± TO 3.85±		2'–1 3/8"		–20.00
2	24'–2"	I	14.80	6.82± TO 4.33±	3.85± TO 2.00±		2'–1 3/8"		–20.00
3	28'–8 1/8"	II	14.90	9.50± TO 7.30±	9.50± TO 4.30±		2'–1 3/8"		0.25 TO –16.50
4	22'–0"	II	14.80	7.30± TO 7.50±	4.30± TO 7.50±	1'–1 3/8"	2'–1 3/8"		–16.50
5	21'–11 1/4"	II	14.80	7.50± TO 7.00±	7.50± TO 7.00±	1'–1 3/8"	2'–1 3/8"		–16.50 TO –8.25
FILMORE									
6	23'–1 1/8"	I	14.60	4.33± TO 6.25±	2.00± TO 3.30±		2'–1 3/8"		–33.00
7	11'–1 1/2"	I	14.60	6.25± TO 4.50±	3.30± TO 2.00±		2'–1 3/8"		–33.00
8	29'–5 5/8"	II	14.80	7.00± TO 5.00±	7.00± TO 2.00±	1'–1 3/8"	2'–1 3/8"	7'–3 5/8" TO 5'–9 3/8"	–8.25 TO –16.00
9	27'–8 3/8"	II	14.40	5.00± TO 5.50±	2.00± TO 5.50±	1'–1 3/8"	2'–1 3/8"	7'–4 3/4" TO 6'–10 3/4"	–16.00 TO –13.75

NOTE: STUDS NOT REQ'D ON FLOOD SIDE CONCRETE FOR PANEL 5 AT HARRISON AVENUE. SEE FLOODWALL PROFILES FOR SLOPING OF BOTTOM OF CONCRETE AT SLOPING GROUND.



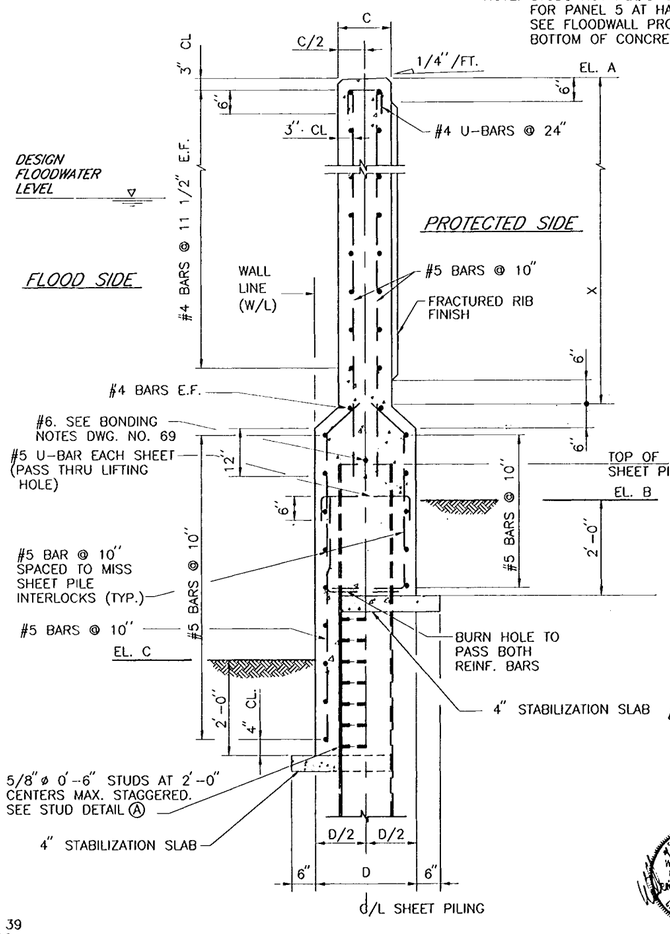
DETAIL OF I–WALL MONOLITH JOINTS

SCALE: 1" = 1'–0"



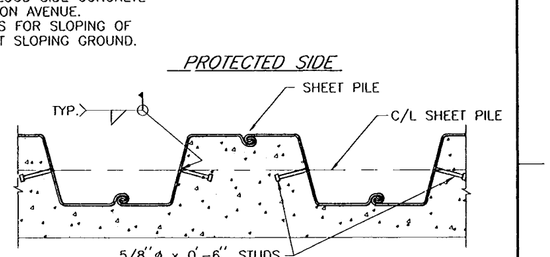
SECTION (A)

SCALE: 1" = 1' – 0"



TYPICAL TYPE II CAP

SCALE: 3/4" = 1'–0"



SECTION (A)

SCALE: 1" = 1'–0"

SCALE: 1/2" = 1'– 0"

12" 0 2' 4' 6' 8'

SCALE: 3/4" = 1'– 0"

12" 0 1' 2' 3' 4' 5'

SCALE: 1" = 1'– 0"

12" 0 1' 2' 3' 4' 5'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3
FOR FLOODWALL PLANS, SEE DWG. NOS. 10 AND 39
FOR FLOODWALL PROFILES, SEE DWG. NOS. 11, 12, 40 AND 41.

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
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ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES I–WALL REINFORCING & DETAILS

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.	CADD FILE: SHT68.DGN		FILE NO. H-4-45050
CHECKED BY: P.J.H.	SOLICITATION NO. DACW29-99-B-0008		DWG. 68 OF 93
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER			

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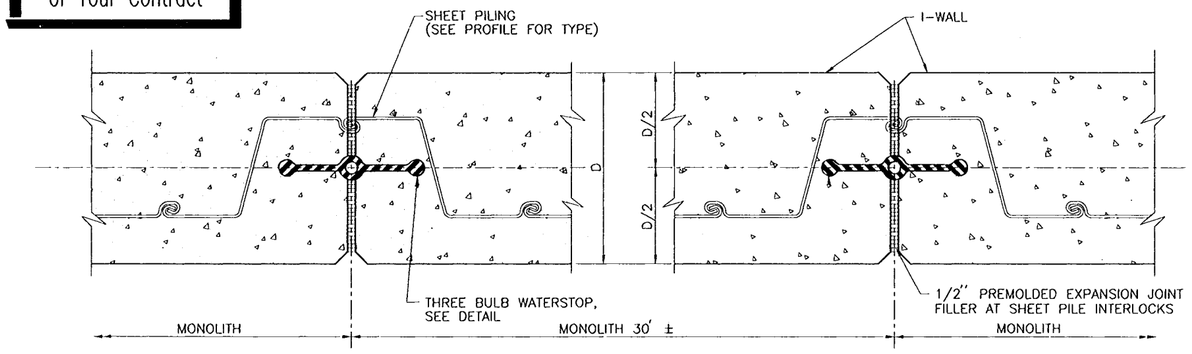
STATE OF LOUISIANA — WILLIAM D. LANCASTER — REG. NO. 22821 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

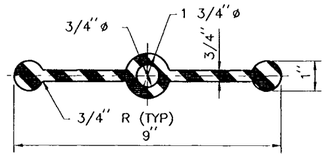
Safety is a Part of Your Contract



TYPICAL I-WALL AT SHEET PILE INTERLOCKS

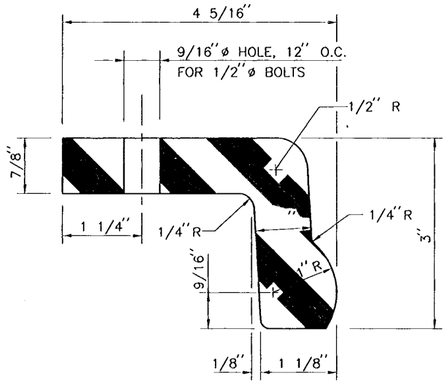
SCALE: 3" = 1'- 0"

NOTE:
EACH I-WALL MONOLITH SHALL END AT THE CENTER OF THE NEAREST SHEET PILE INTERLOCK.



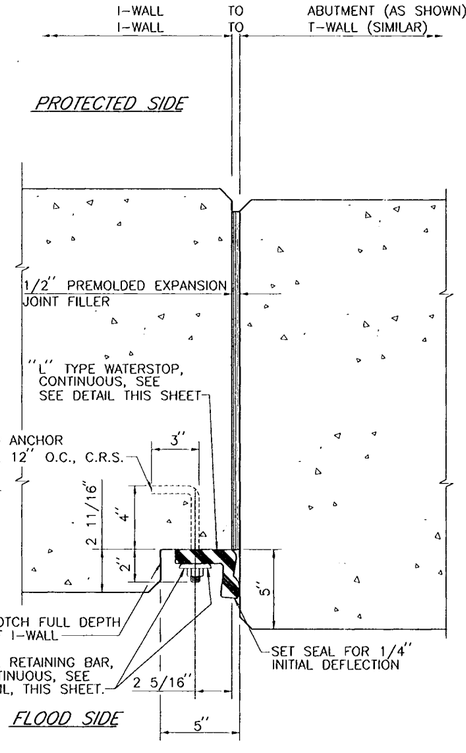
THREE BULB WATERSTOP DETAIL

N.T.S.



"L" TYPE WATERSTOP

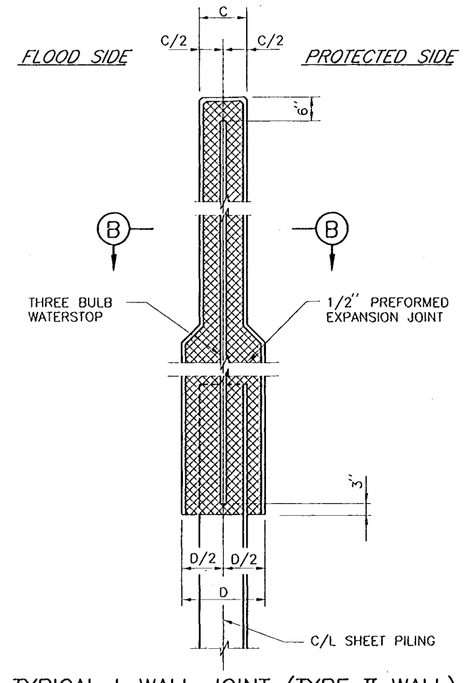
SCALE: 12" = 1'- 0"



PLAN

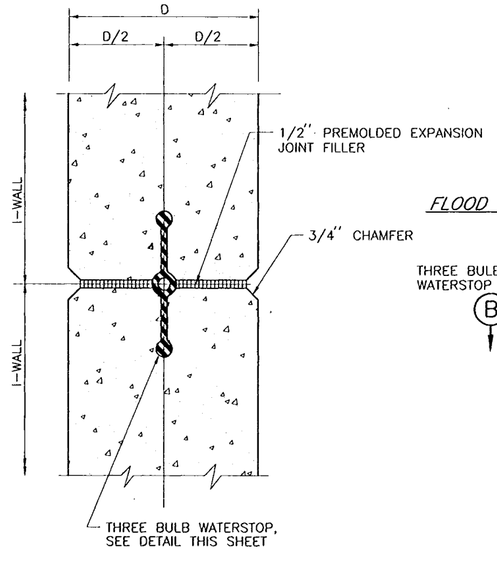
I-WALL TO ABUTMENT (I-WALL TO T-WALL SIMILAR)

SCALE: 3" = 1'- 0"



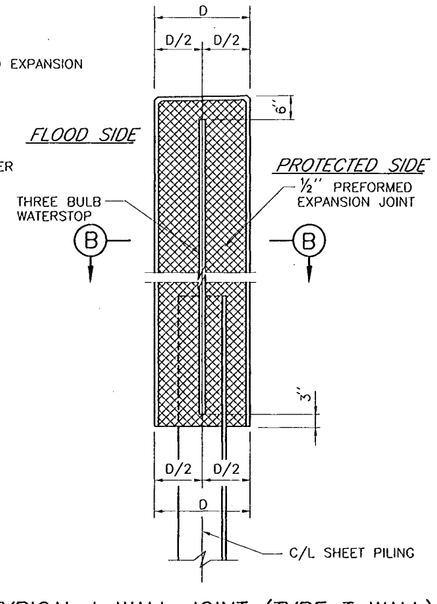
TYPICAL I-WALL JOINT (TYPE II WALL)

SCALE: 3/4" = 1'-0"



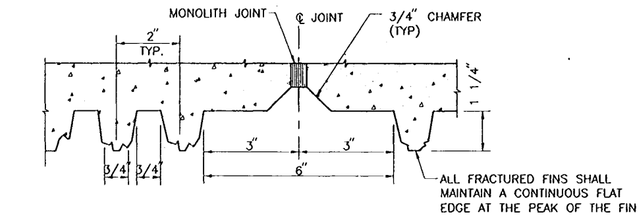
SECTION (B)

SCALE: 3" = 1'- 0"



TYPICAL I-WALL JOINT (TYPE I WALL)

SCALE: 3/4" = 1'- 0"

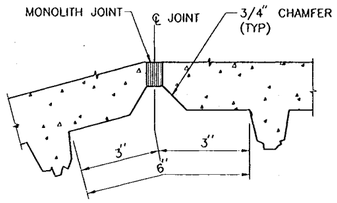


FRACTURED FIN FINISH AT TYPICAL MONOLITH JOINT

SCALE: 6" = 1'-0"

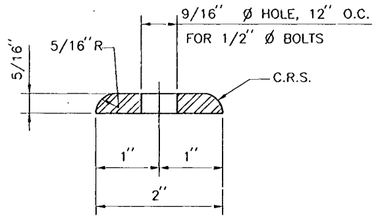
BONDING NOTES

1. #6 REINFORCING BAR TO BE WELDED TO THE TOP OF EACH STEEL SHEET PILE. #6 REINFORCING BAR SHALL NOT EXTEND ACROSS THE MONOLITH JOINT. INSTALL BOND CABLE AT ALL EXPANSION JOINTS. BOND CABLE SHALL HAVE AN 7" DIAMETER LOOP TO ALLOW FOR STRESSES. BOND CABLES SHALL BE WELDED AS SPECIFIED TO ADJACENT STEEL PILES 3' BELOW THE BOTTOM OF CONCRETE CAP. WELDED CONNECTIONS SHALL BE COATED WITH SPLICING EPOXY TO OBTAIN MOISTURE PROOF JOINT. SEE SPECIFICATIONS.
2. #6 REINFORCING BARS SHALL BE WELDED TO THE LAST THREE SHEET PILINGS AT EACH END OF THE MONOLITH AS SHOWN FOR CONTINUITY.
3. SPLICING OF THE #6 REINFORCING BAR WILL NOT BE ALLOWED.



FRACTURED FIN FINISH AT P.I. OR JOINT

SCALE: 6" = 1'-0"



SEAL RETAINING BAR

SCALE: 12" = 1'- 0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR FLOODWALL PLANS, SEE DWG. NOS. 10 AND 39.

C·A·D

SCALE: 3/4" = 1'- 0"

12" 0 1' 2' 3' 4' 5'

SCALE: 1" = 1'- 0"

12" 0 1' 2' 3' 4' 5'

SCALE: 3" = 1'- 0"

12" 0 1'

SCALE: 6" = 1'- 0"

12" 0 1'

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STATE OF LOUISIANA — WILLIAM D. LANCASTER — REG. NO. 23321 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

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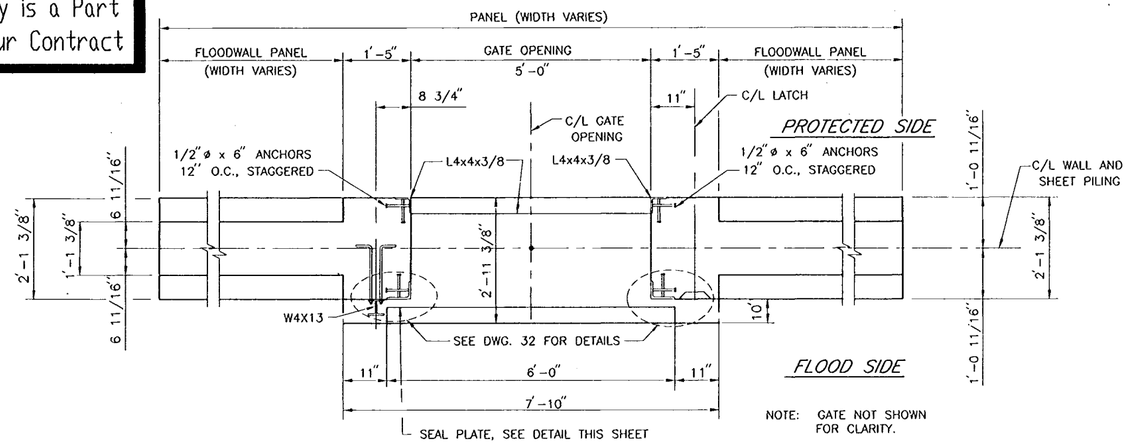
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES TYPICAL WALL JOINTS

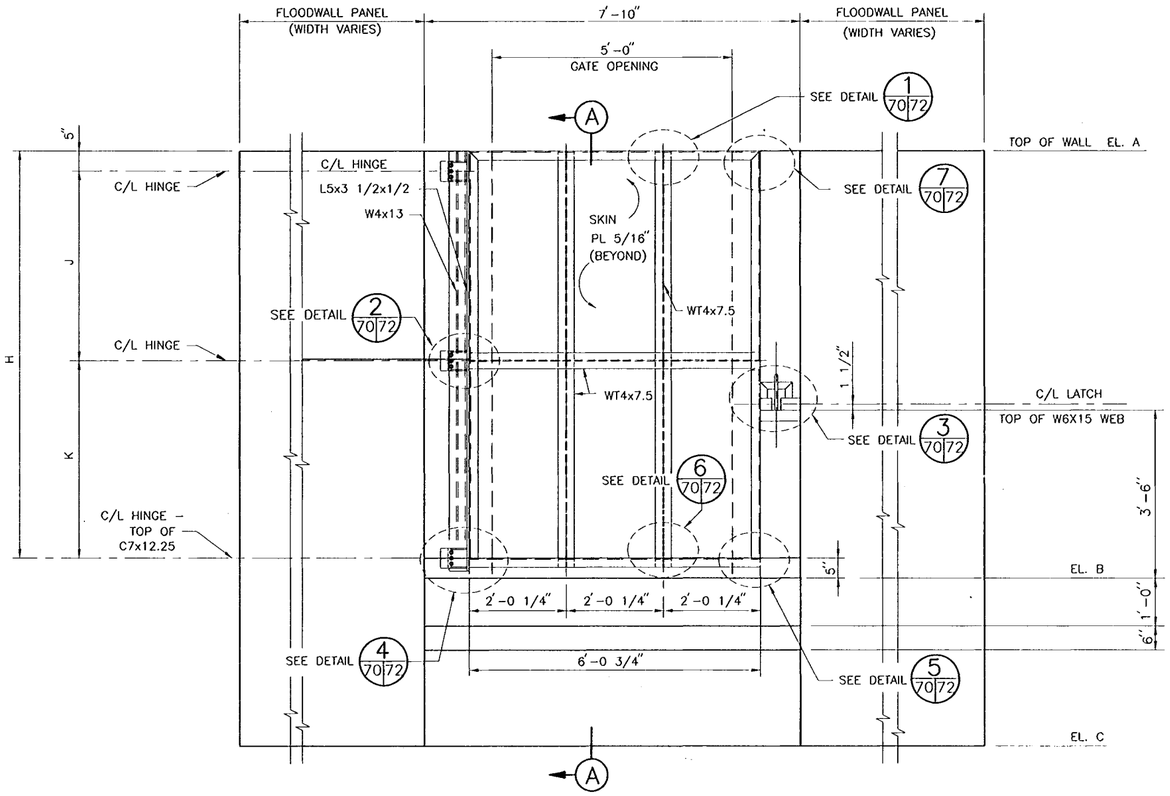
DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: P.J.H.	CADD FILE: SHT69.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)	SOLICITATION NO. DACW29-99-B-0008		DWG. 69 OF 93

Safety is a Part of Your Contract



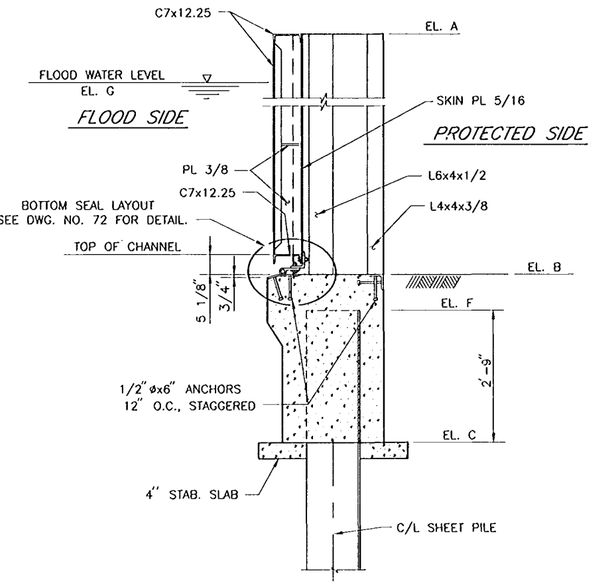
PLAN

SCALE: 3/4 '' = 1'- 0''



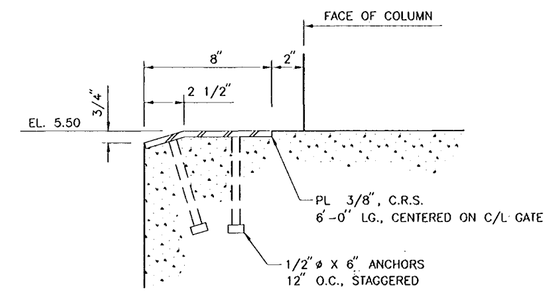
FLOOD SIDE ELEVATION

SCALE: 3/4 '' = 1'- 0''



SECTION (A)

SCALE: 3/4 '' = 1'- 0''



SEAL PLATE DETAIL

SCALE: 3'' = 1'-0''

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR GATE MONOLITH REINFORCING, SEE DWG. NO. 71.

FOR SEAL DETAILS, SEE DWG. NO. 73.

NOTE:

CONTRACTOR MAY PROPOSE USE OF A MANUFACTURED GATE. GATE TYPE SUBJECT TO APPROVAL BY CONTRACTING OFFICER.

GATE	W/L STATIONS	SCHEDULE OF ELEVATIONS							SCHEDULE OF DIMENSIONS		
		A	B	C	D	E	F	G	H	J	K
1	10+14.30	14.90	7.50	4.00	9.00	9.00	6.75	12.30	6'-11 13/16"	2'-5"	4'-1 3/4"
2	10+16.42	14.80	7.50	4.00	9.00	8.50	6.75	12.30	6'-10 5/8"	2'-3 7/8"	4'-1 3/4"
3	10+15.03	14.80	5.50	2.00	8.50	7.00	4.75	12.10	8'-10 5/8"	4'-3 7/8"	4'-1 3/4"
4	10+13.40	14.40	5.00	1.50	6.50	7.00	4.25	12.10	8'-11 3/4"	4'-5"	4'-1 3/4"

SCALE: 3/4 '' = 1'- 0''

12'' 0 1' 2' 3' 4' 5'

SCALE: 3'' = 1' - 0''

12'' 0 1'

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STATE OF LOUISIANA Walter D. Lancaster REG. NO. 27821 PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
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DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
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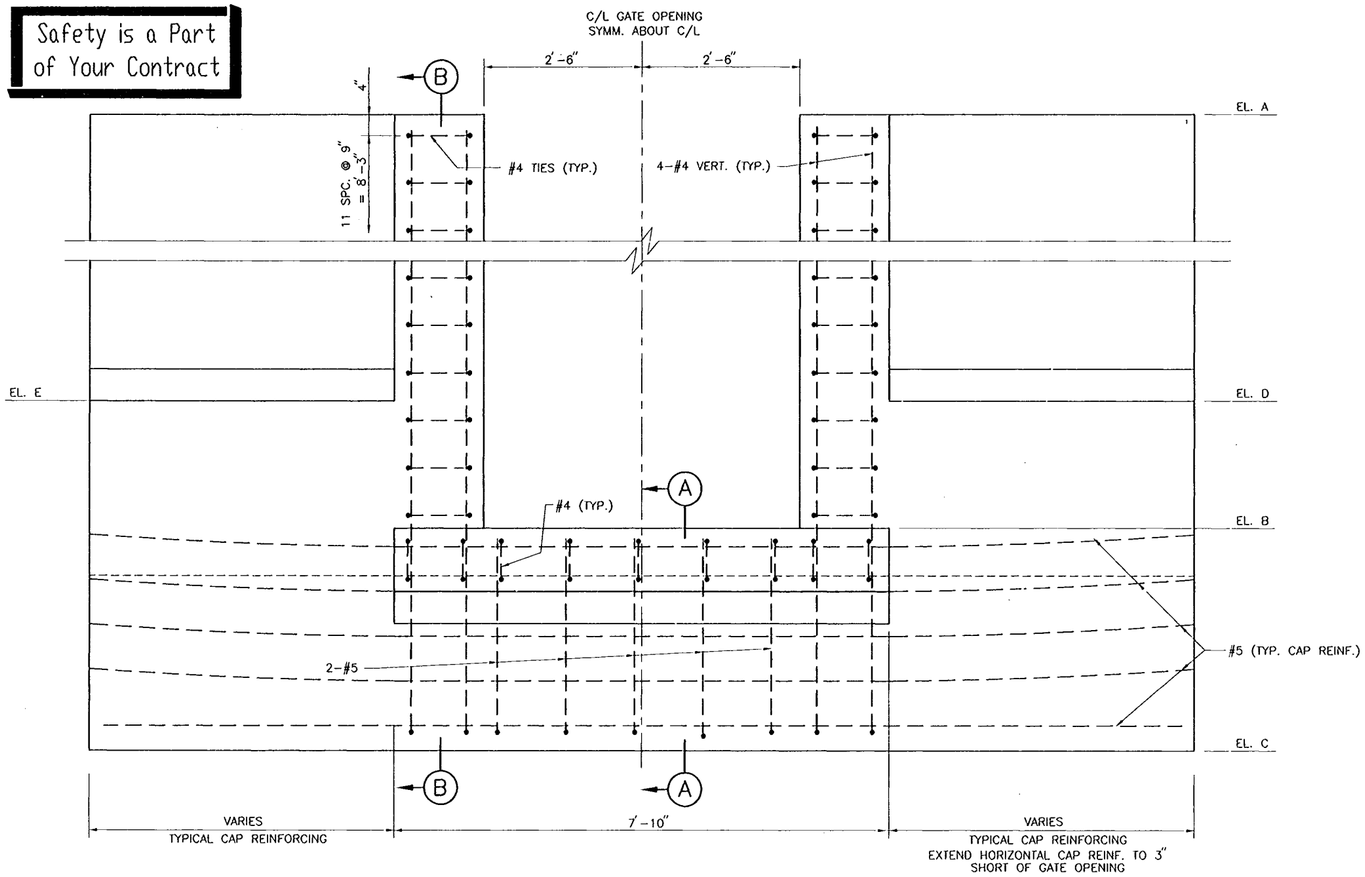
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FLOODWALL GATE-MASONRY

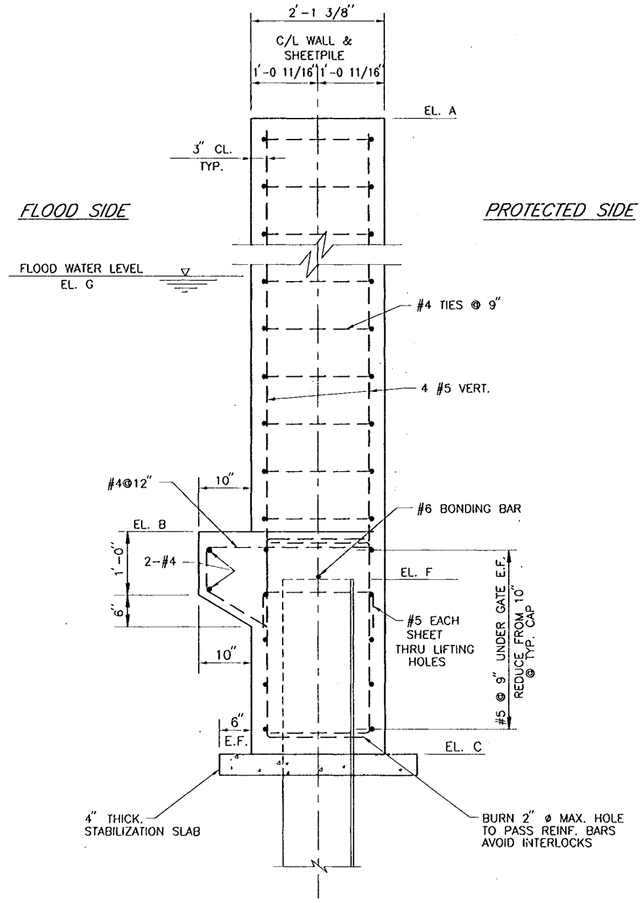
DESIGNED BY: N.P.	DATE: SEPT. 1998	PLOT SCALE: 1.3333	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT70.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 70 OF 93

Safety is a Part of Your Contract



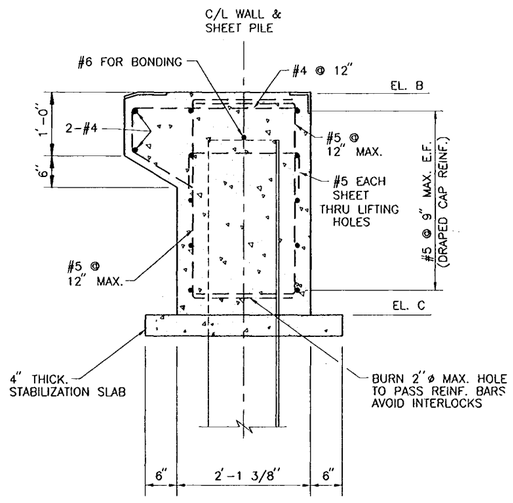
FLOOD SIDE ELEVATION

SCALE: 1" = 1'-0"



SECTION (B)

SCALE: 1" = 1'-0"



SECTION (A)

SCALE: 1" = 1'-0"

GATE	W/L STATIONS	SCHEDULE OF ELEVATIONS						
		A	B	C	D	E	F	G
1	10+14.30	14.90	7.50	4.00	9.00	9.00	6.75	12.30
2	10+16.42	14.80	7.50	4.00	9.00	8.50	6.75	12.30
3	10+15.03	14.80	5.50	2.00	8.50	7.00	4.75	12.10
4	10+13.40	14.40	5.00	1.50	6.50	7.00	4.25	12.10

SCALE: 1" = 1'-0"

12" 0 1' 2' 3' 4' 5'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR GATE LATCHING DETAILS, SEE DWG. NO. 74.

FOR TYPICAL I-WALL CAP REINFORCING, SEE DWG. NO. 68.

