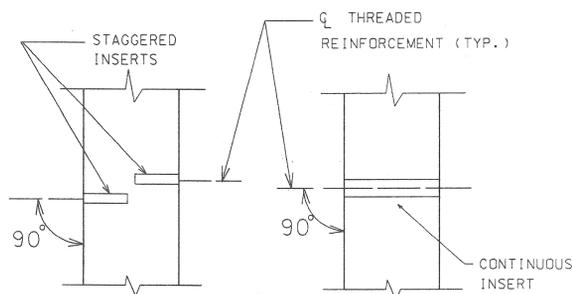
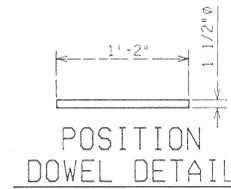
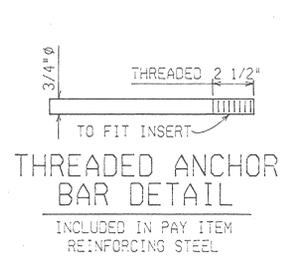


DIAPHRAGM ELEVATION
SCALE: 1/2" = 1' - 0"

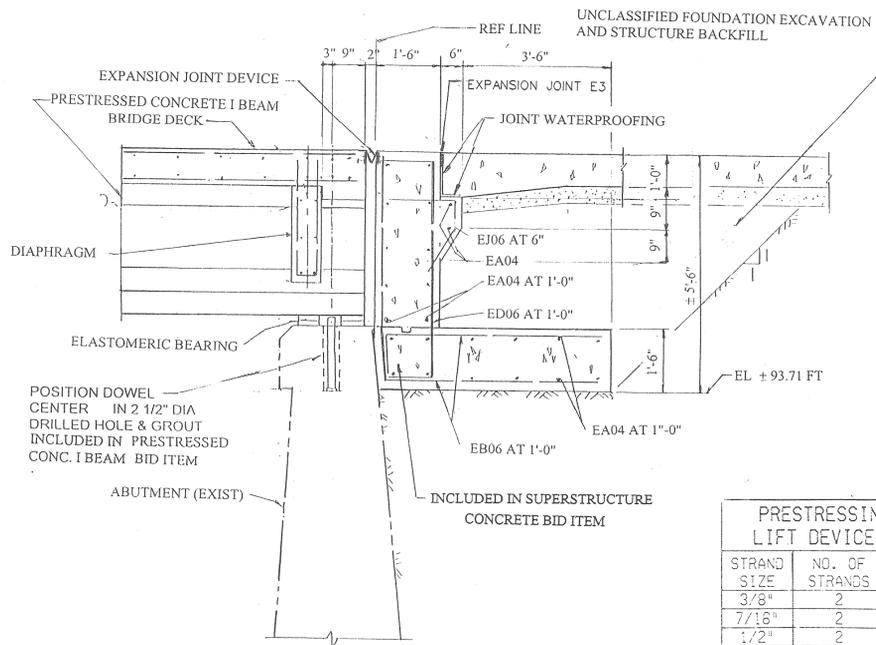
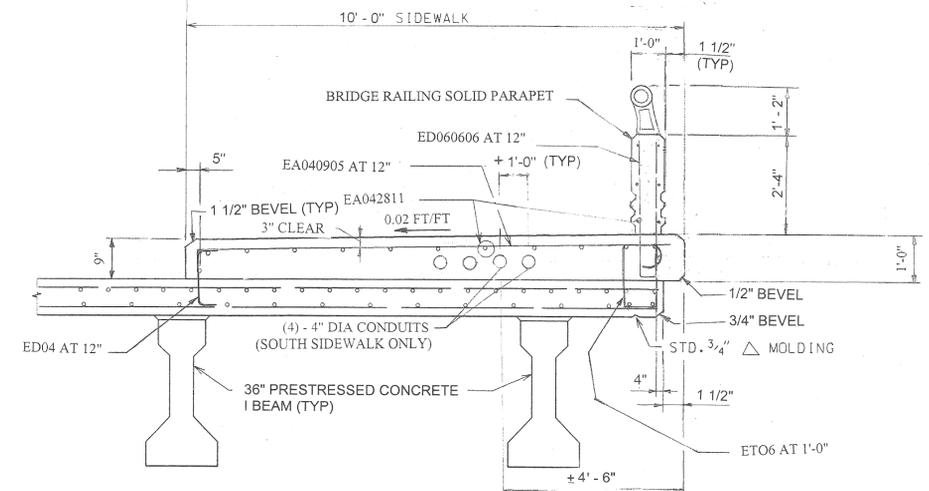
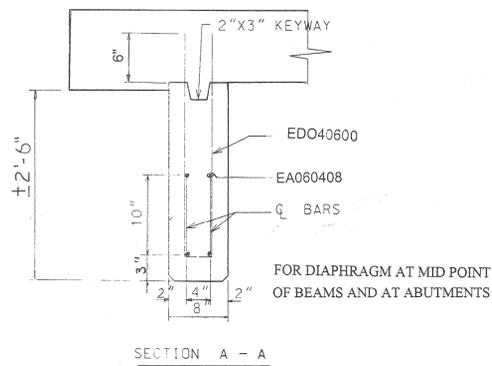


CONCRETE INSERT DETAILS

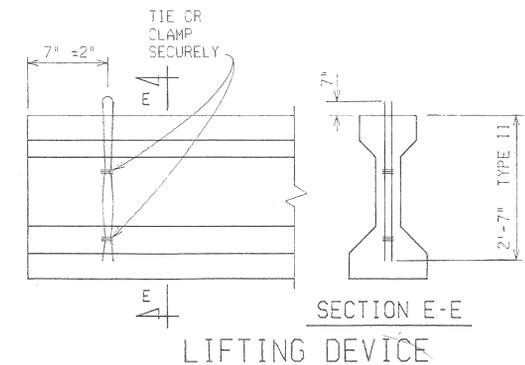
CONCRETE INSERTS AT ENDS OF BEAM SHALL BE STAGGERED AND AT MIDSPAN MAY BE CONTINUOUS OR STAGGERED. THREADED REINFORCEMENT FOR STAGGERED INSERTS SHALL BE BENT TO THE REQUIRED Ø ANGLE PRIOR TO INSTALLATION. BENT REINFORCEMENT MAY REQUIRE INSTALLATION BEFORE BEAM IS ERECTED.



PAY QUANTITIES		
ITEMS	QUANTITY	PAY UNIT
UNCLASSIFIED FOUNDATION EXCAVATION	233	CYD



PRESTRESSING STRAND LIFT DEVICE CAPACITY		
STRAND SIZE	NO. OF STRANDS	ALLOWABLE WT. OF BEAM
3/8"	2	20 TONS
7/16"	2	27 TONS
1/2"	2	36 TONS
3/8"	3	30 TONS
7/16"	3	40.5 TONS
1/2"	3	54 TONS



- SUBSTRUCTURE NOTES:
- THE ENTIRE TOP, EXISTING AND REPAIRED, THE FRONT FACE OF INDEPENDENT BACKWALL, ALL OTHER SURFACES OF EXISTING ABUTMENTS AND PIER, SHALL BE GIVEN AN APPLICATION OF PENETRATING WATER REPELLENT TREATMENT AFTER THE NEW ELASTOMERIC BEARINGS HAVE BEEN PLACED IN FINAL POSITION ON THE STRUCTURE.
 - FORMS FOR LARGE PATCHES SHALL BE INSTALLED IN 2' TO 4' HIGH SECTIONS WITH THE TOP OF FORM NO MORE THAN 4' ABOVE THE LEVEL OF CONCRETE AS THE POUR PROGRESSES.
 - LATEX MODIFIED HIGH-EARLY STRENGTH PATCHING MIXTURE IN ACCORDANCE WITH SUBSECTION 7.03.03 OF THE STANDARD SPECIFICATIONS SHALL BE USED FOR SUBSTRUCTURE REPAIRS.

JOB NO. : 36916A

DESCRIPTION	REVISIONS	DATE	BY	CHECKED BY	APPROVED
PLAN	RF		EH		Earl C. Howard
GRADE					
ESTIMATE					
FINAL	*****				

CITY OF DETROIT

CITY ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS

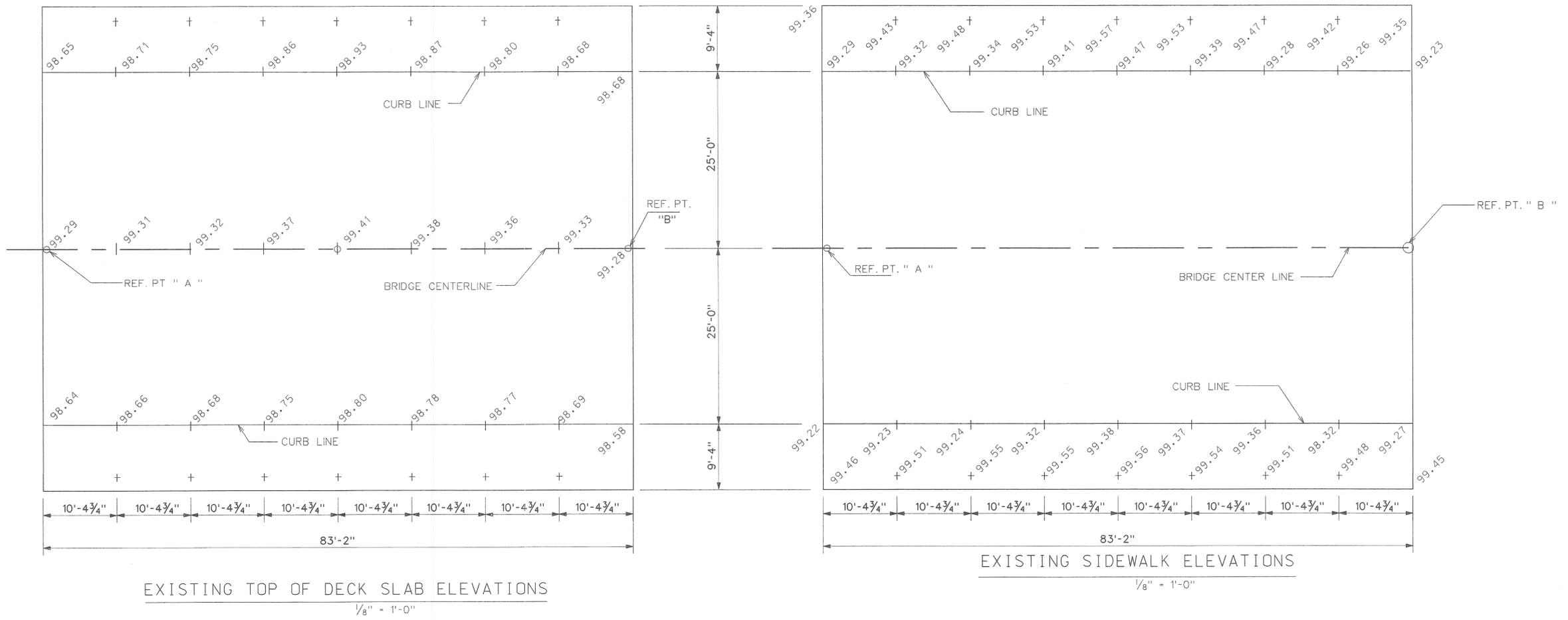
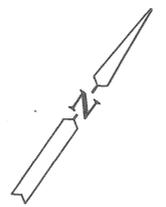
SPINOZA DRIVE BRIDGE OVER ROUGE RIVER (BW-270)
SUPERSTRUCTURE RECONSTRUCTION

SUPERSTRUCTURE DETAILS

SHEET S-9 OF S-41 SHEETS
CONTRACT NO.
ASSIGNMENT NO. 93-22-16
DATE MAR. 1997

SCALE	HORIZONTAL	BOOK NO.	PG.	LEVEL DATE
	VERTICAL	PAVING COMPLETED		

BENCH MARKS ELEV



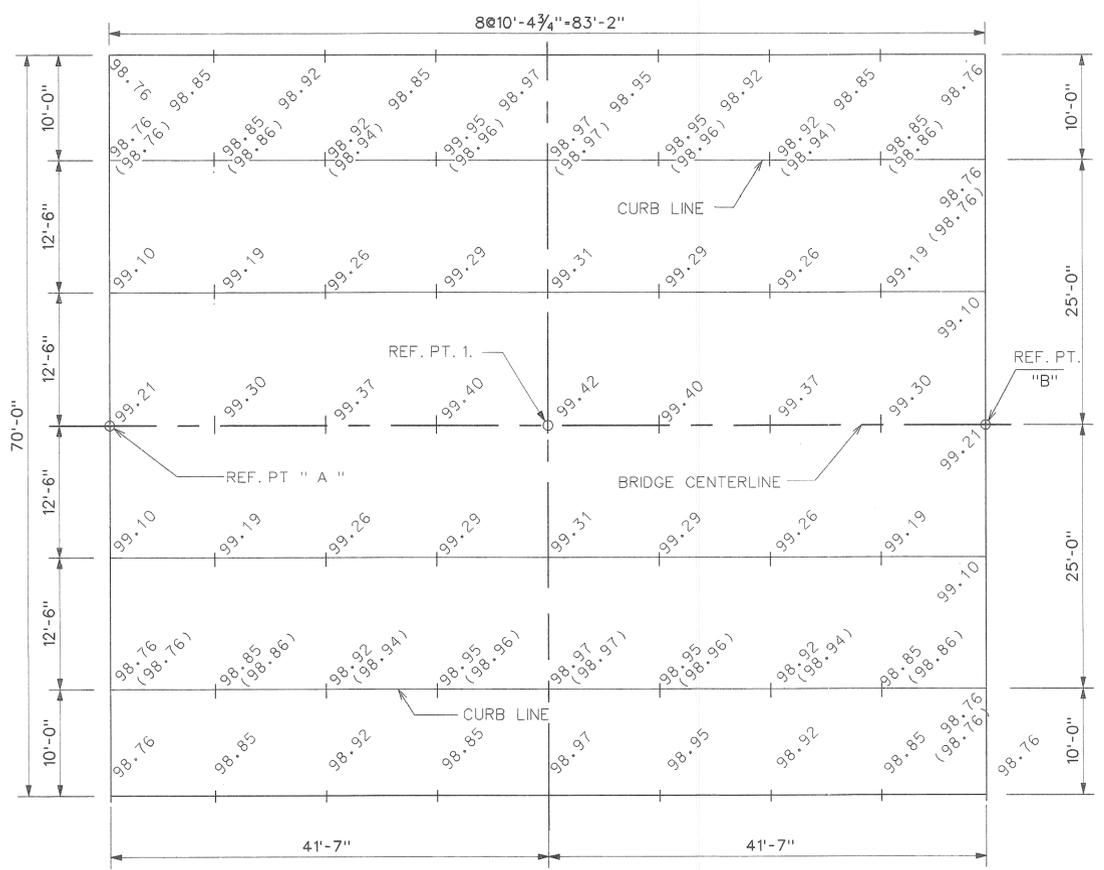
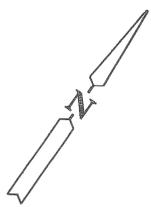
JOB NO. 36916A

DESCRIPTION	DR	CHK	DATE	DATE
REVISIONS				
PLAN	N.W.,K.M.	CHECKED BY		
GRADE	P.S.,N.W.	APPROVED:	<i>Earl C. Howard</i>	
ESTIMATE				
FINAL	*****			

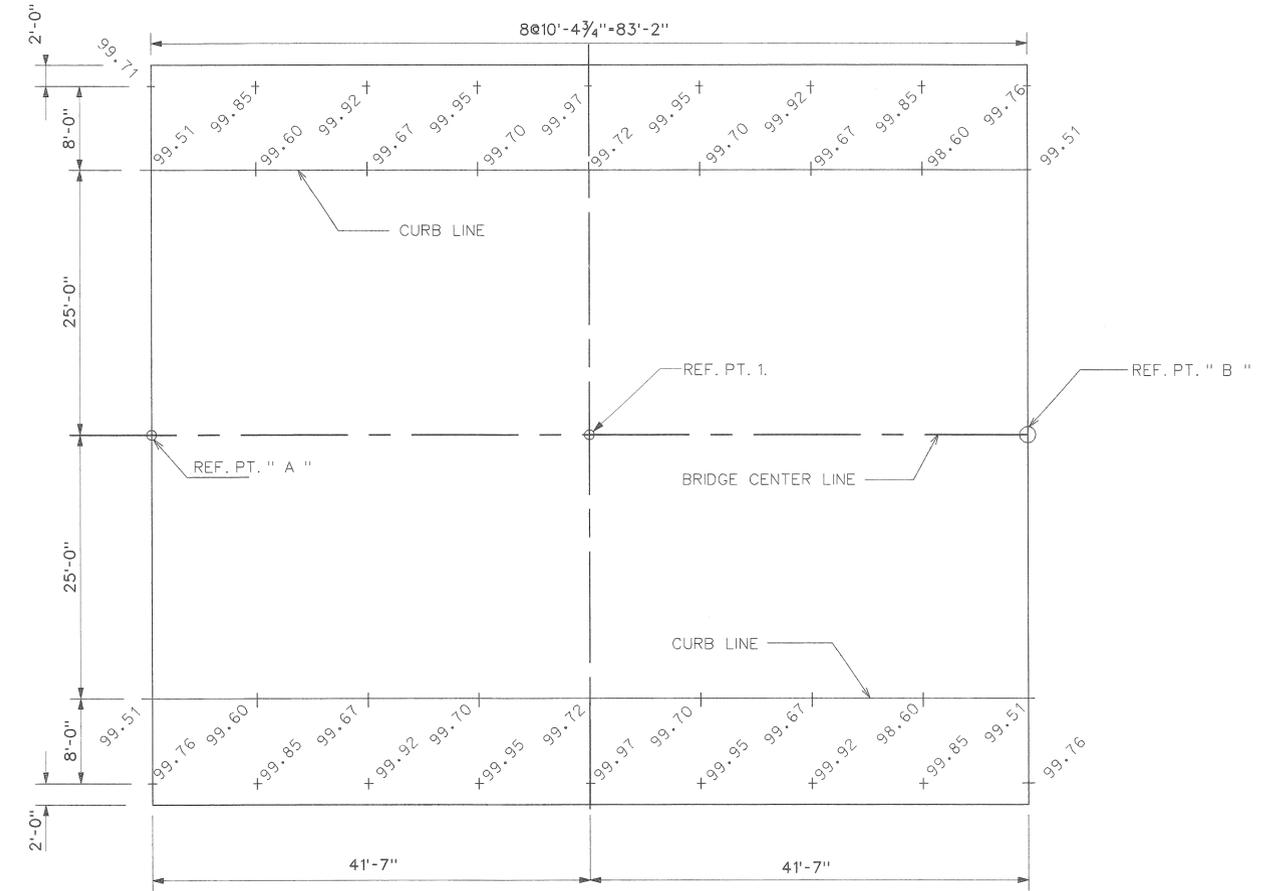
CITY OF DETROIT
 CITY ENGINEERING DIVISION - D.P.W.
 BUREAU OF STREETS AND HIGHWAYS

SPINOZA DRIVE BRIDGE OVER ROUGE RIVER (BW-270)
EXISTING SLAB AND SIDEWALK ELEVATIONS

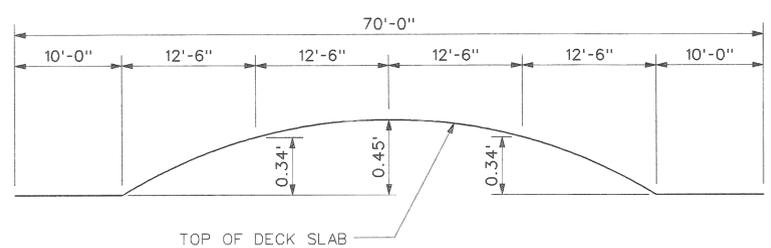
SHEET S-12 OF S-41 SHEETS
CONTRACT NO.
ASSIGNMENT NO. 93-22-16
DATE MAR. 1997



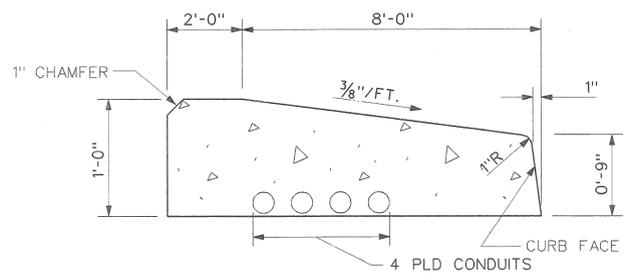
PROPOSED TOP OF DECK SLAB ELEVATIONS
1/8" = 1'-0"



PROPOSED SIDEWALK ELEVATIONS
1/8" = 1'-0"



TYPICAL SECTION FOR TOP OF DECK SLAB
NO SCALE



TYPICAL SIDEWALK SECTION
NO SCALE

- NOTES :
1. ALL ELEVATIONS ARE BASED ON CITY OF DETROIT DATUM.
 2. SIDEWALK POUR SHALL NOT BE CAST UNTIL SLAB CONCRETE HAS ATTAINED AT LEAST 75% OF ITS DESIGN STRENGTH.
 3. FOR SURVEY BENCH MARK LOCATIONS & ELEVATIONS, SEE SHEET NO. S-3.
 4. SLAB & SIDEWALK ELAVATIONS ARE BASED ON THE CONDITIONS THAT ALL CONCRETE BEAMS HAVE BEEN ERECTED, BUT NO OTHER LOADS ARE APPLIED. THESE ELEVATIONS INCLUDE ALLOWANCES FOR DEFLECTION DUE TO FORMS AND STEEL REINFORCEMENT, DECK CONCRETE AND BARRIERS.
 5. SCREED ELEVATIONS ARE BASED ON THE CONDITION THAT NO SLAB CONCRETE HAS BEEN CAST AND THAT FORMWORK AND STEEL REINFORCEMENT ARE IN PLACE.
 6. TRANSVERSE STRIKE OF FINISHING MACHINE IS TO BE USED IN PLACING DECK CONCRETE.
 7. SCREED RAILS FOR FINISHING CONCRETE SHALL BE LOCATED OVER FASCIA BEAMS.
 8. SCREED ELEVATIONS ARE IN PARENTHESIS THUS ().
 9. TRANSVERSE SIDEWALK CONTRACTION JOINTS TO BE AT 8-FT. INTERVALS OR AS DIRECTED BY THE ENGINEER.

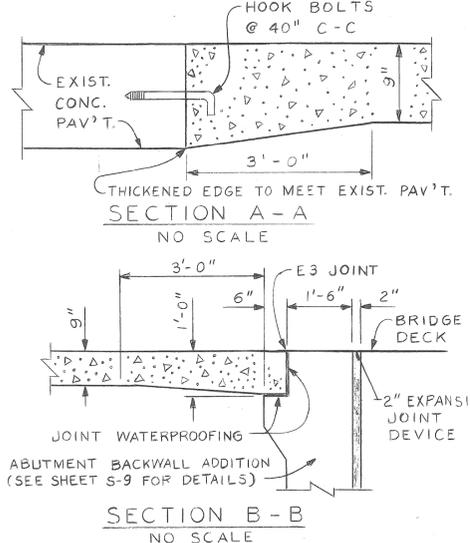
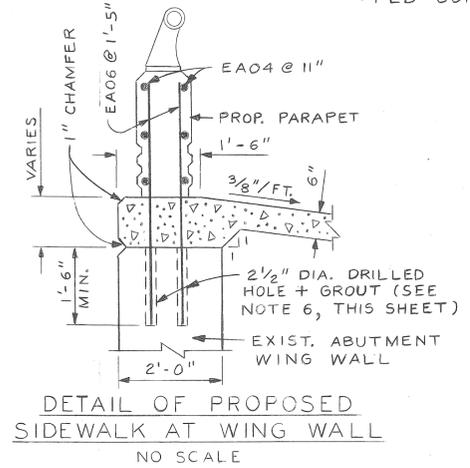
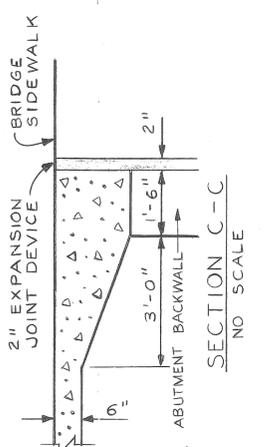
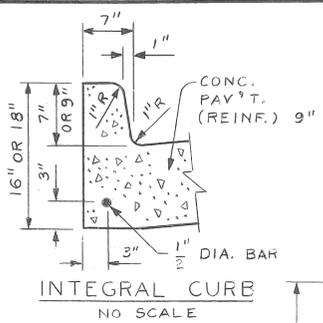
JOB NO. 36916A

DESCRIPTION	DR	CHK	DATE	DATE
REVISIONS				
PLAN	N.W.,K.M.	CHECKED BY	APPROVED	
GRADE	P.S.,N.W.		<i>Emil C. Howard</i>	
ESTIMATE			STRUCTURAL ENGINEER	
FINAL	****	****		

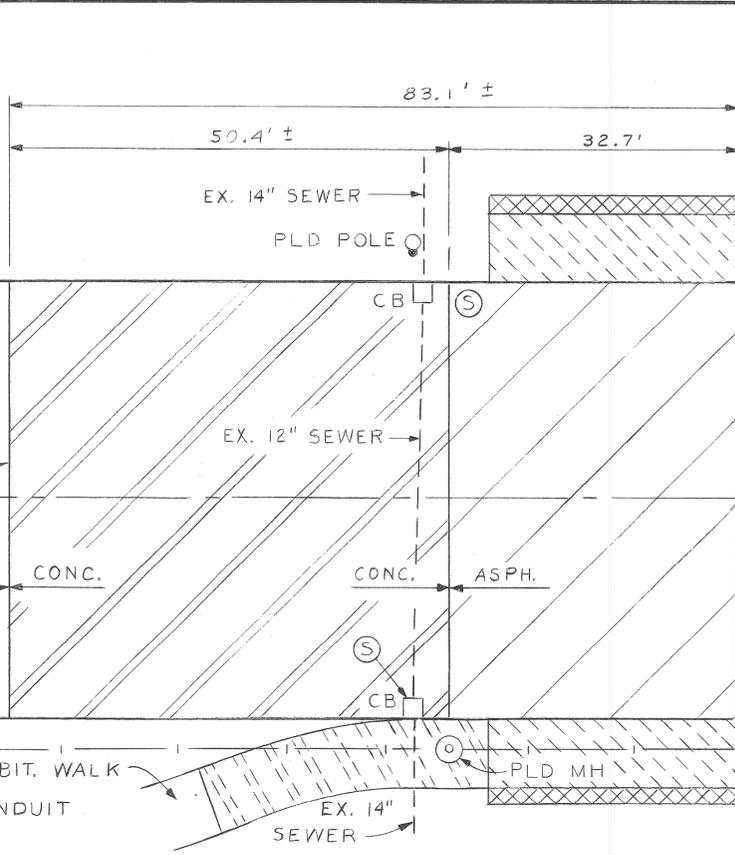
CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAU OF STREETS AND HIGHWAYS

SPINOZA DRIVE BRIDGE OVER ROUGE RIVER (BW-270)
PROPOSED DECK AND SIDEWALK ELEVATIONS

SHEET S-13 OF S-41 SHEETS
CONTRACT NO.
ASSIGNMENT NO. 93-22-16
DATE MAR. ,1997

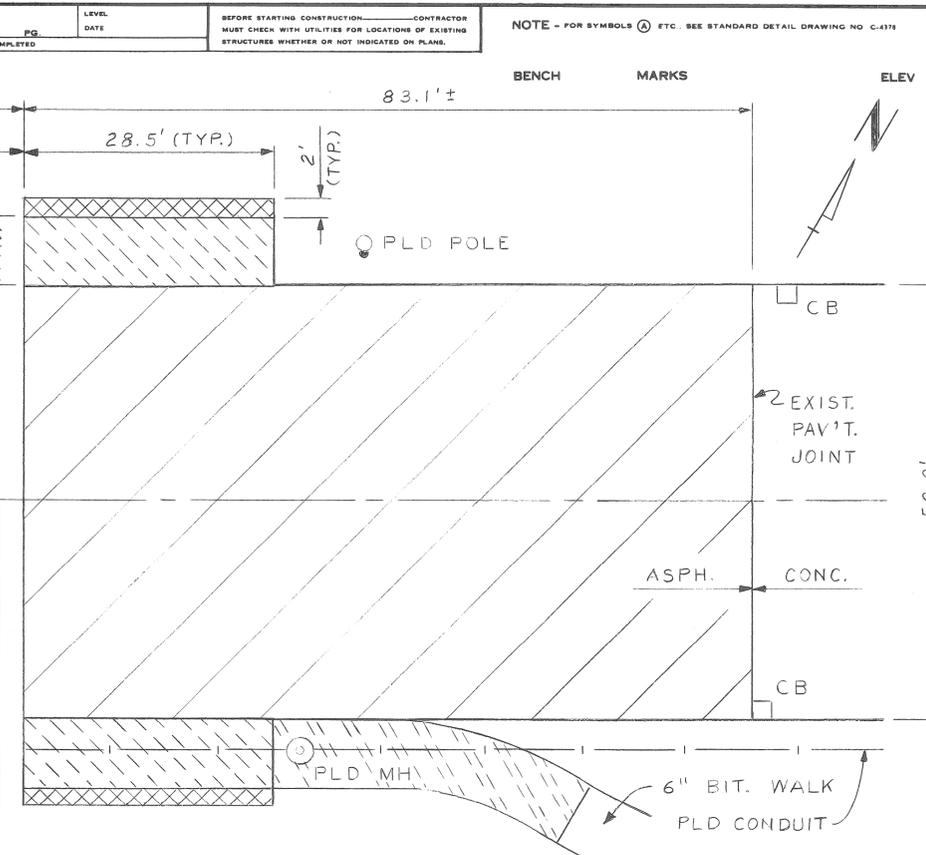


NO.	DESCRIPTION	DR.	CHK.	AP.	VD.	DATE



ITEM	QUANTITIES	PAY UNIT
MISC. REMOVING CONCRETE PARAPET	114	LFT
REMOVING PAVEMENT	95	SYD
REMOVING SIDEWALK	130	SYD
ABANDONING DRAINAGE STRUCTURES	2	EACH
EARTH EXCAVATION	10	CYD
EMBANKMENT (LM)	20	CYD
SUBGRADE UNDERCUTTING, TYPE II	10	CYD

