

INDEX OF SHEETS

| PLANS | SHEET No. |
|---|-----------|
| TITLE SHEET | 1 |
| GENERAL PLAN OF SITE | 2 |
| LOG OF BORINGS | 3 |
| GENERAL PLAN OF STRUCTURE 1 | 4 |
| GENERAL PLAN OF STRUCTURE 2 | 5 |
| ABUTMENT DETAILS | 6 |
| SUPERSTRUCTURE DETAILS | 7 |
| SUPERSTRUCTURE DETAILS | 8 |
| SUMMARY OF STEEL REINFORCEMENT AND QUANTITIES | 9 |
| DETOUR PLAN | 10 |

MDOT STANDARD PLANS

| | |
|--|--------|
| LIGHTED ARROWS AND BARRICADES | R-125A |
| SOIL EROSION AND SEDIMENTATION CONTROL MEASURES | R-96A |
| APPROACH CURB AND GUTTER, DOWNSPOUTS (FOR BRIDGE APPROACH CURB AND GUTTER) | R-32B |
| MOLDING, BEVEL, LIGHT STANDARD ANCHOR BOLT ASSEMBLY AND NAME PLATE DETAILS | B-103B |
| BRIDGE BARRIER RAILING, TYPE 4 | B-17B |
| CONCRETE CURB & CONCRETE CURB GUTTER | R-30C |
| CONVENTIONAL PAVEMENT REINFORCEMENT | R-45C |
| TEMPORARY CONCRETE BARRIER | R-52B |
| GUARDRAIL APPROACH TERMINAL TYPES 1B & 1T | R-61B |
| SODDING & SEEDING | R-100B |
| LONGITUDINAL PAVEMENT JOINTS | R-41B |

CITY OF DETROIT
MICHIGAN
DEPARTMENT OF PUBLIC SERVICE

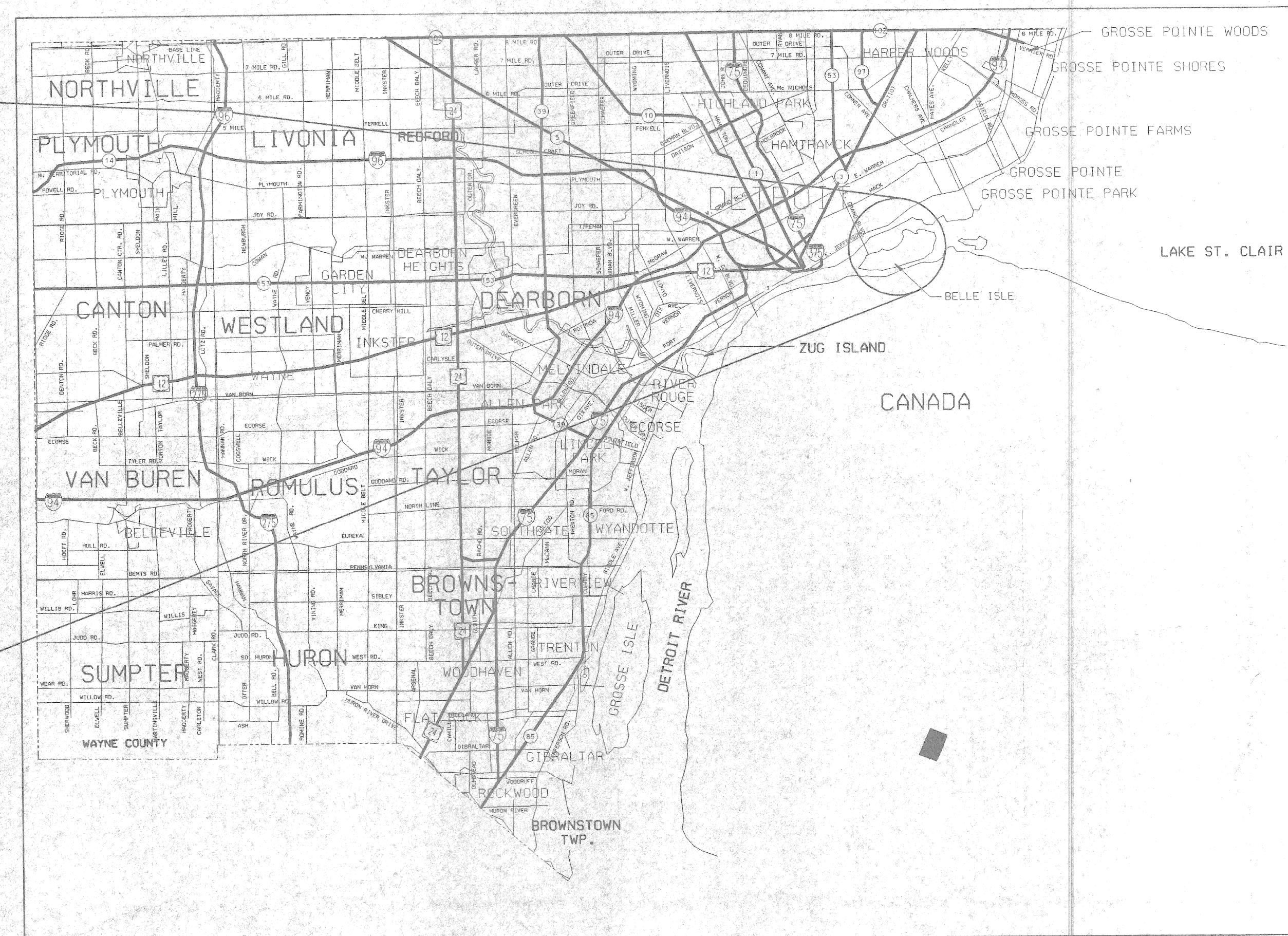
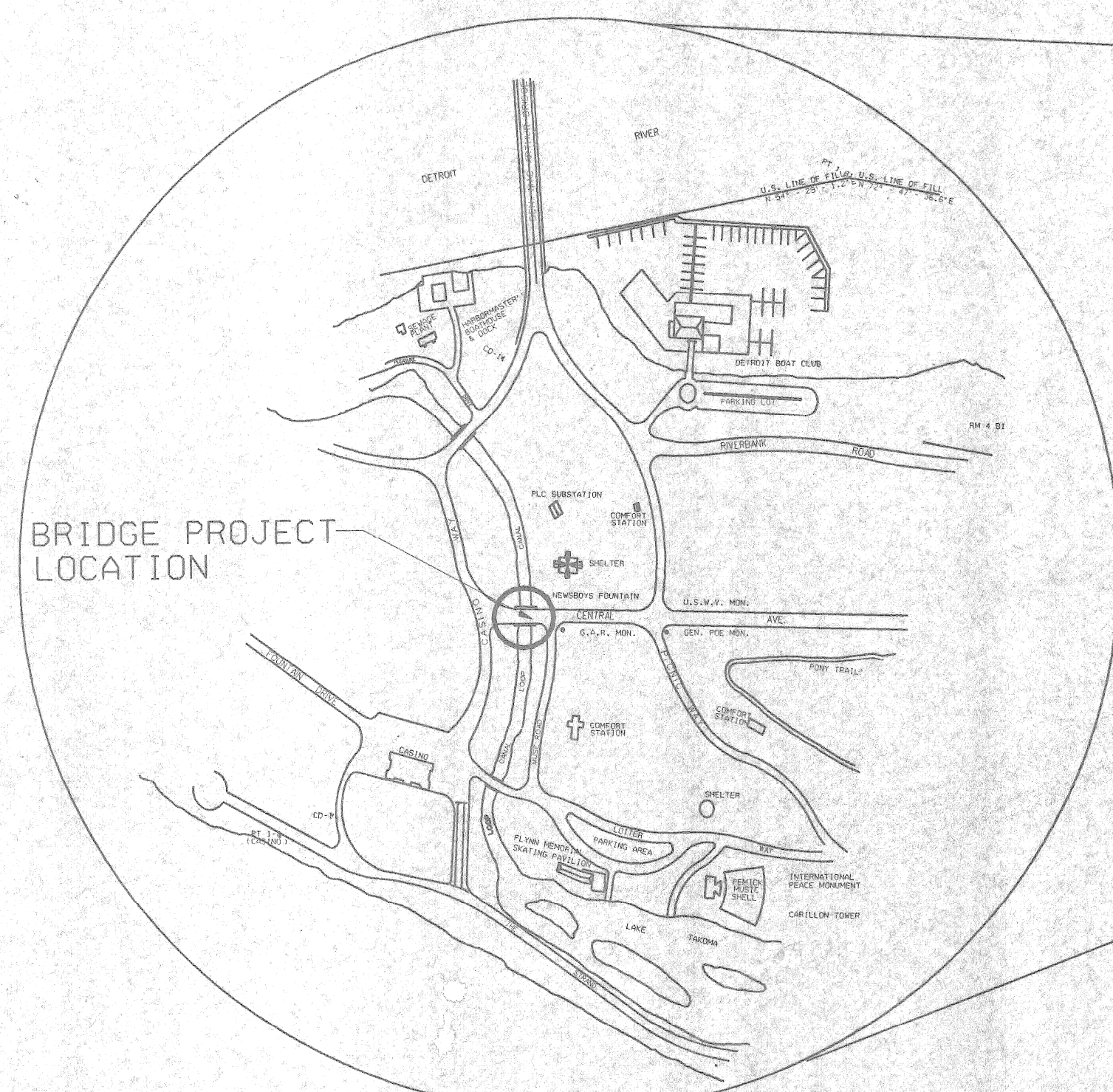
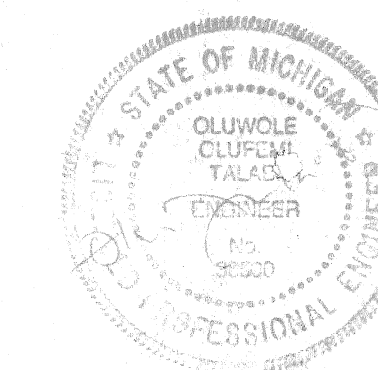
PLAN AND PROFILE OF PROPOSED
BRIDGE REPLACEMENT PROJECT

NO. BW 206

JOB NO. PARTS 1 & 2

REPLACEMENT OF THE CENTRAL AVENUE

BRIDGE OVER LOOP CANAL



THE DESIGN OF THIS STRUCTURE IS BASED ON CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES MS-18 LOADING. LIVE LOAD PLUS IMPACT DEFLECTION DOES NOT EXCEED 1/1000 OF THE SPAN LENGTH. THE LOAD FACTOR METHOD OF DESIGN WAS USED FOR THIS STRUCTURE.

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS 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 1996 EDITION.

THE STATIONING AS SHOWN ON THESE PLANS FOR THE INTERSECTION OF THE CENTERLINE OF BRIDGE AND ROADWAY CENTERLINE 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 DESIGN OFFICE, AND THE STRUCTURE SHALL BE STAKED OUT USING THE ACTUAL INTERSECTION OF THE CENTERLINE AS THE CONTROL POINT.

ALL EXPOSED CONCRETE CORNERS SHOWN SQUARE ON THE PLANS SHALL BE BEVELED WITH 13 mm TRIANGULAR MOLDINGS EXCEPT AS OTHERWISE NOTED.

THE DESIGN OF THE STRUCTURAL MEMBERS IS BASED ON MATERIAL OF THE FOLLOWING GRADES AND STRESSES:

| | | |
|----------------------|---------------|---|
| CONCRETE: GRADE S2, | f'c = 21 MPa | PRESTRESSED CONCRETE f'c = 35 MPa |
| CONCRETE: GRADE D | f'c = 28 MPa | PRESTRESSED STRANDS f's = 1860 MPa |
| STEEL REINFORCEMENT: | f'y = 400 MPa | PRESTRESSED BEAM STIRRUPS f'y = 300 MPa |

ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.

| REVISIONS | 100% COMPLETED | 10-30-00 | DSGN BY | K.O. | -99 |
|-----------|----------------|----------|----------|------|-----|
| | | | DR'N BY | A.A. | -99 |
| | | | CK'D BY | F.T. | -99 |
| | | | APP'D BY | F.T. | -99 |



SNELL ENVIRONMENTAL GROUP, INC. A DLZ Company
1511 W. CONGRESS, STE 328, DETROIT, MICHIGAN 482226
TELEPHONE: (313) 961-4040

FTA
FEMI TALABI & ASSOCIATES INC.
80 GERRARD, SUITE 1004, DETROIT, MICHIGAN, 48203
Making it better for you



CITY OF DETROIT
MICHIGAN

CENTRAL AVE.

TITLE SHEET

| SCALE | NOT TO SCALE |
|-------------|--------------|
| PROJECT NO. | 9810 |
| SHEET NO. | 1 OF 10 |

FILE NAME: 01TITLE.DGN

| UTILITIES | |
|--|---------------|
| AMERITECH ROOM 101 4000 ALLEN RD. ALLEN PARK, MI. 48101 DAVE BUCIENSKI PHONE No.: (313) 389-9819 | TELEPHONE |
| CITY OF DETROIT WATER & SEWER DEPT. 735 RANDOLPH ST. DETROIT, MI. 48226 PHONE No.: (313) 224-4800 | WATER & SEWER |
| DETROIT EDISON ROOM 607 G.O. 2000 SECOND AVE. DETROIT, MI. 48226 JOHN SQUIRES PHONE No.: (313) 235-6597 | ELECTRIC |
| MICHIGAN CONSOLIDATED GAS CO. DRAFTING CLERK MAIN REPLACEMENT TEAM NOBLE SECOND FLOOR 3200 HOBSON DETROIT, MI. 48201 PHONE No.: (313) 577-7236 | GAS |
| CITY OF DETROIT PUBLIC LIGHTING DEPT. 9449 GRIENELL DETROIT, MI 48213 PHONE NO (313) 267-7306 | ELECTRIC |

EXISTING STRUCTURE
ONE SPAN STEEL STRUCTURE BUILT IN 1940, 14640mm CLEAR ROADWAY BRIDGE NO. 206

| BENCH MARKS | |
|--|---------------|
| B.M. #1 - ARROW ON TOP OF FIRE HYDRANT 114300 + EAST OF THE Q OF FOUNTAIN DRIVE AND 3048 SOUTH CURB OF GRAND PRIX PIT. ROAD | ELEV. 31.185m |
| B.M. #2 - TOP OF EAST BOLT OF LIGHT POLE AT SOUTHWEST CORNER OF THE INTERSECTION OF GRAND PRIX ROAD & CASINO WAY | ELEV. 30.465m |
| B.M. #252 - 1524 NORTH OF NORTH CURB OF CENTRAL AVE. AND 13411 EAST OF BRIDGE OVER LOOP CANAL IT IS A STANDARD CITY OF DETROIT MONUMENT | ELEV. 30.975m |

| WITNESSES | | |
|---------------------------------|-------------|---------|
| REFERENCE PT. A STA. 10+000.000 | (P.K. NAIL) | |
| N 36 32' 25" E | 400m MAPLE | 44.316m |
| S 55 21' 00" E | LIGHT POLE | 68.185m |
| S 36 27' 10" W | LIGHT POLE | 32.788m |
| N 68 59' 20" W | 375m POLE | 39.244m |
| REFERENCE PT. B STA. 10+015.235 | (P.K. NAIL) | |
| N 22 24' 20" E | 400m MAPLE | 31.998m |
| S 43 19' 20" E | LIGHT POLE | 61.151m |
| S 46 20' 40" W | LIGHT POLE | 46.473m |
| N 80 37' 15" W | 375m PINE | 51.470m |

STA. 9+984.750 TO 10+000 50mm TOPSOIL SURFACE FURN. 100m² SODDING CL. @ 100m²(BOTH SIDES)

STA. 9+984.750 TO 10+000 CURB. REM. 15.250m MISC. CURB CONC. DETAIL CD. 15.250m

EXIST LIGHT STD. REMOVE AND REPLACE (INCLUDED IN PAY ITEM STRUCTURES, REM.)

STA. 10+015.000 TO STA. 10+030.485 SIDEWALK REM. 61m² SIDEWALK CONC. 100mm 61m²

STA. 10+015.000 TO STA. 10+030.485 CURB REM. 15.25m MISC. CURB CONC. DETAIL CD. 15.25m

EX. LIGHT STANDARD REMOVE AND REPLACE (INCLUDED IN PAY ITEM STRUCTURES, REM.)

CONTOUR LINE

HAZARDOUS OR FLAMMABLE MATERIAL

STA. 10+015.235 TO STA. 10+030.485 REMOVE EXIST. PAVEMENT (INCLUDED IN PAY ITEM STRUCTURES, REM.)

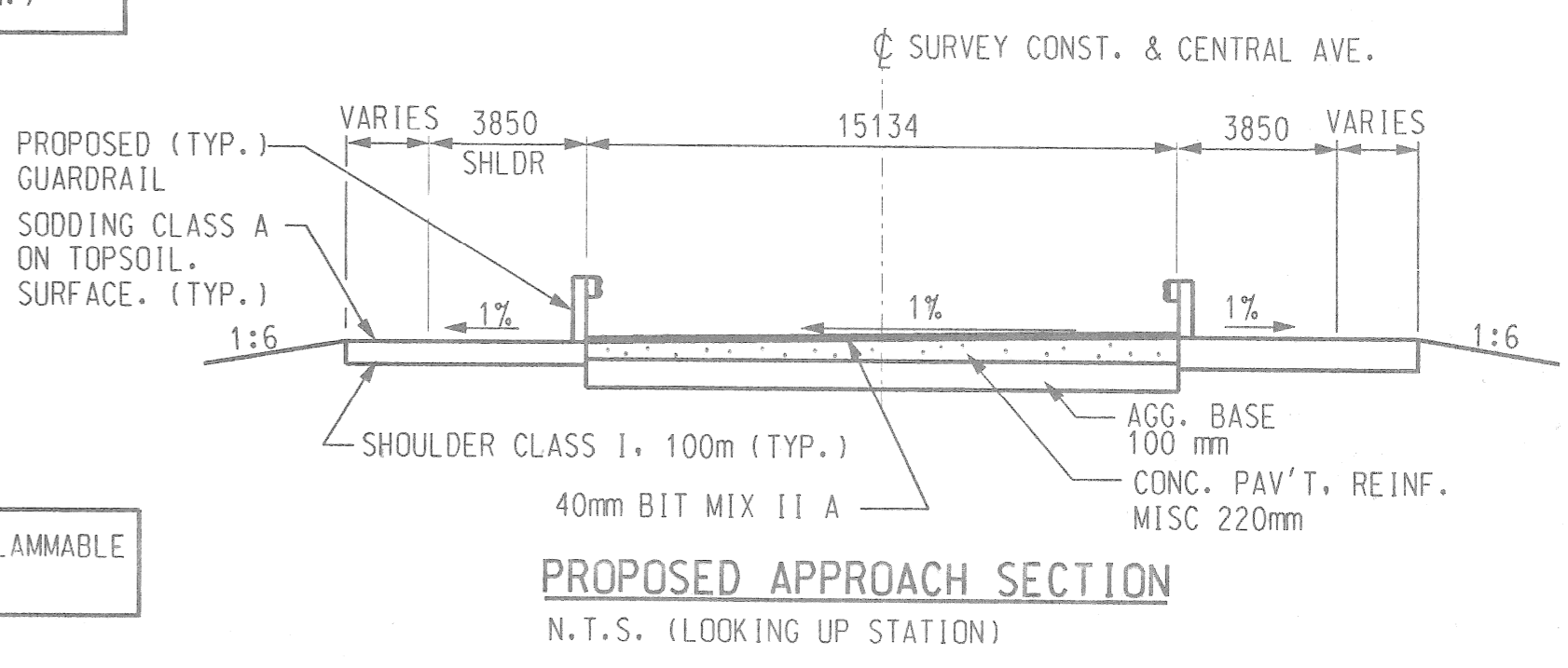
STA. 10+015.000 TO STA. 10+030.485 TOPSOIL SURFACE FURN. 50mm 120m² SODDING, CL A 120m²(BOTH SIDES)

STA. 10+015.235 TO STA. 10+030.485 CURB. REM. 15.250m MISC. CURB CONC. DETAIL CD. 15.250m

EXIST. STRUCTURE TO BE REMOVED

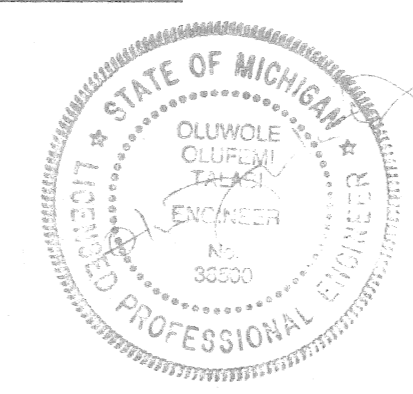
PROPOSED REPLACEMENT CENTRAL AVE. BRIDGE CITY BW 206