VALUE ENGINEERING — YOUR KEY TO LOWER COSTS HIGHER PROFITS

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

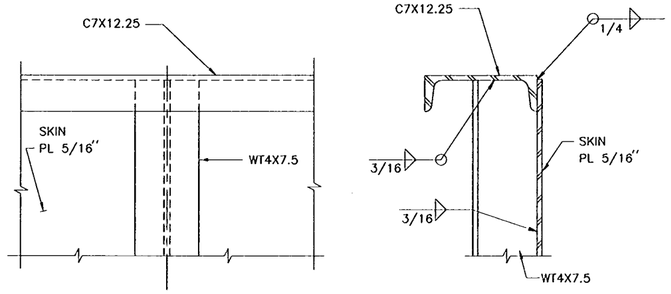
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FLOODWALL GATE - REINFORCING

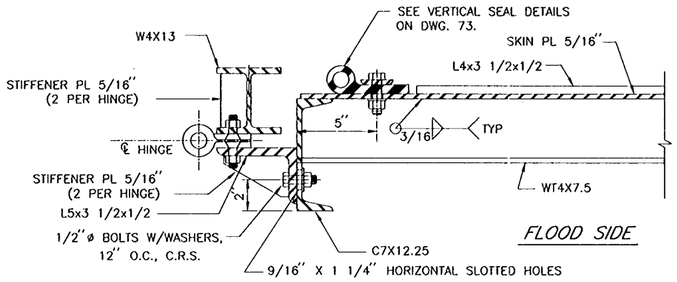
DESIGNED BY: N.P.	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT71.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)	SOLICITATION NO. DACW29-99-B-0008		DWG. 71 OF 93

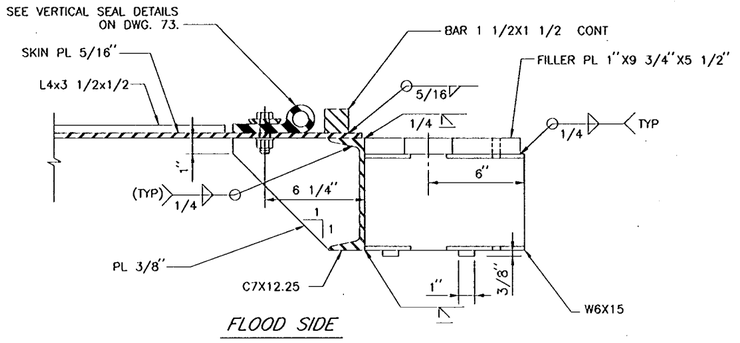
Safety is a Part of Your Contract

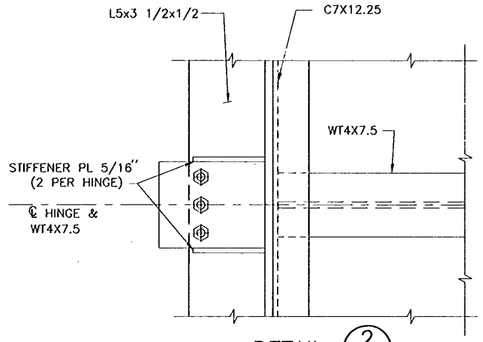


DETAIL 1/70/72

SCALE: 3" = 1'-0"

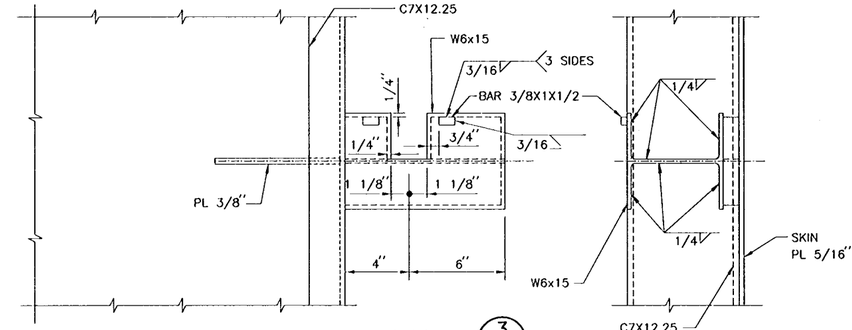






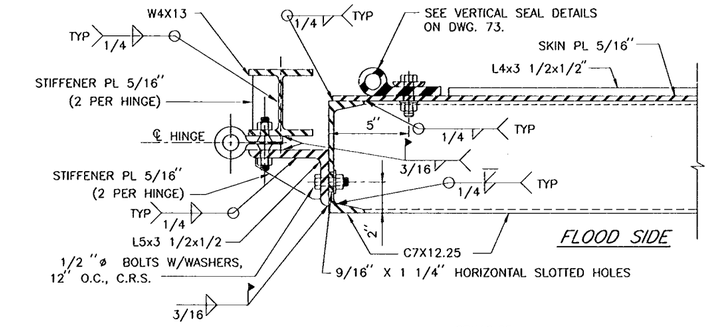
DETAIL 2/70/72

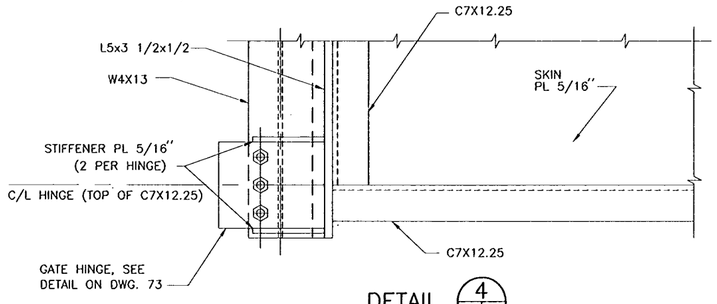
SCALE: 3" = 1'-0"



DETAIL 3/70/72

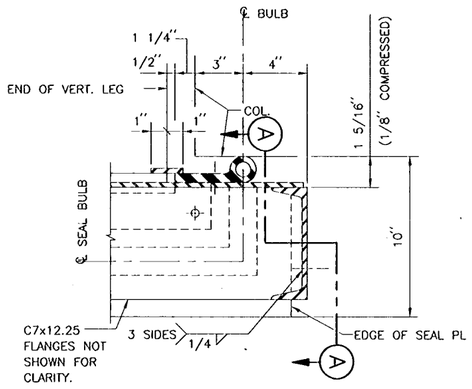
SCALE: 3" = 1'-0"

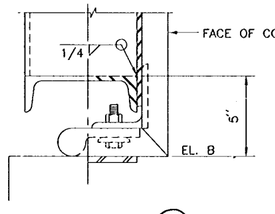




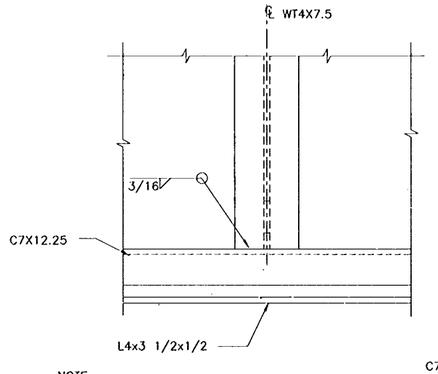
DETAIL 4/70/72

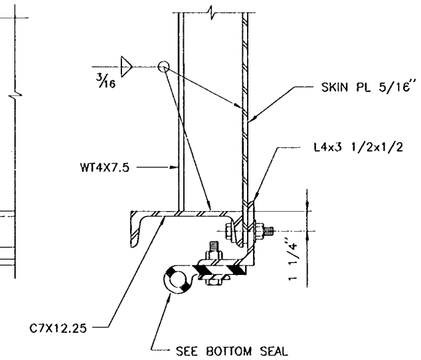
SCALE: 3" = 1'-0"





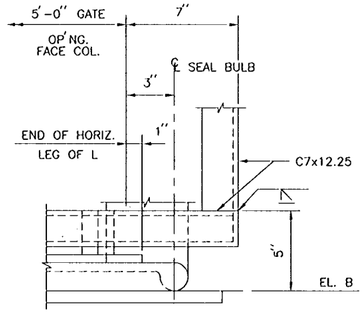
SECTION A





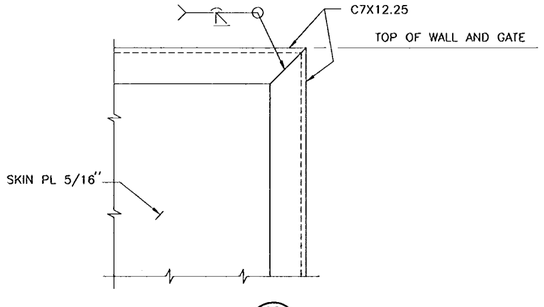
DETAIL 6/70/72

SCALE: 3" = 1'-0"



DETAIL 5/70/72

SCALE: 3" = 1'-0"



DETAIL 7/70/72

SCALE: 3" = 1'-0"

SCALE: 3" = 1' - 0"

12" 0 1'

VALUE INCENTIVE CLAUSES ENGINEERING YIELDS NEW TH HIGHER PROFITS

REFERENCE DRAWINGS:

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR GATE MONOLITH MASONRY DETAILS, SEE DWG. NO. 70.

FOR GATE SEAL DETAILS, SEE DWG. NO. 73.

FOR GATE LATCHING DETAILS, SEE DWG. NO. 74.

STATE OF LOUISIANA William D. Lancaster REG. NO. 22821 REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
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ORLEANS AVENUE OUTFALL CANAL
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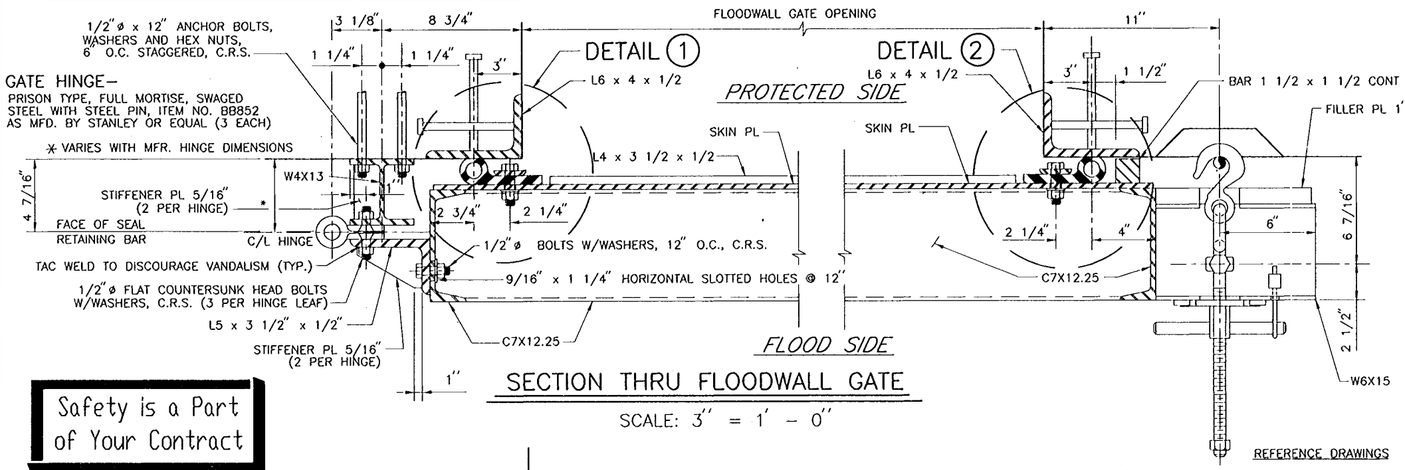
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FLOODWALL GATE-DETAILS

DESIGNED BY: N.P.	DATE: SEPT. 1998	PLOT SCALE: 4	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT72.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 72 OF 93



SECTION THRU FLOODWALL GATE

SCALE: 3" = 1' – 0"

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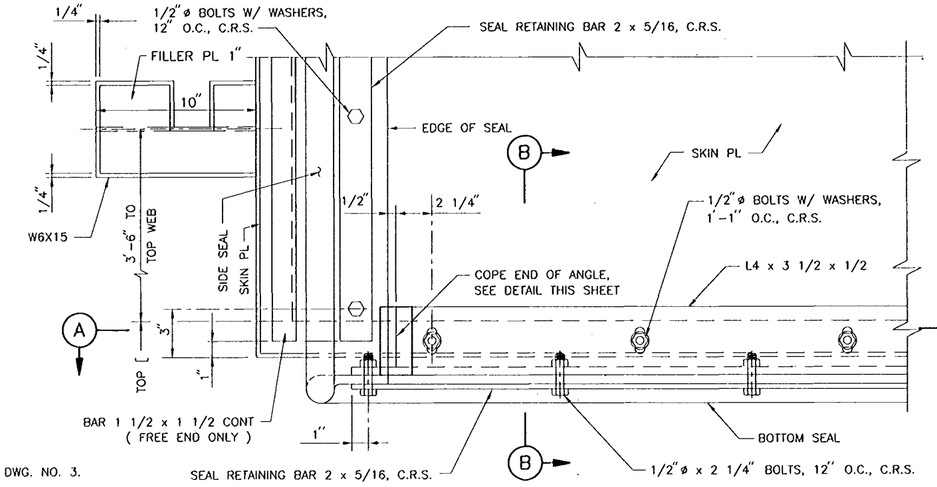


END ELEVATION – PROTECTED SIDE

SCALE: 3" = 1' – 0"

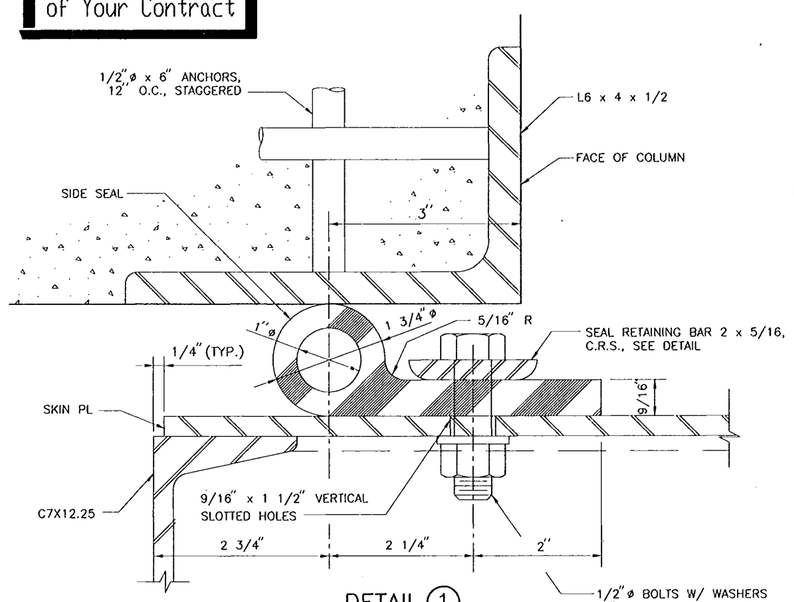
REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR FLOODWALL GATE–MASONRY, SEE DWG. NO. 70.

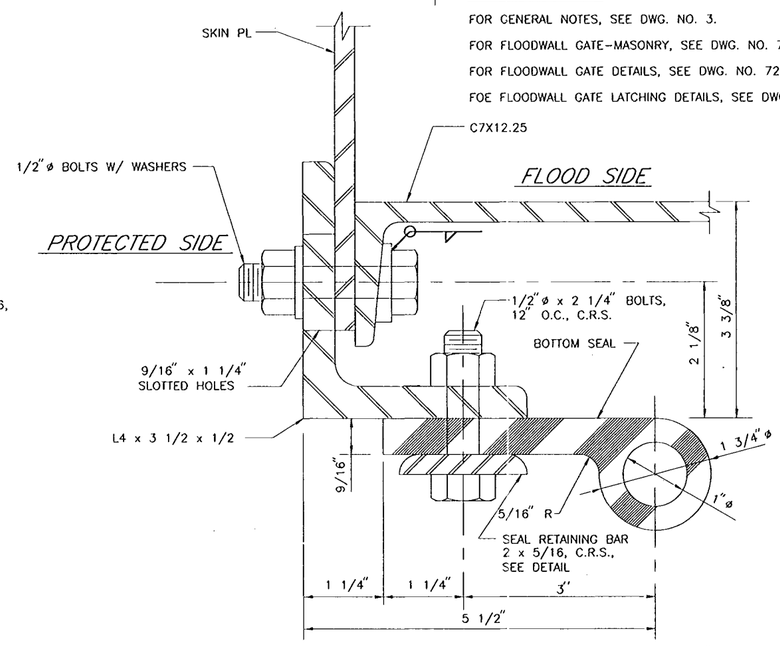
FOR FLOODWALL GATE DETAILS, SEE DWG. NO. 72.

FOE FLOODWALL GATE LATCHING DETAILS, SEE DWG. NO. 74.



DETAIL (1)

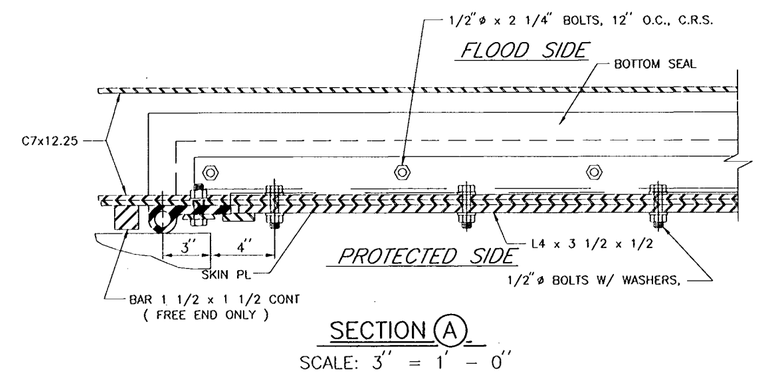
SCALE: 12" = 1' – 0"



NOTE: SEAL SET FOR 1/8" DEFLECTION.

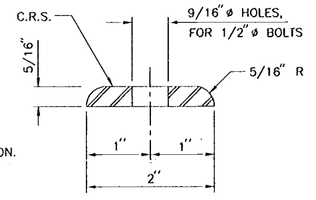
SECTION (B)

SCALE: 12" = 1' – 0"



SECTION (A)

SCALE: 3" = 1' – 0"



SEAL RETAINING BAR

SCALE: 12" = 1' – 0"

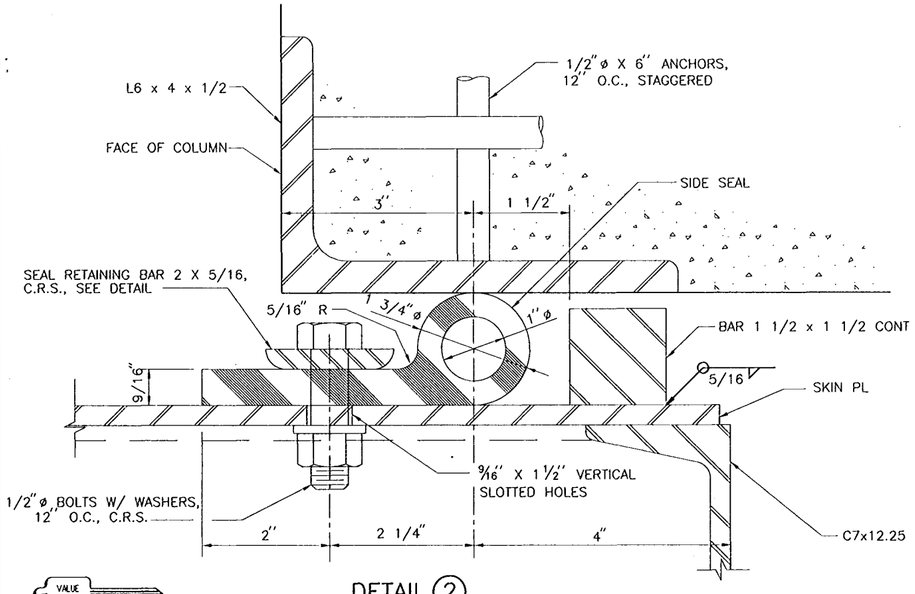
NOTES:
ALL WATERSTOP SPLICES WILL BE FACTORY MADE IN HEAVY STEEL PRESS TYPE MOLDS UNDER PRESSURE AND HEAT.
ALL WATERSTOP SPLICE JOINTS MUST DEVELOP STRENGTH OF AT LEAST 50% OF THE MINIMUM TENSILE STRENGTH REQUIRED OF THE RUBBER.
SEAL CLAMP ANGLES SHALL BE PAINTED ON ALL SIDES PRIOR TO ASSEMBLY.
AFTER ASSEMBLY AND SEAL ADJUSTMENTS ARE MADE, ALL GAPS IN SEALS AND SEAL SUPPORTS SHALL BE SEALED WITH A SILICONE RUBBER SEALANT TO PROVIDE WATERTIGHT JOINTS.

SCALE: 3" = 1' – 0"

12" 0 1'

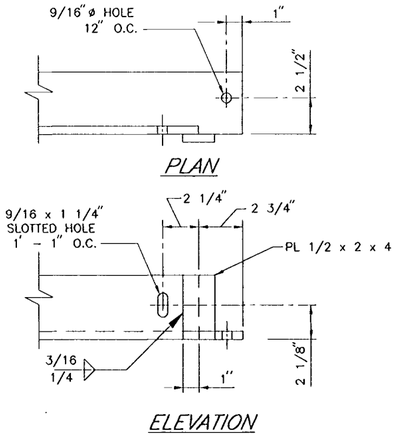
SCALE: 12" = 1' – 0"

6" 3" 0



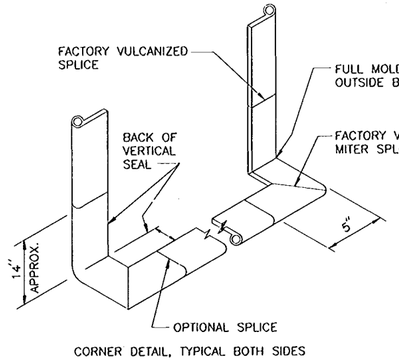
DETAIL (2)

SCALE: 12" = 1' – 0"



END OF L 4 X 3 1/2 X 1/2

SCALE: 3" = 1' – 0"



CORNER DETAIL, TYPICAL BOTH SIDES

FLOODWALL GATE SEAL

NOT TO SCALE

VALUE ENGINEERING – YOUR KEY TO HIGHER PROFITS

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
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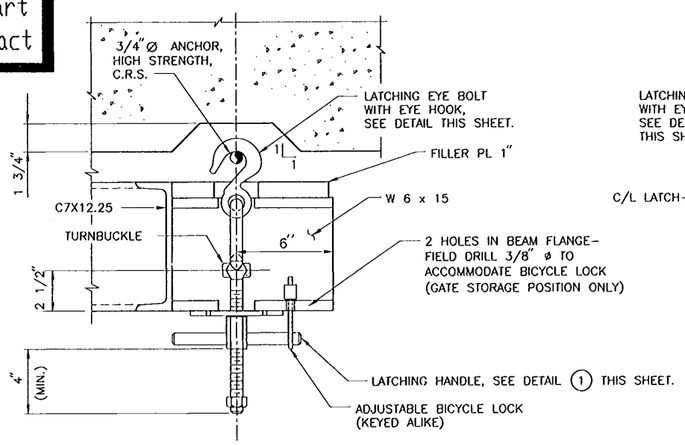
LOUISIANA

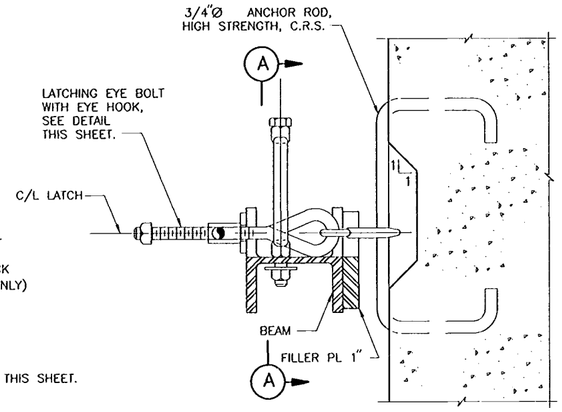
FILMORE AND HARRISON AVE. BRIDGES FLOODWALL GATE–SEAL DETAILS

DESIGNED BY: N.P.	DATE: SEPT. 1998	PLOT SCALE: 0.3333	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.	CADD FILE: SHT73.DGN		FILE NO. H-4-45050
CHECKED BY: W.D.L.			
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 73 OF 93

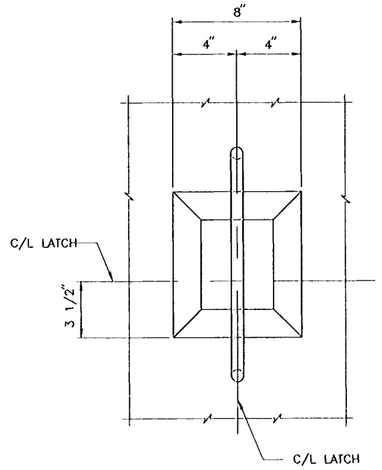
Safety is a Part of Your Contract

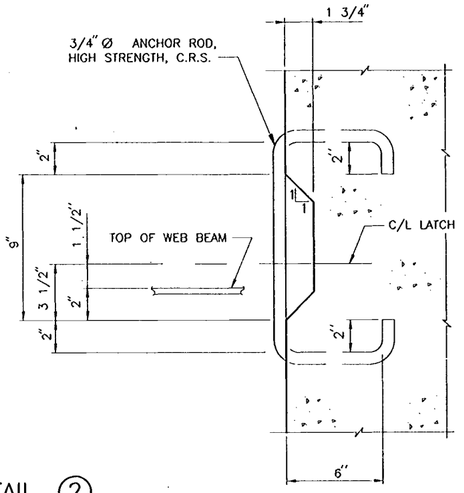


PLAN



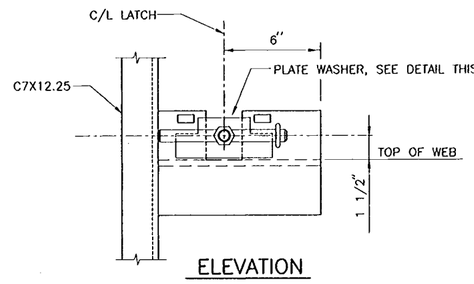
SECTION AT C/L OF LATCHING DEVICE



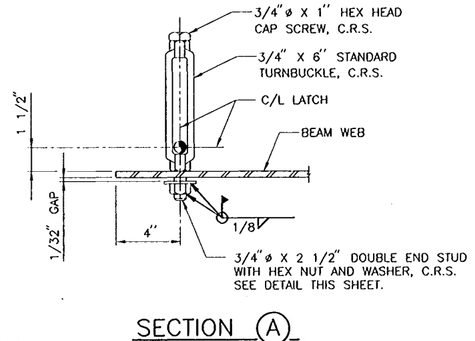


DETAIL (2)

SCALE: 3" = 1'-0"



ELEVATION

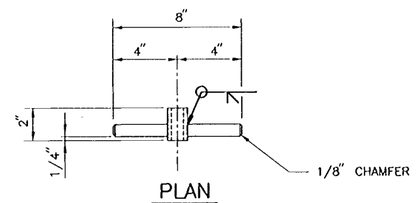


DETAIL (1)

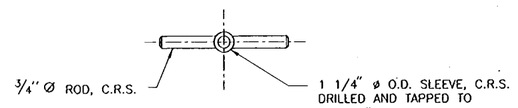
LATCHING DEVICE

SCALE: 3" = 1'-0"

SECTION (A)



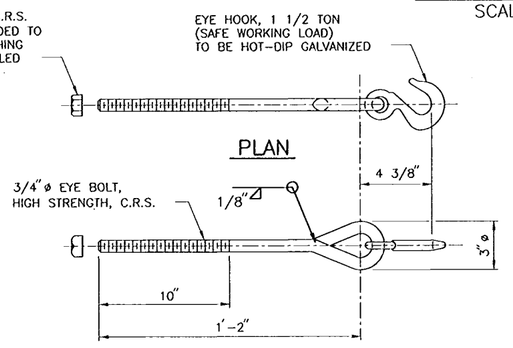
PLAN



ELEVATION

LATCHING HANDLE

SCALE: 3" = 1'-0"



PLAN

ELEVATION

LATCHING EYE BOLT WITH EYE HOOK

SCALE: 3" = 1'-0"

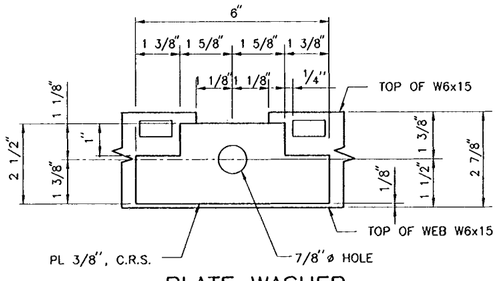
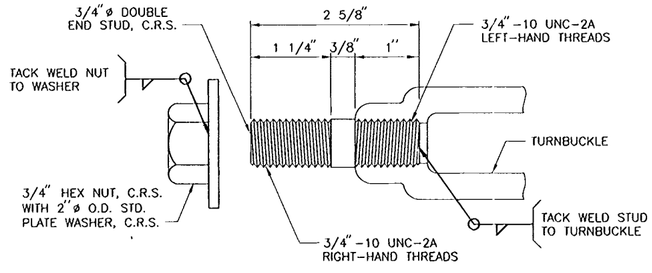


PLATE WASHER

SCALE: 6" = 1'-0"



DOUBLE END STUD

SCALE: 12" = 1'-0"

REFERENCE NOTES:

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR GATE MONOLITH MASONRY DETAILS, SEE DWG. NO. 70
FOR GATE DETAILS, SEE DWG. NO. 72
FOR GATE SEAL DETAILS, SEE DWG. NO. 73

SCALE: 3" = 1' - 0"

12" 0 1'

SCALE: 6" = 1' - 0"

6" 0 6"

SCALE: 12" = 1' - 0"

6" 3" 0

VALUE ENGINEERING — YOUR KEY TO CLIENTS HIGHER PROFITS

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
	REVISIONS		
1	AS BUILT	6/13/00	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
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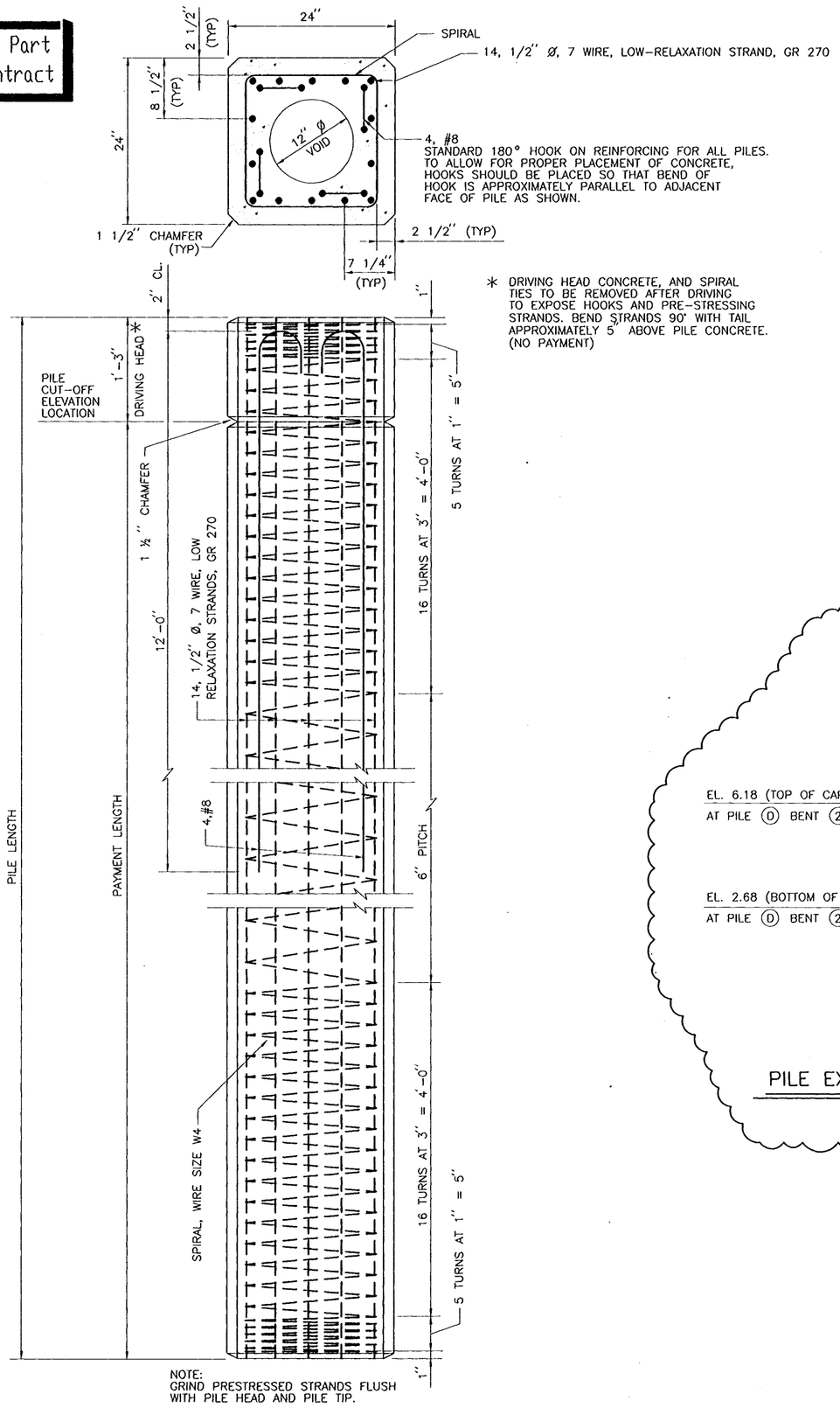
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES FLOODWALL GATE LATCHING DETAILS

DESIGNED BY: N.P. DRAWN BY: L.A.C. CHECKED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: .3333	PLOT DATE: SEPT. 1998
	CADD FILE: SHT74.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 74 OF 93

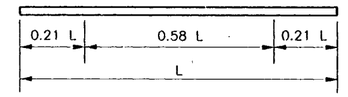
Safety is a Part of Your Contract



* DRIVING HEAD CONCRETE, AND SPIRAL TIES TO BE REMOVED AFTER DRIVING TO EXPOSE HOOKS AND PRE-STRESSING STRANDS. BEND STRANDS 90° WITH TAIL APPROXIMATELY 5" ABOVE PILE CONCRETE. (NO PAYMENT)

NOTE:
GRIND PRESTRESSED STRANDS FLUSH WITH PILE HEAD AND PILE TIP.

24" X 24" PRESTRESSED PRECAST CONCRETE PILE



2 POINT PICKUP (≤ 117') 24" X 24" PILE

NOTE: PICKUP POINTS TO BE PLAINLY MARKED ON PILES

△2 SEE BENT DETAILS AND PLAN AND ELEVATION DRAWINGS FOR PILE TIP ELEVATIONS AND LENGTHS.

