

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

DEVIL CREEK BRIDGE AND APPROACHES TOWN OF SCOTT JOE SNOW ROAD LINCOLN COUNTY

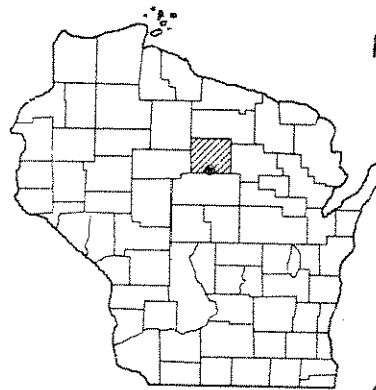
| STATE PROJECT | FEDERAL PROJECT | |
|---------------|-----------------|----------|
| | PROJECT | CONTRACT |
| 9861-01-70 | STP 35 99 (34) | 1 |
| | | |
| | | |

Index of Sheets

| Sheet No. | Title |
|-----------|--------------------------------------------------|
| 1 | Typical Sections and Details |
| 2.0 | Estimate of Quantities |
| 3 - 3.1 | Miscellaneous Quantities |
| 3A | Right of Way Plat |
| 5.0 | Plan and Profile (INCLUDES EROSION CONTROL PLAN) |
| 6-6.5 | Standard Detail Drawings |
| 8 - 8.9 | Sign Plates |
| 9.0 | Structure Plans |
| | Computer Earthwork Data |
| | Cross Sections |

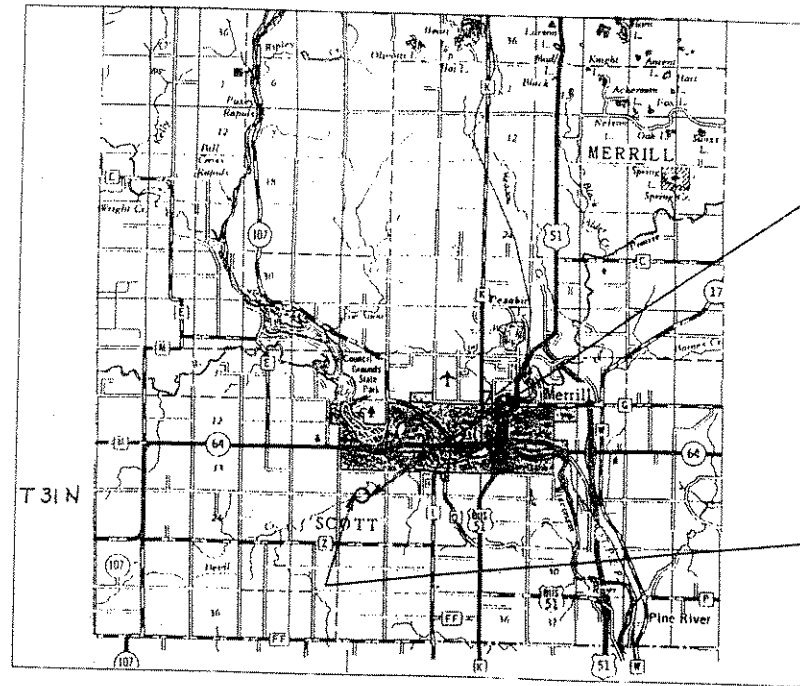
TOTAL SHEETS = 23

AS-BUILT PLAN



Project Engineer: Allen M. Wesolowski
Begin Construction: August 21, 1996
Completed: October 11, 1996
Diary Nos: 96-22

STATE PROJECT NUMBER
9861-01-70



END PROJECT 9861-01-70
STA. 31+00
N 485000.00
E 2066287.37

BEGIN PROJECT 9861-01-70
STA. 28+75
N 485000.00
E 2066062.37

Design Designation

| | |
|-------------|----------|
| A.D.T. 1994 | = 80 |
| A.D.T. 2014 | = 112 |
| D.H.V. | = N/A |
| D. | = 0.5 |
| T. % ADT | = 5 |
| V. DESIGN | = 40 MPH |

Contractors: Rozic Construction Co.
Sub-Contractors:
Bill L. Schwede Sr., Inc.
Hi-Beam Erecting, Inc.
Traffic Signing & Marking, Inc.
American Asphalt of Wisconsin
Rent-A-Flash of Wisconsin
Timberline Contractors.

Conventional Signs

| | | | |
|--------------------------|--------|-----------------------|-------|
| COUNTY LINE | ----- | COMBUSTIBLE FLUIDS | |
| CORPORATE LIMITS | ////// | UNDERGROUND UTILITIES | |
| PROPERTY LINE | ----- | GAS | — G — |
| LOT LINE | ----- | ELECTRIC | — E — |
| LIMITED HIGHWAY EASEMENT | ----- | TELEPHONE | — T — |
| EXISTING RIGHT OF WAY | ----- | SERVICE PEDESTAL | |
| NEW RIGHT OF WAY | ----- | CABLE MARKER | — I — |
| SURVEY LINE | ----- | POWER POLE | |
| SLOPE INTERCEPT | ----- | TELEPHONE POLE | |
| ORIGINAL GROUND | ----- | RAILROAD | |
| MARSH OR ROCK PROFILE | ----- | MARSH AREA | |
| CULVERT IN PLACE | ===== | WOODED AREA | |
| PROPOSED CULVERT | ===== | | |
| CULVERT | ===== | | |

Layout
SCALE 0 2 MILES
TOTAL NET LENGTH OF CENTERLINE = 0.0426 MI.

ALL COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM, CENTRAL ZONE. COORDINATES WERE SCALED FROM U.S.G.S. TOPOGRAPHIC MAP MERRILL, WISCONSIN QUADRANGLE FOR IDENTIFICATION ONLY.

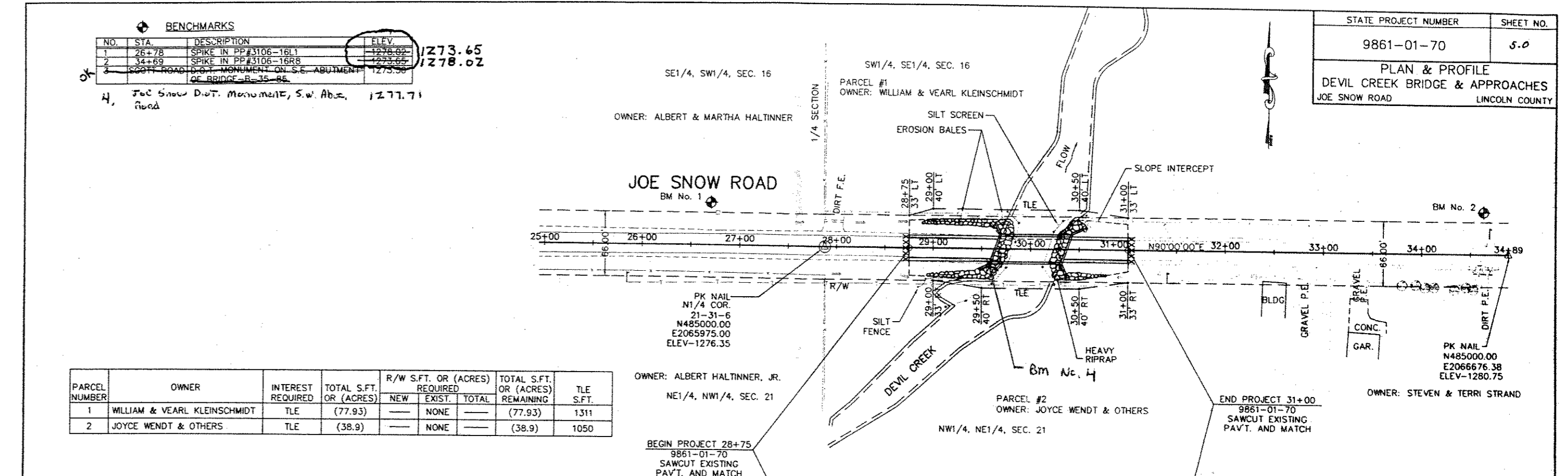
| |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACCEPTED FOR LINCOLN COUNTY BY Date: 12/16/96 <i>Peter Kachel</i> PETER KACHEL, HWY COMMISSIONER |
| ACCEPTED FOR TOWN OF SCOTT BY Date: 1-2-96 <i>Emil Pederson</i> EMIL PEDERSON, TOWN SUPERVISOR |
| ORIGINAL PLANS PREPARED BY BECHER-HOPPE ASSOC., Inc. WAUSAU, WISCONSIN DATE: 12/14/95 <i>Randal W. VanNatta</i> (Signature) |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION PREPARED BY: Surveyor: BECHER-HOPPE ASSOC. Designer: BECHER-HOPPE ASSOC. District Examiner: D. KUHN District Supervisor: A. PETERSON Proj. Dev. Engineer: D. MARG C.O. Examiner: D. MARG |
| APPROVED FOR DISTRICT OFFICE DATE: 1-8-96 <i>Henry E. Hagg</i> (Signature) |
| AUTHORIZED FOR CENTRAL OFFICE DESIGN DATE: _____ (Signature) |

9861-01-70
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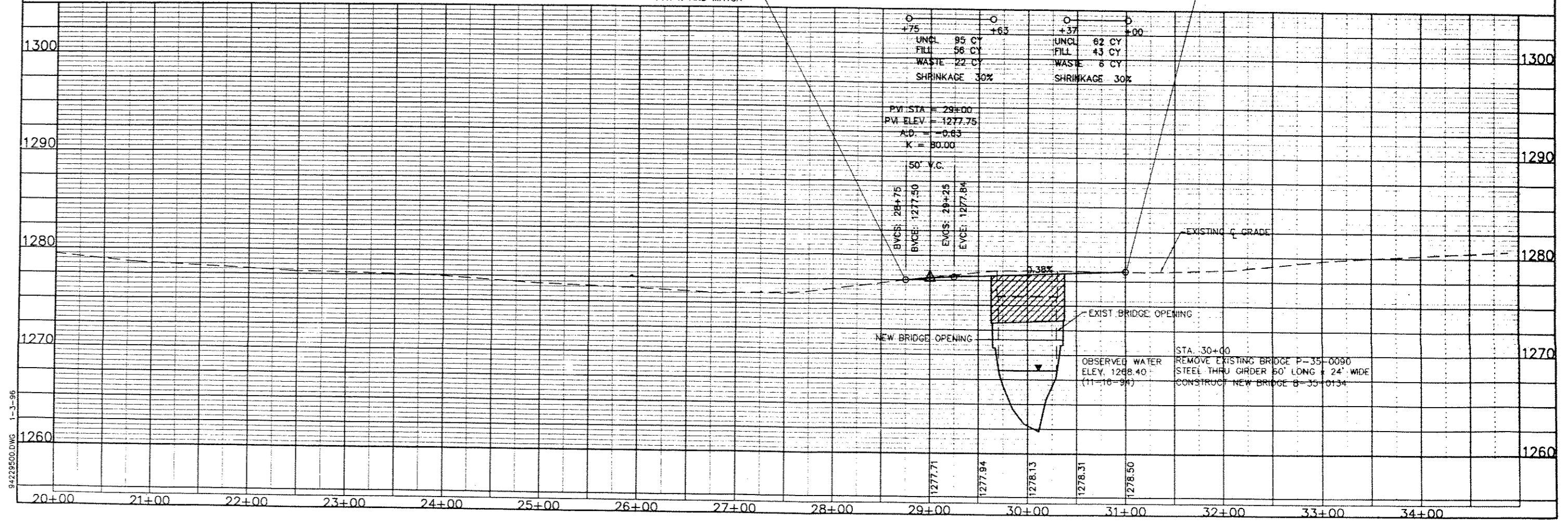
BENCHMARKS

| NO. | STA. | DESCRIPTION | ELEV. |
|-----|-------------------------------------------|-------------------------------------------------|---------|
| 1 | 26+78 | SPIKE IN PP#3106-16L1 | 1273.65 |
| 2 | 34+69 | SPIKE IN PP#3106-16R8 | 1278.02 |
| 3 | 220 FT ROAD | DOG MONUMENT ON S.E. ABUTMENT OF BRIDGE-B-35-85 | 1275.56 |
| 4 | Joe Snow D.U.T. Monument, S.W. Abut. Road | | 1277.71 |

| | |
|---------------------------------|-----------|
| STATE PROJECT NUMBER | SHEET NO. |
| 9861-01-70 | 5-0 |
| PLAN & PROFILE | |
| DEVIL CREEK BRIDGE & APPROACHES | |
| JOE SNOW ROAD LINCOLN COUNTY | |