EXIST. STRUCTURE

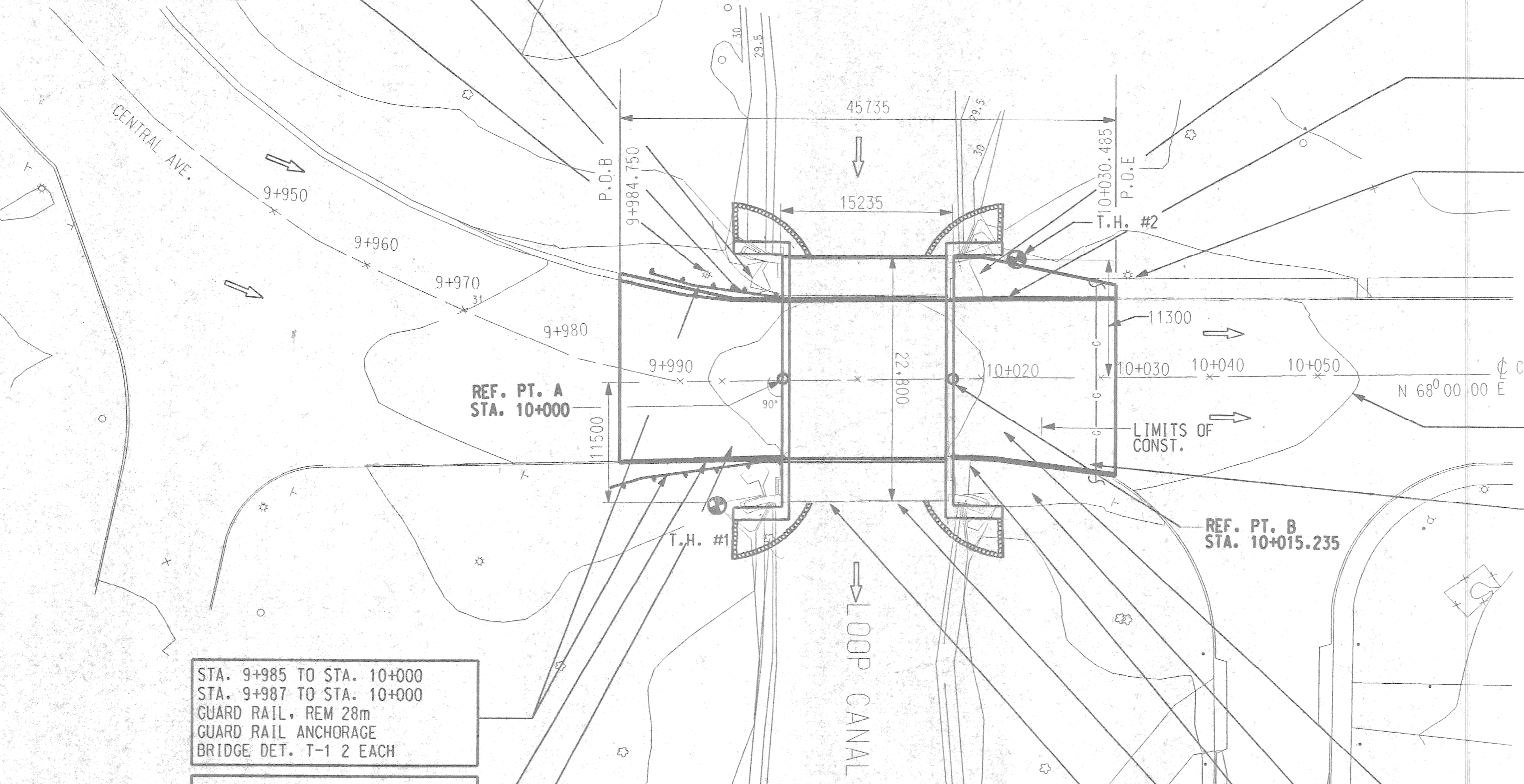


NOTES:

- THE WORK COVERED BY THESE PLANS INCLUDES CONSTRUCTION OF THE PROPOSED BRIDGE, PLACING RIP-RAP TO THE LIMITS SHOWN AND APPROACH WORK.
- THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
- CENTRAL AVE. TRAFFIC IS TO BE DETOURED OVER OTHER EXISTING ROADS.
- PLAN ELEVATIONS REFERS TO CITY OF DETROIT DATUM.
- WATER LEVEL IS SUBJECT TO CHANGE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING A DETERMINATION OF WATER LEVELS THAT MAY EXIST DURING CONSTRUCTION.
- MEASURES SHALL BE TAKEN TO PREVENT DEBRIS FROM FALLING FROM THE STRUCTURE. IF DEBRIS FALLS INTO THE WATERWAY, IT SHALL BE REMOVED WITHIN 24 HOURS. SINCE DISTURBANCE OF THE WATERWAY BOTTOM MAY BE AS HARMFUL AS THE DEBRIS ITSELF, THE PREVENTIVE MEASURES MUST BE EFFECTIVE.
- IMMEDIATELY AFTER THE CONSTRUCTION OF AN ABUTMENT IS COMPLETED, SODDING AND SLOPE PROTECTION SHALL BE PLACED ON THE ADJACENT EMBANKMENT SLOPES.
- CONTRACTOR SHALL COORDINATE WITH CITY OF DETROIT PUBLIC LIGHTING DEPARTMENT (PLD) FOR THE REMOVAL AND REPLACEMENT OF EXISTING LIGHT STANDARD. PLD WILL PROVIDE THE NEW LIGHT STANDARDS AND ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH PLD STANDARDS.
- THE CONTRACTOR SHALL REMOVE AND REPLACE THE APPROACH PAVEMENT ON EACH SIDE UP TO THE FIRST TRANSVERSE JOINT IN THE EXISTING PAVEMENT. PAVEMENT REMOVAL LIMITS SHALL BE A MINIMUM OF 15.25m AND A MAXIMUM OF 21.35m.



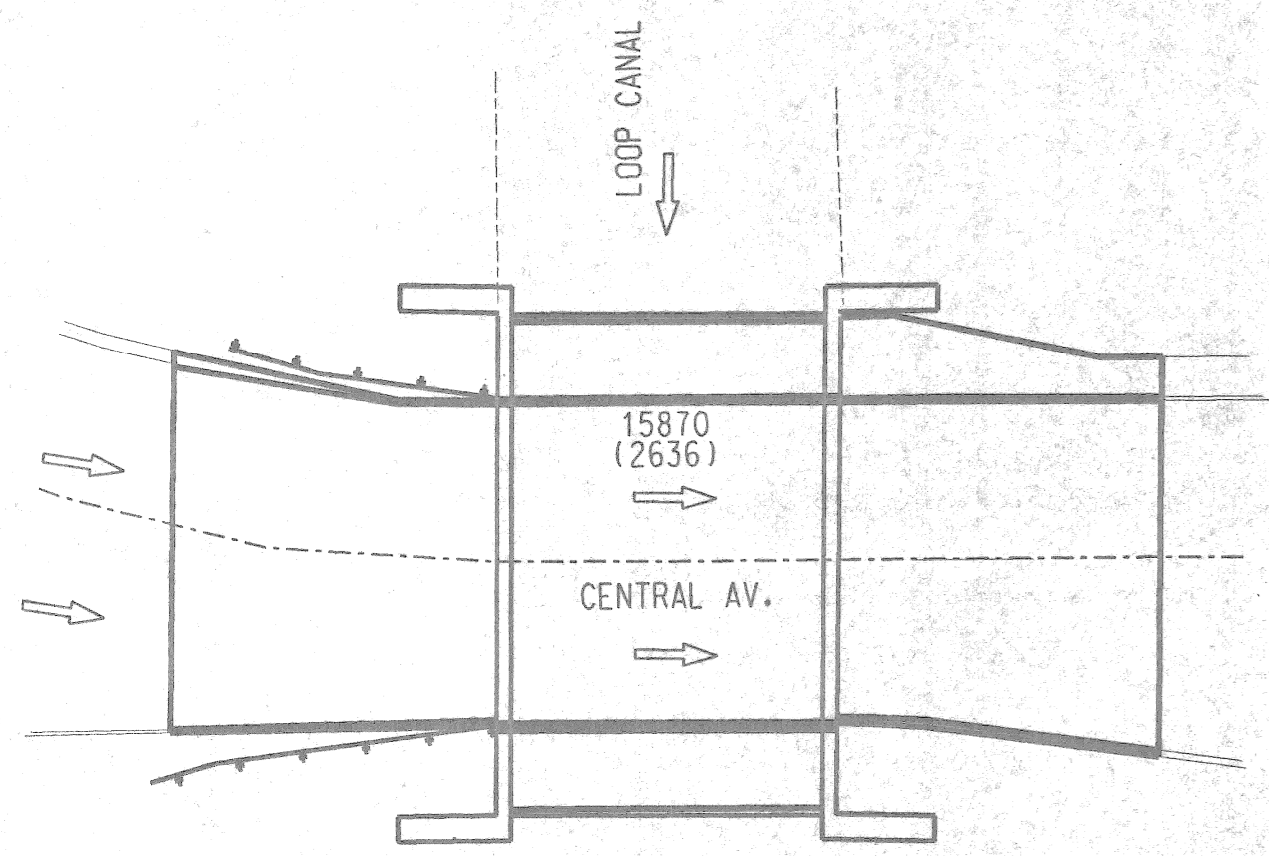
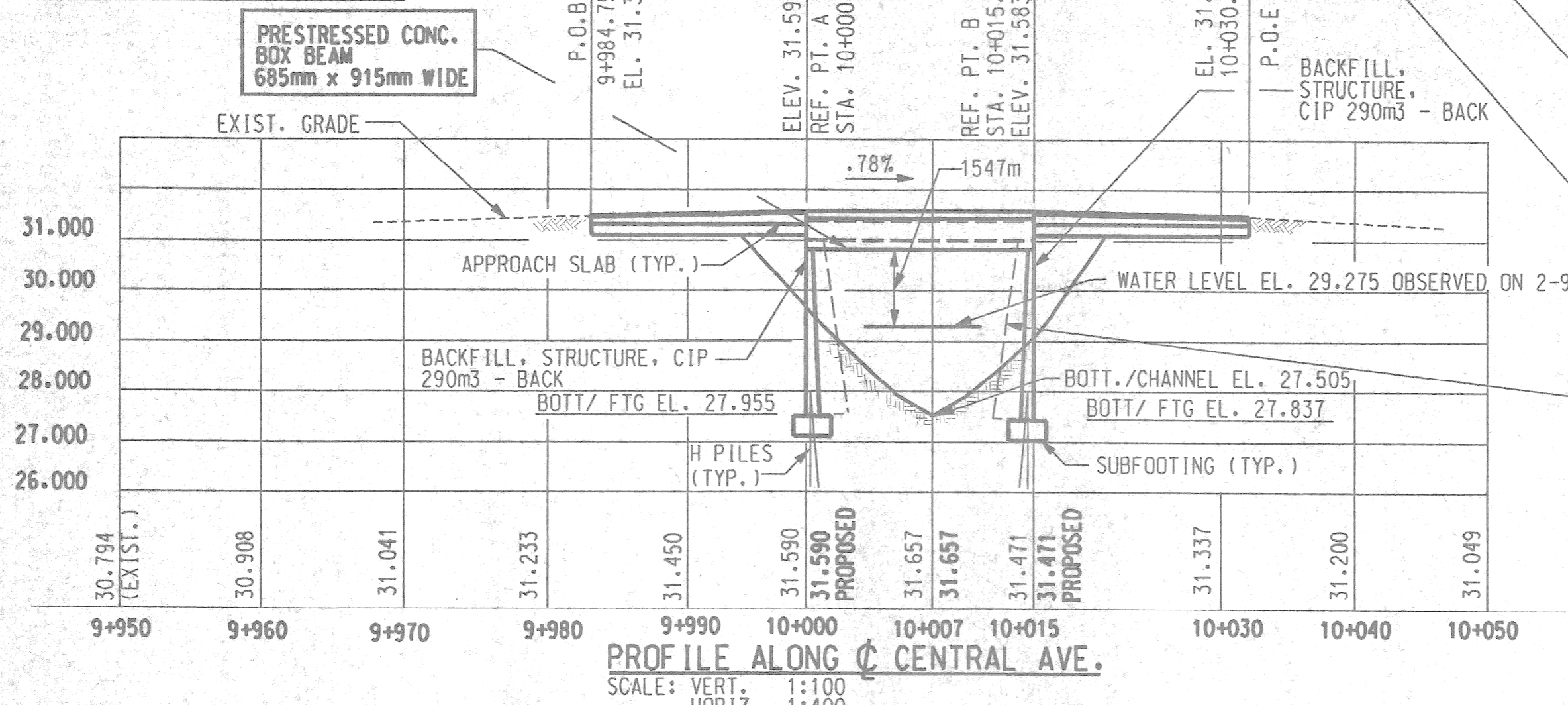
ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.



STA. 9+985 TO STA. 10+000
STA. 9+987 TO STA. 10+000
GUARD RAIL, REM 28m
GUARD RAIL ANCHORAGE
BRIDGE DET. T-1 2 EACH

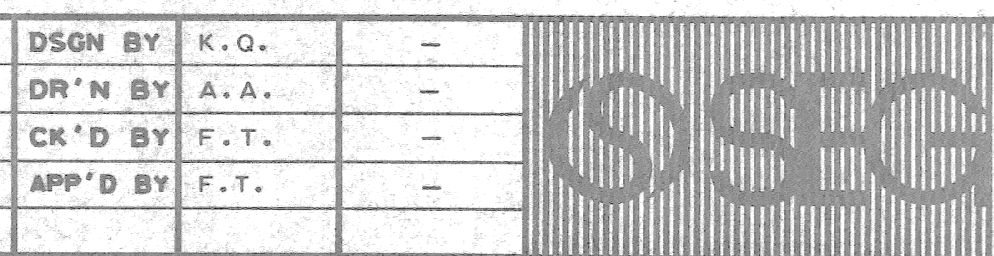
STA. 9+984.750 TO STA. 10+000
CURB. REM. 15.25m
MISC. CURB DETAIL CD. 15.25m

STA. 9+984.750 TO STA. 10+000
REMOVE EXIST. PAVEMENT
(INCLUDED IN PAY ITEM STRUCTURES, REM.)



LEGEND
(000) DESIGN HOURLY VOLUME
000 AVERAGE DAILY TRAFFIC
→ DIRECTIONAL TRAFFIC.

| REVISIONS | DSGN BY | DR'N BY | CHK'D BY | APP'D BY |
|-----------|---------|---------|----------|----------|
| | K.O. | A.A. | F.T. | F.T. |



SNELL ENVIRONMENTAL GROUP, INC.
A DLZ Company
931 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
TELEPHONE (313) 561-4040

FTA
PENI TALABI & ASSOCIATES INC.
615 GRIFFO, SUITE 1505, DETROIT, MICHIGAN, 48226
Making it better for you

CITY OF DETROIT MICHIGAN

CENTRAL AVE.

GENERAL PLAN OF SITE

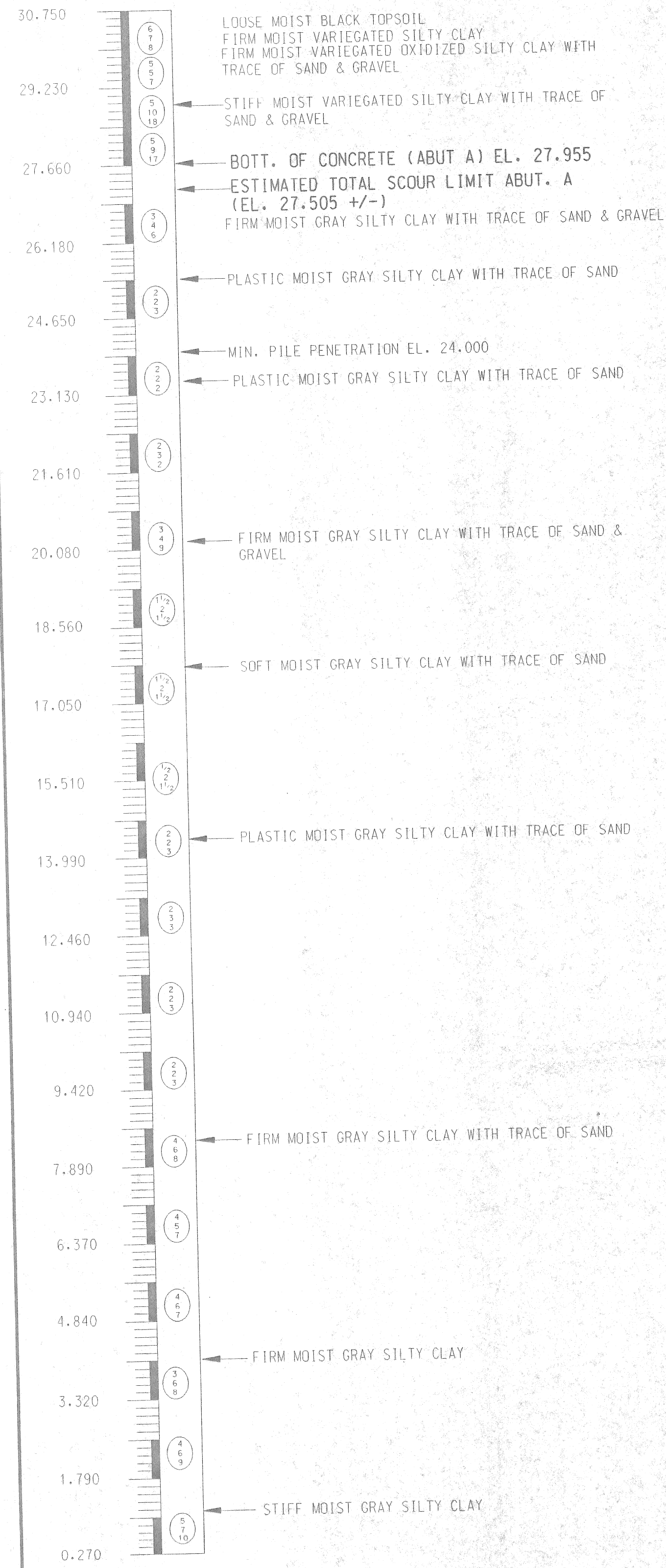
| | |
|-------------|--------------|
| SCALE | NOT TO SCALE |
| PROJECT NO. | 9810 |
| SHEET NO. | 2 OF 10 |

FILE NAME: 02SITE .DGN

TEST HOLE TB-#R-1

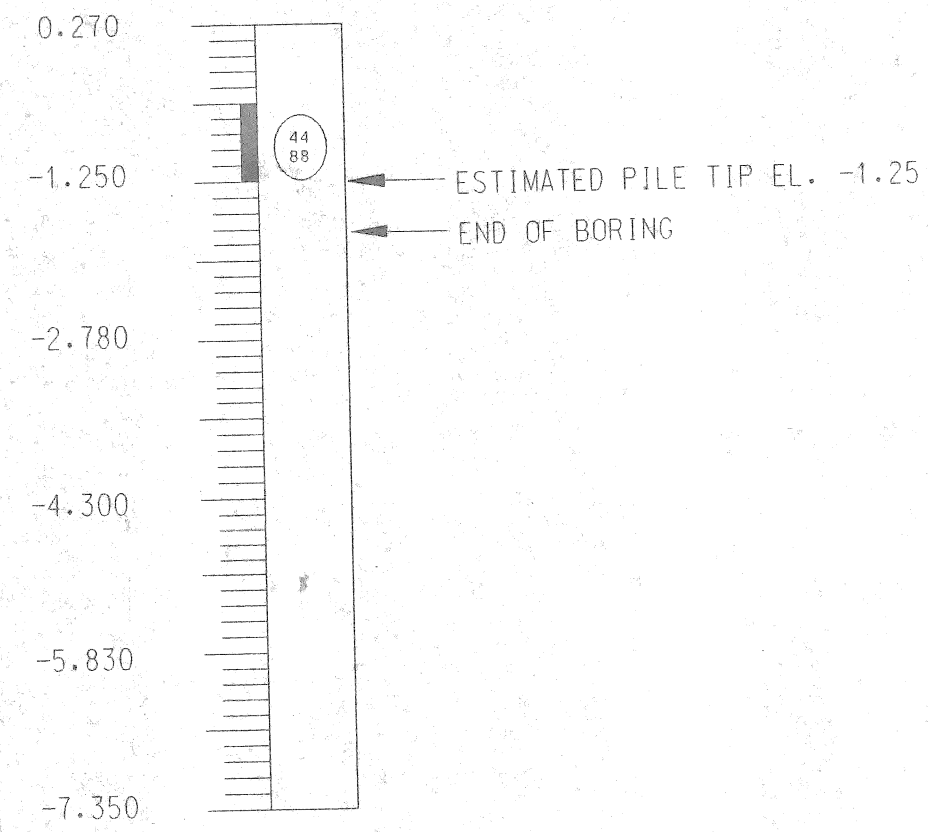
LOCATION STATION 9+993.751 11500 RT.
CENTRAL AVE. OVER LOOP CANAL

ELEV. GROUND SURFACE ELEVATION 30.750 m



ELEV.

