

PROJ. NO.	SHEET NO.	TOTAL SHEETS
20192472-088	1	11

PLAN OF PROPOSED
BRIDGE REPLACEMENT CN #088
25'-0" I-BEAM SPAN
E0650 RD. (W. 44TH ST.) OVER TRIBUTARY OF CLEAR CREEK
STRUCTURE NO. 60E0650N3200002
BRIDGE NBI NO. 23514
COUNTY COMMISSIONERS DISTRICT #3
PAYNE COUNTY, OKLAHOMA

SCALES
 1" = 10'
 PLAN
 1" = 10'
 PROFILE HOR. 1" = 10'
 VER. 1" = 10'
 LAYOUT MAP 1" = 2,640'

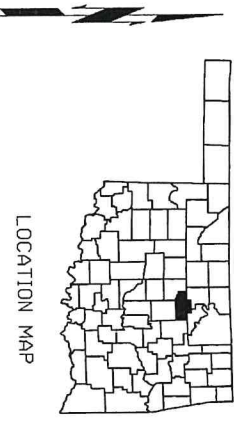
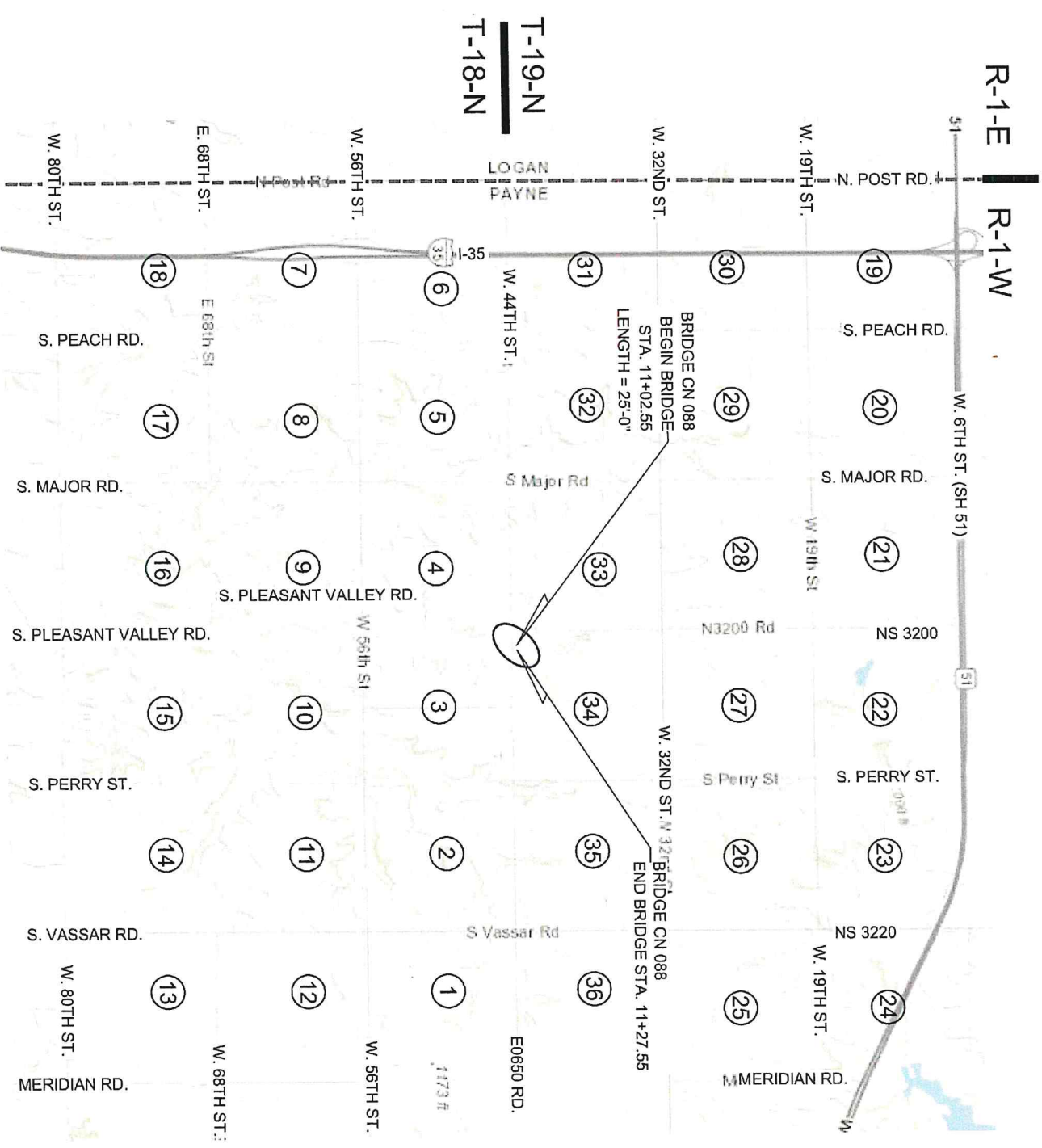
LEVEL DATUM IS ASSUMED BEARINGS AND COORDINATES ARE ASSUMED

- SURVEY DATA
- HORIZONTAL CONTROL FOR THIS SURVEY IS THE ESTABLISHED SECTION CORNERS ALONG THE CONSTRUCTION REFERENCE LINE & SECTION LINE.
 - VERTICAL CONTROL IS MEAN SEA LEVEL (U.S.C. & G.S.)