FILMORE AVENUE BRIDGE
PILE SCHEDULE

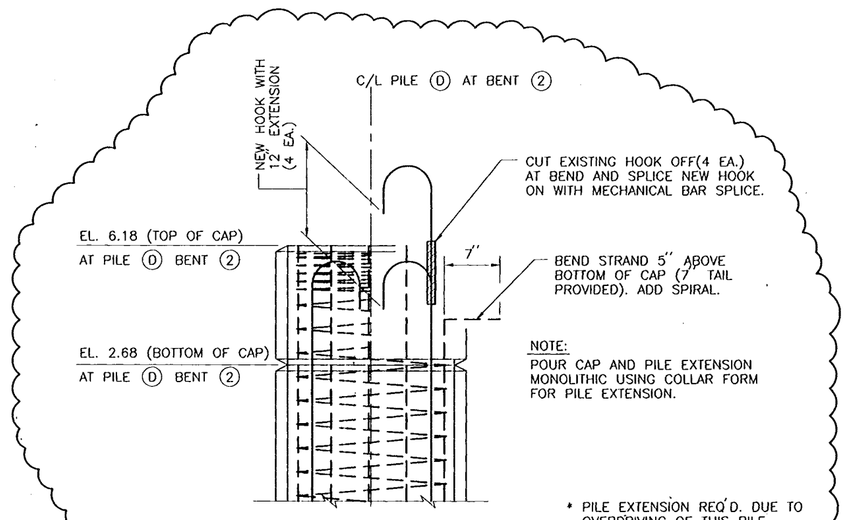
B/L STATIONS	PILE SIZE	NUMBER OF PILES	PILE LENGTH*	PILE BATTER
105+35.00 (BENT ②)	24" x 24"	5	93'	VERTICAL
		2	93'	12V on 1H
105+78.67 (BENT ③)	24" x 24"	5	93'	VERTICAL
		2	93'	12V on 1H
106+22.33 (BENT ④)	24" x 24"	5	92'	VERTICAL
		2	92'	12V on 1H

* PILE LENGTH INCLUDES 1'-3" DRIVING HEAD TO BE REMOVED

HARRISON AVENUE BRIDGE
PILE SCHEDULE

B/L STATIONS	PILE SIZE	NUMBER OF PILES	PILE LENGTH*	PILE BATTER
105+85.14 (BENT ②)	24" x 24"	4	83' △1	VERTICAL
		2	83' △1	12V on 1H
106+22.81 (BENT ③)	24" x 24"	4	83' △1	VERTICAL
		2	83' △1	12V on 1H
106+60.48 (BENT ④)	24" x 24"	4	83' △1	VERTICAL
		2	83' △1	12V on 1H

* PILE LENGTH INCLUDES 1'-3" DRIVING HEAD



* PILE EXTENSION REQ'D. DUE TO OVERDRIVING OF THIS PILE.

PILE EXTENSION AT PILE (D) BENT (2)* △2

SCALE: 1 1/2" = 1'-0"

NOTES:

1. PILES SHALL BE DRIVEN TO THE TOLERANCES SPECIFIED IN SECTION 02365 OF THE SPECIFICATIONS.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3
FOR HARRISON AVE. PLAN-PROFILE, SEE DWG. NO. 8
FOR FILMORE AVE. PLAN-PROFILE, SEE DWG. NO. 37
FOR HARRISON AVE. BENT DETAILS, SEE DWG. NO. 22
FOR FILMORE AVE. BENT DETAILS, SEE DWG. NO. 52

SYMBOL	DESCRIPTION	DATE	APPROVED
△2	AS BUILT	6/13/00	W.D.L.
△1	REVISED PILE LENGTHS - AMENDMENT NO. 0002	2-3-99	W.D.L.

REVISIONS

C•A•D

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES PRESTRESSED CONCRETE PILES

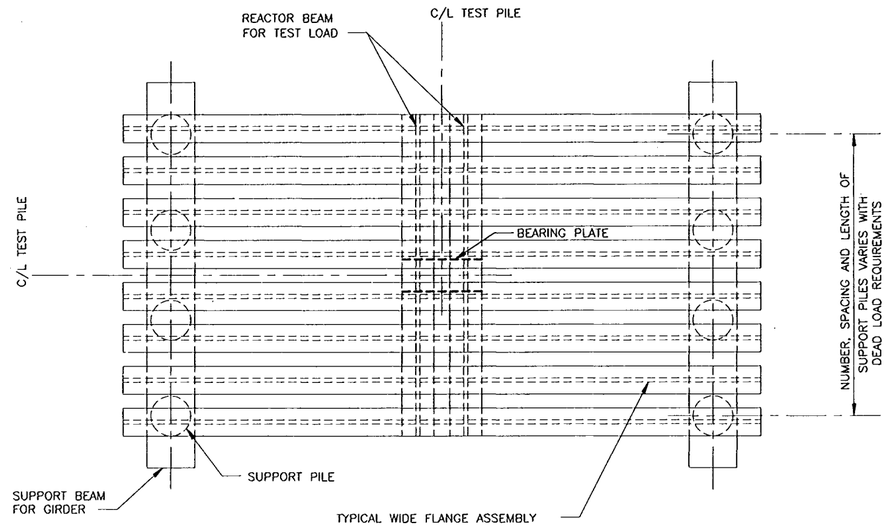
STATE OF LOUISIANA
William D. Lancaster
No. 22621
REGISTERED PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 8	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT75.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 75 OF 93

VALUE INCENTIVES CHANGES ENGINEERING — YOUR KEY TO HIGHER PROFITS

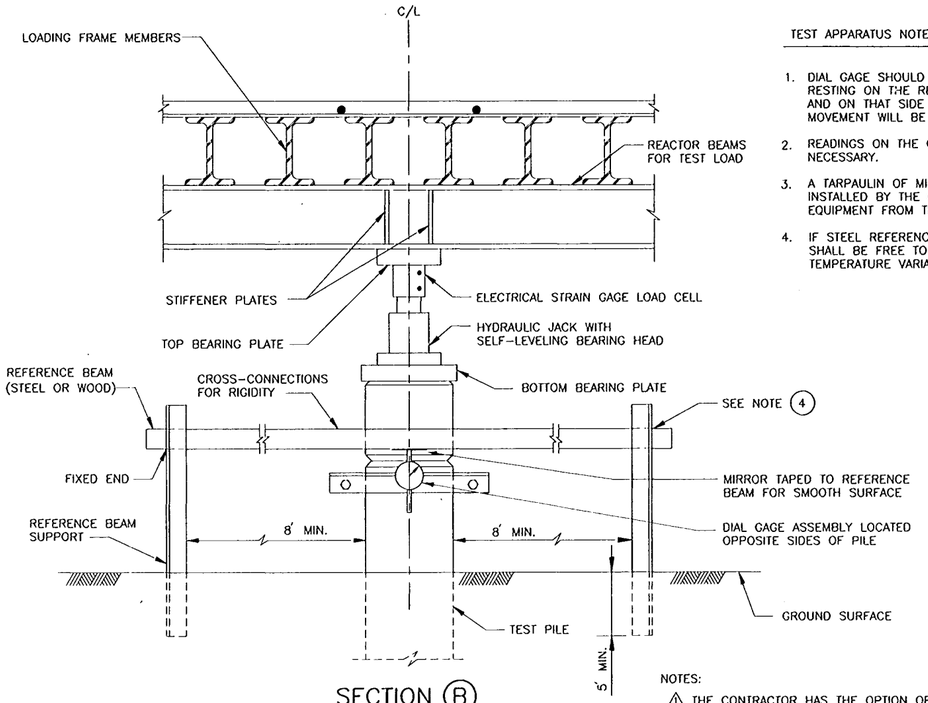
Safety is a Part of Your Contract



PLAN

LOADING FRAME NOTES:

1. LOADING FRAME SHOWN WITHOUT DEAD LOAD.
2. CONTRACTOR TO PROVIDE PILE LAYOUT FOR EACH PARTICULAR DEAD LOAD TEST.
3. SECURE DEAD WEIGHT LOAD TO LOADING FRAME WITH CHAINS AND BINDERS.



SECTION (B)

TEST APPARATUS

SCALE: 1'' = 1'– 0''

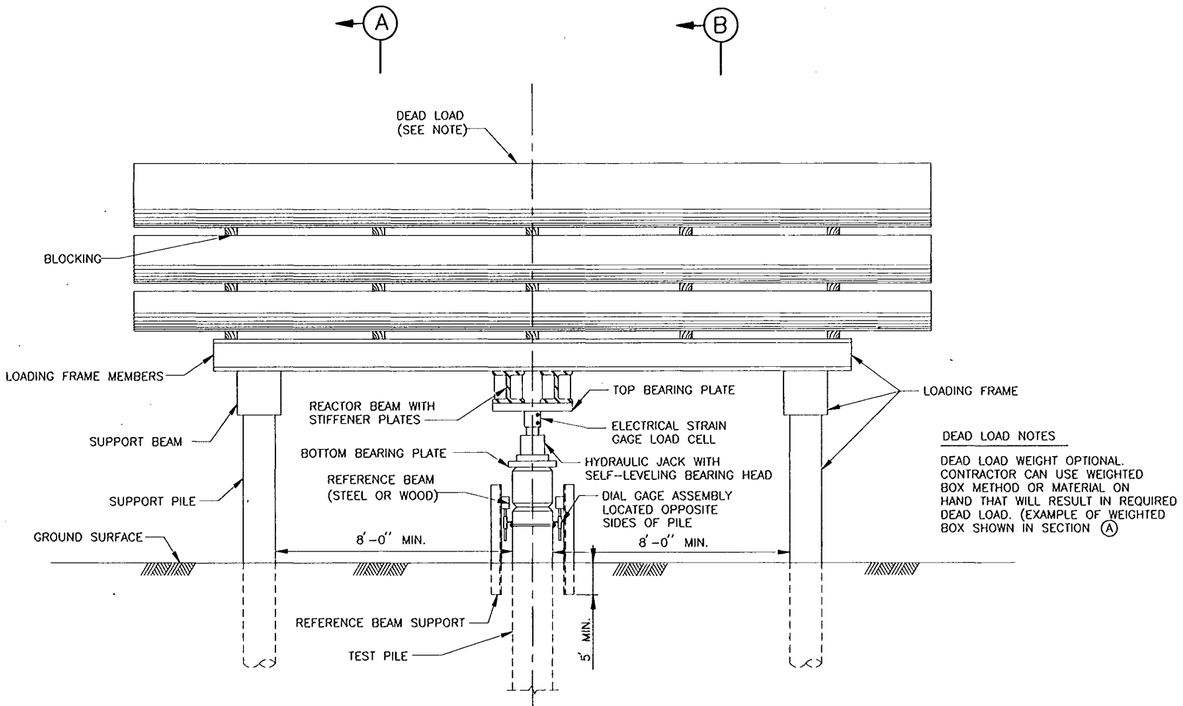
TEST APPARATUS NOTES:

1. DIAL GAGE SHOULD BE ATTACHED TO THE PILE WITH THE STEM RESTING ON THE REFERENCE BEAM IN THE COMPRESSED POSITION AND ON THAT SIDE OF THE REFERENCE BEAM WHERE THE MOVEMENT WILL BE AWAY FROM THE BEAM.
2. READINGS ON THE OPPOSITE SIDES OF THE PILE ARE NECESSARY.
3. A TARPAULIN OF MINIMUM DIMENSION 12' X 12' SHALL BE INSTALLED BY THE CONTRACTOR TO PROTECT THE MEASURING EQUIPMENT FROM THE DIRECT EFFECTS OF THE WEATHER.
4. IF STEEL REFERENCE BEAMS ARE USED, ONE END OF EACH BEAM SHALL BE FREE TO MOVE AS THE LENGTH OF BEAMS CHANGE WITH TEMPERATURE VARIATIONS.

NOTES:

⚠ THE CONTRACTOR HAS THE OPTION OF USING REACTION PILES IN LIEU OF THE LOADING FRAME.

DESIGN OF THE LOADING FRAME, TEST APPARATUS AND REACTION PILE SET-UP, IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE SUBMITTED FOR APPROVAL BY THE CONTRACTING OFFICER.



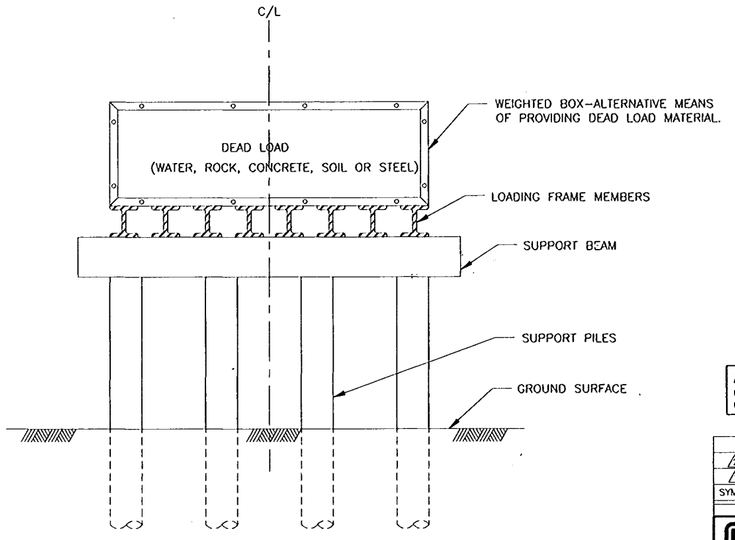
ELEVATION

LOADING FRAME

SCALE: 1/2 '' = 1'– 0''

DEAD LOAD NOTES

DEAD LOAD WEIGHT OPTIONAL. CONTRACTOR CAN USE WEIGHTED BOX METHOD OR MATERIAL ON HAND THAT WILL RESULT IN REQUIRED DEAD LOAD. (EXAMPLE OF WEIGHTED BOX SHOWN IN SECTION (A)



SECTION (A)

SCALE: 1/2 '' = 1'– 0''

THIS DRAWING IS FOR ILLUSTRATION PURPOSES ONLY

REFERENCE DRAWINGS

FOR PILE TYPE, LOCATION AND TIP ELEVATION, SEE DWG. NOS. 9 AND 38.

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 5/13/00

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
2	AS BUILT	6/13/00	W.D.L.
1	REVISED NOTE – AMENDMENT NO. 0002	2-3-99	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
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ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES COMPRESSION PILE TEST

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 12	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: W.D.L.	CADD FILE: SHT75A.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)	SOLICITATION NO. DACW29-99-B-0008		DWG. 75A OF 93

SCALE: 1/2 '' = 1'– 0''

12'' 0 2' 4' 6' 8'

SCALE: 1'' = 1'– 0''

12'' 0 1' 2' 3' 4' 5'

VALUE INCENTIVE CLAUSES — YOUR KEY TO HIGHER PROFITS — ENGINEERING

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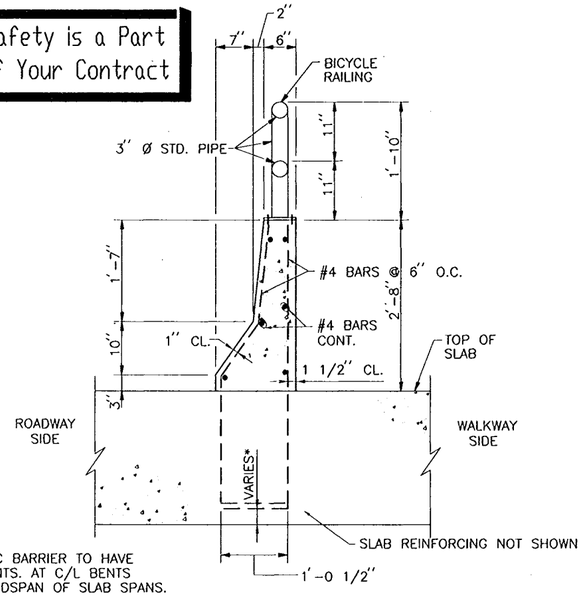
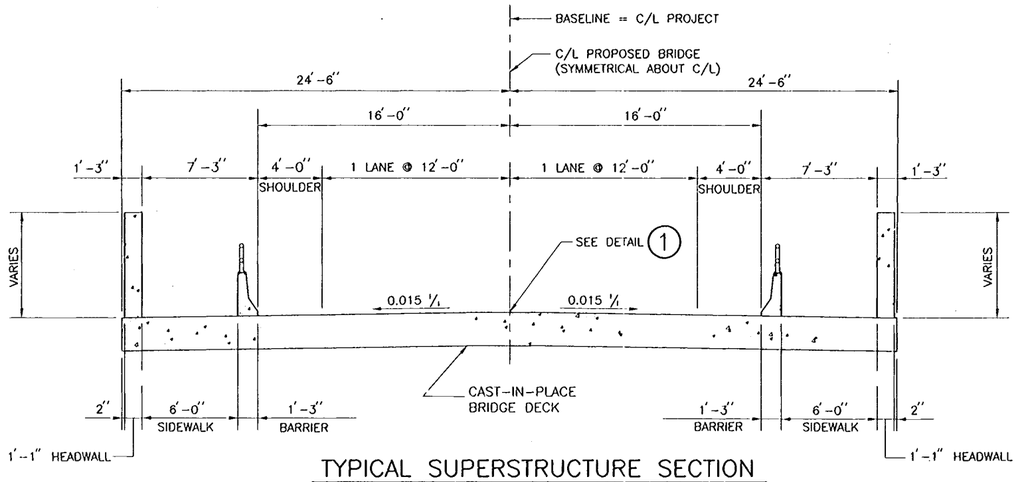


NOTE:
TRAFFIC BARRIER TO HAVE 1/2" JNTS. AT C/L BENTS AND MIDSPAN OF SLAB SPANS.

TRAFFIC BARRIER DETAIL

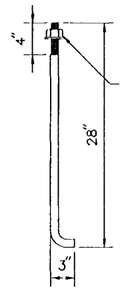
SCALE: 1" = 1'-0"



TYPICAL SUPERSTRUCTURE SECTION

SCALE: 1/4" = 1'-0"

*NOTE:
BRIDGE FLOODWALL AND BARRIER REINFORCING STEEL TO BE PLACED ON TOP OF PRIMARY SLAB REINFORCEMENT. SEE DWG. NOS. 24, 25, 26, 27, 54, 55, 56 AND 57 FOR REINFORCING.



1" DIA H.D.G. ANCHOR BOLT DETAIL

(24 REQUIRED)

SCALE: 1 1/2" = 1'-0"

NOTE:
ANCHOR BOLT LAYOUT AND PROJECTION PER LIGHT POST MANUFACTURER

REFERENCE DRAWINGS

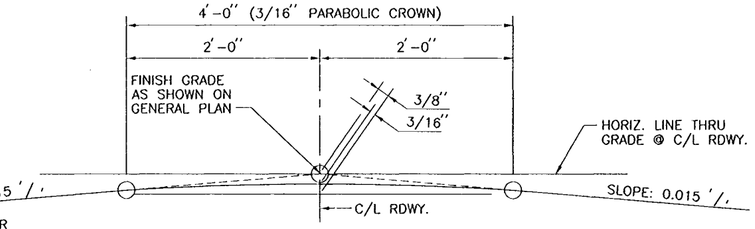
FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR HARRISON AVE. BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 18.

FOR HARRISON AVE. BRIDGE SLAB DETAILS, SEE DWG. NOS. 24, 25, 26 AND 27.

FOR FILMORE AVE. BRIDGE PLAN AND ELEVATION, SEE DWG. NO. 47.

FOR FILMORE AVE. BRIDGE SLAB DETAILS, SEE DWG. NOS. 54, 55, 56 AND 57.

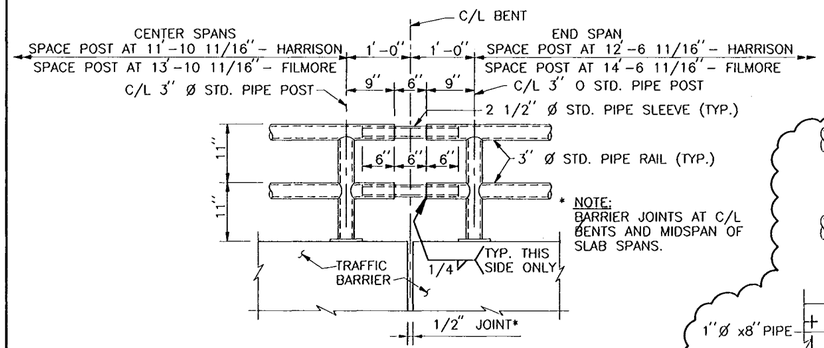


DETAIL (1)

TWO WAY TANGENT CROWN PARABOLIC CROWN DETAIL

N.T.S.

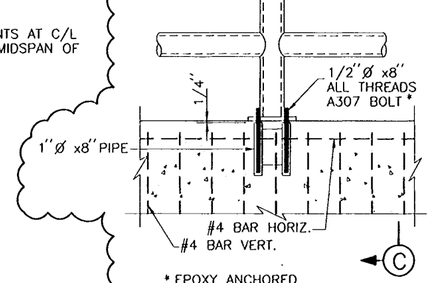
NOTE:
LIGHT POST ANCHOR BOLTS NOT SHOWN FOR CLARITY. SEE ANCHOR BOLT DETAILS THIS SHEET.



* NOTE:
BARRIER JOINTS AT C/L BENTS AND MIDSPAN OF SLAB SPANS.

BICYCLE RAILING JOINT

SCALE: 1" = 1'-0"

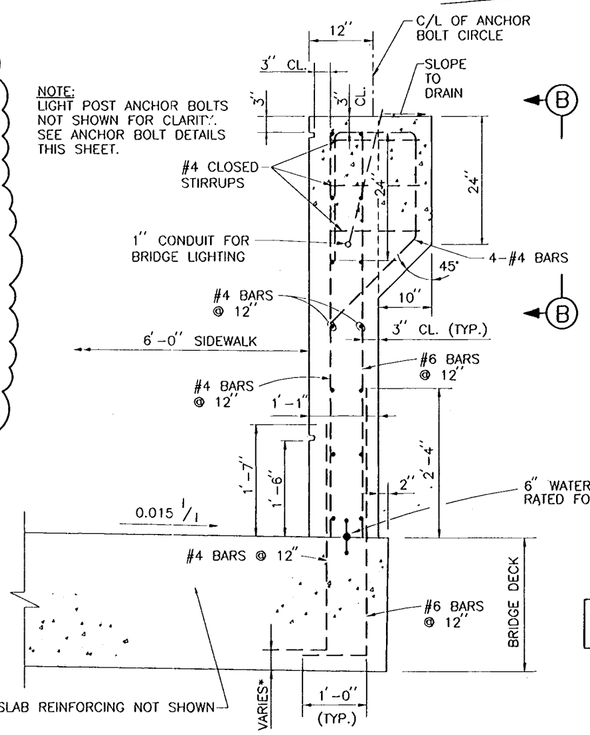


* EPOXY ANCHORED

ANCHOR BOLT SLEEVE

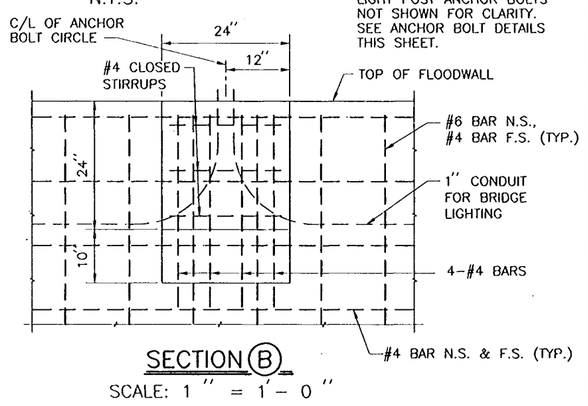
SCALE: 1 1/2" = 1'-0"

NOTE:
LIGHT POST ANCHOR BOLTS NOT SHOWN FOR CLARITY. SEE ANCHOR BOLT DETAILS THIS SHEET.



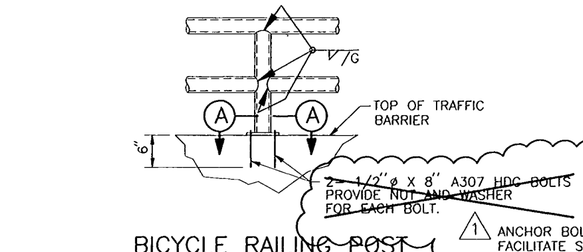
TYPICAL BRIDGE FLOODWALL DETAIL INCLUDING LIGHT POST CORBEL

SCALE: 1" = 1'-0"



SECTION (B)

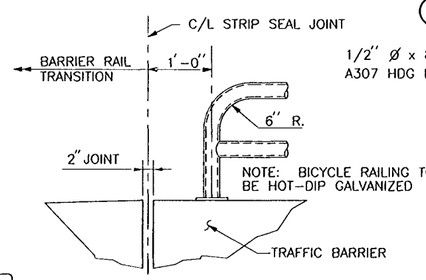
SCALE: 1" = 1'-0"



1 ANCHOR BOLTS MODIFIED TO FACILITATE SLIP FORMING. SEE DETAILS THIS SHEET.

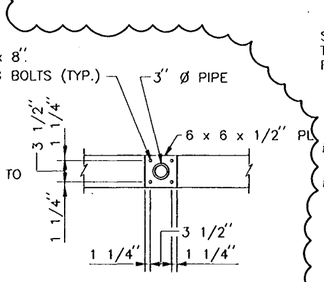
BICYCLE RAILING POST

SCALE: 1" = 1'-0"



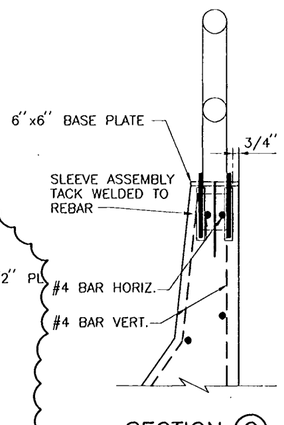
END OF RAILING

SCALE: 1" = 1'-0"



SECTION (A)

SCALE: 1" = 1'-0"



SECTION (C)

SCALE: 1 1/2" = 1'-0"

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SCALE: 1/4" = 1'-0"

12"0 5' 10' 15' 20'

SCALE: 1" = 1'-0"

12" 0 1' 2' 3' 4' 5'

SCALE: 1 1/2" = 1'-0"

12" 0 1' 2' 3' 4' 5'

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

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ORLEANS LEVEE BOARD
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PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES TYPICAL SUPERSTRUCTURE SECTION

DESIGNED BY: W.D.L.	DATE: SEPT. 1998	PLOT SCALE: 48	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: P.J.H.	CADD FILE: SHT76.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 76 OF 93

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

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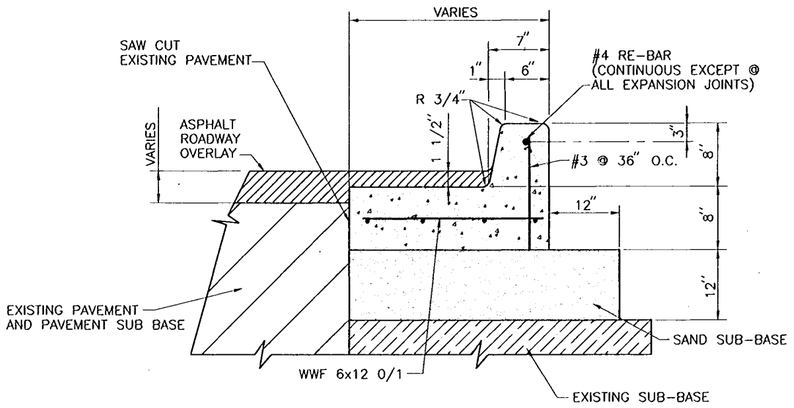
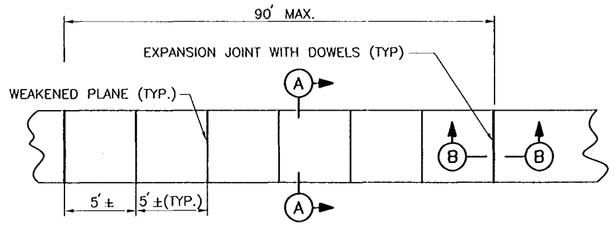


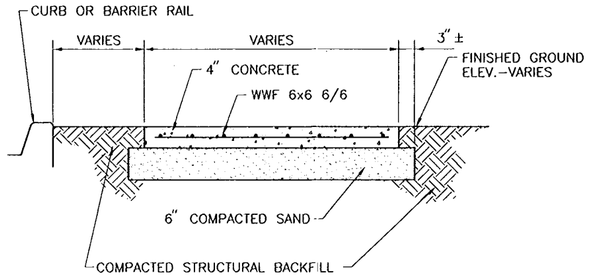
PAVEMENT WITH INTEGRAL BARRIER CURB & GUTTER

N.T.S.

NOTE: PAVEMENT WITH CURB TO HAVE JOINTS AT 20' MAXIMUM INTERVALS



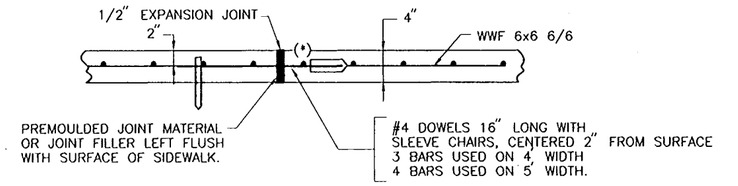
PLAN



SECTION (A)

NOTES:

1. REQUIRED WALKS TO BE CONSTRUCTED TO GRADES AS SHOWN ON ROADWAY ELEVATIONS DWG. NOS. 23 AND 53.

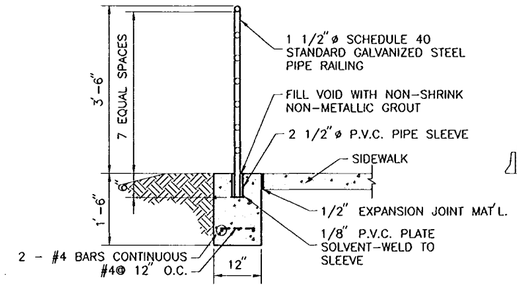


(*)THIS HALF OF DOWEL SHALL BE GREASED UNLESS PLASTIC OR EPOXY COATED DOWEL IS USED

SECTION (B)

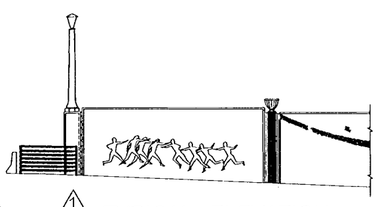
PORTLAND CEMENT CONCRETE SIDEWALK PAVEMENT

N.T.S.



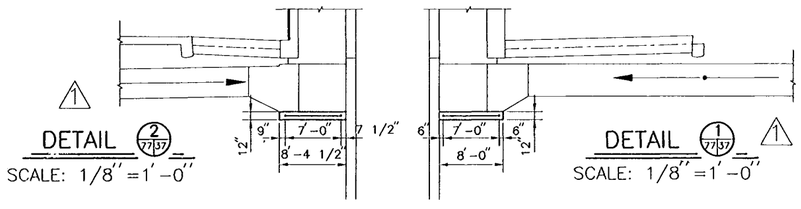
1 TYPICAL SECTION

SCALE: 3/4" = 1'-0"



1 TYPICAL ELEVATION

SCALE: 1/8" = 1'-0"

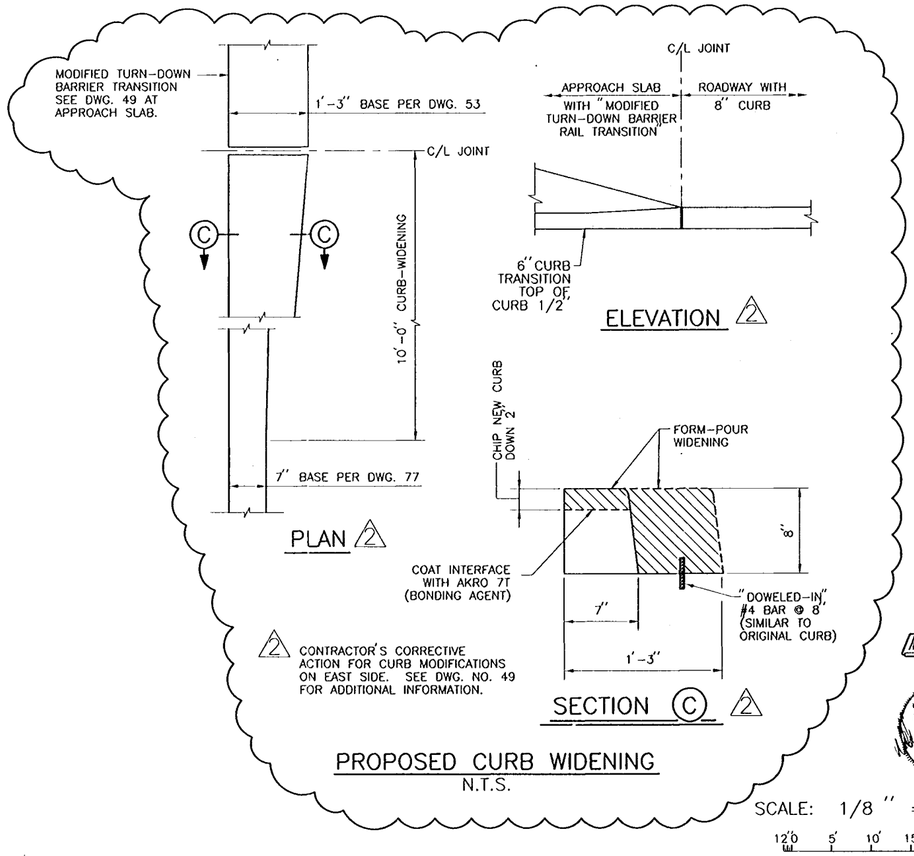


1 DETAIL (2/77/37)

SCALE: 1/8" = 1'-0"

1 DETAIL (1/77/37) 1

SCALE: 1/8" = 1'-0"



PROPOSED CURB WIDENING

N.T.S.

SCALE: 1/8" = 1'-0"

12"0 5' 10' 15' 20'

SCALE: 3/4" = 1'-0"

12" 0 1' 2' 3' 4' 5'

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR HARRISON AVE. PLAN-PROFILE, SEE DWG. NO. 8.

FOR FILMORE AVE. PLAN-PROFILE, SEE DWG. NO. 37.

FOR HARRISON AVE. ROADWAY AND SIDEWALK ELEVATIONS, SEE DWG. NO. 23.

FOR FILMORE AVE. ROADWAY AND SIDEWALK ELEVATIONS, SEE DWG. NO. 53.

FOR HARRISON AVE. TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 29.

FOR FILMORE AVE. TYPICAL ROADWAY SECTIONS, SEE DWG. NO. 59.