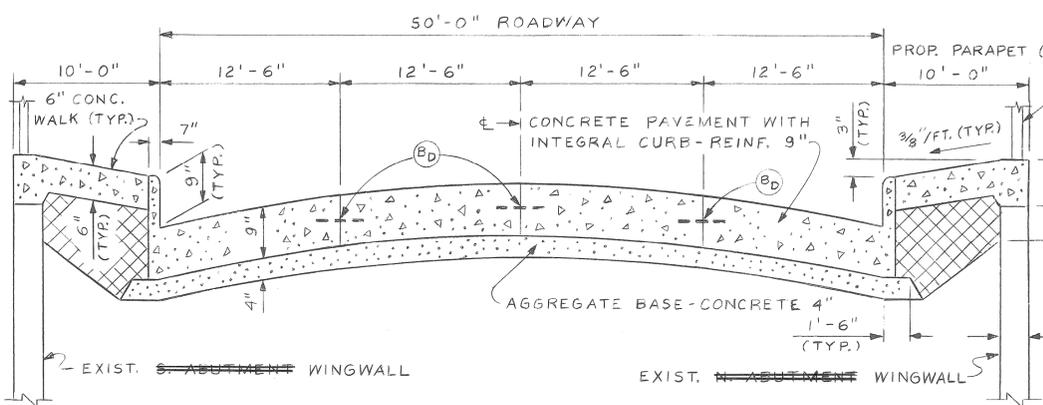
REMOVAL PLAN
SCALE: 1" = 10'



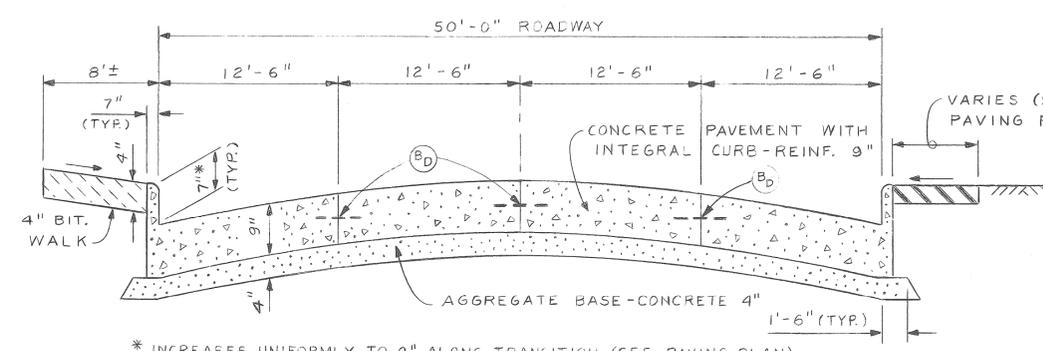
- REMOVAL LEGEND**
- (S) ABANDONING DRAINAGE STRUCTURE
 - [Hatched] REMOVING PAVEMENT (ASPHALT)
 - [Hatched] REMOVING PAVEMENT (CONCRETE)
 - [Hatched] REMOVING SIDEWALK
 - [Hatched] REMOVING BITUMINOUS SIDEWALK
 - [Hatched] REMOVING CONCRETE BRIDGE PARAPET
- PAVING PLAN LEGEND**
- (C) TRANSVERSE CONTRACTION JOINT
 - (E) TRANSVERSE EXPANSION JOINT
 - [Hatched] CONC. PAV'T. WITH INTEGRAL CURB-REINF. 9"
 - [Hatched] CONCRETE SIDEWALK, 6"
 - [Hatched] BITUMINOUS SIDEWALK, 4" (SEE NOTE 5 ON SHEET NO. S-15)
 - [Hatched] BRIDGE PARAPET ON CONCRETE WALK
 - [Hatched] CLASS "A" SODDING WITH 3" TOPSOIL
 - [Hatched] BACKFILL AND CLASS "A" SODDING
 - [Hatched] CLASS C-76-III 12" SEWER IN TRENCH DETAIL B
- (A) CATCH BASIN "A"
- (B) CATCH BASIN "B" W/O TRAP
- (D) ADJUSTING DRAINAGE STRUCTURE COVER, CASE 2

- TYPICAL SECTION LEGEND**
- [Hatched] AGGREGATE BASE UNDER CONCRETE (4" IN PLACE)
 - [Hatched] GRANULAR MATERIAL CLASS II
 - [Hatched] BITUMINOUS SIDEWALK, 4"
 - [Hatched] CLASS "A" SODDING WITH 3" TOPSOIL
- (B_D) LONGITUDINAL JOINT, OPTIONAL B OR D

- NOTES**
- SUBGRADE UNDERCUTTING SHALL BE AS DIRECTED BY THE ENGINEER.
 - INCLUDE BITUMINOUS WALK REMOVAL WITH EARTH EXCAVATION.
 - REMOVING PAVEMENT (ASPHALT) AND REMOVING PAVEMENT (CONCRETE) SHALL BE PAID FOR AS REMOVING PAVEMENT.
 - TYPE B JOINT DENOTES AN MDOT LONGITUDINAL BULKHEAD JOINT; TYPE D JOINT DENOTES AN MDOT LONGITUDINAL LANE TIE JOINT.
 - FOR A PROFILE VIEW OF THE EXISTING BRIDGE PARAPET SEE SHEET NO. S-5.
 - THIS WORK INCLUDED IN PAY ITEM: "BRIDGE RAILING, SOLID PARAPET TYPE".
 - FOR DETAILS OF THE PROPOSED PARAPET SEE SHEET NO. S-9. SEE ALSO MDOT STANDARD PLAN X-18D, "BRIDGE RAILING, SOLID PARAPET TYPE".
 - TRANSVERSE CONTRACTION JOINTS ON APPROACH SIDEWALKS SHALL BE SPACED AT 6' INTERVALS.
 - PROVIDE DOUBLE-YELLOW E PAVEMENT MARKINGS CONFORMING TO DETROIT DOT FIELD MARKING STANDARDS NO. SG-50. MARKINGS ARE TO BE OF POLYESTER MATERIAL.
 - SEE ALSO NOTES ON SHEET NO. S-15.



TYPICAL SECTION FROM BRIDGE DECK TO END OF WING WALL
NO SCALE



TYPICAL SECTION FROM END OF WING WALL TO EXISTING PAV'T.
NO SCALE

NO.	DESCRIPTION	DR.	CHK.	AP.	VD.	DATE

CITY OF DETROIT
CITY ENGINEERING DIVISION, D.P.W.
BUREAU OF STREETS AND HIGHWAYS

BY: N.W.
CHECKED BY: N.W.
APPROVED: *Earl C. Howard*
ENGINEER OF STREETS

SPINOZA DR. BRIDGE OVER ROUGE RIVER (BW-270)
APPROACH REMOVAL PLAN, TYPICAL SECTIONS & DETAILS

JOB NO. 36916A
SHEET S-14 OF S-41
CONTRACT NO.
ASSIGNMENT NO. 93-22-16
DATE MAR., 199

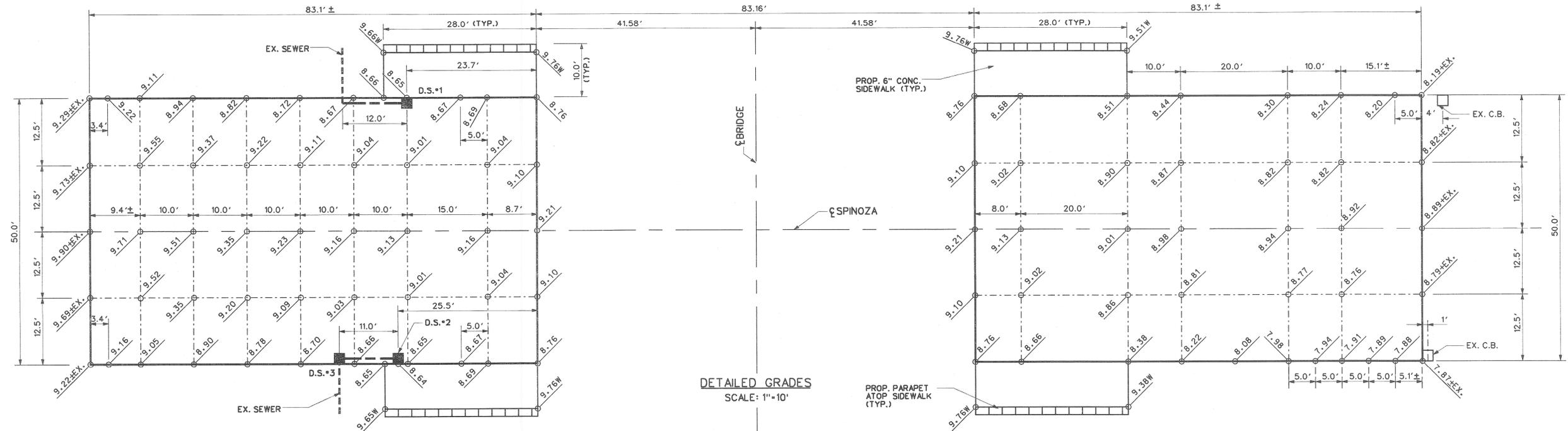
NOTES:

1. FOR SURVEY BENCH MARK LOCATIONS AND ELEVATIONS SEE SHEET NO. S-3.
2. ADD 90.00 TO ELEVATIONS SHOWN.
3. FOR ELEVATIONS SHOWN, "W" DENOTES TOP OF WALK ELEVATIONS.
4. ALL OTHER ELEVATIONS SHOWN ARE PAVEMENT SURFACE ELEVATIONS.
5. FOR PAVING PLAN LEGEND, CROSS SECTIONS AND DETAILS, SEE SHEET NO. S-14.
6. REPLACE DISTURBED BITUMINOUS WALK WITH 1" MDOT BIT. MIX 36A OVER 3" MDOT BIT. MIX 3C OR OTHER APPROVED MIXTURES AS DIRECTED BY THE ENGINEER.
7. RESTORE DISTURBED GROUND AREAS WITH CLASS "A" SODDING ON 3" TOPSOIL AS DIRECTED BY THE ENGINEER.
8. LOCATIONS OF PLD CONDUIT ARE BASED UPON AVAILABLE RECORDS & ARE NOT GUARANTEED FOR ACCURACY.
9. FOR PLD CONDUIT RELOCATIONS, AND MANHOLE RECONSTRUCTION, SEE SHEET NO. S-16.
10. BACKFILL ERODED EMBANKMENT WITH SELECTED EXCAVATED MATERIAL (INCLUDED WITH CONSTRUCTION)
11. SEE ALSO NOTES ON SHEET NO. S-14.
12. PLD POLE TO BE RELOCATED BY PLD.
13. PLD OVERHEAD LINE TO BE DEACTIVATED BY PLD DURING CONSTRUCTION.

SCALE	HORIZONTAL	VERTICAL	BOOK NO.	PG.	LEVEL DATE	CONTRACTOR

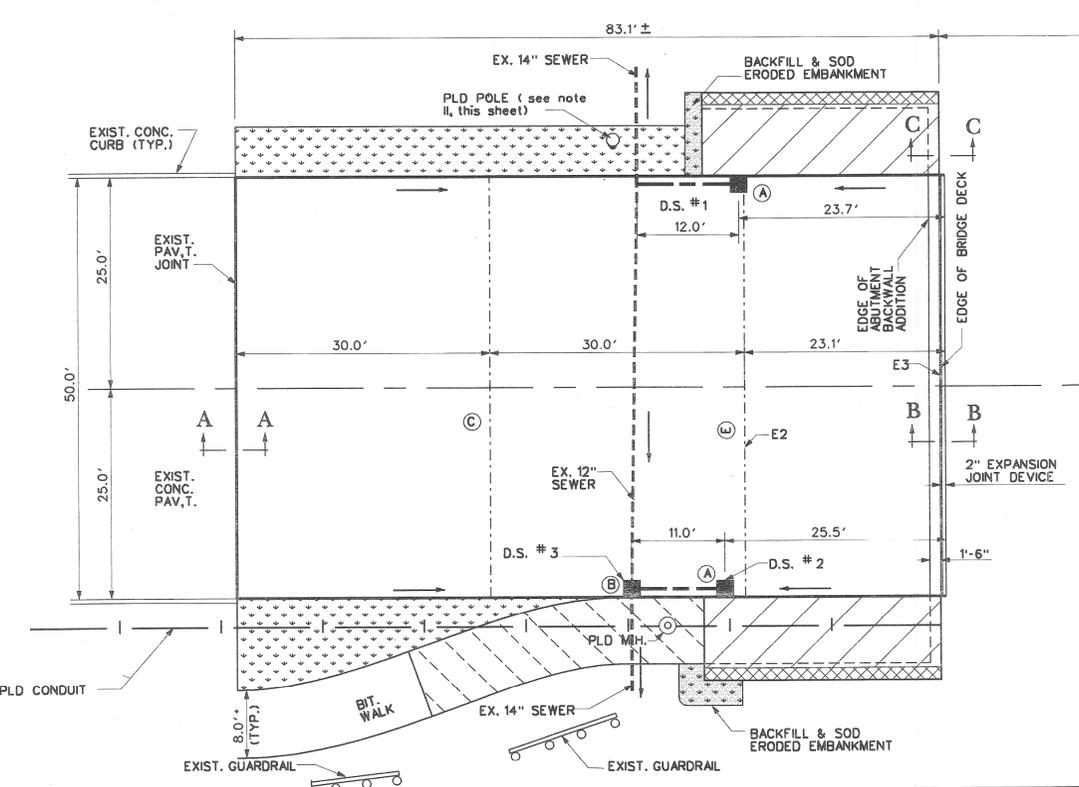
DRAINAGE STRUCTURE NOTES

1. INSTALL 12" DIA. C-76 III SEWERS IN TRENCH DETAIL B. (SEE M.D.O.T. STANDARD DETAIL IV-83H)
2. VERIFY DIAMETERS, INV. ELEVATIONS & DIRECTION OF FLOW OF EXISTING SEWERS IN THE FIELD.
3. ENCASE CONNECTIONS OF PROPOSED & EXISTING SEWERS IN CONCRETE.
4. FOR DRAINAGE STRUCTURE DETAILS SEE SHEET NO. S-16.



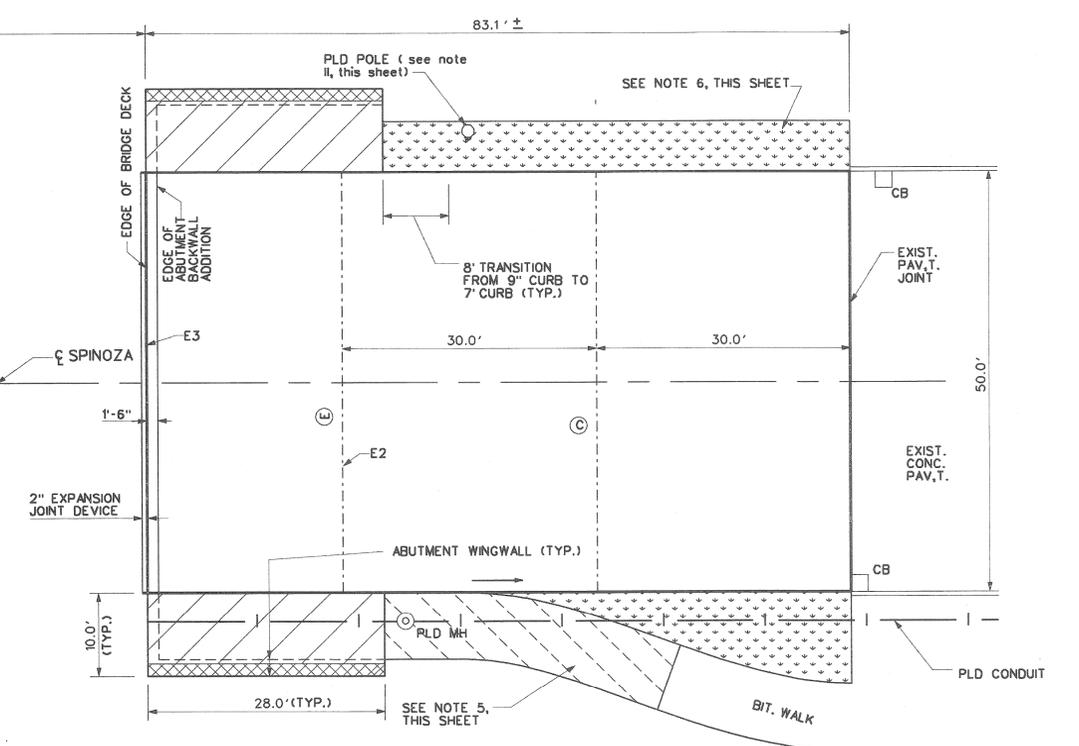
DETAILED GRADES
SCALE: 1"=10'

PROP. 6" CONC. SIDEWALK (TYP.)
PROP. PARAPET ATOP SIDEWALK (TYP.)



PAVING PLAN
SCALE: 1"=10'

PAY QUANTITIES		
ITEMS	QUANTITY	PAY UNIT
GRANULAR MATERIAL CLASS II	35	CYD
AGGREGATE BASE UNDER CONCRETE (4" IN PLACE)	990	SYD
BITUMINOUS MIXTURE-36A	3	TON
BITUMINOUS MIXTURE-3C	10	TON
CONCRETE PAVEMENT WITH INTEGRAL CURB-REINFORCED 9"	950	SYD
BRIDGE RAILING SOLID PARAPET TYPE	112	LFT
CLASS C-76-III SEWER 12" TRENCH DETAIL B'	25	LFT
SEWER CLEANOUT	200	LFT
CONTRACTION JOINT C	100	LFT
EXPANSION JOINT E2	100	LFT
EXPANSION JOINT E3	140	LFT
MISC. CATCH BASIN, TYPE A	2	EACH
MISC. CATCH BASIN, TYPE B W/O TRAP	1	EACH
CONCRETE SIDEWALK, 6"	1,070	SFT
OVERLAY COLD PLASTIC PAVEMENT MARKING, 4" YELLOW	419	LFT
CLASS A SODDING	135	SYD
WATER	2	UNIT
TOPSOIL SURFACE 3"	135	SYD



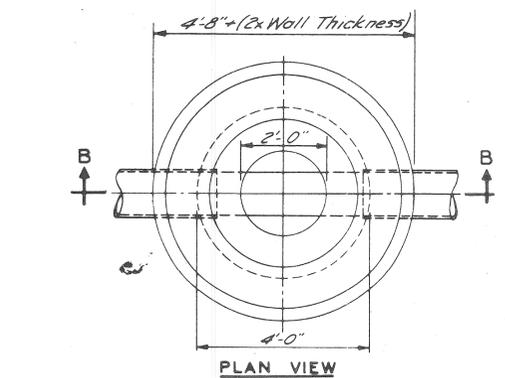
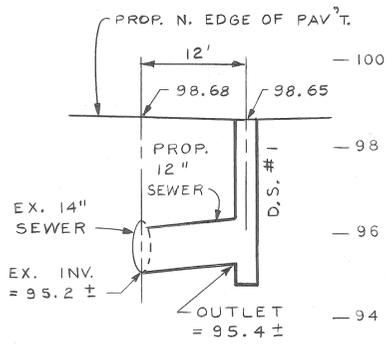
JOB NO. 36916A

DESCRIPTION	REVISIONS	DR	CHK	DATE	BY	CHECKED BY	APPROVED:
PLAN					N.W.,K.M.		
GRADE					N.W.,K.M.		
ESTIMATE							
FINAL							

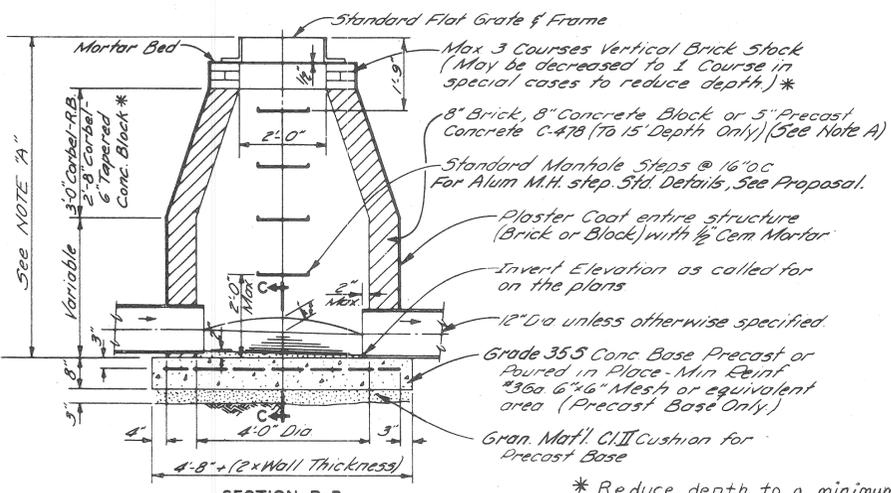
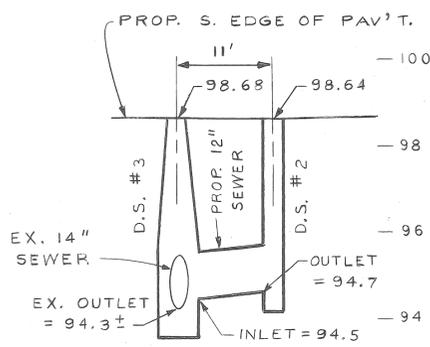
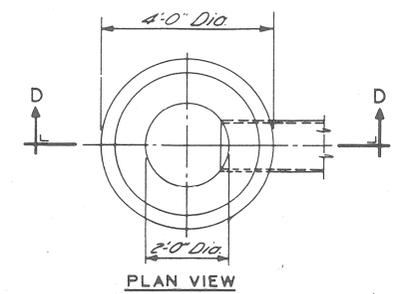
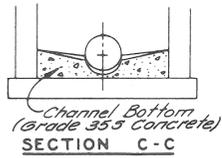
CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAU OF STREETS AND HIGHWAYS

SPINOZA DRIVE BRIDGE OVER ROUGE RIVER (BW-270)
APPROACH PAVING PLAN AND DETAILED GRADES

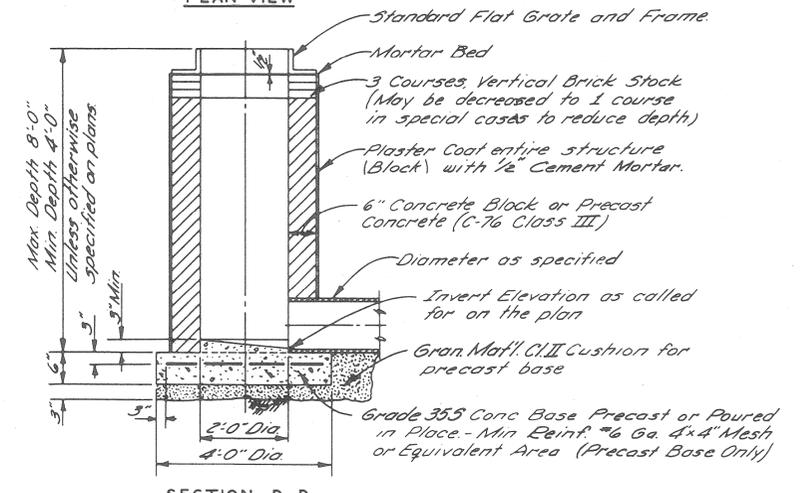
SHEET S-15 OF S-41 SHEETS
CONTRACT NO.
ASSIGNMENT NO. 93-22-16
DATE MAR. 1997



NOTE "A"
Wall thickness below a depth of 15 feet shall be 12 inches.



CATCH BASIN "B"
NO SCALE



CATCH BASIN "A"
NO SCALE

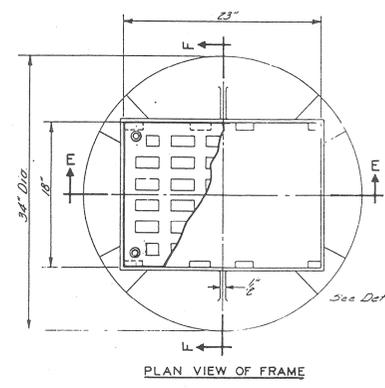
DRAINAGE STRUCTURE PROFILES

SCALE: 1" = 10' HORIZ.
1" = 2' VERT.

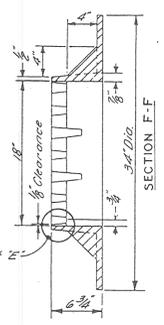
* Reduce depth to a minimum to keep sewers out of corbel.

GENERAL NOTES

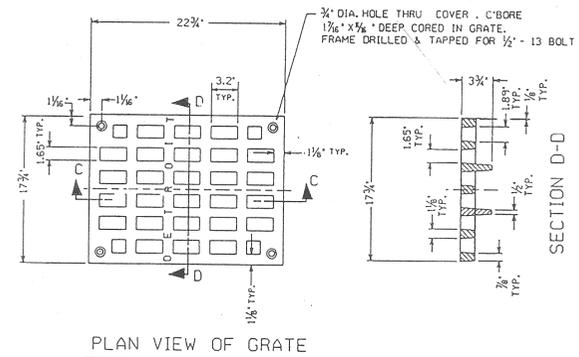
- The materials & workmanship shall be in accordance with the current Standard Specifications.
- Center of Catch Basin shall be 20 inches from back of curb.
- All sizes of flow lines of pipe, and elevations for top & bottom of structures shall be determined from the plans or construction requirements. The bell shall be removed from the first length of outlet pipe projecting through the wall of the structures. When any structure is constructed of precast concrete or concrete block, the top of the masonry shall be left sufficiently low to permit proper adjustment of cover to grade by the use of mortar or bricks as directed by the Engineer.
- A plaster coat of mortar 1/2 inch in thickness shall be applied to the outer surface of the structure as shown. A 1/2 inch cement plaster coat shall be placed on the inside of all sumps.
- Contractor shall verify elevations of existing utilities to enable construction to indicated elevations shown on drawings. If necessary, invert elevations shown on the drawings may be altered in the field to clear existing utilities. Such alterations, upward or downward, shall be at no change in contract price.
- When precast concrete pipe sections are used for catch basins, either a section of the inlet and outlet pipes or an opening in the wall of the catch basin pipe when it is being manufactured. Eyes in precast pipe sections shall be furnished to accommodate a flexible joint connection such as Press-Wedge by Press Seal Gasket Corp or Res-Seal by Scales, Mfg. Corp.



PLAN VIEW OF FRAME



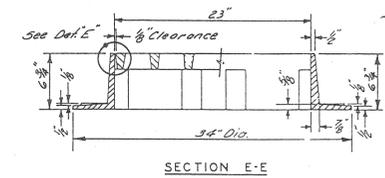
SECTION F-F



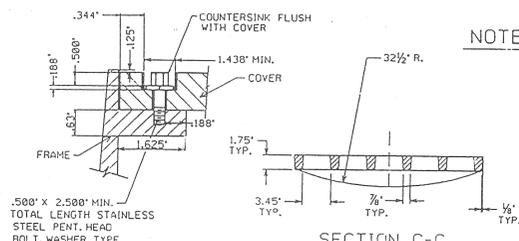
PLAN VIEW OF GRATE

MATERIAL: GRAY IRON A.S.T.M. STD. SPEC. A-48, CLASS 30. BEARING SURFACES OF COVER AND FRAME SHALL BE GRIND TO PREVENT ROCKING. CASTING SHALL NOT BE COATED.