UTILITY STATEMENT:
 THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE AS TO THE ACCURACY OF THE UNDERGROUND UTILITIES SHOWN. COPIES OF ALL SUCH UTILITIES IN THE AREA, EITHER NOT WARRANTED OR ABANDONED, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

- CONVENTIONAL SYMBOLS**
- PROPOSED ROAD
 - RAILROADS
 - RANGE & TOWNSHIP
 - SECTION LINES
 - QUARTER SECTION LINES
 - FENCES
 - GROUND LINE
 - EXISTING ROADS
 - BASE LINE
 - GRADE LINES
 - TELEPHONE & TELEGRAPH
 - POWER LINES
 - OIL WELLS
 - BUILDINGS
 - DRAINAGE STRUCTURES-IN PLACE
 - DRAINAGE STRUCTURES-NEW
 - RIGHT-OF-WAY LINES-EXISTING
 - RIGHT-OF-WAY LINES-NEW
 - RIGHT-OF-WAY MARKERS-IN PLACE
 - RIGHT-OF-WAY MARKERS-REMOVE & RESET
 - CONTROLLED ACCESS
 - RIGHT-OF-WAY FENCE



SHEET INDEX

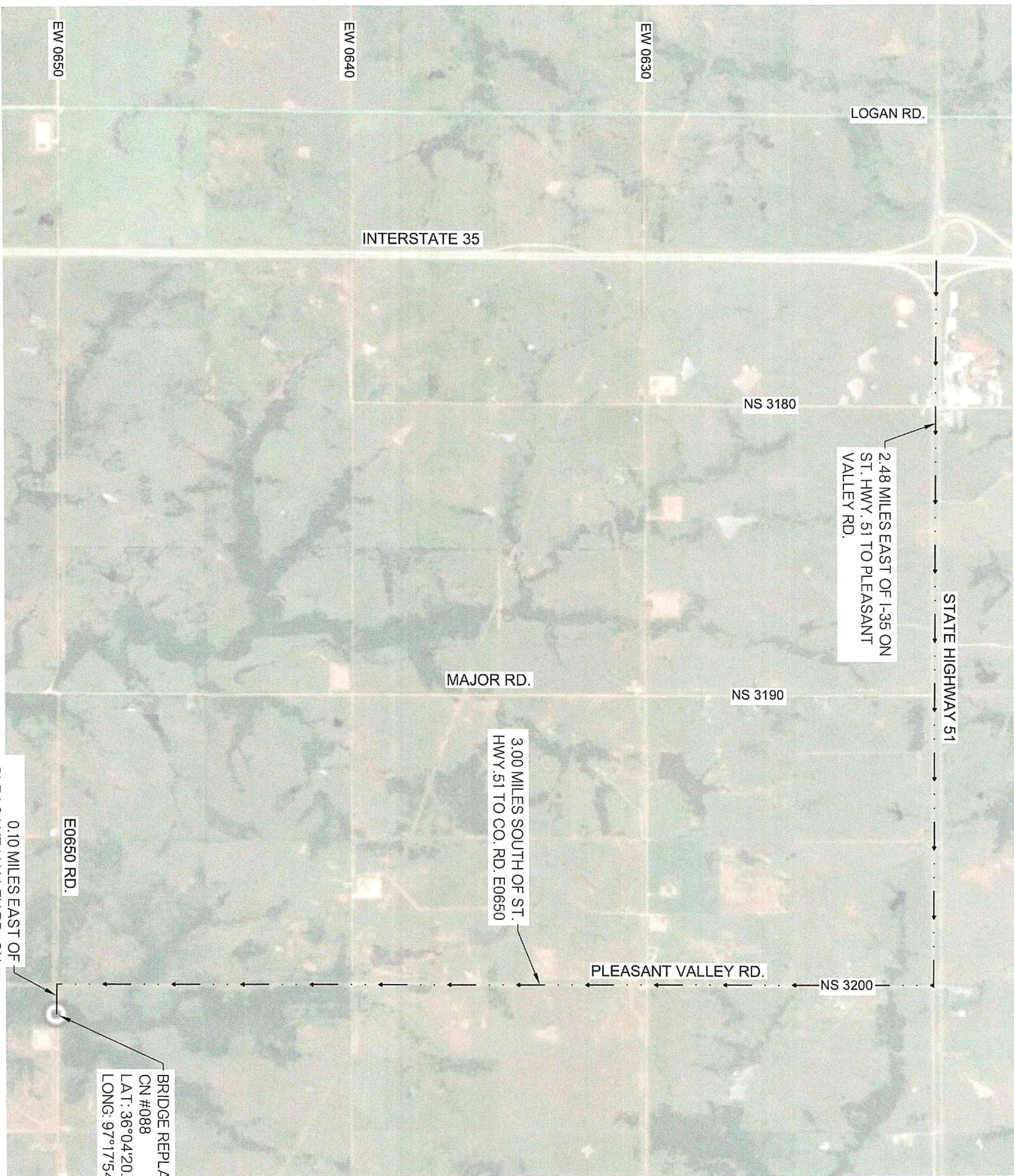
Sheet Number	Sheet Title
0001	TITLE SHEET
0002	REGIONAL MAP
AB01	GENERAL NOTES AND PAY QUANTITIES (BRIDGE)
B001	GENERAL PLAN AND ELEVATION
B002	FOUNDATION REPORT
B003	25' I-BEAM SPAN BRIDGE DETAILS 1 OF 3
B004	25' I-BEAM SPAN BRIDGE DETAILS 2 OF 3
B005	25' I-BEAM SPAN BRIDGE DETAILS 3 OF 3
E001	SECTION 404 PERMIT COMPLIANCE
R001	STORM WATER MANAGEMENT PLAN
R002	EROSION CONTROL PLAN