THIS PLAN ACCOMPANIES MODIFICATION P0000 TO CONTRACT NUMBER DACW29-99-B-0008

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
2	AS BUILT	6/13/00	W.D.L.
1	HANDRAILS PLAN, SECTION, AND DETAILS	4/28/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
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HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES TYPICAL ROADWAY AND SIDEWALK DETAILS

DESIGNED BY: P.J.H.
DRAWN BY: L.A.C.
CHECKED BY: W.D.L.
SUBMITTED BY: HARTMAN ENGINEERING
DESIGN ENGINEER

DATE: SEPT. 1998
PLOT SCALE: 1
PLOT DATE: SEPT. 1998
CADD FILE: SHT77.DGN
FILE NO. H-4-45050
SOLICITATION NO. DACW29-99-B-0008
DWG. 77 OF 93

VALUE INCENTIVE CLAUSES — YOUR KEY TO HIGHER PROFITS — ENGINEERING

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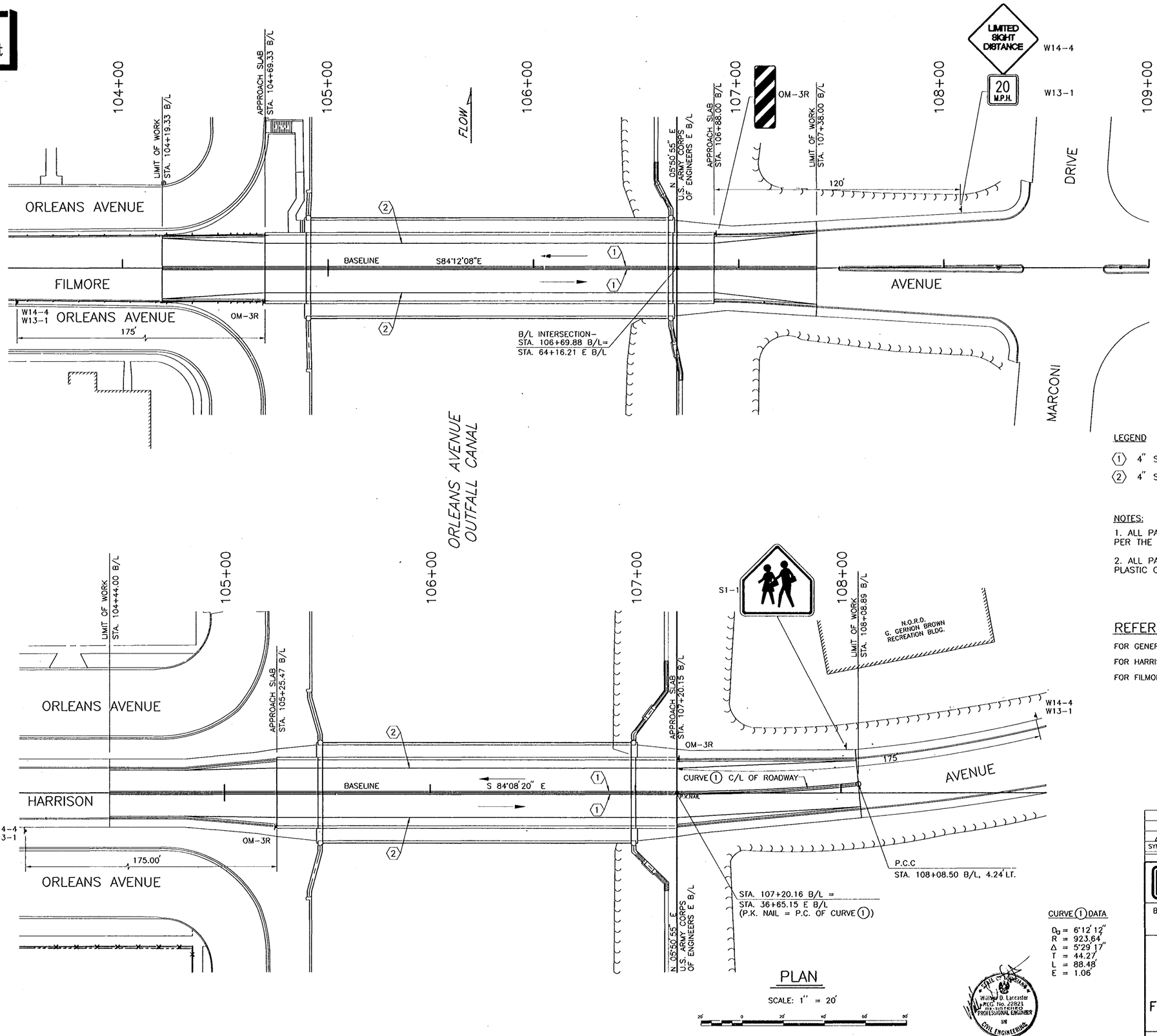


PLAN

SCALE: 1" = 20'

LEGEND

(1) 4" SOLID YELLOW LINE

(2) 4" SOLID WHITE LINE

NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE INSTALLED AS PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

2. ALL PAVEMENT MARKINGS SHALL BE PREFORMED PLASTIC OR HOT APPLIED THERMO PLASTIC.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR HARRISON AVE. PLAN-PROFILE, SEE DWG. NO. 8.

FOR FILMORE AVE. PLAN-PROFILE, SEE DWG. NO. 37.

CURVE (1) DATA

D_D = 6°12'12"
R = 923.64'
Δ = 5°29'17"
T = 44.27'
L = 88.48'
E = 1.06'

Wilfred D. Lancaster
REG. No. 22821
PRE-NOTICED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS	HARTMAN ENGINEERING, INC.
ORLEANS LEVEE BOARD	CONSULTING ENGINEERS
NEW ORLEANS, LOUISIANA	KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES PERMANENT PAVEMENT MARKINGS

DESIGNED BY: P.J.H.	DATE: SEPT. 1998	PLOT SCALE: 20	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.	CADD FILE: SHT78.DWG		FILE NO. H-4-45050
CHECKED BY: W.D.L.	SOLICITATION NO. DACW29-99-B-0008		DWG. 78 OF 93
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER			

VALUE ENGINEERING — YOUR KEY TO HIGHER PROFITS

Safety is a Part of Your Contract

SUMMARY OF PAVEMENT CORES

CORING NO. B-1

SCALE IN INCHES	SYMBOL	VISUAL CLASSIFICATION	USC
0		6" ASPHALT	
10		LOOSE TAN FINE SAND W/ SHELL FRAGMENTS	SP
20		SOFT GRAY SANDY CLAY W/SHELL AND BRICK FRAGMENTS	CL
30			
40		MEDIUM STIFF GRAY CLAY W/BRICK AND SHELL FRAGMENTS	CH
50			
60			
70			
80			

CORING NO. B-2

SCALE IN INCHES	SYMBOL	VISUAL CLASSIFICATION	USC
0		6" ASPHALT	
10		LOOSE TAN FINE SAND W/ SHELL FRAGMENTS	SP
20		SOFT GRAY SANDY CLAY W/BRICK AND GRAVEL	CL
30		8" CONCRETE	
40		MEDIUM STIFF GRAY CLAY W/SHELL FRAGMENTS	CH
50			
60			
70			
80			

CORING NO. B-3

SCALE IN INCHES	SYMBOL	VISUAL CLASSIFICATION	USC
0		6" ASPHALT	
10		LOOSE TAN FINE SAND W/ SHELL FRAGMENTS	SP
20			
30			
40			
50			
60			
70			
80			

CORING NO. B-4

SCALE IN INCHES	SYMBOL	VISUAL CLASSIFICATION	USC
0		6" ASPHALT	
10		LOOSE TAN FINE SAND W/ SHELL FRAGMENTS	SP
20		MEDIUM STIFF GRAY CLAY W/SHELL FRAGMENTS	CH
30			
40			
50			
60			
70			
80			

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

C·A·D

NOTES

1. CORES TAKEN DECEMBER 23, 1997.
2. CORES TAKEN BY EUSTIS ENGINEERING.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR CORE LOCATIONS, SEE DWG. NOS. 9 AND 38.

SCALE: 1" = 5"

5" 0 5" 10" 15" 20"

LEGEND

SAND ASPHALT CLAY HUMUS SILT CONCRETE

PREDOMINANT TYPE SHOWN IN HEAVY.
MODIFYING TYPE SHOWN LIGHT.

STATE OF LOUISIANA
William O. Lancaster
REG. No. 29831
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

VALUE ENGINEERING: THINK KEY TO HIGHER PROFITS

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES CORING LOGS

DESIGNED BY: EUSTIS	DATE: SEPT. 1998	PLOT SCALE: 60	PLOT DATE: SEPT. 1998
DRAWN BY: L.A.C.			
CHECKED BY: W.D.L.	CADD FILE: SHT79.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 79 OF 93

Safety is a Part of Your Contract

BORING LOGS

BORING NO. 15
USACE E B/L STA. 37+54, 2′ LT.
GROUND ELEVATION +9.81 NGVD

SAMPLE NO.	SAMPLE DEPTH–FEET FROM	SAMPLE DEPTH–FEET TO	STRATUM FEET FROM	STRATUM FEET TO	VISUAL CLASSIFICATION	STANDARD PENETRATION TEST	
1	2.0	3.0	0.0		EXTREMELY STIFF TAN & GRAY SILTY CLAY W/SILT POCKETS		
2	5.0	6.0		7.5	EXTREMELY STIFF TAN & GRAY SILTY CLAY W/SILT POCKETS		
3	8.0	9.0	7.5	10.0	MEDIUM STIFF GRAY & TAN CLAY W/ORGANIC MATTER		
4	11.0	12.0	10.0	13.0	VERY SOFT GRAY CLAY W/ORGANIC MATTER & SILT		
5	14.0	15.0	13.0		SOFT GRAY CLAY W/HUMUS & WOOD		
6	19.0	20.0		27.0	SOFT GRAY CLAY W/HUMUS & WOOD		
7	27.5	29.0	27.0	30.0	LOOSE GRAY SAND W/SHELL FRAGMENTS		
8	30.0	31.5	30.00		MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	4	20
9	32.5	34.0			MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	5	16
10	35.0	36.5			MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	5	19
11	38.5	40.0			MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	9	27
12	43.5	45.0		47.5	MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	10	35
13	48.5	50.0	47.5	50.0	DENSE GRAY SAND W/SHELL FRAGMENTS	14	45

BORING NO. 16
STA. 105+13.68, 92.85′ LT.
GROUND ELEVATION −1.24 NGVD

SAMPLE NO.	SAMPLE DEPTH–FEET FROM	SAMPLE DEPTH–FEET TO	STRATUM FEET FROM	STRATUM FEET TO	VISUAL CLASSIFICATION	STANDARD PENETRATION TEST	
			0.0	1.00	ASPHALT, SAND & SHELLS		
1	2.5	3.0	1.0	4.0	MEDIUM STIFF BROWN & GRAY CLAY W/SHELLS & GRAVEL		
WOOD	4.0	5.5	4.0	5.5	WOOD		
2	5.5	6.0	5.5	7.0	SOFT BROWN HUMUS W/WOOD & ORGANIC CLAY LAYERS		
3	8.5	9.0	7.0	11.5	SOFT BROWN ORGANIC CLAY W/ROOTS & WOOD		
4	11.5	12.0	11.5	12.0	LOOSE GRAY SILTY SAND W/CLAY POCKETS & LAYERS		
5	12.0	13.5	12.0	17.5	VERY SOFT GRAY CLAY W/SAND LAYERS & POCKETS		
6	17.5	18.0	17.5		LOOSE GRAY SILTY SAND W/CLAY POCKETS		
7	18.0	19.5			LOOSE GRAY SILTY SAND W/CLAY POCKETS	2	9
8	20.5	22.0			LOOSE GRAY SILTY SAND W/CLAY POCKETS	3	9
9	23.5	25.0		26.0	LOOSE GRAY SILTY SAND W/CLAY POCKETS	3	13
10	26.0	27.5	26.0		MEDIUM DENSE GRAY SILTY SAND	2	15
11	28.5	30.0		33.5	MEDIUM DENSE GRAY SILTY SAND	6	23
12	33.5	35.0	33.5	35.0	VERY DENSE GRAY SILTY SAND	9	50=10″
13	38.5	40.0	35.0	43.5	LOOSE GREENISH–GRAY SILTY SAND	9	12
14	43.5	45.0	43.5		SOFT GRAY CLAY W/SAND POCKETS	1	2
15	49.5	50.0			MEDIUM STIFF GRAY CLAY W/SAND POCKETS & SAND		
16	54.5	55.0		57.0	MEDIUM STIFF GRAY CLAY		
17	59.5	60.0	57.0	60.0	STIFF GREENISH–GRAY & TAN CLAY		
18	60.0	61.0	60.0		MEDIUM DENSE GRAY SANDY SILT W/SHELL FRAGMENTS		
19	61.0	62.5			MEDIUM DENSE GRAY SANDY SILT	6	15
20	63.5	65.0			MEDIUM DENSE GRAY SANDY SILT	8	17
21	66.0	67.5			MEDIUM DENSE GRAY SANDY SILT	6	15
22	68.5	70.0			MEDIUM DENSE GRAY SANDY SILT	5	27
23	73.5	75.0		78.5	MEDIUM DENSE GRAY SANDY SILT	11	22
24	78.5	80.0	78.5	83.5	MEDIUM DENSE GRAY & TAN SANDY SILT W/CLAY LAYERS	6	22
25	83.5	85.0	83.5		STIFF GRAY CLAY W/SILT LAYERS	3	5
26	88.0	89.0			STIFF GRAY CLAY W/SILT LENSES		
27	93.0	94.0			STIFF GRAY CLAY W/SILT LENSES		
28	98.0	99.0		100.0	STIFF GRAY CLAY W/SILT LENSES		

BORING 15 LABORATORY TEST RESULTS

SAMPLE NO.	DEPTH IN FEET	CLASSIFICATION	WATER CONTENT PERCENT	DENSITY PCF DRY	DENSITY PCF WET	UNCONFINED COMPRESSIVE STRENGTH PSF
1	2.0	EXTREMELY STIFF TAN & GRAY SILTY CLAY	15.5	99.7	115.2	8425*
3	8.0	MEDIUM STIFF TAN & GRAY CLAY W/SILT POCKETS	28.5	86.6	111.3	1520*
4	11.0	VERY SOFT GRAY CLAY W/ORGANIC MATTER	52.7	66.4	101.5	410
5	14.0	SOFT GRAY CLAY W/ORGANIC MATTER & ROOTS	94.1	45.2	87.7	635

*UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION TEST–ONE SPECIMEN; CONFINED AT THE APPROXIMATE OVERBURDEN PRESSURE

BORING 16 LABORATORY TEST RESULTS

SAMPLE NO.	DEPTH IN FEET	CLASSIFICATION	WATER CONTENT PERCENT	DENSITY PCF DRY	DENSITY PCF WET	UNCONFINED COMPRESSIVE STRENGTH PSF
1	2.5	MEDIUM STIFF GRAY CLAY W/CLAYEY SAND LAYERS, SHELLS & ORGANIC MATTER (FILL)	33.1	–	–	–
2	5.5	SOFT BROWN HUMUS W/ORGANIC CLAY, DECAYED WOOD & ROOTS	276.4	18.1	68.3	730
3	8.5	VERY SOFT BROWN ORGANIC CLAY W/HUMUS LAYERS & DECAYED ROOTS	210.8	23.2	72.0	485
15	49.5	MEDIUM STIFF GRAY CLAY W/SAND POCKETS & SHELL FRAGMENTS	51.0	68.7	103.7	1350
17	59.5	STIFF GREENISH–GRAY & TAN CLAY W/SAND POCKETS	23.2	99.8	122.9	2965
26	88.0	STIFF GRAY CLAY W/SILT LENSES	48.2	72.8	107.9	2615
28	98.0	STIFF GRAY CLAY W/SILT LENSES	39.5	80.9	112.8	2550

VALUE INCENTIVE CLAUSES — YOUR KEY TO HIGHER PROFITS — ENGINEERING

NOTES

1. NUMBER IN FIRST STANDARD PENETRATION TEST COLUMN INDICATES NUMBER OF BLOWS OF 140–LB. HAMMER DROPPED 30 IN. REQUIRED TO SEAT 2–IN. O.D. SPLITSPOON SAMPLER 6 IN. NUMBER IN SECOND COLUMN INDICATES NUMBER OF BLOWS OF 140–LB HAMMER DROPPED 30 IN. REQUIRED TO DRIVE 2 IN. O.D. SPLITSPOON SAMPLER 1 FT. AFTER SEATING 6 IN.
2. BORING 15 WAS TAKEN AUGUST 31, 1985. BORING 16 WAS TAKEN SEPTEMBER 20, 1985.
3. BORINGS TAKEN BY EUSTIS ENGINEERING.

LEGEND

CLAY SILT SAND HUMUS

PREDOMINANT TYPE SHOWN IN HEAVY.
MODIFYING TYPE SHOWN LIGHT.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR USACE B/L INFORMATION, SEE DWG. NOS. 8 AND 37.

C·A·D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

SCALE: 1" = 5'
5' 0 5' 10' 15' 20'

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES BORING LOGS–1

DESIGNED BY: EUSTIS	DATE: SEPT. 1998	PLOT SCALE: 60	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			FILE NO. H-4-45050
CHECKED BY: P.J.H.	CADD FILE: SHT80.DGN		
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 80 OF 93

Safety is a Part of Your Contract

BORING LOGS

BORING NO. 25
USACE E B/L STA. 62+88, 1.5' RT.
GROUND ELEVATION +9.61 NGVD

SAMPLE NO.	SAMPLE DEPTH–FEET FROM	SAMPLE DEPTH–FEET TO	STRATUM FEET FROM	STRATUM FEET TO	VISUAL CLASSIFICATION	STANDARD PENETRATION TEST	
1	2.0	2.5	0.0		VERY STIFF TAN & GRAY SILTY CLAY W/CLAYEY SILT POCKETS		
2	5.0	5.5		7.0	VERY STIFF TAN & GRAY SILTY CLAY W/CLAYEY SILT POCKETS		
3	8.0	8.5	7.0	10.0	MEDIUM STIFF GRAY & TAN CLAY W/SILT POCKETS		
4	11.0	11.5	10.0		SOFT GRAY CLAY W/ORGANIC MATTER, HUMUS & WOOD		
5	14.0	14.5		15.0	SOFT GRAY CLAY W/ORGANIC MATTER, HUMUS & WOOD		
6	19.0	19.5	15.0	21.0	SOFT BLACK ORGANIC CLAY W/HUMUS & WOOD		
7	24.0	24.5	21.0	25.0	VERY SOFT GRAY SILTY CLAY W/ORGANIC MATTER & WOOD		
8	29.0	29.5	25.0	29.5	SOFT GRAY SANDY CLAY		
9	32.0	32.5	29.5	33.5	SOFT GRAY CLAY		
10	33.5	35.0	33.5	36.0	MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	7	21
11	36.0	37.5	36.0		VERY LOOSE GRAY CLAYEY SAND W/SHELLS	1	2
12	38.5	40.0		41.0	VERY LOOSE GRAY CLAYEY SAND W/SHELLS	1	3
13	41.0	42.5	41.0		MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	6	15
14	43.5	45.0			MEDIUM DENSE GRAY SANC W/SHELL FRAGMENTS	3	13
15	48.5	50.0		50.5	MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	3	11
16	53.5	55.0	50.5	56.0	MEDIUM STIFF GRAY CLAY W/SAND LAYERS	2	5
17	59.0	59.5	56.0		MEDIUM STIFF GRAY CLAY W/CLAYEY SAND POCKETS & SHELL FRAGMENTS		
18	64.0	64.5		66.0	MEDIUM STIFF GRAY CLAY W/CLAYEY SAND POCKETS & SHELL FRAGMENTS		
19	69.0	69.5	66.0	71.0	MEDIUM STIFF GRAY CLAY		
20	74.0	74.5	71.0	74.5	MEDIUM STIFF GREENISH–GRAY CLAY W/ORGANIC MATTER & SHELLS		
21	79.0	79.5	74.5	81.5	VERY STIFF GREENISH–GRAY CLAY W/SILT POCKETS		
22	84.5	85.5	81.5	86.0	STIFF GREENISH–GRAY & TAN SANDY CLAY		
23	89.0	89.5	86.0	91.0	STIFF TAN & GRAY CLAY W/SAND LAYERS		
24	94.0	94.5	91.0		STIFF TAN & GRAY CLAY W/SILT LENSES		
25	99.0	99.5		100.0	STIFF TAN & GRAY CLAY W/SILT LENSES		

BORING NO. 26
STA. 104+62.75, 143.03' RT.
GROUND ELEVATION −4.27 NGVD

SAMPLE NO.	SAMPLE DEPTH–FEET FROM	SAMPLE DEPTH–FEET TO	STRATUM FEET FROM	STRATUM FEET TO	VISUAL CLASSIFICATION	STANDARD PENETRATION TEST	
			0.00	1.25	CONCRETE, SAND & SHELL FILL		
1	3.0	4.0	1.25	4.0	WOOD, ORGANIC MATTER, CLAY & MISCELLANEOUS FILL		
	5.0	6.0	4.0	7.0	WOOD W/HUMUS & ORGANIC MATTER		
2	7.0	8.0	7.0	10.0	VERY SOFT BROWN HUMUS W/ORGANIC CLAY & ROOTS		
3	11.0	12.0	10.0	13.0	VERY SOFT GRAY CLAY W/CLAYEY SILT POCKETS & SHELL FRAGMENTS		
4	14.0	15.0	13.0	16.0	SOFT GRAY CLAY W/SILT POCKETS		
5	19.0	20.0	16.0	22.5	VERY SOFT GRAY CLAY W/SILT POCKETS		
6	24.0	25.0	22.5	25.0	VERY LOOSE GRAY CLAYEY SAND W/SHELL FRAGMENTS & CLAY POCKETS		
7	25.0	26.5	25.0	27.0	VERY LOOSE GRAY SAND W/SHELL FRAGMENTS	1	4
8	27.5	29.0	27.0		MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	4	20
9	29.5	31.0			MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	4	19
10	33.0	34.5		35.5	MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	4	19
11	35.5	37.0	35.5	38.0	LOOSE GRAY SAND W/SHELL FRAGMENTS	2	8
12	38.5	40.0	38.0	42.0	SOFT GRAY CLAY W/SAND POCKETS & SHELL FRAGMENTS	1	3
13	44.0	45.0	42.0		MEDIUM STIFF GRAY CLAY W/SAND POCKETS & SHELL FRAGMENTS		
14	49.0	50.0		50.0	MEDIUM STIFF GRAY CLAY W/SAND POCKETS & SHELL FRAGMENTS		

BORING 25 LABORATORY TEST RESULTS

SAMPLE NO.	DEPTH IN FEET	CLASSIFICATION	WATER CONTENT PERCENT	DENSITY PCF DRY	DENSITY PCF WET	UNCONFINED COMPRESSIVE STRENGTH PSF
2	5.0	VERY STIFF TAN & GRAY SILTY CLAY W/CLAYEY SILT POCKETS	25.2	93.3	116.9	4165*
3	8.0	MEDIUM STIFF TAN & GRAY CLAY W/CLAYEY SILT POCKETS	28.2	86.4	110.8	1000*
4	11.0	SOFT DARK GRAY SILTY CLAY W/ORGANIC MATTER & ROOTS	43.2	61.2	87.6	–
6	19.0	SOFT BLACK ORGANIC CLAY W/HUMUS, ROOTS & WOOD	198.7	24.4	73.0	540
7	24.0	SOFT GRAY SILTY CLAY W/MUCH ORGANIC MATTER & WOOD	76.4	50.3	88.6	500
9	32.0	SOFT GRAY CLAY W/SILT POCKETS	63.4	61.0	99.6	655
17	59.0	MEDIUM STIFF GRAY CLAY W/CLAYEY SAND POCKETS & SHELL FRAGMENTS	53.8	66.9	102.9	1350
19	69.0	MEDIUM STIFF GRAY CLAY	50.6	69.3	104.3	1125
21	79.0	VERY STIFF GREENISH–GRAY CLAY W/CLAYEY SILT POCKETS	19.5	105.7	126.3	4505
23	89.0	STIFF TAN & GRAY CLAY W/SILT POCKETS	33.3	86.1	114.8	2000*
25	99.0	STIFF GREENISH–GRAY & TAN CLAY W/SILT LENSES	37.9	82.5	113.7	2510

BORING 26 LABORATORY TEST RESULTS

SAMPLE NO.	DEPTH IN FEET	CLASSIFICATION	WATER CONTENT PERCENT	DENSITY PCF DRY	DENSITY PCF WET	UNCONFINED COMPRESSIVE STRENGTH PSF
2	7.0	VERY SOFT BROWN HUMUS W/ORGANIC CLAY & ROOTS	244.3	20.6	71.1	355
3	11.0	VERY SOFT GRAY CLAY W/CLAYEY SILT POCKETS & FEW SHELL FRAGMENTS	46.4	72.7	106.4	490
4	14.0	SOFT GRAY CLAY W/SILT POCKETS	68.5	58.5	98.6	530
5	19.0	VERY SOFT GRAY CLAY W/SILT POCKETS	86.8	51.9	96.9	390
6	24.0	VERY LOOSE GRAY CLAYEY SAND W/ CLAY POCKETS & SHELL FRAGMENTS	38.1	80.7	111.5	255*
14	49.0	MEDIUM STIFF GRAY CLAY W/SAND POCKETS & SHELL FRAGMENTS	54.0	68.1	104.9	1250

*UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION TEST– ONE SPECIMEN; CONFINED AT THE APPROXIMATE OVERBURDEN PRESSURE

NOTES

1. NUMBER IN FIRST STANDARD PENETRATION TEST COLUMN INDICATES NUMBER OF BLOWS OF 140–LB. HAMMER DROPPED 30 IN. REQUIRED TO SEAT 2–IN. O.D. SPLITSPOON SAMPLER 6 IN. NUMBER IN SECOND COLUMN INDICATES NUMBER OF BLOWS OF 140–LB HAMMER DROPPED 30 IN. REQUIRED TO DRIVE 2 IN. O.D. SPLITSPOON SAMPLER 1 FT. AFTER SEATING 6 IN.
2. BORING 25 WAS TAKEN SEPTEMBER 12, 1985. BORING 26 WAS TAKEN SEPTEMBER 20, 1985.
3. BORINGS TAKEN BY EUSTIS ENGINEERING.

LEGEND

CLAY SILT SAND HUMUS

PREDOMINANT TYPE SHOWN IN HEAVY.
MODIFYING TYPE SHOWN LIGHT.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.
FOR USACE B/L INFORMATION, SEE DWG. NOS. 8 AND 37.

SCALE: 1" = 5'
5' 0 5' 10' 15' 20'

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
BORING LOGS–2

STATE OF LOUISIANA
William D. Lancaster
Reg. No. 22821
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

DESIGNED BY: EUSTIS	DATE: SEPT. 1998	PLOT SCALE: 60	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: P.J.H.	CADD FILE: SHT81.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 81 OF 93

VALUE ENGINEERING CHANGE PROPOSALS CAN SAVE YOU HIGHER PROFITS

Safety is a Part of Your Contract

BORING LOGS

BORING NO. 27
USACE E B/L STA. 67+27, 5' RT.
GROUND ELEVATION +9.06 NGVD

SAMPLE NO.	SAMPLE DEPTH–FEET FROM	SAMPLE DEPTH–FEET TO	STRATUM FEET FROM	STRATUM FEET TO	VISUAL CLASSIFICATION	STANDARD PENETRATION TEST	
1	0.00	0.5	0.0	0.5	MEDIUM STIFF BROWN & GRAY CLAY W/FINE SAND POCKETS & GRASS ROOTS		
2	1.7	2.5	0.5	3.0	MEDIUM STIFF TAN & GRAY CLAY W/MANY FINE SAND POCKETS & LENSES		
3	4.7	5.5	3.0	5.5	MEDIUM COMPACT TAN & GRAY SANDY SILT W/THIN CLAY LAYERS		
4	7.7	8.5	5.5	9.0	MEDIUM STIFF TAN & GRAY CLAY		
5	10.7	11.5	9.0		STIFF GRAY CLAY W/FEW CLAYEY SILT POCKETS		
6	13.7	14.5		17.5	STIFF GRAY CLAY W/TRACE OF ORGANIC MATTER		
7	18.2	19.0	17.5	19.0	LOOSE GRAY CLAYEY SILT W/ORGANIC CLAY & HUMUS LAYERS		
8	23.2	24.0	19.0	25.0	LOOSE BROWN HUMUS W/ROOTS & ORGANIC CLAY LAYERS		
9	28.2	29.0	25.0		SOFT GRAY CLAY W/CLAYEY SILT LENSES & SHELL FRAGMENTS		
10	33.2	34.0		38.0	SOFT GRAY CLAY W/FEW SHELL FRAGMENTS		
11	38.2	39.0	38.0		DENSE GRAY SILTY SAND W/CLAY POCKETS & SHELL FRAGMENTS		
12	42.2	43.0		43.0	DENSE GRAY SILTY SAND W/CLAY POCKETS & SHELL FRAGMENTS		
13	43.5	45.0	43.0	46.0	MEDIUM DENSE GRAY FINE SAND W/SHELL FRAGMENTS	4	24
14	46.0	47.5	46.0		MEDIUM DENSE GRAY SILTY SAND W/SHELL FRAGMENTS	6	14
15	48.5	50.0		50.0	MEDIUM DENSE GRAY SILTY SAND W/SHELL FRAGMENTS	3	11

BORING NO. 28
STA. 104+63.16, 316.98' RT.
GROUND ELEVATION –5.48 NGVD

SAMPLE NO.	SAMPLE DEPTH–FEET FROM	SAMPLE DEPTH–FEET TO	STRATUM FEET FROM	STRATUM FEET TO	VISUAL CLASSIFICATION	STANDARD PENETRATION TEST	
			0.0	1.5	ASPHALT, CONCRETE, FILL (SAND & SHELLS)		
			1.5	4.0	MISCELLANEOUS FILL (WOOD, CLAY, ORGANIC, MATTER & SHELLS)		
1	4.5	5.5	4.0	6.0	EXTREMELY SOFT BLACK HUMAS W/ROOTS & WOOD		
2	7.5	8.5	6.0	8.5	EXTREMELY SOFT GRAY SILTY CLAY W/ORGANIC MATTER & WOOD		
3	11.0	12.0	8.5		VERY SOFT GRAY CLAY W/SOME ORGANIC MATTER		
4	14.0	15.0		16.0	VERY SOFT GRAY CLAY W/SOME ORGANIC MATTER		
5	19.0	20.0	16.0	24.0	VERY SOFT GRAY CLAY W/SILT LENSES		
6	24.0	25.0	24.0	27.0	SOFT GRAY SANDY CLAY W/SHELL FRAGMENTS		
7	27.0	28.5	27.0	29.5	LOOSE GRAY SAND W/SHELL FRAGMENTS	1	7
8	29.5	31.0	29.5		MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	5	17
9	32.5	34.0			MEDIUM DENSE GRAY SAND W/SHELL FRAGMENTS	4	14
10	35.0	36.5		38.0	MEDIUM DENSE GRAY SAND W/SOME CLAY	3	10
11	38.5	40.0	38.0	42.0	SOFT GRAY CLAY W/SAND POCKETS & SHELL FRAGMENTS	1	3
12	44.0	45.0	42.0		MEDIUM STIFF GRAY CLAY W/SAND POCKETS & SHELL FRAGMENTS		
13	49.0	50.0		50.0	MEDIUM STIFF GRAY CLAY W/SAND POCKETS & SHELL FRAGMENTS		

NOTES

1. NUMBER IN FIRST STANDARD PENETRATION TEST COLUMN INDICATES NUMBER OF BLOWS OF 140–LB. HAMMER DROPPED 30 IN. REQUIRED TO SEAT 2–IN. O.D. SPLITSPOON SAMPLER 6 IN. NUMBER IN SECOND COLUMN INDICATES NUMBER OF BLOWS OF 140–LB HAMMER DROPPED 30 IN. REQUIRED TO DRIVE 2 IN. O.D. SPLITSPOON SAMPLER 1 FT. AFTER SEATING 6 IN.
2. BORING 27 WAS TAKEN AUGUST 31, 1985. BORING 28 WAS TAKEN SEPTEMBER 19, 1985.
3. BORINGS TAKEN BY EUSTIS ENGINEERING.

LEGEND

CLAY SILT SAND HUMUS

PREDOMINANT TYPE SHOWN IN HEAVY.
MODIFYING TYPE SHOWN LIGHT.