NOTE: F= FINISH SURFACE



SECTION E-E



COVER BOLT DETAIL

STANDARD FLAT GRATE AND FRAME
NO SCALE

CITY OF DETROIT
CITY ENGINEERING DIVISION, D.P.W.
BUREAU OF STREETS AND HIGHWAYS

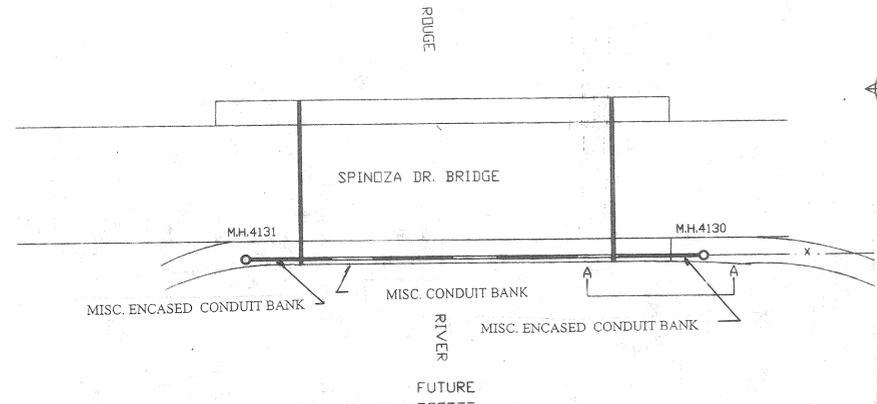
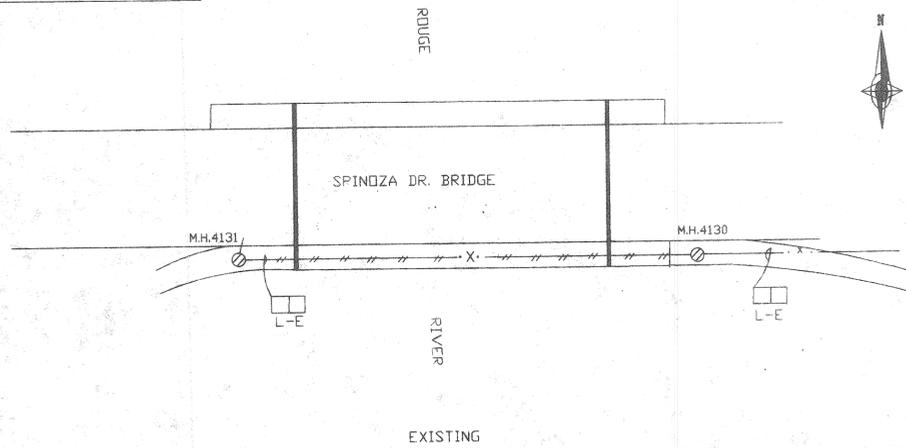
SPINOZA BRIDGE OVER ROUGE RIVER (BW-270)
DRAINAGE STRUCTURE DETAILS

JOB NO. 30916

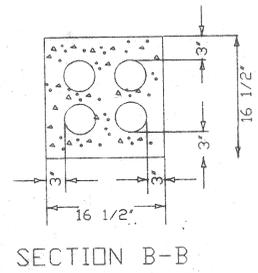
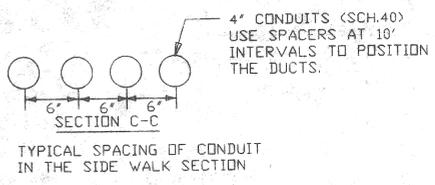
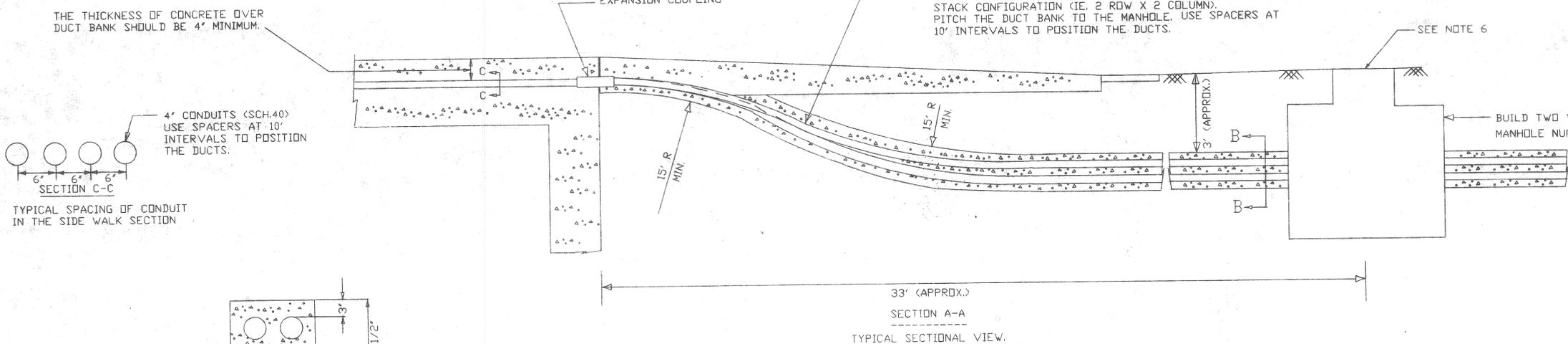
PLAN	BY	CHECKED BY	APPROVED
GRADE	N.W.	NW	<i>Paul C. Howard</i>
ESTIMATE			
DESCRIPTION	DRN	CK'D	AP'D
REVISIONS			

SHEET S-16 OF S-41 SHEETS
CONTRACT NO.
ASSIGNMENT NO. 93-22-16
DATE MAR., 1997

CALL MISS DIG BEFORE YOU DIG



ITEM	PAY QUANTITY
(A) BRIDGE:	
MISC. CONDUIT BANK	
(B) APPROACH WORK:	
MISC. MANHOLE	
MISC. ENCASED CONDUIT BANK	
MANHOLE - REMOVE	
MISC. DUCT BANK - REMOVE, B01-82-18-85	



NOTE

- REFER TO P.L.D. DRAWING NO. 101 FOR ENCASED CONDUIT BANK.
- REFER TO P.L.D. DRAWING NO. 104 FOR MANHOLE CONSTRUCTION.
- ALL THE DEBRIS OF THE DISMANTLED DUCTS AND MANHOLES SHOULD BE REMOVED BEFORE NEW MANHOLES AND DUCTS ARE INSTALLED.
- NEW MANHOLES SHOULD ACCOMMODATE THE EXISTING DUCT BANK ON ONE SIDE AND THE NEW DUCT BANK ON THE OTHER SIDE. PRECAST MANHOLES MAY BE USED PER P.L.D. APPROVAL.
- THE DUCT BANKS SHOULD BE TERMINATED IN THE DUCT POCKETS OF THE MANHOLES PER P.L.D. SPECIFICATIONS.
- P.L.D. APPROVED MANHOLE FRAME AND COVER SHOULD BE INSTALLED.
- PLEASE CONTACT P.L.D. INSPECTORS BEFORE STARTING ANY WORK.
MR. SIDNEY BASS (313)267- 7340
MR. KEN HARDAWAY (313)267- 6043
- THE CONTRACTOR SHOULD NOTIFY P.L.D. SYSTEM OPERATOR (313) 224- 0500 48 HRS. PRIOR TO PERFORMING ANY WORK.
- REFER TO THE FOLLOWING SPECIFICATIONS:
CITY ENGINEERING DEPARTMENT STANDARD SPECIFICATIONS FOR PAVING AND RELATED CONSTRUCTION (DIVISION 15 WITH SPECIAL PROVISIONS FOR P.L.D. ELECTRICAL WORK).

LEGEND

- X -	EXISTING DUCT BANK
□	EXISTING DUCT
/// X ///	DISMANTLE THE EXISTING DUCT BANK
⊗	DISMANTLE THE MANHOLE
—	BUILD DUCT BANK
○	BUILD NEW MANHOLE

NOT TO SCALE

REVISION	DESCRIPTION	DATE
	CONDUIT CHANGED FROM SCHEDULE 80 TO SCHEDULE 40	3/25/1996
	NEW MANHOLE PROPOSED	4/2/1996

SPINOZA DRIVE BRIDGE IN ROUGE PARK
DETAILS OF CONDUIT RECONSTRUCTION
SPINOZA DRIVE AND ROUGE RIVER

DRAWN BY
CHECKED BY *gg*
APPROVED BY *Carroll Howard*

PUBLIC LIGHTING DEPARTMENT
CITY OF DETROIT

Q U A N T I T Y S H E E T
A S P E R P L A N S

ITEMS

SHEET NO'S.	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12	S-13	S-14	S-15	S-16	S-17	S-18	S-19
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T O T A L S

U N I T S

BRIDGE TITLE SHEET

SITE PLAN

GENERAL PLAN OF STRUCTURE

REMOVAL PLAN

REPAIRING STRUCTURAL CRACKS, PATCHING ABUTMENTS AND PIER

PLAN OF DECK AND CROSS SECTION

SUPERSTRUCTURE DETAILS

SUPERSTRUCTURE DETAILS

EXPANSION JOINT DETAILS

STEEL REINFORCEMENT DETAILS

EXISTING DECK AND SIDEWALK ELEVATIONS

PROPOSED DECK AND SIDEWALK ELEVATIONS

APPROACH REMOVAL PLAN, PROPOSED SECTIONS AND DETAILS

APPROACH PAVING PLAN, AND DETAILED GRADES

DRAINAGE STRUCTURE DETAILS

TRAFFIC CONTROL AND DETOUR PLAN

DETAILS OF CONDUIT RECONSTRUCTION

QUANTITY SHEET

PART 01 - APPROACH *ITEM CODE NO.*

MISC. MOBILIZATION MAX, \$66,000.00	1507051	0.50	LSUM																
MISC. REMOVAL OF PORTIONS OF STRUCTURES, B01-82-18-85	2067051	1	LSUM																
REMOVING PAVEMENT	2070002	950	SYD											950					
REMOVING SIDEWALK	2070006	130	SYD											130					
ABANDONING DRAINAGE STRUCTURES	2070016	2	EACH											2					
MISC. REMOVING CONCRETE PARAPET	2077001	114	LFT											114					
EARTH EXCAVATION	2080001	10	CYD											10					
EMBANKMENT (LM)	2080020	20	CYD											20					
SUBGRADE UNDERCUTTING TYPE II	2080031	10	CYD											10					
GRANULAR MATERIAL CLASS II	2080051	35	CYD																
AGGREGATE BASE UNDER CONCRETE (4" IN PLACE)	3010021	990	SYD																
BITUMINOUS MIXTURE -3C	4000047	10	TON																
BITUMINOUS MIXTURE - 36A	4000050	3	TON																
CONCRETE PAVEMENT WITH INTEGRAL CURB-REINFORCED 9"	4500173	950	SYD																
CONTRACTION JOINT C	4500270	100	LFT																
EXPANSION JOINT E2	4500275	100	LFT																
EXPANSION JOINT E3	4500276	140	LFT																
CLASS A SEWER, 24" TRENCH DETAIL A	5130018	30	LFT																
CLASS C76-III SEWER, 12" TRENCH DETAIL B	5130337	25	LFT																
SEWER CLEANOUT	5140013	200	LFT																
MISC. CATCH BASIN TYPE A	5147050	2	EACH																
MISC. CATCH BASIN TYPE B W/O TRAP	5147050	1	EACH																
CONCRETE SIDEWALK 6"	6110003	1,070	SFT																
FIELD OFFICE	6220001	6	MOS																
OVERLAY COLD PLASTIC PAVEMENT MARKING, 4" YELLOW	6290351	419	LFT																
BARRICADE, TYPE III, LIGHTED-FURNISHED	6310036	6	EACH																
BARRICADE, TYPE III, LIGHTED-OPERATED	6310037	6	EACH																
TEMPORARY CONCRETE BARRIER-FURNISHED	6310040	100	LFT																
TEMPORARY CONCRETE BARRIER-OPERATED	6310041	100	LFT																
MINOR TRAFFIC DEVICES	6310054	0.50	LSUM																
SIGN, TYPE B TEMPORARY-FURNISHED	6310065	210	SFT																
SIGN, TYPE B TEMPORARY-OPERATED	6310066	210	SFT																
CLASS A SODDING	6530001	135	SYD																
WATER	6530003	2	UNIT																
ROADSIDE SEEDING	6530006	20	LBS																
CHEMICAL FERTILIZER NUTRIENT	6530010	48	LBS																
TOPSOIL SURFACE 3"	6530014	1,103	SYD																
MULCH	6530030	0.4	TON																
ANCHORING MULCH	6530031	0.2	ACRE																
MULCH BLANKETS	6530037	968	SYD																
MANHOLE - REMOVE	6902569	2	EACH																
MISC. ENCASED CONDUIT BANK	6907001	62	LFT																
MISC. MANHOLE	6907050	2	EACH																
MISC. DUCT BANK-REMOVE, B01-82-18-85	6907051	1	LSUM																

PART 02 - BRIDGE *ITEM CODE NO.*

SWAMP BACKFILL	2080023	310	CYD																
UNCLASSIFIED FOUNDATION EXCAVATION	2090003	233	CYD																
CHANNEL EXCAVATION	2090004	620	CYD																
STRUCTURE BACKFILL (CIP)	2090005	138	CYD																
SUPERSTRUCTURE CONCRETE	5030024	337	CYD																
EXPANSION JOINT DEVICE	5030099	132	LFT																
MISC. FORM, FINISH & CURE SUPERSTRUCTURE CONC., B01-82-18-85	5037051	1	LSUM																
STEEL REINFORCEMENT, EPOXY COATED	5030031	95,032	LBS																
PENETRATING WATER REPELLANT TREATMENT	5030052	1,350	SYD																
MISC. ELASTOMERIC CONCRETE	5037020	3	CFT																
ELASTOMERIC BEARING, 1"	5040062	60	SFT																
PRESTRESSED CONCRETE I-BEAM, 36"-FURNISHED	5050015	840	LFT																
PRESTRESSED CONCRETE I-BEAM, 36"-ERECTED	5050016	840	LFT																
JOINT WATERPROOFING	5060001	210	SFT																
BRIDGE RAILING SOLID PARAPET TYPE	5080002	280	LFT																
HAND CHIPPING - OTHER THAN DECK	5090007	220	CFT																
PATCHING MORTAR OR CONCRETE	5090015	220	CFT																
FORMING FOR PATCHES	5090017	600	SFT																
FLUSHING CRACKS WITH ACID	5090097	150	LFT																
FLUSHING CRACKS WITH WATER	5090098	150	LFT																
REPAIRING STRUCTURAL CRACKS	5090099	150	LFT																
RIPRAP, HEAVY	6010015	539	SYD																
MISC. CONDUIT BANK	6907001	83	LFT																

designed by _____ P.P.
 drawn by _____ K.M.
 approved: _____ E.H.

CITY OF DETROIT
 city engineering division
 department of public works

SPINOZA DRIVE BRIDGE BW-270
 QUANTITY SHEET

a.o. 93-22-16
 contract no.
 sheet of S-19 S-41
 drawing no.
 date MARCH 1997

JOB NO: _____

TRAFFIC DATA

POSTED SPEED 25 MPH
 DESIGN SPEED 45 MPH
 PRESENT ADT (1994) 1956
 FUTURE ADT (2014) 3533
 DESIGN LOADING HS20

**CITY OF DETROIT
 CITY ENGINEERING DIVISION
 DEPARTMENT OF PUBLIC WORKS**

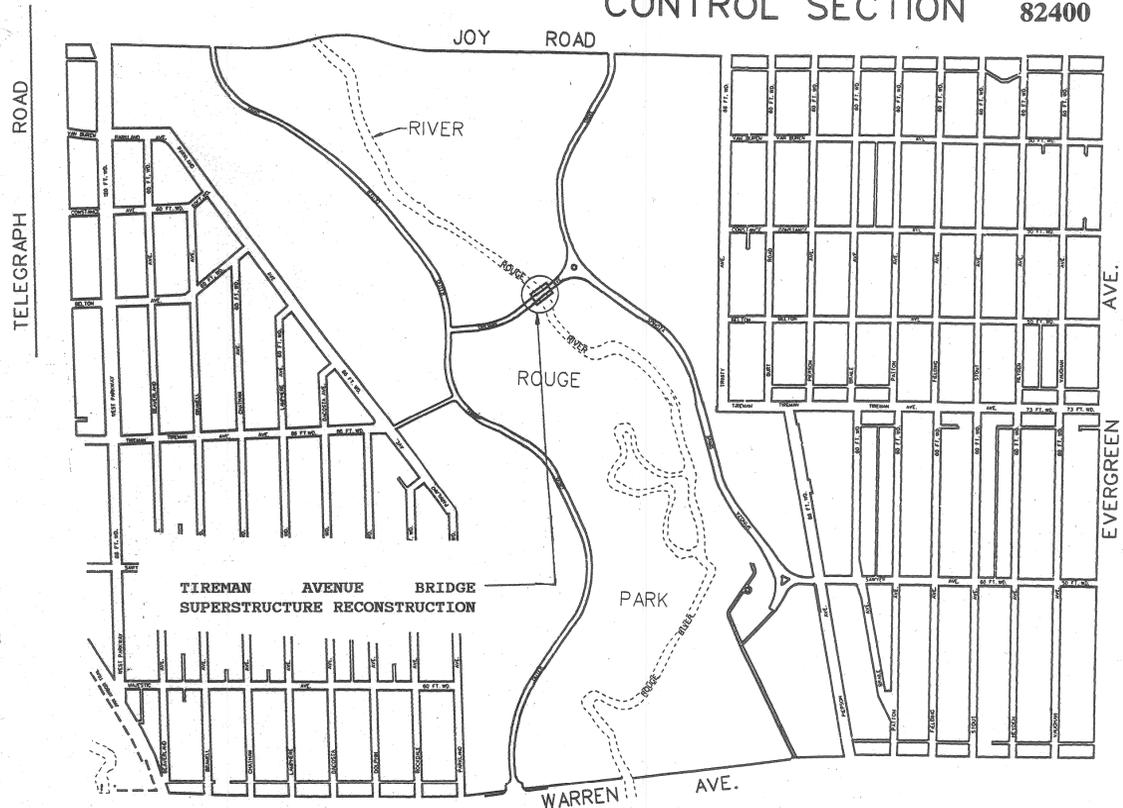
IN CO-OPERATION WITH
**MICHIGAN DEPARTMENT OF TRANSPORTATION
 AND
 FEDERAL HIGHWAY ADMINISTRATION**

FEDERAL AID URBAN PROJECT NO. MICHIGAN DSTP 9582(020)

CONTROL SECTION 82400

JOB NO. 36917A - B01 82-18-84

CITY OF DETROIT
 BRIDGE NO. BW 265
 FEDERAL STRUCTURE
 NO. 0153100 B01



COUNTY: WAYNE TOWN: 02S
 RANGE : 10E SECTION: 3

MDOT STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON THE PLANS THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE NOTED.

- * II-30E CONCRETE CURB & CONCRETE CURB & GUTTER
- * II-39L TRANSVERSE PAVEMENT JOINTS
- * II-43E LOCATION OF TRANSVERSE JOINTS IN CONCRETE PAVEMENT
- * II-44J CONCRETE PAVEMENT REPAIR
- * II-45H CONVENTIONAL PAVEMENT REINFORCEMENT
- III-60H BEAM GUARDRAIL
- III-67D GUARDRAIL ANCHORAGE - BRIDGE, DETAILS
- IV-83H UTILITY TRENCHES
- V-100C SODDING & SEEDING
- VI-125H LIGHTED ARROWS & BARRICADES
- X-18D BRIDGE RAILLING SOLID PARAPET TYPE
- XI-103D MOLDING, BEVEL, LIGHT STANDARD ANCHOR BOLT ASSEMBLY AND NAME PLATE DETAILS

* Special Detail in Proposal.

GENERAL NOTES

1. THE DESIGN OF THIS STRUCTURE REHABILITATION IS BASED ON CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES HS20 LOADING. LIVE LOAD PLUS IMPACT DEFLECTION DOES NOT EXCEED 1/1000 OF SPAN LENGTH. THE WORKING STRESS METHOD OF DESIGN WAS USED FOR THIS STRUCTURE.
2. EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS, OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED HEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION 1990 EDITION.
3. PUBLIC LIGHTING DEPARTMENT WORK TO BE DONE IN ACCORDANCE WITH P.L.D. SPECIFICATIONS AND CITY OF DETROIT DIVISION 15 STANDARDS.
4. THE STATIONING AS SHOWN ON THESE PLANS IS BELIEVED TO BE CORRECT. IT SHALL, HOWEVER, BE CHECKED AT THE TIME OF STARTING CONSTRUCTION, AND IF THE STATIONING SHOWN ON THE PLANS IS INCORRECT, IT SHALL BE REPORTED TO THE ENGINEERING OFFICE IN DETROIT AND THE STRUCTURE SHALL BE STAKED OUT USING THE ACTUAL CENTERLINE AS THE CONTROL POINT.
5. THE DESIGN OF THE STRUCTURAL MEMBERS IS BASED ON MATERIAL OF THE FOLLOWING GRADES AND STRESSES:
 CONCRETE (SUPERSTRUCTURE) GRADE 45D: $f_c = 4,000$ PSI
 CONCRETE (RAILING AND BACKWALL) GRADE 45D: $f_c = 4,000$ PSI
 PRESTRESSED CONCRETE: $f_c = 5,000$ PSI
 STEEL REINFORCEMENT: $f_y = 60,000$ PSI
 STEEL REINFORCEMENT (PRESTRESSED BEAM STIRRUPS):
 $f_y = 40,000$ PSI
 STRUCTURAL STEEL A36: $F_y = 36,000$ PSI
 PRESTRESSING STRANDS: $f_{py} = 270,000$ PSI

INDEX OF SHEETS

- S-20 BRIDGE TITLE SHEET
- S-21 SITE PLAN
- S-22 GENERAL PLAN OF STRUCTURE
- S-23 REMOVAL PLAN
- S-24 REPAIRING STRUCTURAL CRACKS, PATCHING ABUTMENTS AND PIER
- S-25 PLAN OF DECK AND CROSS SECTION
- S-26 SUPERSTRUCTURE DETAILS
- S-27 PRESTRESSED BEAM DETAILS
- S-28 EXPANSION JOINT DETAILS
- S-29 STEEL REINFORCEMENT DETAILS
- S-30 EXISTING DECK AND SIDEWALK ELEVATIONS
- S-31 PROPOSED DECK AND SIDEWALK ELEVATIONS
- S-32 APPROACH REMOVAL PLAN, PROPOSED SECTIONS AND DETAILS
- S-33 APPROACH PAVING PLAN AND DETAILED GRADES
- S-34 DRAINAGE STRUCTURE DETAILS
- TRAFFIC CONTROL AND DETOUR PLAN (S-17)
- S-35 DETAILS OF CONDUIT RECONSTRUCTION
- S-36 QUANTITY SHEET

CITY OF DETROIT STANDARD PLANS

- S-37 MISCELLANEOUS ENCASED CONDUIT SECTION DETAILS 101-PLD
- S-38 DETAIL FOR JOINING CONDUIT ENCASEMENTS 101A-PLD
- S-39 TWO WAY MANHOLE 104-PLD
- S-40 MULT. ST. LTG. CABLE CONNECTIONS, CLAMP-ON ARM & MISCELLANEOUS DETAILS 114-PLD
- S-41 CODE 009-OC ST. LTG. STD. DETAILS 115-PLD

CONTRACT FOR SUPERSTRUCTURE RECONSTRUCTION, APPROACH WORK AND MISCELLANEOUS CONSTRUCTION

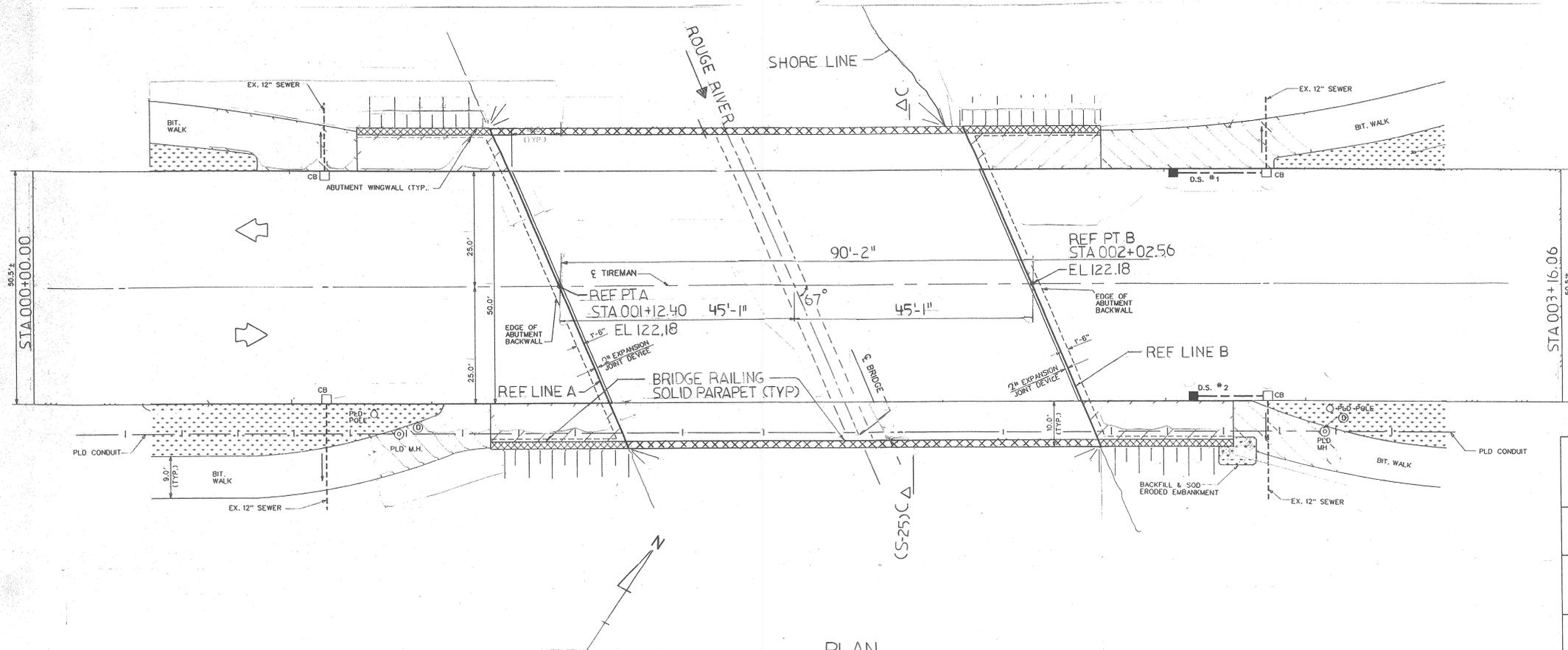
CITY OF DETROIT
 CITY ENGINEERING DIVISION
 DEPARTMENT OF PUBLIC WORKS

TIREMAN AVENUE BRIDGE OVER ROUGE RIVER (BW-265)
 SUPERSTRUCTURE RECONSTRUCTION

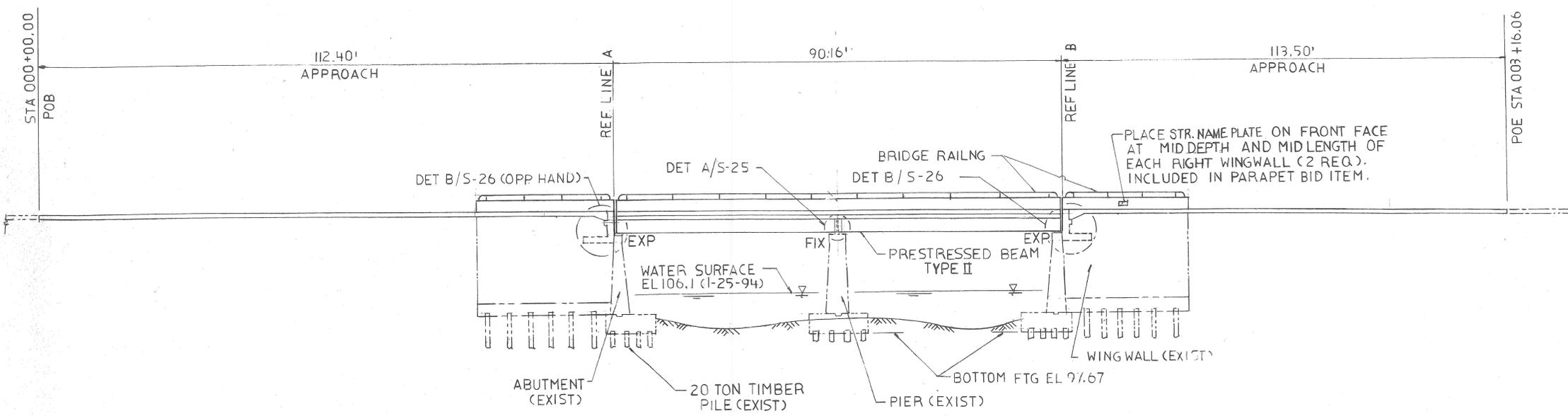
BRIDGE TITLE SHEET

SHEET S20 OF S-41 SHEETS

FEDERAL AID URBAN PROJECT NO. DSTP 9582(020) BRIDGE NO. B01 82 - 18 - 84 SECTIONS 0001 & 0002 JOB NO. 36917A



PLAN
1" = 12'-0"



ELEVATION
1" = 12'-0"

Flood Data Frequency (Yrs)	Waterway Discharge Cfs.	Water Surface El. Ft.	Velocity in Channel with or without Str. Ft./Sec.	Waterway Area Below W.S. El. Sqft.	Backwater above W.S. El. Ft.	Final W.S. El. Ft.
Existing Structure Q Design (100 Yr.)	4116	107.13	5.1	807	0.10	107.03
*Existing Structure Q Overtopping (500 Yr.)	NA	NA	NA	NA	NA	NA
Proposed Structure Q Design (100 Yr.)	4116	107.13	5.1	807	0.10	107.03
*Proposed Structure Q Overtopping (500 Yr.)	NA	NA	NA	NA	NA	NA
Natural Channel Q Design (50 Yr.)	3950	106.13	4.7	713	0.10	106.03
1968 Witnessed Flood of Record	—	107.23	—	—	—	—

PLACE STR. NAME PLATE ON FRONT FACE AT MID-DEPTH AND MID-LENGTH OF EACH RIGHT WINGWALL (2 REQ.). INCLUDED IN PARAPET BID ITEM.