REGISTERED PROFESSIONAL ENGINEER
 JEFFREY G. DIXON
 20651
 OKLAHOMA
 ENGINEER
 DATE 2/26/20

PROFESSIONAL STRUCTURAL ENGINEER
 ISABELLA CRISTINA HORTON
 30018
 OKLAHOMA
 ENGINEER
 DATE 02/26/20

5901 Breakley Extension, Suite 500
 Oklahoma City, Oklahoma 73118
 Phone (405) 840-2931
 www.isb-ae.com

APPROVED
 THIS DAY OF _____
 COUNTY COMMISSIONERS
 CHAIRMAN _____
 MEMBER _____
 MEMBER _____
 ATTEST _____
 COUNTY CLERK



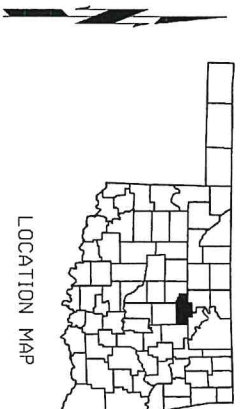
2.48 MILES EAST OF I-35 ON ST. HWY. 51 TO PLEASANT VALLEY RD.

3.00 MILES SOUTH OF ST. HWY. 51 TO CO. RD. E0650

0.10 MILES EAST OF PLEASANT VALLEY RD. ON CO. RD. E0650 TO PROJECT

BRIDGE REPLACEMENT
CN #088
LAT: 36°04'20.49" N
LONG: 97°17'54.88" W

REGIONAL MAP
ACCESS TO CN #088 FROM I-35 AND
S.H. 51 INTERCHANGE
STRUCTURE NO. 60E0650N3200002
BRIDGE NBI NO. 23514



5901 Broadway Extension, Suite 500
Oklahoma City, Oklahoma 73118
Phone: (405) 840-2331
www.fsd-oc.com

PAYNE COUNTY DIST. #3 CN# 088

REGIONAL MAP FOR ACCESS TO BRIDGE
REPLACEMENT PROJECT CN #088

GENERAL NOTES

SPECIFICATIONS:

COMPLY WITH THE REQUIREMENTS OF THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

DESCRIPTION OF WORK:

THE WORK TO BE PERFORMED UNDER THIS CONTRACT CONSISTS OF THE REPLACEMENT OF A SINGLE SPAN BRIDGE LOCATED ON W. 44TH ST. (E0650 RD.) OVER A TRIBUTARY OF CLEAR CREEK IN PAYNE COUNTY, OKLAHOMA. THE APPROACH AND ROADWAY WILL BE THE RESPONSIBILITY OF THE COUNTY AND WILL REQUIRE THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE COUNTY MUNICIPALITIES ON THE SCOPE AND/OR EXTENT OF WHAT WILL BE PROVIDED AND AT WHAT POINT OF TIME IN THE PROJECT.

BRIDGE APPROACH AND ROADWAY WILL BE WIDENED FROM 420' TO 28' ROADWAY CLEARANCE. THE WIDENING WILL BE ACCOMPLISHED BY REMOVING AND REPLACING EXISTING DECK, REPLACING THE EXISTING ABUTMENTS WITH NEW ABUTMENTS, AND REPLACING EXISTING BEAMS WITH NEW STEEL BEAMS. THE CENTERLINE OF PROPOSED BRIDGE WILL BE LOCATED ON THE SECTION LINE, BEARING N89°38'07.77"E AS PER THE SURVEY.

VERIFICATION OF EXISTING CONDITIONS:

ALL DIMENSIONS OF THE EXISTING COMPONENTS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DATA NECESSARY TO CONNECT THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF. BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE WORK AREA OR SURROUNDING AREA. ANY DAMAGE TO THE AREA DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. TO THE SATISFACTION OF THE RESIDENT ENGINEER.

CONTRACTOR SHALL BE AWARE OF EXISTING CONDITIONS AND POTENTIAL HAZARDS DURING CONSTRUCTION. CONTRACTOR SHALL TAKE PRECAUTIONS TO MAINTAIN THE INTEGRITY OF ANY EXISTING UTILITIES AND STRUCTURES. ANY DAMAGE TO THESE ITEMS DURING CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER.

HORIZONTAL GEOMETRY & VERTICAL CURVE DATA:

THE INFORMATION SHOWN ON THE 'GENERAL PLAN AND ELEVATION' (SHEET B001) DRAWINGS REGARDING HORIZONTAL GEOMETRY AND VERTICAL PROFILE WERE TAKEN FROM SURVEYING. THIS INFORMATION IS INCLUDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING HORIZONTAL AND VERTICAL GEOMETRY. THE RECONSTRUCTION OF THE BRIDGE DECKS IS INTENDED TO CONSTRUCT NEW BRIDGE STRUCTURE ABOVE BOTTOM OF EXISTING BRIDGE BEAM (LOW CHORD) ELEVATION AND TRANSITION THE APPROACHING ROADWAY TO MEET THE NEW DECK ELEVATION.

CONCRETE DECK FINISHING:

BRIDGE DECKS FOR THIS PROJECT ARE TO BE FINISHED WITH A MECHANICAL TYPE FINISHING MACHINE OVER-HANGING SLAB FORMS WILL BE REQUIRED TO BE OF SUFFICIENT STRENGTH TO SUPPORT THE WEIGHT OF THE CONCRETE FORMS, FINISHING MACHINE AND OTHER CONSTRUCTION LOADS. PRIOR TO FINISHING OPERATIONS, A PROPOSAL STIPULATING THE TYPE OF FINISHING MACHINE AND THE FINISHING PROCEDURE WILL BE SUBMITTED TO THE RESIDENT ENGINEER. THIS PROPOSAL SHALL SET FORTH ANY AREAS IN WHICH A MECHANICAL FINISHER CANNOT BE USED AND THE METHODS FOR FINISHING THESE AREAS. CONCRETE SHALL NOT BE PLACED UNTIL THIS PROPOSAL IS APPROVED BY THE RESIDENT ENGINEER.