BORING 27 LABORATORY TEST RESULTS

SAMPLE NO.	DEPTH IN FEET	CLASSIFICATION	WATER CONTENT PERCENT	DENSITY PCF DRY	DENSITY PCF WET	UNCONFINED COMPRESSIVE STRENGTH PSF
2	1.7	MEDIUM STIFF TAN & GRAY CLAY W/SILTY SAND LENSES, LAYERS & ROOTS	22.5	94.4	115.6	1065
3	4.7	MEDIUM COMPACT TAN & GRAY SANDY SILT W/SILTY CLAY LAYERS	22.2	93.6	114.4	1090*
4	7.7	MEDIUM STIFF GRAY & TAN CLAY W/SILT POCKETS	31.3	87.1	114.4	1275
6	13.7	STIFF GRAY CLAY W/SILT POCKETS	29.6	90.0	116.6	2145
7	18.2	LOOSE GRAY CLAYEY SILT	37.2	82.3	113.0	840*
8	23.2	LOOSE BROWN HUMUS W/ORGANIC CLAY LAYERS & ROOTS	235.8	19.7	66.0	745
9	28.2	SOFT GRAY CLAY W/SANDY SILT POCKETS & FEW SHELL FRAGMENTS	56.1	65.7	102.5	710
12	42.2	DENSE GRAY SILTY SAND W/TRACE OF CLAY & FEW SHELL FRAGMENTS	26.6	99.2	125.6	3695*

BORING 28 LABORATORY TEST RESULTS

SAMPLE NO.	DEPTH IN FEET	CLASSIFICATION	WATER CONTENT PERCENT	DENSITY PCF DRY	DENSITY PCF WET	UNCONFINED COMPRESSIVE STRENGTH PSF
1	4.5	EXTREMELY SOFT BROWN HUMUS W/ROOTS	138.5	35.3	84.1	110
2	7.5	EXTREMELY SOFT GRAY & BROWN SILTY CLAY W/ORGANIC MATTER & WOOD	61.4	60.4	97.5	180
4	14.0	VERY SOFT GRAY CLAY W/SHELL FRAGMENTS & FEW ROOTS	58.1	63.9	101.1	435
5	19.0	VERY SOFT GRAY CLAY W/SILT LENSES	74.9	54.2	94.8	415
12	44.0	MEDIUM STIFF GRAY CLAY W/SAND POCKETS	65.7	59.2	98.1	1215

*UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION TEST–
ONE SPECIMEN; CONFINED AT THE APPROXIMATE OVERBURDEN PRESSURE

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. NO. 3.

FOR USACE B/L INFORMATION, SEE DWG. NOS. 8 AND 37.

SCALE: 1" = 5'

5' 0 5' 10' 15' 20'

C•A•D

SYMBOL	DESCRIPTION	DATE	APPROVED
1	AS BUILT	6/13/00	W.D.L.

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

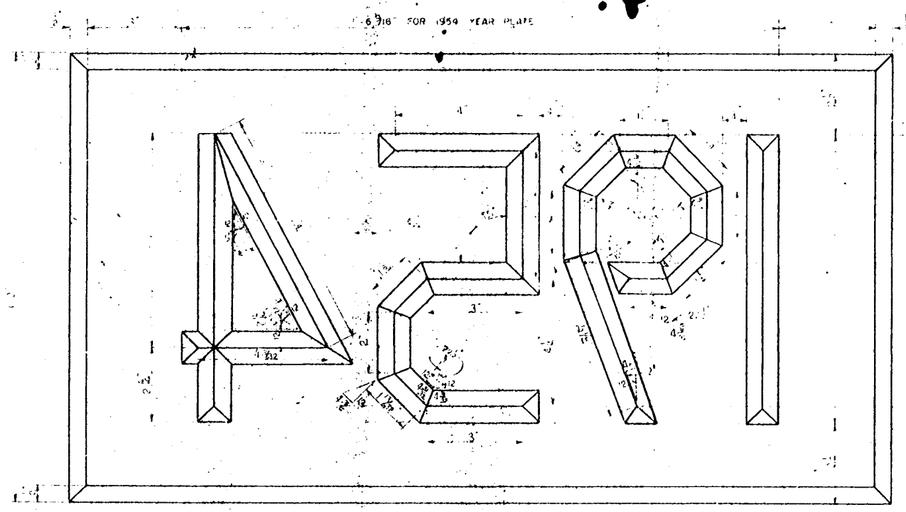
FILMORE AND HARRISON AVE. BRIDGES
BORING LOGS–3

STATE OF LOUISIANA
William D. Lancaster
REG. No. 22921
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

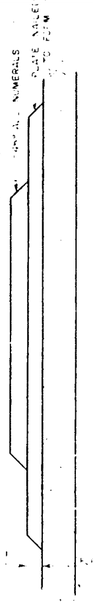
DESIGNED BY: EUSTIS	DATE: SEPT. 1998	PLOT SCALE: 60	PLOT DATE: SEPT. 1998
DRAWN BY: C.R.N.			
CHECKED BY: P.J.H.	CADD FILE: SHT82.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 82 OF 93

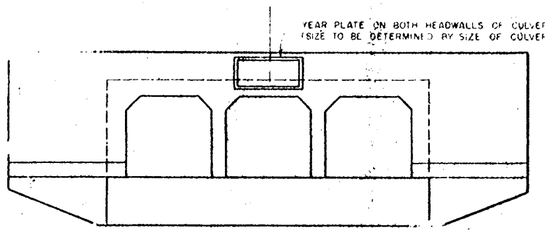
VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS



YEAR PLATE

DIMENSIONS SHOWN ARE FOR LARGE PLATES, USE ONE HALF (1/2) ABOVE DIMENSIONS FOR SMALL PLATES
YEAR PLATE TO CORRESPOND TO YEAR IN WHICH STRUCTURE IS COMPLETED





CULVERT
ELEVATION

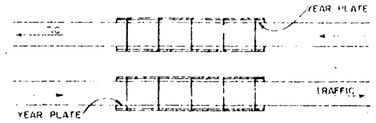
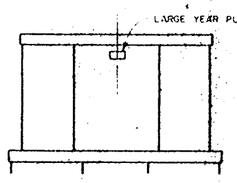
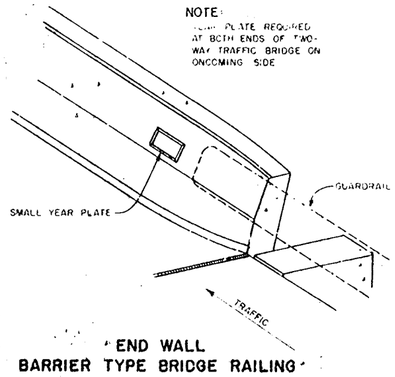


PLATE LOCATIONS FOR
TWIN BRIDGE SITES

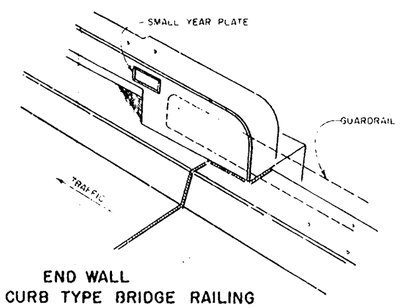
NOTE:
YEAR PLATE REQUIRED AT BOTH ENDS OF TWO-WAY TRAFFIC BRIDGE ON ONCOMING SIDE



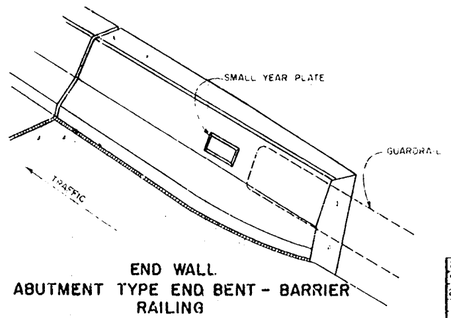
PIER
ELEVATION



END WALL
BARRIER TYPE BRIDGE RAILING

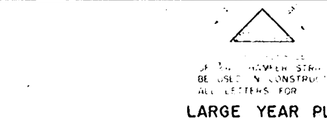


END WALL
BRUSH CURB TYPE BRIDGE RAILING



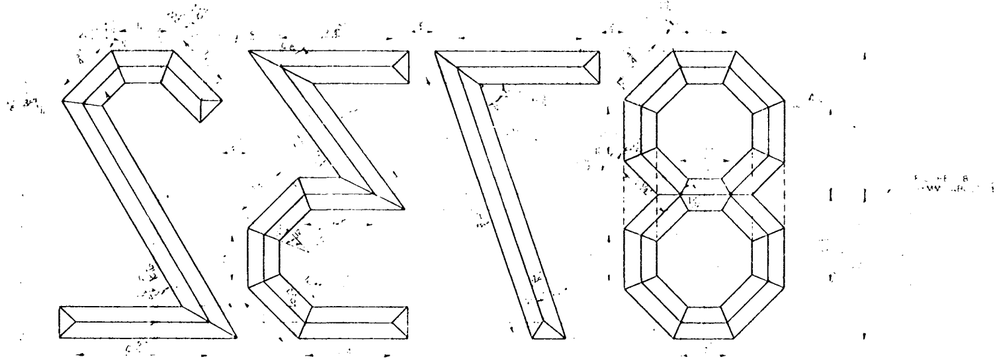
END WALL
ABUTMENT TYPE END BENT - BARRIER RAILING

SKETCHES SHOWING LOCATION OF YEAR PLATE ON VARIOUS CONCRETE STRUCTURES

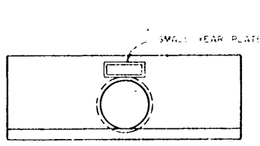


LARGE YEAR PLATE

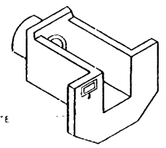
SMALL YEAR PLATE



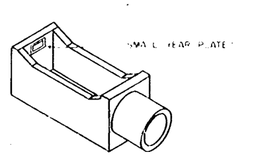
NOTE:
FIGURE 7 TO BE 9" INVERTED
FIGURE 10 TO BE MADE AS DASHED LINES INDICATE ON DETAIL OF FIGURE 18
FIGURE DETAILS ARE HALF SCALE FOR LARGE YEAR PLATE
FIGURE DETAILS ARE FULL SCALE FOR SMALL YEAR PLATE
DIMENSIONS SHOWN ARE FOR LARGE YEAR PLATE
USE 1/2 DIMENSIONS SHOWN FOR SMALL YEAR PLATE



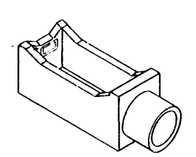
PIPE CULVERT HEADWALL
YEAR PLATE REQUIRED ON BOTH HEADWALLS OF CULVERT



PIPE HEADWALL
OPEN END



PIPE HEADWALL
OPEN BOX TYPE
END WALL WITHOUT WEIR



PIPE HEADWALL
OPEN BOX TYPE
END WALL WITH WEIR

REVISIONS		
2-2-99	UPDATED	D.S.H.
5-25-66	RETRACED	V.M.
2-25-55	REDETAILED & RETRACED	W.D.E.C.
3-46	DELINEATOR OMITTED	
3-44	DELINEATOR ADDED	C.E.A.
0-40	NEW SPECS & REORG	S.C.M.
0-40	RETRACED	M.H.
DATE	DESCRIPTION	BY

STANDARD PLAN
YEAR PLATES
FOR CONCRETE STRUCTURES
(TO BE USED WITH STD PLAN C.M. 95 WHEN ALPHABET IS REQ'D.)
DATED JULY 1933

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
OFFICE OF HIGHWAYS

DESIGNED | DETAILED R.K.W. | TRACED | CHECKED | CHECKED R.F. | CHECKED
BRIDGE & STRUCTURAL DESIGN SECTION

APPROVED _____ DATE _____
CHIEF ENGINEER

C.M.97

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
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KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES YEAR PLATES

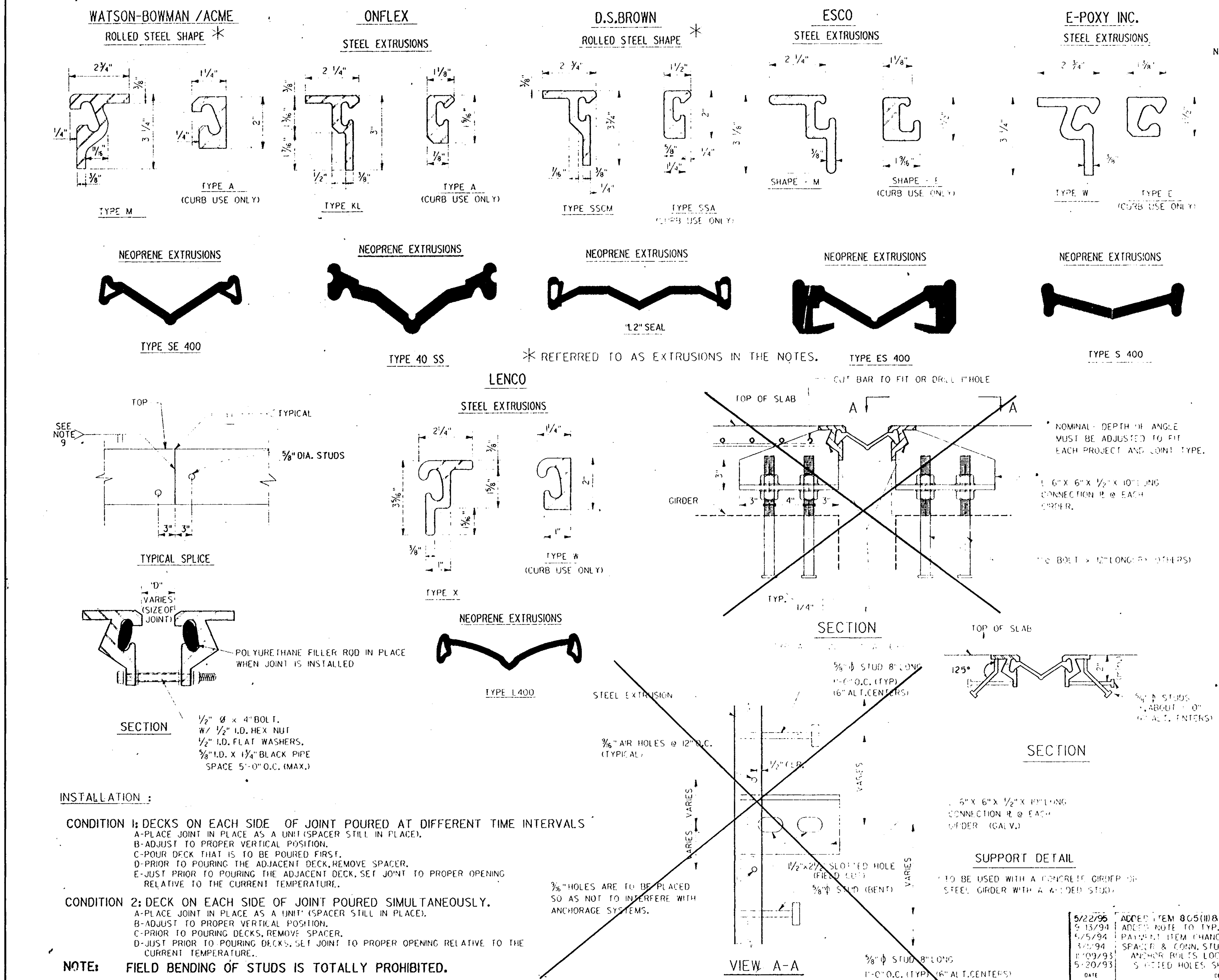
DESIGNED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY:			
CHECKED BY:	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING (DESIGN ENGINEER)	SOLICITATION NO. DACW29-99-B-0008		DWG. 83 OF 93

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

Safety is a Part of Your Contract

VALUE ENGINEERING — INCENTIVE CLAUSES — YOUR KEY TO HIGHER PROFITS

	STATE PROJECT	PARISH	SHEET NO.



INSTALLATION :

CONDITION 1: DECKS ON EACH SIDE OF JOINT POURED AT DIFFERENT TIME INTERVALS
A-PLACE JOINT IN PLACE AS A UNIT (SPACER STILL IN PLACE).
B-ADJUST TO PROPER VERTICAL POSITION.
C-POUR DECK THAT IS TO BE POURED FIRST.
D-PRIOR TO POURING THE ADJACENT DECK, REMOVE SPACER.
E-JUST PRIOR TO POURING THE ADJACENT DECK, SET JOINT TO PROPER OPENING RELATIVE TO THE CURRENT TEMPERATURE.

CONDITION 2: DECK ON EACH SIDE OF JOINT POURED SIMULTANEOUSLY.
A-PLACE JOINT IN PLACE AS A UNIT (SPACER STILL IN PLACE).
B-ADJUST TO PROPER VERTICAL POSITION.
C-PRIOR TO POURING DECKS, REMOVE SPACER.
D-JUST PRIOR TO POURING DECKS, SET JOINT TO PROPER OPENING RELATIVE TO THE CURRENT TEMPERATURE.

NOTE: FIELD BENDING OF STUDS IS TOTALLY PROHIBITED.

NOTES:

1. THE FOLLOWING MATERIALS ARE ~~TO BE PAID FOR IN THE BID PRICE PER LINEAR FOOT OF "STRIP SEAL".~~ INCLUDED IN STRIP SEAL JOINTS.
   A. NEOPRENE EXTRUSION
   B. STEEL EXTRUSIONS
   C. 5/8" DIAMETER STUDS
   D. ALL STEEL PLATES REQUIRED FOR BARRIER SECTION
   E. CAP SCREWS AND NUTS. TEMPORARY STEEL SPACER BLOCKS AND POLYURETHANE FILLER ROD
   ~~F. 6"X6"X3/8"X6" CONNECTION PLATES.~~
   G. HEAVY DUTY ANCHOR STRAPS & REBAR
2. STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 OR A-588
3. THE MANUFACTURER'S RECOMMENDED CONSTRUCTION METHODS SHALL BE FOLLOWED.
4. ~~A FACTORY REPRESENTATIVE IS TO BE PRESENT DURING THE INSTALLATION OF THE JOINT.~~
5. SHOP DETAILS OF JOINTS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION.
6. STEEL EXTRUSIONS SHALL BE SHIPPED IN PAIRS.
7. POLYURETHANE FILLER ROD WILL BE PLACED IN THE STEEL EXTRUSION'S CAVITY PRIOR TO SHIPMENT. THIS ROD WILL BE REMOVED ONLY WHEN THE NEOPRENE EXTRUSION IS TO BE INSTALLED IN PLACE.
8. ~~ALL WELDS SHALL CONFORM TO AWS D1.5-88 BRIDGE STRUCTURAL WELDING CODE AND D 1.4-92 REINFORCING STEEL WELDING CODE.~~
9. WELDED SPLICES OF STEEL EXTRUSIONS SHALL BE SHOP SPLICES AND EACH PORTION OF THE EXTRUSION SHALL BE NOT LESS THAN 15 FEET IN LENGTH EXCEPT THAT ONE SECTION, NOT LESS THAN 4 FEET IN LENGTH WILL BE ALLOWED IN THE SHOULDER AREA IF REQUIRED TO MATCH THE ROADWAY CROSS SECTION. ALL SPLICES SHALL BE MADE SO AS TO OCCUR OUTSIDE THE WHEEL PATHS. (SEE DETAIL ON SHEET 2 OF 2) IF A SECTION LESS THAN 15 FEET IS USED, THE CONNECTION STUDS WILL BE SPACED AT 3 INCH ALTERNATE CENTERS. ALL SPLICE LOCATIONS WILL BE SHOWN ON THE SHOP DRAWINGS. DRAWINGS WILL NOT BE APPROVED UNLESS THE LOCATIONS ARE DESIGNATED ON THE DRAWINGS. THE LOCATIONS MAY BE DESIGNATED WITH A +/- 6 INCH TOLERANCE. WELDED SPLICES ARE ALSO REQUIRED WHERE TWO DIFFERENT STEEL SHAPES ARE JOINED AT THE CURB AREA AND WHERE THE CURB UNITS ARE TURNED UP.

   WELDED SPLICES WILL BE BUTT SPLICES AND CARE SHALL BE TAKEN NOT TO ALLOW WELD METAL TO INVADE THE GLAND CAVITY. WELD MATERIAL IN THE CAVITY WILL BE CAUSE FOR REJECTION. CONNECTION STUDS WILL BE [illegible] ATED 3 INCHES EITHER SIDE OF WELDED SPLICES.
10. NEOPRENE EXTRUSIONS ~~HAVE TO~~ SHALL BE MANUFACTURED AS A CONTINUOUS PIECE WITH ONLY ONE (1) SHOP SPLICE PER JOINT ALLOWED WHEN LENGTH EXCEEDS 50 FEET. THE NEOPRENE STRIP SEAL SHALL BE AN EXTRUDED NEOPRENE MATERIAL CONFORMING TO ASTM DESIGNATION: D2628 MODIFIED TO OMIT RECOVERY TEST AND TO REVISE THE REQUIRED DUROMETER - TYPE A HARDNESS TO 55 [illegible] AS DETERMINED BY ASTM D2240.
11. SEAL SHALL BE BONDED TO STEEL WITH A PRE MIXED LUBRICATING ADHESIVE SOLUTION WHICH SHALL BE USED TO FACILITATE THE SEAL INSTALLATION. THIS LUBRICANT ADHESIVE SHALL BE SELECTED FROM THE LA. DOTD QUALIFIED PRODUCTS LIST, AS MAINTAINED BY THE DEPARTMENT'S MATERIALS [illegible]. THE LUBRICANT SHOULD FLOW FREELY AND [illegible] EVENLY [illegible] THE SEAL AND JOINT FACE. THE LUBRICANT SHOULD COMPLETELY [illegible] THE SEAL AND STEEL EXTRUSION CAVITY WHICH REMAIN IN CONTACT.
12. ALL METAL SURFACES NOT EMBEDDED IN CONCRETE SHALL BE SHOP PAINTED WITH TWO COATS OF ~~ORGANIC ZINC~~ PRIMER AND TOP COAT. CARE SHALL BE TAKEN THAT A PAINT BUILD-UP DOES NOT OCCUR IN THE BOTTOM OF THE STEEL EXTRUSION CAVITY.
13. JOINTS UP TO FIFTY FOUR (54) FEET IN LENGTH SHALL BE DELIVERED TO THE JOB SITE IN ONE PIECE. JOINTS OVER FIFTY FOUR (54) FEET IN LENGTH MAY HAVE PROVISIONS FOR A FIELD SPLICE IN THE STEEL EXTRUSIONS PROVIDING THE SPLICE IS PERFORMED IN SHOP LIKE CONDITIONS ~~IN THE PRESENCE OF A STATE INSPECTOR~~ AND MEET THE REQUIREMENTS OF NOTE 8 ABOVE.
   ALL OTHER WELDED SPLICES OF STEEL EXTRUSIONS SHALL BE SHOP SPLICES.
14. ~~ALL LABOR, MATERIALS, EQUIPMENT, MANUFACTURER SUPERVISION AND INCIDENTALS PERTAINING TO THE INSTALLATION OF THE JOINT SHALL BE PAID FOR UNDER ITEM 806 (II).~~

   ~~PAY LENGTH FOR JOINT IS MEASURED GUTTER TO GUTTER ALONG CENTERLINE OF JOINT.~~
15. ALL STUDS SHALL BE BENT PRIOR TO WELDING TO THE JOINT

STRIP SEAL JOINT DETAILS (4")

DATE	DESCRIPTION	BY
5/22/95	ADDED ITEM 805(II) & BENDING ANGLE ON STUDS.	
9/13/94	ADDED NOTE TO TYP. CONN. GIRDER & STUD (GLR.)	TWA
5/5/94	PAYMENT ITEM CHANGED IN NOTE # 14	NPK
3/?/94	SPACER & CONN. STUD AT WELDED SPLICES	NRK
11/09/93	ANCHOR BOLTS LOCATION AT END DAM	NPK
5/20/93	SLOTTED HOLES SHALL BE FIELD CUT	NPK

REVISIONS

DATE: MAY, 1993

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED KNAPP — DETAILED A.N.NWAFOR — DIR. [illegible]
CHECKED D. MILLER — CHECKED KNAPP

Safety is a Part of Your Contract

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

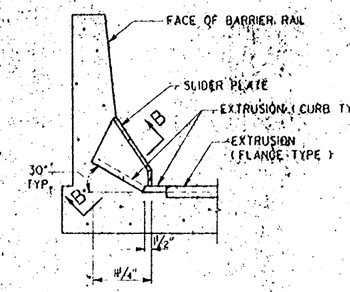
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS ORLEANS LEVEE BOARD NEW ORLEANS, LOUISIANA	HARTMAN ENGINEERING, INC. CONSULTING ENGINEERS KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

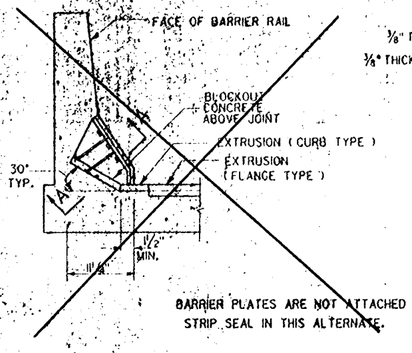
FILMORE AND HARRISON AVE. BRIDGES
STRIP SEAL JOINT DETAILS

DESIGNED BY: DRAWN BY: CHECKED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	CADD FILE: SHT83-93.DGN SOLICITATION NO. DACW29-99-B-0008		FILE NO. H-4-45050 DWG. 84 OF 93



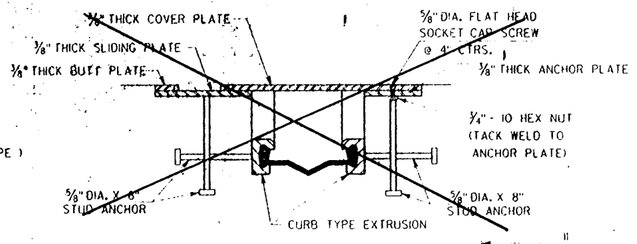
BARRIER SECTION

LOW SIDE ONLY

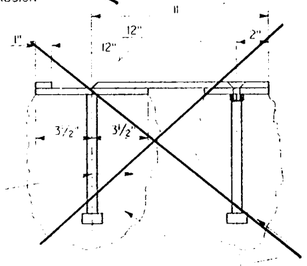


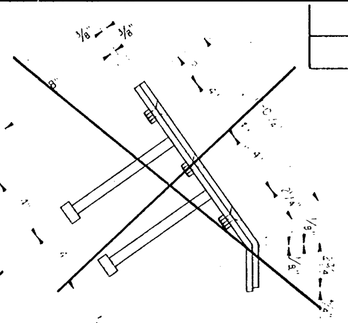
BARRIER PLATES ARE NOT ATTACHED TO STRIP SEAL IN THIS ALTERNATE.

~~ALTERNATE DETAIL FOR PLACEMENT OF COVER PLATE~~



~~SECTION A-A~~



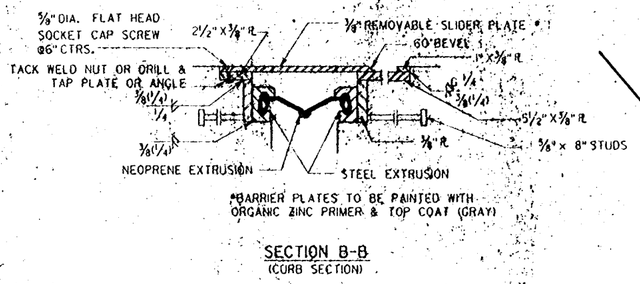


~~SIDE VIEW~~

	STATE PROJECT	PARISH	SHEET NO.

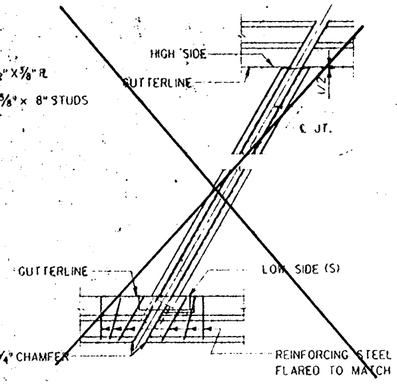
JOINT NO.	TOTAL JT. MOVEMENT	LIN. FT. **	"D"

② THE "D" DIMENSION IS GIVEN FOR THE AVERAGE TEMPERATURE (68) AND AT WHICH THE MINIMUM OPENING IS TO BE 1"

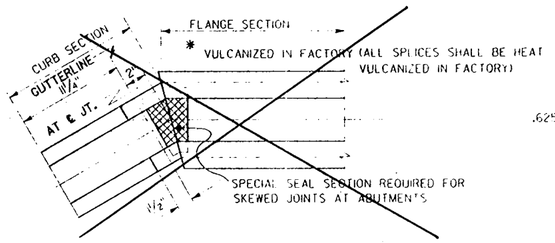


*BARRIER PLATES TO BE PAINTED WITH ORGANIC ZINC PRIMER & TOP COAT (GRAY)

SECTION B-B
(CURB SECTION)



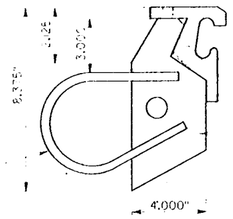
~~PART PLAN VIEW OF STRIP SEAL JOINT AT INTERIOR JOINT~~



~~PART PLAN VIEW OF STRIP SEAL AT END BENTS WITH WING WALLS~~

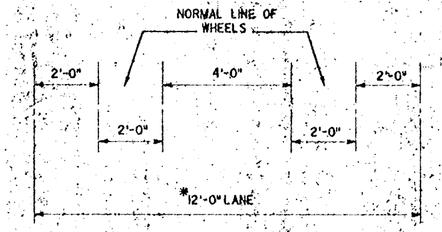
LOW SIDE ONLY

NO PAINT



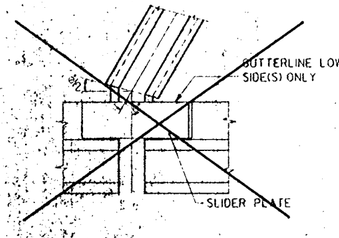
OPTIONAL HEAVY DUTY ANCHOR SYSTEM

SPLICE LOCATIONS SHALL BE LOCATED SO AS NOT TO FALL IN THE "NORMAL LINE OF WHEELS." EXCEPT FOR CURB SECTIONS, ALL EXTRUSIONS SHALL BE A MINIMUM OF 15 FT. BETWEEN SPLICES EXCEPT WHEN NOTED OTHERWISE ON THE SPAN SHEET.



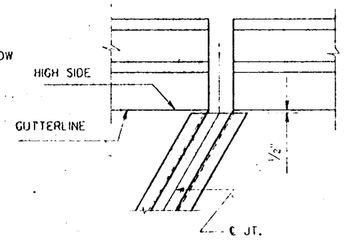
*DIMENSIONS SHOWN ARE NORMAL TO ROADWAY. WHEN JOINT IS PLACED ON SKEW THE DIMENSIONS SHOWN WILL VARY TO MEET THE SKEW DIMENSIONS ALONG THE ℄ OF THE JOINT.