VERIFY ALL ELEVATIONS BEFORE CONSTRUCTION.

JOB NO. : 36917A

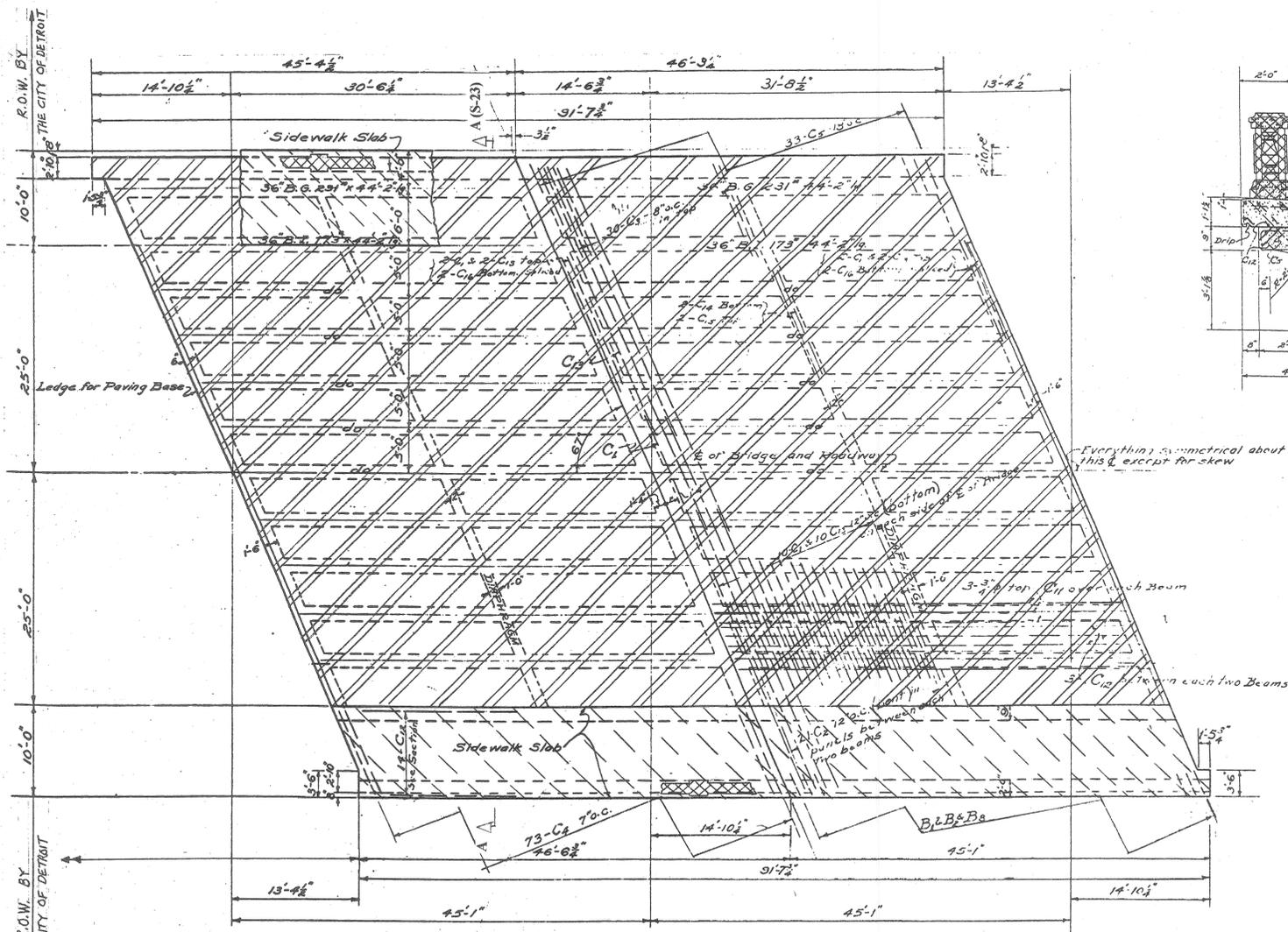
date	dr'n	ck'd	app'vd	date

designed by RF
 drawn by JN
 checked by RF
 approved by *[Signature]*

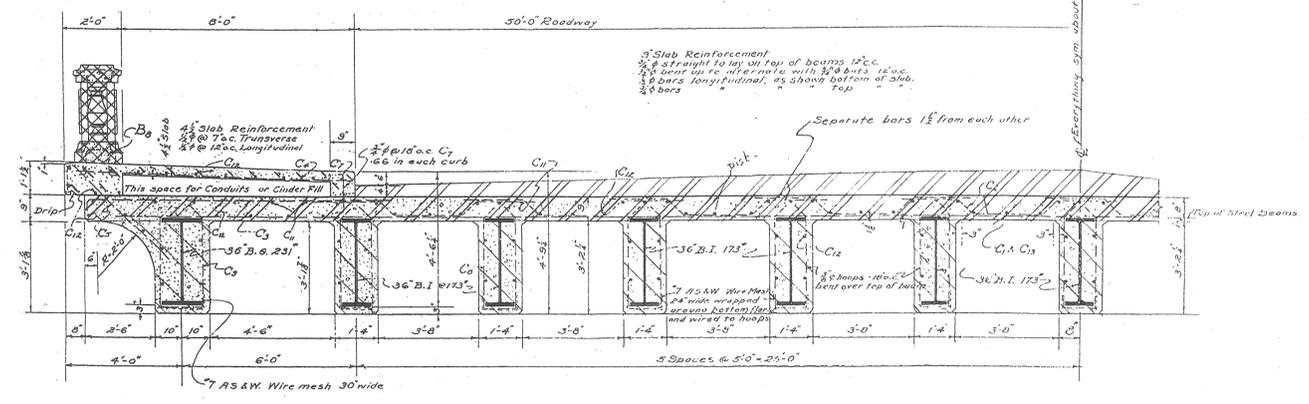
CITY OF DETROIT
 CITY ENGINEERING DIVISION
 DEPARTMENT OF PUBLIC WORKS

TIREMAN AVENUE BRIDGE OVER ROUGE RIVER (BW-265)
 SUPERSTRUCTURE RECONSTRUCTION
GENERAL PLAN OF STRUCTURE

a.o. 93-22-17
 contract no.
 sheet S-22 of S-41
 drawing no.
 date APRIL 1997

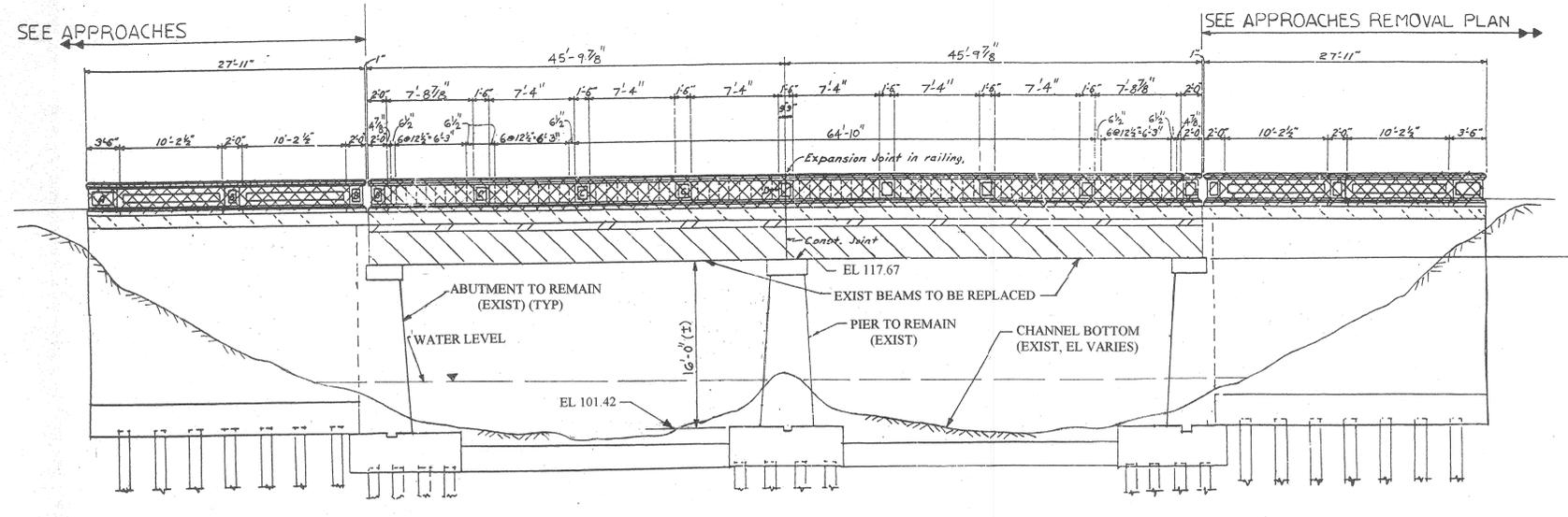


REMOVAL - PLAN (EXIST)
SCALE: 1/8" = 1'-0"



SECTION A-A (HALF SECTION OF DECK)
SCALE: N.T.S.

- LEGEND***
- REMOVE PARAPET
 - REMOVE DECK
 - REMOVE SIDEWALK ON THE DECK
 - REMOVE BEAMS, BEARINGS, ANCHOR BOLTS AND GROUTS
- * REFER TO THIS SHEET ONLY



REMOVAL - ELEVATION (EXIST)
SCALE: N.T.S.

PAY QUANTITY		
ITEM	QUANTITY	PAY UNIT
Misc. Removal Of Portions Of Structures B01-82-18-84	1	LSUM
Field Office	6	MOS
Misc. Mobilization.	0.5	LSUM
Max \$66,000		

- NOTES:**
- THE WORKS COVERED BY THESE PLANS INCLUDES THE FOLLOWING:
- A. REMOVAL AND RECONSTRUCTION OF BRIDGE SUPERSTRUCTURE AND APPROACHES.
 - B. REPAIR OF SUBSTRUCTURES.
- REMOVAL OF STRUCTURE NOTES:**
1. REMOVAL OF PARAPET, DECK, SIDEWALK ON THE DECK, BEAMS, BEARINGS, ANCHOR BOLTS, GROUT AND ANY OTHER ITEMS ON THE BRIDGE DECK WILL BE PAID FOR AS "REMOVAL OF PORTIONS OF STRUCTURES", LUMP SUM.
 2. REMOVAL AND DISPOSAL OF THE MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 2.06 OF 1990 STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- SUBSTRUCTURE NOTES: (REFER TO SHEET S-24 FOR SUBSTRUCTURE REPAIR DETAILS)**
1. THE ENTIRE TOP, EXISTING AND REPAIRED, THE FRONT FACE OF INDEPENDENT BACKWALL, ALL OTHER SURFACES OF EXISTING ABUTMENTS AND PIER, SHALL BE GIVEN AN APPLICATION OF PENETRATING WATER REPELLENT TREATMENT AFTER THE NEW ELASTOMERIC BEARINGS HAVE BEEN PLACED IN FINAL POSITION ON THE STRUCTURE.
 2. FORMS FOR LARGE PATCHES SHALL BE INSTALLED IN 2' TO 4' HIGH SECTIONS WITH THE TOP FORM NO MORE THAN 4' ABOVE THE LEVEL OF CONCRETE AS THE POUR PROGRESSES.
 3. LATEX MODIFIED HIGH-EARLY STRENGTH PATCHING MIXTURE IN ACCORDANCE WITH SUBSECTION 7.03.03 OF THE STANDARD SPECIFICATIONS SHALL BE USED FOR SUBSTRUCTURE REPAIRS.

designed by PP
 drawn by PP
 checked by RF
 approved by

EARL C. HOWA

CITY of DETROIT

CITY ENGINEER DIVISION

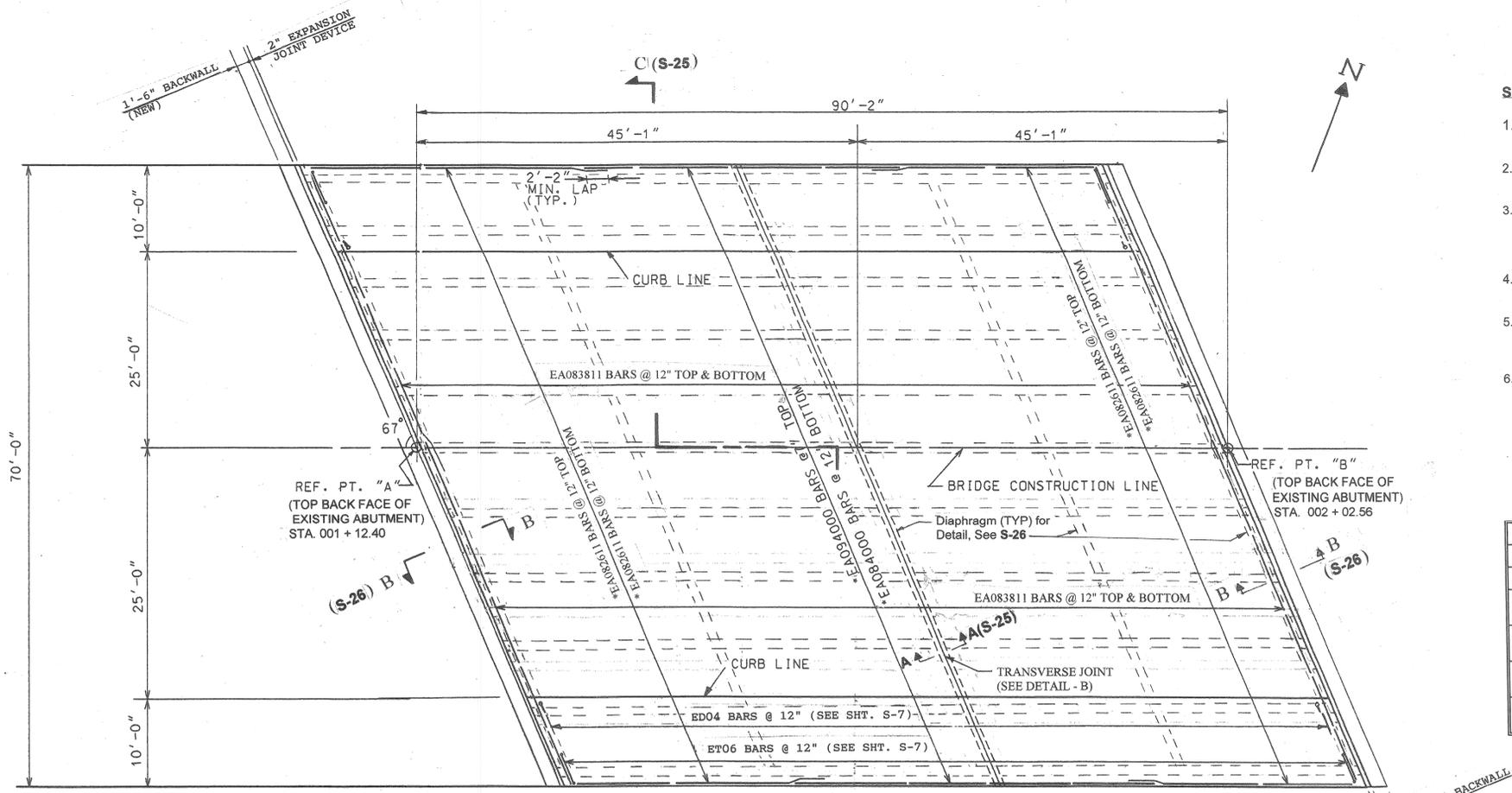
DEPARTMENT OF PUBLIC WORKS

TIREMAN AVENUE BRIDGE OVER ROUGE RIVER (BW-265)
 BRIDGE DECK RECONSTRUCTION
REMOVAL PLAN

a.o. 93-22-1
 contract no.
 sheet S-2
 of S-4
 drawing no.

date
 APRIL 19

Job No. : 36917A

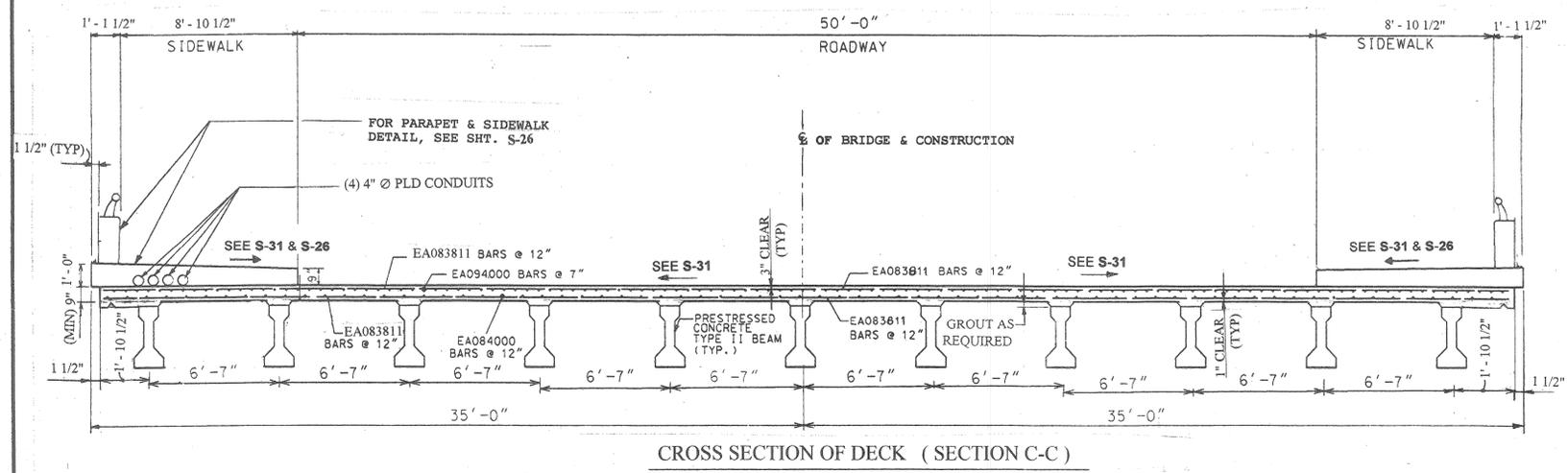


- SUPERSTRUCTURE MISCELLANEOUS NOTES:**
- FOR BRIDGE RAILING, MOLDING AND BEVEL DETAILS, SEE STANDARD X-18D AND XI-103D.
 - A RUBBED SURFACE FINISH ON THE VERTICAL AND TOP CONCRETE SURFACES OF THE PARAPET RAILING IS REQUIRED ON THIS STRUCTURE.
 - WHERE CAST-IN-ANCHORAGE IS USED FOR EXPANSION JOINT DEVICES, IT IS RECOMMENDED THAT THE PLACING OF DECK CONCRETE PROGRESS TOWARD THE JOINT SO THAT THE EFFECTS OF DEAD LOAD DEFLECTION WILL OCCUR BEFORE CONCRETE IS PLACED AT THE ANCHORAGE.
 - DO NOT POUR DECK CONCRETE UNTIL DIAPHRAGM CONCRETE ATTAINS A COMPRESSIVE STRENGTH OF 3,000 PSI.
 - CONCRETE QUANTITIES FOR DECK, BEAM ON PIER, DIAPHRAGMS, SIDEWALKS AND BACKWALL WITH FOOTING ARE INCLUDED IN THE PAY ITEM-SUPERSTRUCTURE CONCRETE.
 - SIDEWALK AND PARAPET CONCRETE POURS SHALL NOT BE CAST UNTIL SLAB CONCRETE ATTAINS AT LEAST 75% OF ITS DESIGN STRENGTH.

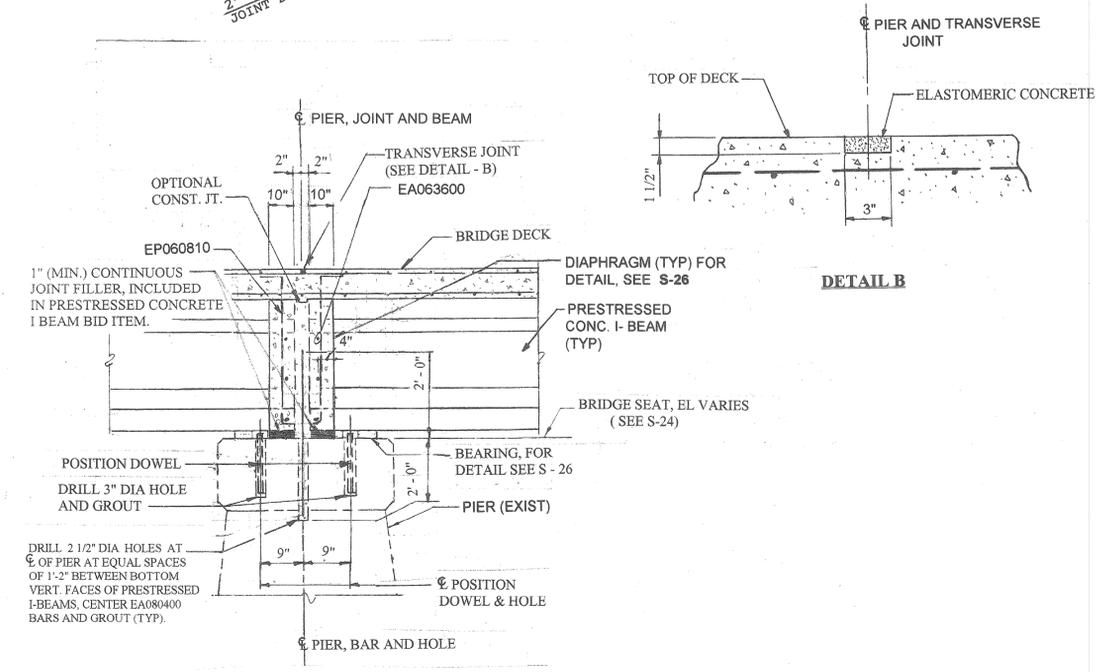
ITEM	QUANTITY	PAY UNIT
Superstructure Concrete	357	CYD
Misc. Form, Finish, Cure Superstructure Concrete	1	LSUM
36" Prestressed Concrete I-Beam, Furnished	985	LFT
36" Prestressed Concrete I-Beam, Erected	985	LFT
Miscellaneous Elastomeric Concrete	2.50	CFT

* INDICATES SPACINGS OF BARS ARE PERPENDICULAR TO THE CENTER LINE OF BRIDGE.

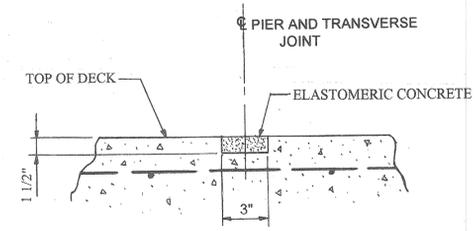
DECK PLAN
SCALE: 1/8" = 1' - 0"



CROSS SECTION OF DECK (SECTION C-C)
SCALE: 1/4" = 1' - 0"



SECTION A-A & DETAIL A
(S-25) (S-26) (S-27)
SCALE: 1/2" = 1' - 0"



DETAIL B

BY	CHECKED BY	APPROVED
PS, PP	PP, EH	<i>[Signature]</i>
ESTIMATE		
FINAL		

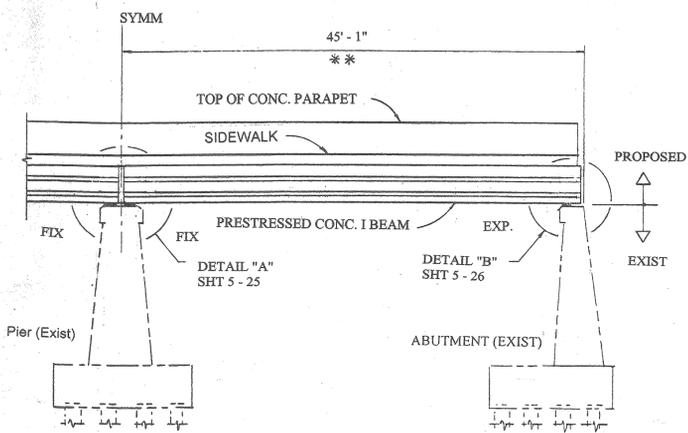
CITY OF DETROIT
CITY ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS

TIREMAN AVENUE BRIDGE OVER ROUGE RIVER (BW-265)
BRIDGE DECK RECONSTRUCTION

PLAN OF DECK AND CROSS SECTION

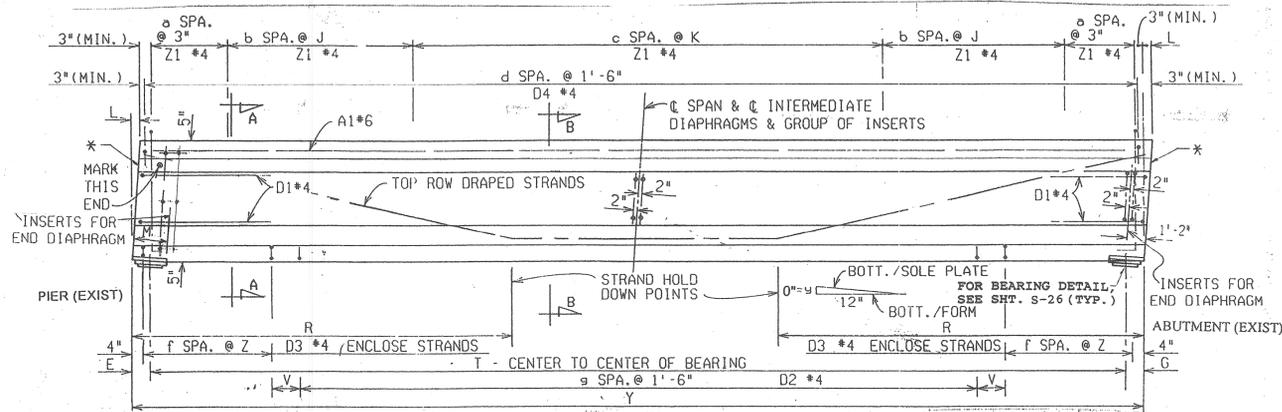
Job No. : 36917A

SHEET S-25 of S-41 SHEETS
CONTRACT NO.
ASSIGNMENT NO. 93-22-17
DATE APRIL, 1997



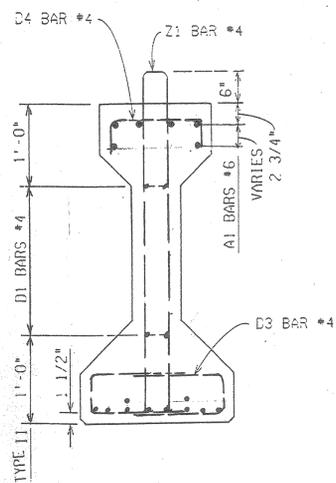
ELEVATION

1/8" = 1'-0" ¹
 (FOR CLARITY, ALL DETAILS ARE NOT SHOWN ABOVE)

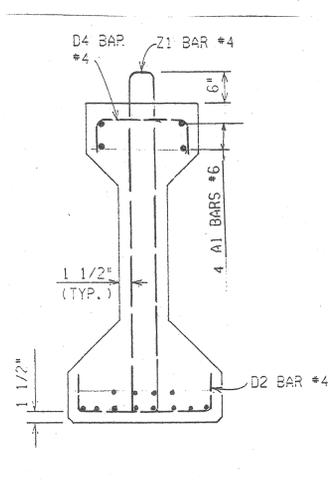


* THE ENDS OF BEAM SHALL BE SKEW PARALLEL TO THE ENDS OF DECK SLAB. PROVIDE BARS D₁, D₂, D₃, D₄, AND Z₁ PARALLEL TO THE ENDS (SKEW) IN A MAXIMUM OF 5'-0" LENGTH FROM THE ENDS AT SPACINGS INDICATED ON BEAM ELEVATION. 'B' DIMENSION FOR BARS SHALL BE PROVIDED ACCORDING TO THE SKEWNESS. ADD ADDITIONAL BAR/BARS AS NECESSARY TO ADJUST FOR REQUIRED SPACING BETWEEN BARS. BARS IN THE REMAINING PORTION OF THE BEAM MAY NOT BE SKEW.