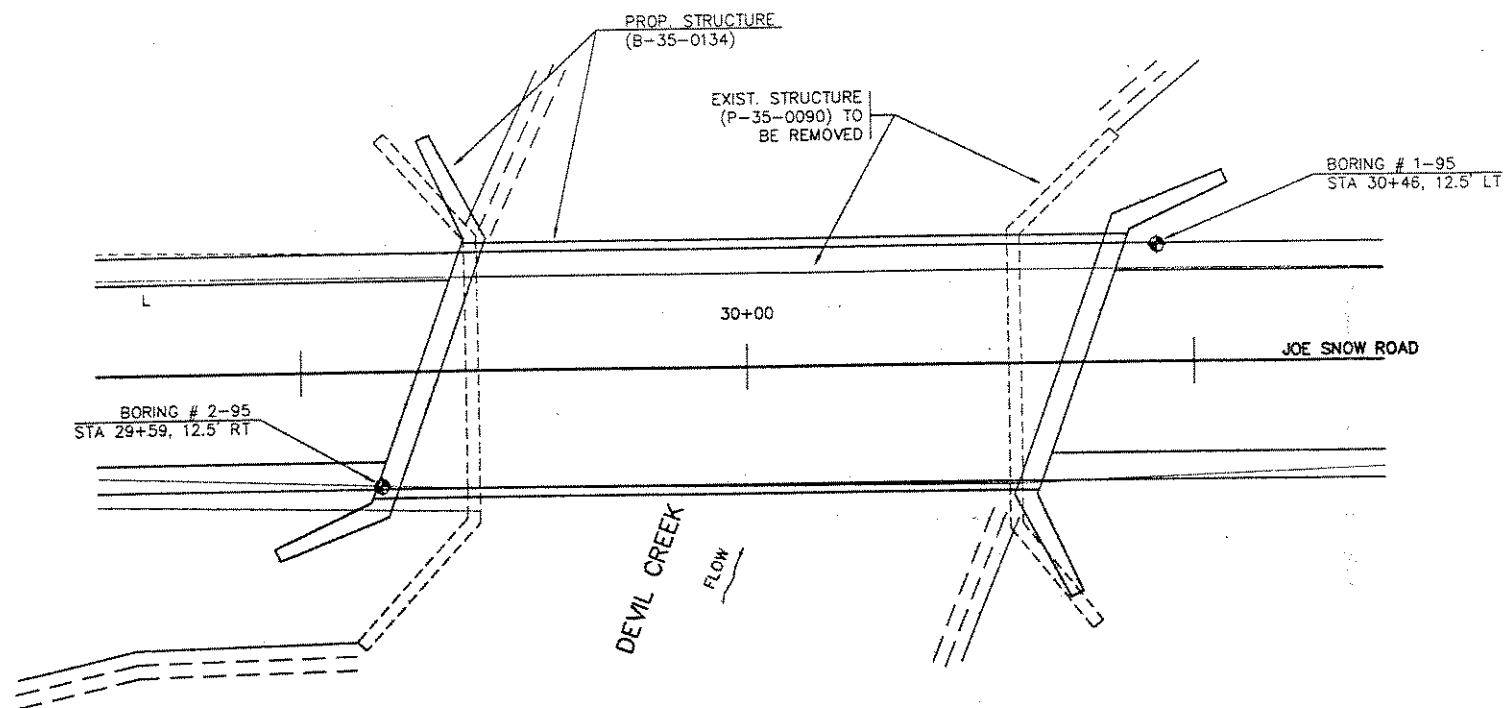


| PARCEL NUMBER | OWNER | INTEREST REQUIRED | TOTAL S.F.T. OR (ACRES) | R/W S.F.T. OR (ACRES) REQUIRED | | | TOTAL S.F.T. OR (ACRES) REMAINING | TLE S.F.T. |
|---------------|-----------------------------|-------------------|-------------------------|--------------------------------|--------|-------|-----------------------------------|------------|
| | | | | NEW | EXIST. | TOTAL | | |
| 1 | WILLIAM & VEAL KLEINSCHMIDT | TLE | (77.93) | --- | NONE | --- | (77.93) | 1311 |
| 2 | JOYCE WENDT & OTHERS | TLE | (38.9) | --- | NONE | --- | (38.9) | 1050 |

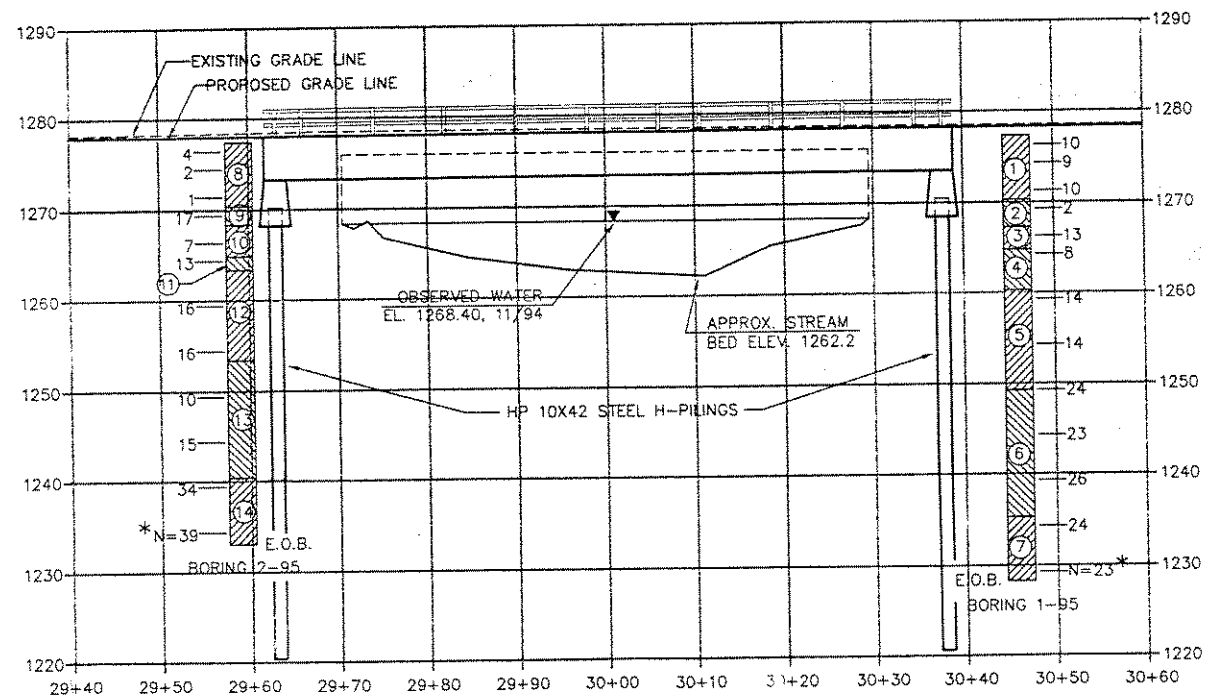


94229500.DWG 1-3-96

| | |
|-------------------------------------------------------------|----------------|
| STATE PROJECT NUMBER | SHEET NO. |
| 9861-01-70 | 8.1 |
| SUBSURFACE EXPLORATION DEVIL CREEK BRIDGE AND APPROACHES | |
| JOE SNOW ROAD | LINCOLN COUNTY |



SOIL BORINGS PERFORMED BY:
RIVER VALLEY TESTING CORP.
1302 CLEVELAND AVENUE
WAUSAU, WI 54401
TELEPHONE (715) 848-1225



* THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. SPLIT BARREL SAMPLER WITH A 140 LB. HAMMER HAVING A FREE FALL OF 30 INCHES. THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL BELOW A CASED HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

MATERIAL DESCRIPTIONS

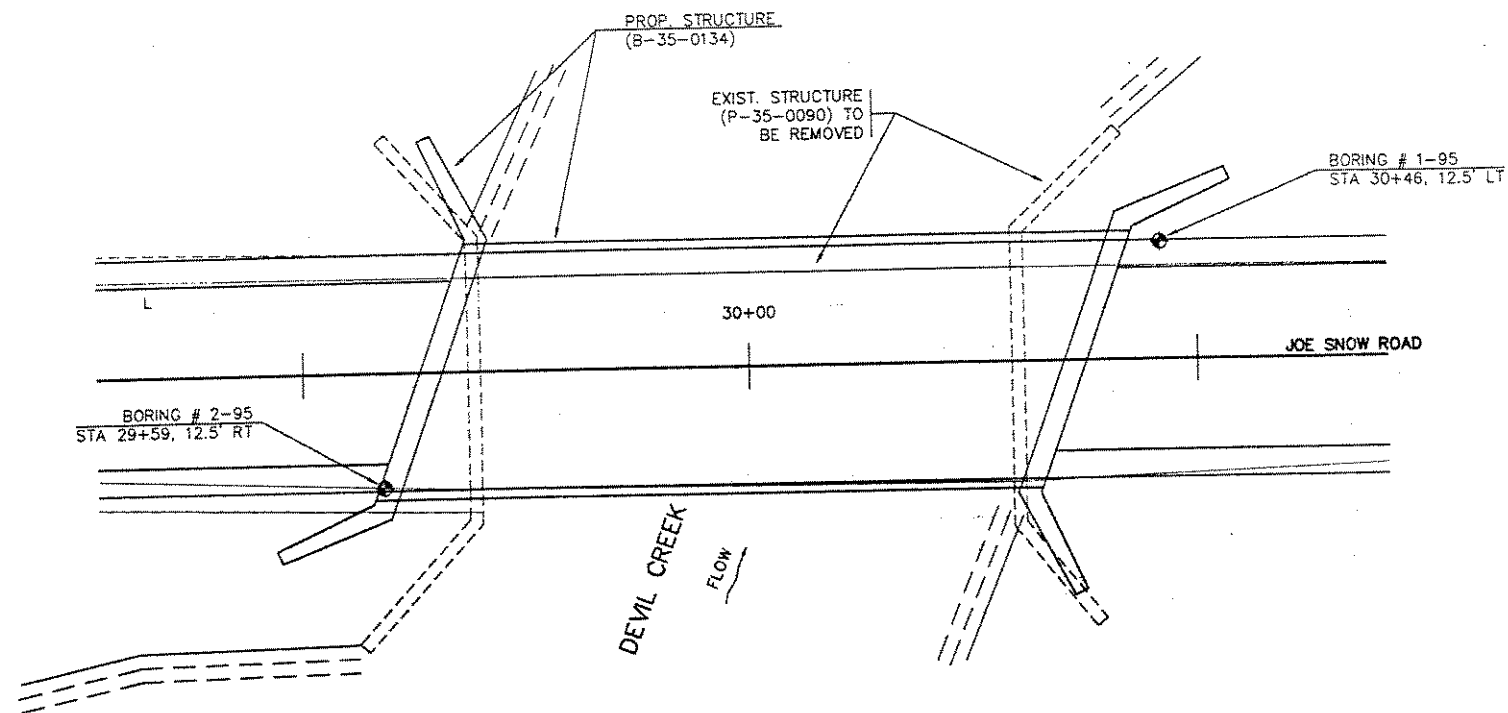
- ① OUTWASH SAND, WITH SILT AND GRAVEL, FINE TO MEDIUM GRAIN, BROWN, LOOSE TO MEDIUM DENSE (SP-SM)
- ② OUTWASH SAND, MEDIUM GRAIN, GRAY, WATERBEARING, VERY LOOSE (SP)
- ③ OUTWASH SAND, MEDIUM TO COARSE GRAIN, GRAY, WATERBEARING, MEDIUM DENSE (SP)
- ④ OUTWASH SAND, MEDIUM GRAIN, DARK BROWN, WATERBEARING, LOOSE (SP)
- ⑤ OUTWASH SAND, WITH GRAVEL, COARSE TO FINE GRAIN, BROWN, WATERBEARING, MEDIUM DENSE TO DENSE (SP)
- ⑥ OUTWASH SAND, WITH SILT AND GRAVEL, MEDIUM TO COARSE GRAIN, RED AND BROWN, WATERBEARING, DENSE (SP-SM)
- ⑦ OUTWASH SAND, MEDIUM TO FINE GRAIN, LIGHT BROWN, MOIST, DENSE (SP)
- ⑧ OUTWASH SILTY SAND, WITH A LITTLE GRAVEL, BROWN, MOIST, VERY LOOSE (SM)
- ⑨ OUTWASH SAND, WITH SILT AND PIECES OF WOOD, MED. GRAIN, BROWN, MOIST, MEDIUM DENSE (SP-SM)
- ⑩ OUTWASH SAND, MED. TO FINE GRAIN, LIGHT BROWN, WATERBEARING, LOOSE (SW)
- ⑪ OUTWASH SILTY SAND, WITH GRAVEL, DARK BROWN, MOIST, MED. DENSE (SP-SM)
- ⑫ OUTWASH SAND, WITH GRAVEL, CARSE TO FINE GRAIN, BROWN, WATERBEARING, MED. DENSE (SP)
- ⑬ OUTWASH SAND, MED. TO FINE GRAIN, BROWN, WATERBEARING, MED. DENSE (SP)
- ⑭ OUTWASH SAND, WITH GRAVEL, COARSE TO FINE GRAIN, GRAY AND BROWN, WATERBEARING, VERY DENSE (SP)