PAY ITEM NOTES

(1) REMOVAL OF BRIDGE ITEMS:

THE PAY ITEM 'REMOVAL OF BRIDGE ITEMS' SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL ITEMS TO BE REMOVED FROM THE EXISTING BRIDGE AS SPECIFIED OR SHOWN IN THE PLANS INCLUDING THE FOLLOWING:

1. WOODEN DECK WITH GUARDRAILS;
2. BEAMS AND DIAPHRAGMS;
3. SHEET PILES;
4. DRIVEN PILES.

THE EXISTING STRUCTURE MATERIAL, FROM ITEMS LISTED ABOVE, SHALL BECOME THE PROPERTY OF THE CONTRACTOR EXCEPT FOR STEEL BEAMS AND PORTIONS OF DRIVEN PILES WHICH WILL BECOME PROPERTY OF THE COUNTY. DRIVE PILES SHALL BE CUT AT GROUND LINE ELEVATION.

ALL COSTS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF CUTTING, DEMOLITION, AND CLEANING, CONTAINMENT AND REMOVAL OF DEBRIS, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF 'REMOVAL OF BRIDGE ITEMS'.

(2) EROSION CONTROL MAINTENANCE:

PRICE BID SHALL INCLUDE PLAN QUANTITIES OF SILT FENCE AND SILT DIKES AND ALL MAINTENANCE INCLUDING CUT AND DISPOSAL OF SILT WHEN 50% FULL AND/OR IN CONFORMANCE OF THE SWMP AND/OR SWPPP. SEE SHEET B001.

(3) SURVEYING AND CONSTRUCTION STAKING:

THE CONTRACTOR WILL BE REQUIRED TO CONDUCT ALL SURVEYING AND CONSTRUCTION STAKING NECESSARY FOR THE COMPLETION OF THE PROJECT AS DIRECTED BY THE RESIDENT ENGINEER. THE SURVEYING AND CONSTRUCTION STAKING REQUIRED FOR COMPLETION OF THE PROJECT MAY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING:

- A. ESTABLISHING HORIZONTAL CONTROL INCLUDING THE STAKING OF CENTERLINE BRIDGE AND APPROACH ROADWAY AND ASSIGNING STATIONING AS DIRECTED BY THE RESIDENT ENGINEER.
- B. ESTABLISHING VERTICAL CONTROL, INCLUDING THE SETTING OF BENCHMARKS.
- C. MEASURING THE ELEVATIONS ALONG THE EXISTING BRIDGE DECK SLAB AT CENTERLINE AND OFF DRIVING LANES AND EDGES OF SHOULDERS.
- D. MEASURING THE ELEVATIONS ALONG THE EXISTING APPROACH ROADWAY AT CENTERLINE, EDGES OF DRIVING LANES AND EDGES OF SHOULDERS.
- E. MEASURING THE EXISTING TOP OF BEAM ELEVATION FOR DETERMINING DECK SLAB HAUNCH AND FORMING DATA.
- F. MEASURING AND SETTING CONSTRUCTION STAKES AS NECESSARY FOR CONDUCTING THE GRADING AND SURFACING WORK ON THE APPROACH ROADWAY.

ALL COST OF SURVEYING AND CONSTRUCTION STAKING NECESSARY FOR COMPLETION OF THE PROJECT, AS DIRECTED BY THE RESIDENT ENGINEER, INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF 'CONSTRUCTION STAKING LEVEL 1'.

(1) AIR RELIEF VENTS FOR CONCRETE DECK SLAB:

VENT OPENINGS SHALL BE CONSTRUCTED WITH SCH 40 PVC PIPE AND CAST INTO CONCRETE SLAB AT THE SPACINGS AND LOCATION SHOWN ON SHEET B003. DRILLING THE CONCRETE SLAB IS PROHIBITED. ALL COST OF MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED ON PAY ITEM 'CLASS AA CONCRETE'.

BR-1: PAYMENT FOR THIS ITEM WILL BE BASED ON THE PLAN QUANTITIES ONLY.

BR-2: STRUCTURAL STEEL CONSISTING OF W24x68 ROADWAY BEAMS ONLY.

BR-3: STEEL SHEET PILING SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM A857 FROM MATERIAL CONFORMING TO ASTM A570 GRADE 36. THE MATERIAL SHALL BE HOT DIP GALVANIZED PER ASTM A123 AT A RATE OF 2 OZ. PER SQUARE FOOT ON SURFACE AREA, ON BOTH SIDES. PRE-GALVANIZED MATERIAL SHALL CONFORM TO ASTM A446 GRADE A AND BE GALVANIZED PER ASTM A525 WITH A CLASS G210 COATING. STEEL SHEET PILING SHALL BE 10 GA., 0.1345 INCHES THICK, WEIGHING 12.5 LBS. PER LINEAR FOOT OF PILE OR 76 LBS. PER SQUARE FEET OF WALL. SHALL HAVE SECTION MODULE OF 3.60 INCHES CUBED PER SECTION AND MOMENT OF INERTIA OF 6.0 IN⁴.