CONTINUED



WATER SEEPAGE AT: 4.27 m
WATER LEVEL AT COMPLETION:
6.10 m (INSIDE HOLLOWSTEM AUGERS
& WASH ROTARY)

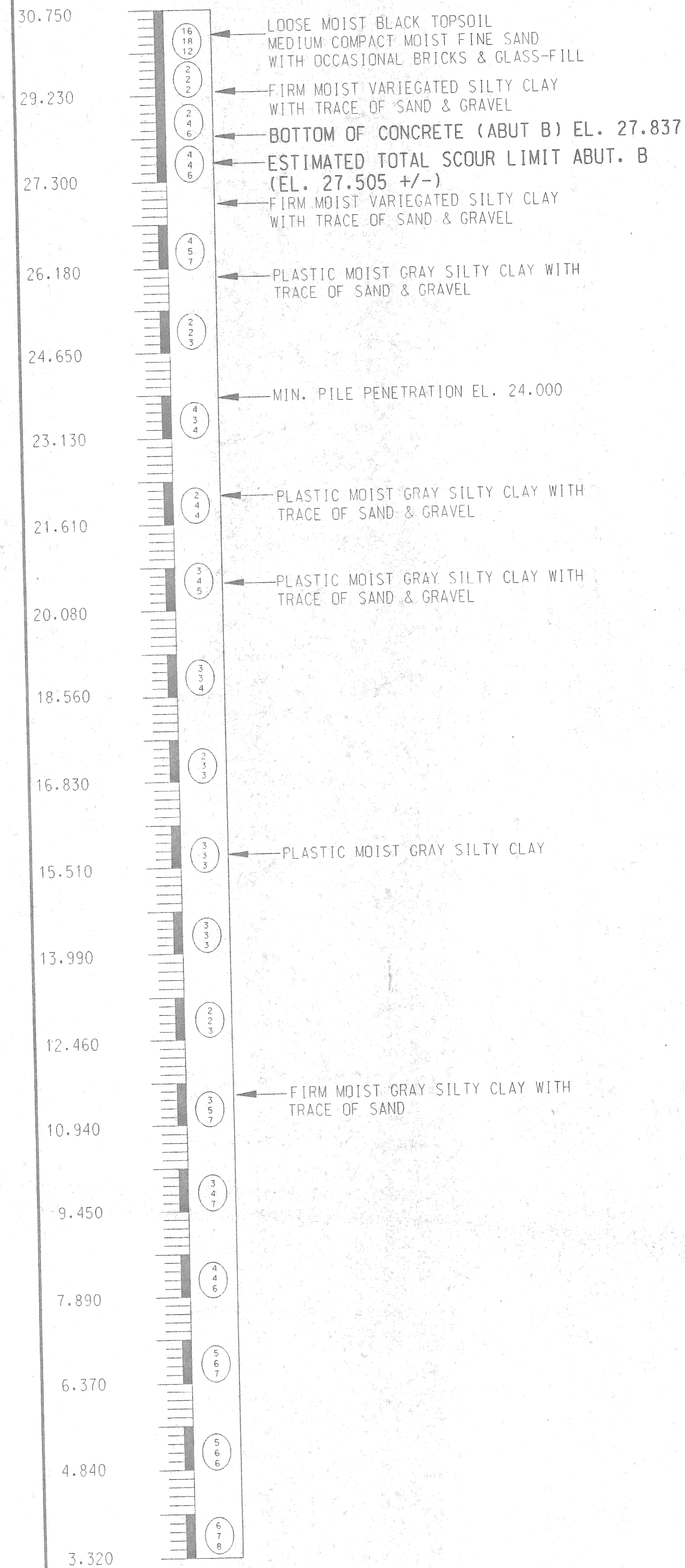
BORING DATE 06/30/98

CONTINUED

TEST HOLE TB-#R-2

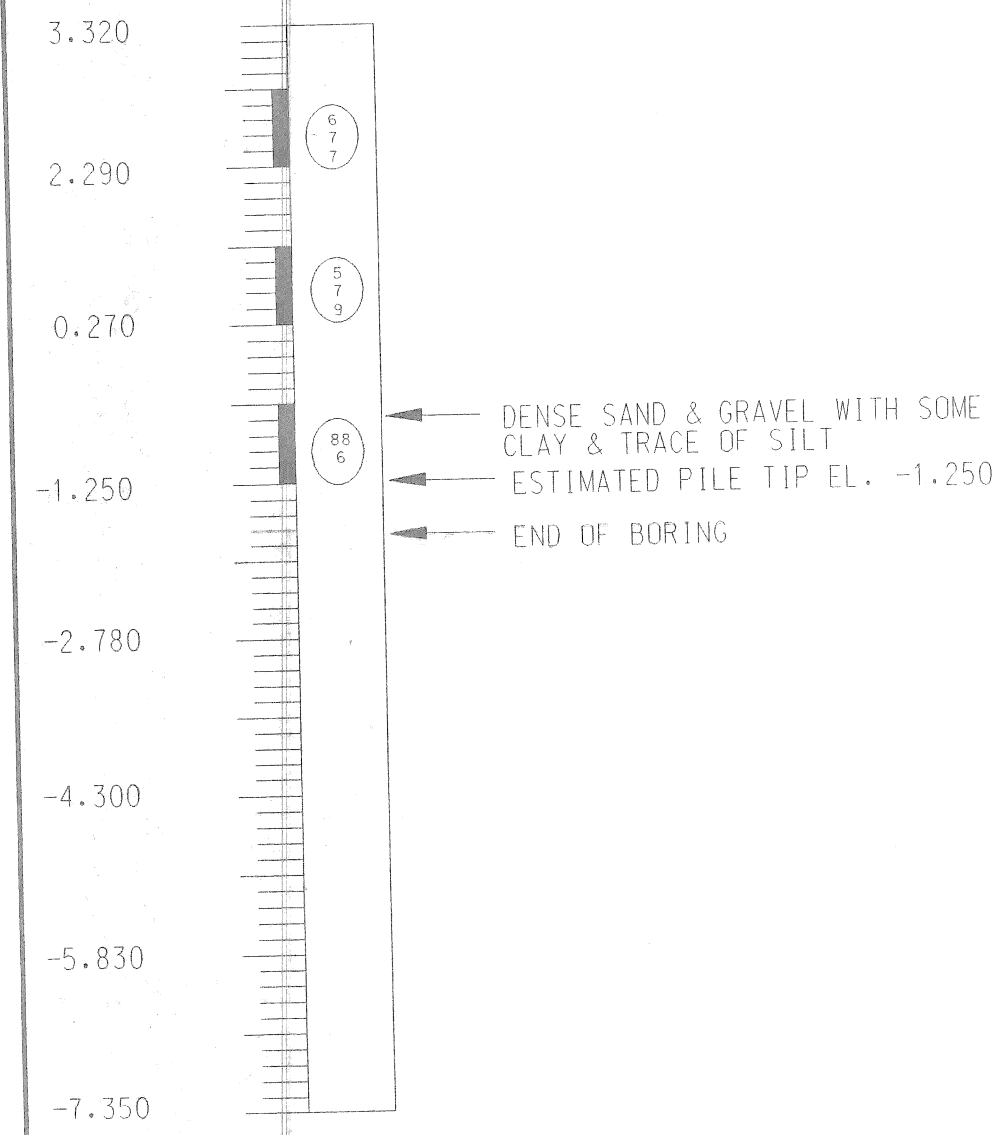
LOCATION STATION 10+026.111 11300 LT.
CENTRAL AVE. OVER LOOP CANAL

ELEV. GROUND SURFACE ELEVATION 30.750m



ELEV.

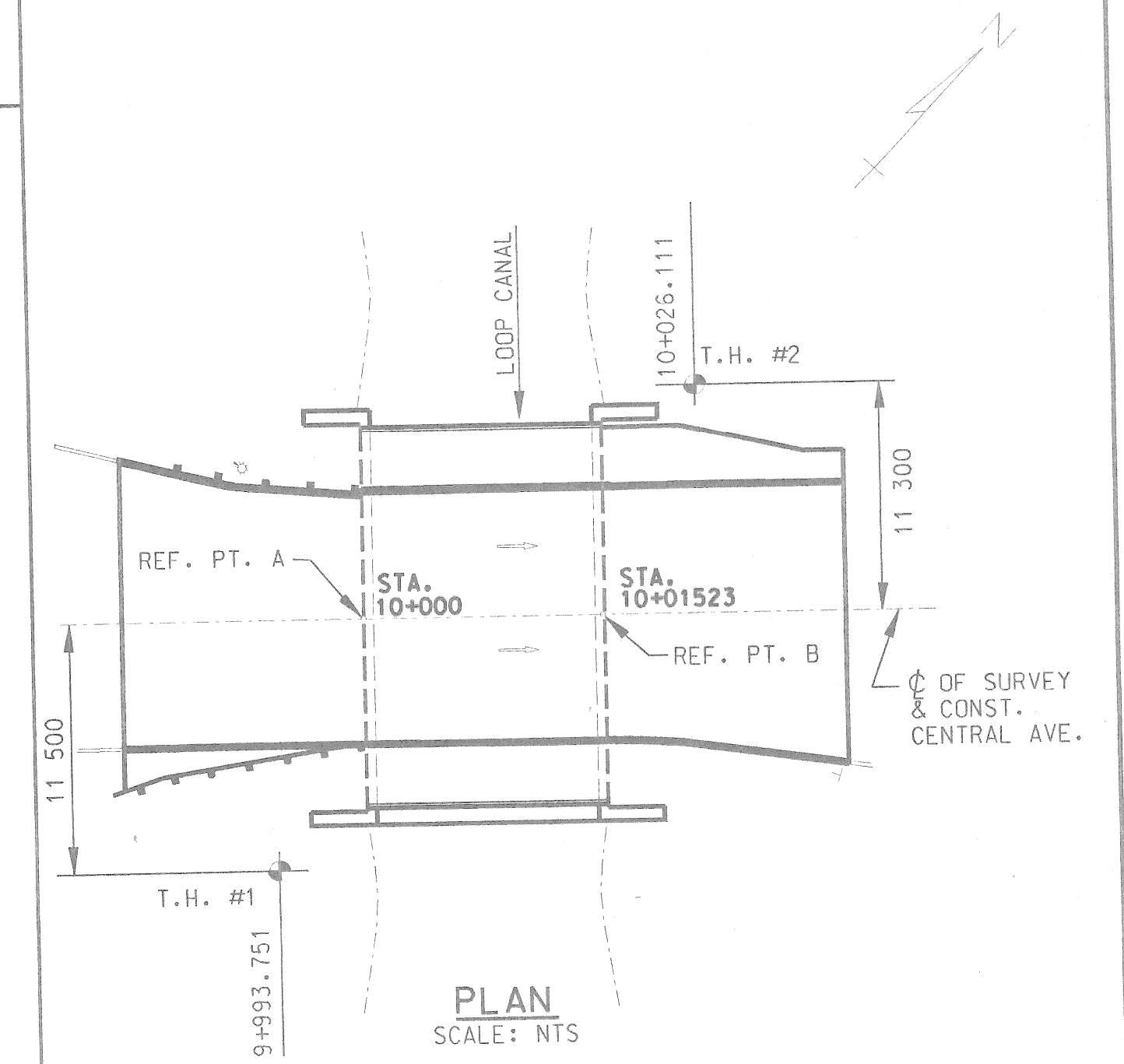
CONTINUED



NOTE:
WATER SEEPAGE AT: 6.4 m
WATER LEVEL AT COMPLETION:
6.74 m (INSIDE HOLLOWSTEM AUGERS
& WASH ROTARY)

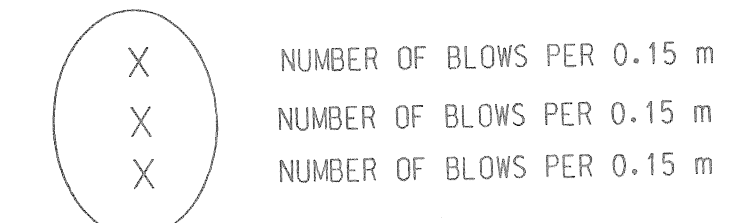
BORING DATE 06/30/98

CONTINUED



NOTES:

NUMBERS IN CIRCLES DENOTE NUMBER OF BLOWS REQUIRED TO DRIVE A 51 mm O.D (38 mm I.D.) SPLIT SPOON SAMPLER 3 SUCCESSIVE 0.15 m INCREMENTS USING A 63.5 kg HAMMER FALLING 0.76 m.

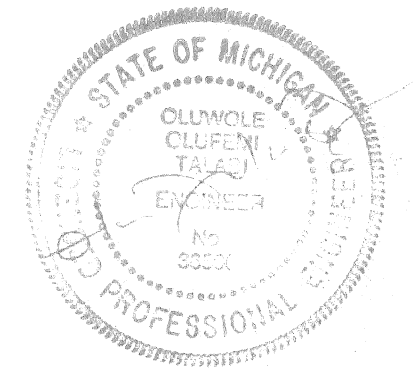


CONSISTENCY WAS DETERMINED BY INSPECTION OF SAMPLES AND SUBSTANTIATED BY SOILS RESISTANCE TO DRILLING TOOLS. WATER LEVELS MAY BE INFLUENCED BY RESIDUAL BORING WATER.

THE SOIL BORING LOGS REPRESENT POINT INFORMATION. PRESENTATION OF THIS INFORMATION IN NO WAY IMPLIES THAT SUBSURFACE CONDITIONS ARE THE SAME AT LOCATIONS OTHER THAN THE EXACT LOCATION OF THE BORING.

SOIL BORINGS WERE PERFORMED ON DATES SHOWN BELOW BORING.

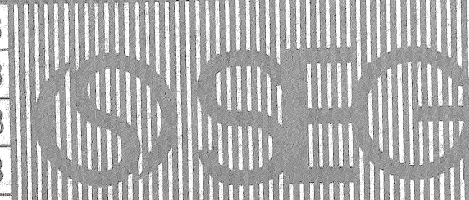
BY: TESTING ENGINEERS & CONSULTANTS, INC.
1333 ROCHESTER ROAD, PO BOX 249.
TROY MICHIGAN 48099-0249
PHONE: (248) 588-6232



ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.

REVISIONS

| | | |
|------------|------|----------|
| DESIGN BY | K.O. | 12/17/98 |
| DR'N BY | A.A. | 12/17/98 |
| CHECKED BY | F.T. | 12/17/98 |
| APP'D BY | F.T. | 12/17/98 |



SNELL ENVIRONMENTAL GROUP, INC. A DLZ Company
951 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
TELEPHONE (313) 961-4040

FTA
FEMI TALABI & ASSOCIATES INC.
615 CRISWOLD, SUITE 1505, DETROIT, MICHIGAN, 48226



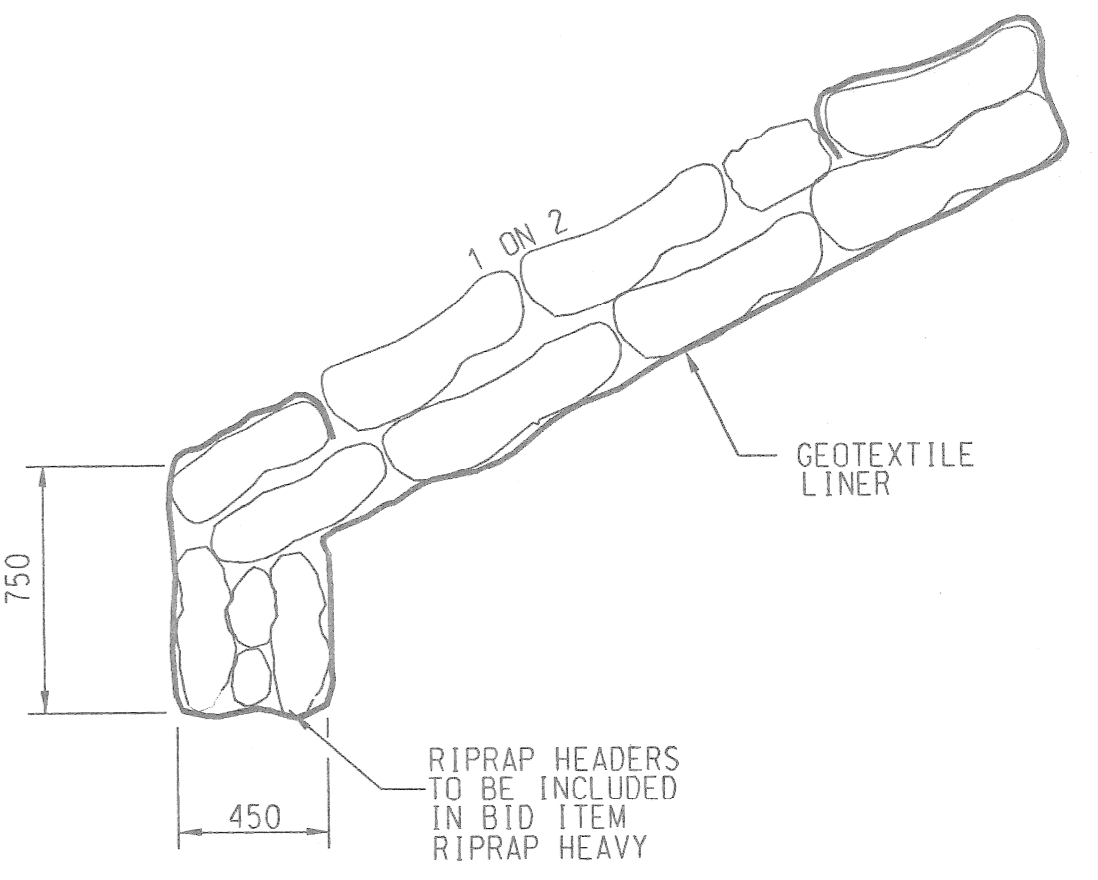
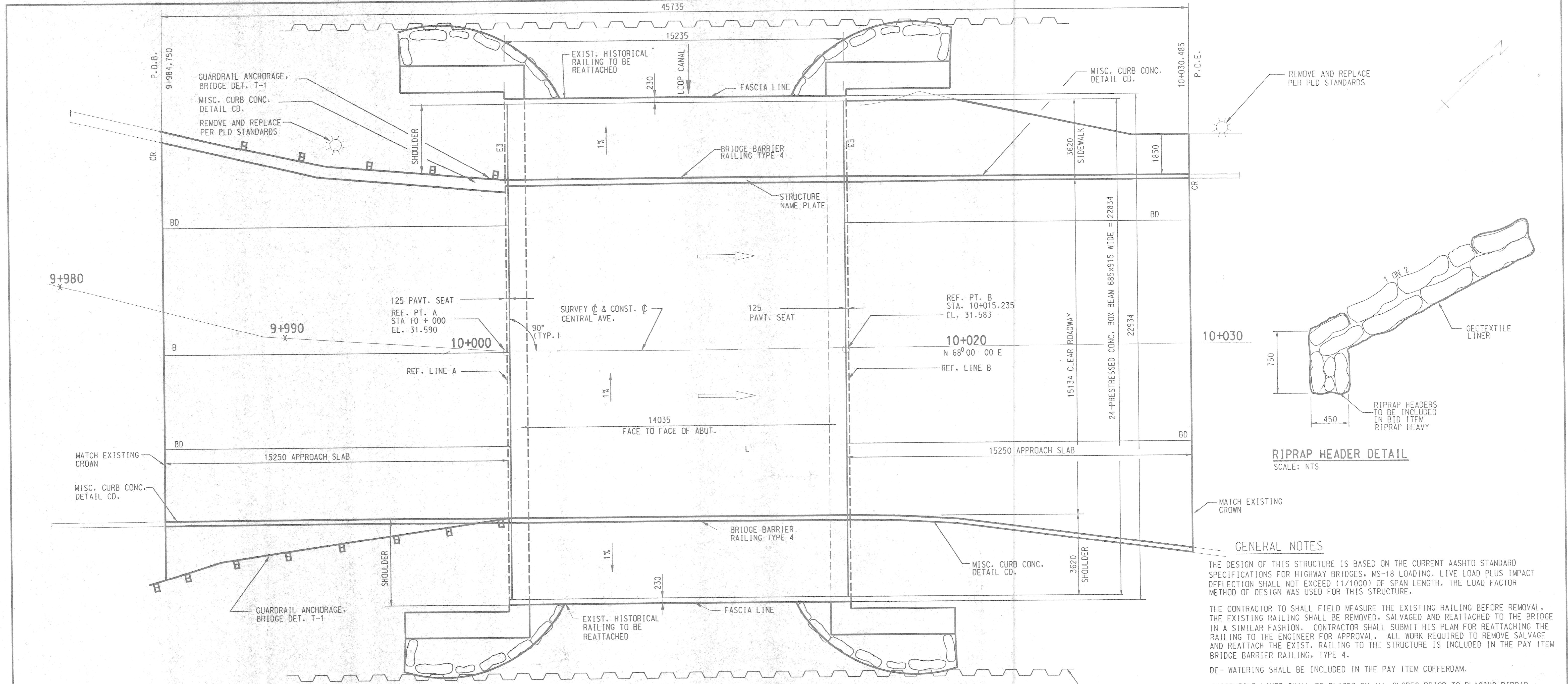
CITY OF DETROIT MICHIGAN

CENTRAL AVE.

LOG OF BORING

| | |
|-------------|--------------|
| SCALE | NOT TO SCALE |
| PROJECT NO. | 9810 |
| SHEET NO. | 3 OF 10 |

FILE NAME: 02SITE -DGN



GENERAL NOTES

THE DESIGN OF THIS STRUCTURE IS BASED ON THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, MS-18 LOADING. LIVE LOAD PLUS IMPACT DEFLECTION SHALL NOT EXCEED (1/1000) OF SPAN LENGTH. THE LOAD FACTOR METHOD OF DESIGN WAS USED FOR THIS STRUCTURE.

THE CONTRACTOR SHALL FIELD MEASURE THE EXISTING RAILING BEFORE REMOVAL. THE EXISTING RAILING SHALL BE REMOVED, SALVAGED AND REATTACHED TO THE BRIDGE IN A SIMILAR FASHION. CONTRACTOR SHALL SUBMIT HIS PLAN FOR REATTACHING THE RAILING TO THE ENGINEER FOR APPROVAL. ALL WORK REQUIRED TO REMOVE SALVAGE AND REATTACH THE EXIST. RAILING TO THE STRUCTURE IS INCLUDED IN THE PAY ITEM BRIDGE BARRIER RAILING, TYPE 4.

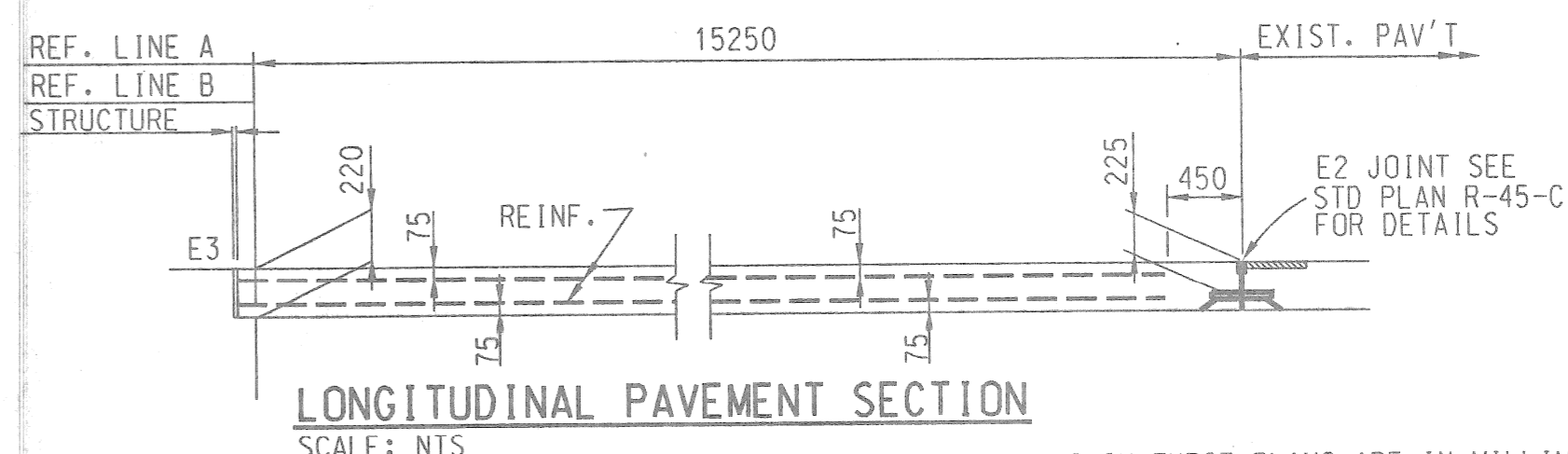
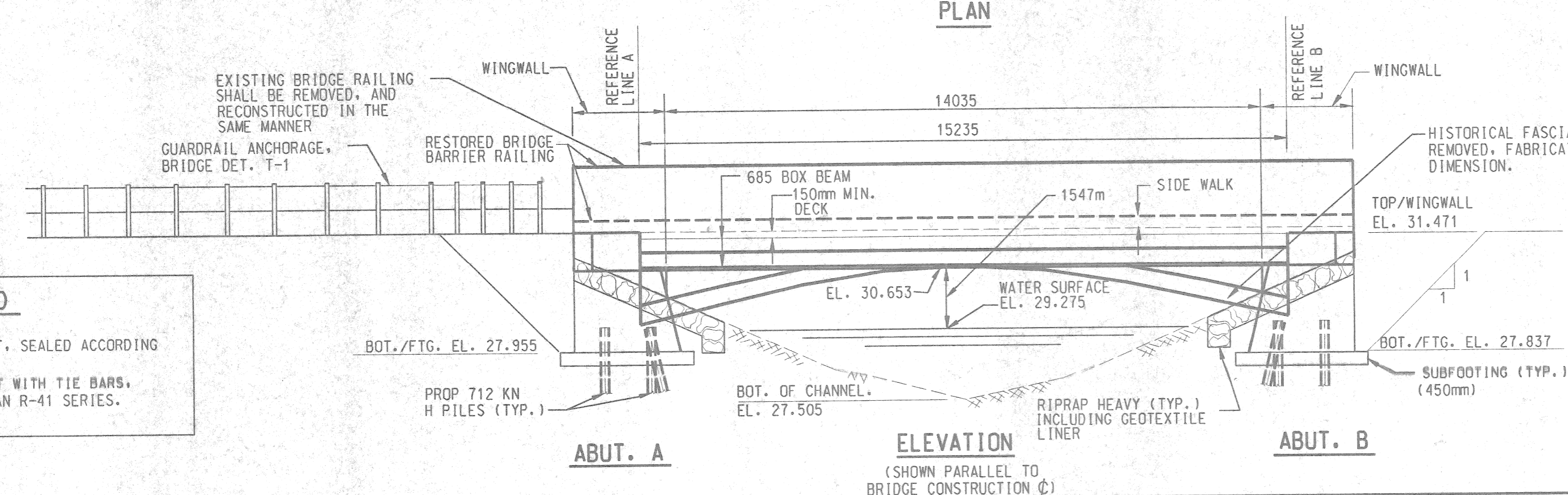
DE- WATERING SHALL BE INCLUDED IN THE PAY ITEM COFFERDAM.