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

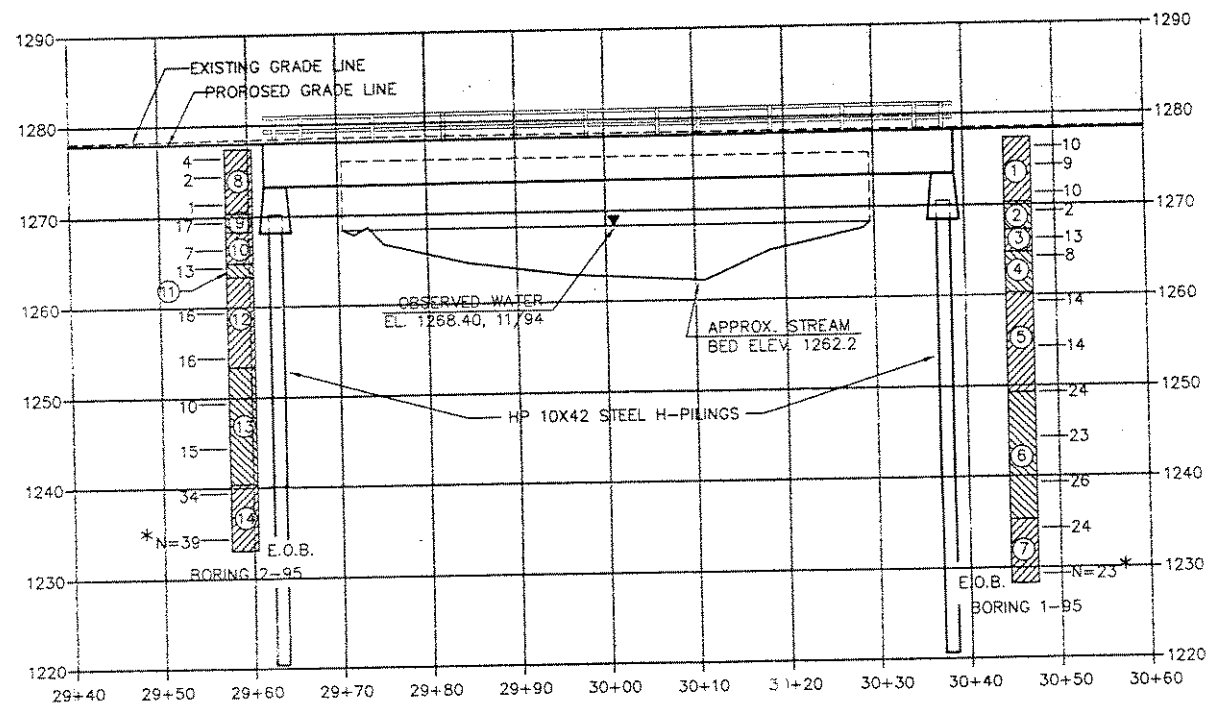
To obtain relative data concerning the character of material in and upon which the foundation might be built, borings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings is very small in relation to the entire area, the Department of Transportation does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

| | | | |
|----------------------------------------------------------------------------|------|----------|---------------|
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS | | | |
| STRUCTURE B-35-0134 | | | |
| CONST. SPEC. | 1989 | DRAWN BY | PLANS CK'D |
| SUBSURFACE EXPLORATION | | | SHEET 2 OF 10 |

| | |
|-----------------------------------|----------------|
| STATE PROJECT NUMBER | SHEET NO. |
| 9861-01-70 | 81 |
| SUBSURFACE EXPLORATION | |
| DEVIL CREEK BRIDGE AND APPROACHES | |
| JOE SNOW ROAD | LINCOLN COUNTY |



SOIL BORINGS PERFORMED BY:
 RIVER VALLEY TESTING CORP.
 1302 CLEVELAND AVENUE
 WAUSAU, WI 54401
 TELEPHONE (715) 848-1225



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- ② OUTWASH SAND, MEDIUM GRAIN, GRAY, WATERBEARING, VERY LOOSE (SP)
- ③ OUTWASH SAND, MEDIUM TO COARSE GRAIN, GRAY, WATERBEARING, MEDIUM DENSE (SP)
- ④ OUTWASH SAND, MEDIUM GRAIN, DARK BROWN, WATERBEARING, LOOSE (SP)
- ⑤ OUTWASH SAND, WITH GRAVEL, COARSE TO FINE GRAIN, BROWN, WATERBEARING, MEDIUM DENSE TO DENSE (SP)
- ⑥ OUTWASH SAND, WITH SILT AND GRAVEL, MEDIUM TO COARSE GRAIN, RED AND BROWN, WATERBEARING, DENSE (SP-SM)
- ⑦ OUTWASH SAND, MEDIUM TO FINE GRAIN, LIGHT BROWN, MOIST, DENSE (SP)
- ⑧ OUTWASH SILTY SAND, WITH A LITTLE GRAVEL, BROWN, MOIST, VERY LOOSE (SM)
- ⑨ OUTWASH SAND, WITH SILT AND PIECES OF WOOD, MED. GRAIN, BROWN, MOIST, MEDIUM DENSE (SP-SM)
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- ⑫ OUTWASH SAND, WITH GRAVEL, COARSE TO FINE GRAIN, BROWN, WATERBEARING, MED. DENSE (SP)
- ⑬ OUTWASH SAND, MED. TO FINE GRAIN, BROWN, WATERBEARING, MED. DENSE (SP)
- ⑭ OUTWASH SAND, WITH GRAVEL, COARSE TO FINE GRAIN, GRAY AND BROWN, WATERBEARING, VERY DENSE (SP)

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings is very small in relation to the entire area, the Department of Transportation does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

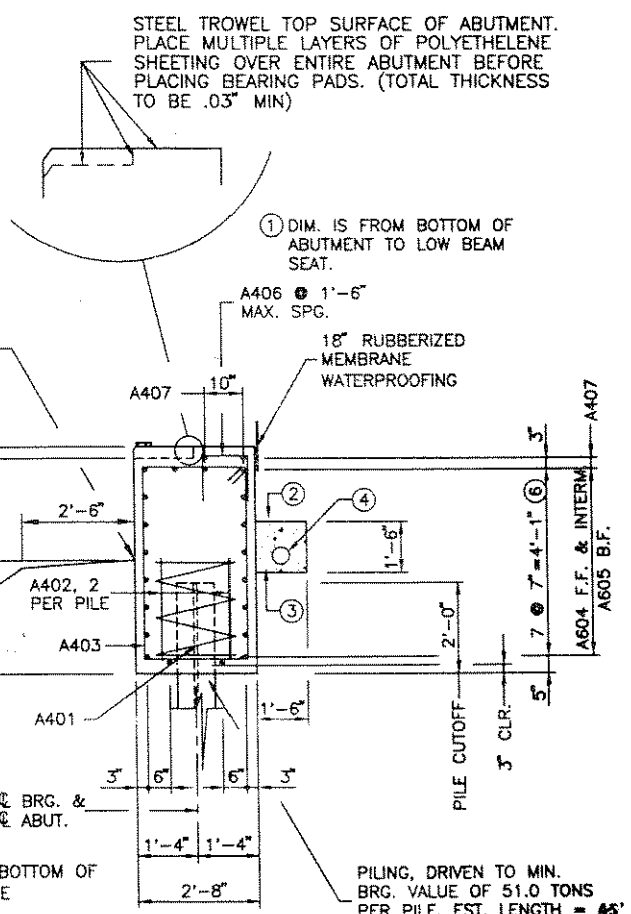
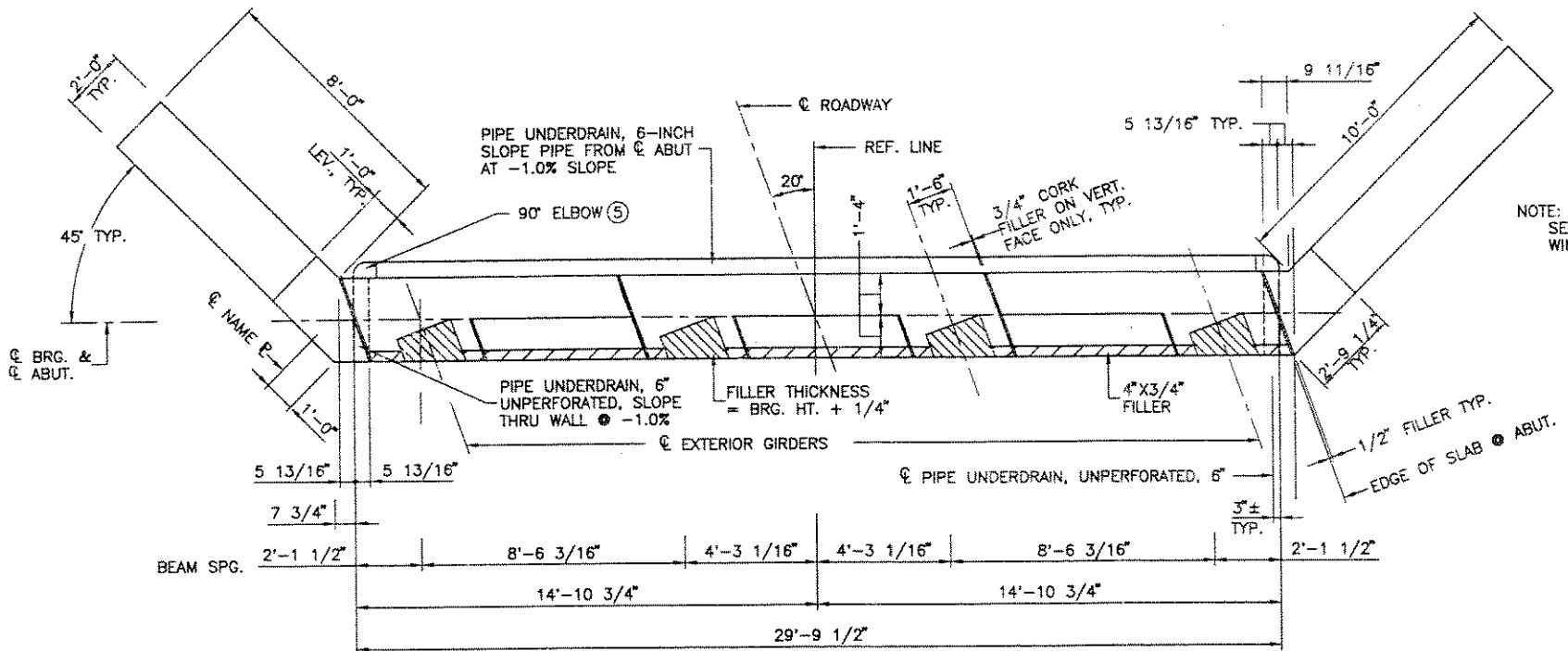
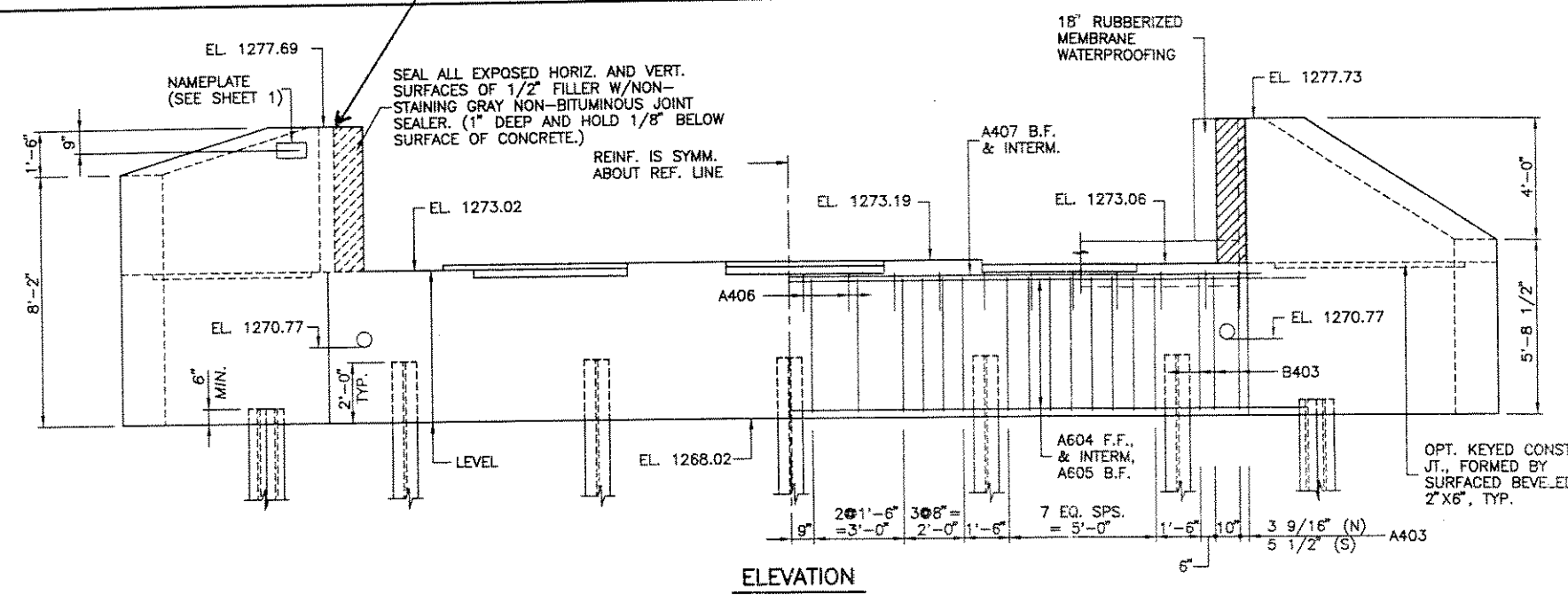
| NO. | DATE | REVISION | BY |
|----------------------------------------------------------------------------|------|----------|---------------|
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS | | | |
| STRUCTURE B-35-0134 | | | |
| CONST. SPEC. | 1989 | DRAWN BY | PLANS CK'D |
| SUBSURFACE EXPLORATION | | | SHEET 2 OF 10 |