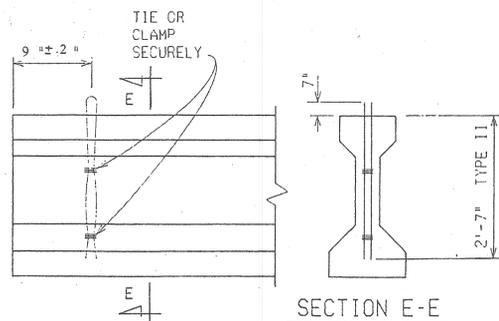
ELEVATION



SECTION A-A



SECTION B-B



SECTION E-E
 LIFTING DEVICE

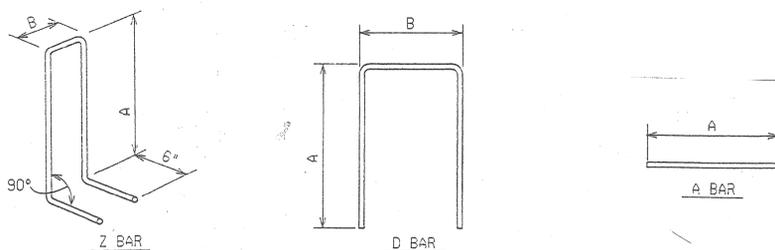
PRESTRESSING STRAND LIFT DEVICE CAPACITY		
STRAND SIZE	NO. OF STRANDS	ALLOWABLE WT. OF BEAM
3/8"	2	20 TONS
7/16"	2	27 TONS
1/2"	2	36 TONS
3/8"	3	30 TONS
7/16"	3	40.5 TONS
1/2"	3	54 TONS

FOR INFORMATION ONLY

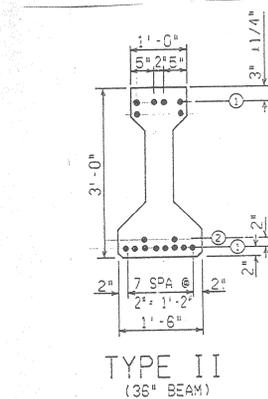
BEAM DIMENSIONS	
MARK	TYPICAL
TYPE	II
NOS. REQ.	22
a	15
b	12
c	25
d	30
e	7"
f	19
g	23
h	9"
i	1'-6"
j	6"
k	1'-0"
l	0
m	1'-8"
p	
q	
r	17'-3"
t	43'-2 5/8"
u	
v	0
x	
** y	44'-8 5/8"
z	3"
APPROX. WEIGHT=8.6 TONS	

TABLE 1							
NUMBER OF 1/2"Ø - 270 ^{PSI} - 7 WIRE STRANDS IN INDICATED ROW							
MARK	TYPE	MIDSPAN (SECTION B-B)			TOTAL NUMBER	INITIAL PRESTRESS FORCE/STRAND (LBS.)	REQUIRED CONCRETE RELEASE STRENGTH (PSI)
		BOTTOM	BOTTOM	TOP			
		① ② ③ ④	① ② ③ ④	① ②	12	31,000	4,000
		8 4	8 2	2			

BAR DIMENSIONS	
BAR DIM.	BEAM TYPE
A1#6	A 4'-3"
D1#4	A 4'-0"
	B 2 1/2"
D2#4	A 3"
	B 1'-3 1/2"
D3#4	A 1'-2"
	B 3 1/2"
D4#4	A 4"
	B 8"
Z1#4	A 3'-2 1/2"
	B 3 1/2"

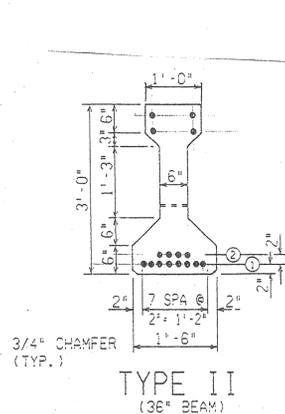


** CONTRACTOR TO FIELD VERIFY THE DIMENSION.
 *** INDICATES EPOXY COATED BARS.



SECTION A-A

SHOWING STRAND ARRANGEMENT AT END FACE



SECTION B-B

SHOWING STRAND LOCATIONS AT MIDSPAN

NOTES:

- ALL STEEL IN THE BEARING SHALL MEET THE REQUIREMENTS OF ASTM A36.
- ALL STEEL IN THE BEARING IS INCLUDED IN THE PAY ITEM "PRESTRESSED CONCRETE I-BEAM, FURNISHED".
- TACK WELDING OF STEEL REINFORCEMENT IS PROHIBITED.
- ELASTOMER FOR ELASTOMERIC BEARING PAD SHALL BE NOMINAL 50 DUROMETER HARDNESS FOR LAMINATED BEARINGS.
- PRESTRESSING STRAND SHALL BE 1/2" DIAMETER WITH AN AREA OF 0.153 SQUARE INCHES AND SHALL BE GRADE 270 IN ACCORDANCE WITH ASTM A416 AND SUPPLEMENT. LOW RELAXATION STRANDS SHALL BE USED.
- END BLOCKS ARE REQUIRED.
- TOTAL ESTIMATED CHANGE OF LENGTH OF BOTTOM FLANGE AT TRANSFER OF PRESTRESS FORCE IS 3/4".
- WHEN BOND BREAKERS ARE REQUIRED, THEY SHALL BE PLACED SYMMETRICALLY ABOUT THE C OF THE BEAM. THE NUMBER AND LENGTH OF BOND BREAKER SHALL BE AS SHOWN IN THE ELEVATION OF THE BEAM. LENGTH SHOWN IS FROM END OF BEAM TO END OF BREAKER. THEY SHALL CONSIST OF TWO TUBES (ONE INSIDE THE OTHER) WITH OVERLAP TURNED IN OPPOSITE DIRECTION.
- LIFTING OF BEAM SHALL BE BY EQUAL LOADS TO EACH PAIR OF LIFTING DEVICES.
- THE TOP FLANGE TOP SURFACE SHALL BE INTENTIONALLY ROUGHENED.
- ALL EXPOSED SURFACES OF CONCRETE TO BE RUBBED AS SOON AS FORMS ARE REMOVED. NO CEMENT GROUT TO BE USED ON EXPOSED SURFACES.
- ALL REINFORCING BARS SHOULD BE SECURELY TIED AT ALL INTERSECTIONS.

TREATMENT OF EPOXY-COATED BARS

REINFORCEMENT IS TO BE SHOP CUT AS SHOWN. THE EPOXY COATING SHALL BE REPAIRED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PRESTRESSED CONCRETE I-BEAM

- PRESTRESSING STRANDS SHALL BE GIVEN AN INITIAL PRESTRESS OF 31,000 LBS. EACH.
- CONCRETE INSERTS SHALL BE RICHMOND, 3/4" DIAMETER, TYPE T2 OR TYPE TL2F; DAYTON SUPERIOR, 3/4" DIAMETER TYPE B-1 HEAVY OR TYPE B-18; OR EQUAL.
- THREADING OF REINFORCEMENT AND INSTALLATION INTO CONCRETE INSERTS IS INCLUDED IN THE BID ITEM "PRESTRESSED CONCRETE I-BEAM, FURNISHED".
- LIFTING DEVICES SHALL BE REMOVED. REMOVAL IS INCLUDED IN THE BID ITEM "PRESTRESSED CONCRETE I-BEAM, FURNISHED".
- CONTRACTOR SHALL DESIGN, DETAIL, MANUFACTURE, AND ERECT THE PRESTRESSED CONCRETE BEAMS IN ACCORDANCE WITH SECTION 5.05 OF MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, 1990 EDITION. CAPACITY SHALL NOT BE LESS THAN WHAT IS SHOWN AND DETAILED ON THE DRAWING.

NO.	DATE	BY	REVISIONS

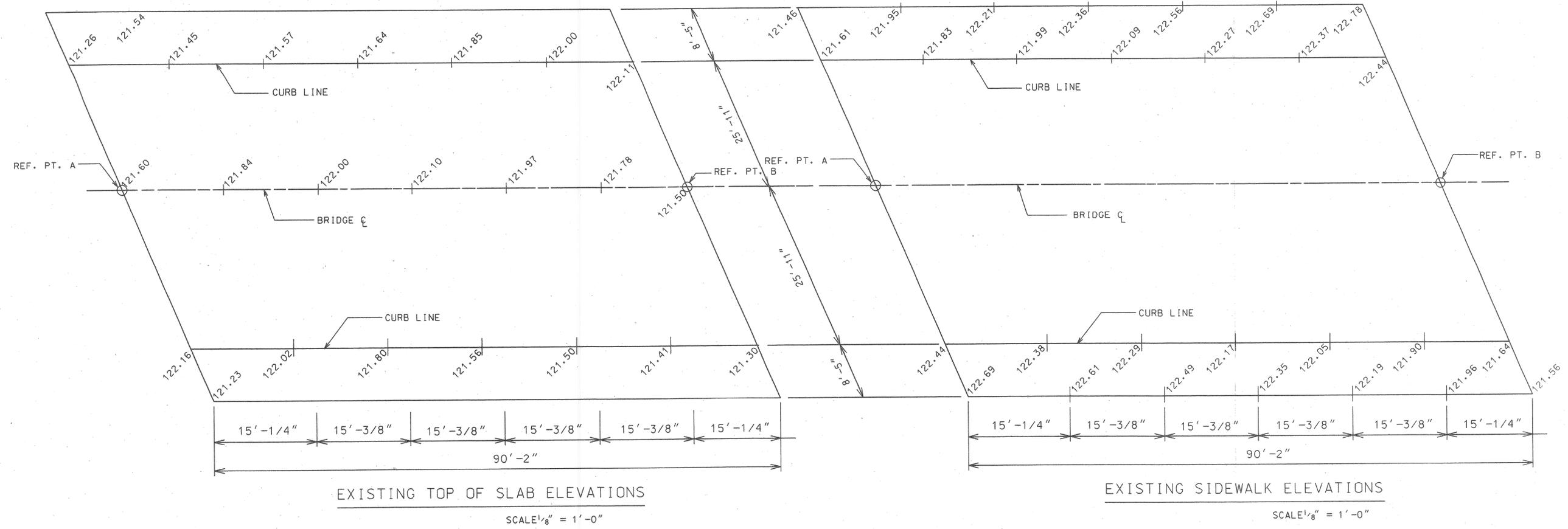
designed by **RF**
 drawn by **RF, PP**
 checked by **EH**
 approved: *Carl C. Howard*

CITY OF DETROIT
 CITY ENGINEERING DIVISION
 DEPARTMENT OF PUBLIC WORKS

TIREMAN AVENUE BRIDGE OVER ROUGE RIVER (BW-265)
 SUPERSTRUCTURE RECONSTRUCTION
PRESTRESSED BEAM DETAILS

a.o. 93-22-17
 contract no.
 sheet S-27 of S-41
 drawing no.
 date APRIL 1997

BENCH	MARKS	ELEV
PBM 109-252	NE CORNER TIREMAN & BERT ROAD	128.09
PBM 103-252A	NE CORNER TIREMAN & PATTON	136.68
PBM 110-250A	NE CORNER SPINOZA & JOY ROAD	136.26
CBM # 1	SPIKE IN POLE, S. SIDE OF TIREMAN, E. OF BRIDGE	123.04
CBM # 2	SPIKE IN POLE, S. SIDE OF TIREMAN, W. OF BRIDGE	124.55



EXISTING TOP OF SLAB ELEVATIONS
SCALE 1/8" = 1'-0"

EXISTING SIDEWALK ELEVATIONS
SCALE 1/8" = 1'-0"

Job No. : 36917A

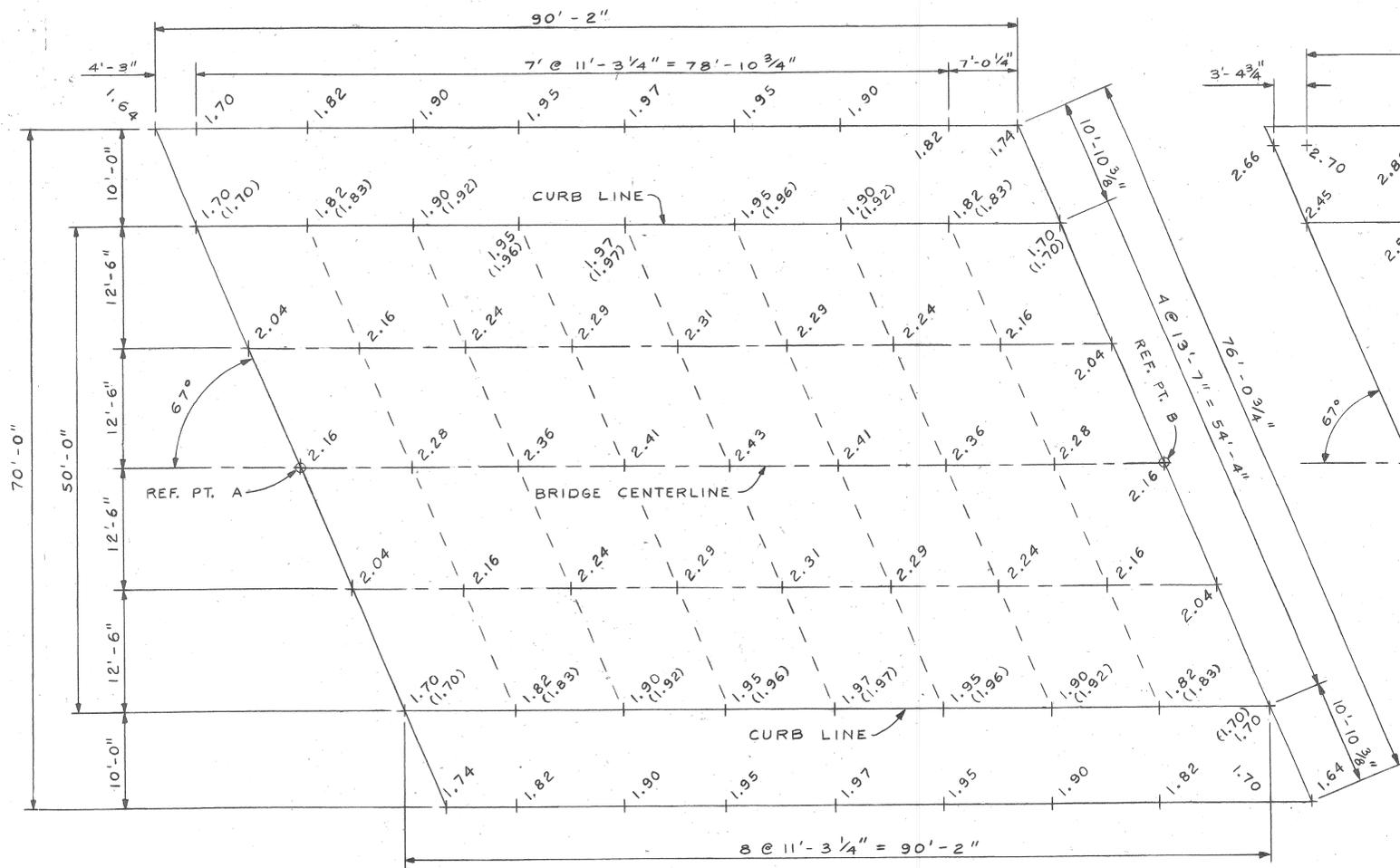
DESCRIPTION	DR	CHK	DATE	DATE
REVISIONS				
PLAN	RP	RP		
GRADE	RS	RS		
ESTIMATE				
FINAL				

CITY OF DETROIT
CITY ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS

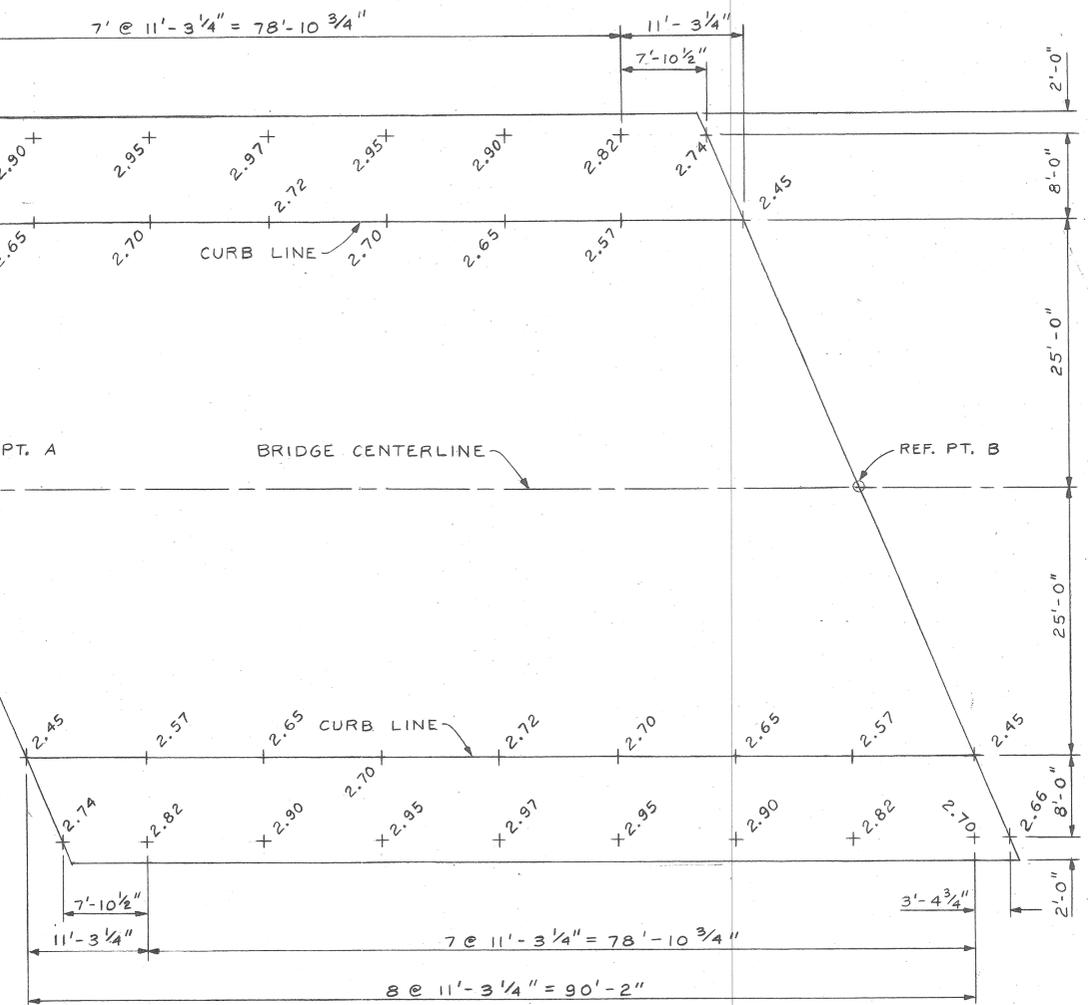
TIREMAN AVENUE BRIDGE OVER ROUGE RIVER (BW-265)
SUPERSTRUCTURE RECONSTRUCTION
EXISTING DECK AND SIDEWALK ELEVATIONS

SHEET	S-304S-41	SHEETS
CONTRACT		
NO.		
ASSIGNMENT		
NO.	93-22-17	
DATE	APR. 1997	

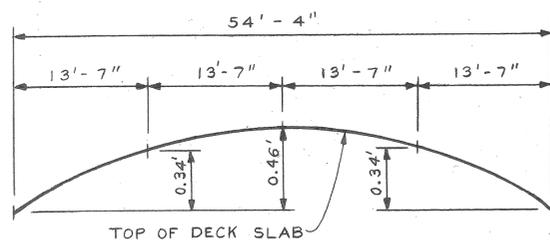
ADD 120.00 FT. TO ELEVATIONS SHOWN.



PROPOSED TOP OF DECK SLAB ELEVATIONS
SCALE: 1/8" = 1'-0"



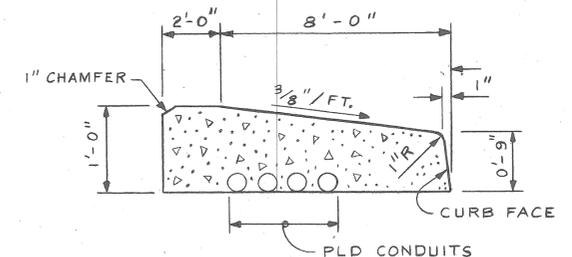
PROPOSED SIDEWALK ELEVATIONS
SCALE: 1/8" = 1'-0"



TYPICAL SECTION FOR TOP OF DECK SLAB
BETWEEN CURB LINES AT 67° DIAGONAL
NO SCALE

NOTES

- ALL ELEVATIONS ARE BASED ON CITY OF DETROIT DATUM.
- FOR SURVEY BENCH MARK LOCATIONS & ELEVATIONS SEE SHEET NO. S-21.
- SIDEWALK POUR SHALL NOT BE CAST UNTIL SLAB CONCRETE HAS ATTAINED AT LEAST 75% OF ITS DESIGN STRENGTH.
- SLAB & SIDEWALK ELEVATIONS ARE BASED ON THE CONDITION THAT ALL CONCRETE BEAMS HAVE ERECTED, BUT NO OTHER LOADS ARE APPLIED. THESE ELEVATIONS INCLUDE ALLOWANCES FOR DEFLECTION DUE TO FORMS, STEEL REINFORCEMENT, DECK CONCRETE AND BARRIERS.
- SCREED RAILS FOR FINISHING CONCRETE SHALL BE LOCATED OVER FASCIA BEAMS.
- SCREED ELEVATIONS ARE SHOWN IN PARENTHESIS THUS ().
- TRANSVERSE SIDEWALK CONTRACTION JOINTS ARE TO BE AT 8-FT. INTERVALS OR AS DIRECTED BY THE ENGINEER.



TYPICAL SIDEWALK SECTION
NO SCALE

DESCRIPTION	DR.	CHK.	AP.	VD.	DATE	FINAL	CHECK	REVIEW
REVISIONS								

CITY OF DETROIT
CITY ENGINEERING DIVISION D.P.W.
BUREAU OF STREETS AND HIGHWAYS

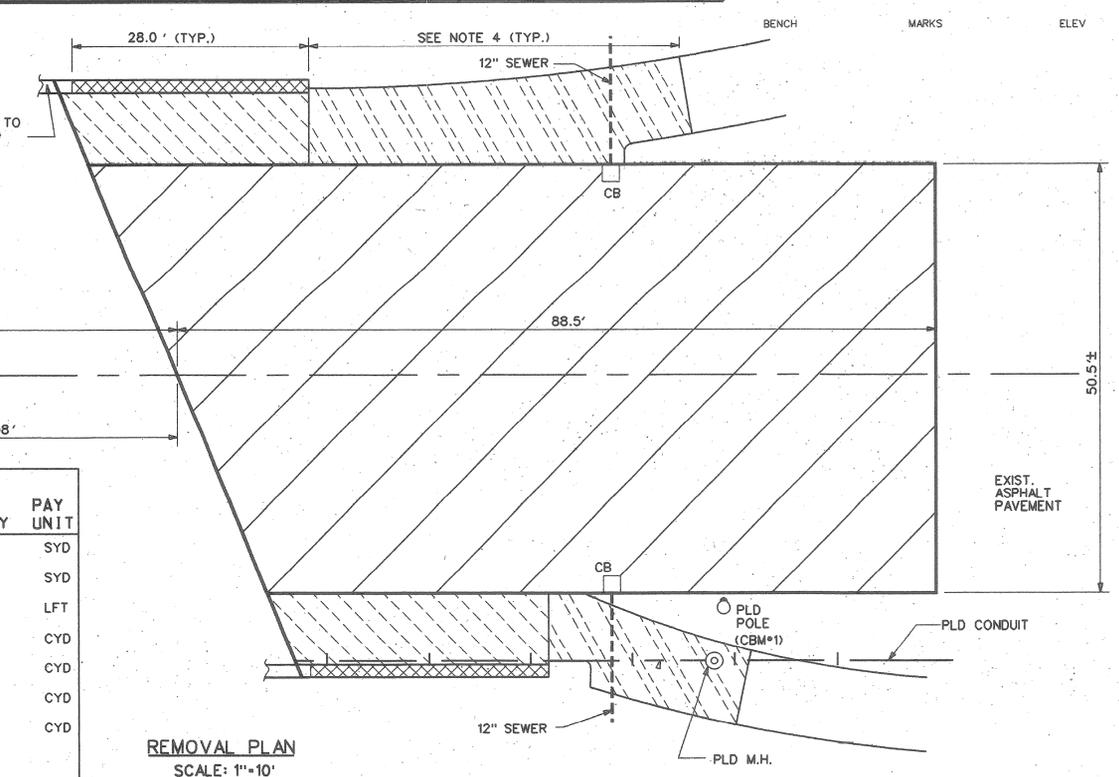
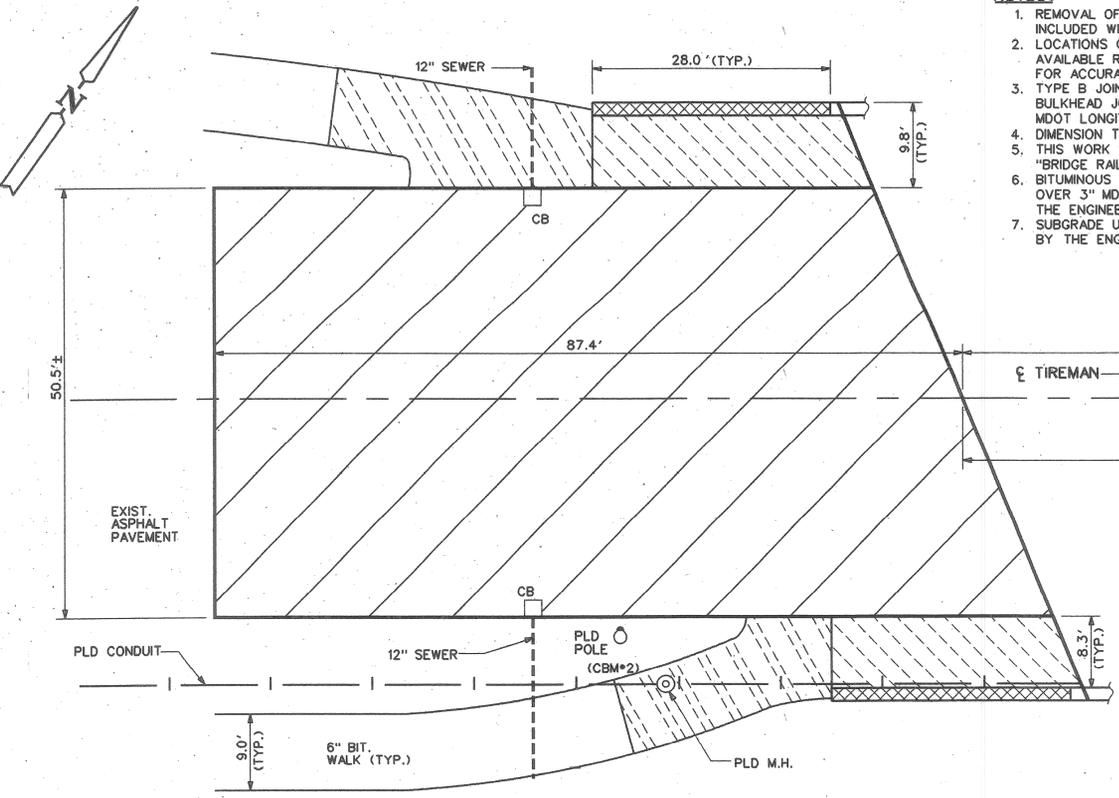
BY: N.W.
CHECKED BY: N.W.
APPROVED: *Emile C. Howard*
ENGINEER OF STREETS

TIREMAN AVE. BRIDGE OVER ROUGE RIVER (BW-265)
PROPOSED DECK SLAB AND SIDEWALK ELEVATIONS

SHEET S-31 OF S-41 SHEETS
CONTRACT NO.
ASSIGNMENT NO. 93-22-17
DATE MAR., 1997

Job No. : 36917A

- NOTES:**
- REMOVAL OF BITUMINOUS SIDEWALK SHALL BE INCLUDED WITH EARTH EXCAVATION.
 - LOCATIONS OF PLD CONDUIT ARE BASED UPON AVAILABLE RECORDS AND ARE NOT GUARANTEED FOR ACCURACY.
 - TYPE B JOINT DENOTES AN MDOT LONGITUDINAL BULKHEAD JOINT; TYPE D JOINT DENOTES AN MDOT LONGITUDINAL LANE TIE JOINT.
 - DIMENSION TO BE DETERMINED IN THE FIELD.
 - THIS WORK INCLUDED IN PAY ITEM: "BRIDGE RAILING, SOLID PARAPET TYPE".
 - BITUMINOUS SIDEWALK TO BE 1" MDOT BIT. MIX 36A OVER 3" MDOT BIT. MIX 3C OR AS APPROVED BY THE ENGINEER.
 - SUBGRADE UNDERCUTTING SHALL BE AS DIRECTED BY THE ENGINEER.