GEOTEXTILE LINER SHALL BE PLACED ON ALL SLOPES PRIOR TO PLACING RIPRAP. PAYMENT FOR GEOTEXTILE LINER SHALL BE INCLUDED IN PAYMENT FOR RIPRAP. FOR DETAILS OF SLOPE PROTECTION, SEE STD PLAN B-102 SERIES.

THE TREMIE SEAL DESIGN WAS BASED ON A WATER SURFACE ELEVATION 29.275.

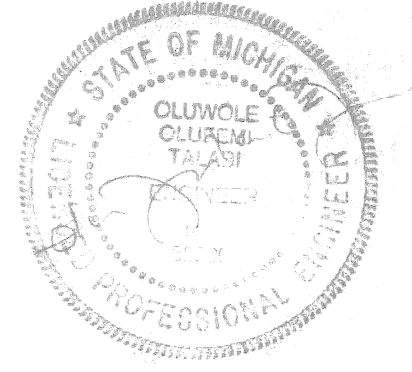
RIPRAP, HEAVY TO BE PLACED ON SLOPES AT ALL FOUR QUADRANTS. NO BROKEN CONCRETE SHALL BE PLACED AS RIPRAP.

THE RIPRAP QUANTITY IS BASED ON THE LATERAL DIMENSION OF THE AREA TO BE PROTECTED. REGARDLESS OF THE NUMBER OF LAYERS REQUIRED. THE ESTIMATED MASS OF RIPRAP IS 314 METRIC TONS.



JOINT LEGEND

- (B) LONGITUDINAL BULKHEAD JOINT, SEALED ACCORDING TO STD PLAN R-41 SERIES.
- (D) LONGITUDINAL LANE TIE JOINT WITH TIE BARS, SEALED ACCORDING TO STD PLAN R-41 SERIES.
- (BD) OPTIONAL B OR D JOINT.



| REVISIONS | DESIGN BY | K.O. | 12/17/98 |
|-----------|-----------|------|----------|
| | DR'N BY | A.A. | 12/17/98 |
| | CK'D BY | F.T. | 12/17/98 |
| | APP'D BY | F.T. | 12/17/98 |

SNELL ENVIRONMENTAL GROUP, INC. A DLZ Company
151 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
TELEPHONE (313) 961-4040

FEMI TALABI & ASSOCIATES INC.
615 GRIFFOIL, SUITE 1805, DETROIT, MICHIGAN, 48226
Making it better for you

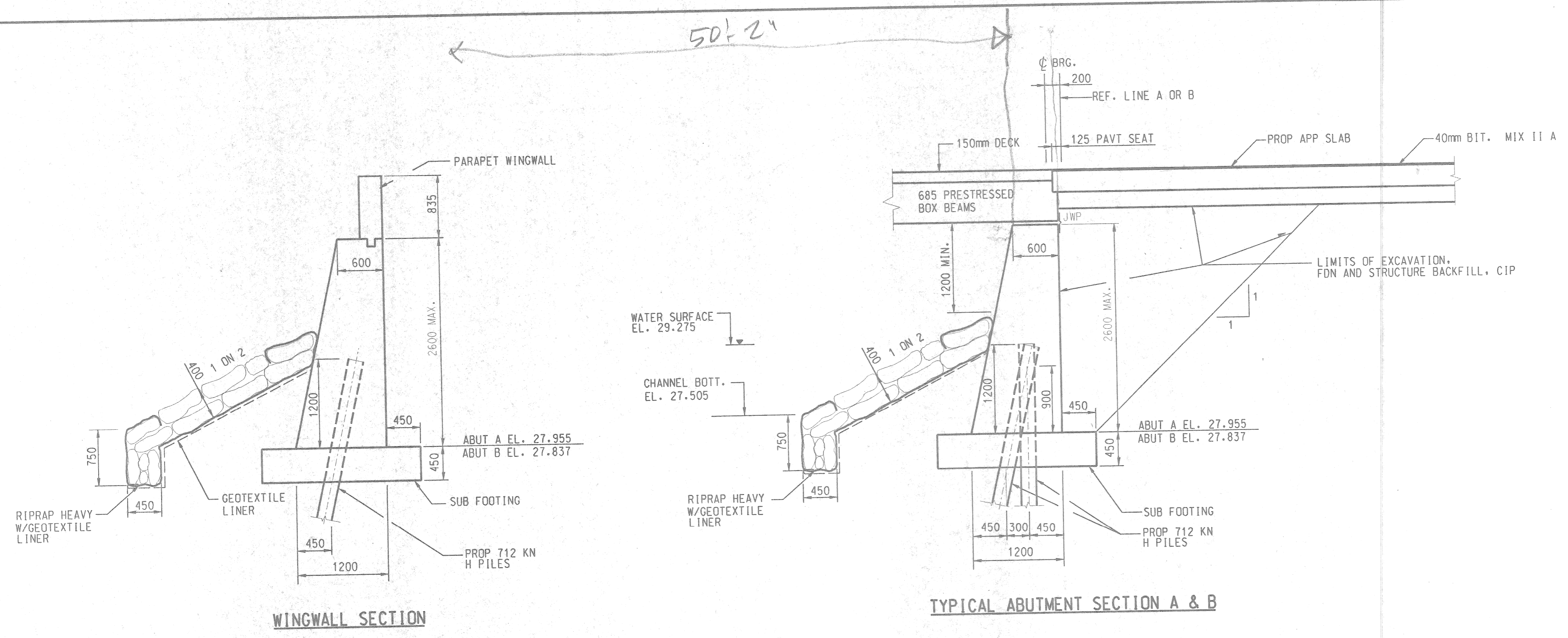
CITY OF DETROIT MICHIGAN

CENTRAL AVE.

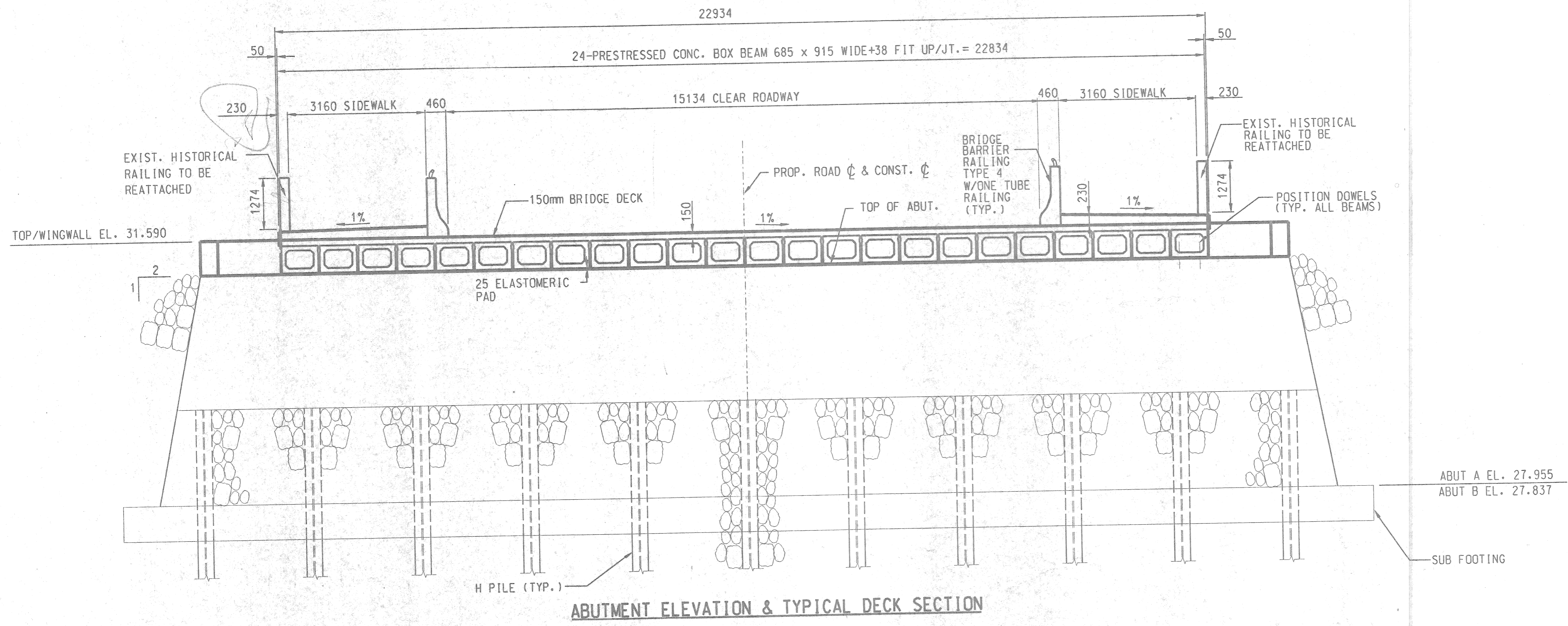
GENERAL PLAN OF STRUCTURE

SCALE NOT TO SCALE
PROJECT NO. 9810
SHEET NO. 4 OF 10

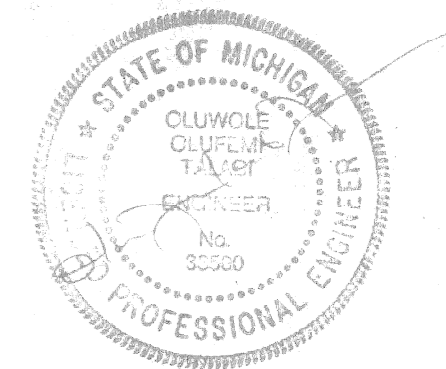
FILE NAME: Q8SITE...DGN



NOTE:
 1-TUBE RAIL SHALL BE INSTALLED ON TOP OF BRIDGE BARRIER RAILING, TYPE 4 FOR DETAILS OF TUBE RAIL SEE STANDARD PLAN B-24 SERIES. THE COST OF INSTALLING TUBE RAIL IS INCLUDED IN THE COST OF BRIDGE BARRIER RAILING, TYPE 4.



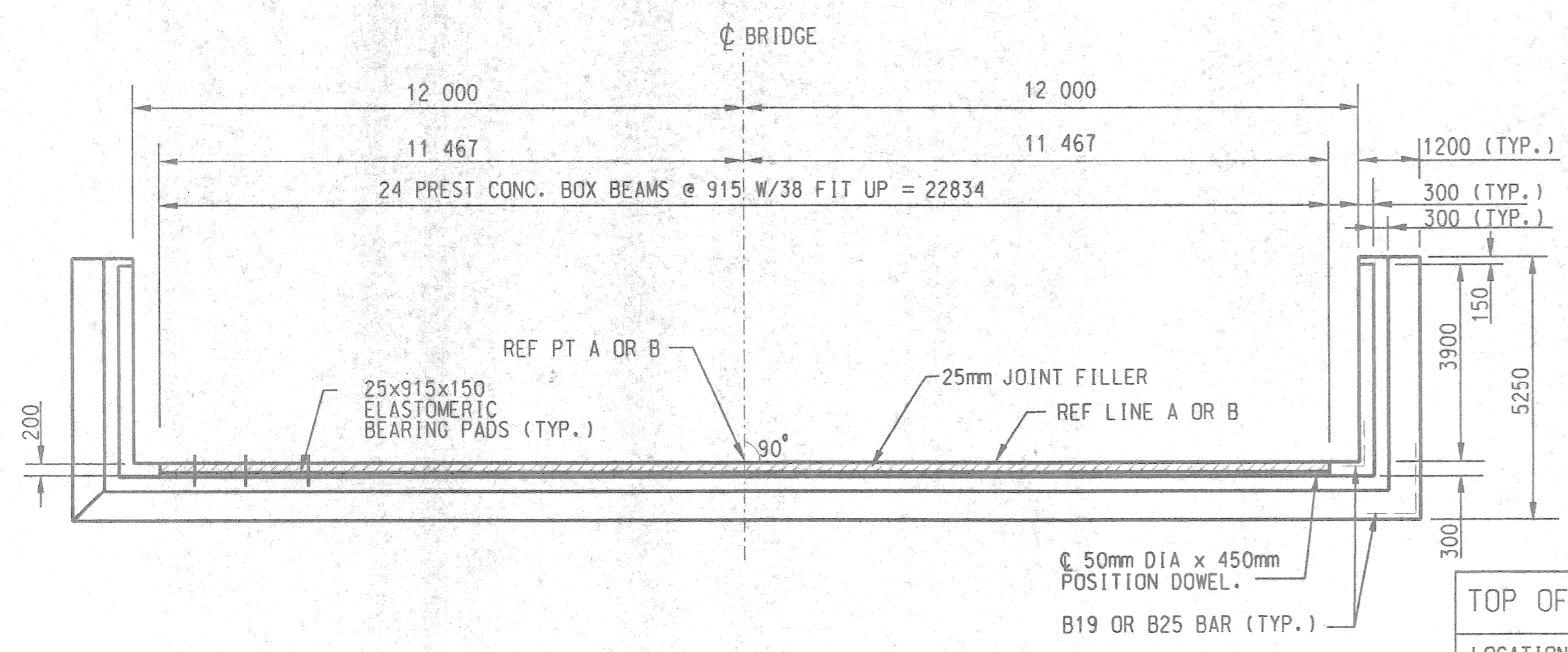
| MISCELLANEOUS QUANTITIES | | |
|--------------------------|------|-------|
| ITEM | UNIT | TOTAL |
| STRUCTURES, REM | LSUM | 1 |
| STRUCTURE BACKFILL (CIP) | M3 | 580 |
| BIT MIX, IIA | T | 93 |
| EXCAVATION, FDN. | M3 | 580 |
| CONC. PAVT. MISC 220mm | M2 | 462 |
| COFFERDAM | LSUM | 1 |
| AGGREGATE BASE, 100mm | M2 | 462 |
| RIPRAP HEAVY | M2 | 320 |
| SHOULDER CL1, 100m | M2 | 244 |



ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.

| | | | | | | | | | | | | |
|-----------|----------|------|----------|--|--|--|--|---------------------------------|---------------------|----------------------------------|-------------|--------------|
| REVISIONS | DSGN BY | K.O. | 12/17/98 | | SNELL ENVIRONMENTAL GROUP, INC. A DLZ Company 151 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226 TELEPHONE (313) 961-4040 | | FEMI TALABI & ASSOCIATES INC. 615 CRISWOLD, SUITE 1005, DETROIT, MICHIGAN, 48226 Making it better for you | CITY OF DETROIT MICHIGAN | CENTRAL AVE. | GENERAL PLAN OF STRUCTURE | SCALE | NOT TO SCALE |
| | DR'N BY | A.A. | 12/17/98 | | | | | | | | PROJECT NO. | 9810 |
| | CK'D BY | F.T. | 12/17/98 | | | | | | | | SHEET NO. | 5 OF 10 |
| | APP'D BY | F.T. | 12/17/98 | | | | | | | | | |

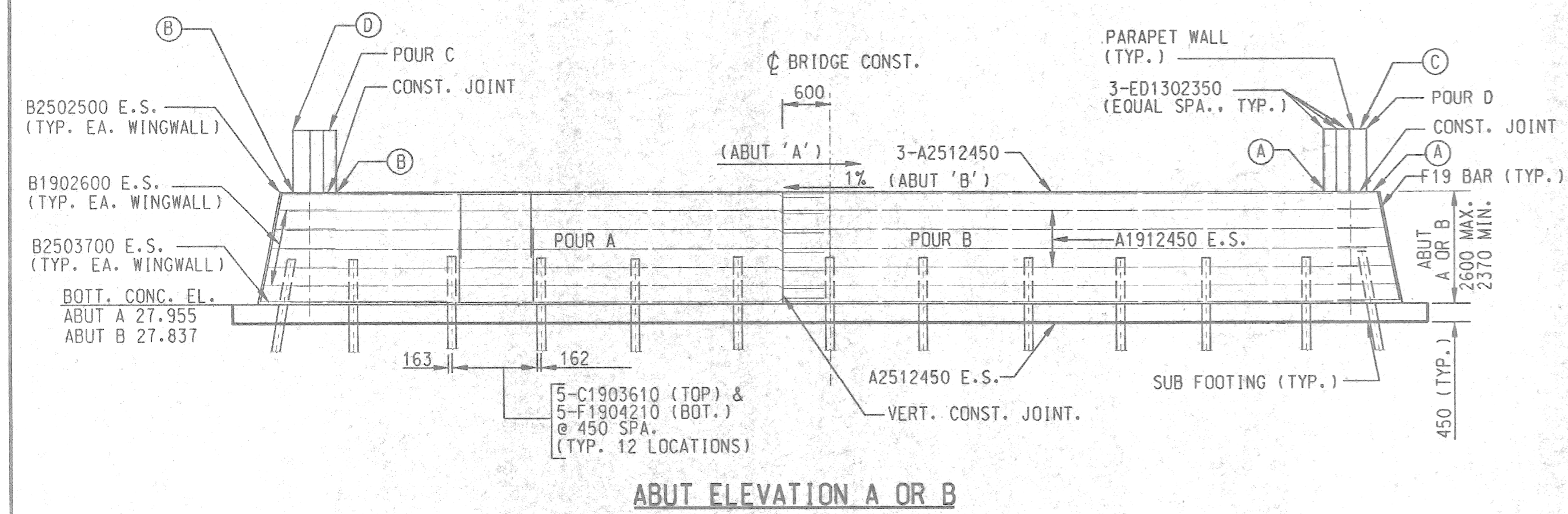
FILE NAME: 02SITE.DGN



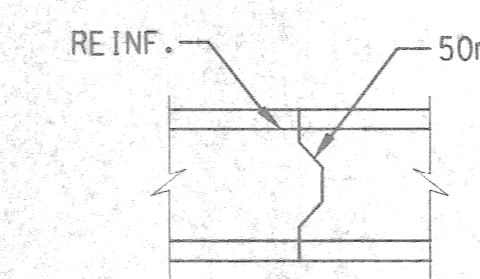
ABUT PLAN A OR B

TOP OF WALL ELEVATIONS

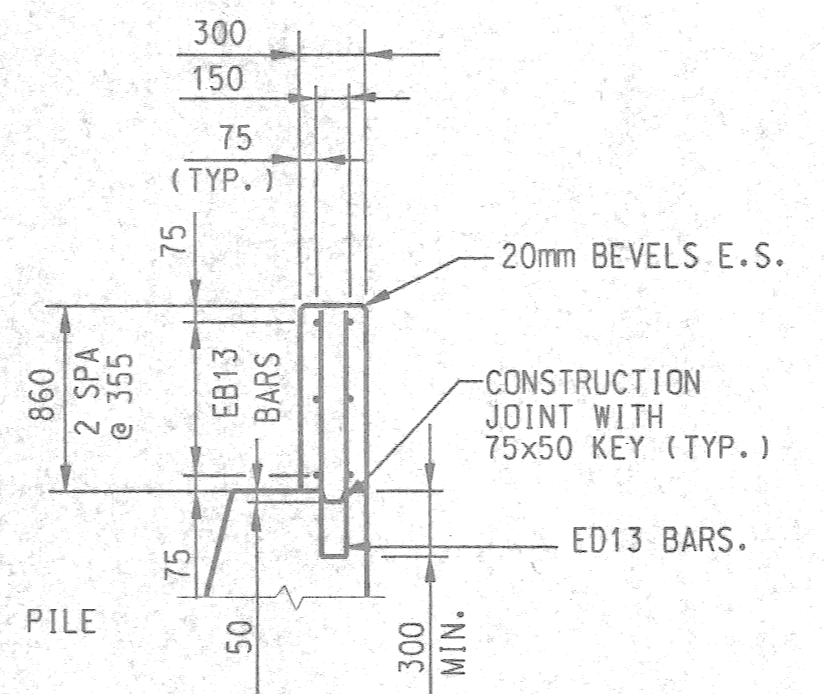
| LOCATION | A | B | C | D |
|----------|-------|-------|-------|-------|
| ABUT A | 31.47 | 31.71 | 32.33 | 32.57 |
| ABUT B | 31.59 | 31.35 | 32.45 | 32.21 |