JOBS\942795E.DWG 1-3-96

Bench Mark Disk
Elev. 1277.71

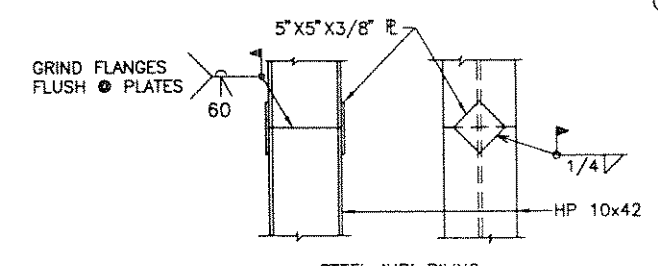
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|----------------------|-----------|
| STATE PROJECT NUMBER | SHEET NO. |
| 9861-00-70 | 82 |

F.F. = FRONT FACE
B.F. = BACK FACE
E.F. = EACH FACE

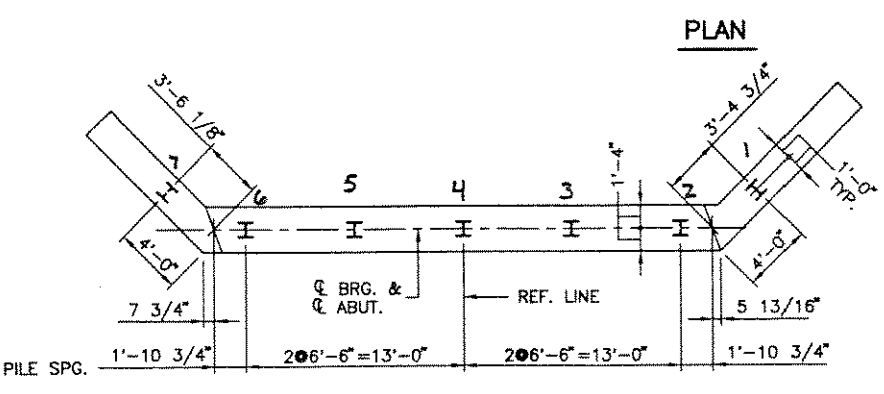


SECTION THRU BODY

- ② GEOTEXTILE FABRIC TYPE 'DF'
- ③ SIZE 1 COARSE AGGREGATE (INCLUDE IN THE PRICE BID FOR "GEOTEXTILE FABRIC TYPE DF").
- ④ 6" PIPE UNDERDRAIN MIN. 0.01' SLOPE TOWARD ABUT. WINGS. EXIT TO 6" WEEP HOLES THROUGH ABUTMENT BODY. (SEE PLAN).
- ⑤ 90° UNPERFORATED PIPE ELBOW INCLUDED IN PRICE BID FOR PIPE UNDERDRAIN, UNPERFORATED, 6-INCH.
- ⑥ ADJUST HORIZONTAL BAR SPG. AS NEEDED TO AVOID UNDERDRAIN.



STEEL 'HP' PILING
PILE SPLICE DETAILS



Pile # Length (Fn Ground)

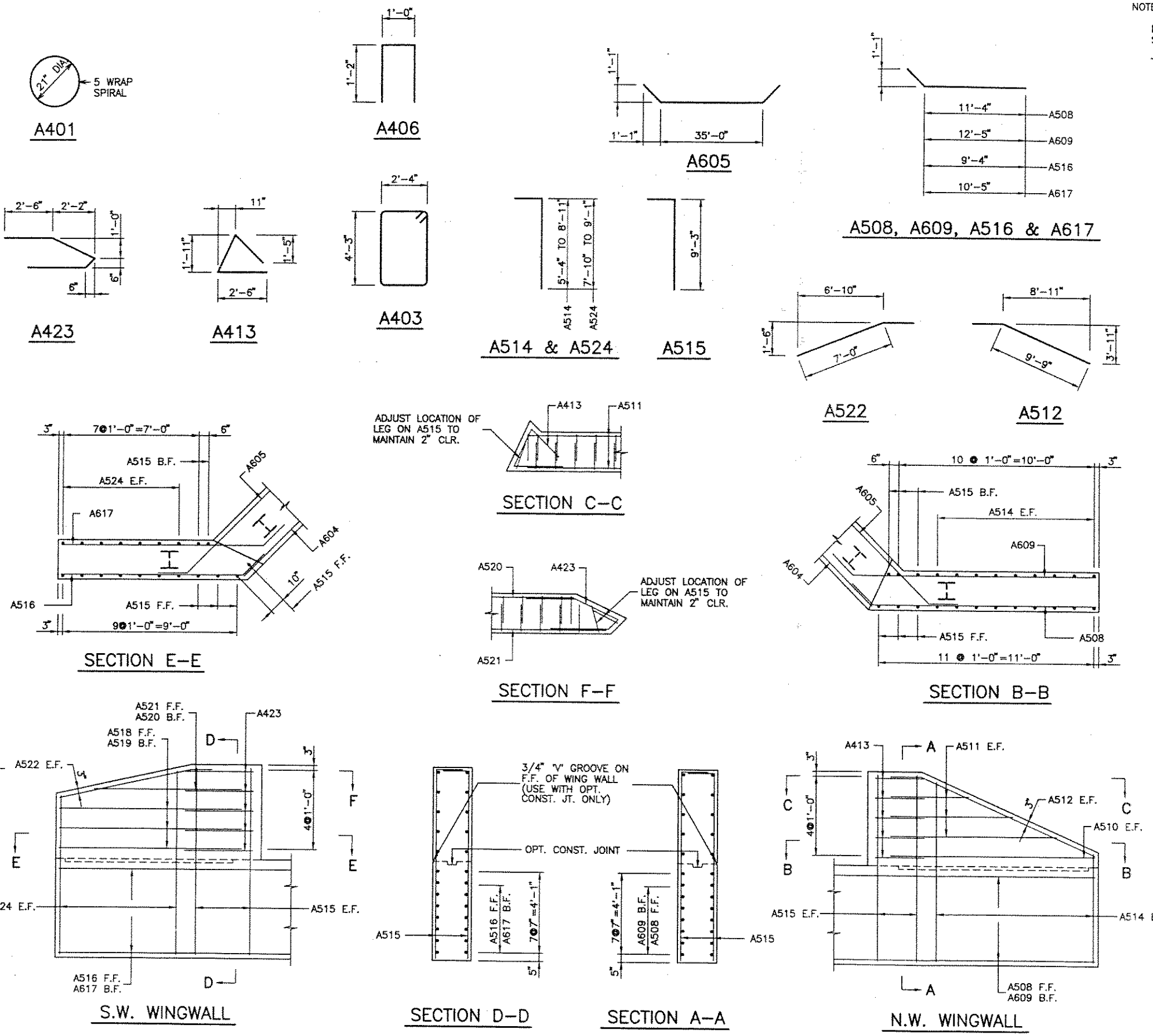
| Pile # | Length (Fn Ground) |
|--------|--------------------|
| 1 | 60' 0" |
| 2 | 59' 1" |
| 3 | 59' 2" |
| 4 | 59' 1/2" |
| 5 | 58' 11" |
| 6 | 58' 0" |
| 7 | 58' 11" |

| | | | |
|----------------------------------------------------------------------------|------|-------------|---------------|
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS | | | |
| STRUCTURE B-35-0134 | | | |
| CONST. SPEC. | 1989 | DRAWN BY DM | PLANS CRD. RB |
| WEST ABUTMENT | | | SHEET 3 OF 10 |

NOTE:
THE FIRST OR FIRST TWO
DIGITS OF A BAR MARK
SIGNIFIES BAR SIZE.
BAR DIMENSIONS ARE OUT
TO OUT OF BAR.

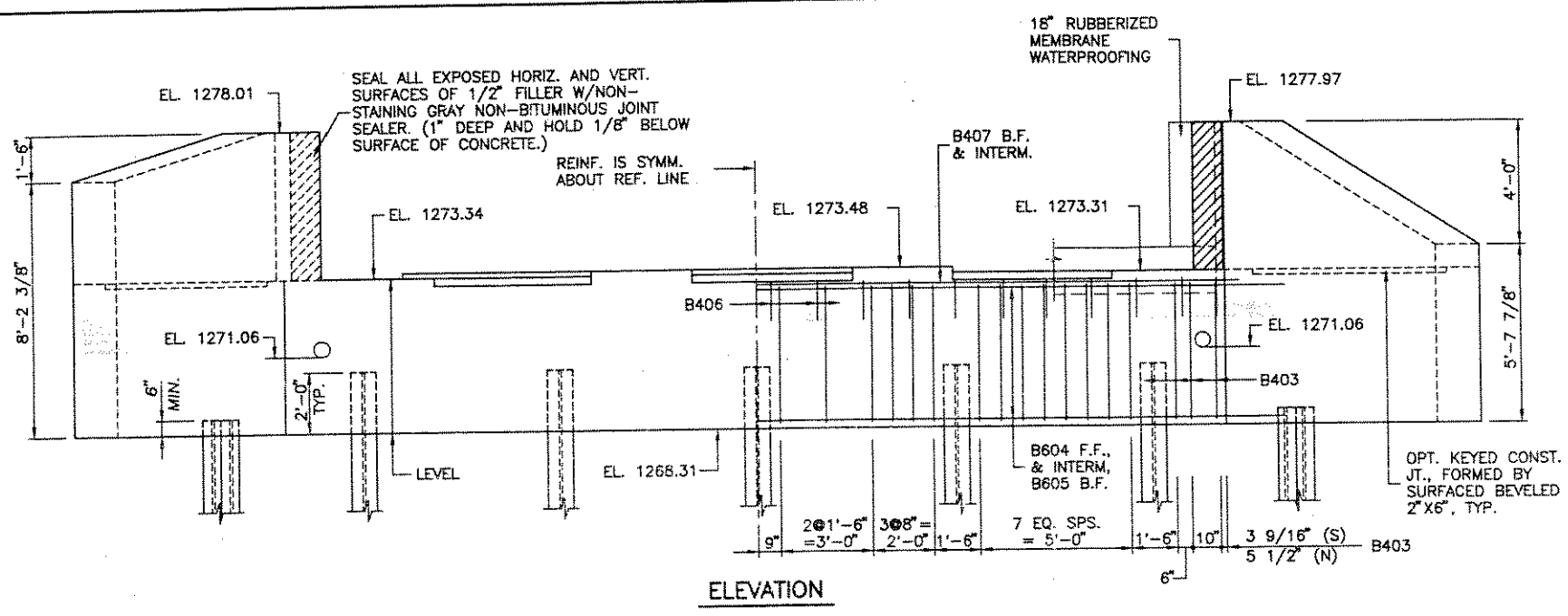
BILL OF BARS
(BAR TABLE APPLIES TO THIS ABUTMENT ONLY)

| BAR MARK | COAT | NO. REQ'D | LENGTH | BEND | BAR-SER. | LOCATION |
|----------|------|-------------|-------------|------|----------|------------------------------|
| A401 | | 5 | 28-0 | X | | BODY - ONE PER PILE |
| A402 | | 10 | 2-3 | | | BODY - TWO PER PILE |
| A403 | | 34 | 14-1 | X | | BODY - STIRRUP |
| A604 | | 12 | 30-9 | | | BODY - HORIZ. |
| A605 | | 8 | 38-0 | X | | BODY - HORIZ. |
| A406 | | 22 | 3-4 | X | | BODY - VERT. (TOP) |
| A407 | | 2 | 33-0 | | | BODY - HORIZ. (TOP) |
| A508 | | 8 | 12-10 | X | | N.W. WINGWALL - HORIZ. |
| A609 | | 8 | 13-11 | X | | N.W. WINGWALL - HORIZ. |
| A510 | | 2 | 10-5 | | | N.W. WINGWALL - HORIZ. |
| A511 | | 2 SER. OF 3 | 3-11 TO 8-5 | X | | N.W. WINGWALL - HORIZ. |
| A512 | | 2 | 11-3 | X | | N.W. WINGWALL - HORIZ. |
| A413 | | 5 | 6-7 | X | | N.W. WINGWALL - HORIZ. |
| A514 | | 2 SER. OF 9 | 6-8 TO 10-3 | X | X | N.W. WINGWALL - VERT. |
| A515 | | 12 | 10-7 | X | | N.W. & S.W. WINGWALL - VERT. |
| A516 | | 8 | 10-10 | X | | S.W. WINGWALL - HORIZ. |
| A617 | | 8 | 11-11 | X | | S.W. WINGWALL - HORIZ. |
| A518 | | 3 | 9-6 | | | S.W. WINGWALL - HORIZ. |
| A519 | | 3 | 7-10 | | | S.W. WINGWALL - HORIZ. |
| A520 | | 1 | 5-11 | | | S.W. WINGWALL - HORIZ. |
| A521 | | 1 | 7-7 | | | S.W. WINGWALL - HORIZ. |
| A522 | | 2 | 8-0 | X | | S.W. WINGWALL - HORIZ. |
| A423 | | 5 | 8-7 | X | | S.W. WINGWALL - HORIZ. |
| A524 | | 2 SER. OF 7 | 9-2 TO 10-5 | X | X | S.W. WINGWALL - VERT. |