BR-4: ELEVATIONS PROVIDED ON THESE DOCUMENTS ARE FROM ARE FROM THE SURVEY. CONTRACTOR SHALL FIELD VERIFY. LENGTH OF PILES ARE BASED ON SURVEY AND AVERAGE A LENGTH OF 41' AT THE WEST ABUTMENT AND 16' AT THE EAST ABUTMENT.

BR-5: CONTRACTOR SHALL PROVIDE STRUCTURAL STEEL FOR HP 10X42 CONFORMING TO AASHTO W270, GRADE 50W.

BR-6: PRICE TO INCLUDE ALL HARDWARE NECESSARY FOR THE COMPLETE INSTALLATION OF THE GUARDRAIL (RE: SHEET B003), INCLUDING TURNED ENDS, AS WELL AS THE MOUNTING OF OM-3 TYPE 3 OBJECT MARKERS (2) OM3-L AND (2) OM3-R SIMILAR TO DETAIL 1, SHEET B005.

CN #088

PAY QUANTITIES

BRIDGE "A" 25' COMPOSITE I-BEAM SPAN, 28'-0" CLEAR ROADWAY

ITEM NO.	DESCRIPTION	UNIT	QUANT.
1	STRUCTURAL STEEL	LB	11900.00
2	CLASS AA CONCRETE	CY	28.00
3	REINFORCING STEEL	LB	3660.00
4	L53X14x6" SHEAR ANGLES @ 12" O.C.	LB	403.00
5	CR11.5 (SHEET PILING HORIZ. REINFORCEMENT)	LB	7000.00
6	C12x20.7 HEADER	LB	1242.00
7	W-BEAM (GUARDRAIL TYPE A)	LF	100.00
8	GUARD RAIL POST W6x20	LB	1960.00
9	22 GA GALVANIZED DECK	SF	750.00
10	L53X14/4 ANGLE (DIAPHRAGM)	LB	1365.00
11	L53X14/4 ANGLE (SHEET PILES)	LB	770.00
12	PILES FURNISHED (HP10x42)	LB	30786.00
13	PILES DRIVEN (HP10x42)	LB	30786.00
14	SHEET PILING FURNISHED	SF	2200.00
15	SHEET PILING DRIVEN	SF	2200.00
16	HP10x42 PILE CAP	LB	2772.00
17	STIFFNER PLATES	EA	106.00
18	5/8" DIA. x 6" SHEAR STUDS	EA	106.00
19	L4x4x1/4 ANGLE	LB	1120.00
20	TYPE I-A PLAIN RIPRAP	TON	215.00
21	TYPE I-A FILTER BLANKET	TON	55.00
22	SHEET ALUMINUM SIGNS	SF	32.00

CN #088

PAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
23	CONSTRUCTION STAKING LEVEL 1	LSUM	1.00
24	REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM	1.00
25	SWPP DOCUMENTATION AND MANAGEMENT	LSUM	1.00