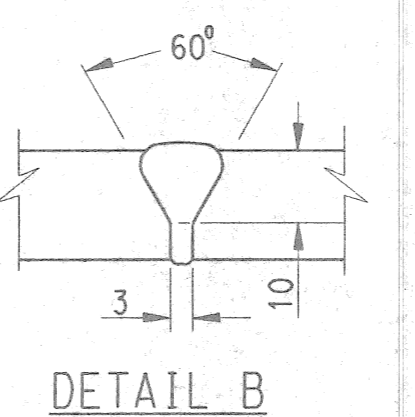
ABUT ELEVATION A OR B



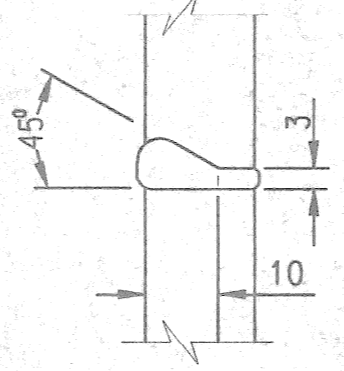
CONST. JT. DETAIL



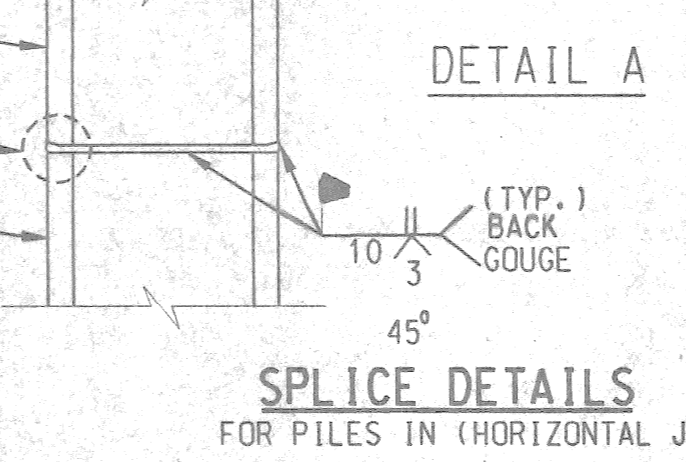
PARAPET SECTION



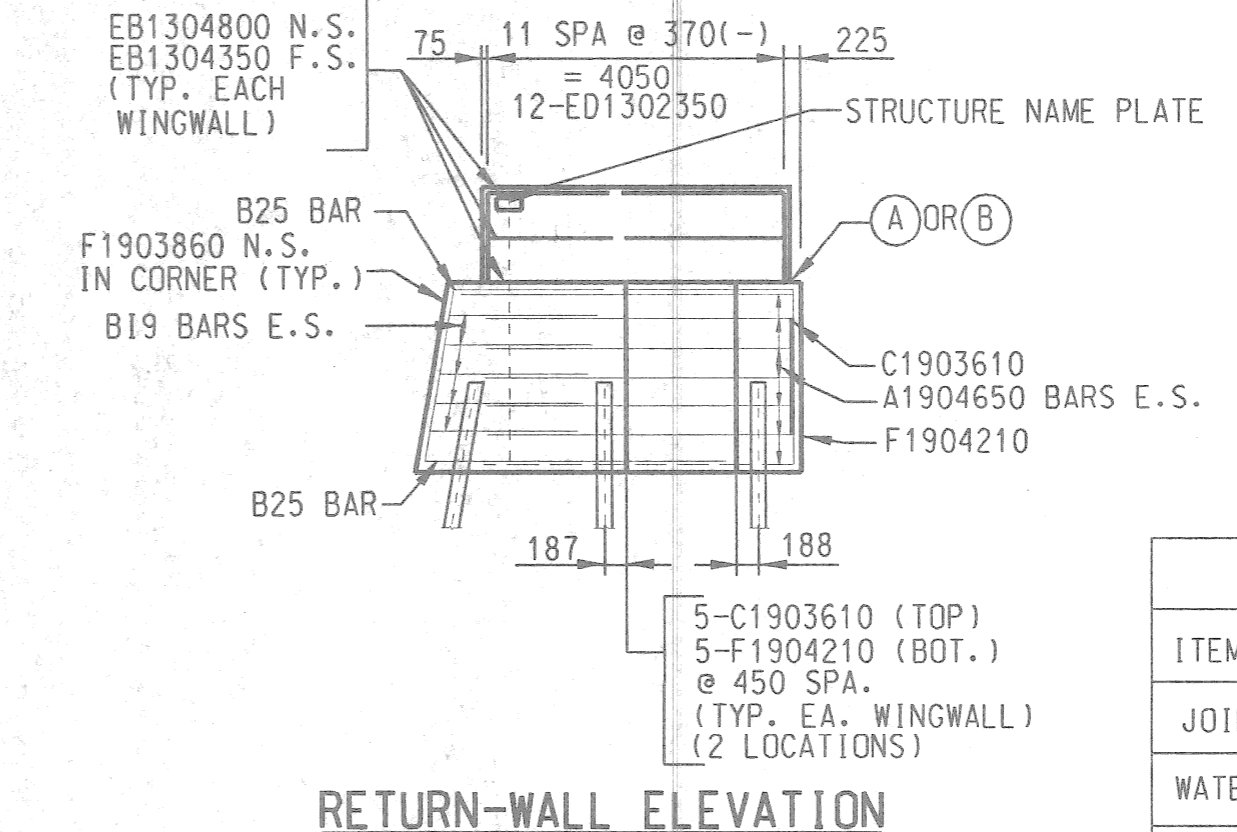
DETAIL B



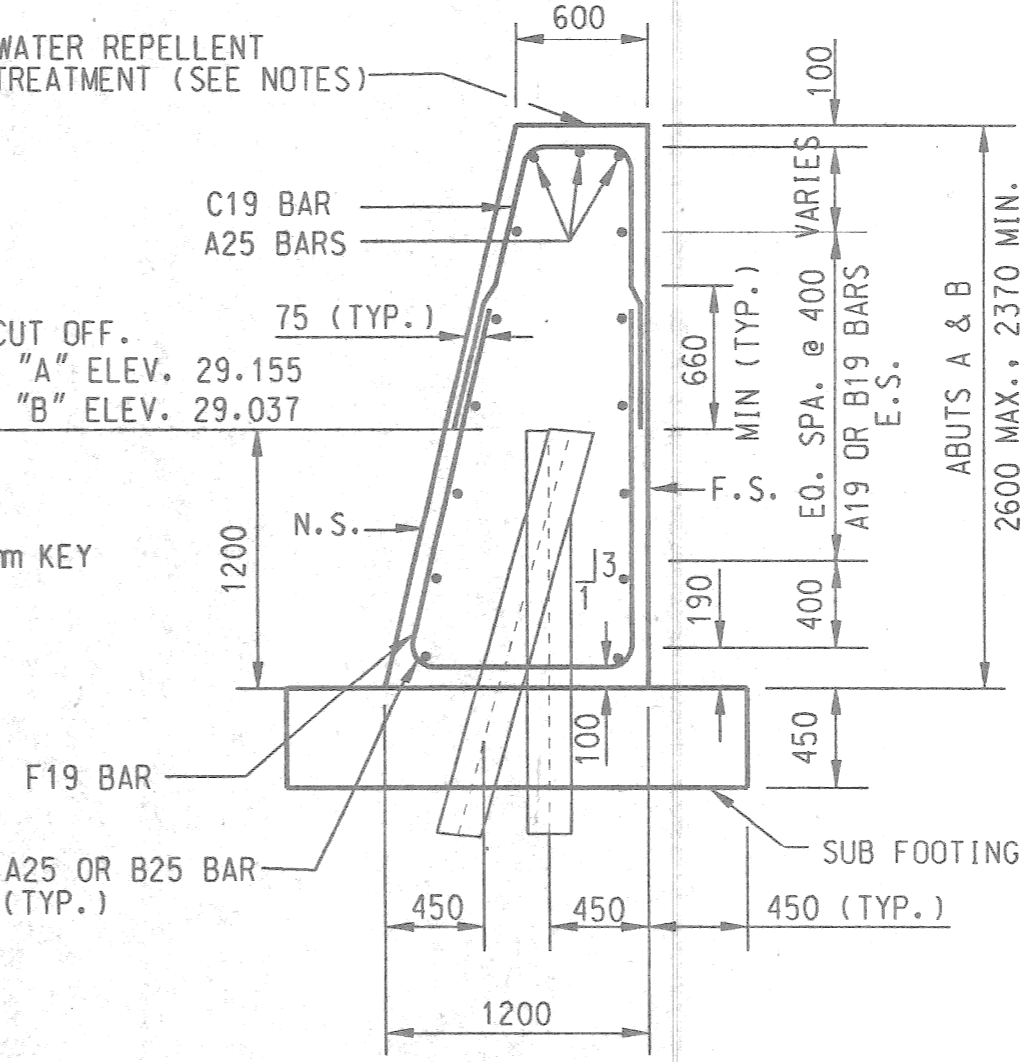
DETAIL A



SPlice DETAILS FOR PILES IN HORIZONTAL POSITION



RETURN-WALL ELEVATION



TYPICAL WALL SECTION

SUBSTRUCTURE POUR QUANTITIES

| ITEM | UNIT | ABUT. A | ABUT. B |
|--------|------|---------|---------|
| POUR A | M3 | 38.75 | 38.75 |
| POUR B | M3 | 38.75 | 38.75 |
| POUR C | M3 | 1.25 | 1.25 |
| POUR D | M3 | 1.25 | 1.25 |
| TOTAL | M3 | 80 | 80 |

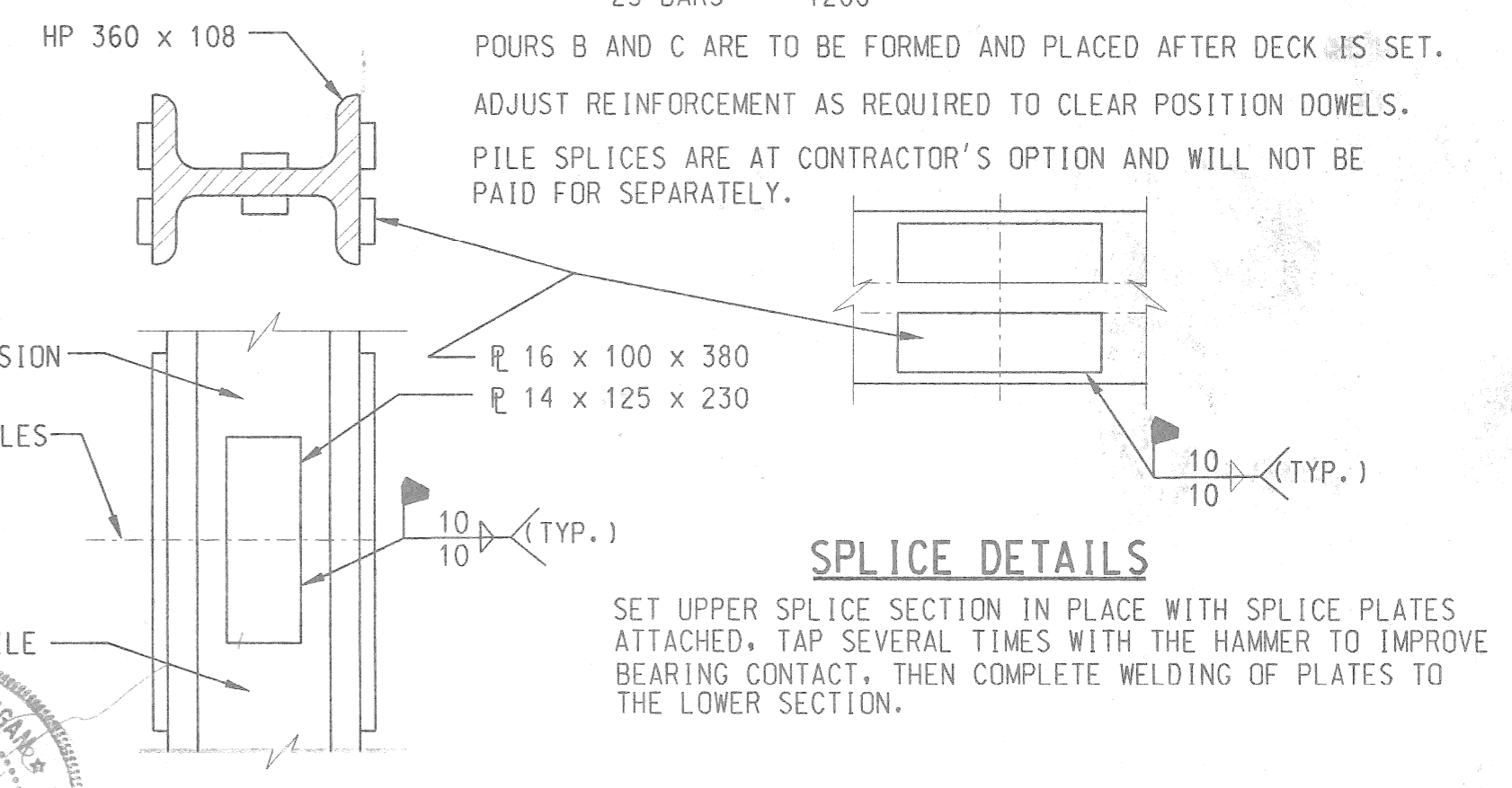
MISCELLANEOUS QUANTITIES

| ITEM | UNIT | ABUT. A | ABUT. B | TOTAL |
|--|------|---------|---------|-------|
| JOINT WATER PROOFING | M2 | 1.2 | 1.2 | 2.4 |
| WATER REPELLENT TREATMENT | M2 | 23.5 | 23.5 | 47 |
| STEEL PILE, FURNISHED AND DRIVEN | M | 533 | 531 | 1064 |
| FURNISHING EQUIPMENT FOR DRIVING PILES | LSUM | - | - | 1 |
| TEST PILE, STEEL | EACH | 1 | 1 | 2 |
| CONCRETE, GRADE T | M3 | 33.5 | 33.5 | 67 |

STEEL PILE-FURNISHED AND DRIVEN (HP360x108)

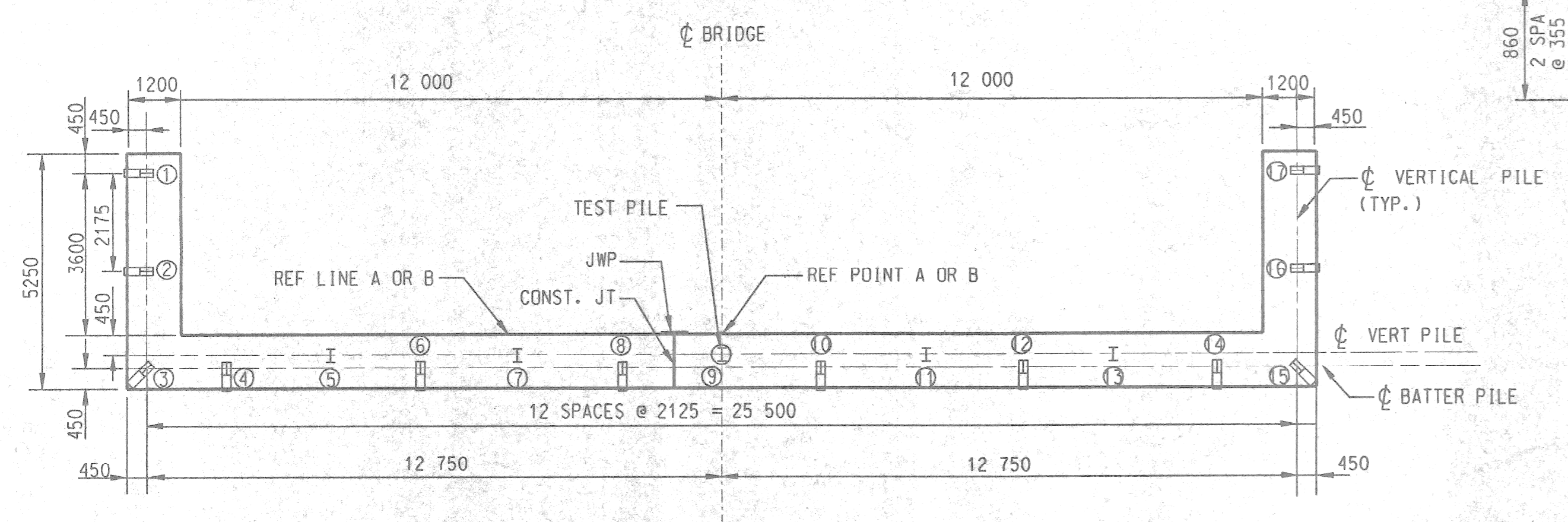
| LOCATION | PILE TYPE | NUMBER OF PILES | ESTIMATED LENGTH FURNISHED EACH M | AND DRIVEN TOTAL M | SPLICES (EACH) | CUT-OFF ELEVATIONS |
|----------|-----------|-----------------|-----------------------------------|--------------------|----------------|--------------------|
| ABUT. A | TEST | 1 | 33.0 | 33.0 | 1 | 29.155 |
| | VERTICAL | 8 | 30.5 | 244.0 | 1 | 29.155 |
| ABUT. B | TEST | 1 | 33.0 | 33.0 | 1 | 29.037 |
| | VERTICAL | 8 | 30.3 | 242.4 | 1 | 29.037 |
| TOTAL | | 34 | | 1064 | | |

NOTES:
 F.S. DENOTES FAR SIDE
 N.S. DENOTES NEAR SIDE
 E.S. DENOTES EACH SIDE
 J.W.P. DENOTES JOINT WATERPROOFING
 FOR BEVEL, MOLDING AND NAME PLATE DETAILS, SEE STANDARD PLAN B-103-B.
 ALL ABUTMENT PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 712 KN. STEEL PILES SHALL BE HP360x108.
 POSITION DOWELS SHALL BE INCLUDED IN PAY ITEM PRESTRESSED CONCRETE DECK, 685mm.
 THE TOP OF ABUTMENTS SHALL BE GIVEN AN APPLICATION OF PENETRATING WATER REPELLENT TREATMENT BEFORE THE ELASTOMERIC BEARING PADS HAVE BEEN PLACED IN FINAL POSITION ON THE STRUCTURE.
 MINIMUM BAR LAPS ARE AS FOLLOWS:
 19 BARS = 660
 25 BARS = 1200
 POURS B AND C ARE TO BE FORMED AND PLACED AFTER DECK IS SET.
 ADJUST REINFORCEMENT AS REQUIRED TO CLEAR POSITION DOWELS.
 PILE SPLICES ARE AT CONTRACTOR'S OPTION AND WILL NOT BE PAID FOR SEPARATELY.



SPlice DETAILS

SET UPPER SPLICE SECTION IN PLACE WITH SPLICE PLATES ATTACHED, TAP SEVERAL TIMES WITH THE HAMMER TO IMPROVE BEARING CONTACT, THEN COMPLETE WELDING OF PLATES TO THE LOWER SECTION.
 ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.



PILE PLAN

LEGEND

- ⊙ - TEST PILE
- I - VERTICAL PILE
- ▭ - BATTER PILE

GENERAL NOTES:
 ALL EXPOSED SURFACES OF ABUTMENT AND WINGWALLS SHALL BE FORMED USING A PLASTIC FORM LINER TO GIVE A STONE FINISH APPEARANCE. THE CONTRACTOR SHALL SUBMIT THE SPECIFICATIONS TO THE ENGINEER BEFORE START OF CONSTRUCTION.

REVISIONS

| NO. | DESCRIPTION | DATE |
|-----|-------------|------|
| | | |
| | | |
| | | |

| DSGN BY | K.O. | |
|----------|------|--|
| DR'N BY | A.A. | |
| CK'D BY | F.T. | |
| APP'D BY | F.T. | |

OSIG
 SNELL ENVIRONMENTAL GROUP, INC. A DLZ Company
 51 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
 TELEPHONE: (313) 961-4040

FTA
 FENI TALABI & ASSOCIATES INC.
 615 CRISWOLD, SUITE 1505, DETROIT, MICHIGAN, 48226
 Making it better for you

CITY OF DETROIT MICHIGAN

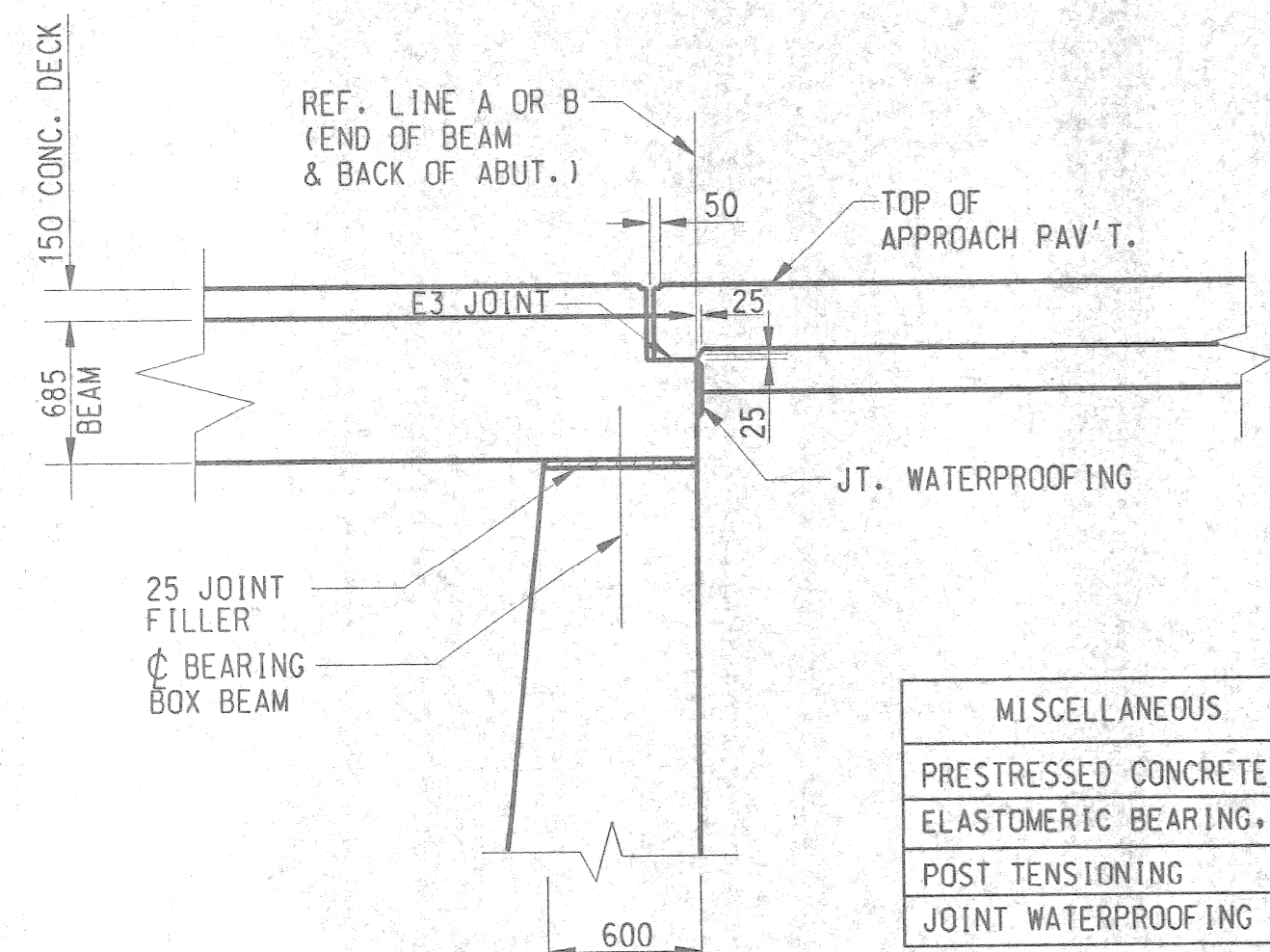
CENTRAL AVE.