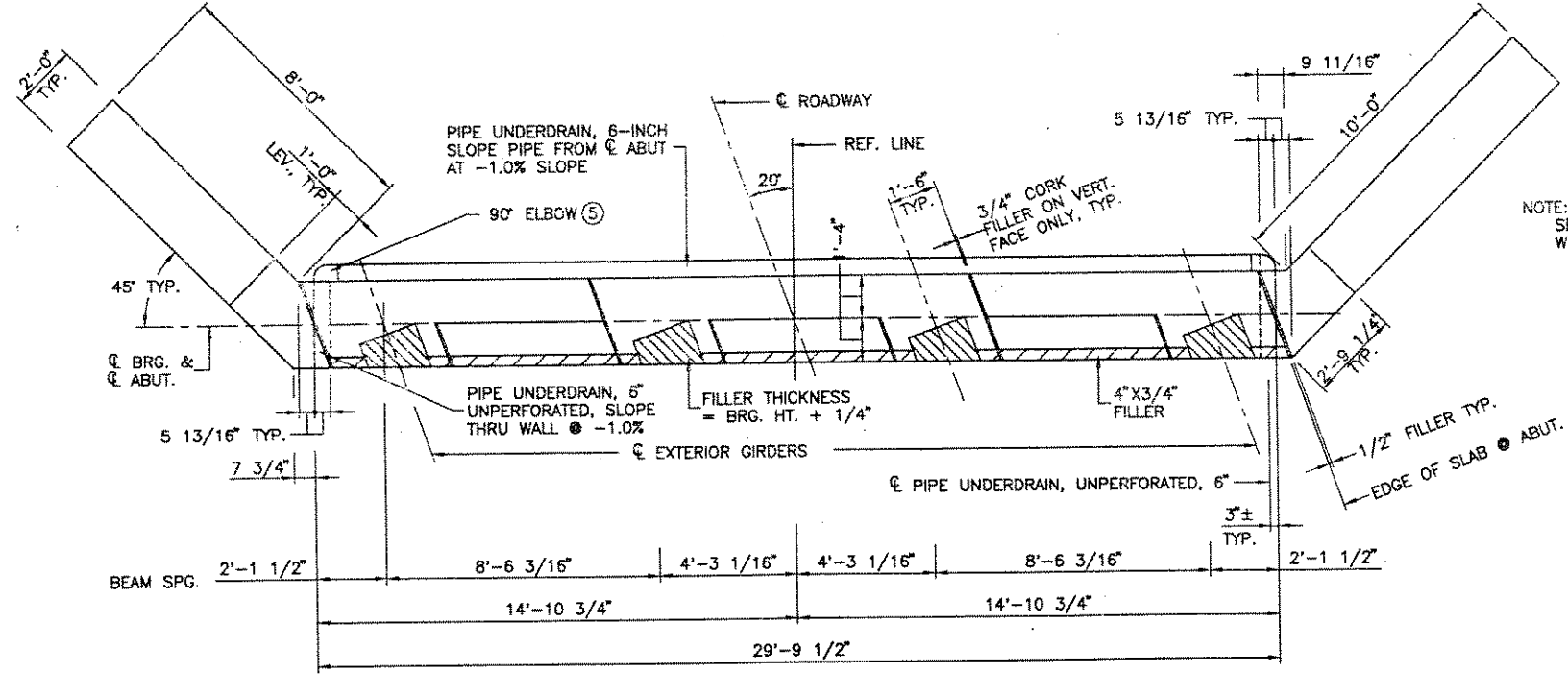


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| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS | | | |
| STRUCTURE B-35-0134 | | | |
| CONST. SPEC | 1989 | DRAWN BY | DM |
| | | PLANS CK'D. | RB |
| WEST ABUTMENT | | | SHEET 4 OF 10 |

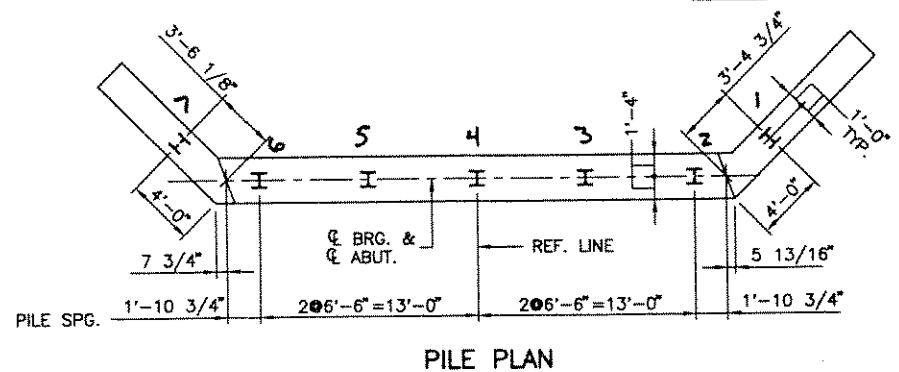
F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE



ELEVATION



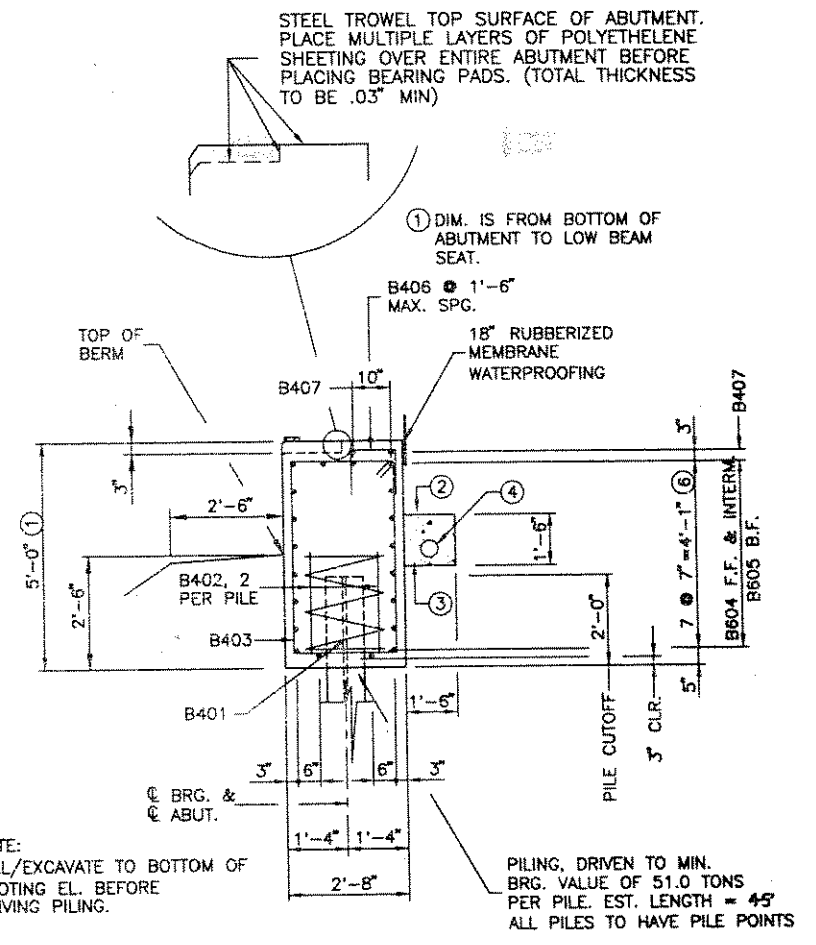
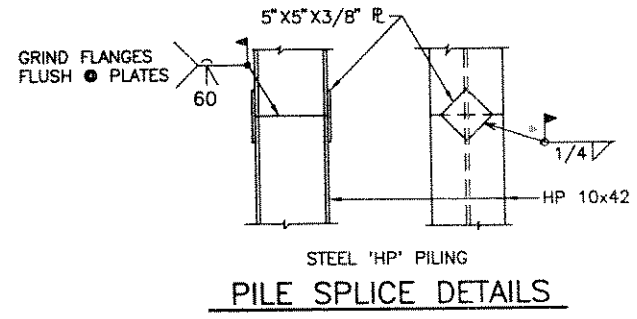
PLAN



PILE PLAN

Pile # Length (Below Ground)

| | |
|---|------------|
| 1 | 53' 6" |
| 2 | 53' 1/2" |
| 3 | 54' 2 1/2" |
| 4 | 50' 1" |
| 5 | 53' 3 1/2" |
| 6 | 58' 0" |
| 7 | 55' 5 1/2" |



SECTION THRU BODY

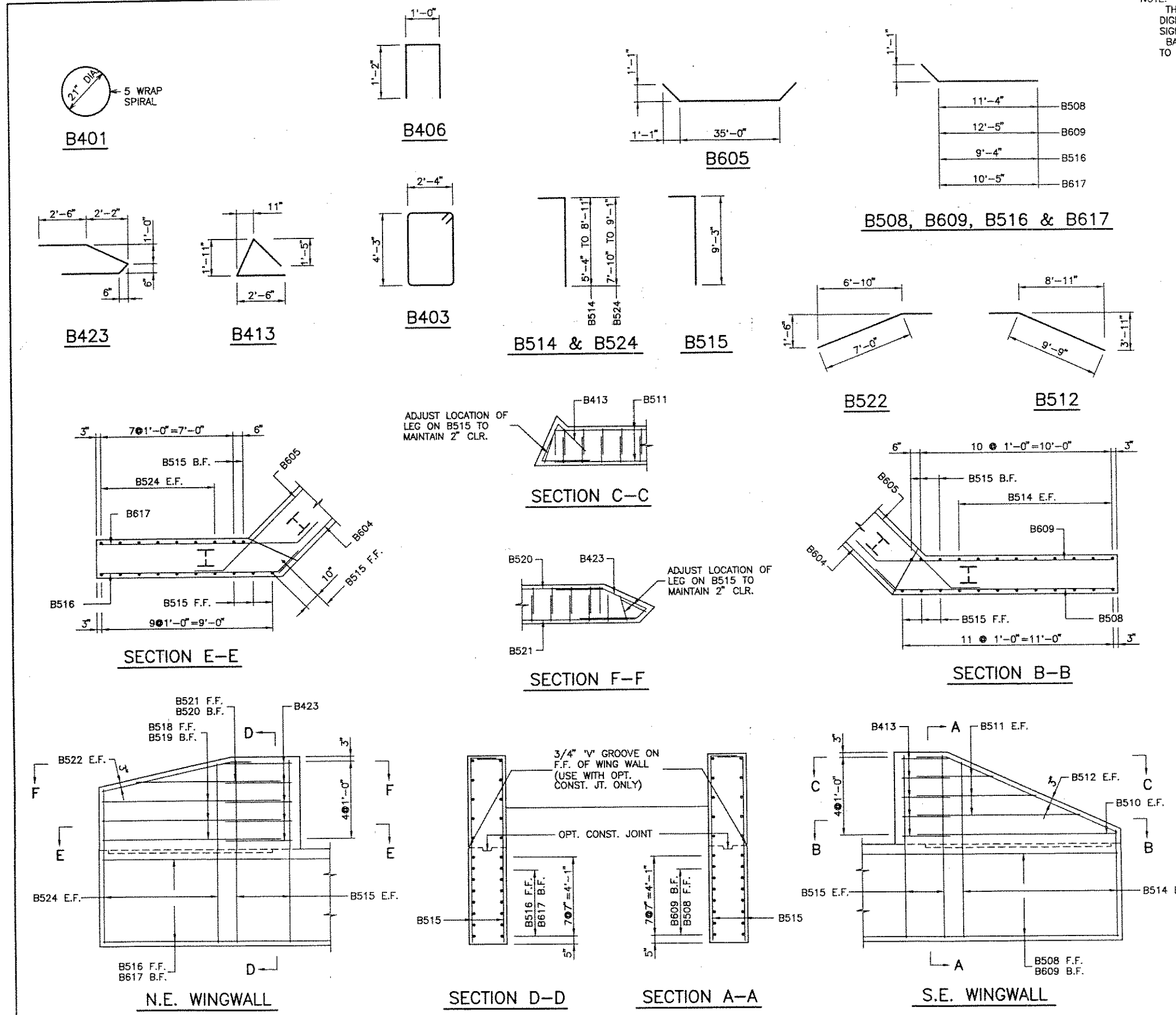
- ② GEOTEXTILE FABRIC TYPE 'DF'
- ③ SIZE 1 COARSE AGGREGATE (INCLUDE IN THE PRICE BID FOR "GEOTEXTILE FABRIC TYPE DF").
- ④ 6" PIPE UNDERDRAIN MIN. 0.01'/1' SLOPE RUN TOWARD ABUT. WINGS. EXIT TO 6" WEEPHOLES THROUGH ABUTMENT BODY, (SEE PLAN).
- ⑤ 90° UNPERFORATED PIPE ELBOW INCLUDED IN PRICE BID FOR PIPE UNDERDRAIN, UNPERFORATED, 6-INCH.
- ⑥ ADJUST HORIZONTAL BAR SPG. AS NEEDED TO AVOID UNDERDRAIN.