SPLICE LOCATIONS



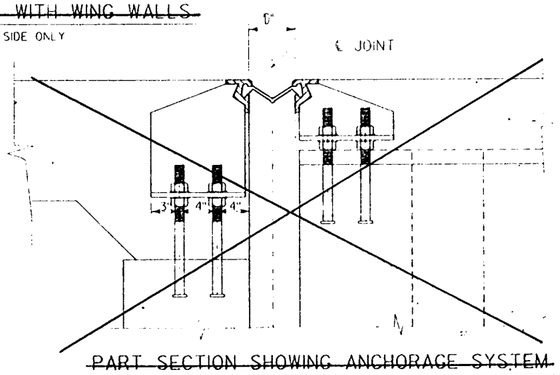
~~GUTTER DETAIL FOR END BENTS WITH WINGWALLS~~

LOW SIDE ONLY

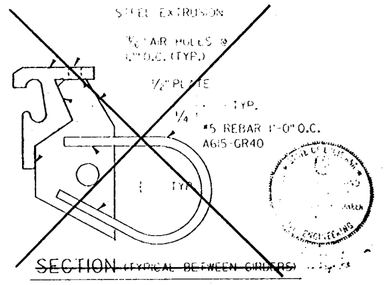


GUTTER DETAIL FOR END JOINTS

HIGH SIDE ONLY



~~PART SECTION SHOWING ANCHORAGE SYSTEM AND END DAM CONNECTION (TYPICAL SECTION AT CONNECTION BENT)~~



~~SECTION (TYPICAL BETWEEN GIRDERS)~~

STRIP SEAL JOINT DETAILS (4")

DATE	DESCRIPTION	
5/22/95	ADDED ITEM 805(11) & BENDING ANGLE ON STUDS.	TWA
9/13/94	ADDED NOTE TO TYP. CONN. GIRDER & STUD(CLR.)	NPK
5/5/94	PAYMENT ITEM CHANGED ON NOTE * 14	NPK
3/1/94	SPACER & CONN. STUD AT WELDED SPLICES	NPK
11/09/93	ANCHOR BOLTS LOCATION AT END DAM	NPK
5/20/93	SLOTTED HOLES SHALL BE FIELD CUT	NPK

REVISIONS

DATED MAY, 1993

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED KNAPP | DETAILED A.N.NWAFOR | DR stdplans
BY CHECKED D. MILLER | CHECKED KNAPP | FILE stripsec.dgn

VALUE ENGINEERING (YOUR KEY TO HIGHER PROFITS)

Safety is a Part of Your Contract

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AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
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HARTMAN ENGINEERING, INC.
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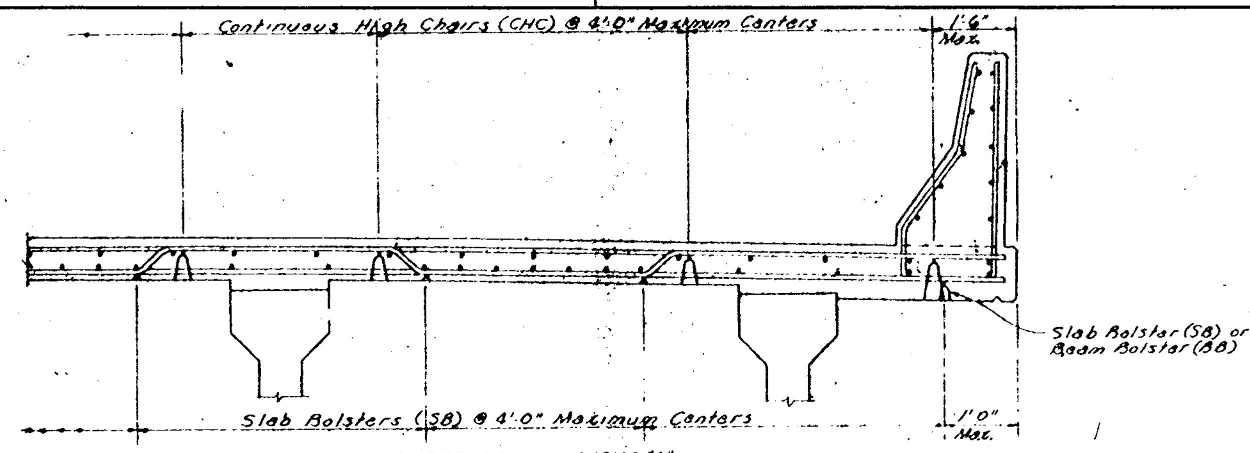
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

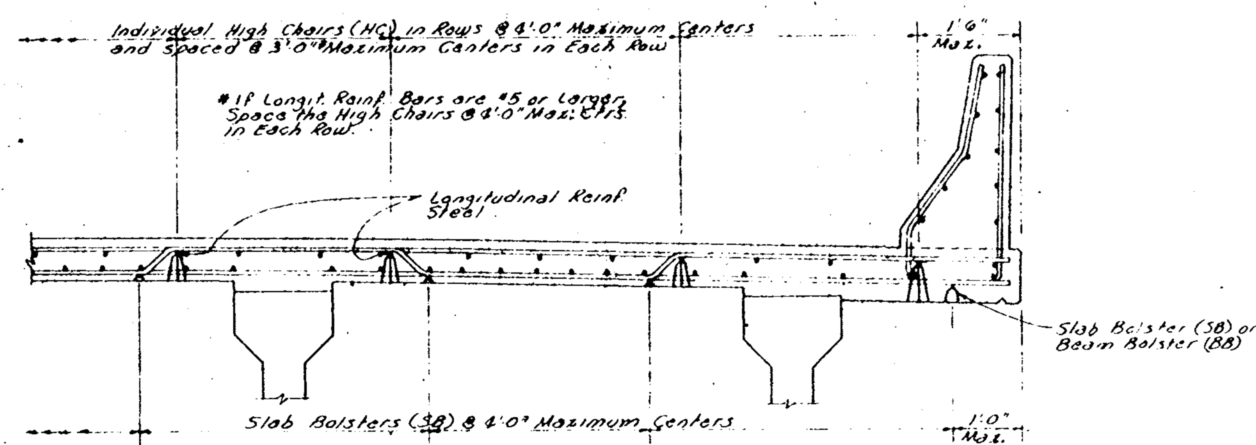
FILMORE AND HARRISON AVE. BRIDGES STRIP SEAL JOINT DETAILS

DESIGNED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY:			
CHECKED BY:	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 85 OF 93

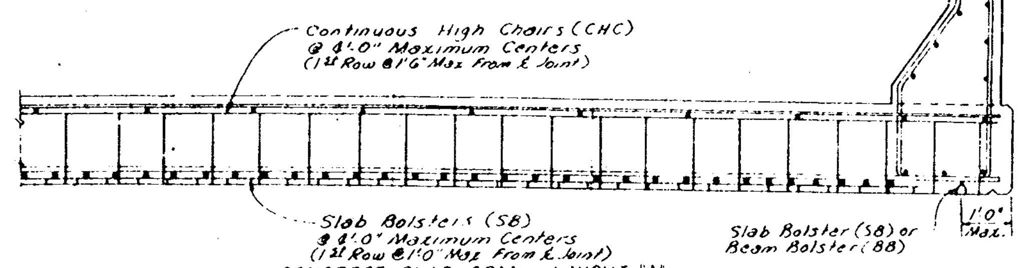
F.A.P.	STATE PROJECT	PARISH	SHEET NO.



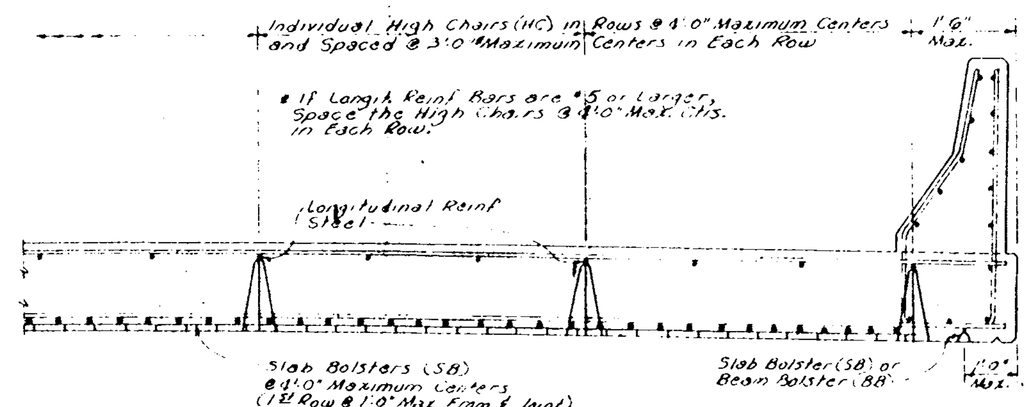
STEEL OR CONCRETE GIRDER SPAN - LAYOUT "A"



STEEL OR CONCRETE GIRDER SPAN - LAYOUT "B" (ALTERNATE)



CONCRETE SLAB SPAN - LAYOUT "A"



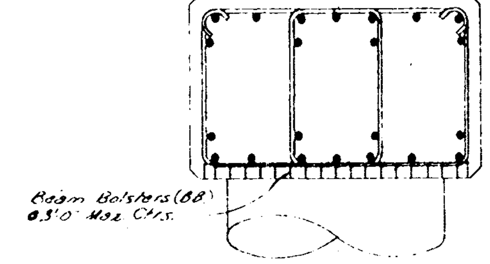
CONCRETE SLAB SPAN - LAYOUT "B" (ALTERNATE)

TYPE OF SUPPORT	BAR SUPPORT ILLUSTRATION	MINIMUM WIRE SIZES Δ HEIGHT	TOP	LEGS		REMARKS
Slab Bolster (SB)		All	Nº 4 Corrugated	Nº 6		Vert. Corrugations Spaced 1" on Centers
Beam Bolsters (BB)		Up to 2" Over 2"	Nº 7 Nº 4	Nº 7 Nº 4		
# Individual High Chair (HC)		2" to 5" 5" to 9" Over 9"	- - -	Nº 4 Nº 2 Nº 0		
‡ Continuous High Chair (CHC)		2" to 5" 5" to 9" Over 9"	Nº 2 Nº 2 Nº 2	Nº 4 Nº 2 Nº 0		

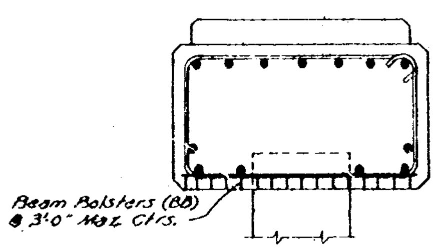
\# Legs at 20 degrees or less with vertical. When height exceeds 12", reinforce legs with welded cross wires or encircling wires.

‡ Legs at 20 degrees or less with vertical. All legs 8¼" on center maximum, with leg within 4" of end of chair, and spread between legs not less than 50% of nominal height.

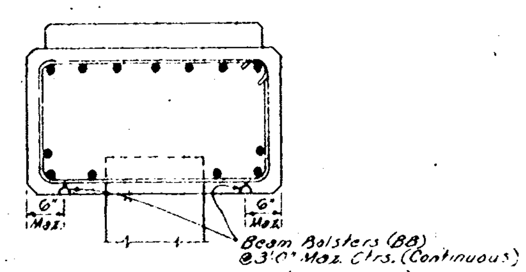
Δ American Steel & Wire Gauges.



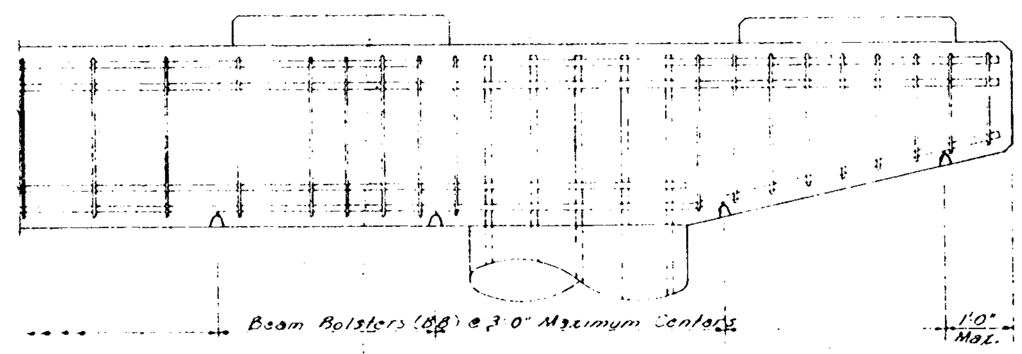
COLUMN BENT



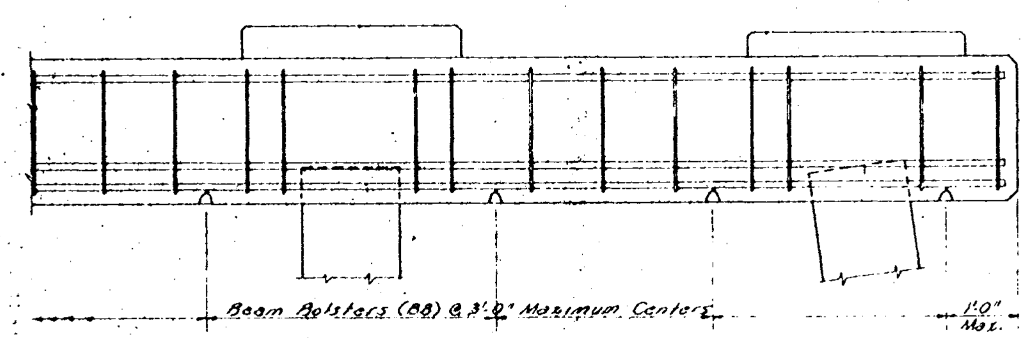
PILE BENT - LAYOUT "A"



PILE BENT - LAYOUT "B" (ALTERNATE)



COLUMN BENT



PILE BENT - LAYOUT "A"

GENERAL NOTES:

Steel Wire Bar Supports Shall be in Accordance with the latest Approved Louisiana Std. Specs. for Roads and Bridges, 1982, as Amended by Special Provisions and/or Supplemental Specifications.
Reinforcing Steel Bars Shall be Tied in Accordance with the latest Approved Louisiana Std. Specs. for Roads and Bridges, 1982, as amended by Special Provisions and/or Supplemental Specifications.
A Nº 5 Bar with Individual High Chairs @ 4'-0" Max. Ctrs. or A Nº 4 Bar with Individual High Chairs @ 3'-0" Max. Ctrs. may be Substituted, on a One for One Basis, for the Continuous High Chairs.
Height of Bar Supports to be that Required to Support the Reinf. Bars in Positions Shown on Plans.
Bar Supports are not intended, and Shall not be used, to Support Runways for Concrete Buggies or Similar Loads.

When bar supports are placed in continuous lines, they shall be so placed that the Ends of the Supporting wires shall be lapped to lock the last legs on adjoining pieces, but no bar shall be placed more than 2" beyond the last leg at the end of a run of any continuous supports.

Where bar supports are used on earth or aggregate subgrades, suitable plates shall be provided to prevent displacement of the support foot.
All bar supports bearing on the forms shall have radius bearing legs in the form of a hook (upturned legs) or spherical foot at the lower end of the legs.

STEEL WIRE BAR SUPPORTS

STANDARD PLAN
BAR SUPPORTS
FOR
REINFORCING STEEL

DATED March 27 1973

DATE	DESCRIPTION	BY
6-8-83	Std. Specs. Date & Min. Wire Sizes	
3-1977	Gen. Notes	
12-74	Note regarding upturned legs	

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
OFFICE OF HIGHWAYS

DESIGNED — DETAILED — TRACED
CHECKED — CHECKED — CHECKED
BRIDGE & STRUCTURAL DESIGN SECTION
APPROVED — DATE —
CHIEF ENGINEER

S.W.B.S. 1001

Safety is a Part of Your Contract

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C·A·D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

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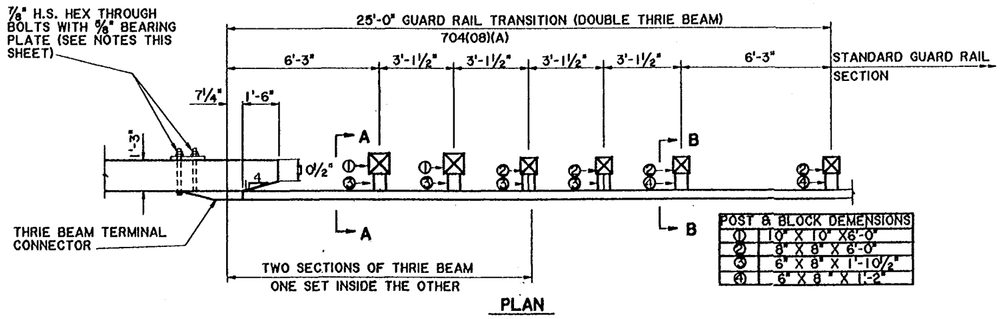
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
BAR SUPPORTS FOR REINFORCING STEEL

DESIGNED BY: DRAWN BY: CHECKED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 86 OF 93

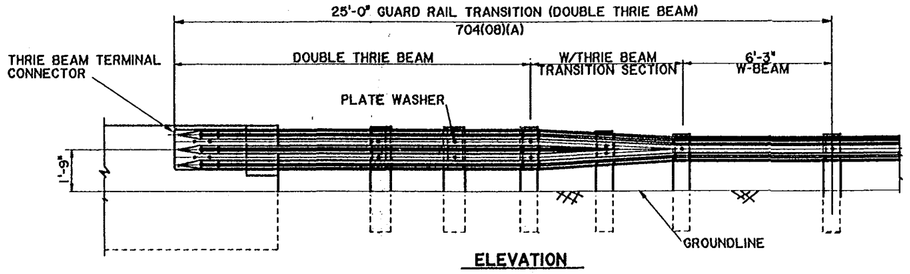
	STATE PROJECT	PARISH	SHEET NO.

NOTES
1. THIS GUARD RAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO A FLARED BACK VERTICAL CONCRETE SHAPE AS SHOWN
2. BRIDGE RAIL ENDS AND BRIDGE PARAPETS MUST BE OF ADEQUATE STRENGTH TO ACCEPT FULL IMPACT LOADING AND SHALL BE DESIGNED CONSISTENT WITH A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, LATEST EDITION.
3. STANDARD BARRIER HARDWARE HAS BEEN USED TO DEVELOP THIS GUARD RAIL TRANSITION
4. BOLTS, WASHERS, AND NUTS TO BE INCLUDED IN THE PRICE BID FOR GUARD RAIL
5. 7/8"Φ BOLTS TO BE A.S.T.M. A-325 GALVANIZING SHALL BE IN ACCORDANCE WITH A.S.T.M. A-153
6. FOR 3/4" STEEL BEARING PLATE, SEE SHEET 7 OF 10.(GALV. STEEL OGEE WASHERS MAY BE USED IN LIEU OF THE STEEL BEARING PLATE.)

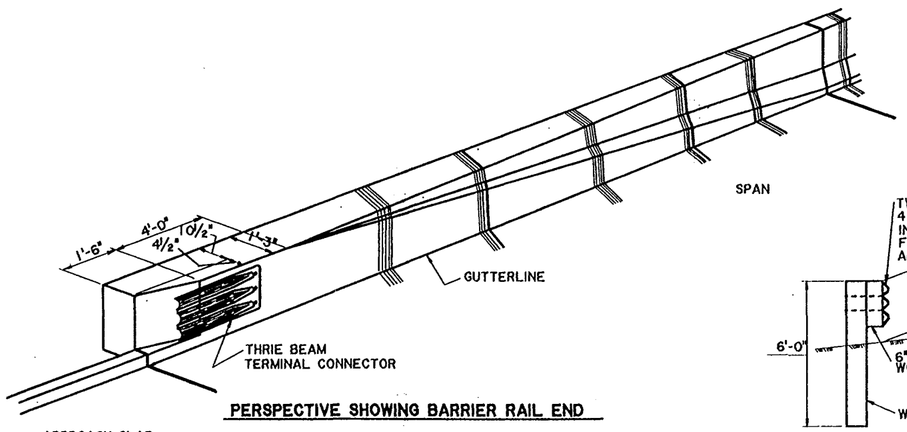


POST & BLOCK DEMENSIONS	
①	10" X 10" X6'-0"
②	8" X 8" X 6'-0"
③	6" X 8" X 1'-10 1/2"
④	6" X 8" X 1'-2"

PLAN

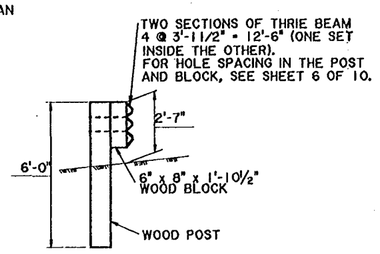


ELEVATION

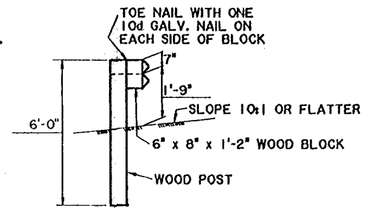


PERSPECTIVE SHOWING BARRIER RAIL END

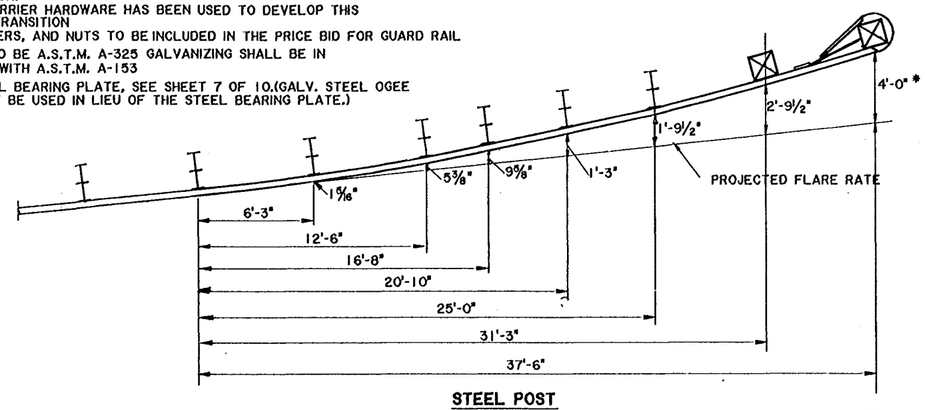
NOTE:
FOR TRANSITION LENGTH OF THE CONCRETE BARRIER, SEE BRIDGE PLANS.



SECTION A-A

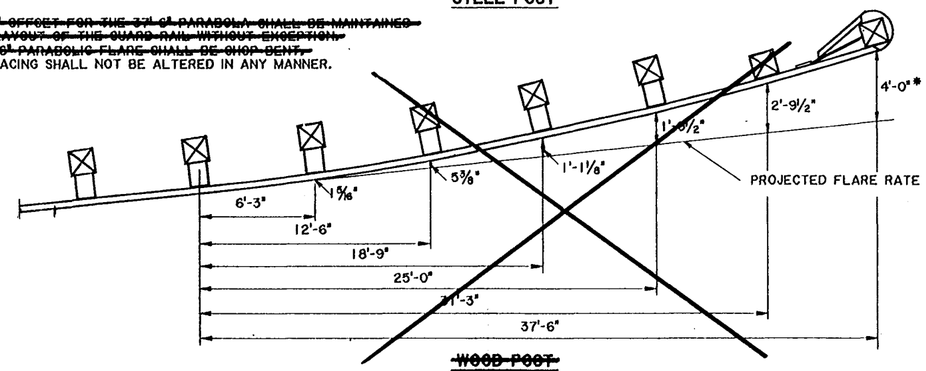


SECTION B-B



STEEL POST

* NOTE:
~~THE 4'-0" OFFSET FOR THE 37'-6" PARABOLA SHALL BE MAINTAINED IN THE LAYOUT OF THE GUARD RAIL WITHOUT EXCEPTION. THE 37'-6" PARABOLIC FLARE SHALL BE SHOP BENT.~~
POST SPACING SHALL NOT BE ALTERED IN ANY MANNER.



~~WOOD POST~~

37'-6" BCT PARABOLIC FLARE LAYOUT

STATE OF LOUISIANA
NGOAN NGOC ONG
NO. 20096
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Ngoan Ngoc Ong
2/9/96

BRIDGE CONNECTION AND BCT LAYOUT

02-02-96	GENERAL	T.W.A.	
05-30-93	NOTE 6	N.P.K.	D.D.W.
01-18-91	37'-6" BCT PARABOLIC FLARE	N.P.K.	D.D.W.
07-12-90	BCT PARABOLIC FLARE	N.P.K.	D.D.W.
12-08-89	SHEET 4 OF 10	N.P.K.	D.D.W.
09-26-89	TRANSITION SECTION PARABOLA	N.P.K.	D.D.W.
05-17-89	SHT. 1& 5 OF 10	N.P.K.	D.D.W.
03-27-89	GENERAL	N.P.K.	D.D.W.
DATE	DESCRIPTION	BY	APPROVED

REVISIONS

STANDARD PLAN GR 200 — SHEET 2 OF 10

HIGHWAY GUARD RAILS

DATED _____

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	DETAILED M. DUGAS	DRL	standard/gr200a
CHECKED	CHECKED H. GHARA	FILE	gr200.bd
APPROVED	DEMPSEY D. WHITE, CHIEF ENGINEER	DATE	2-12-89

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AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 5/13/00

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PHASE 1C
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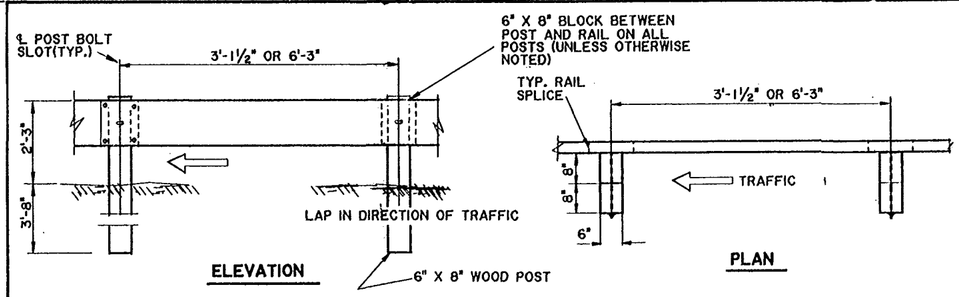
LOUISIANA

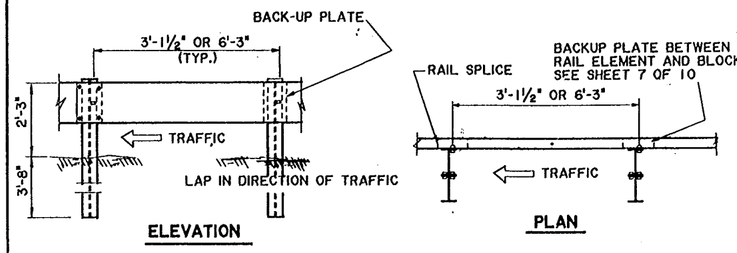
FILMORE AND HARRISON AVE. BRIDGES HIGHWAY GUARD RAILS

DESIGNED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY:			
CHECKED BY:	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 87 OF 93

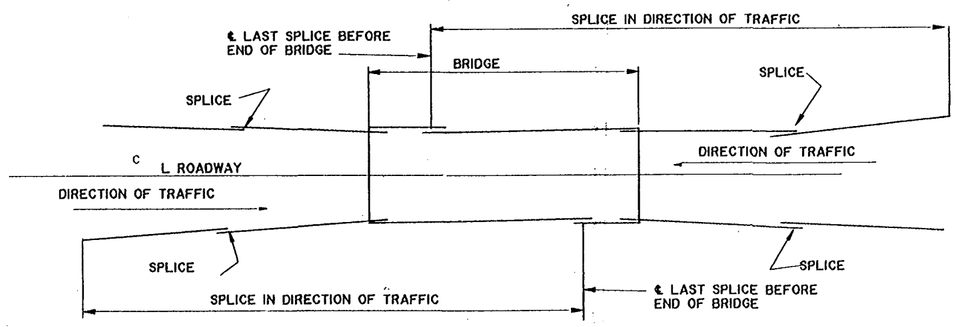
FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.



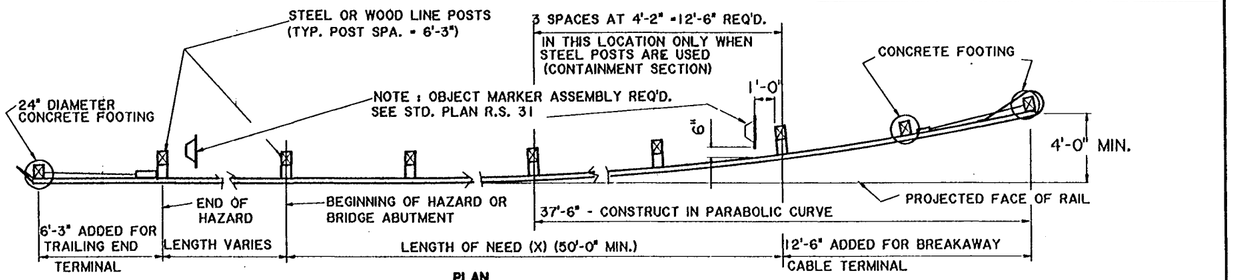
DETAIL OF 6" X 8" WOOD POSTS AND BLOCKS

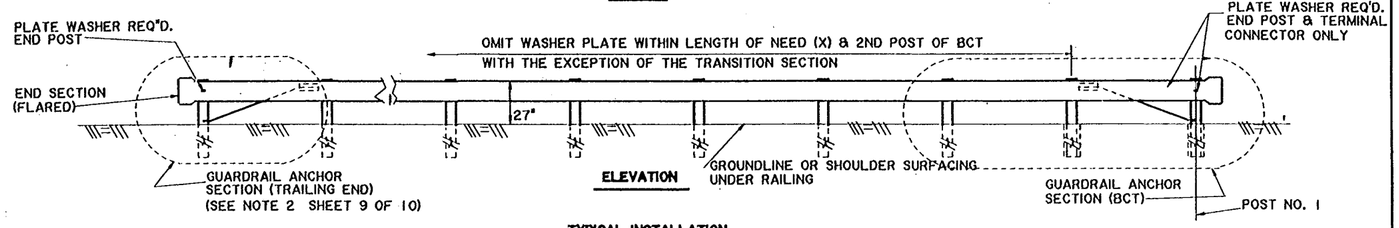


DETAIL OF W6 X 9.0 STEEL POSTS AND BLOCKS



LAYOUT SHOWING DIRECTION OF GUARD RAIL SPLICE FOR TWO WAY TRAFFIC

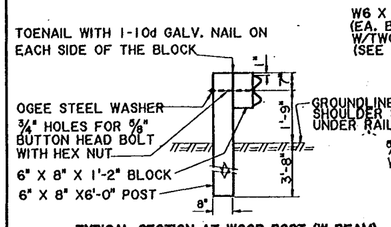




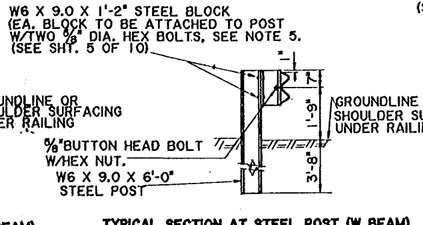
TYPICAL INSTALLATION

GENERAL NOTES

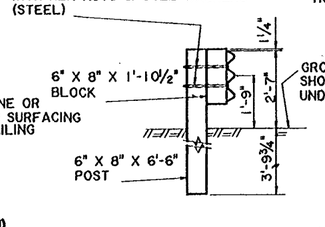
1. STEEL AND WOOD POSTS SHALL NOT BE INTERMIXED WITHIN THE 25 FT. CONTAINMENT SECTION OF THE BCT BEYOND THE INITIAL BREAKAWAY SECTION. THE FIRST TWO (2) POSTS OF THE BCT MAY BE WOOD OR STEEL REGARDLESS OF THE TYPE OF POSTS USED IN THE CONTAINMENT SECTION.
   WOOD POSTS ARE THE ONLY TYPE OF POST WHICH ARE ALLOWED IN THE 25 FT. THRIE BEAM TRANSITION SECTION; HOWEVER, STEEL POSTS MAY BE USED IN OTHER SECTIONS OF THE GUARD RAIL.
   INTERMIXING OF STEEL AND WOOD POSTS IN ANY ONE SECTION OF THE GUARD RAIL OTHER THAN FOR REPAIRS OR MAINTENANCE PURPOSES SHALL NOT BE PERMITTED.
2. GUARD RAIL SHALL NOT BE PLACED CLOSER TO THE TRAVELED WAY THAN THE OUTSIDE EDGE OF THE SHOULDER. OFFSET TO NOSE OF BCT SHALL BE AN ABSOLUTE MINIMUM OF 4 FT.
3. ALL MATERIAL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
4. UNLESS OTHERWISE SHOWN, ALL GUARD RAIL COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF THE A.A.S.H.T.O. GUIDE TO THE STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE, CURRENT ADDITION.
5. STEEL POSTS AND BLOCKS: BLOCK MOUNTS TO POST WITH TWO (2) BOLTS STAGGERED. LOWER BOLTS ON APPROACHING TRAFFIC SIDE OF BLOCK AND POST WEB. RAIL MOUNTS TO BLOCK WITH BOLT ON APPROACHING TRAFFIC SIDE OF BLOCK AND POST WEB.
6. WOOD POSTS AND BLOCKS: TREATMENT SHALL BE IN ACCORDANCE WITH D.O.T.D. STANDARD SPECIFICATIONS. POST AND BLOCKS SHALL EITHER BE ROUGH SAWED (UNPLANED) OR S4S WITH NOMINAL DIMENSIONS INDICATED. THE SIZE TOLERANCE OF ROUGH SAWED TIMBER IN THE DIRECTION OF THE BOLT HOLES SHALL NOT BE MORE THAN ± ¼".
7. STEEL POSTS AND BLOCKS (THRIE BEAM): BLOCK MOUNTS TO POST WITH TWO (2) BOLTS STAGGERED. LOWER BOLT ON APPROACH TRAFFIC SIDE OF BLOCK AND POST WEB. RAIL ELEMENTS TO BE CONNECTED IN THE SAME FASHION.



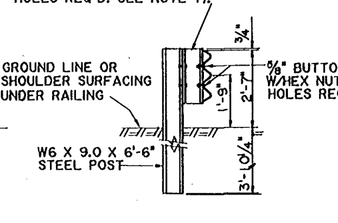
TYPICAL SECTION AT WOOD POST (W BEAM)



TYPICAL SECTION AT STEEL POST (W BEAM)



TYPICAL SECTION AT WOOD POST (THRIE BEAM)



TYPICAL SECTION AT STEEL POST (THRIE BEAM)

STATE OF LOUISIANA
NGOAN NGOC ONG
REG. No. 20005
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Ngoan Ngoc Ong
2/2/96

DATE	DESCRIPTION	BY	APPROVED
	REVISIONS		
02-02-96	GENERAL AND DELETE DETAIL	T.W.A.	
06-30-93	FLEX. BRIDGE RAIL TRANSITION	N.P.K.	D.D.W.
01-18-91	SHTS. 1,2,6 & 7 OF 10	N.P.K.	D.D.W.
07-12-90	# & PLATE WASHER & NOTE 7	N.P.K.	D.D.W.
12-08-89	SHT. 4 OF 10	N.P.K.	D.D.W.
09-26-89	W BEAM TRANSITION	N.P.K.	D.D.W.
06-17-89	W BEAM TRANSITION	N.P.K.	D.D.W.
03-27-89	GENERAL	N.P.K.	D.D.W.