PAY QUANTITIES

ITEM	QUANTITY	PAY UNIT
REMOVING PAVEMENT	1,015	SYD
REMOVING SIDEWALK	100	SYD
REMOVING CONCRETE PARAPET	112	LFT
EARTH EXCAVATION	25	CYD
EMBANKMENT (LM)	30	CYD
SUBGRADE UNDERCUTTING, TYPE II	10	CYD
GRANULAR MATERIAL CLASS II	35	CYD
REMOVING BITUMINOUS SURFACE (see sheet no. S-33)	196	SYD

REMOVAL PLAN
SCALE: 1"=10'

REMOVAL LEGEND

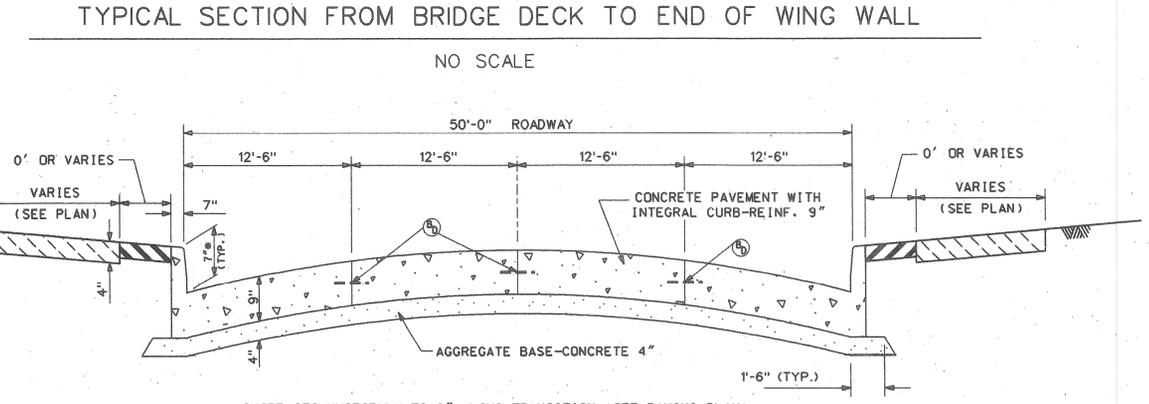
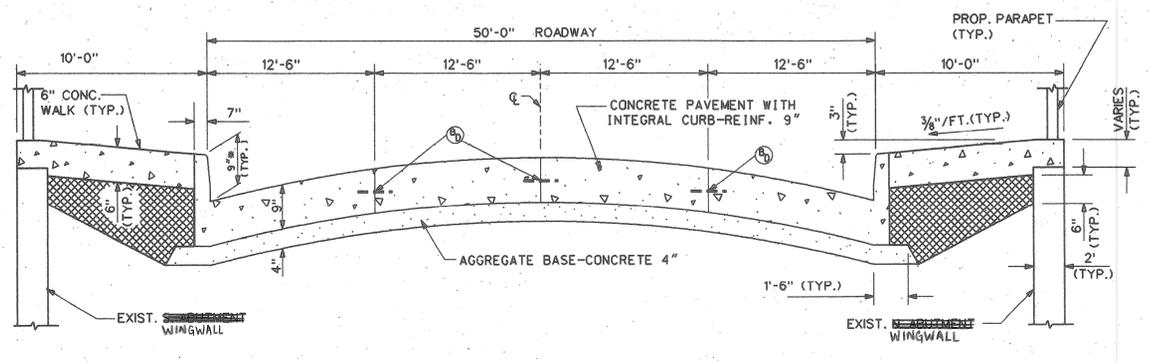
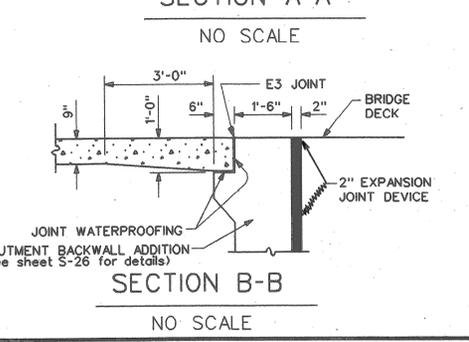
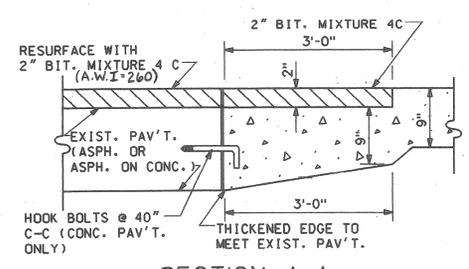
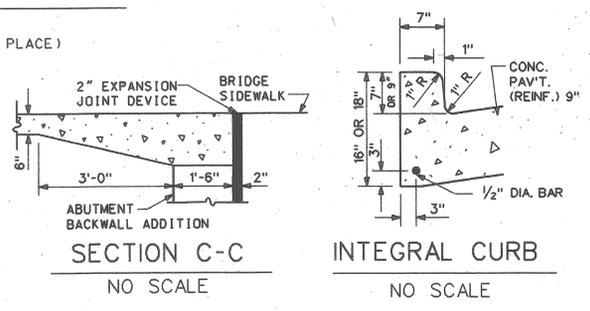
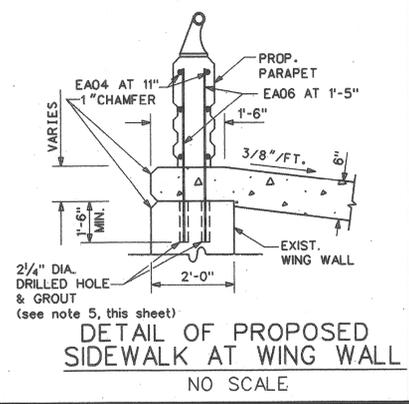
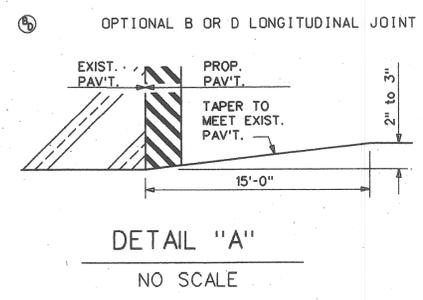
- REMOVING PAVEMENT
- REMOVING SIDEWALK
- REMOVING BITUMINOUS SIDEWALK
- REMOVING CONCRETE BRIDGE PARAPET

TYPICAL SECTION LEGEND

- AGGREGATE BASE UNDER CONCRETE (4" IN PLACE)
- GRANULAR MATERIAL CLASS II
- BITUMINOUS SIDEWALK, 4"
- CLASS "A" SODDING WITH 3" TOPSOIL

PAVING PLAN LEGEND

- CONC. PAV'T. WITH INTEGRAL CURB-REINF. 9"
- CONC. BASE COURSE WITH INT. CURB-REINF. 9" AND 2" BITUMINOUS SURFACE
- REMOVING BITUMINOUS SURFACE & RESURFACE
- CONCRETE SIDEWALK, 6"
- BITUMINOUS SIDEWALK, 4" (see note 6, this sheet)
- BRIDGE PARAPET ON CONC. WALK
- CLASS "A" SODDING WITH 3" TOPSOIL
- BACKFILL AND CLASS "A" SODDING
- CLASS C-76-III 12" SEWER IN TRENCH DETAIL B
- CATCH BASIN "A"
- ADJUSTING DRAINAGE STRUCTURE COVER, CASE 2
- TRANSVERSE EXPANSION JOINT
- TRANSVERSE CONTRACTION JOINT



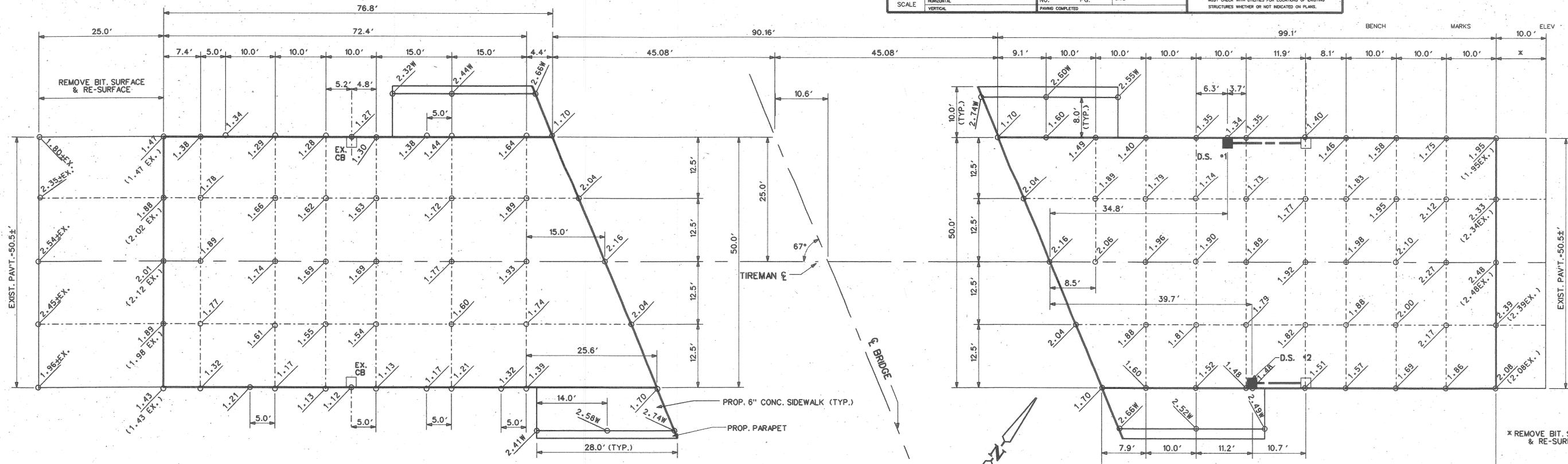
PLAN	N.W., K.M.	CHECKED BY	APPROVED
GRADE			<i>Earl C. Howard</i>
ESTIMATE			
DESCRIPTION	DR	CHK	DATE
REVISIONS			

CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAU OF STREETS AND HIGHWAYS

TIREMAN AVENUE BRIDGE OVER ROUGE RIVER (BW-265)
APPROACH REMOVAL PLAN, PROPOSED SECTIONS & DETAILS

JOB NO. 36917A

SHEET	S-32 OF S-41 SHEETS
CONTRACT NO.	
ASSIGNMENT NO.	93-22-17
DATE	MAR. 1997

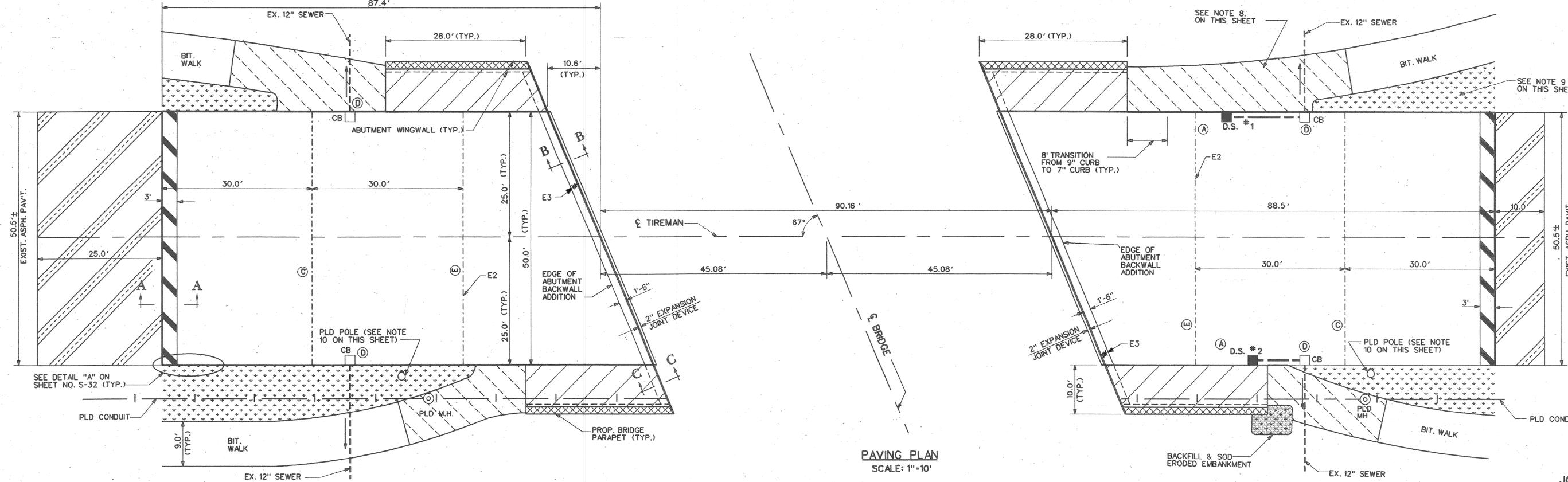


NOTES:

1. FOR SURVEY BENCH MARK LOCATIONS AND ELEVATIONS SEE SHEET NO. S-21.
2. ADD 120.00 TO ELEVATIONS SHOWN.
3. FOR ELEVATIONS SHOWN, "W" DENOTES TOP OF WALK ELEVATIONS. ALL OTHER ELEVATIONS SHOWN ARE PAVEMENT SURFACE ELEVATIONS.
4. FOR PAVING PLAN LEGEND, CROSS SECTIONS AND DETAILS SEE SHEET NO. S-32.
5. FOR DRAINAGE STRUCTURE DETAILS SEE SHEET NO. S-34.
6. SEE ALSO NOTES ON SHEET NO. S-32 AND ON SHEET NO. S-34.
7. FOR PAY QUANTITIES APPLICABLE TO THIS SHEET, SEE SHEET NO. S-34.
8. REPLACE DISTURBED BITUMINOUS WALK WITH 1" BIT. MIX 36-A OVER 3" BIT. MIX 3C AS DIRECTED BY THE ENGINEER.
9. RESTORE DISTURBED GROUND AREAS WITH CLASS "A" SODDING ON 3" TOPSOIL AS DIRECTED BY THE ENGINEER.
10. PLD POLE TO BE RELOCATED BY PLD.
11. PLD OVERHEAD LINE TO BE DEACTIVATED BY PLD DURING CONSTRUCTION.

DETAILED GRADES
SCALE: 1"=10'

PAVING PLAN
SCALE: 1"=10'



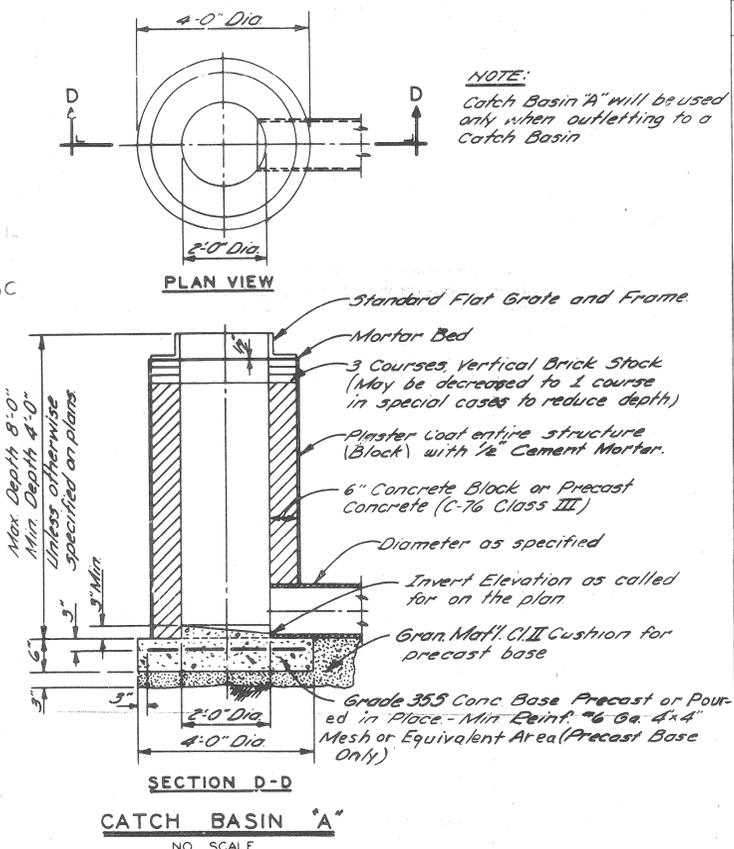
PLAN	N.W.,K.M.	CHECKED BY	APPROVED
GRADE	N.W.,K.M.		<i>Earl C. Howard</i>
ESTIMATE			
DESCRIPTION	DR	CHK	DATE
REVISIONS	FINAL	****	****

CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAU OF STREETS AND HIGHWAYS

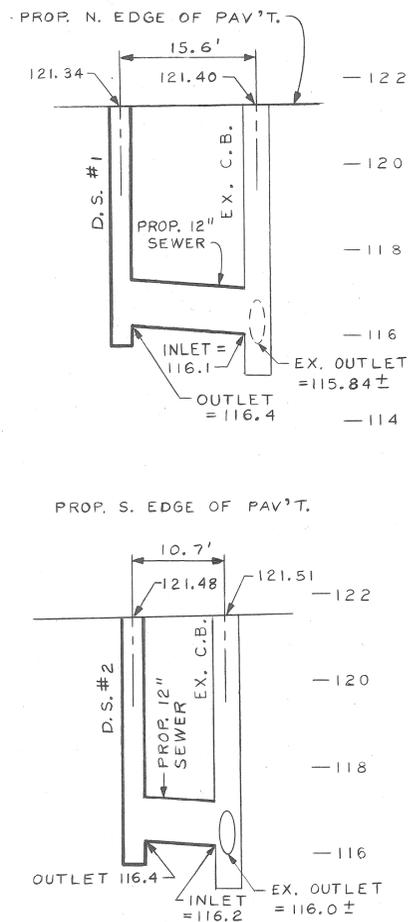
**TIREMAN AVENUE BRIDGE OVER ROUGE RIVER (BW-265)
APPROACH PAVING PLAN AND DETAILED GRADES**

NOTES

1. Install 12-inch dia. C-76-III sewers in trench detail B.
2. Verify diameters and invert elevations of existing sewers in the field.
3. For a profile view of the existing bridge parapet see sheet no. S-23.
4. For details of the proposed parapet see sheet no. S-26. See also MDOT Standard Plan X-18D, "Bridge Railing, Solid Parapet Type".
5. Transverse contraction joints on approach sidewalks shall be spaced at 6 ft. intervals.
6. Replace disturbed bituminous walk with 1" MDOT Bit. Mix 36A over 3" MDOT Bit. Mix 3C or other approved mixture as directed by the Engineer.
7. Restore disturbed ground areas with Class A sodding on 3" topsoil as directed by the engineer.
8. Backfill eroded embankment with selected excavated material (included with construction).
9. For PLD manhole reconstruction see sheet no. S-35.
10. For PLD conduit reconstruction see sheet no. S-35.
11. Provide double-yellow L pavement markings conforming to Detroit DOT Field Pavement Marking Standards No. SG-50. Markings are to be of polyester material.



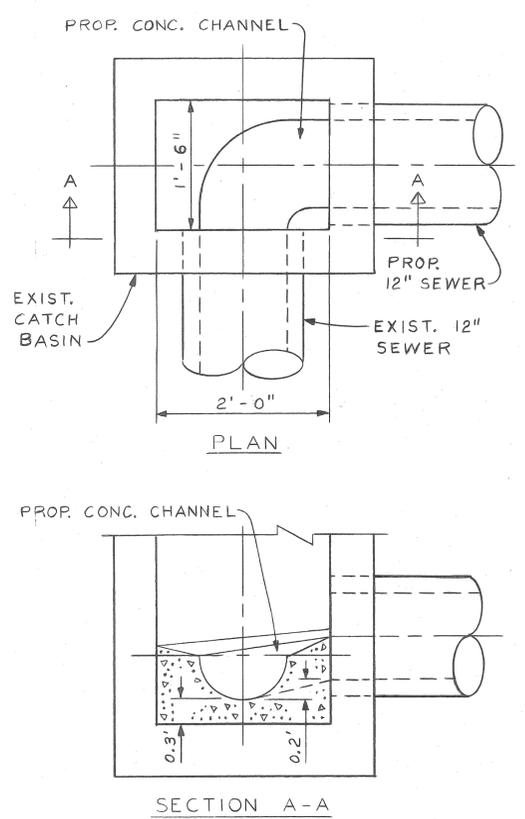
PAY QUANTITIES		
ITEM	QUANTITY	PAY UNIT
AGGREGATE BASE UNDER CONCRETE (4" IN PLACE)	1,043	SYD
JOINT WATERPROOFING	230	SFT
CONCRETE SIDEWALK, 6"	1,120	SFT
CONCRETE PAVEMENT WITH INTEGRAL CURB-REINF. 9"	1,005	SYD
BRIDGE RAILING, SOLID PARAPET TYPE	112	LFT
CLASS C-76-III SEWER, 12" TRENCH DETAIL B	27	LFT
SEWER TAP, 12"	2	EACH
SEWER CLEANOUT	300	LFT
ADJUSTING DRAINAGE STRUCTURE COVER, CASE 2	6	EACH
MISC. CATCH BASIN TYPE A	2	EACH
BITUMINOUS MIXTURE, 3C	23	TON
BITUMINOUS MIXTURE, 4C	26	TON
BITUMINOUS MIXTURE, 36A	7	TON
OVERLAY COLD PLASTIC PAVEMENT MARKING, 4" YELLOW	440	LFT
CLASS A SODDING	124	SYD
WATER	2	UNIT
TOPSOIL SURFACE, 3"	124	SYD
CLEANING DRAINAGE STRUCTURE	4	EACH
CONTRACTION JOINT C	100	LFT
EXPANSION JOINT E2	100	LFT
EXPANSION JOINT E3	152	LFT



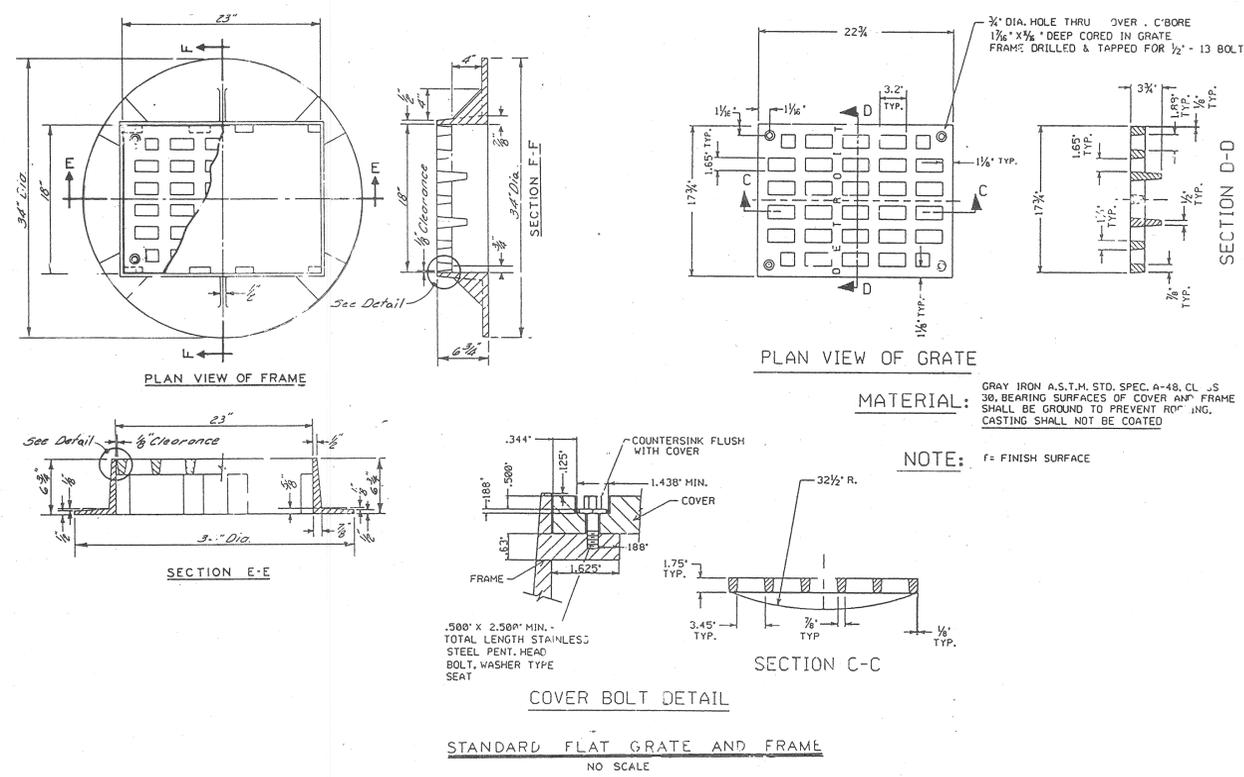
DRAINAGE STRUCTURE DETAILS
SCALE: 1" = 10' HORIZ.
1" = 2' VERT.

CATCH BASIN NOTES

1. The materials & workmanship shall be in accordance with the current Standard Specifications.
2. Center of Catch Basin shall be 20 inches from back of curb.
3. All sizes of flow lines of pipe, and elevations for top & bottom of structures shall be determined from the plans or construction requirements. The bell shall be removed from the first length of outlet pipe projecting through the wall of the structures. When any structure is constructed of precast concrete or concrete block, the top of the masonry shall be left sufficiently low to permit proper adjustment of cover to grade by the use of mortar or bricks as directed by the Engineer.
4. A plaster coat of mortar 1/2 inch in thickness shall be applied to the outer surface of the structure as shown. A 1/2 inch cement plaster coat shall be placed on the inside of all sumps.
5. Contractor shall verify elevations of existing utilities to enable construction to indicated elevations shown on drawings. If necessary, invert elevations shown on the drawings may be altered in the field to clear existing utilities. Such alterations, upward or downward, shall be at no change in contract price.
6. When precast concrete pipe sections are used for catch basins, either a section of the inlet and outlet pipes or an opening or eye for the inlet & outlet pipes shall be cast into the wall of the catch basin pipe when it is being manufactured. Eyes in precast pipe sections shall be furnished to accommodate a flexible joint connection such as Press-Wedge by Press Seal Gasket Corp or Res-Seal by Seales, Mfg. Corp.