| | | | |
|----------------------------------------------------------------------------|------|-------------|---------------|
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS | | | |
| STRUCTURE B-35-0134 | | | |
| CONST. SPEC. | 1989 | DRAWN BY | DM |
| | | PLANS CK'D. | RB |
| EAST ABUTMENT | | | SHEET 5 OF 10 |

NOTE:
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

BILL OF BARS
(BAR TABLE APPLIES TO THIS ABUTMENT ONLY)

| BAR MARK | NO. REQ'D | LENGTH | REMARKS | BAR SER. | LOCATION |
|----------|-------------|-------------|---------|----------|------------------------------|
| B401 | 5 | 28-0 | X | | BODY - ONE PER PILE |
| B402 | 10 | 2-3 | | | BODY - TWO PER PILE |
| B403 | 34 | 14-1 | X | | BODY - STIRRUP |
| B604 | 12 | 30-9 | | | BODY - HORIZ. |
| B605 | 8 | 38-0 | X | | BODY - HORIZ. |
| B406 | 22 | 3-4 | X | | BODY - VERT. (TOP) |
| B407 | 2 | 33-0 | | | BODY - HORIZ. (TOP) |
| B508 | 8 | 12-10 | X | | S.E. WINGWALL - HORIZ. |
| B609 | 8 | 13-11 | X | | S.E. WINGWALL - HORIZ. |
| B510 | 2 | 10-5 | | | S.E. WINGWALL - HORIZ. |
| B511 | 2 SER. OF 3 | 3-11 TO 8-5 | X | | S.E. WINGWALL - HORIZ. |
| B512 | 2 | 11-3 | X | | S.E. WINGWALL - HORIZ. |
| B413 | 5 | 6-7 | X | | S.E. WINGWALL - HORIZ. |
| B514 | 2 SER. OF 9 | 6-8 TO 10-3 | X | X | S.E. WINGWALL - VERT. |
| B515 | 12 | 10-7 | X | | S.E. & N.E. WINGWALL - VERT. |
| B516 | 8 | 10-10 | X | | N.E. WINGWALL - HORIZ. |
| B617 | 8 | 11-11 | X | | N.E. WINGWALL - HORIZ. |
| B518 | 3 | 9-6 | | | N.E. WINGWALL - HORIZ. |
| B519 | 3 | 7-10 | | | N.E. WINGWALL - HORIZ. |
| B520 | 1 | 5-11 | | | N.E. WINGWALL - HORIZ. |
| B521 | 1 | 7-7 | | | N.E. WINGWALL - HORIZ. |
| B522 | 2 | 8-0 | X | | N.E. WINGWALL - HORIZ. |
| B423 | 5 | 8-7 | X | | N.E. WINGWALL - HORIZ. |
| B524 | 2 SER. OF 7 | 9-2 TO 10-5 | X | X | N.E. WINGWALL - VERT. |

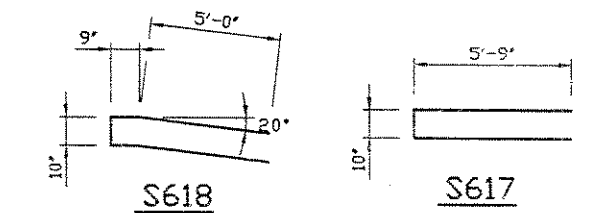
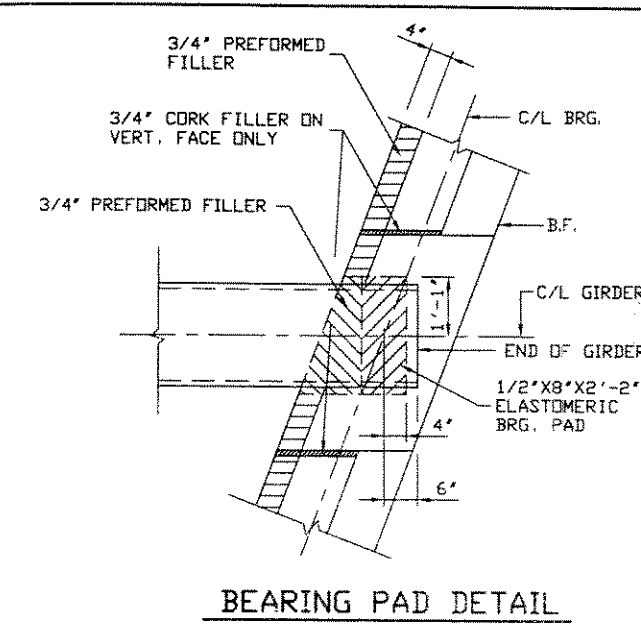
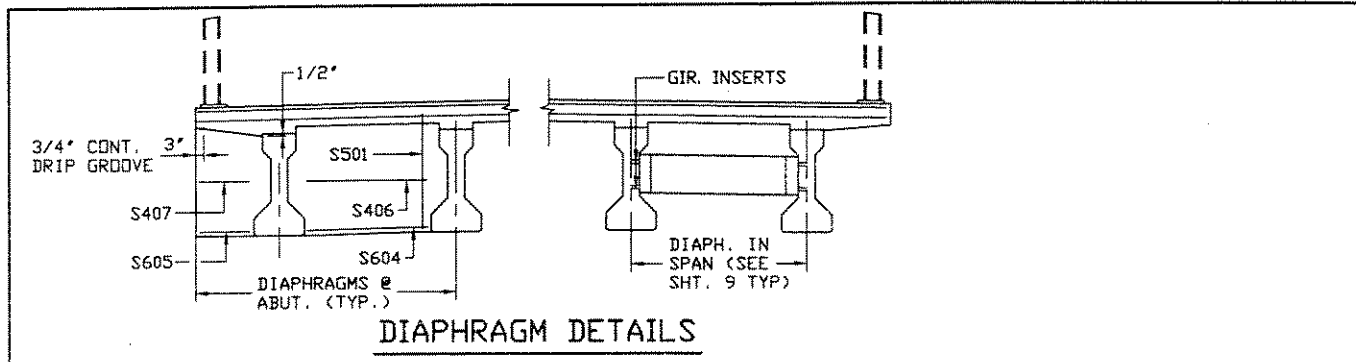


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| EAST ABUTMENT | | | SHEET 6 OF 10 |

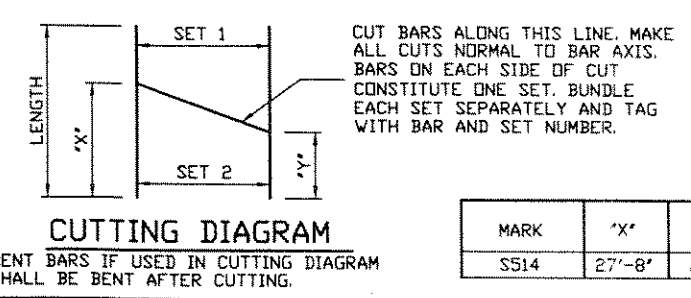
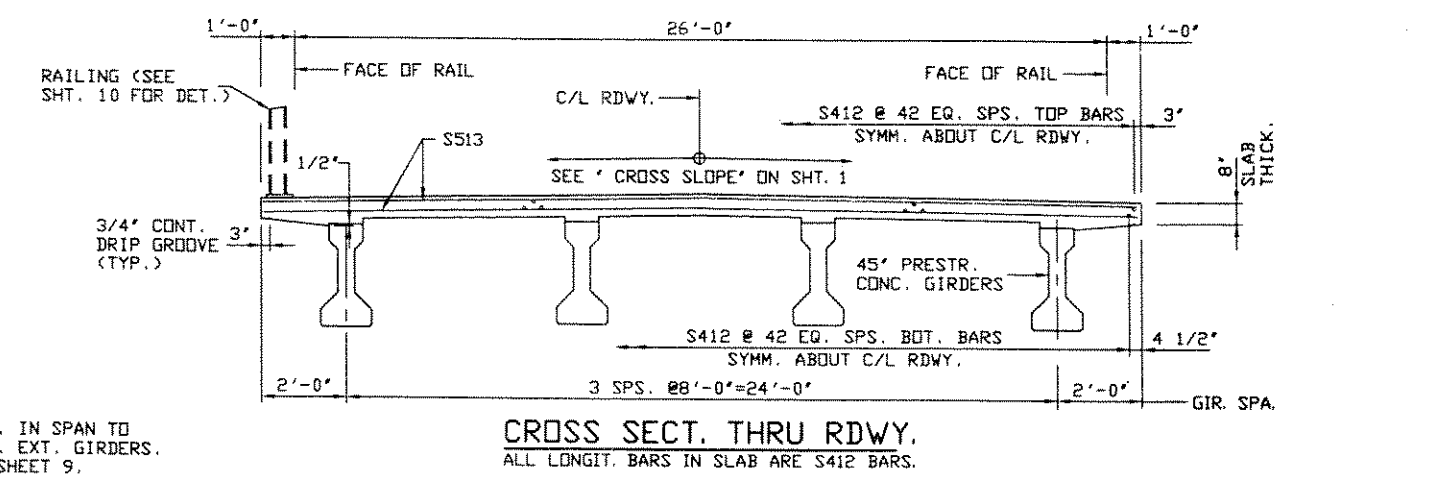
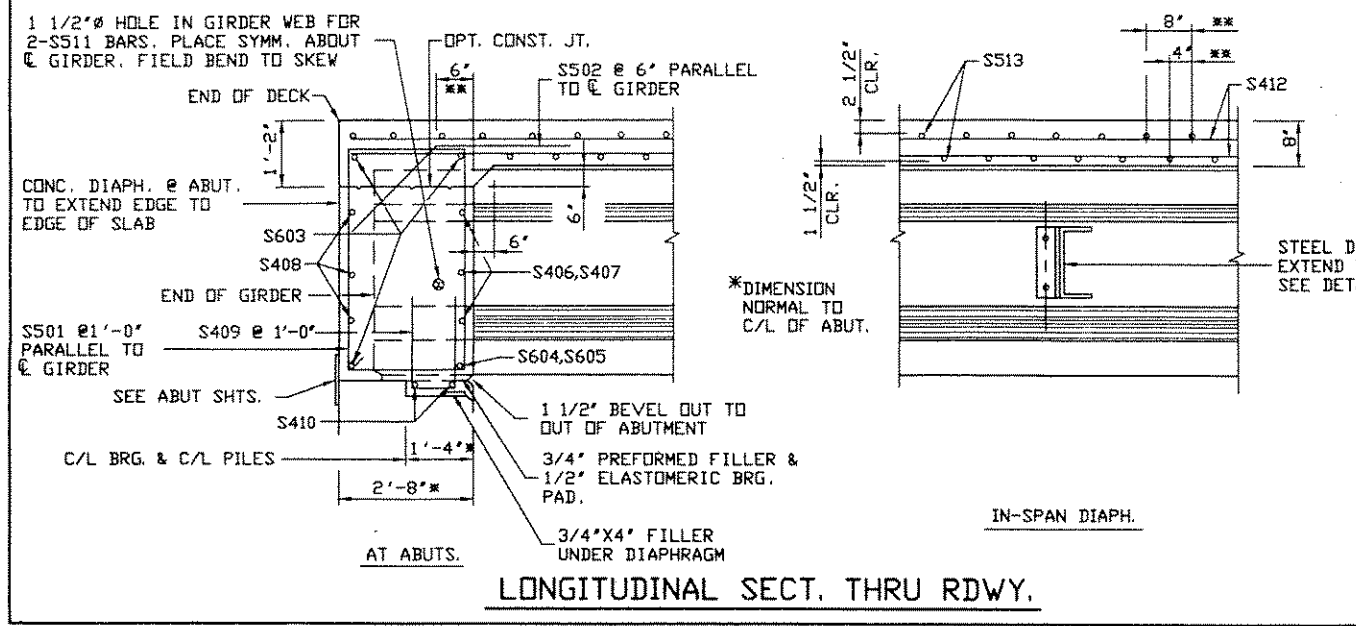
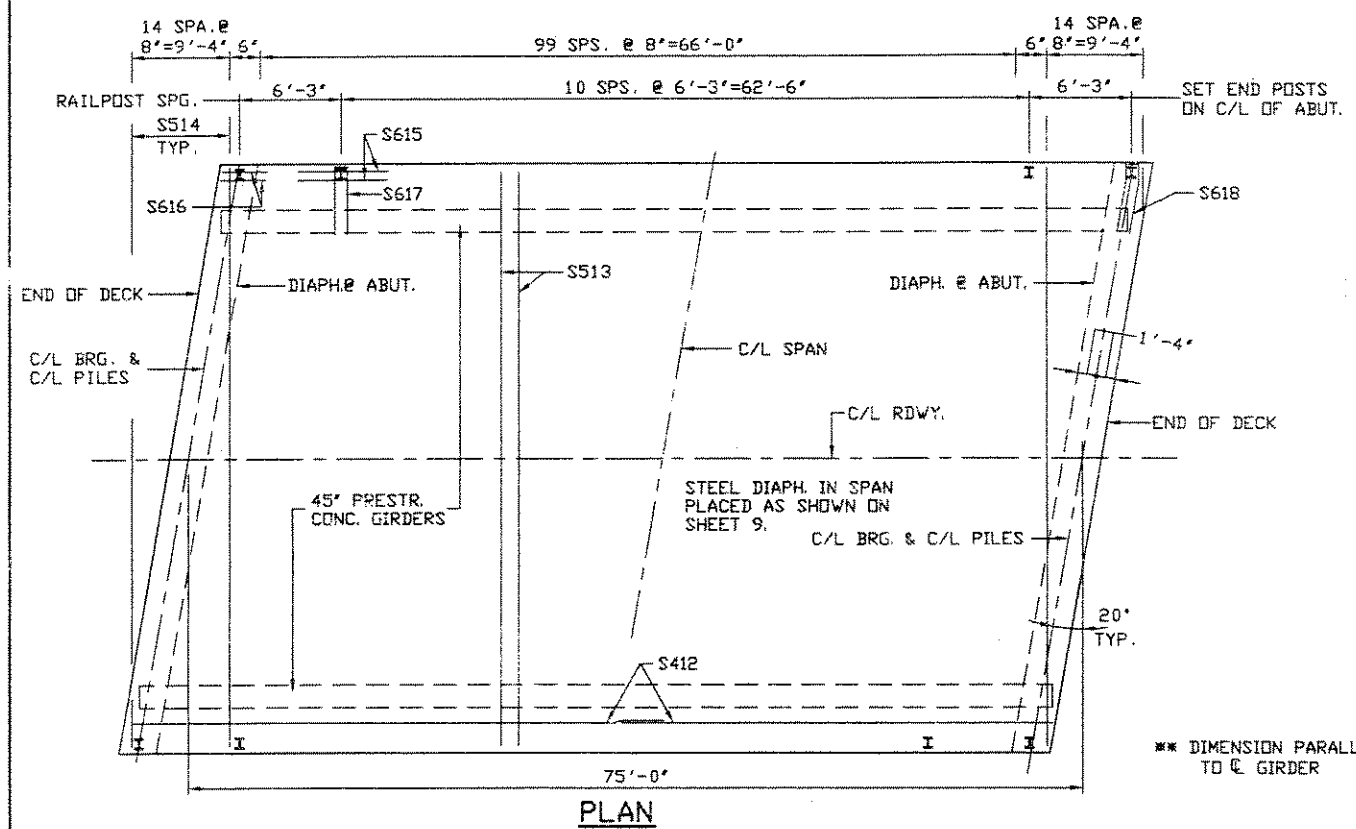
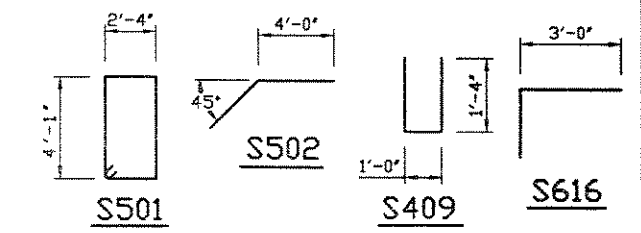
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE. DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