PAYNE COUNTY

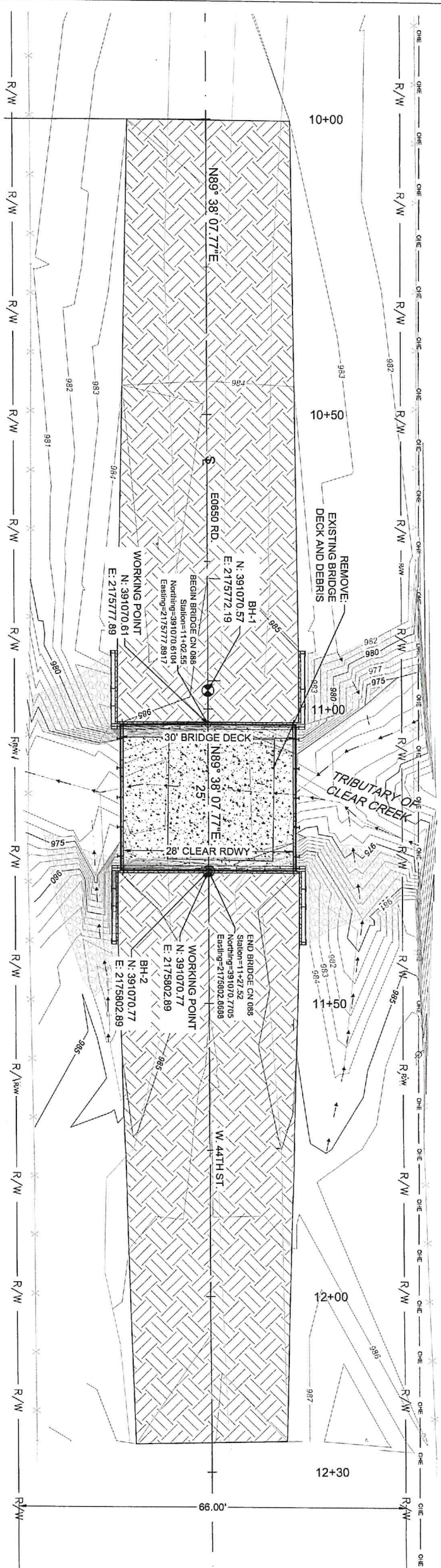
DIST. #3

CN# 088

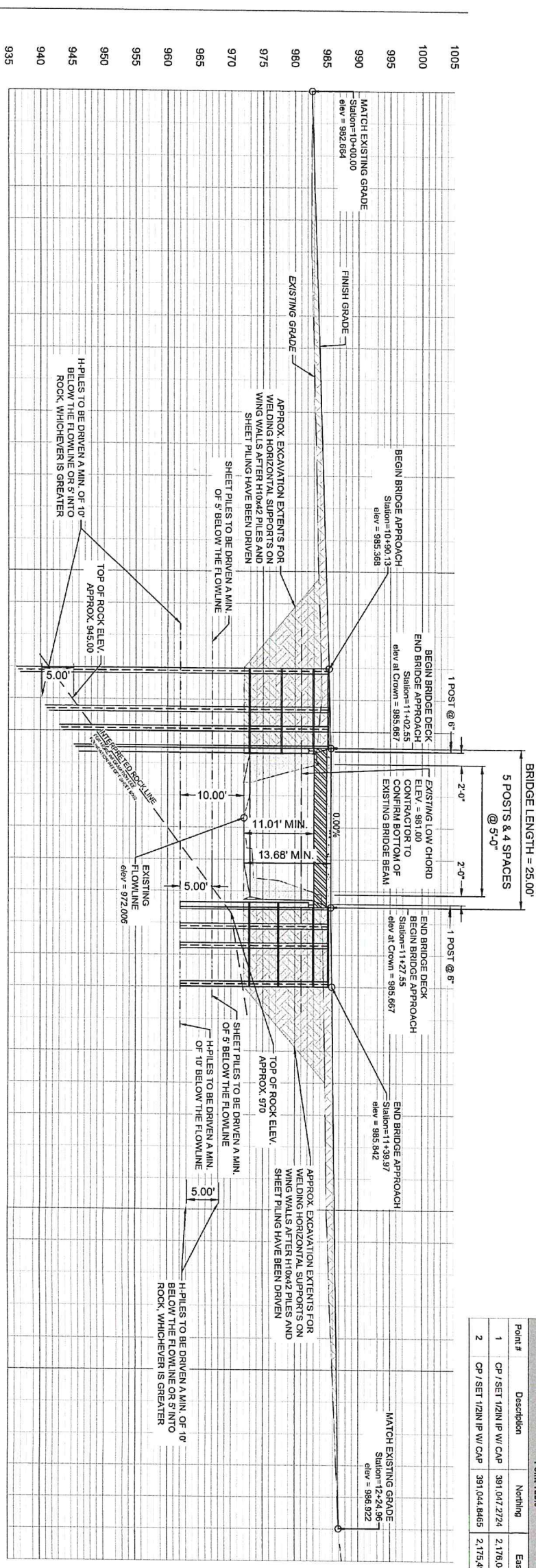
GENERAL NOTES AND PAY QUANTITIES
(BRIDGE)

AB01-92472

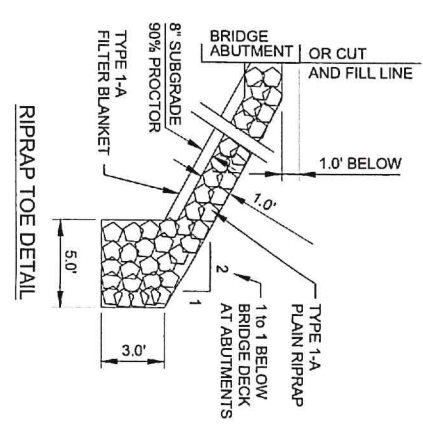
SHEET NO. AB01 (3 OF 11)



PLAN
SCALE 1" = 10'



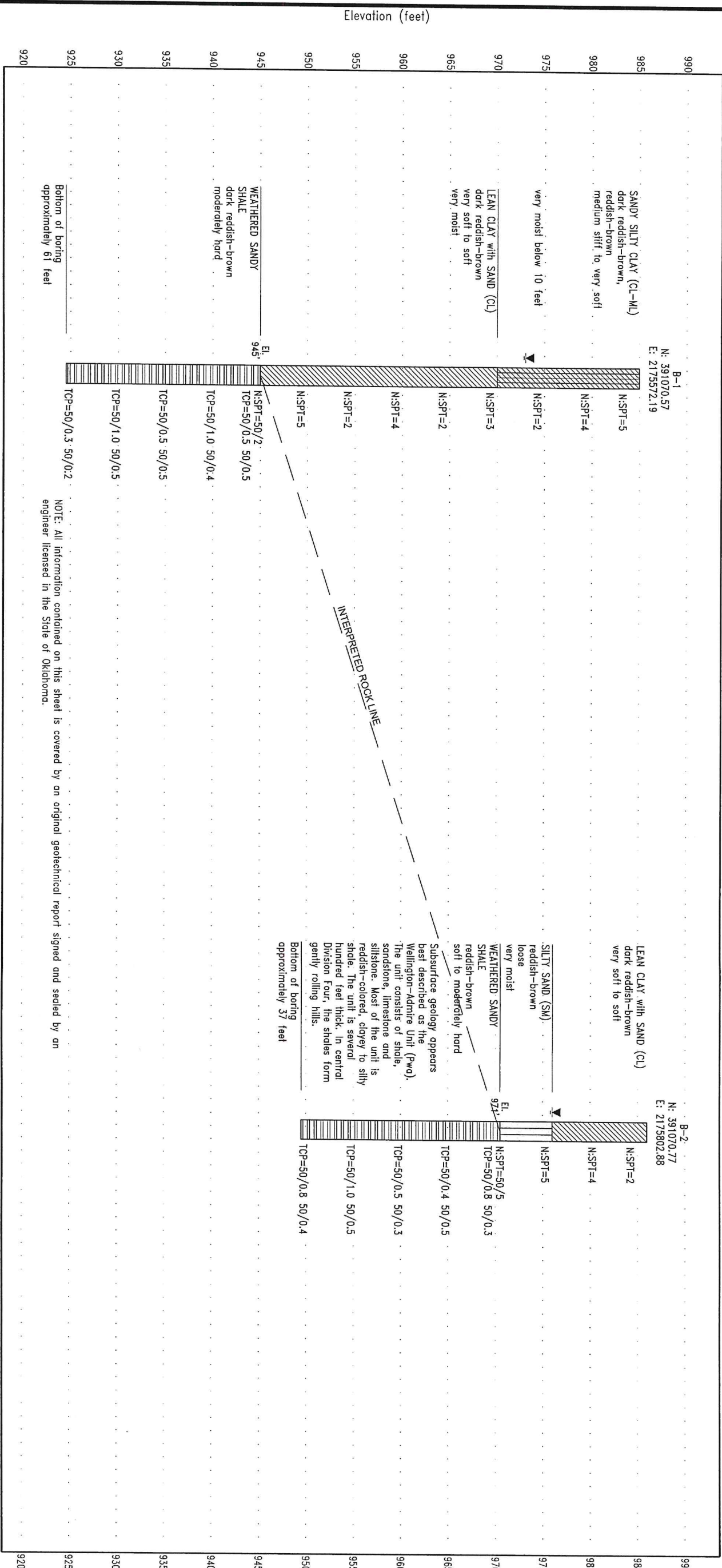
Point #	Description	Nothing	Existing	Elevation
1	CP / SET 1/2 IN IP W/ CAP	391.047 2724	2.176, 0.49, 5.880	1,005.50
2	CP / SET 1/2 IN IP W/ CAP	391.044 8465	2.175, 4.94, 3.990	991.46