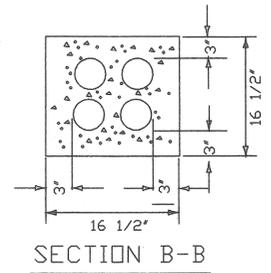
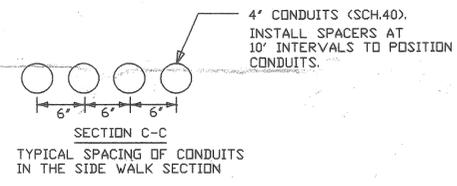
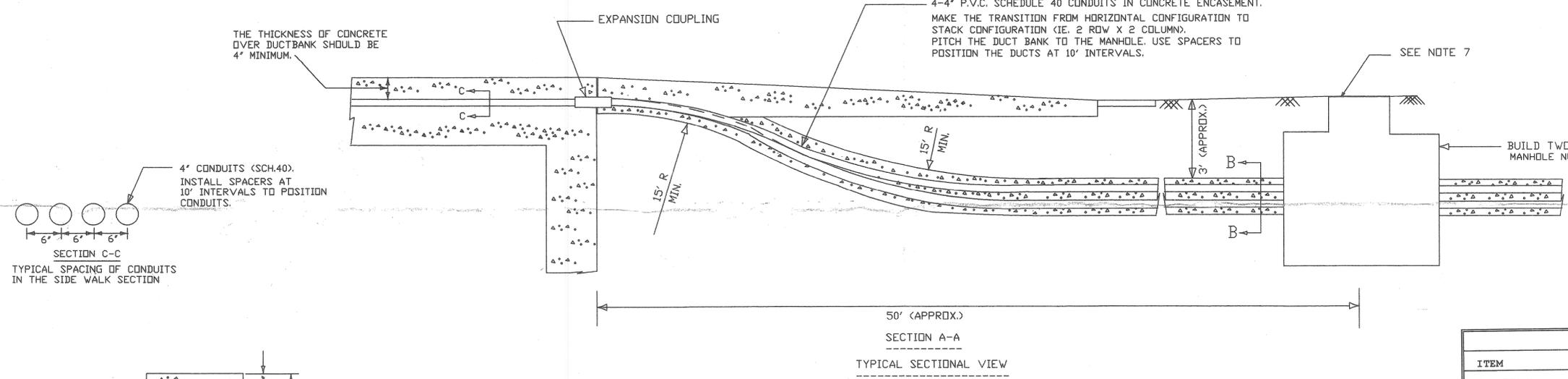
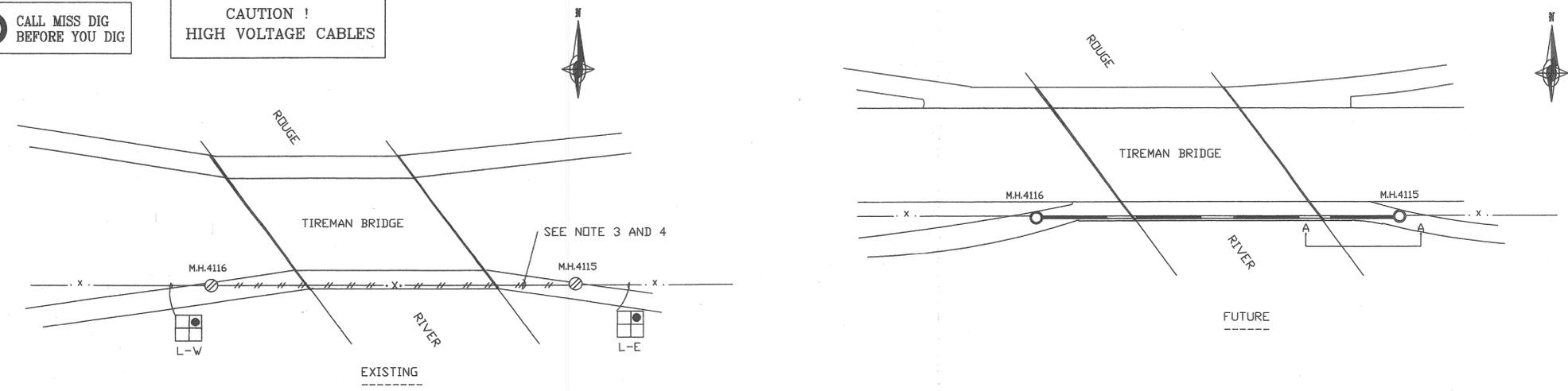
DETAIL OF EXISTING CATCH BASIN
SCALE 1" = 1'-0"



STANDARD FLAT GRATE AND FRAME
NO SCALE

CALL MISS DIG BEFORE YOU DIG

CAUTION ! HIGH VOLTAGE CABLES



LEGEND

- - - X - - - EXISTING DUCT BANK
- /// X /// DISMANTLE THE EXISTING DUCT BANK.
- ⊗ DISMANTLE THE MANHOLE
- ⊙ EXISTING DUCT WITH CABLE
- NEW DUCT BANK
- BUILD NEW MANHOLE

NOTE

1. REFER TO P.L.D. DRAWING NO. 101 FOR ENCASED CONDUIT BANK. (S-37)
2. REFER TO P.L.D. DRAWING NO. 104 FOR MANHOLE CONSTRUCTION. (S-40)
3. THE CONTRACTOR SHOULD DO ANY WORK ONLY AFTER THE HIGH VOLTAGE CABLES AND COMMUNICATION CABLES ARE CUT AND REMOVED. THE CABLES WILL BE REMOVED AND REINSTALLED AS A FORCE ACCOUNT WORK BY P.L.D. CONTACT P.L.D. ENGINEERING DIVISION (313) 267-7801 THREE WEEKS IN ADVANCE FOR ARRANGING CABLE WORK.
4. ALL THE DEBRIS OF THE DISMANTLED MANHOLES SHOULD BE REMOVED BEFORE NEW MANHOLES AND DUCTS ARE INSTALLED
5. THE NEW MANHOLE SHOULD BE BUILT TO ACCOMMODATE THE EXISTING DUCT BANK ON ONE SIDE AND THE NEW DUCT BANK ON THE OTHER SIDE. THE MANHOLE SHOULD BE GROUNDED AND CABLE RACKS SHOULD BE INSTALLED PER P.L.D. SPECS. PRECAST MANHOLE MAY BE INSTALLED PER APPROVAL BY P.L.D.
6. THE DUCT BANKS SHOULD BE TERMINATED IN THE DUCT POCKETS OF THE MANHOLES PER P.L.D. SPECIFICATIONS.
7. P.L.D. APPROVED MANHOLE FRAME AND COVER SHOULD BE INSTALLED.
8. PLEASE CONTACT P.L.D. INSPECTORS BEFORE STARTING ANY WORK.
MR. SIDNEY BASS (313)267- 7340
MR. KEN HARDAWAY (313)267- 6043
9. THE CONTRACTOR SHOULD NOTIFY P.L.D. SYSTEM OPERATOR (313) 224- 0500 48 HRS. PRIOR TO PERFORMING ANY WORK.
10. REFER TO THE FOLLOWING SPECIFICATIONS:
CITY ENGINEERING DEPARTMENT STANDARD SPECIFICATIONS FOR PAVING AND RELATED CONSTRUCTION (DIVISION 15 WITH SPECIAL PROVISIONS FOR ELECTRICAL WORK).
II. REFER TO SHT S-37 TO S-41 FOR CITY OF DETROIT STANDARD PLANS FOR PUBLIC LIGHTING DEPARTMENT.

PAY QUANTITY		
ITEM	QUANTITY	PAY
(a) BRIDGE :		
Misc. Conduit Bank	90	LF
(b) APPROACH WORK :		
Misc. Manhole	2	EA
Misc. Encased Conduit Bank	100	LF
Manhole-Remove	2	EA
Misc. Duct Bank-Remove	1	LS

NOT TO SCALE

REVISION	DESCRIPTION	DATE
1	CONDUIT CHANGED FROM SCHEDULE 80 TO SCHEDULE 40	3/25/1996
2	NEW MANHOLE PROPOSED	4/2/1996

TIREMAN BRIDGE IN ROUGE PARK

DETAILS OF CONDUIT RECONSTRUCTION

TIREMAN AND ROUGE RIVER

DRAWN BY
CHECKED BY *SS*
APPROVED BY *EC Howard*

PUBLIC LIGHTING
DEPARTMENT
CITY OF DETROIT

JOB NO. : 3691
FILE NO. 44-0413
SHEET NO :
ASSIGNMENT NO. 93-
7/28/95

QUANTITY SHEET
AS PER PLANS

ITEMS

SHEET NO'S.	T O T A L S		S-20	S-21	S-22	S-23	S-24	S-25	S-26	S-27	S-28	S-29	S-30	S-31	S-32	S-33	S-34	S-35	S-36	S-17	S-37	S-38	S-39	S-40	S-41		
	BRIDGE TITLE SHEET	U N I T S	SITE PLAN	GENERAL PLAN OF STRUCTURE	REMOVAL PLAN	REPAIRING STRUCTURAL CRACKS, PATCHING ABUTMENTS AND PIER	PLAN OF DECK AND CROSS SECTION	SUPERSTRUCTURE DETAILS	PRESTRESSED BEAM DETAILS	EXPANSION JOINT DETAILS	STEEL REINFORCEMENT DETAILS	EXISTING DECK AND SIDEWALK ELEVATIONS	PROPOSED DECK AND SIDEWALK ELEVATIONS	APPROACH REMOVAL PLAN, PROPOSED SECTIONS AND DETAILS	APPROACH PAVING PLAN, AND DETAILED GRADES	DRAINAGE STRUCTURE DETAILS	DETAILS OF CONDUIT RECONSTRUCTION	QUANTITY SHEET	TRAFFIC CONTROL AND DETOUR PLAN (SPINOZA DRIVE BRIDGE)	MISCELLANEOUS ENCASED CONDUIT SECTION DETAILS	DETAIL FOR JOINING CONDUIT ENCASUREMENTS	TWO WAY MANHOLE	MULT. ST. LTG. CABLE CONNECTIONS, CLAMP-ON ARM & MISC. DETAILS	CODE 009-OC ST LG. STD. DETAILS			
PART 02 BRIDGE:																											
UNCLASSIFIED FOUNDATION EXCAVATION	2090003	255	CYD						255																		
STRUCTURAL BACKFILL (CIP)	2090005	125	CYD						125																		
SUPERSTRUCTURE CONCRETE	5030024	357 357	CYD					357 357																			
MISC. FORM, FINISH, CURE SUPERSTRUCTURE CONCRETE, B01-82-18-84	5037051	1	LSUM					1				103,610															
STEEL REINFORCEMENT, EPOXY COATED	5030031	103,610	LBS																								
PENETRATING WATER REPELLANT TREATMENT	5030052	1365	SYD				1365																				
EXPANSION JOINT DEVICE	5030099	155	LFT							155																	
MISC. ELASTOMERIC CONCRETE	5037020	2.5	CFT					2.50																			
ELASTOMERIC BEARING, 1"	5040062	70	SFT						70																		
PRESTRESSED CONCRETE I-BEAM, 36" FURNISHED	5050015	985	LFT					985																			
PRESTRESSED CONCRETE I-BEAM, 36" ERECTED	5050016	985	LFT					985																			
JOINT WATER PROOFING	5060001	230	SFT																								
BRIDGE RAILING, SOLID PARAPET TYPE	5080002	297	LFT						185																		
HAND CHIPPING-OTHER THAN DECK	5090007	100	CFT				100																				
PATCHING MORTAR OR CONCRETE	5090015	100	CFT				100																				
FORMING FOR PATCHES	5090017	300	SFT				300																				
FLUSHING CRACKS WITH ACID	5090097	100	LFT				100																				
FLUSHING CRACKS WITH WATER	5090098	100	LFT				100																				
REPAIRING STRUCTURAL CRACKS	5090099	100	LFT				100																				
MISC. CONDUIT BANK	6907001	90	LFT																								
PART 01 APPROACH:																											
MISC. MOBILIZATION, MAX \$66,000.00	1507051	0.5	LSUM				0.5																				
MISC. REMOVAL OF PORTIONS OF STRUCTURES B01-82-18-84	2067051	1	LSUM				1																				
MISC. REMOVING CONCRETE PARAPET	2077001	112	LFT																								
REMOVING PAVEMENT	2070002	1015	SYD																								
REMOVING SIDEWALKS	2070006	100	SYD																								
SEWER TAP, 12"	5130624	2	EACH																								
EARTH EXCAVATION	2080001	25	CYD																								
EMBANKMENT(LM)	2080020	30	CYD																								
SUBGRADE UNDERCUTTING, TYPE II	2080031	10	CYD																								
GRANULAR MATERIAL CLASS II	2080051	35	CYD																								
AGGREGATE BASE UNDER CONCRETE(4" IN PLACE)	3010021	1043	SYD																								
REMOVING BITUMINOUS SURFACE	4000001	196	SYD																								
BITUMINOUS MIXTURE-3C	4000047	23	TON																								
BITUMINOUS MIXTURE-4C	4000049	26	TON																								
BITUMINOUS MIXTURE-36A	4000050	7	TON																								
CONCRETE PAVEMENT WITH INTEGRAL CURB-REINFORCED 9"	4500173	1005	SYD																								
CONTRACTION JOINT C	4500270	100	LFT																								
EXPANSION JOINT E2	4500275	100	LFT																								
EXPANSION JOINT E3	4500276	152	LFT																								
CLASS C76-III SEWER, 12", TRENCH DETAIL B	5130337	27	LFT																								
SEWER CLEANOUT	5140013	300	LFT																								
CONCRETE SIDEWALK, 6"	6110003	1120	SFT																								
OVERLAY COLD PLASTIC PAVEMENT MARKING, 4", YELLOW	6290351	620	LFT																								
FIELD OFFICE	6220001	6	MOS				6																				
BARRICADE, TYPE III, LIGHTED-FURNISHED	6310036	6	EACH																								
BARRICADE, TYPE III, LIGHTED-OPERATED	6310037	6	EACH																								
TEMPORARY CONCRETE BARRIER-FURNISHED	6310040	100	LFT																								
TEMPORARY CONCRETE BARRIER-OPERATED	6310041	100	LFT																								
MINOR TRAFFIC DEVICES	6310054	0.5	LSUM																								
SIGN, TYPE B TEMPORARY-FURNISHED	6310065	210	SFT																								
SIGN, TYPE B TEMPORARY-OPERATED	6310066	210	SFT																								
CLASS A SODDING	6530001	124	SYD																								
WATER	6530003	2	UNIT																								
TOP SOIL SURFACE, 3"	6530014	124	SYD																								
MISC. CATCH BASIN, TYPE A	5147000	2	EACH																								
ADJUSTING DRAINAGE STRUCTURE COVER, CASE 2	5140046	6	EACH																								
CLEANING DRAINAGE STRUCTURE	5140014	4	EACH																								
MISC. ENCASED CONDUIT BANK	6907001	100	LFT																								
MANHOLE-REMOVE	6902569	2	EACH																								
MISC. DUCT BANK - REMOVE, B01-82-18-84	6907051	1	LSUM																								
MISC. MANHOLE	6907050	2	EACH																								

* THIS QUANTITY IS INCLUDED IN QUANTITY SHOWN IN SHEET S-20 COLUMN
** INCLUDES QUANTITY FOR BRIDGE AND APPROACHES

revisions

designed by P.P.

drawn by K.M.

approved: EARL C. HOWARD

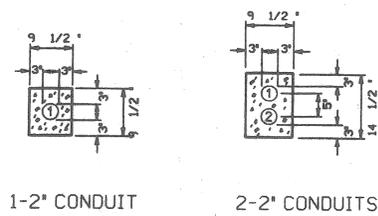
CITY OF DETROIT
city engineering division
department of public works

TIREMAN AVENUE BRIDGE OVER ROUGE RIVER (BW-265)
SUPERSTRUCTURE RECONSTRUCTION

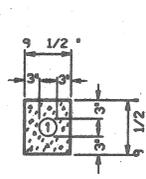
QUANTITY SHEET

a.o. contract no. 93-22-17
sheet S-36 of S-41
drawing no.

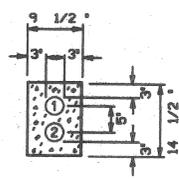
date APRIL, 1997



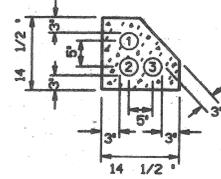
1-2" CONDUIT 2-2" CONDUITS



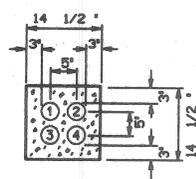
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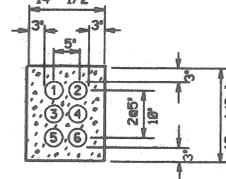
2-3" CONDUITS



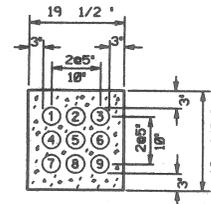
3-3" CONDUITS



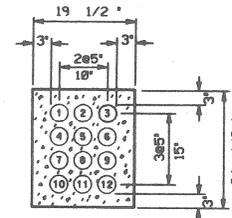
4-3" CONDUITS



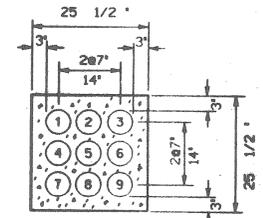
6-3" CONDUITS



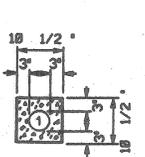
9-3" CONDUITS



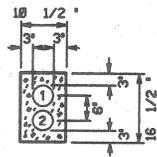
12-3" CONDUITS



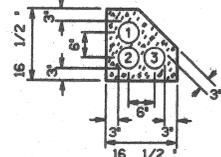
9-5" CONDUITS



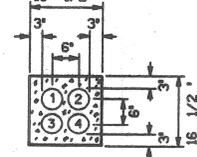
1-4" CONDUITS



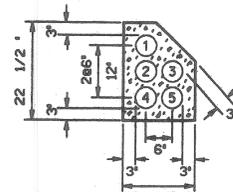
2-4" CONDUITS



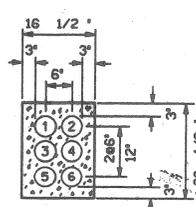
3-4" CONDUITS



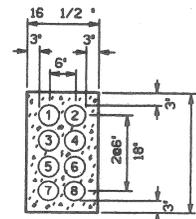
4-4" CONDUITS



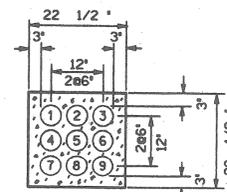
5-4" CONDUITS



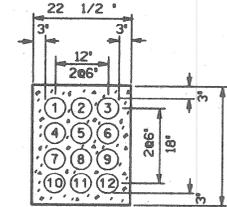
6-4" CONDUITS



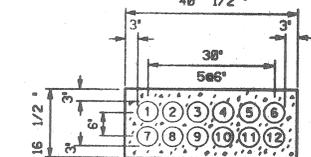
8-4" CONDUITS



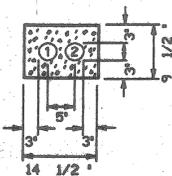
9-4" CONDUITS



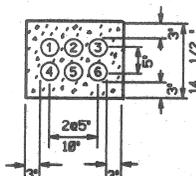
12-4" CONDUITS



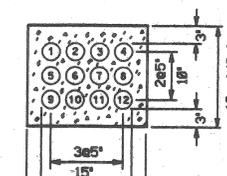
12-4" CONDUITS IN BRIDGE APPROACH



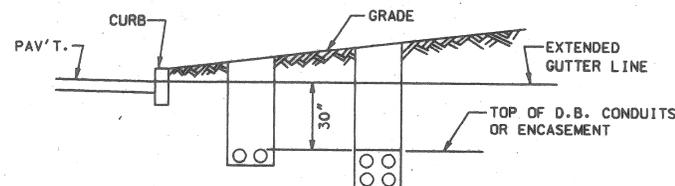
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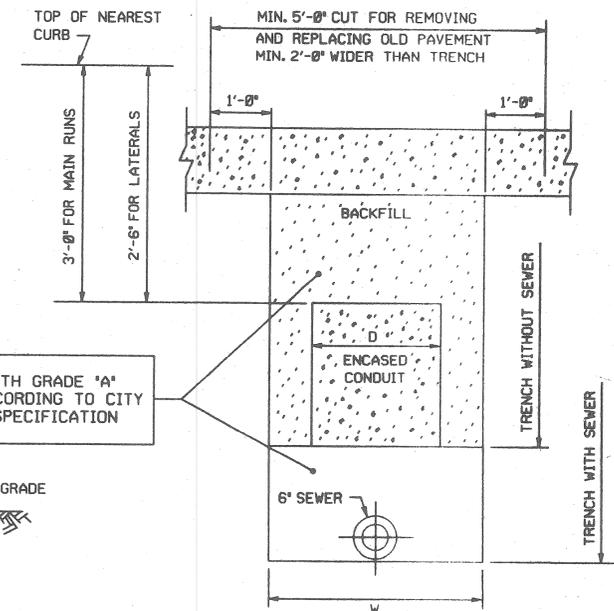
6-3" CONDUITS



12-3" CONDUITS



UPWARD GRADE
N.T.S.

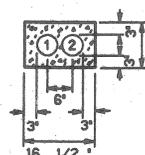


DIRECT BURIAL CONDUIT(S)

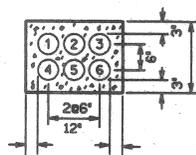
NOTE:
THE PREFERRED TRENCH WIDTH "W" IS THE WIDTH OF "D" OF CONDUIT ENCASEMENT.

ALTERNATE ARRANGEMENT OF 3" CONDUIT

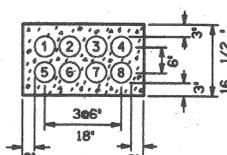
(TO SUIT FIELD CONDITIONS)
(TO BE APPROVED BY THE ENGINEER)



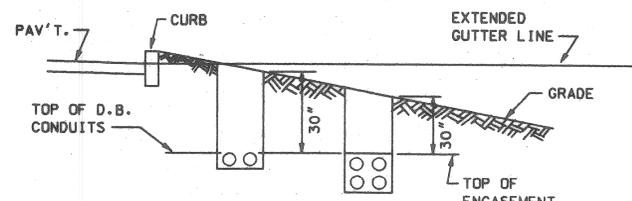
2-4" CONDUITS



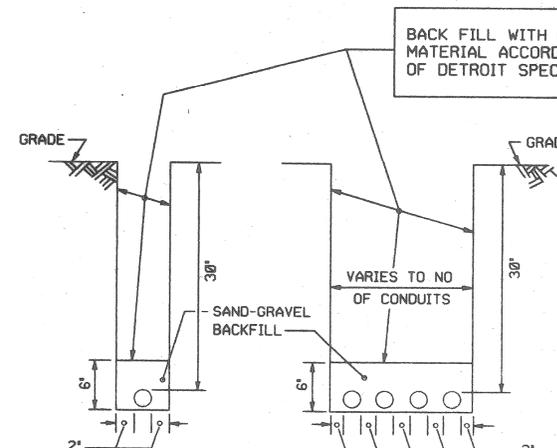
6-4" CONDUITS



8-4" CONDUITS



DOWNWARD GRADE
N.T.S.



DIRECT BURIAL CONDUIT(S)

ALTERNATE ARRANGEMENT OF 4" CONDUIT

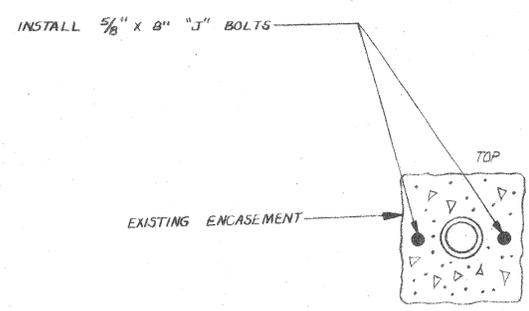
(TO SUIT FIELD CONDITIONS)
(TO BE APPROVED BY THE ENGINEER)

REV.	Date	Description	Chkd. by

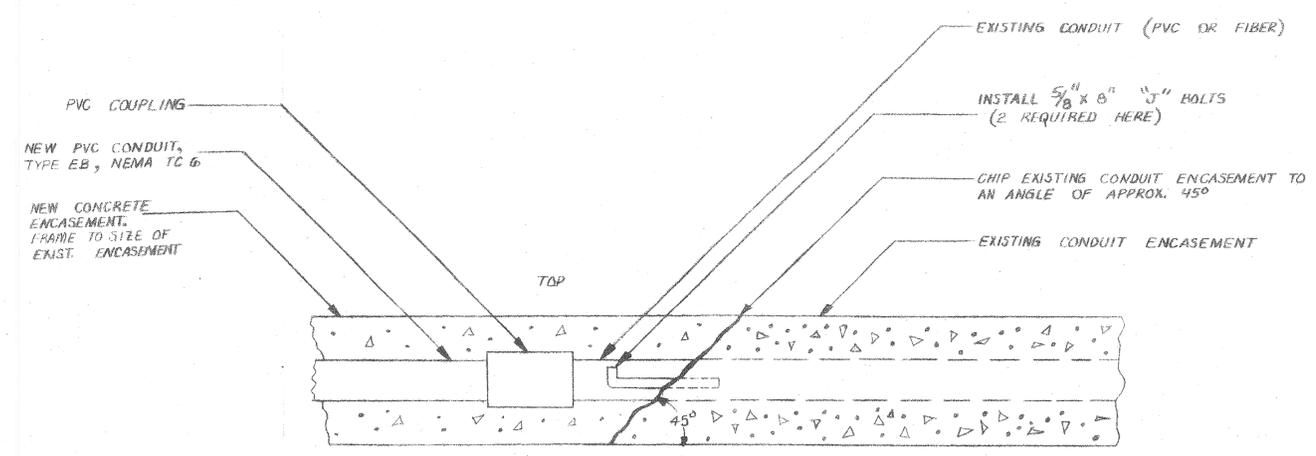
MISC. ENCASED CONDUIT SECTIONS DETAILS

Drawn	CEA	PLAN PREPARED BY	CONSULTING ENGINEERING ASSOCIATES INC.	Checked by	PUBLIC LIGHTING DEPARTMENT	File No.	101
Checked		16588 Wyoming	Detroit, Mich. 48221	Approved by	CITY OF DETROIT	Sheet No.	S-37
Date		of	CEA			Date	

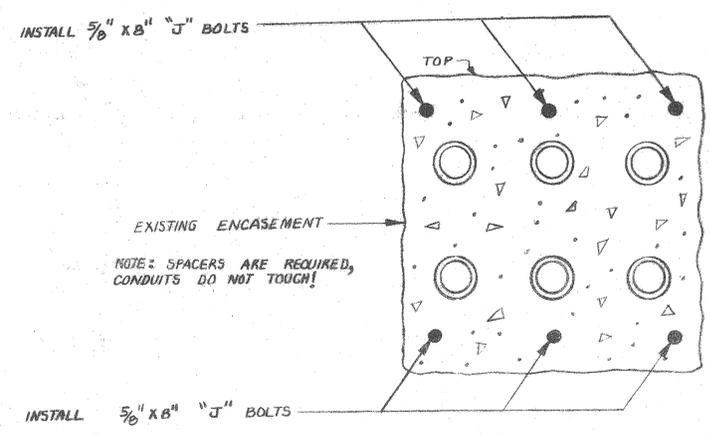
JOB NO. : 36917A



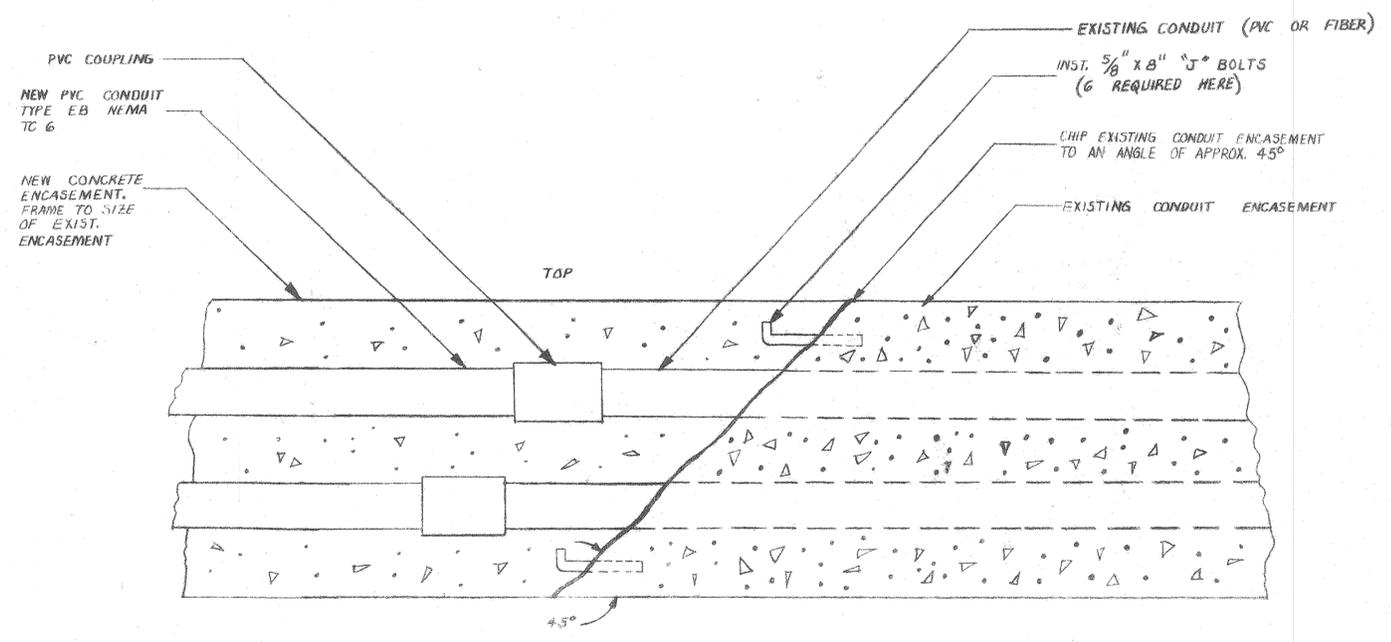
DETAIL A
(N.T.S.)
END VIEW OF CONDUIT ENCASEMENT
SHOWING APPROX. LOCATION OF "J" BOLTS



DETAIL A
(N.T.S.)
SIDE VIEW OF A SINGLE CONDUIT
ENCASEMENT



DETAIL B
(N.T.S.)
END VIEW OF CONDUIT ENCASEMENT
SHOWING APPROX. LOCATION OF "J" BOLTS
(6 REQUIRED)