| BAR MARK | COAT | NO. REQ'D | LENGTH | BENT | CUT. DIA. | LOCATION |
|----------|------|-----------|--------|------|-----------|-------------------------------|
| S501 | X | 58 | 13-6 | X | | DIAPHRAGM @ ABUTMENTS |
| S502 | X | 116 | 6-10 | X | | DIAPHRAGM @ ABUTMENTS |
| S603 | X | 6 | 29-5 | | | DIAPHRAGM @ ABUTMENTS |
| S604 | X | 6 | 6-3 | | | DIAPHRAGM @ ABUTMENTS |
| S605 | X | 4 | 1-0 | | | DIAPHRAGM @ ABUTMENTS |
| S406 | X | 18 | 6-3 | | | DIAPHRAGM @ ABUTMENTS |
| S407 | X | 12 | 1-0 | | | DIAPHRAGM @ ABUTMENTS |
| S408 | X | 6 | 29-5 | | | DIAPHRAGM @ ABUTMENTS |
| S409 | X | 36 | 3-6 | X | | DIAPHRAGM @ ABUTMENTS |
| S410 | X | 12 | 4-5 | | | DIAPHRAGM @ ABUTMENTS |
| S511 | X | 16 | 6-0 | | | 2 PER GIRDER AT ABUTMENTS |
| S412 | X | 172 | 40-3 | | | SLAB - TOP & BOTTL. - LONGIT. |
| S513 | X | 200 | 27-8 | | | SLAB - TOP & BOTTL. - TRANS. |
| S514 | X | 30 | 30-1 | X | | SLAB - TOP & BOTTL. - TRANS. |
| S615 | X | 44 | 4-0 | | | AT INTERIOR RAIL POSTS |
| S616 | X | 8 | 4-0 | X | | AT END RAIL POSTS |
| S617 | X | 22 | 12-0 | X | | AT INTERIOR RAIL POSTS |
| S618 | X | 4 | 12-0 | X | | AT END RAIL POSTS |



NOTE: FOR 'SLAB HAUNCH DETAILS' SEE NEXT SHEET.



| MARK | X' | Y' | NO. OF BARS/SET | NO. OF EACH SET |
|------|--------|-------|-----------------|-----------------|
| S514 | 27'-8" | 2'-5" | 15 | 2 |

| | | | |
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| SUPERSTRUCTURE | | | SHEET 7 OF 10 |

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL BE TROWEL FINISHED.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

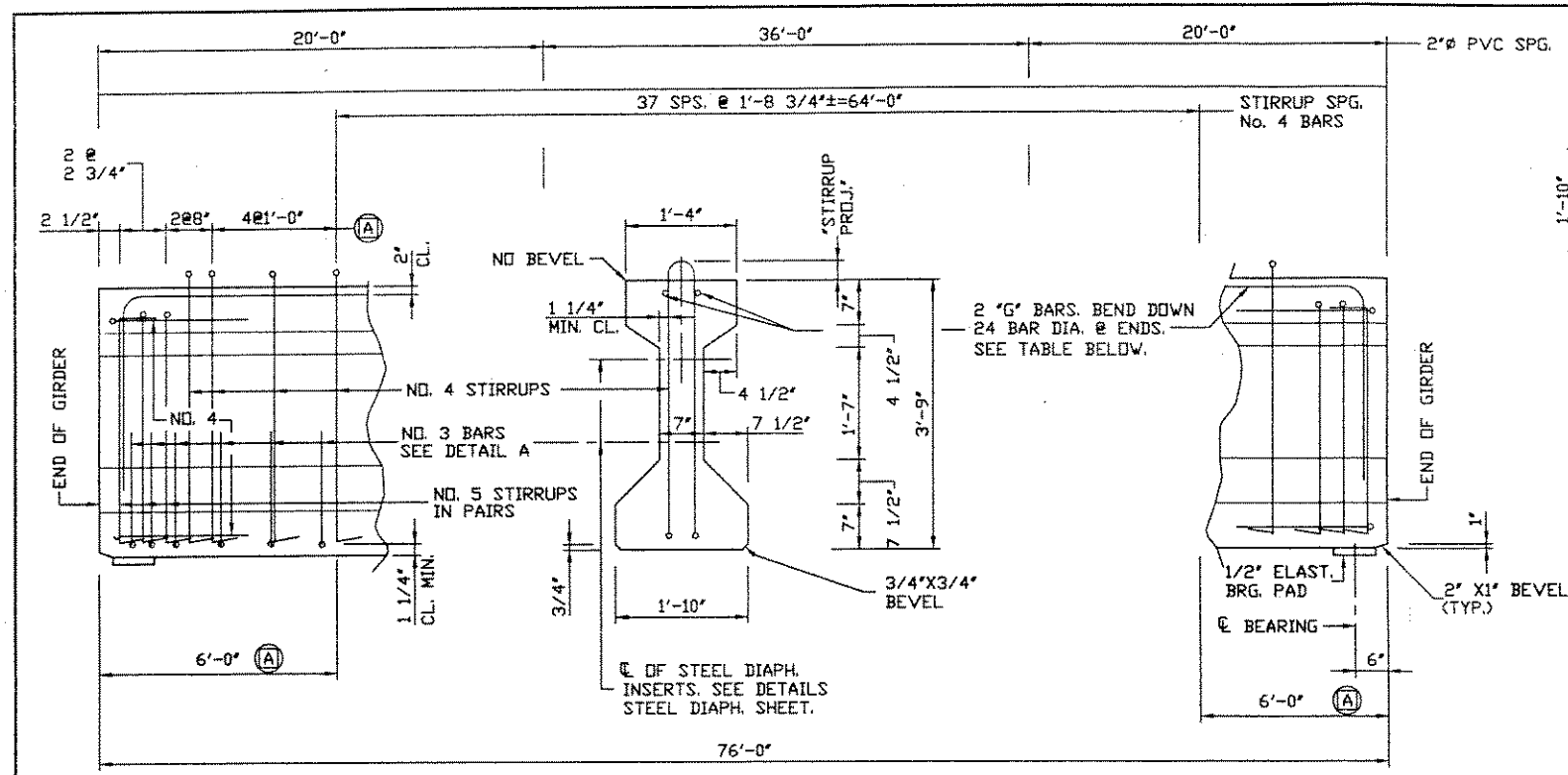
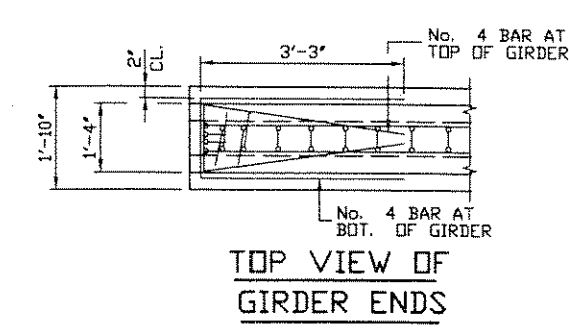
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

PRESTRESSING STRANDS SHALL BE 1/2" - 7 WIRE STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi. & SHALL BE FLUSH WITH THE ENDS OF THE GIR.

ALL STIRRUPS SHALL BE IN PAIRS AND THE SPACING SHOWN IN 'SIDE VIEW' IS MAXIMUM. THE LOCATION SHALL BE SHOWN ON THE SHOP DRAWINGS.

BEND EACH END OF No. 4 STIRRUPS 1/2' AND No. 5 STIRRUPS 6'

BARS 'G' MAY BE SPliced AT THE 1/3 POINTS OF GIRDER. USE LAP LENGTH SHOWN IN 'GIRDER DATA TABLE'.

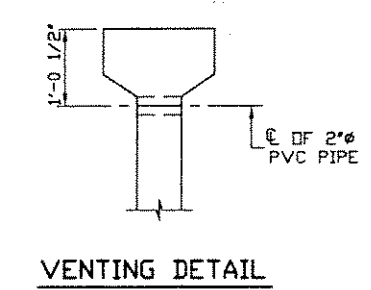


45' GIRDER - SIDE VIEW & TYP. SECTION IN SPAN

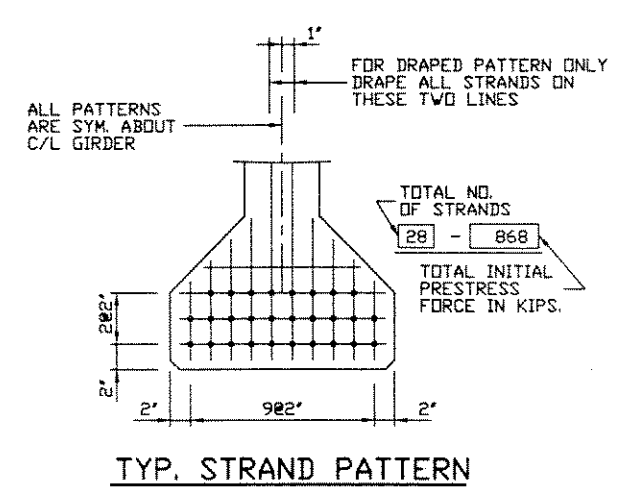
MINIMUM CYLINDER STRENGTH OF CONCRETE & TIME OF TRANSFER OF PRESTRESSED FORCE f'c AT 28 DAYS SHALL BE 6000 p.s.i.

| GIRDER LENGTH 'L' | DEADLOAD DEFLECTION (IN.) | | STIRRUP PROJECTION | TYPE OF STRANDS | DRAPED PATTERN (INCHES) | | | | UNDRAPED PATTERN | | SIZE OF 'G' BARS | MIN. LAP FOR 'G' BARS (FT.) |
|-------------------|---------------------------|-----|--------------------|-----------------|-------------------------|---------------|-----|-----|------------------|-----|------------------|-----------------------------|
| | 'D' | 'E' | | | TOTAL NO. OF STRANDS | f'ci (p.s.i.) | 'A' | 'B' | 'C' | 'D' | | |
| 76'-0" | 3/4 | 1 | 6" | LOW RELAXATION | 28 | 4800 | 38 | 13 | 16 | 4 | #4 | 2'-5" |

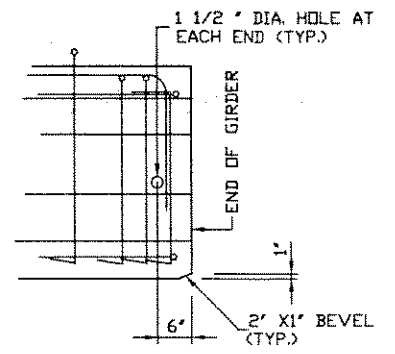
(A) DETAIL TYPICAL AT EACH END.