DESIGN DATA:
 CLASS AA CONCRETE $F_c = 4000$ PSI
 REINFORCING STEEL M270 $F_y = 60,000$ PSI
 STRUCTURAL STEEL M270 (GRADE 50W) $F_y = 50,000$ PSI

LOADING:
 HL-93 LOADING OR OKLAHOMA OVERLOAD TRUCK
DESIGN:
 ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS,
 7TH EDITION WITH CURRENT INTERIMS
 ANSII/ASHTO/AASHTO/AWS D1.5 BRIDGE WELDING CODE
 ANSII/AWS D1.5 STRUCTURAL STEEL
 WELDING CODE - STAINLESS STEEL

FOUNDATION DATA:
 ABUTMENT H10x42 DRIVEN PILES
 FACTORED REACTION = 32 TONS/PILE
 ALLOWABLE DESIGN CAPACITY = 70.5 TON/PILE
 BEARING RESISTANCE FACTOR = 0.5
 MINIMUM DEPTH INTO ROCK = 5.0 FT



NOTE: All information contained on this sheet is covered by an original geotechnical report signed and sealed by an engineer licensed in the State of Oklahoma.

Hinderliter Geotechnical Engineering
 4071 NW 3rd Street
 Oklahoma City, OK 73107
 Telephone: (405) 942-4090
 Website: HinderliterGeo.com

LEGEND:
 N:SPT=Standard Penetration Test
 TCP=Texas Cone Penetrometer
 R=Recovery
 ROD=Rock Quality Designation
 UC=Unconfined Compressive Strength

SUBSURFACE FENCE DIAGRAM
 Project: CN-88 Single-Span Bridge Repair
 Location: EW-65 & NS-320, Payne County
 Number: FSB-20-01b

PAYNE COUNTY DIST. #3 CN# 088



FOUNDATION REPORT

B002-92472

SHEET NO. B002 (5 OF 11)

30'-0"

28'-0" MIN. CLEAR ROADWAY

ROUNDED 2'-0" EACH SIDE OF
SYM. ABOUT
ROADWAY

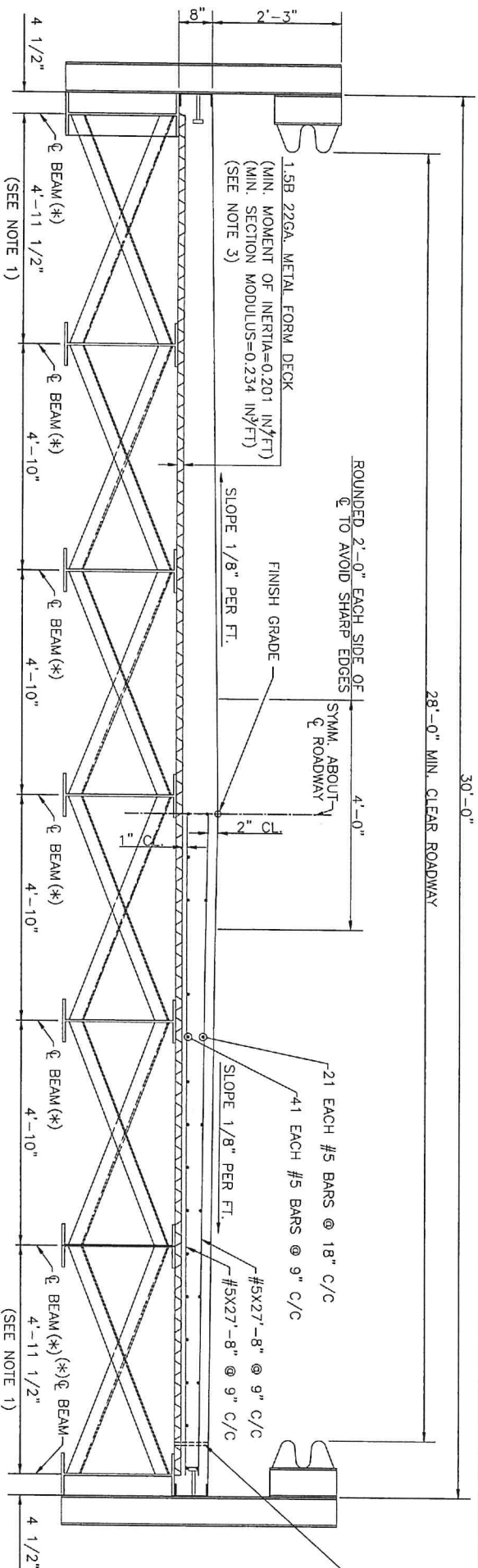
1.5B 22GA. METAL FORM DECK
(MIN. MOMENT OF INERTIA=0.201 IN⁴/FT)
(MIN. SECTION MODULUS=0.234 IN³/FT)
(SEE NOTE 3)

FINISH GRADE
SLOPE 1/8" PER FT.