ABUTMENT DETAILS

SCALE NOT TO SCALE

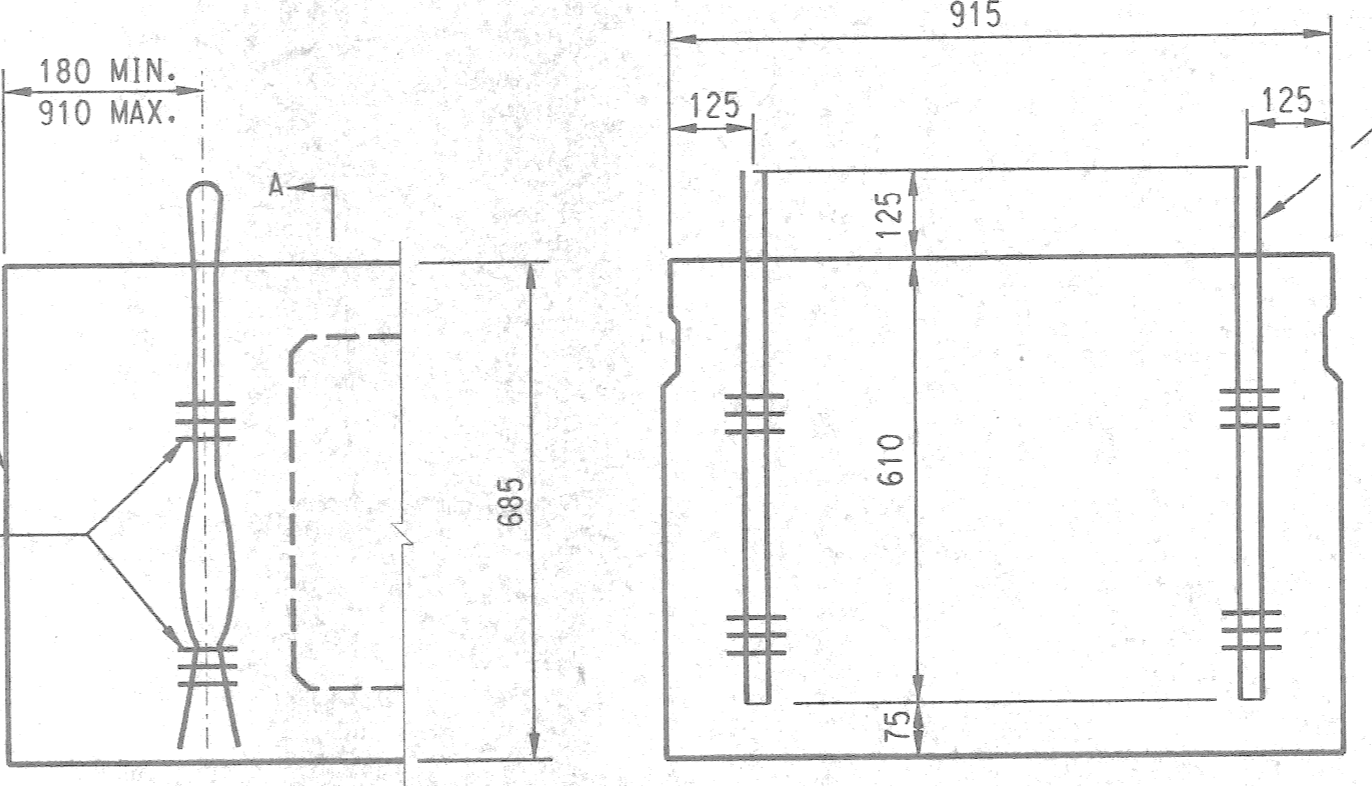
| | |
|-------------|---------|
| PROJECT NO. | 9810 |
| SHEET NO. | 6 OF 10 |

FILE NAME: 02SITE...DGN



| MISCELLANEOUS | UNITS | QUANTITIES |
|---------------------------------|----------------|------------|
| PRESTRESSED CONCRETE DECK 685mm | m ² | 348 |
| ELASTOMERIC BEARING, 26mm | m ² | 6.6 |
| POST TENSIONING | Lsum | 1 |
| JOINT WATERPROOFING | m ² | 70 |

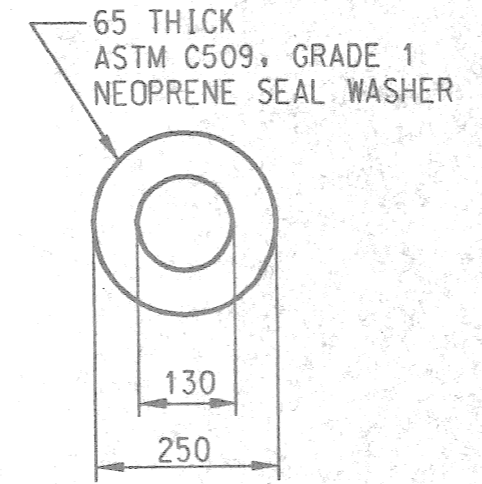
APPROACH SECTION
SCALE: NONE



ELEVATION SCALE: 1:10
SECTION A-A SCALE: 1:10

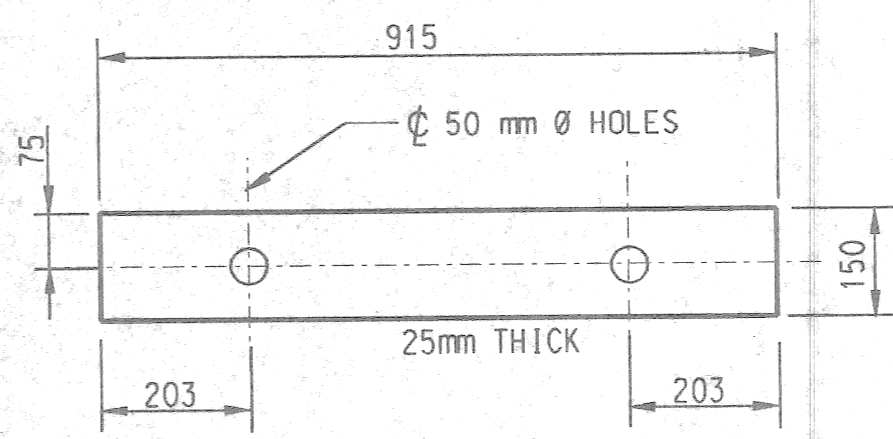
LIFTING DEVICE DETAIL

PLAN NOTE:
LIFTING DEVICES SHALL BE REMOVED.
REMOVAL IS INCLUDED IN THE BID ITEM
PRESTRESSED CONCRETE DECK, 685mm

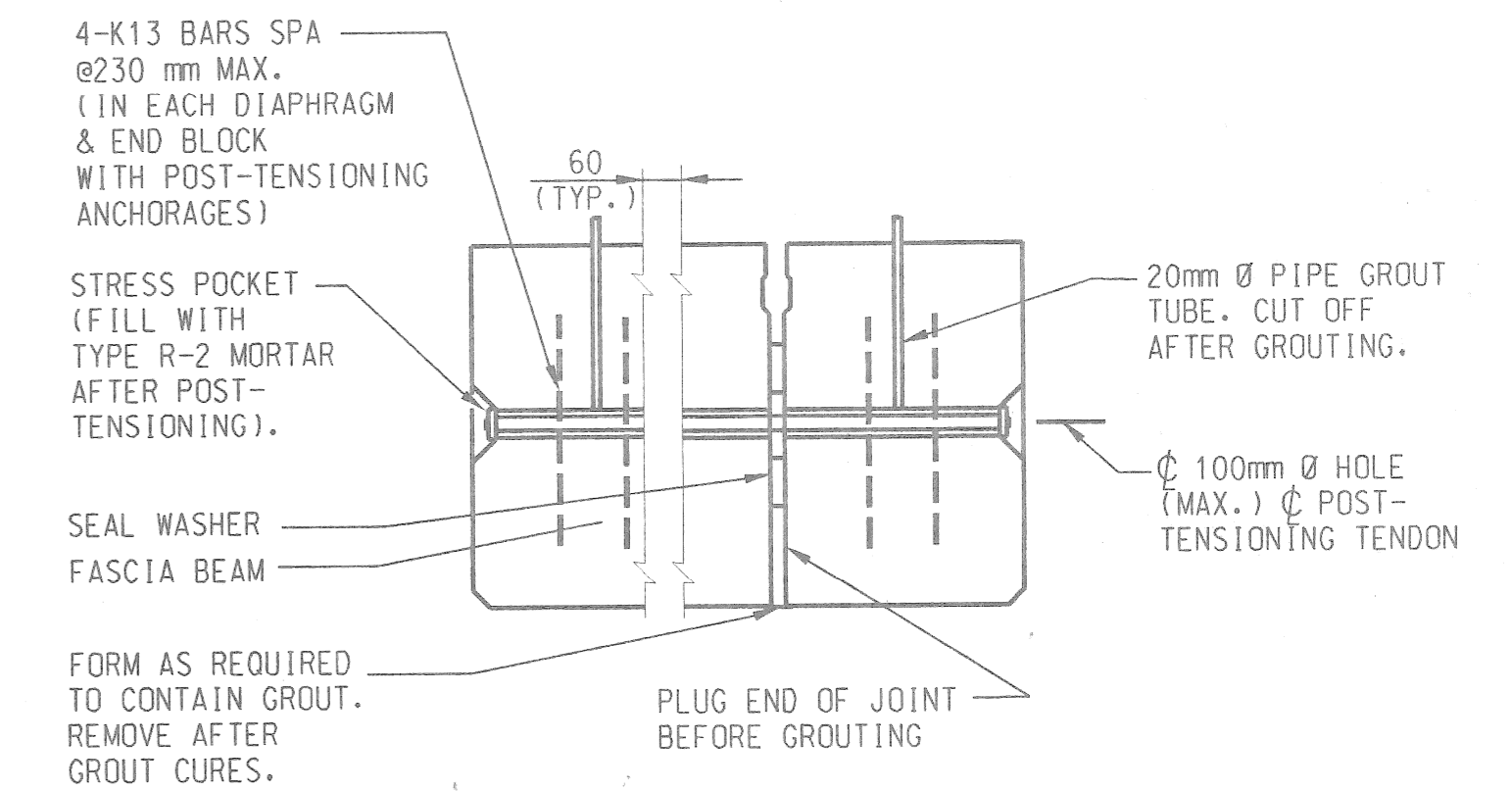


SEAL WASHER DETAIL
SCALE: 1:10

NOTE:
SEAL WASHER MAY BE 250 x 250 SQUARE
OPTIONAL. THE ENGINEER MAY APPROVE
OTHER MEANS OF SEALING.

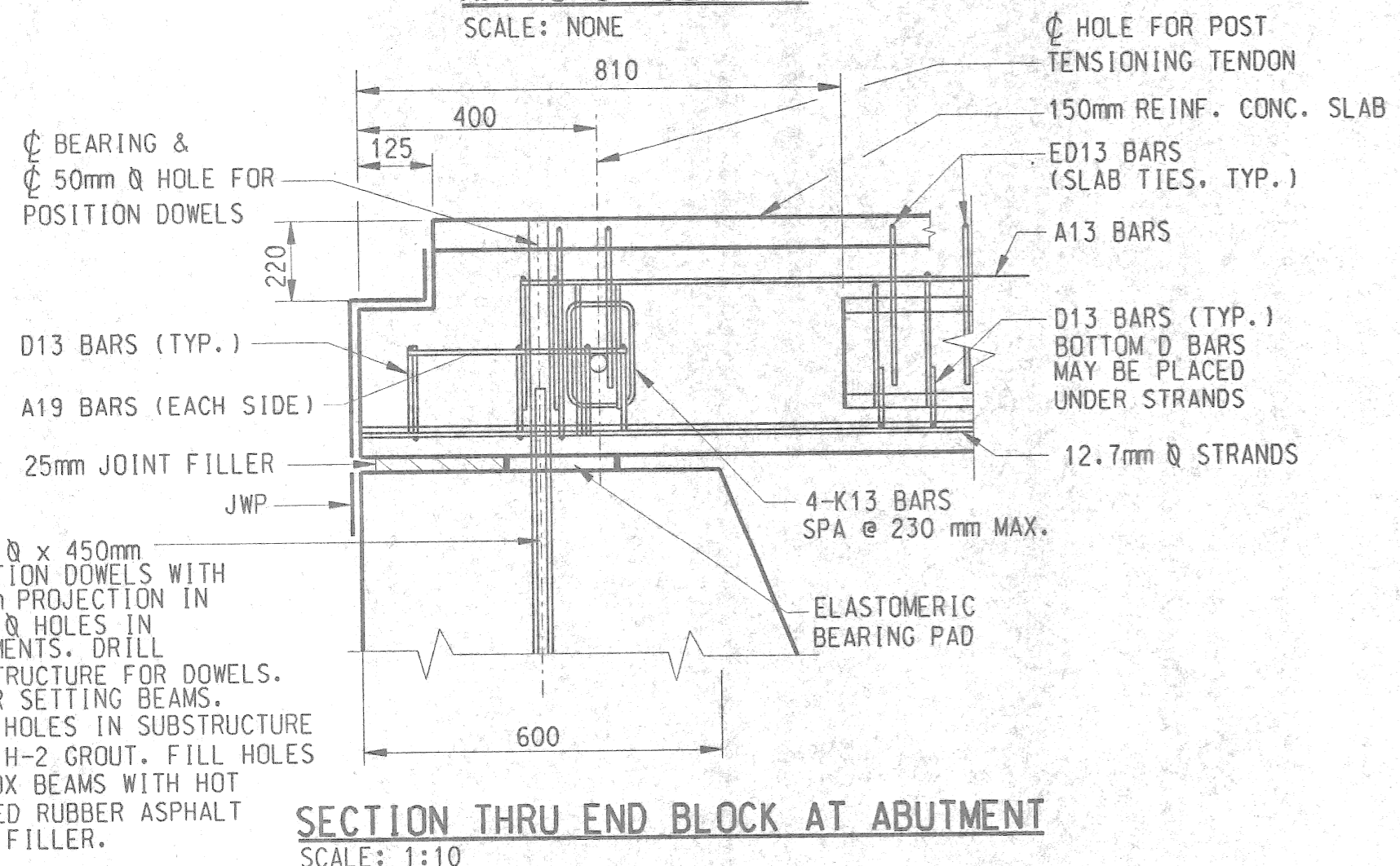


ELASTOMERIC BEARING PAD @ ABUTMENT
70 DUROMETER (48 REQ' D)

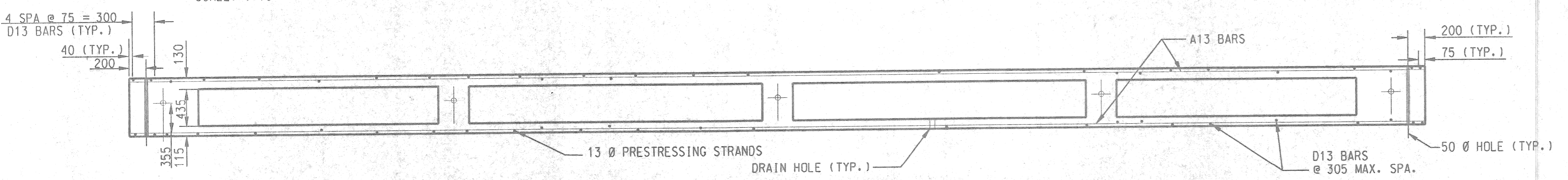


POST-TENSIONING DETAIL

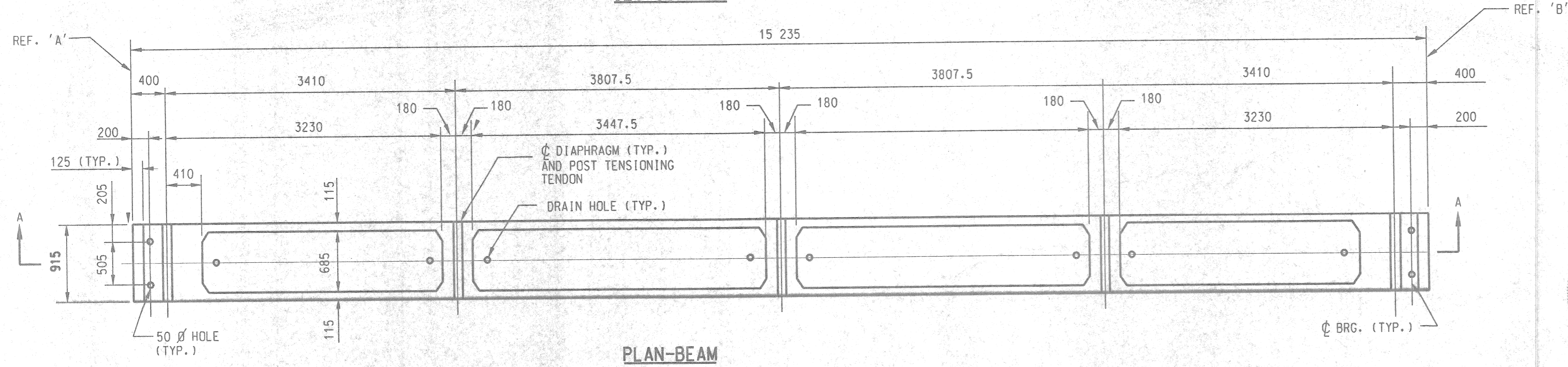
SCALE: NONE
PLAN NOTE:
STRESS POCKET, ANCHOR PLATES AND TENDON COUPLERS SHALL
BE AS REQUIRED FOR THE POST-TENSIONING SYSTEM PROVIDED.