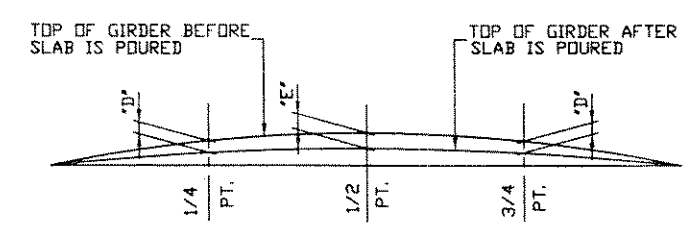
VENTING DETAIL



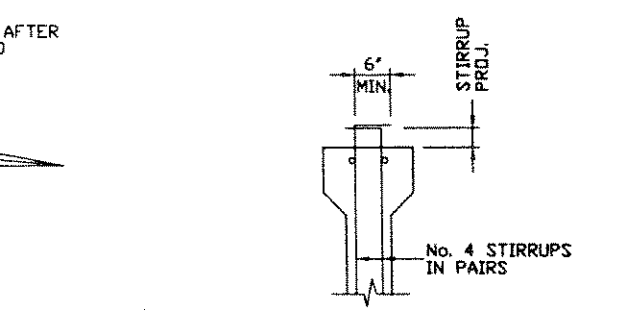
TYP. STRAND PATTERN



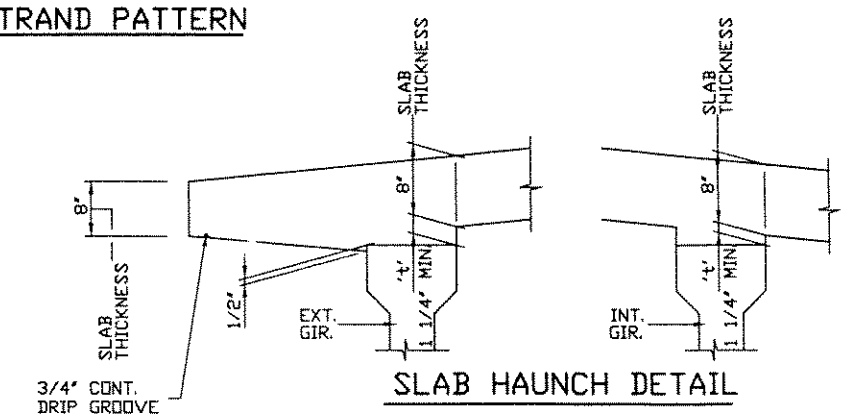
GIRDER ENDS



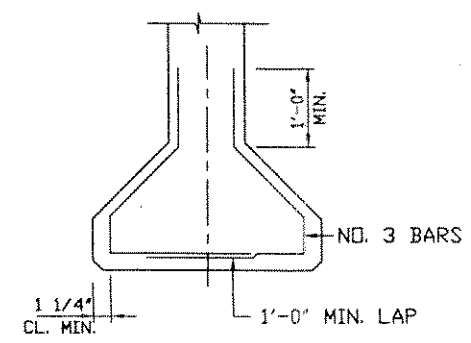
DEAD LOAD DEFLECTION DIAGRAM



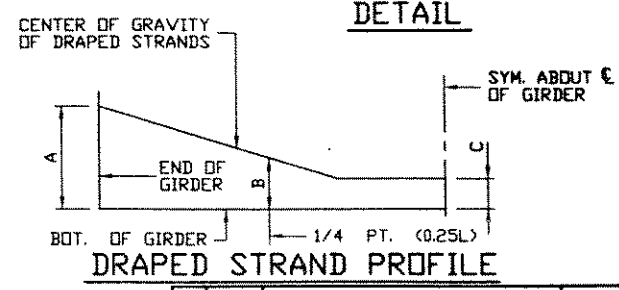
ALTERNATE STIRRUP DETAIL



SLAB HAUNCH DETAIL



DETAIL A



DRAPED STRAND PROFILE

IF 1 1/4" MINIMUM HAUNCH HEIGHT 'H' CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. MAXIMUM HAUNCH HEIGHT EQUALS 'STIRRUP PROJECTION' MINUS 3 INCHES.

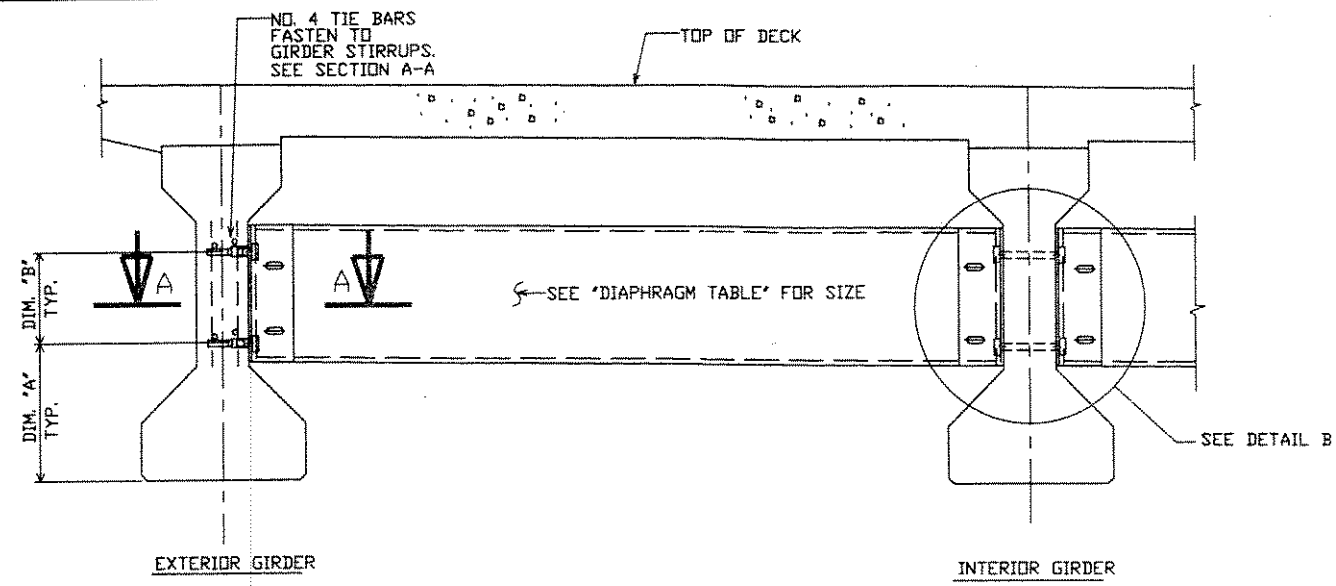
TO DETERMINE 'H' ELEV. OF TOP OF GIR'S. AT C/L OF SUBSTRUCTURE UNITS & AT 1/4 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
-TOP OF GIRDER ELEVATION
+DEADLOAD DEFLECTION
-SLAB THICKNESS
=HAUNCH HEIGHT 'H'

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| CONSTR. SPEC. | 1989 | DRAWN BY DM | PLANS CK'D RB |
| 45' PRESTR. GIRDER DETAILS | | | SHEET 8 OF 10 |

DIAPHRAGM TABLE

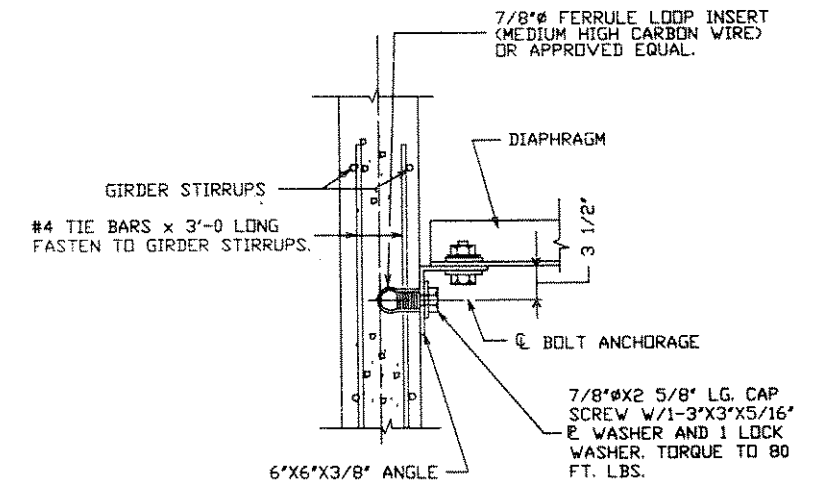
| DIM. 'A' | DIM. 'B' | DIM. 'L' | DIM. 'X' | DIM. 'N' | DIAPHRAGM SIZE |
|-----------|----------|----------|----------|-----------|----------------|
| 1'-4 1/2" | 1'-3" | 1'-6" | 2 1/2" | 1'-5 1/2" | MC 18X42.7 |



PART TRANSVERSE SECTION AT DIAPHRAGM

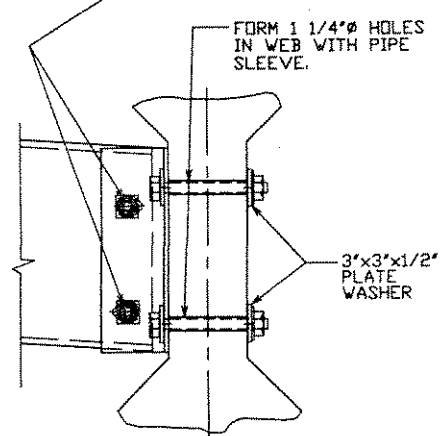
NOTES

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A36.
 ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.
 ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.
 ALL MATERIAL FOR DIAPHRAGMS EXCEPT SLEEVES AND FERRULE INSERTS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGM" (EACH).
 EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

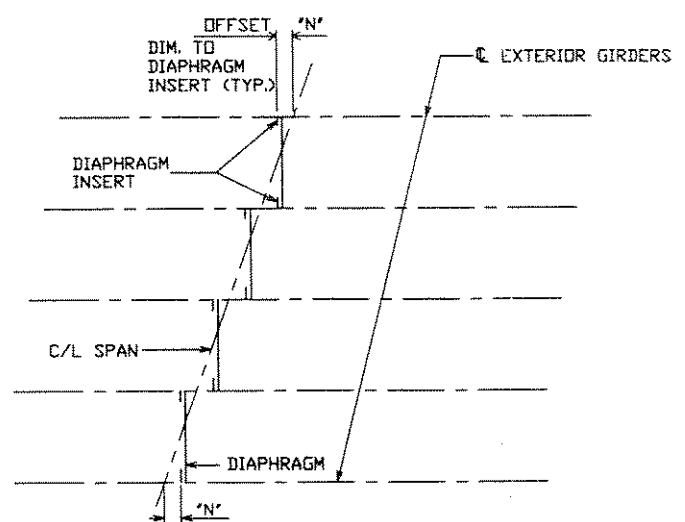


**SECT. A-A
(FOR EXTERIOR ATTACHMENT)**

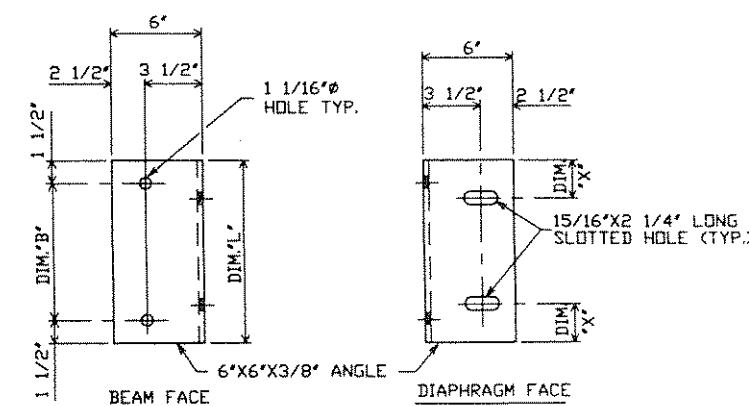
7/8" HIGH STRENGTH BOLTS WITH HEX. NUT & WASHER AND TWO 3" SQUARE X 5/16" PLATE WASHERS EACH.



**DETAIL B
(FOR INTERIOR ATTACHMENT)**



PLAN FOR DIAPHRAGM LAYOUT



DIAPHRAGM SUPPORT

| | | | |
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| | | PLANS CK'D. | RB |
| STEEL DIAPHRAGM | | | SHEET 9 OF 10 |