STANDARD PLAN NO. GR 200 — SHEET 5 OF 10

HIGHWAY GUARD RAILS

DATED 1-2 19 89

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	DETAILED M. DUGAS	DR. standard/gr200a
CHECKED	CHECKED H. GHARA	FILE gr2005bd
APPROVED DEMPSEY D. WHITE, CHIEF ENGINEER		DATE 2 - 12 - 89

Safety is a Part of Your Contract

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C•A•D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

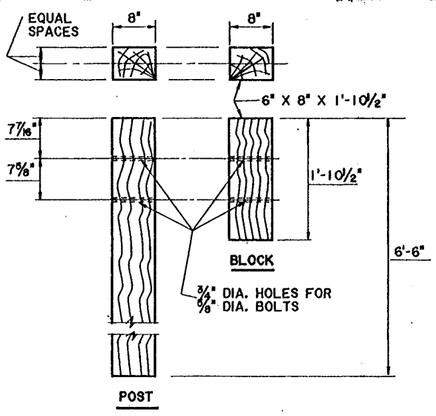
HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

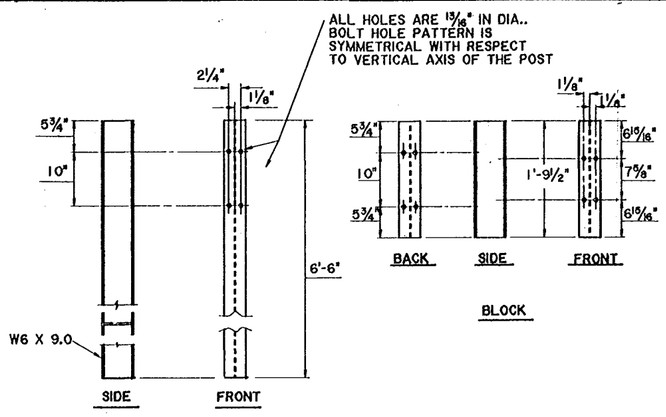
FILMORE AND HARRISON AVE. BRIDGES HIGHWAY GUARD RAILS

DESIGNED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY:			
CHECKED BY:	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 88 OF 93

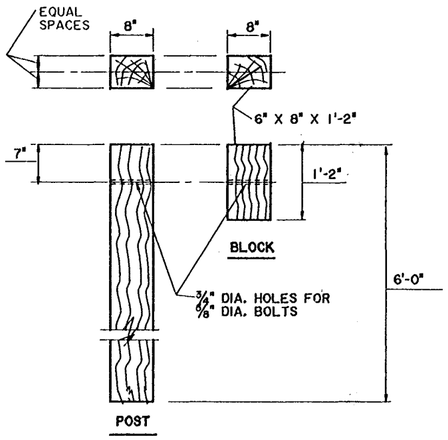
FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.



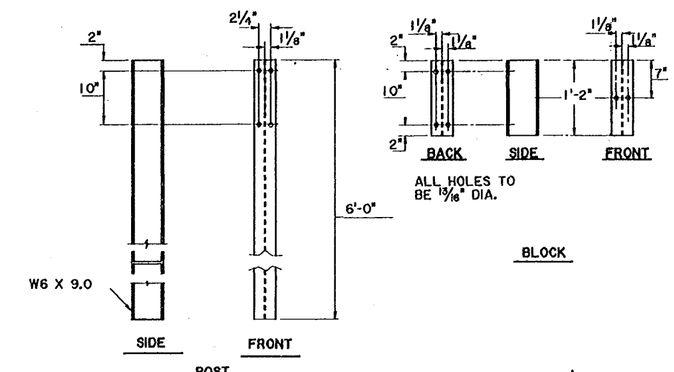
WOOD POST FOR STANDARD THRIE BEAM GUARD RAIL



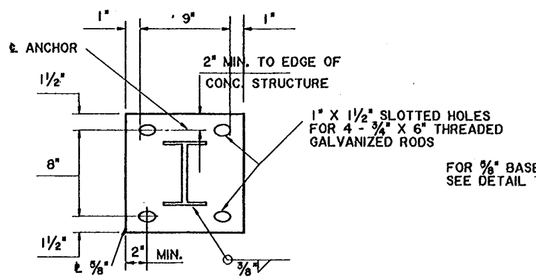
STEEL POST AND BLOCK FOR STANDARD THRIE BEAM GUARD RAIL



WOOD POST FOR STANDARD W - BEAM GUARD RAIL

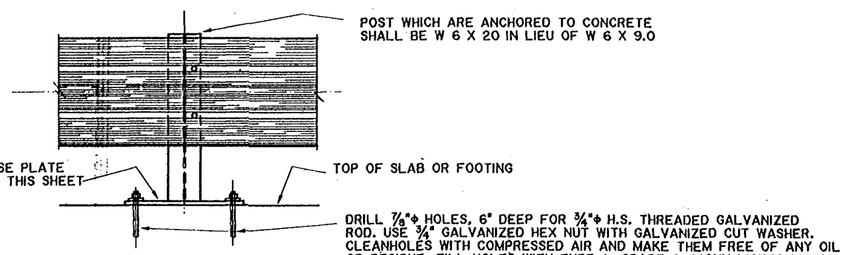


STEEL POST AND BLOCK FOR STANDARD W - BEAM GUARD RAIL

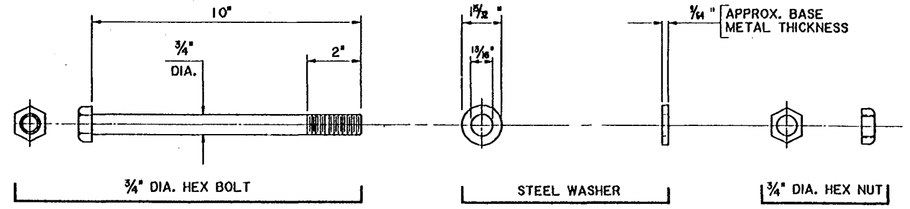


GALVANIZED STEEL BASE PLATE

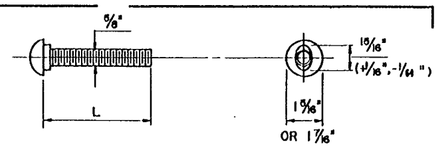
SPECIAL POST WITH BASE PLATE TO BE USED WHEN REQUIRED EMBEDMENT OF CONVENTIONAL POST CANNOT BE OBTAINED



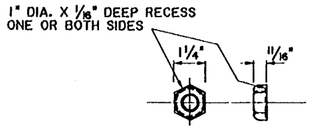
STEEL POST ATTACHED TO CONCRETE



NOTE: FOR USE WITH TURNAROUND GUARD RAIL

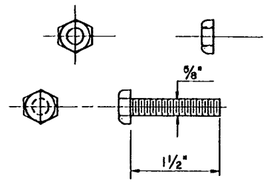


⅝" DIA. BUTTON HEAD BOLT



⅝" DIA. RECESS NUT

GUARD RAIL SPLICE AND POST BOLT AND RECESS NUT



⅝" DIA. HEX NUT

GUARDRAIL STEEL BLOCK TO STEEL POST BOLT AND NUT

NOTE: THIS BOLT IS FOR FASTENING STEEL BLOCKS TO STEEL BEAM GUARD RAIL AND FOR FASTENING THE ANCHOR PLATE TO RAIL ELEMENTS IN THE STANDARD BREAKAWAY CABLE TERMINAL DESIGN AS SHOWN ON SHEETS 8 & 9 OF 10.

L	THREAD LENGTH
1¼"	FULL LENGTH THREAD
2"	1½" MIN. THREAD LENGTH
10"	1¾" " " "
18"	2½" " " "
20"	2" " " "

NOTE: GUARD RAIL ACCESORIES SHOWN ABOVE ARE NOT TO SCALE.

INTENDED USE

1. (1¼ INCH LENGTH). THIS BOLT IS USED TO SPLICE RAIL ELEMENTS USED IN THE STANDARD CORRUGATED SHEET STEEL BEAM GUARD RAIL.
2. (2 INCH LENGTH). THIS BOLT IS FOR FASTENING RAILS TO STEEL POSTS WHEN USED IN THE STANDARD CORRUGATED SHEET STEEL BEAM GUARD RAIL.
3. (10 INCH LENGTH). THIS BOLT IS FOR FASTENING RAILS TO WOOD POSTS IN THE STANDARD CORRUGATED SHEET STEEL BEAM GUARD RAIL.
4. (18 INCH LENGTH). THIS BOLT IS FOR FASTENING RAILS TO WOOD BLOCKS & POSTS IN THE STANDARD CORRUGATED SHEET STEEL BEAM.
5. (20 INCH LENGTH) THIS BOLT IS FOR FASTENING NESTED THRIE BEAM TO WOOD BLOCKS AND POSTS AT THE FIRST TWO POST LOCATIONS AT THE ENDS OF A RIGID (CONCRETE) STRUCTURE, UNLESS OTHERWISE SHOWN IN THE PLANS.

BOLTS SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. A307 AND NUTS TO THE REQUIREMENTS OF A.S.T.M. A563 GRADE A OR BETTER. BOLTS AND NUTS SHALL BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. A153

ALL STEEL POSTS AND BLOCKS SHALL CONFORM TO A.S.T.M. A36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. A123. NO PUNCHING, DRILLING OR CUTTING WILL BE PERMITTED AFTER GALVANIZING.

STATE OF LOUISIANA
NGOAN NGOC ONG
REG. No. 20006
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
Ngoan Ngoc Ong
2/9/96

DATE	DESCRIPTION	BY	APPROVED
02-02-96	GENERAL & POST ANCHOR TO CONC.	T.W.A	
05-30-93	SHTS. 2,4,5,7 & 8 OF 10	N.P.K	D.D.W.
01-18-91	INTENDED USE (NOTE NO. 4)	N.P.K	D.D.W.
07-12-90	SHT. 1,2,4,5,8 & 9 OF 10	N.P.K	D.D.W.
12-08-89	SHT. 4 OF 10	N.P.K	D.D.W.
09-26-89	SHTS. 1,2,4,5 & 10 OF 10	N.P.K	D.D.W.
05-17-89	SHT. 1 & 5 OF 10	N.P.K	D.D.W.
03-27-89	NEW SHEET	N.P.K	D.D.W.

REVISIONS

STANDARD PLAN NO. GR 200 — SHEET 6 OF 10

HIGHWAY GUARD RAILS

DATED 1-2 1989

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	DETAILED M. DUGAS	DR.	standard/gr200a
CHECKED	CHECKED H. GHARA	FILE	gr2006bd

APPROVED DEMPSEY D. WHITE, CHIEF ENGINEER — DATE 2-12-89

Safety is a Part of Your Contract

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C·A·D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
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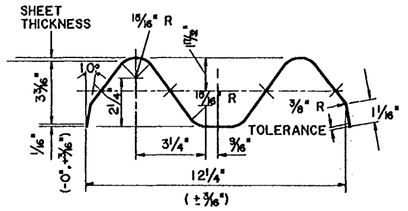
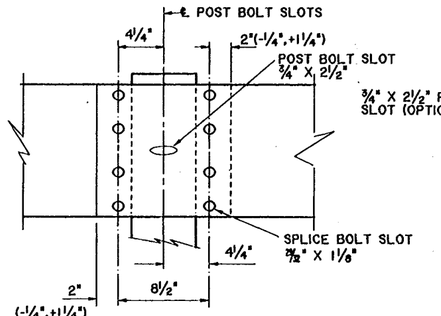
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES HIGHWAY GUARD RAILS

DESIGNED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY:			
CHECKED BY:	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 89 OF 93

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.

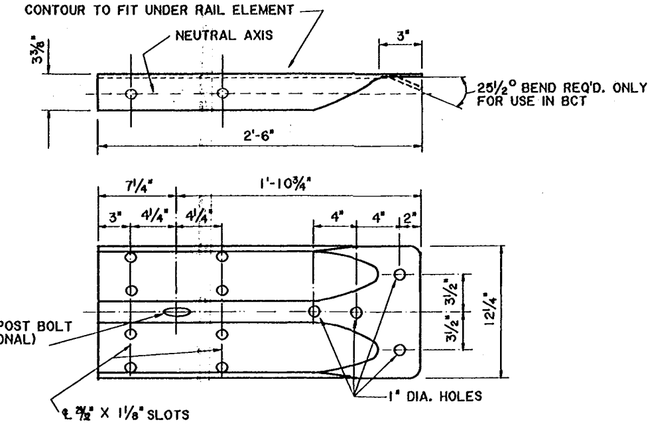




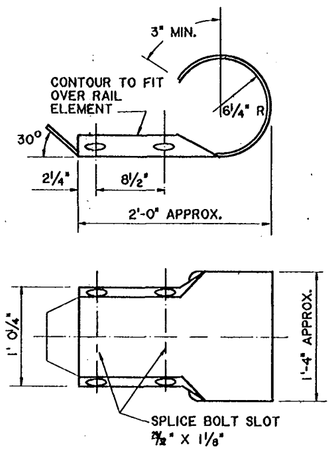
SPLICE DETAIL

5/8" X 1 1/4" BUTTON HEAD OVAL SHOULDER BOLTS WITH 1 1/4" RECESSED HEX NUTS-TOTAL 8 PER SPLICE AND 4 PER TERMINAL SECTION. LAP IN DIRECTION OF TRAFFIC.

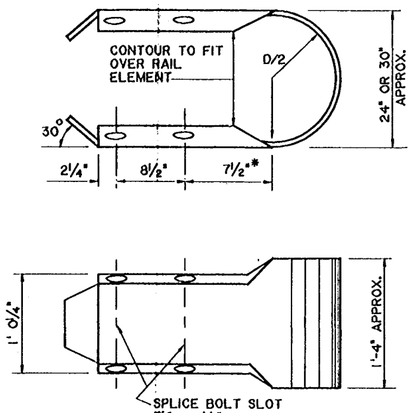
W BEAM GUARD RAIL ELEMENT



W BEAM TERMINAL CONNECTOR

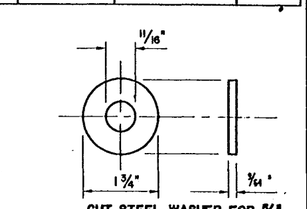


W BEAM END SECTION (ROUNDED)

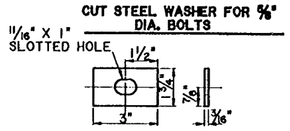


* THIS DIMENSION APPLIES WHEN BUFFER IS USED IN BCT

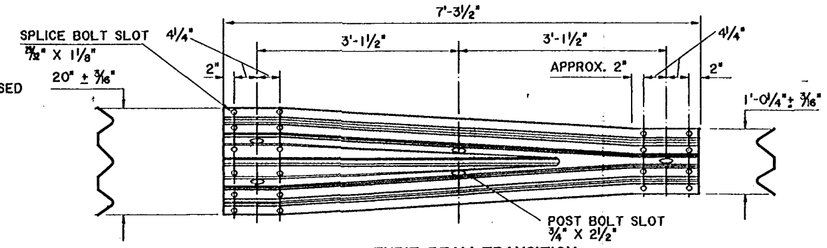
W BEAM END SECTION (BUFFER)



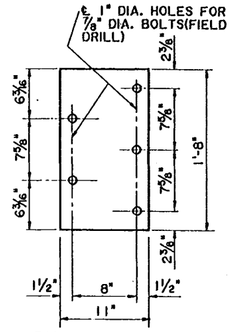
CUT STEEL WASHER FOR 5/8" DIA. BOLTS



RECTANGULAR PLATE WASHER



THRIE BEAM TRANSITION

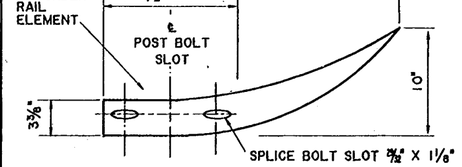


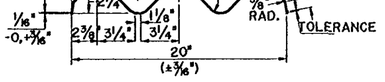
5/8" BEARING PLATE

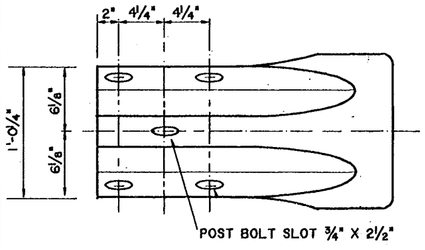
(FOR ANCHORING THRIE BEAM TO CONCRETE BARRIER RAIL)

GENERAL NOTES

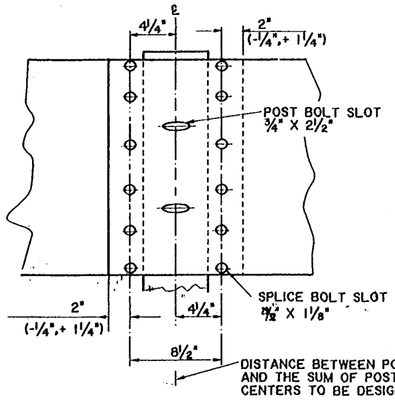
1. UNLESS SHOWN OTHERWISE, ALL GUARD RAIL COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF THE A.A.S.H.T.O. GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE, CURRENT ADDITION.
2. ALL RAIL COMPONENTS EXCEPT THE W AND THRIE BEAM TERMINAL CONNECTORS SHALL BE CLASS A SHEET METAL THICKNESS (12 GAGE) WITH TYPE 2 COATING (0.111 NOM.). THE W AND THRIE BEAM TERMINAL CONNECTORS SHALL BE CLASS B SHEET THICKNESS (10 GAGE) WITH TYPE 2 COATING (0.141 NOM.).

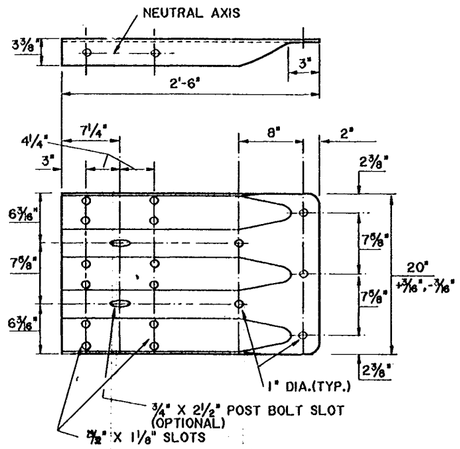




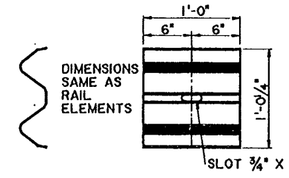


W BEAM END SECTION (FLARED)





TERMINAL CONNECTOR (THRIE BEAM)



W-BEAM BACKUP PLATE FOR USE AT INTERMEDIATE STEEL POST(NON-SPLICE POST)

STATE OF LOUISIANA
NGOAN NGOC ONG
REG No. 20096
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
Ngoan Ngoc Ong
2/14/96

STRUCTURAL DETAILS

STANDARD PLAN NO. GR 200	SHEET NO. 7 OF 10

HIGHWAY GUARD RAILS

DATED 1-2 19 89

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	DETAILED M. DUGAS	DR. standard/gr200e
CHECKED	CHECKED H. GHARA	FILE gr 2007.bd

APPROVED DEMPSEY D. WHITE DATE 2-12-89
CHIEF ENGINEER

DATE	DESCRIPTION	BY	APPROVED
	REVISIONS		
02-02-96	GENERAL	F.W.A.	
05-30-93	5/8" BEARING PLATE	N.P.K.	D.D.W.
01-18-91	GENERAL NOTES (NO. 2)	N.P.K.	D.D.W.
07-12-90	SHT. 1,2,4,5,8 & 9 OF 10	N.P.K.	D.D.W.
12-08-89	SHT. 4 OF 10	N.P.K.	D.D.W.
09-26-89	SHT. 1,2,4 & 5 OF 10	N.P.K.	D.D.W.
06-17-89	SHT. 1 & 5 OF 10	N.P.K.	D.D.W.
03-27-89	GENERAL	N.P.K.	D.D.W.

Safety is a Part of Your Contract

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C•A•D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HIGHWAY GUARD RAILS

DESIGNED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
DRAWN BY:			
CHECKED BY:	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 90 OF 93

STATE PROJECT	PARISH	SHEET NO.

ADVANCE ROAD (STREET) CONSTRUCTION SIGN (W20-1)

The Road (Street) Construction sign is to be located in advance of the initial activity or detour a driver may encounter, and is intended for use as a general warning of obstructions or restrictions. It carries the legend ROAD (STREET) CONSTRUCTION ( ) FT. or ROAD (STREET) CONSTRUCTION ( ) MILE. It may be used in repetition with appropriate legends, or in conjunction with other construction signs.

The legend ROAD (STREET) CONSTRUCTION AHEAD is intended mainly for use on approaches of Roads (Streets) that intersect the route under construction in between the 500 FT. advance warning signs and the End Construction sign. It is also employed as the first advance sign in urban settings with short 250' spacing.

ROAD CONSTRUCTION 1500 FT

W20-1
48" x 48"

ADVANCE DETOUR SIGN (W20-2)

The Detour sign is intended for use in advance of a point at which traffic is diverted over a temporary roadway or route. It carries the legend DETOUR ( ) FT. or DETOUR ( ) MILE. It may be used in repetition with appropriate legends or in conjunction with other construction signs.

DETOUR 1000 FT

W20-2
48" x 48"

ADVANCE ROAD (STREET) CLOSED SIGN (W20-3)

The Road (Street) Closed sign is intended for use in advance of a point at which a roadway is closed to all traffic or to all but local traffic. It carries the legend ROAD (STREET) CLOSED ( ) FT. or ROAD (STREET) CLOSED ( ) MILE. It may be used in repetition with appropriate legends or in conjunction with other construction signs.

ROAD CLOSED 1000 FT

W20-3
48" x 48"

ADVANCE ONE LANE ROAD SIGN (W20-4)

The One Lane Road sign is used only in advance of a point where traffic in both directions must use a single lane. It carries the legend ONE LANE ROAD ( ) FT. or ONE LANE ROAD ( ) MILE. It may be used in repetition with appropriate legends or in conjunction with other construction signs.

If the affected one-lane roadway is not visible from one end to the other, or if traffic is such that simultaneous arrivals at both ends occur frequently, flagging procedures or signal control shall be used to control alternate traffic flows. In general, two-way traffic will always be restored at night. Only in special low volume and/or short length situations will a one lane road be left at night unattended.

ONE LANE ROAD 1000 FT

W20-4
48" x 48"

ADVANCE LANE CLOSED SIGN (W20-5)

The Lane Closed sign is intended for use in advance of a point where one lane of a multiple-lane roadway is closed. It carries the legend RIGHT (LEFT) LANE CLOSED ( ) FT. or RIGHT (LEFT) LANE CLOSED ( ) MILE. It may be used in repetition with appropriate legends or in conjunction with other construction signs.

RIGHT LANE CLOSED 1500 FT

W20-5
48" x 48"

ADVANCE FLAGGER SIGN (W20-7)

The Flagger sign is used in advance of any point at which a flagger has been stationed to control traffic through a construction or maintenance project. When needed, an appropriate distance message may be displayed on a supplemental plate below the symbol sign. It may be used in repetition with appropriate revisions in the supplemental distance plate or in conjunction with other construction signs.

The word message sign W20-7 with appropriate distances may be used as an alternate to the W20-7a flagger symbol sign.

The sign shall be promptly removed, covered, or turned to face away from the roadway when the flagger is not at the station.

FLAGMAN AHEAD / 500 FEET

W20-7
36" x 36"
Supplemental Plate
24" x 18"

500 FEET

W20-7a
36" x 36"
Supplemental Plate
24" x 18"

DETOUR SIGNS

The Detour Arrow sign (M4-10) is used only at the point where a detour roadway or route has been established due to the closure of a street or highway to through traffic. It should usually be mounted just below the Road Closed sign or the Local Traffic Only sign, normally on top of a Type III barricade.

The Detour Marker (M4-8) mounted on a route marker assembly is to be used to mark a temporary detour route that branches from a regular numbered route, bypasses a section of a route that is closed by construction, or other reasons; and rejoins the regular route beyond that section. The route marker assembly shall include an arrow indicating the direction of the detour.

The Detour sign (M4-9) is to be used for unnumbered routes, or in emergency situations; for periods of short duration, or where it is not necessary to show route markers to guide traffic along to its desired route. A Street Name sign may be placed above or incorporated in the Detour sign to indicate the name of the roadway for which the detour was established.

DETOUR →

M4 - 9 R
M4 - 9 L
30" x 24"

DETOUR

M4 - 8
12" x 24"

DETOUR

M4 - 10 R
M4 - 10 L
48" x 18"

Background - Black
Legend - Black
Arrow - Orange
Legend - 6" Series D

ROAD CLOSED SIGN (R11-2)

The Road (Street) Closed Sign shall be used where the road is closed to all traffic except contractors' equipment and officially authorized vehicles. It should be erected at or near the center of the roadway above a Type III barricade. The words BRIDGE OUT may be substituted for ROAD CLOSED where applicable. It shall have a standard and minimum size of 48 in. by 30 in.

The Road Closed sign shall not be used where traffic is maintained or where the actual closure is some distance beyond the sign and local traffic is permitted access to nearer points.

ROAD CLOSED

R11-2
48" x 30"

Background - White
Legend & Border - Black
Legend - 8" Series D

ROAD MACHINERY AHEAD SIGN (W21-3)

The Road Machinery sign shall be used in areas where heavy road equipment such as a grader is operating in or closely adjacent to the roadway.

FRESH OIL SIGN (W21-2)

The Fresh Oil or Fresh Tar sign shall be used to warn motorists that resurfacing operation have rendered the surface of the pavement temporarily hazardous and that objectionable splashing on vehicles may occur.

ROAD MACHINERY AHEAD

W21-3
36" x 36"

Legend 5" Series D

FRESH OIL

W21-2
30" x 30"

Legend 6" Series D

ROAD WORK AHEAD SIGN (W21-4)

The Road Work sign is intended for use in advance of maintenance or minor reconstruction operations in the roadway.

ROAD WORK 1 MILE

W21-4
36" x 36"

Legend 5" Series D

SHOULDER WORK AHEAD SIGN (W21-5)

The Shoulder Work sign is intended for use in advance of maintenance or minor reconstruction operations involving the shoulder, where the traveled way remains unobstructed.

SURVEY CREW SIGN (W21-6)

The Survey Crew sign is intended for use in advance of a point where a surveying party is working in or closely adjacent to the roadway.

SHOULDER WORK

W21-5
30" x 30"

Legend 5" Series C

SURVEY CREW

W21-6
30" x 30"

Legend 5" Series D

LENGTH OF CONSTRUCTION SIGN (G20-1)

The Length of Construction guide sign shall be erected at the beginning of any major road construction or maintenance job of more than 2 miles in length, where traffic is maintained through the job. It carries the legend ROAD CONSTRUCTION NEXT ( ) MILES. Ordinarily it should be mounted on top of a Type III barricade. The project length shall be approximated only to the nearest tenth of a mile.

END CONSTRUCTION SIGN (G20-2)

The End Construction Sign shall be erected approximately 500 feet beyond the end of a major construction or maintenance job to indicate the limits of any restrictions or special precautions that have been imposed.

ROAD CONSTRUCTION NEXT 5.0 MILES

G20-1
60" x 36"

END CONSTRUCTION

G20-2
60" x 24"

Legend - 6" Series C

LOCAL TRAFFIC ONLY SIGN (R11-3)

The Local Traffic Only sign shall be used where through traffic must detour to avoid a closing of the highway at a construction or maintenance job some distance beyond but where the highway is open for traffic up to the point of closure. It carries the Legend ROAD CLOSED ( ) MILES AHEAD - LOCAL TRAFFIC ONLY. It should be erected at both sides of the roadway on a Type III barricade. Normally it will be accompanied by a detour arrow sign indicating the proper route for through traffic. The words BRIDGE OUT may be substituted for ROAD CLOSED where applicable. Where the sign faces through traffic it should be preceded by an advance road closed sign with the secondary legend ahead and if applicable an advance detour sign. The distance from the sign to the road closure shall be approximated to the nearest tenth of a mile.

ROAD CLOSED 10.0 MILES AHEAD LOCAL TRAFFIC ONLY

R11-3
60" x 30"

Background - White
Legend & Border - Black
Legend - Line 1 - 6" Series C
Line 2 - 5" Series C
Line 3 - 4" Series C

TWO WAY TRAFFIC SIGN (W6-3)

The Two Way Traffic Sign is intended for use where a roadway designed or normally used for one way traffic is temporarily being used for traffic in both directions or where under any circumstance it may be necessary to remind drivers that they are traveling on a two way roadway. The sign should be placed at intervals of about one-half mile but not exceeding one mile. Special care must be taken to place it at or just beyond any important access points.

W6-3
48" x 48"

SIDE ROAD CONSTRUCTION AHEAD SIGN

The Side Road Construction Ahead sign is intended for use in advance of an intersection where the road construction project on the side roadway approach terminates at the crossing. No construction activity shall be on the through roadway.

SIDE ROAD CONSTRUCTION AHEAD

36" x 36"

Legend 5" Series C

DO NOT PASS SIGN (R4-1)

The Do Not Pass sign may be used on a two or three-lane road, at the beginning of, and at intervals of 1500' within a work zone through which restricted sight distance or other conditions makes overtaking and passing hazardous. Where standard pavement markings are present, the sign need not be used. However, the sign may be used in addition to the pavement markings to emphasize the restriction on passing.

Because a driver about to pass often has only a restricted view to the right, consideration should be given to placing a sign on the left-hand side of the roadway. The No Passing Zone sign (W14-3) placed on the left-hand side of two-way roadways, should be considered as a supplement to the enforceable no-passing zone control, which is the regulatory marking and/or the regulatory Do Not Pass sign.

PASS WITH CARE SIGN (R4-2)

The Pass With Care sign should be used at the end of a no-passing zone where a Do Not Pass sign has been erected at the beginning of the zone. It shall be of the same size and erected in the same manner as the Do Not Pass sign.

DO NOT PASS

R4-1
24" x 30"

Background - White
Legend & Border - Black
Legend - 6" Series D

PASS WITH CARE

R4-2
24" x 30"

Background - White
Legend & Border - Black
Legend - 6" Series D

ONE WAY SIGNS

The One Way Sign shall be used to indicate streets or roadways upon which vechicular traffic is allowed to travel in one direction only. The vertical design has advantage where lateral space is limited. Both designs may use either right or left arrows.

ONE WAY

R6-1 L
R6-1 R
36" x 12"

Background - Black
Legend - Black
Arrow - White
Legend - 4" Series D

ONE WAY

R6-2 L
R6-2 R
18" x 24"

Background - White
Legend & Border - Black
Legend - 5" Series D

SPEED LIMIT SIGN

Preexisting speed limits shall at no time be increased during construction and shall remain in effect, except when reduced as hereby indicated.

A reduced speed limit of 45 MPH shall be used where shown on plans and may be used at locations within the project limits where construction activities have altered the roadway below original conditions, or where work is in progress and/or equipment is in the immediate vicinity of the travelway. The speed limit can be reduced to 20 MPH if workers are in close proximity to traffic. Preexisting speed limits exceeding the construction speed limit shall be removed or covered.

Reduced speed limits should begin approximately 750 ft. (275 ft. in urban areas) in advance of the point of actual need, and be removed or covered when not required. Reduced speed limits shall also be posted at or just beyond any important access point.

The reduced speed zone shall be terminated by erecting a speed limit sign showing the original speed limit. Work zones separated by less than 1/2 mile shall be considered as a single zone and be continuously posted.

The "Speed Zone Ahead" sign shall be erected in advance of each reduced speed zone signs within a construction area.

SPEED ZONE AHEAD

R2-5c
24" x 30" Standard
48" x 60" on Interstate and Freeways

Background - White
Legend & Border - Black
Legend - Line 1, 2 & 3
6" Series C

SPEED LIMIT 45

R2-1
24" x 30" Standard
48" x 60" on Interstate and Freeways

Background - White
Legend & Border - Black
Legend - Line 1 & 2
4" Series E
Line 3 - 10" Series E

ADVISORY SPEED PLATES (W13-1)

In conjunction with any warning sign an advisory speed plate may be used to indicate a maximum recommended speed through a hazardous area. Except in emergencies an advisory speed plate shall not be erected until the recommended speed has been determined by the traffic engineer. Advisory speeds greater than the posted speed limit shall not be used.

45 M.P.H.

W13-1
18" x 18"

Line 1 - 8" Series E
Line 2 - 3" Series E

SOFT SHOULDERS SIGN

The soft shoulders and or the low shoulders signs shall be used when in the opinion of the project engineer the shoulder of the highway under construction becomes hazardous to traffic.

SOFT SHOULDER

W8-4
30" x 30"

LOW SHOULDER

W8-9
30" x 30"

Legend 5" Series C

NOTE:
All signs on this sheet shall have orange backgrounds with black legends and borders, except where otherwise specified.

DATE	DESCRIPTION	BY	APPROVED

REVISIONS

STANDARD PLAN NO. HS-01   1 OF 3

STANDARD PLAN
HIGHWAY SIGN AND BARRICADE DETAILS
FOR CONSTRUCTION PROJECTS

DATED

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED / DETAILED / TRACED
CHECKED / CHECKED / CHECKED
APPROVED

Safety is a Part of Your Contract

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C·A·D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS
ORLEANS LEVEE BOARD
NEW ORLEANS, LOUISIANA

HARTMAN ENGINEERING, INC.
CONSULTING ENGINEERS
KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HWY. SIGN AND BARRICADE DETAILS FOR CONSTRUCTION

DESIGNED BY: / DRAWN BY: / CHECKED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING, DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 91 OF 93

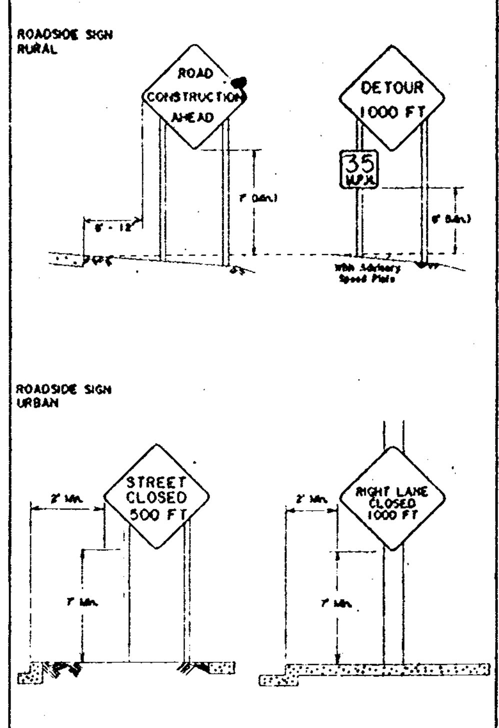


Figure 2-1

Heights and lateral location of signs - typical installations.