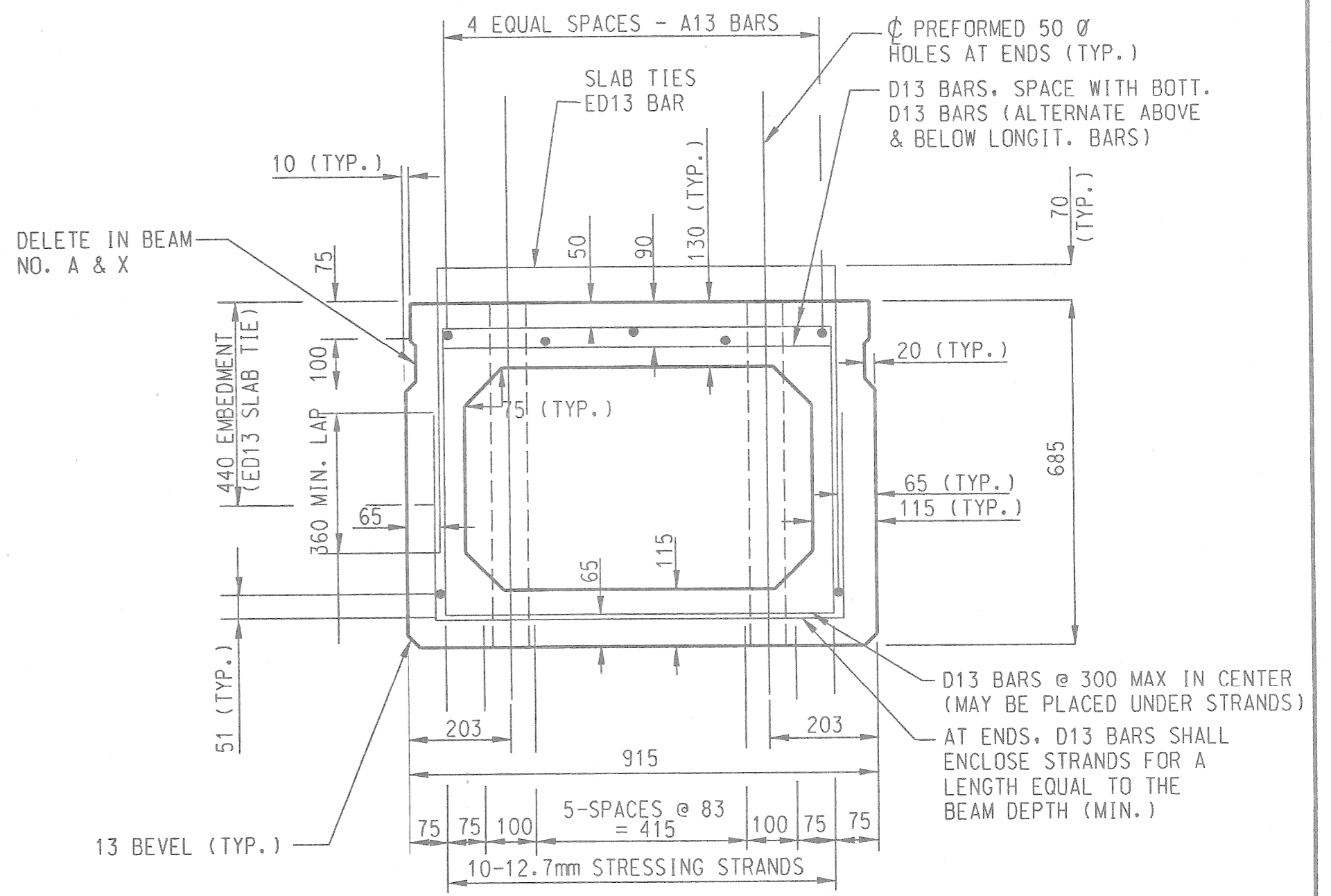
SECTION THRU END BLOCK AT ABUTMENT
SCALE: 1:10



SECTION A-A

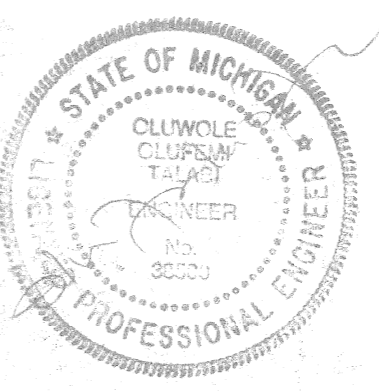


PLAN-BEAM



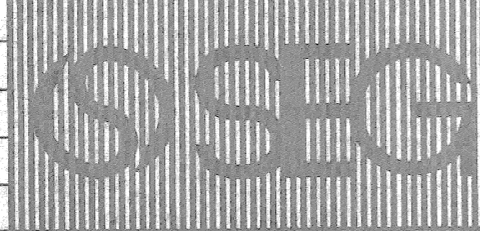
TYPICAL SECTION-BEAM
SCALE: 1:10

- NOTES:**
- THE COMPRESSIVE STRENGTH OF THE CONCRETE SHALL NOT BE LESS THAN 35 MPa AT 28 DAYS.
 - PRESTRESSING STRANDS SHALL BE GIVEN AN INITIAL PRESTRESS OF 138 KN.
 - THE COMPRESSIVE STRENGTH OF THE CONCRETE AT THE TIME PRESTRESSING FORCE RELEASED SHALL NOT BE LESS THAN 24 MPa.
 - TOTAL ESTIMATED CHANGE IN LENGTH OF BOTTOM FLANGE AT TRANSFER OF PRESTRESS FORCE IS 3mm.
 - THE ESTIMATED BEAM CAMBER AT RELEASE IS 18mm. THIS CAMBER IS DUE TO PRESTRESS AND DEAD LOAD OF THE BEAM ONLY AND IS MEASURED IN ERRECTED POSITION.
 - THE INITIAL FORCE IN THE TRANSVERSE POST TENSIONING TENDONS SHALL BE 365 kN.
 - LIFTING DEVICES SHALL BE REMOVED. REMOVAL IS INCLUDED IN THE BID ITEM "PRESTRESSED CONCRETE DECK, 685mm."
 - IF THE POSITION DOWELS AT THE ABUTMENTS ARE MISALIGNED DUE TO TEMPERATURE EFFECT ON THE BEAMS, HOLES IN ELASTOMERIC BEARINGS SHALL BE CENTERED ON DOWELS.
 - POSITION DOWELS SHALL BE HOT-DIP GALVANIZED ACCORDING TO AASHTO M 232.
 - POSITION DOWELS ARE INCLUDED IN THE PAYMENT FOR PRESTRESSED CONCRETE BOX BEAMS.
 - PRESTRESSING STRAND SHALL BE 12.7mm NOMINAL DIAMETER MEETING THE REQUIREMENTS OF ASTM A416M, GRADE 1860, LOW RELAXATION STRANDS.



ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS.
STATIONS ARE IN KILOMETERS & METERS.

| REVISIONS | DSGN BY | DR'N BY | CK'D BY | APP'D BY |
|-----------|---------|---------|---------|----------|
| | K.O. | A.A. | F.T. | F.T. |



SNELL ENVIRONMENTAL GROUP, INC.
A DLZ Company
51 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
TELEPHONE (313) 961-4040

FTA
FEMI TALABI & ASSOCIATES INC.
615 CRISWOLD, SUITE 1606, DETROIT, MICHIGAN, 48226
Making it better for you



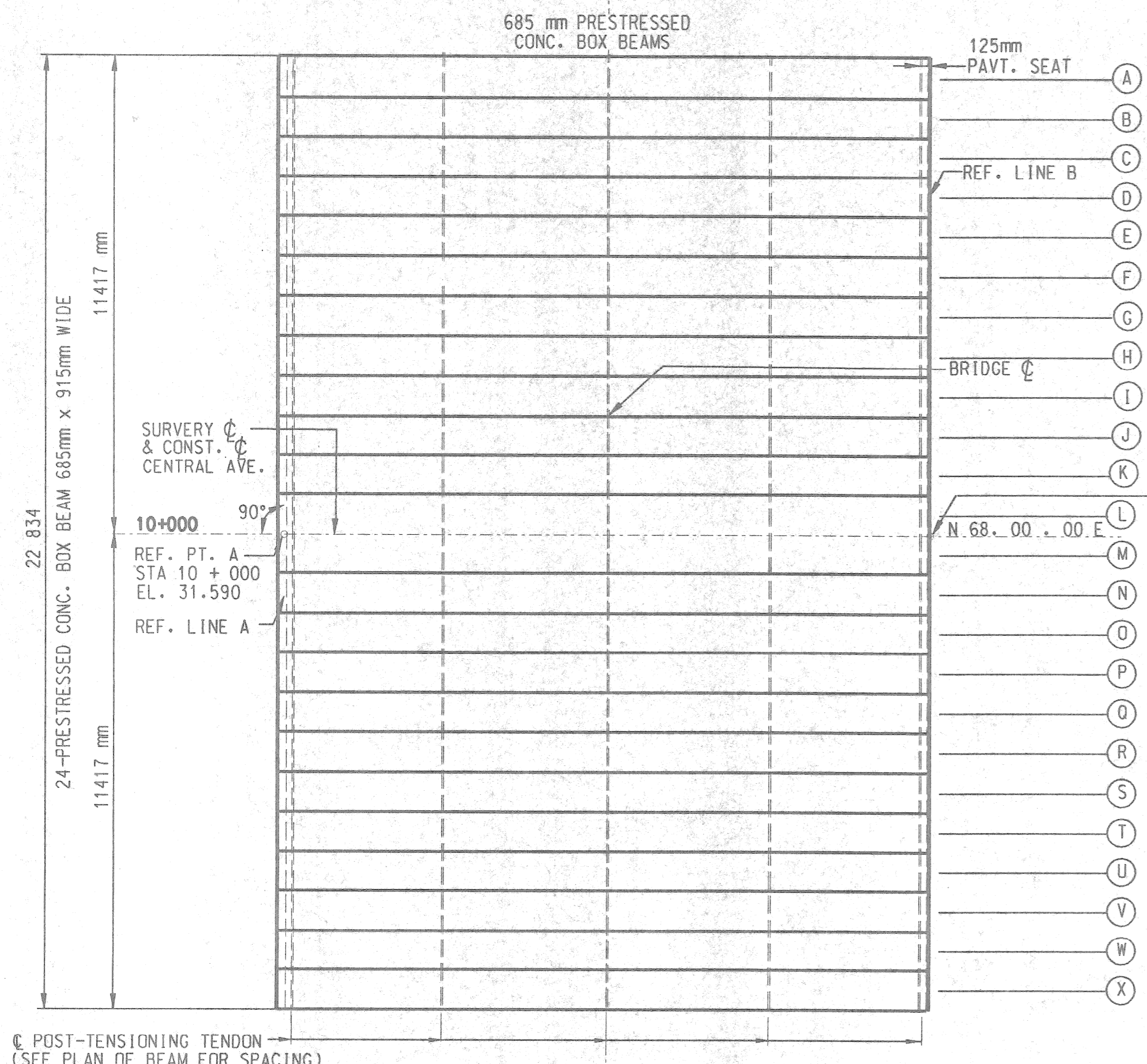
CITY OF DETROIT MICHIGAN

CENTRAL AVE.

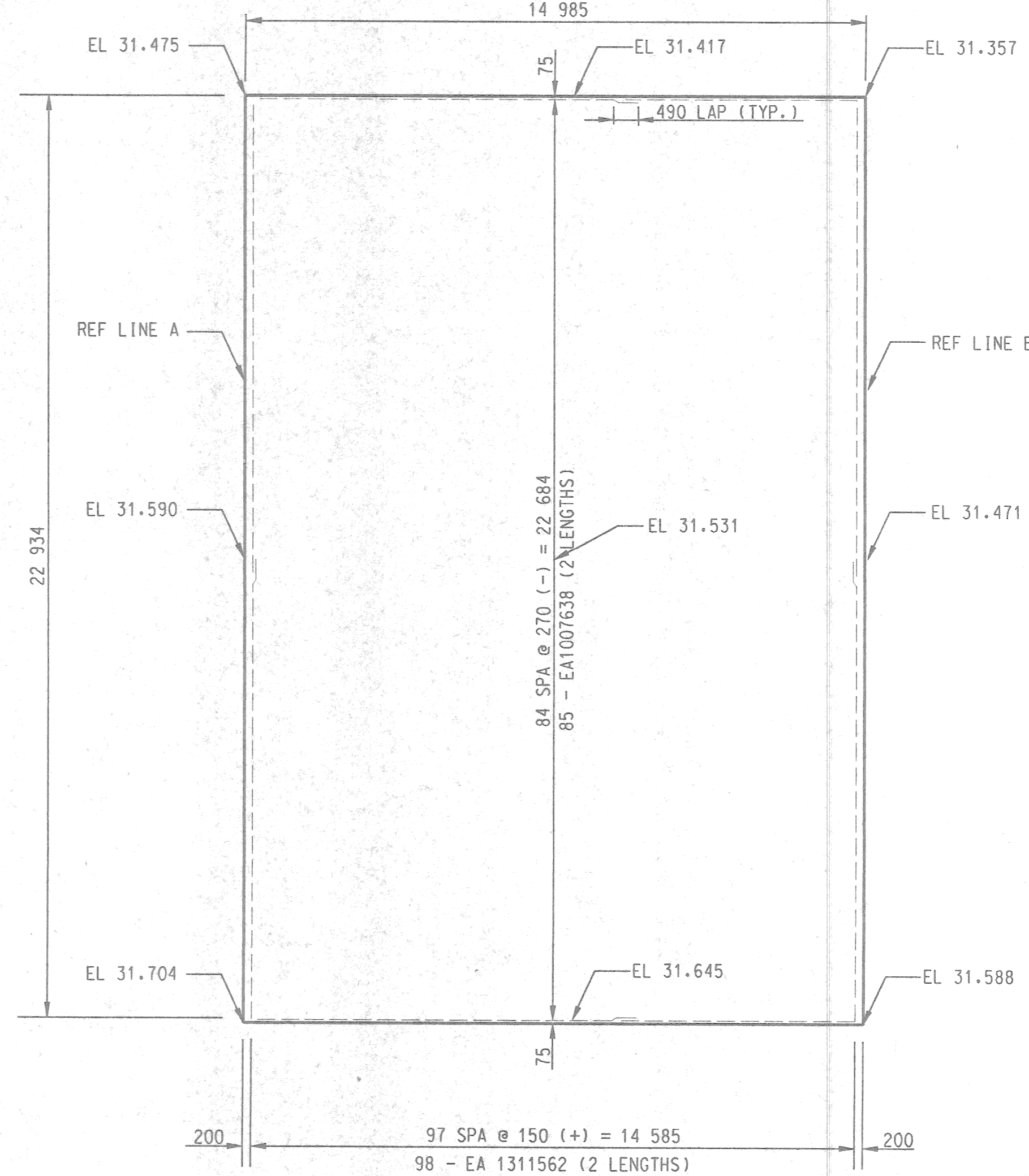
SUPER STRUCTURE DETAILS

| | |
|-------------|--------------|
| SCALE | NOT TO SCALE |
| PROJECT NO. | 9810 |
| SHEET NO. | 7 OF 10 |

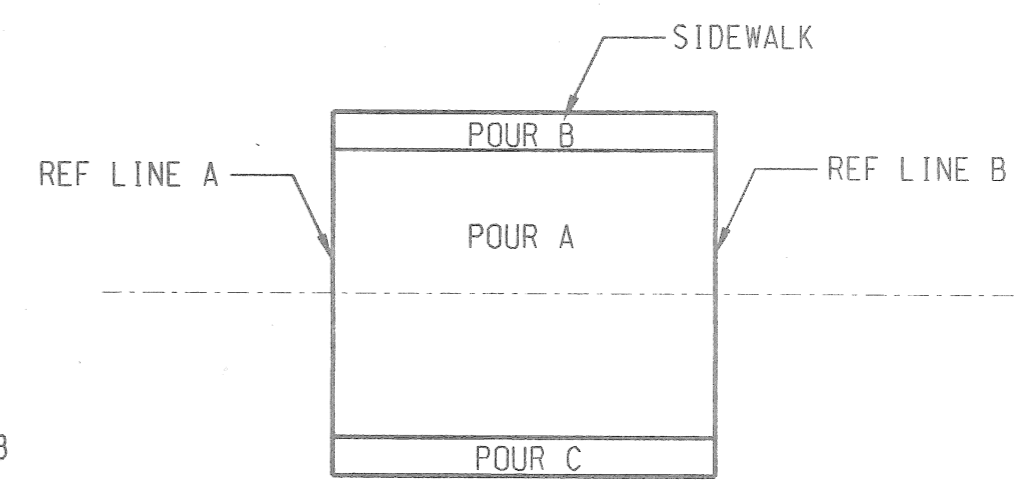
FILE NAME: 02SITE...DGN



ERECTION DIAGRAM



PLAN OF DECK SLAB

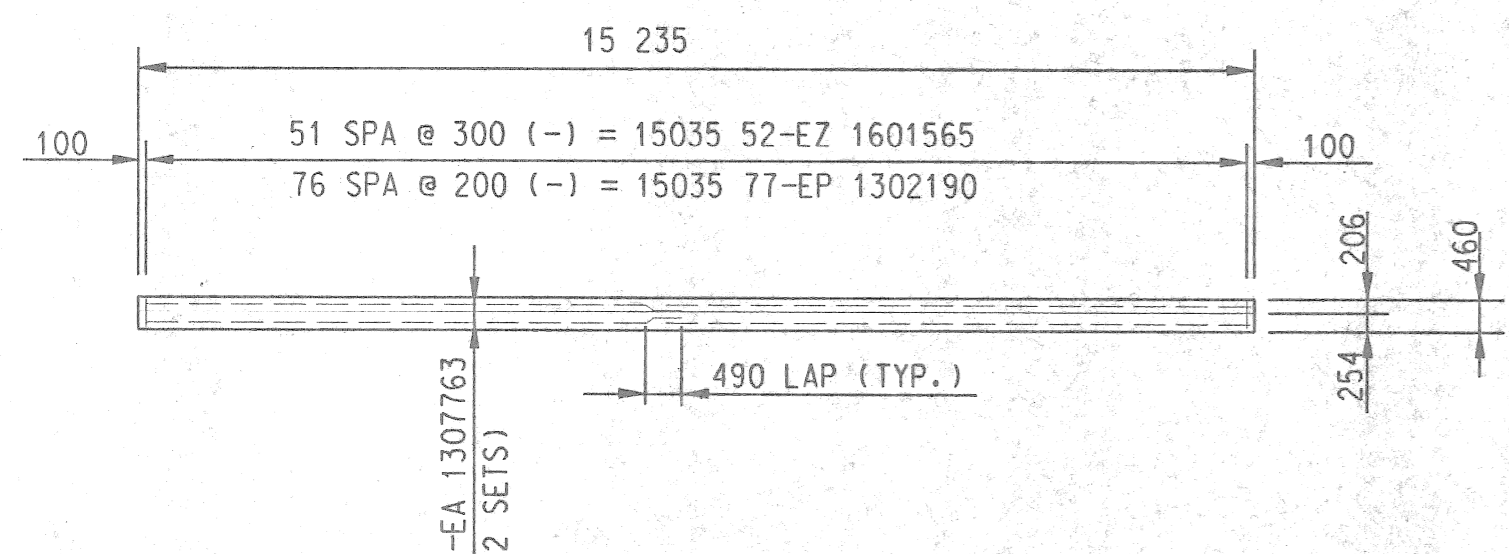


POUR DIAGRAM

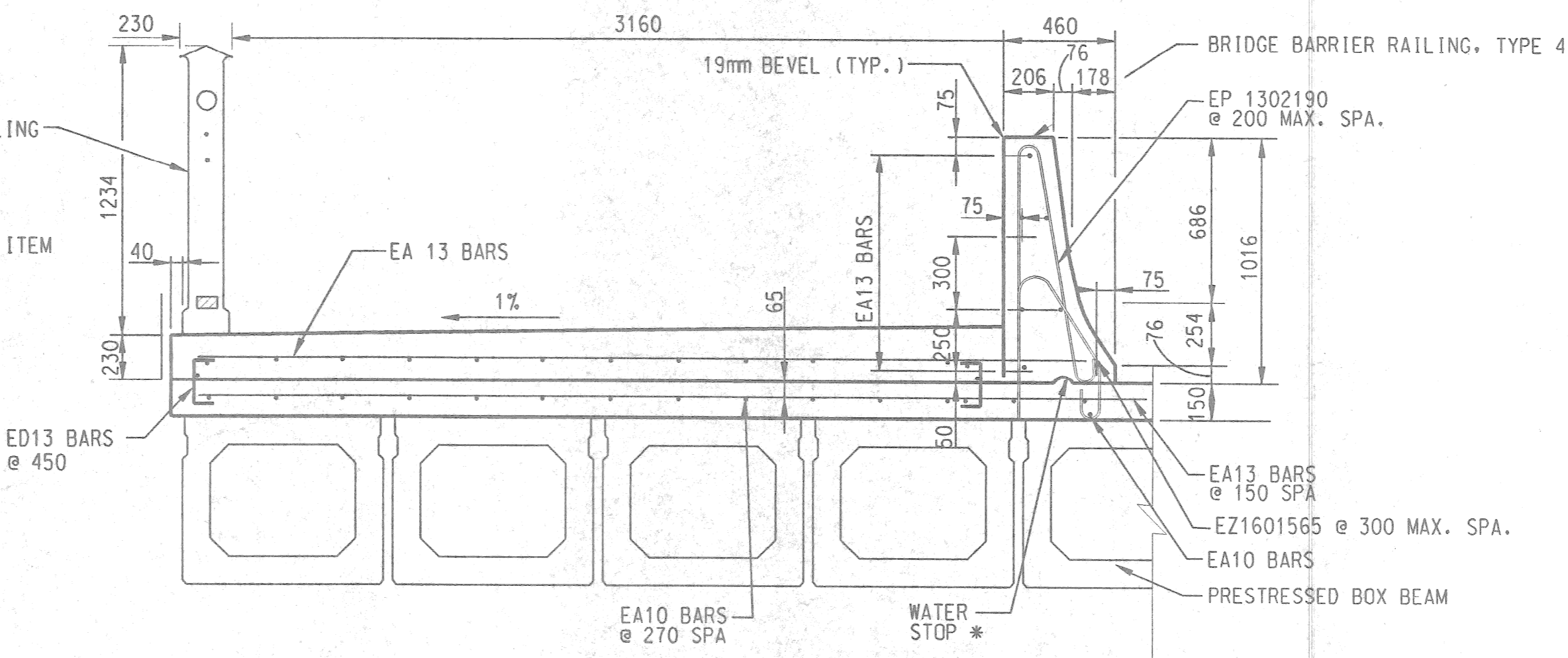
| SUPERSTRUCTURE CONCRETE | |
|-------------------------|-------------------------|
| POUR | QUANTITY |
| A | 51.4 m ³ |
| B | 12.8 m ³ |
| C | 12.8 m ³ |
| TOTAL | 77 m³ |

NOTES:

- FOR DETAIL OF NAME PLATES, MOLDING AND LEVELS, SEE STANDARD PLAN B-103 SERIES.
- FOR NAME PLATE LOCATION SEE GENERAL PLAN OF OF STRUCTURE SHEET.
- ALPHABETICAL DESIGNATION OF DECK POURS IS NOT TO BE CONSTRUED AS A POUR SEQUENCE
- BRIDGE BARRIER RAILING, TYPE 4 SHALL BE PROVIDED WITH A RUBBED SURFACE FINISH ON THE PEDESTRIAN SIDE AT NO ADDITIONAL COST.
- BRIDGE BARRIER RAILING, TYPE 4 SHALL BE PROVIDED WITH A RUBBED SURFACE FINISH ON THE PEDESTRIAN SIDE AT NO ADDITIONAL COST.