DETAIL B
(N.T.S.)
SIDE VIEW OF A MULTIPLE
CONDUIT ENCASEMENT

NOTE: TO TERMINATE A NEW CONDUIT BANK
FOR FUTURE EXTENSION, REFERENCE
P.L.D. DRAWING # 44-0308

JOB NO. : 36917A

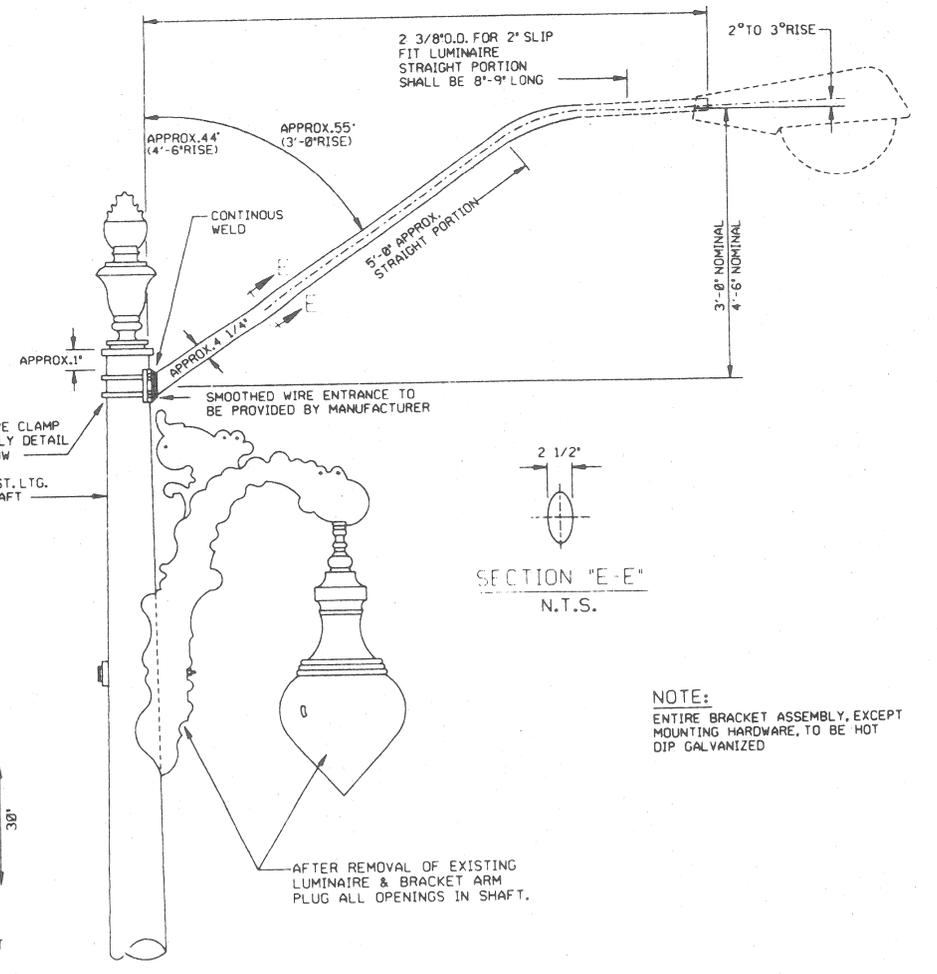
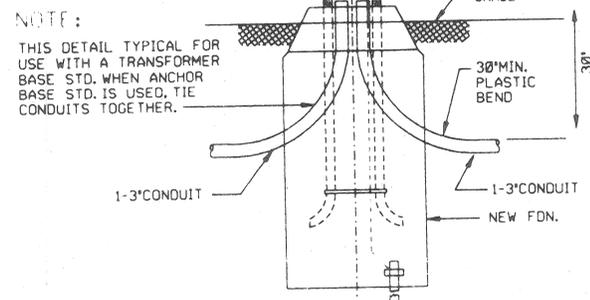
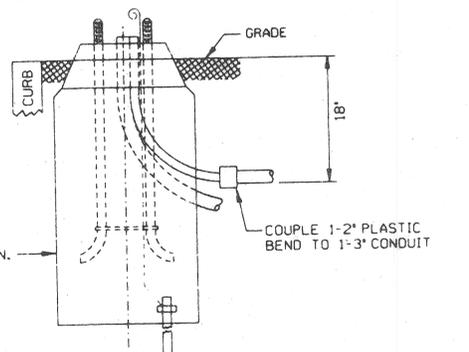
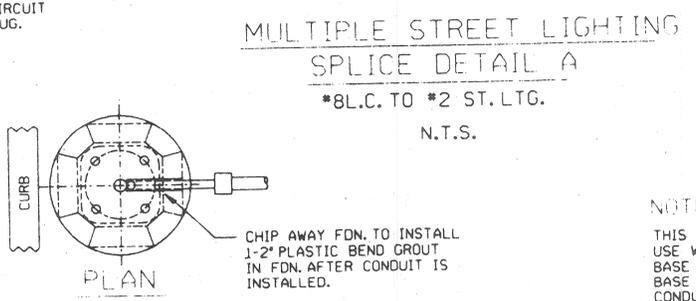
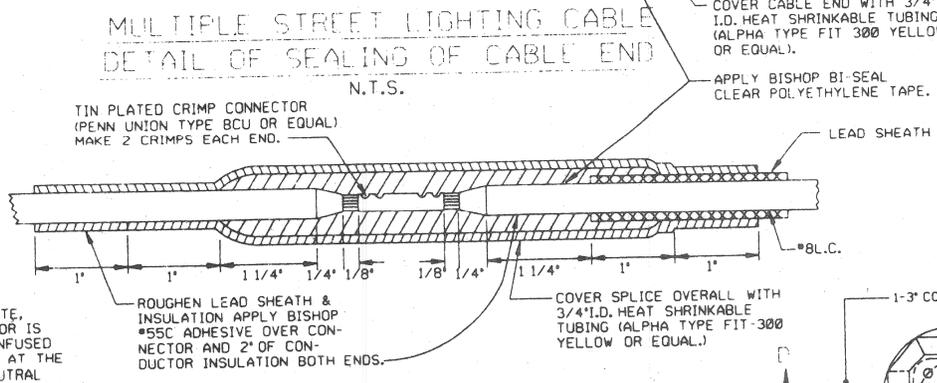
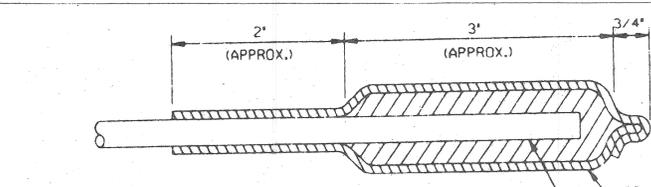
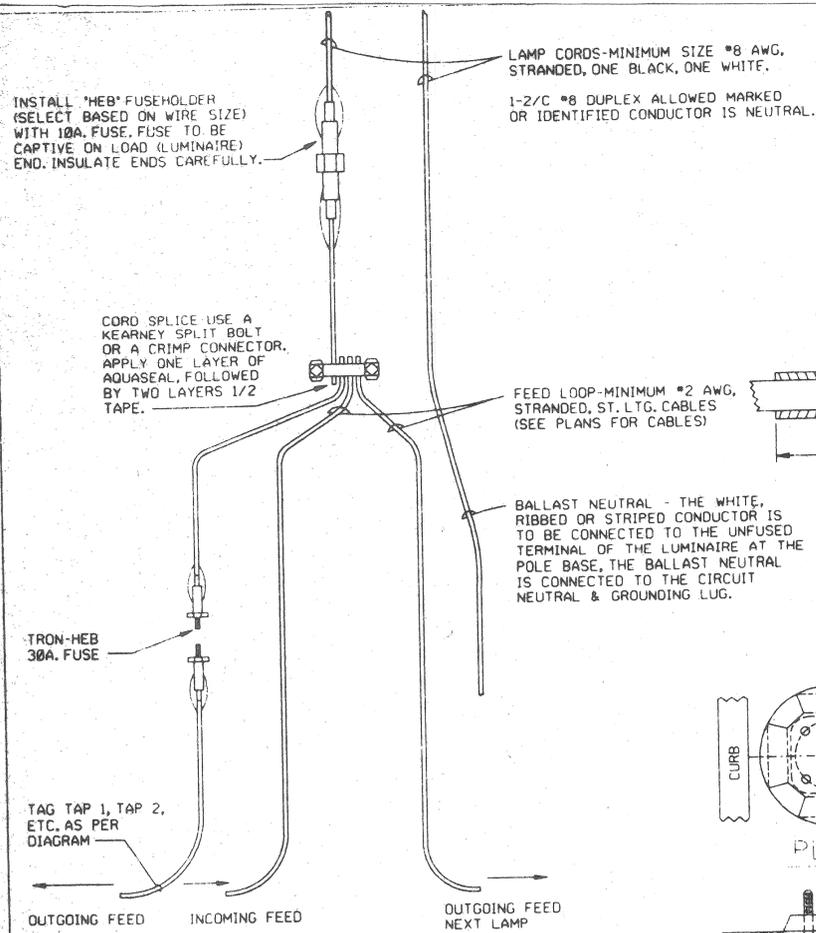
DATE	DESCRIPTION	CHKD. BY

DETAIL FOR JOINING CONDUIT ENCASEMENTS

DRAWN BY
M. LASKOWSKI
CHECKED BY
M.L.
APPROVED BY
M.L.

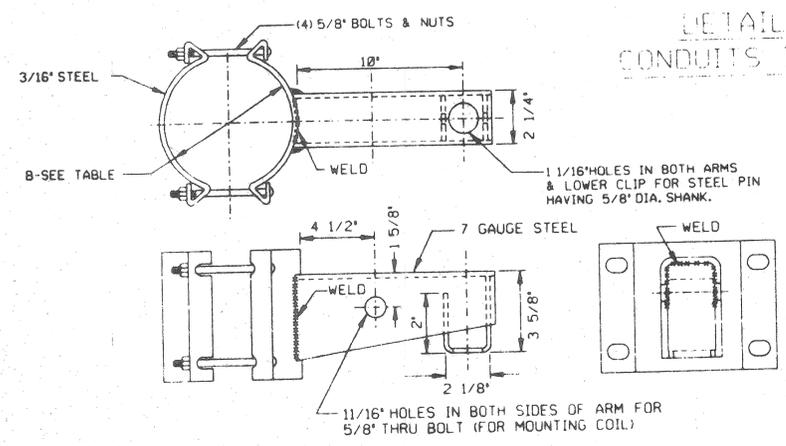
PUBLIC LIGHTING
COMMISSION
CITY OF DETROIT

FILE NO.
101 A
SHEET NO.
S-38
DATE
JAN. 27, '92

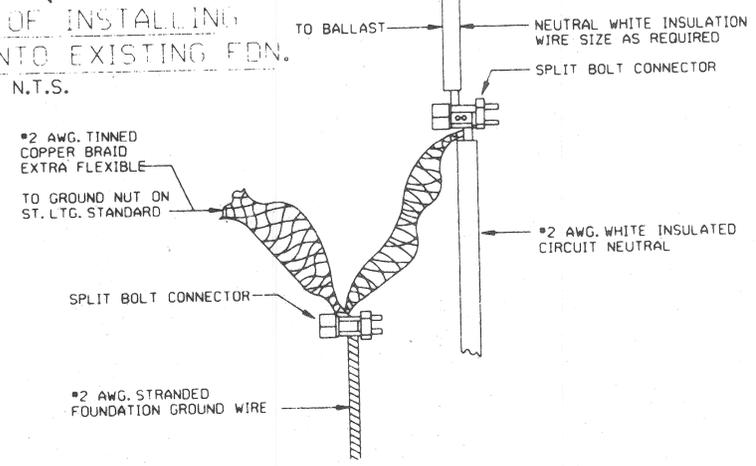


TYPE	POLE DIAMETER
A	3.6"-4-5"
B	6.1"-6.9"
C	7.5"-8.5"

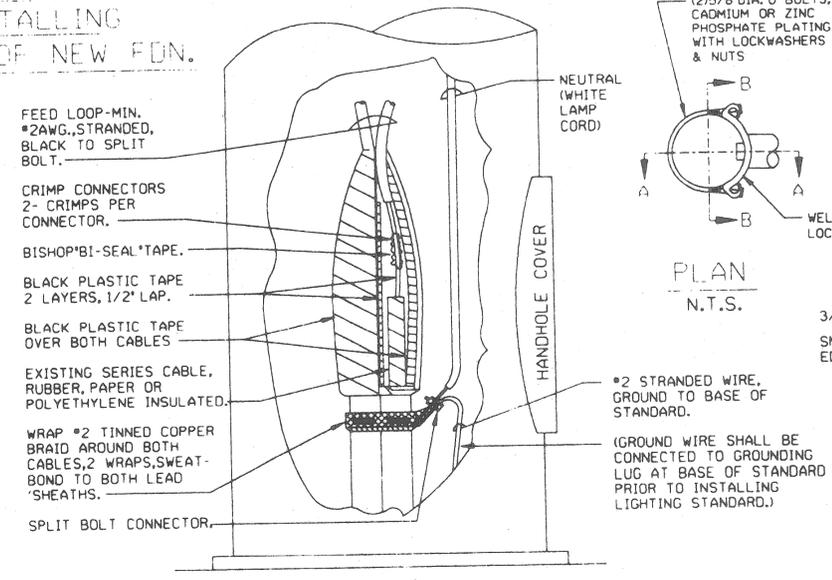
CLAMP SIZE TABLE



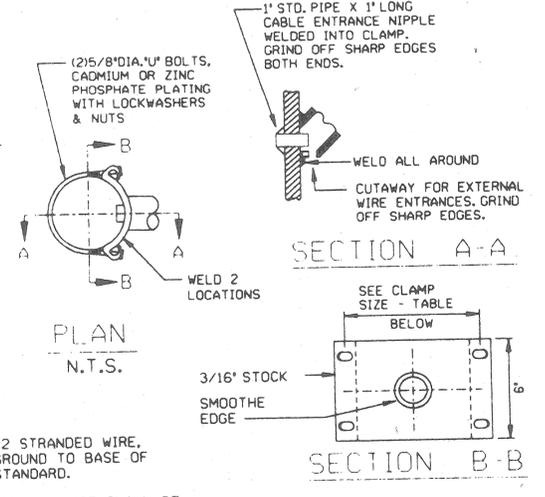
CLAMP FEEDER ARM N.T.S.



GROUND CONNECTION N.T.S.



SERIES TO MULTIPLE LIGHTING CONVERSION POLE BASE CONNECTIONS N.T.S.



TYPE	POLE DIAMETER
A	3.6"-4-5"
B	6.1"-6.9"
C	7.5"-8.5"

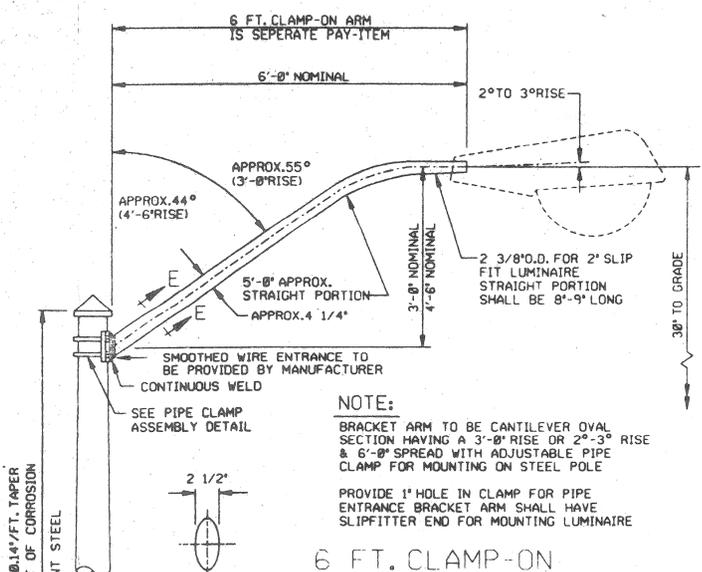
PIPE CLAMP DETAILS N.T.S.

Date	Description	Chkd. by

THE CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
MOUNT ELLIOTT-MOUND ROAD GRADE SEPARATION
MULT. ST. LG. CABLE CONNECTIONS, CLAMP-ON ARM & MISC. DETAILS

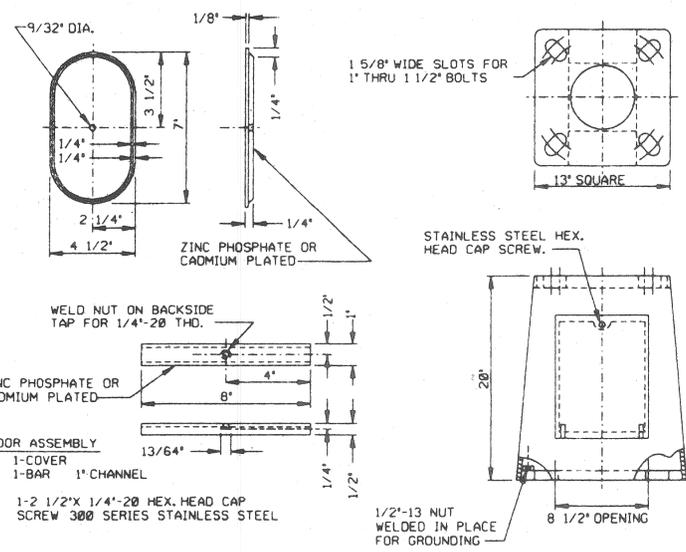
Drawn: CEA
Checked: CEA
Approved: CEA
Date: 16590 Wyoming
File No. of CEA

PLAN PREPARED BY
CONSULTING ENGINEERING ASSOCIATES INC.
ENGINEERING CONSULTANTS
16590 Wyoming Detroit, Mich. 48221
Checked by: PUBLIC LIGHTING DEPARTMENT
Approved by: CITY OF DETROIT
Date: 114
Sheet No. S-40

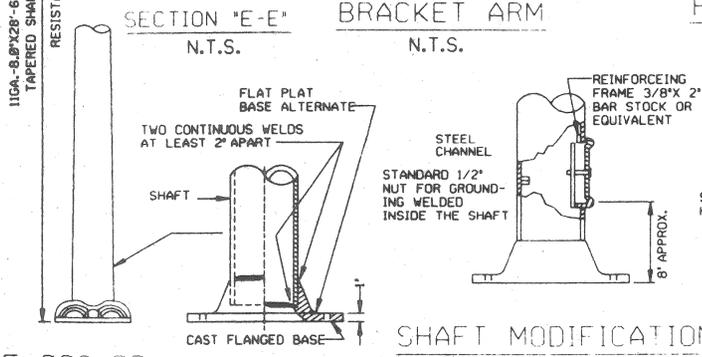


NOTE:
 BRACKET ARM TO BE CANTILEVER OVAL SECTION HAVING A 3'-8" RISE OR 2'-3" RISE & 6'-8" SPREAD WITH ADJUSTABLE PIPE CLAMP FOR MOUNTING ON STEEL POLE
 PROVIDE 1" HOLE IN CLAMP FOR PIPE ENTRANCE BRACKET ARM SHALL HAVE SLIPFITTER END FOR MOUNTING LUMINAIRE

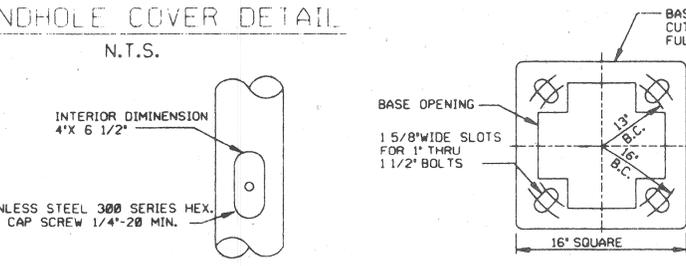
6 FT. CLAMP-ON BRACKET ARM
N.T.S.



HANDHOLE COVER DETAIL
N.T.S.

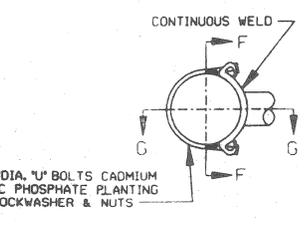


SHAFT MODIFICATION
N.T.S.



BASE PLATE PLAN
N.T.S.

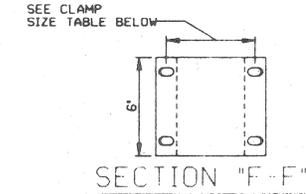
CODE 009-00
STREET LIGHTING STANDARD
N.T.S.



SECTION "G-G"
N.T.S.

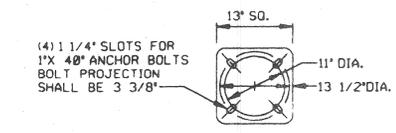
TYPE	POLE DIAMETER
A	3.6"-4-5"
B	6.1"-6.9"
C	7.5"-8.5"

CLAMP SIZE TABLE



SECTION "F-F"
N.T.S.

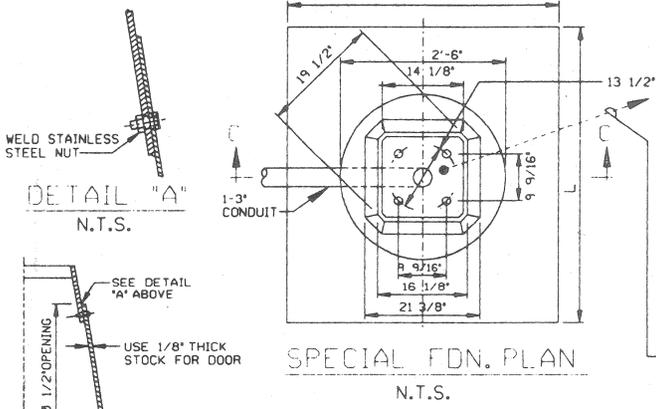
NOTE:
 ENTIRE BRACKET ASSEMBLY, EXCEPT MOUNTING HARDWARE, TO BE HOT DIP GALVANIZED



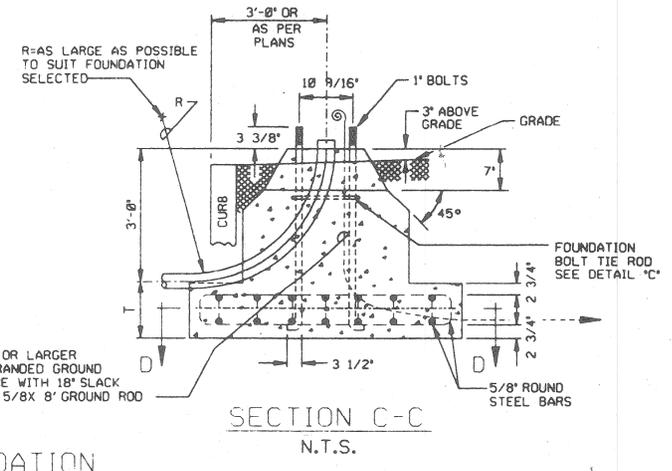
P.L.D. UNIVERSAL STEEL TRANSFORMER BASE
N.T.S.

STD. CODE NO.	SHAFT LENGTH	SHAFT DEFLECTION	MINIMUM LOAD	ANCHOR BOLT CIRCLE Ø	ANCHOR BOLT Ø & B.A.	HANDHOLE	LUMINAIRE MOUNTING HEIGHT	BRACKET FITTERS REQ'D	BRACKET LENGTH
009-00	28'-6"	2.9"	880#	13 1/2"	1" X 40"	4" X 6 1/2"	30'	—	6'

SHAFT DEFLECTION: SHAFT DEFLECTION MEASURED IN INCHES AT TOP, SHALL NOT BE GREATER THAN THAT SHOWN FOR A HORIZONTAL LOAD OF 100 LBS. APPLIED 18 INCHES BELOW TOP OF SHAFT.
 SHAFT LOADING: SHAFTS SHALL WITHSTAND, AT THE GUARANTEED MINIMUM YIELD STRENGTH OF THE SHAFT MATERIAL, THE LOADS SHOWN IN THIS TABLE. THE LOAD SHALL BE APPLIED IN A SINGLE HORIZONTAL DIRECTION ANYWHERE AROUND THE CIRCUMFERENCE OF SHAFT 18 INCHES FROM THE TOP.



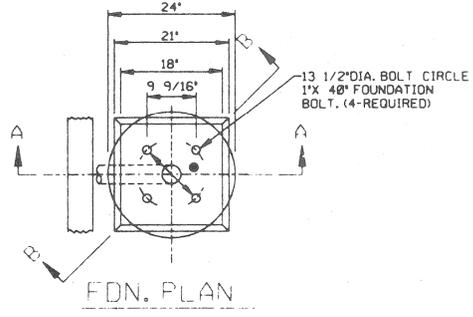
SPECIAL FDN. PLAN
N.T.S.



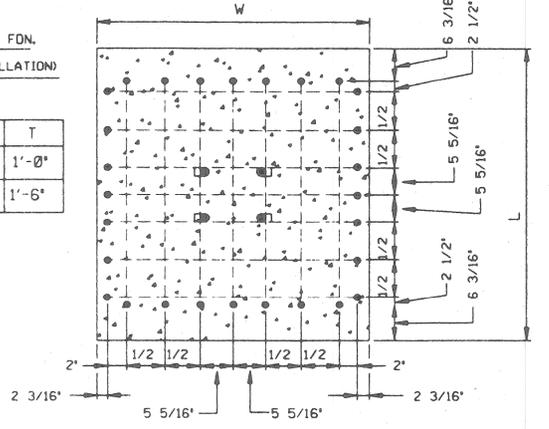
SECTION C-C
N.T.S.

THERE SHALL BE NO EXTRA PAYMENT FOR SPECIAL FDN. (TO BE PAID FOR AS A NORMAL ST. LTG. STD. FDN. INSTALLATION)

L	W	T
5'-0"	4'-3"	1'-0"
4'-6"	3'-6"	1'-6"

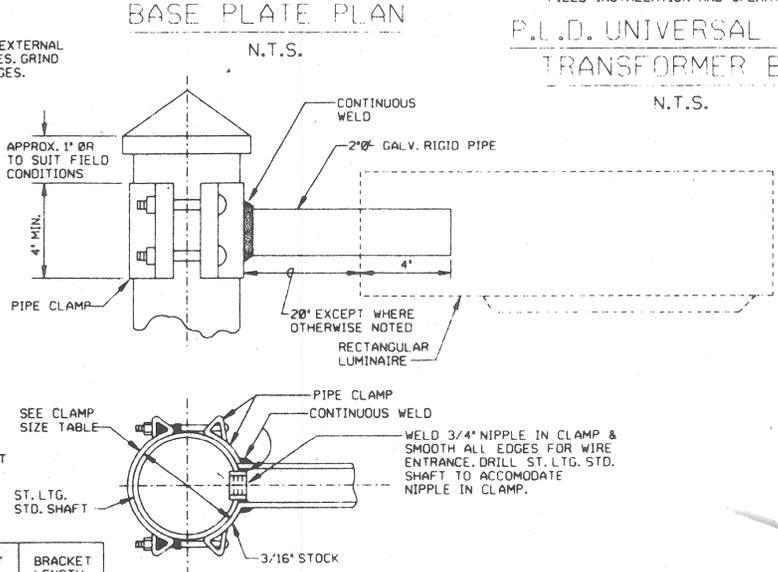


FDN. PLAN
N.T.S.

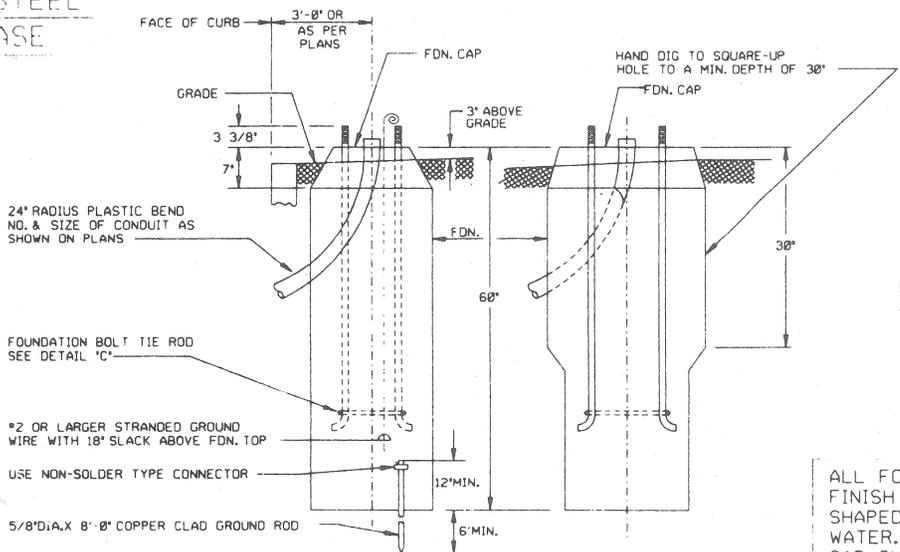


SECTION D-D
N.T.S.

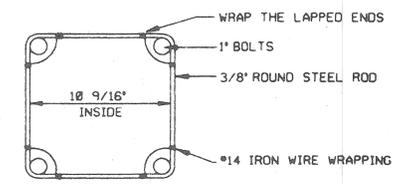
PIPE CLAMP DETAILS
N.T.S.



CLAMP ON BRACKET & RECTANGULAR LUMINAIRE
N.T.S.



SECTION A-A SECTION B-B
N.T.S. N.T.S.
ANCHOR BASE SIDE FOUNDATION



DETAIL "C"
FDN. BOLT TIE ROD
N.T.S.

ALL FOUNDATION CAPS SHALL HAVE A SMOOTH FINISH WITH BEVELED EDGES & SHALL BE SHAPED TO ALLOW COMPLETE DRAINAGE OF WATER. ANCHOR BOLT PROJECTIONS ABOVE CAP SHALL BE CLEANED OF ALL CONCRETE & FULLY USABLE THEIR FULL LENGTH.

REV	Date	Description	Chkd. by

THE CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 MOUNT ELLIOTT-MOUND ROAD GRADE SEPARATION
 CODE 009-00 ST. LTG. STD. DETAILS

PLAN PREPARED BY
 CONSULTING ENGINEERING ASSOCIATES INC
 ENGINEERING CONSULTANTS
 16580 Wyoming Detroit, Mich. 48221

PUBLIC LIGHTING DEPARTMENT
 File No. _____
 Sheet No. S-41
 Date _____