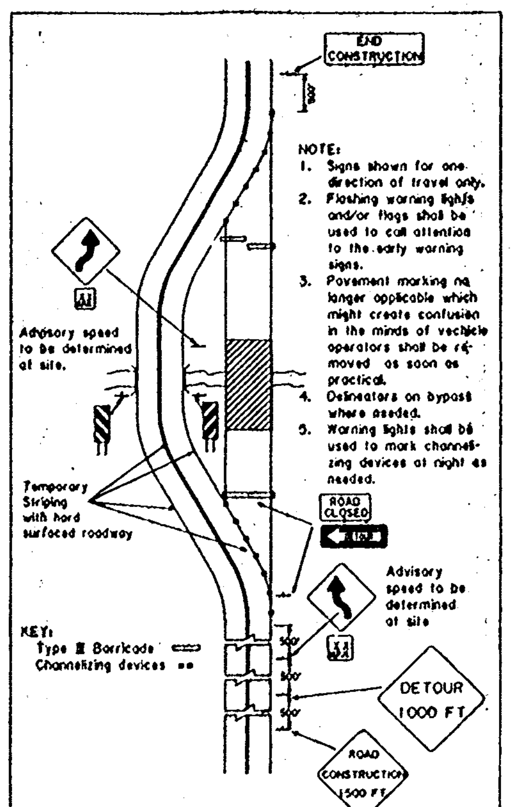


Figure 2-2

Typical application - 2-lane highway where the entire roadway is closed and a bypass detour is provided.

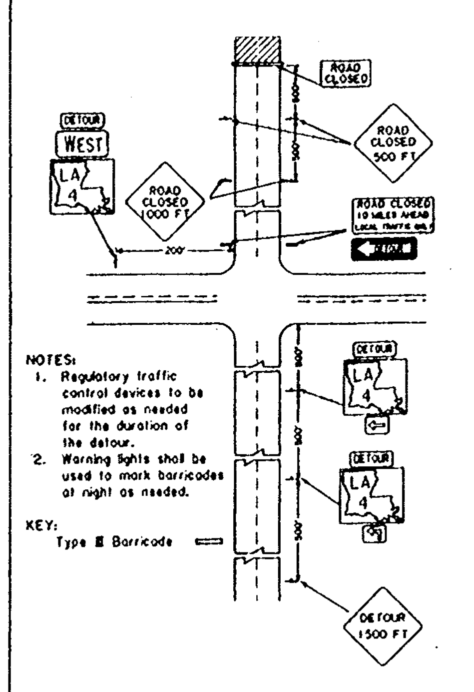


Figure 2-3

Typical application - roadway closed beyond detour point.

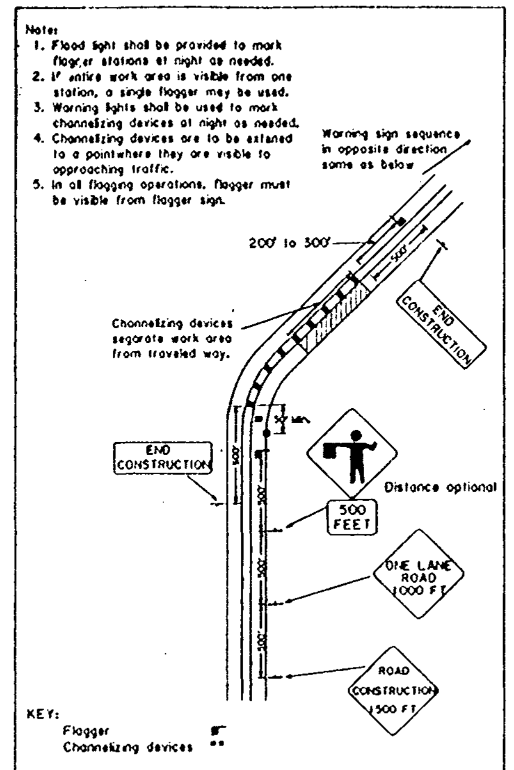


Figure 2-4

Typical application - 2-lane highway where one lane is closed and flagging is provided.

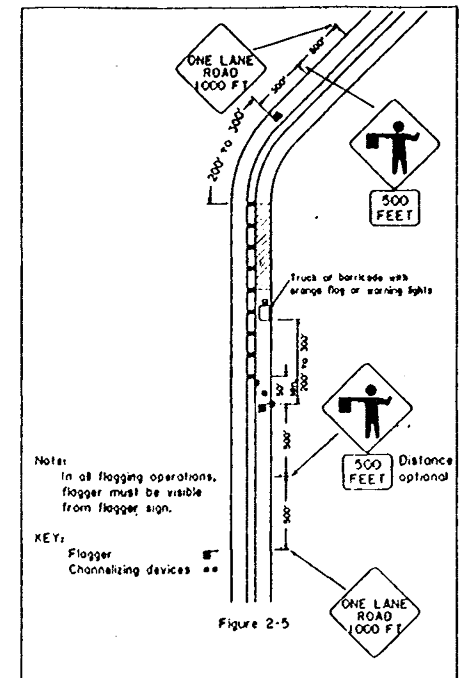


Figure 2-5

Typical application - short duration, daytime maintenance operation on a 2-lane roadway and flagging is provided.

	STATE PROJECT	PARISH	SHEET NO.

NOTES:

GENERAL

1. All signs and pavement markings herein shall be in accordance with the current edition of the "Louisiana Manual on Uniform Traffic Control Devices."
2. No traffic controls shall be erected until construction work is about to begin and with the authorization of the Project Engineer.
3. Responsibility is hereby placed upon the contractor for the erection and maintenance of all markings, signs and barricades called for in these plans or required by the Project Engineer for the protection of the traveling public or construction personnel. The contractor shall also be responsible for the maintenance or refurbishing, if necessary, of all permanent signs and pavement markings that should be left in place as essential to the safe movement and guidance of traffic within the limits of the project.
4. All retroreflective devices such as signs, drums, barricades, vertical panels, delineators of any type, etc., shall be cleaned or washed periodically, to maintain their effectiveness, as required by conditions or the Project Engineer.
5. Where a construction project involves a number of road segments remote from each other, only those segments where actual work is in progress shall be signed. Upon completion of any segment, construction signing shall be removed and replaced with permanent signing.
6. When different projects are next to each other, or separated by less than one mile, they shall be considered as one project for construction signing purposes, and all advance signing at the juncture shall be eliminated, except for any signing that the Project Engineer might require due to site conditions.
7. Signs shown in all illustrations are typical and may vary with each specific condition. Other signs from sheet one (1) more appropriate for the specific condition may be substituted in any of the above illustrations upon approval by the Project Engineer. However, the required number of such signs shall in general be constant.
8. Taper Length (L) Formula
   $L = S \times W$ for speed limit > 45 MPH $L = \frac{WS^2}{60}$ for speed limit < 40 MPH
   where:
   L = minimum length of taper
   S = numerical value of posted speed limit prior to work or 85th precentile speed
   W = Width of offset
9. Spacing of channelizing devices such as cones, panels, drums, and Type I or II barricades shall not exceed a distance in feet equal to the speed limit when used for taper channelization and a distance in feet of twice the speed limit when used for tangent channelization

PAVEMENT MARKINGS

All pavement markings at either end of or within the limits of the project that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by abrasion. If, in the opinion of the project engineer, special pavement markings are needed as a traffic control, as in channelization or width transitions, they shall be reflectorized, removable, temporary lane marking tape and should be accompanied by proper signs. Typical illustrations are shown in the "Louisiana Manual of Uniform Traffic Control Devices."

SIGN MATERIALS

The backing material used in the fabrication and erection of construction signs shall be in accordance with Subsection 1015.04(b) of the Standard Specifications as revised by project specifications. Signs shall normally be mounted on two posts, except speed limit signs, chevrons and other similar signs, which shall be mounted on one post. A minimum of two bolts per post shall be used.

Reflectorization of signs and barricades shall be by means of materials that conform to the requirements of Subsection 1015.05(a) of the Standard Specifications as revised by project specifications. If support posts should be spliced, the splice should be no higher than 15" above the ground.

All materials and their application shall meet Department Specifications.

REMOVAL OF SIGNS

At no time shall signs warning against a particular hazard or operation be left in place when the operation is not in progress, or where the hazard has been removed. On part-time operations, signs such as "Truck Crossing", "Men Working", etc., shall be removed or set aside out of view of traffic when the operation is not in progress. When construction operations change, signing must change accordingly; all conflicting signs from previous operations must be removed or covered as new signs are erected

COVERING OF SIGNS

Signs shall be covered with a strong, lightweight, completely opaque material, shaped or formed so as to cover all of the legend on the face of the sign. The covering shall be securely fastened so as to prevent its accidental removal by wind or other causes. The covering material shall be non-reflective and of a neutral shade, or black. Burlap cloth, cardboard, or paper are not acceptable materials.

Signs that might obscure other construction signs shall be removed not covered.

LIGHTING

Lighting shall supplement all barricades that close one or more lanes or that extend across a highway. At least two high intensity lights will be used but, where the travelway ends immediately after a barricade, a minimum of four lights shall be used. Lighting shall be by approved electrical installations. Where battery operated equipment is used, it shall conform to specifications for high or low intensity, flashing or steady burning lights as set forth in subsection 1018.12 of the Standard Specifications.

1. High intensity flashing lights shall be used to mark the first advance warning sign.
2. Low intensity flashing lights shall be used to mark all other hazards off the travel way.
3. Steady burning lights shall be used on all traffic control devices used for channelization.

PORTABLE AND TEMPORARY MOUNTINGS

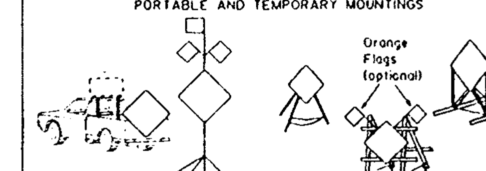


Figure 2-11

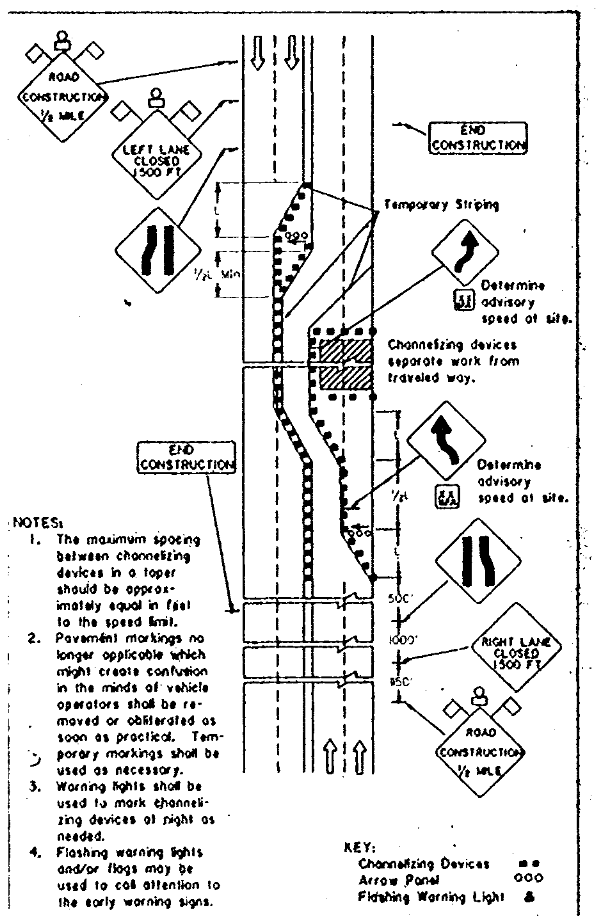


Figure 2-6

Typical application - 4-lane undivided roadway, where half the roadway is closed.

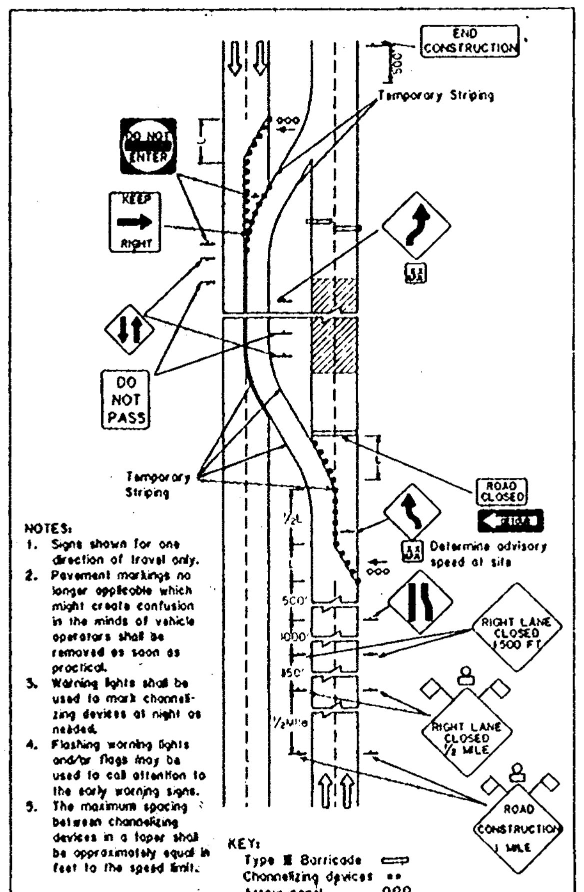


Figure 2-7

Typical application - 4-lane divided where one roadway is closed.

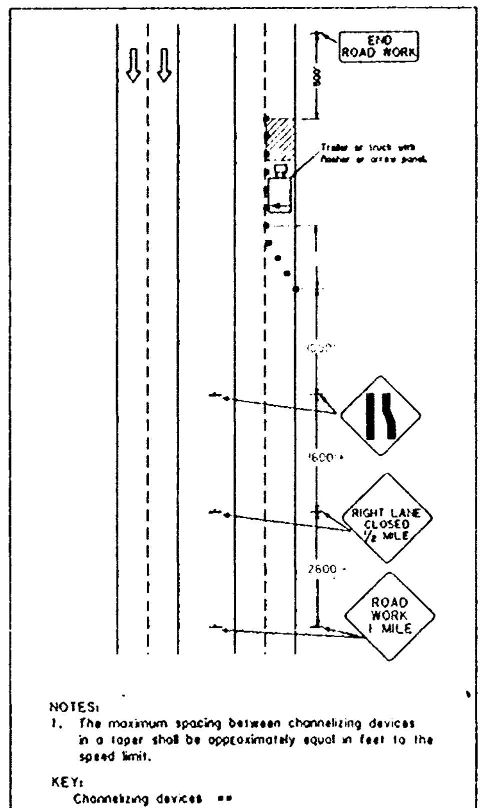


Figure 2-8

Typical application - short duration daytime maintenance operations on a 4-lane divided roadway where half of roadway is closed.

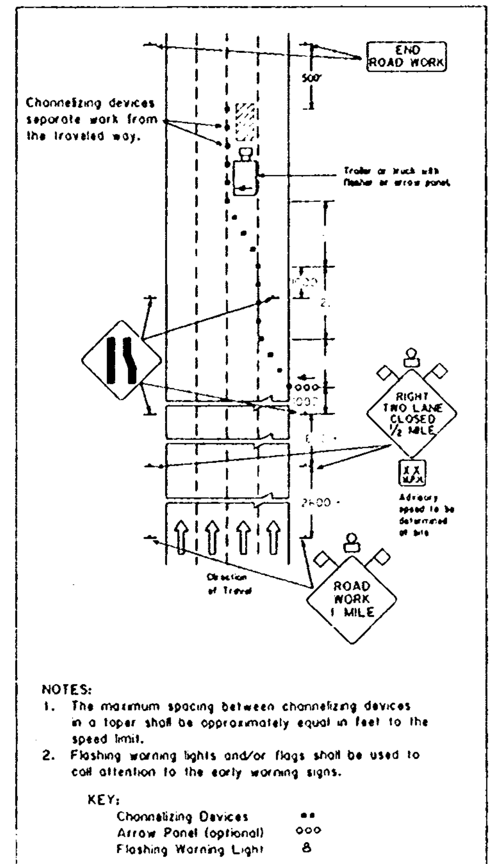


Figure 2-9

Typical application - closing multiple lanes of a multilane highway

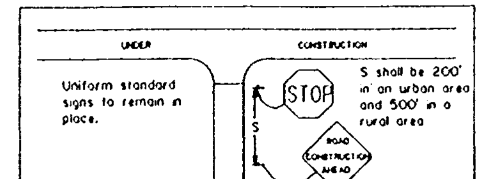


Figure 2-10

Typical signing on a side road approach to a construction project

DATE	DESCRIPTION	BY	APPROVED
	Redraft and update to 1993 standards	DP	

REVISIONS

STANDARD PLAN NO. HS-01 2 OF 3

STANDARD PLAN

HIGHWAY SIGN AND BARRICADE DETAILS

FOR CONSTRUCTION PROJECTS

DATED

STATE OF LOUISIANA

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	A. Carter	DETAILED	D. Bass	TRACED	W. M.
CHECKED	D. Bass	CHECKED	A. Carter	CHECKED	
APPROVED	A. [illegible] CHIEF ENGINEER		DATE	7. 14. 93	

Safety is a Part of Your Contract

VALUE INCENTIVE CLAUSES ENGINEERING — YOUR KEY TO HIGHER PROFITS

C·A·D

AS BUILT PLANS

DATE RECEIVED 5/30/00

DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS ORLEANS LEVEE BOARD NEW ORLEANS, LOUISIANA	HARTMAN ENGINEERING, INC. CONSULTING ENGINEERS KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN

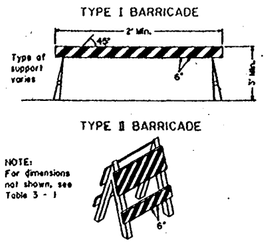
ORLEANS AVENUE OUTFALL CANAL

PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HWY. SIGN AND BARRICADE DETAILS FOR CONSTRUCTION

DESIGNED BY: DRAWN BY: CHECKED BY:	DATE: SEPT. 1998	PLOT SCALE: 1	PLOT DATE: SEPT. 1998
	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 92 OF 93

	STATE PROJECT	PARISH	SHEET NO.



NOTE:
For dimensions not shown, see Table 3 - 1

Figure 3 - 1
Standard Barricades

Table 3 - 1
Barricade Characteristics

Type*	I	II	III
Minimum Width of Rail	8 in.	8 in.	8 in.
Maximum Width of Rail	12 in.	12 in.	12 in.
Minimum Length of Rail	2 ft.	2 ft.	4 ft.
Width of Stripes**	6 in.	6 in.	6 in.
Minimum Height	3 ft.	3 ft.	5 ft.
Number of Reflectorized Rails facing one direction of traffic	1	2	3

* For wooden barricades nominal lumber dimensions will be satisfactory
** For rails less than 3 feet long, 4 inch wide stripes shall be used

Barricade Design

A barricade is a portable or fixed device having from one to three rails with appropriate markings used to control traffic by closing, restricting or delineating all or a portion of the right-of-way.

Barricades shall be one of three types: Type I, Type II, or Type III as shown in Figure 3 - 1 and Table 3 - 1.

Stripes on barricade rails shall be alternate orange and white reflectorized stripes (sloping downward at an angle of 45° in the direction traffic is to pass). The stripes shall be 6 inches wide except where rail lengths are less than 36 inches, then 4 inch wide stripes may be used. The minimum rail length is 24 inches. The entire area of orange and white shall be reflectorized using encapsulated lens reflective sheeting which will display the same approximate size, shape and color day and night, conforming to Subsection 1015.05(e) of the Standard Specifications. The predominant color for other barricade components shall be white, except that unpainted galvanized metal or aluminum components may be used. Barricades used on expressways, freeways, and other high-speed roadways shall have a minimum of 270 square inches of reflective area facing traffic.

Where a barricade extends entirely across a roadway, the stripes should slope downward in the direction toward which traffic must turn in detouring. Where both right and left turns are provided for, the chevron striping may slope downward in both directions from the center of the barricade.

Barricade rails should be supported in a manner that will allow them to be seen by the motorist and provide a stable support not easily blown over by the wind or traffic. For Type I barricades, the support may include other unstriped horizontal panels necessary to provide stability. The name of the agency, contractor, or support shall not be shown on the face parts of any barricade. Identification markings may be shown only on the back side of barricade rails.

Barricades are located adjacent to traffic and therefore subject to impact by errant vehicles. Because of their vulnerable position and the possible hazard they could create, they should be constructed of lightweight materials and have no rigid stay bracing for A-frame designs.

Barricade Application

Type I or Type II barricades are intended for use in situations where traffic is maintained through the area being constructed and/or reconstructed. They may be used singly or in groups to mark a specific hazard or they may be used in a series for channelizing traffic. Type I barricades would normally be used on conventional roads or urban streets and arterials. Type II barricades have more reflective area, and are intended for use on expressways and freeways or other high speed roadways.

On high speed expressways or in other situations where barricades may be susceptible to overturning in the wind, sandbags should be used for ballasting. Sandbags may be placed on lower parts of the frame or stays to provide the required ballast but shall not be placed on top of any striped rail. Barricades shall not be ballasted by solid objects such as rocks or chunks of concrete.

Where maintenance activities are being performed, the roadway condition seldom requires a complete closing of the facility. Where such a condition does occur, it is almost always an emergency situation, as would result from a broken waterman or a washed-out culvert. The type of repair work is generally initiated on an emergency basis and the street or road closure can be accomplished with Type I barricades.

On construction projects, where a road section is closed to traffic, Type III barricades shall be erected at the points of closure. They may extend completely across a roadway and its shoulders or from curb to curb. Where provisions must be made for access of equipment and authorized vehicles, the Type III barricades shall be provided with gates or movable sections that can be closed when work is not in progress, or with indirect openings that will discourage public entry. Where access is provided through the Type III barricades, responsibility shall be assigned to a person to assure proper closure at the end of each working day.

When a road or street is legally closed, but access must still be allowed for local traffic, the Type III barricade cannot be extended completely across a roadway. A sign with the appropriate legend concerning permissible use by local traffic shall be mounted above the barricade.

Wing barricades are a special application of Type III barricade, erected on the roadway shoulder (on one or both sides of the pavement) to give the illusion of a narrowed or restricted roadway.

Type III barricades may be used as a mounting for regulatory signs, guide signs or lighting devices. The Road Closed signs, Detour Arrow signs, and the Large Arrow warning signs, for example, can effectively be mounted above the barricade that closes the roadway.

Construction and maintenance zones often encroach on sidewalks or crosswalks necessitating provisions for alternate routing. Where it is not possible to close a path and divert the pedestrians to other walkways, barricades may be used to define the path. Warning lights shall be used on sidewalk barricades in accordance with the following paragraph; however, where high levels of illumination exist for sidewalk areas, extra lighting may not be needed.

For nighttime use of any type of barricade, add flashing warning lights when barricades are used singly, and steady burn lights when barricades are used in a series for channelization.

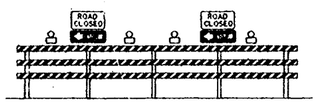


Figure 3 - 2
Barricade closing a road

Application of Barricades - Where a road is closed to traffic, Type III barricades shall be erected at the points of closure, and shall extend across the roadway to a minimum of 2 ft. from each edge. To further discourage public motorists gaining access through the construction site by removing the barricades, the Type III barricades shall be anchored to the existing roadway if necessary.

Figure 3 - 2 shows a typical closure of a two lane roadway. Four high intensity flashing warning lights shall be placed on the barricade as shown above. If only one lane of the travelway is closed by a barricade, two lights shall be used.

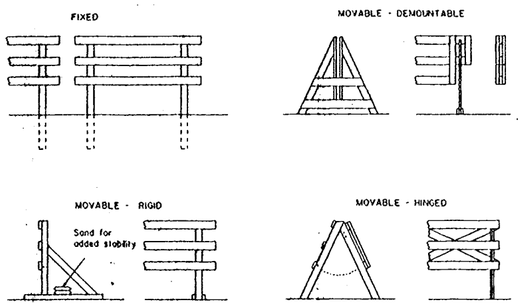


Figure 3 - 3
Type III barricade construction - Typical examples

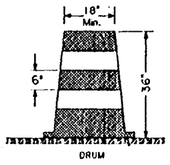


Figure 3 - 4

Drum Design

Drums used for traffic warning or channelization shall be made of plastic and shall be as per the qualified product list. Drums shall be approximately 36 inches in height and a minimum of 18 inches in diameter. The markings on drums shall be horizontal, circumferential, alternating orange and white reflectorized stripes 6 inches wide, using a material that has a smooth, sealed outer surface which will display the same approximate size, shape and color day and night, conforming to Subsection 1015.05(e) of the Standard Specifications. There shall be at least two orange and two white stripes on each drum with the top stripe being orange. If there are nonreflectorized spaces between the horizontal orange and white stripes, they shall be no more than two inches wide. Drums shall have closed tops which will not allow collection of construction or other debris.

Drum Application

Drums are most commonly used to channelize or delineate traffic flow but may also be used singly or in groups to mark specific hazards. Drums are highly visible and have good target value, giving the appearance of being formidable obstacles and, therefore, command the respect of drivers. They are portable enough to be shifted from place to place within a construction project in order to accomodate changing conditions, but are generally used in situations where they will remain in place for a prolonged period of time. When drums are placed in the roadway, appropriate advance warning signs shall be used.

Drums should not be weighted with sand, water, or any other material to the extent that would make them hazardous to motorists, pedestrians, or workers; a typical ballast would be a 25 pound bag of sand placed on the base of the drum. When they are used in regions susceptible to freezing, they should have drain holes in the bottom so water will not accumulate and freeze, causing a hazard if struck by a motorist. Ballast shall not be placed on top of the drum. Drums shall not be ballasted with solid objects such as rocks or pieces of concrete.

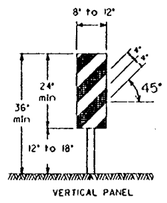


Figure 3 - 5

Vertical Panel Design

Vertical panels shall be 8 to 12 inches in width and at least 24 inches in height. They shall have orange and white stripes reflectorized with the same material as drums. Panel stripe widths shall be 6 inches except where panel heights are less than 36 inches, then 4 inch stripes may be used. If used for two-way traffic, back-to-back panels shall be used.

Stripes for vertical panels shall slope downward at an angle of 45° in the direction traffic is to pass. Vertical panels used on expressways, freeways, and other high speed roadways shall have a minimum reflective area of 270 square inches facing traffic.

Vertical Panel Application

Vertical panels may be used to channelize traffic, divide opposing lanes of traffic, divide traffic lanes when two or more lanes are kept open in the same direction and in place of barricades where space is limited.

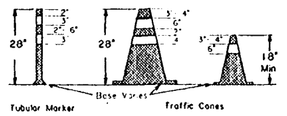


Figure 3 - 6

Tubular Marker Design

Tubular markers shall be predominantly orange, not less than 18 inches high and not less than 2 inches wide when viewed from any direction, and shall be made of a material that can be struck without damaging impacting vehicles. Tubular markers shall be a minimum of 28 inches high when they are used on freeways and other high-speed roadways and on all facilities during hours of darkness, or whenever more conspicuous guidance is needed.

For nighttime use, tubular markers shall be reflectorized. Reflectorization of tubular markers shall be provided by two, 3 inch wide white bands placed a maximum of 2 inches from the top of the marker, with a maximum of 6 inches between the bands. Reflectorized material shall conform to Subsection 1015.05(e) for Drums of the Standard Specifications.

Tubular Marker Application

Tubular markers have less visible area than other devices and shall generally be used in situations where space restrictions do not allow the use of more visible devices. They may be used to divide opposing traffic lanes, divide traffic lanes when one or more lanes are kept open in the same direction, and to delineate edge of pavement dropoff where space limitations do not allow the use of larger devices.

Steps should be taken to ensure that tubular markers will not be blown over or displaced by wind or moving traffic. Effective steps include affixing them to the pavement with anchor bolts or adhesive, using weighted bases or weighted rings that can be dropped over the marker. Ballast, however, should not present a hazard if the markers are inadvertently struck. If a non-cylindrical device is used, and it could be displayed with a width less than the minimum facing traffic, it shall be attached to the pavement.

Cone Design

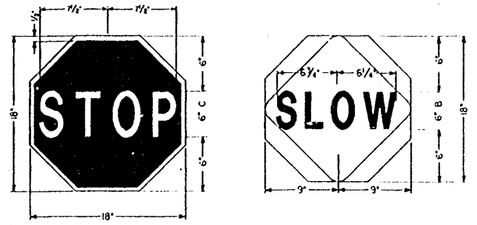
Cones shall be predominantly orange, not less than 18 inches high, and shall be made of a material that can be struck without damaging impacting vehicles. Cones shall be a minimum of 28 inches high when they are used on freeways and other high-speed roadways and on all facilities during hours of darkness, or whenever more conspicuous guidance is needed.

For daytime use only, an 18 inch high cone may be reflectorized by placing a 6 inch wide white band 3 to 4 inches down form the top of the cone. For nighttime use, cones shall be reflectorized or equiped with lighting devices for maximum visibility. Reflectorization of 28 inch cones shall be provided by a white band 6 inches wide placed 3 to 4 inches from the top of the cone, and an additional 4 inch wide white band 2 inches below the 6 inch band. Reflectorized material shall have a smooth, sealed outer surface which will display the same approximate color day and night, and shall meet the requirements of Subsection 1015.05(e) of the Standard Specifications.

Cone Application

Traffic cones are used to channelize traffic, divide opposing traffic lanes, divide traffic lanes when two or more lanes are kept open in the same direction, and shall basically be used for emergency situations, or short term operations that require rapid deployment and removal of channelizing devices.

Steps should be taken to ensure that cones will not be blown over or displaced by wind or moving traffic. Cones can be doubled up to increase their weight. Some cones are constructed with bases that can be filled with ballast, or can be weighted by droping rings over the cone. Ballast, however, should not present a hazard if the cones are inadvertently struck.



Background - Red
Borders - White
Legend - 6" series C
To be made of 0.08 aluminum, or 0.04 tempered aluminum

Background - Orange (reflectorized)
Area outside diamond - Black or Light Blue
Legend - 6" series B
To be made of 0.08 aluminum, or 0.04 tempered aluminum

Figure 3 - 7
Details of hand sign

To STOP Traffic — Traffic Proceed — To Alert & SLOW Traffic

Figure 3 - 9
Use of Hand Sign

Use of hand signaling devices by flagger

A flagger equiped with a sign paddle shall be stationed where construction operations require two-way traffic to use a single lane, where moving equipment enters or crosses the travelway, and well in advance of blasting or any other hazardous operation requiring the absolute control of traffic. Flagger stations shall be located in a highly visible location in advance of the work zone. The distance before the work zone should allow motorists to safely decelerate and is thus related to the approach speeds and physical conditions of the site. 200 to 300 feet is desireable in most situations. In urban areas, where speeds are low and streets are closely spaced, the advance distance should be decreased. The hand sign (Fig. 3-9) gives drivers more positive guidance than flags, and shall be the primary hand signaling device. The sign paddle shall be provided with a rigid handle and a secure mounting as shown.

The following standard procedure shall be followed by flaggers:
(A) Stand adjacent to the traveleway, never in the traveleway;
(B) Stand alone. Never permit a group of workers to congregate around or obscure the flagger;
(C) Be courteous in explaining the reason for the delay and in issuing instructions to motorists;
(D) Reasonable efforts should be made to allow drivers the right-of-way and to prevent excessive delays;
(E) Flaggers shall wear an orange vest, an orange cap shall be optional;
(F) For night operations all signs and clothing shall be reflectorized, flagging stations should be illuminated, and flaggers should be equped with a bright red light;
(G) Use the following motions to direct traffic (figure 3-9):
1. To STOP traffic. Face traffic with STOP sign paddle in a stationary position, with arm extended horizontally from the body. Raise the free arm with the palm facing traffic;
2. Traffic Proceed. Face traffic with SLOW sign paddle in a stationary position, with arm extended horizontally from the body. Use the free arm to motion traffic ahead;
3. To Alert or SLOW Traffic. Face traffic with SLOW sign paddle in a stationary position, with arm extended horizontally from the body. Move the free arm up and down.;

STANDARD PLAN NO.	HS-01	SHEET 3 OF 3

STANDARD PLAN
HIGHWAY SIGN AND BARRICADE DETAILS
FOR CONSTRUCTION PROJECTS
DATED:

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED
APPROVED		

DATE	DESCRIPTION	BY	APPROVED

REVISIONS

VALUE INCENTIVE CLAUSES ENGINEERING — HIGH SPEED TO HIGHER PROFITS

Safety is a Part of Your Contract

C•A•D

AS BUILT PLANS
DATE RECEIVED 5/30/00
DATE TRACINGS CORRECTED 6/13/00

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

BOARD OF LEVEE COMMISSIONERS ORLEANS LEVEE BOARD NEW ORLEANS, LOUISIANA	HARTMAN ENGINEERING, INC. CONSULTING ENGINEERS KENNER, LOUISIANA

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
ORLEANS AVENUE OUTFALL CANAL
PHASE 1C
ORLEANS PARISH
LOUISIANA

FILMORE AND HARRISON AVE. BRIDGES
HWY. SIGN AND BARRICADE DETAILS FOR CONSTRUCTION

DESIGNED BY:	DATE:	PLOT SCALE:	PLOT DATE:
DRAWN BY:	SEPT. 1998	1	SEPT. 1998
CHECKED BY:	CADD FILE: SHT83-93.DGN		FILE NO. H-4-45050
SUBMITTED BY: HARTMAN ENGINEERING DESIGN ENGINEER	SOLICITATION NO. DACW29-99-B-0008		DWG. 93 OF 93