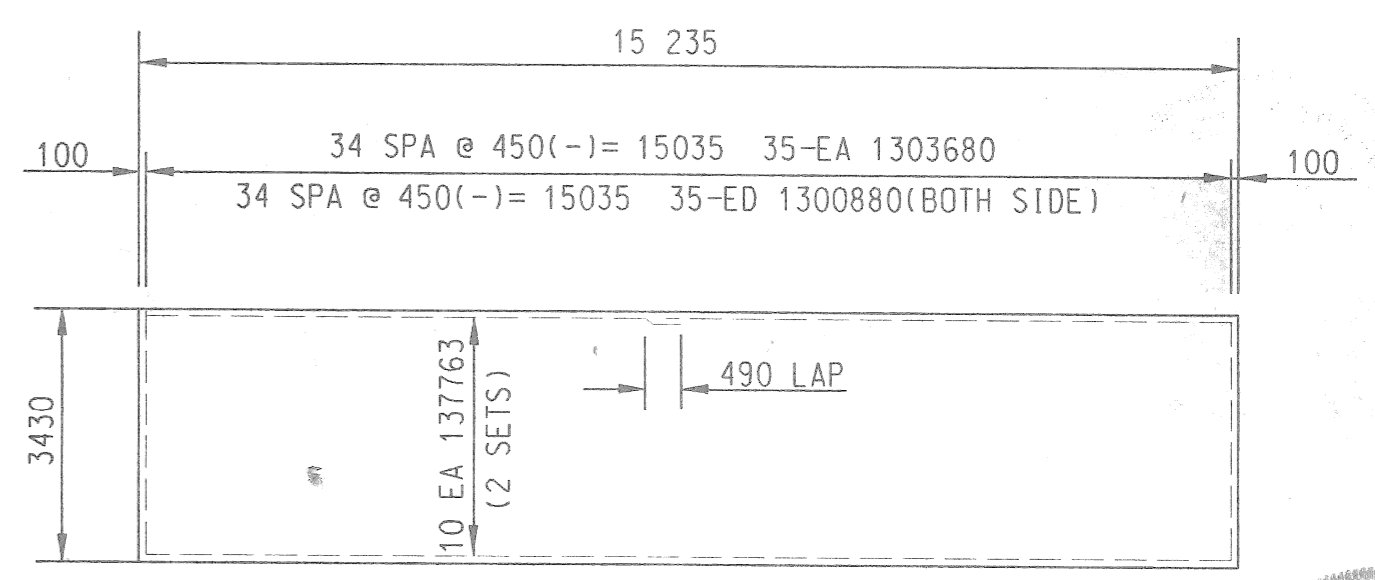


PLAN OF BRIDGE BARRIER RAILING (TYP. BOTH SIDES)



TYPICAL DECK SECTION THRU SIDEWALK

NOTE
* 50 mm HIGH x 100 mm LONG (FORMING NOT REQ'D)

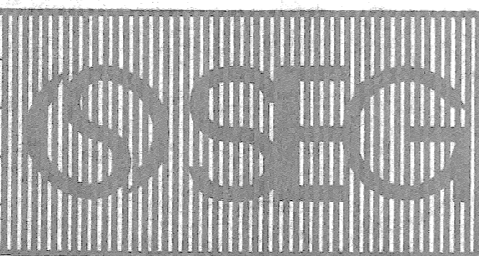


PLAN OF SIDEWALK

ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.

| MISCELLANEOUS | UNITS | QUANTITIES |
|---|----------------|------------|
| BRIDGE BARRIER OR RAILING, TYPE 4 | m | 31 |
| STRUCTURE NAME PLATE | Ea | 1 |
| SUPERSTRUCTURE CONCRETE | m ³ | 77 |
| FORMING, FINISHING & CURING SUPERSTRUC. CONC. | LSUM | 1 |
| CONCRETE QUALITY ASSURANCE | m ³ | 223 |
| CONCRETE QUALITY INITIATIVE | dir | 1400 |

| REVISIONS | DSGN BY | DR'N BY | CK'D BY | APP'D BY |
|-----------|---------|---------|---------|----------|
| | K.O. | A.A. | F.T. | F.T. |



SNELL ENVIRONMENTAL GROUP, INC.
A DLZ Company
351 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226
TELEPHONE (313) 961-4040

F.T.A.
FEMI TALABI & ASSOCIATES INC.
615 CRISWOLD, SUITE 1606, DETROIT, MICHIGAN, 48226



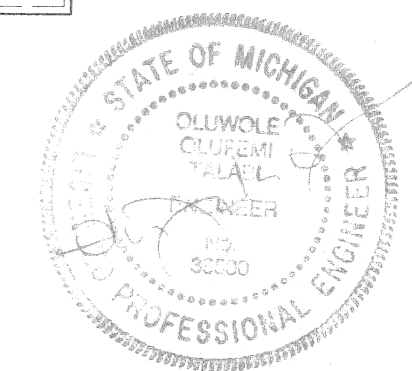
CITY OF DETROIT MICHIGAN

CENTRAL AVE.

SUPER STRUCTURE DETAILS

| SCALE | NOT TO SCALE |
|-------------|--------------|
| PROJECT NO. | 9810 |
| SHEET NO. | 8 OF 10 |

FILE NAME: 02S1E...DGN



APPROACHES - PARTICIPATING

| ITEM CODE | ITEM | UNIT | AMOUNT |
|-----------|--|------|--------|
| 1500000 | MOBILIZATION, MAX | lsum | 1 |
| 2040005 | CURB, REM | m | 61 |
| 2040008 | GUARDRAIL, REM | m | 28 |
| 2040013 | SIDEWALK, REM | m2 | 61 |
| 3020010 | AGGREGATE BASE 100mm | m2 | 462 |
| 3070106 | SHOULDER CI 1, 100mm | m2 | 244 |
| 5020060 | BIT MIX, 11A | T | 93 |
| 6020156 | CONC. PAVT/MISC REINF. 220mm | m2 | 462 |
| 8027102 | MISC CONC. CURB, DETAIL CD | m | 61 |
| 8030002 | SIDEWALK CONC. 100mm | m2 | 61 |
| 8070040 | GUARDRAIL ANCHORAGE, BRIDGE DETAIL T-1 | ea | 2 |
| 8120026 | PLASTIC DRUM, LIGHTED, FURN. | ea | 30 |
| 8120027 | PLASTIC DRUM, LIGHTED, OPER. | ea | 30 |
| 8120036 | BARRICADE, TYPE III, LIGHTED, FURN. | ea | 6 |
| 8120037 | BARRICADE, TYPE III, LIGHTED, OPER. | ea | 6 |
| 8160001 | SIGN, TYPE B, TEMP. | m2 | 30 |
| 8160001 | SODDING, CL A | m2 | 220 |
| 8160033 | TOP SOIL SURFACE, FURN 50mm | m2 | 220 |

BRIDGE

| ITEM CODE | ITEM | UNIT | AMOUNT |
|-----------|---|------|--------|
| 2040020 | STRUCTURES, REM. | lsum | 1 |
| 2060002 | BACKFILL, STRUCTURE, CIP | m3 | 580 |
| 2060011 | EXCAVATION, FOUNDATION | m3 | 580 |
| 6050100 | CONCRETE QUALITY ASSURANCE | m3 | 233 |
| 6050101 | CONCRETE QUALITY INITIATIVE | d1r | 1400 |
| 7040007 | COFFERDAMS | lsum | 1 |
| 7050030 | STEEL PILE, FURNISHED AND DRIVEN | m | 1064 |
| 7050041 | TEST PILE, STEEL | ea | 2 |
| 7050150 | PILE DRIVING EQUIPMENT, FURN. | lsum | 1 |
| 7060002 | CONCRETE, GRADE T | m3 | 67 |
| 7060020 | SUBSTRUCTURE CONCRETE | m3 | 160 |
| 7060022 | SUPERSTRUCTURE CONCRETE | m3 | 77 |
| 7060024 | FORMING, FINISHING & CURING SUPERSTRUCTURE CONCRETE | lsum | 1 |
| 7060030 | REINFORCEMENT, STEEL | kg | 7736 |
| 7060031 | REINFORCEMENT, STEEL, EPOXY COATED | kg | 3384 |
| 7060050 | STRUCTURE NAME PLATE | ea | 1 |
| 7060052 | WATER REPELLENT TREATMENT | m2 | 47 |
| 7070065 | ELASTOMERIC BEARING, 26mm | m2 | 6.6 |
| 7080004 | PRESTRESSED CONC. DECK, 685 mm | m2 | 348 |
| 7080015 | POST TENSIONING | lsum | 1 |
| 7100001 | JOINT WATERPROOFING | m2 | 72.4 |
| 7110022 | BRIDGE BARRIER RAILING, TYPE 4 | m | 31 |
| 8130015 | RIPRAP, HEAVY | m2 | 320 |

NON PARTICIPATING QUANTITIES

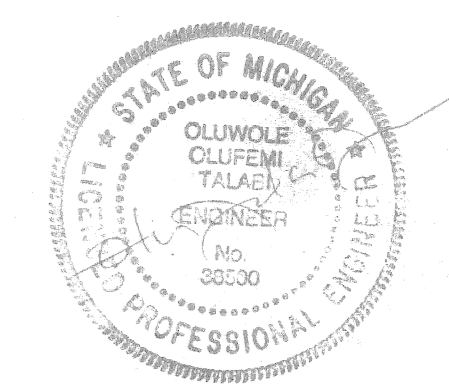
| ITEM CODE | ITEM | UNIT | AMOUNT |
|-----------|------|------|--------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

STEEL REINFORCEMENT

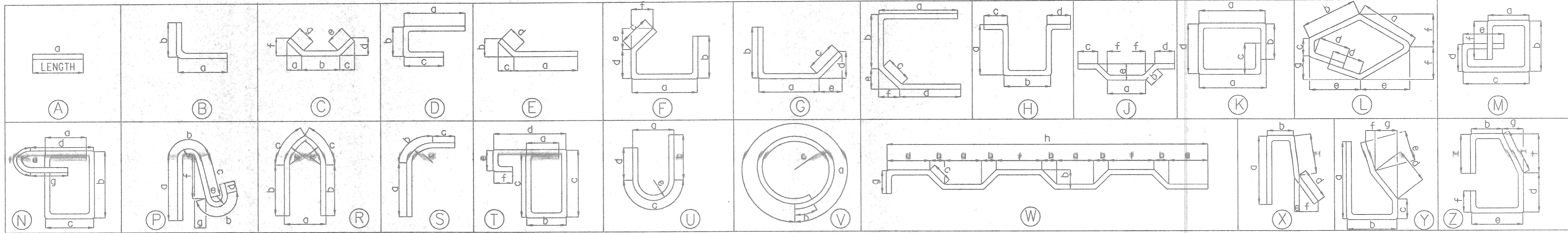
| BAR | DIMENSIONS | | | | | | | | LENGTH | NO. REQ'D | TOTAL WT. (kg) |
|---------------------------|------------|------|------|------|------|------|------|---|--------|-----------|----------------|
| | a | b | c | d | e | f | g | h | | | |
| EB1304350 | 3450 | 900 | | | | | | | 4358 | 12 | 52 |
| EB1304800 | 3900 | 900 | | | | | | | 4808 | 12 | 57 |
| ED1302350 | 1100 | 150 | 1100 | | | | | | 2350 | 60 | 140 |
| A1904650 | 4650 | | | | | | | | 4650 | 56 | 582 |
| A1912450 | 12450 | | | | | | | | 12450 | 20 | 557 |
| B1902600 | 1250 | 1350 | | | | | | | 2600 | 40 | 232 |
| C1903610 | 360 | 450 | 0 | 1560 | 1560 | 1560 | 1600 | | 3610 | 280 | 2259 |
| F1904210 | 1050 | 1560 | 1600 | 0 | 1560 | 360 | | | 4210 | 280 | 2635 |
| F1903860 | 1480 | 0 | 2380 | 0 | 2230 | 850 | | | 3860 | 4 | 35 |
| A2512450 | 12450 | | | | | | | | 12450 | 20 | 989 |
| B2502500 | 1250 | 1250 | | | | | | | 2500 | 8 | 80 |
| B2503700 | 1300 | 2400 | | | | | | | 3700 | 8 | 118 |
| TOTAL STEEL REINFORCEMENT | | | | | | | | | | 7736 | kg |

STEEL REINFORCEMENT, EPOXY

| BAR | DIMENSIONS | | | | | | | | LENGTH | NO. REQ'D | TOTAL WT. (kg) |
|---------------------------|------------|-----|-----|-----|-----|-----|-----|-----|--------|-----------|----------------|
| | a | b | c | d | e | f | g | h | | | |
| EA 10 07638 | 7638 | | | | | | | | 7638 | 172 | 736 |
| EA 13 11562 | 11562 | | | | | | | | 11562 | 196 | 2253 |
| EA 13 07763 | 7763 | | | | | | | | 7763 | 34 | 262 |
| EA 13 03680 | 3680 | | | | | | | | 3680 | 35 | 128 |
| ED 13 00880 | 270 | 340 | | | | | | | 880 | 70 | 61 |
| EP 13 02190 | 910 | 170 | 865 | 75 | 40 | 860 | 95 | | 2190 | 77 | 168 |
| EZ 16 01565 | 565 | 95 | 440 | 210 | 130 | 125 | 260 | 355 | 1565 | 52 | 126 |
| TOTAL STEEL REINFORCEMENT | | | | | | | | | | 3734 | kg. |



NOTES:
 TOLERANCE IN CUTTING AND BENDING BARS ARE AS ESTABLISHED IN THE MANUAL OF STANDARD PRACTICE OF THE CONCRETE REINFORCING INSTITUTE AND DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE. STEEL FOR REINFORCING SHALL BE INTERMEDIATE OR HARD GRADE ONLY.
 ALL RIGHT ANGLE BENDS IN REINFORCING STEEL TO BE MADE ABOUT A PIN OF MINIMUM DIAMETER ALLOWED BY THE STANDARD SPECIFICATIONS.
 ALL DIMENSIONS ON THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ELEVATIONS, COORDINATIONS, AND CURVE ALIGNMENT DATA ARE IN METERS. STATIONS ARE IN KILOMETERS & METERS.

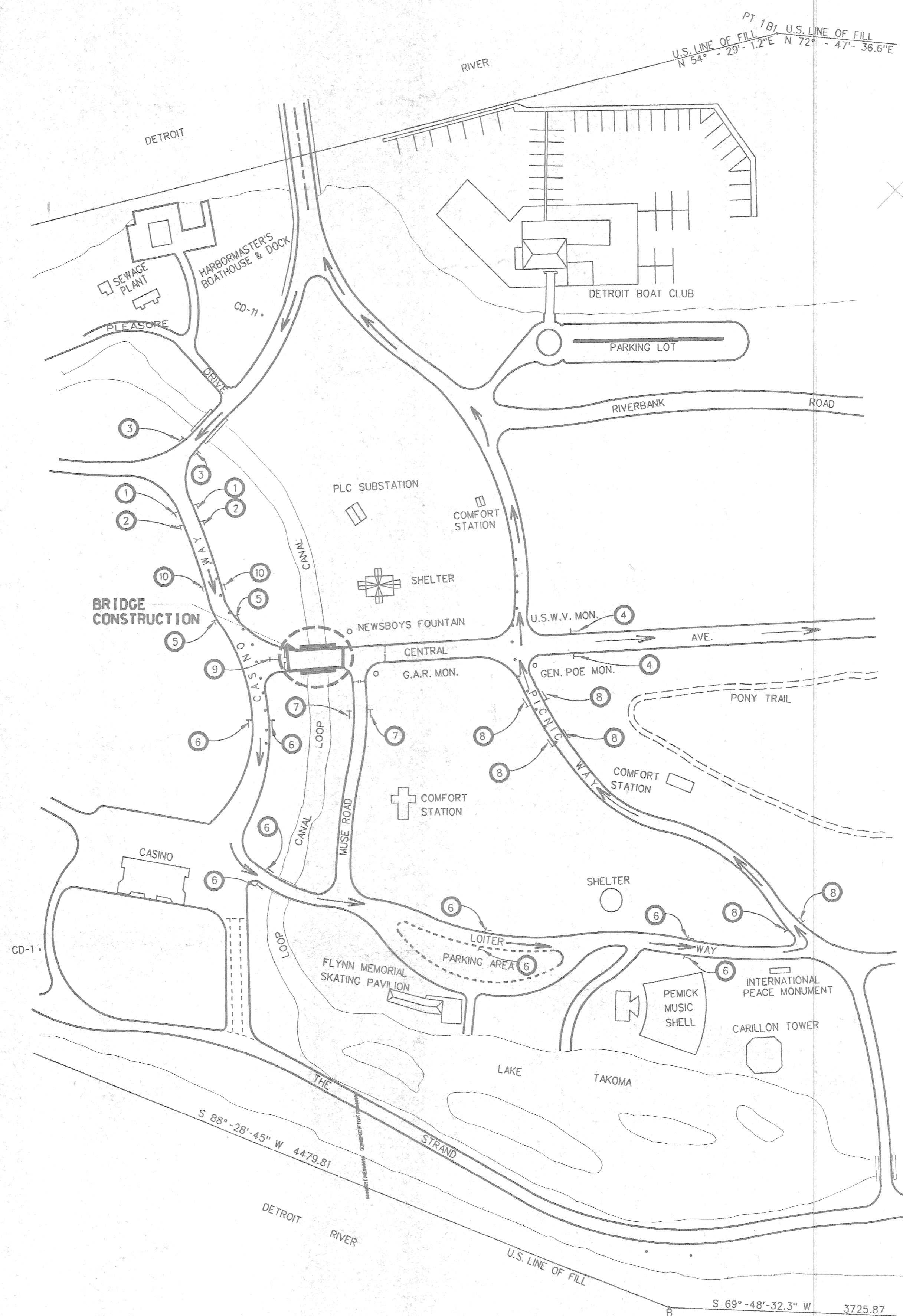


| | | | | | | | | | | | | |
|-----------|----------|------|---|--|---|--|--|---------------------------------|---------------------|---------------------------------------|-------------|--------------|
| REVISIONS | DSGN BY | K.O. | - | | SNELL ENVIRONMENTAL GROUP, INC. A DLZ Company 151 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226 TELEPHONE (313) 961-4040 | | PENI TALABI & ASSOCIATES INC. 815 Griswold, Suite 1500, Detroit, Michigan, 48226 Making it better for you | CITY OF DETROIT MICHIGAN | CENTRAL AVE. | SUMMARY OF STEEL REINFORCEMENT | SCALE | NOT TO SCALE |
| | DR'N BY | A.A. | - | | | | | | | | PROJECT NO. | 9810 |
| | CK'D BY | F.T. | - | | | | | | | | SHEET NO. | 9 OF 10 |
| | APP'D BY | F.T. | - | | | | | | | | FILE NAME: | 02SITE .DGN |

| SIGN CHART | | | | |
|-------------|------|------------------|-----------|-----------------|
| I.D. NUMBER | SIGN | SIGN DESIGNATION | SIZE | NUMBER REQUIRED |
| 1 | | W20-3 | 1200X1200 | 2 |
| 2 | | W20-2 | 1200X1200 | 2 |
| 3 | | W20-2 | 1200X1200 | 2 |
| 4 | | D3-1 | 900X300 | 2 |
| | | M6-1b | 525X375 | 2 |
| 5 | | R11-2 | 1200X750 | 2 |
| | | M4-10 | 1200X450 | 2 |
| 6 | | D3-1 | 900X300 | 8 |
| | | M4-9 | 750X600 | 8 |
| 7 | | D3-1 | 900X300 | 2 |
| | | M4-9 | 750X600 | 2 |
| 8 | | D3-1 | 900X300 | 6 |
| | | M4-9 | 750X600 | 6 |
| 9 | | R11-2 | 1200X750 | 1 |
| 10 | | W20-3 | 1200X1200 | 2 |
| | | D3-1 | 900X300 | 2 |

| MISCELLANEOUS QUANTITIES | | |
|---|------|--------|
| ITEM | UNIT | AMOUNT |
| BARRICADE, TYPE 111, LIGHTED, OPER | ea | 6 |
| BARRICADE, TYPE 111, LIGHTED, FURN | ea | 6 |
| PLASTIC DRUM, LIGHTED, FURN | ea | 30 |
| PLASTIC DRUM, LIGHTED, OPER | ea | 30 |
| SIGN, TYPE B, TEMPORARY, RETROREFLECTIVE SHEETING | ea | 29 |
| | | |
| | | |

| SIGN TYPE LEGEND | |
|------------------|--------------------|
| | SIGN, TYPE B |
| | TYPE 111 BARRICADE |



NOTES:

THE CONTRACTOR WILL FURNISH AND ERECT THE SIGNS LISTED ON THE SIGN CHART AT LOCATIONS SHOWN.

AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ANY ADDITIONAL SIGNS, BARRICADES AND LIGHTS WITHIN THE PROJECT TO PROTECT THE TRAFFIC AND WORK AREA.

THE CONTRACTOR SHALL PLACE SANDBAGS ON BARRICADES TO PREVENT MOVEMENT OF THE BARRICADES. THE CONTRACTOR SHALL ATTACH AND MAINTAIN THREE (3) STEADY BURN AMBER LIGHTS (TYPE "C") ON EACH OF THE BARRICADES.

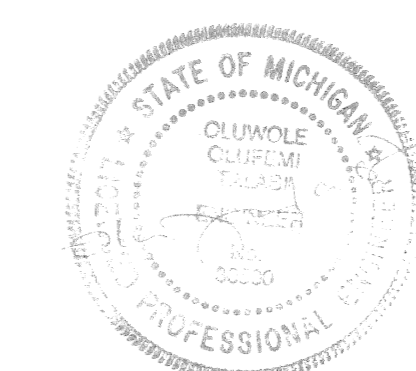
THE CONTRACTOR SHALL ATTACH AND MAINTAIN ONE (1) BATTERY OPERATED AMBER FLASHER LIGHTS (TYPE "A") AND ONE (1) ORANGE FLUORESCENT DAY-GLO FLAG ON EACH ADVANCE CONSTRUCTION SIGN (SIGNS ①, ② & ③).

TRAFFIC CONTROL SIGNS WHICH ARE REMOVED FROM THE VICINITY OF THE PROJECT DUE TO INTERFERENCE SHALL BE TURNED OVER TO THE CITY. UPON COMPLETION OF THE PROJECT, TRAFFIC CONTROL SIGNS AND STREET NAME SIGNS WILL BE RESET IN THEIR PROPER POSITION BY THE CONTRACTOR.

THE CONTRACTOR SHALL NOT BEGIN ANY OPERATIONS ON THE PROJECT UNTIL ALL OF THE SIGNS HAVE BEEN POSITIONED AND FLASHER LIGHTS AND FLAGS ARE ATTACHED TO ALL REQUIRED SIGNS AND BARRICADES.

ANY OTHER SIGNS WHICH THE CONTRACTOR MAY BE REQUIRED TO FURNISH SHALL CONFORM TO MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ALL CONSTRUCTION SIGNS SHALL CONFORM TO MDT 1996 STANDARD SPECIFICATIONS FOR CONSTRUCTION 812.02.B.1.



| REVISIONS | DESCRIPTION | DATE |
|-----------|-------------|------|
| | | |
| | | |
| | | |

| | | | | | | |
|--|--|--|--|--|--|---|
| | SNELL ENVIRONMENTAL GROUP, INC. <small>A DLZ Company</small> <small>951 W. CONGRESS, STE. 328, DETROIT, MICHIGAN 48226</small> <small>TELEPHONE (313) 961-4040</small> | | FEMI TALABI & ASSOCIATES INC. <small>615 CRISWOLD, SUITE 1505, DETROIT, MICHIGAN, 48226</small> <small>Making it better for you</small> | | CITY OF DETROIT MICHIGAN CENTRAL AVE. DETOUR PLAN | SCALE NOT TO SCALE PROJECT NO. 9810 SHEET NO. 10 OF 10 |
|--|--|--|--|--|--|---|

FILE NAME: D051E...DWG