21 EACH #5 BARS @ 18" C/C
41 EACH #5 BARS @ 9" C/C
#5x27'-8" @ 9" C/C
#5x27'-8" @ 9" C/C
SLOPE 1/8" PER FT.

PROVIDE 4" PVC VENT TUBES
@ 5'-0" SPACING ON EACH
SIDE OF BRIDGE DECK

34 EACH #5 X 29'-4" @ 9" C/C
(TOP AND BOTTOM SLAB)



4 1/2"

(SEE NOTE 1)

END SECTION

INTERIOR SECTION

(* 7 EA. W24x68 BEAMS
(SEE NOTE 2)

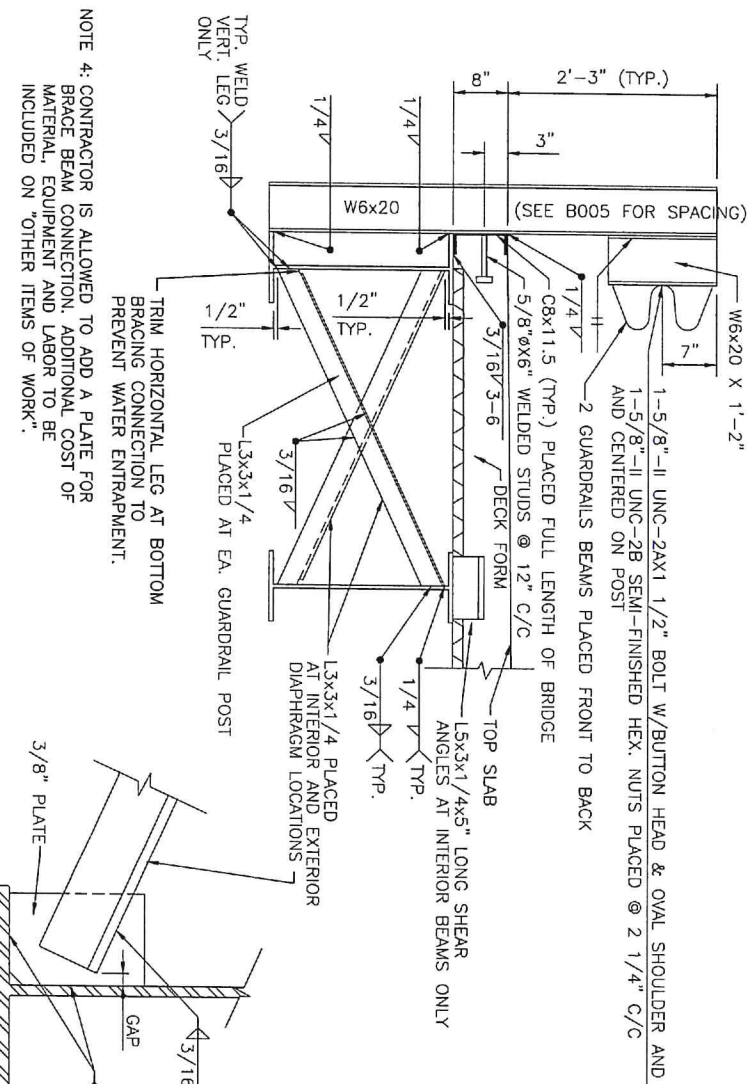
BRIDGE SECTION

N.T.S.

NOTE 1: THIS DIMENSION SHALL BE MODIFIED AS NECESSARY TO INSURE THE STRAIGHT ALIGNMENT OF THE CBX11.5 AT THE OUTSIDE EDGE OF SLAB WHEN THE ROADWAY BEAM SIZE CHANGES FROM ONE SPAN TO THE NEXT SPAN.

NOTE 2: DECK SUPPORT AND SHEAR ANGLES NOT SHOWN ON BRIDGE SECTION FOR CLARITY. REFER TO TRAFFIC RAIL AND DIAPHRAGM DETAIL.

NOTE 3: PROVIDE DECK SUPPORT ANGLE AT 4'-0" MAX. INCREMENTS WELDED TO BEAMS. COST OF MATERIAL, EQUIPMENT AND LABOR TO BE INCLUDED ON "OTHER ITEMS OF WORK".



NOTE 4: CONTRACTOR IS ALLOWED TO ADD A PLATE FOR BRACE BEAM CONNECTION. ADDITIONAL COST OF MATERIAL, EQUIPMENT AND LABOR TO BE INCLUDED ON "OTHER ITEMS OF WORK".

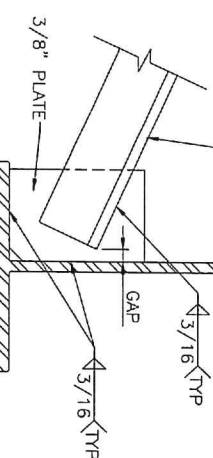
TRAFFIC RAIL AND DIAPHRAGM DETAIL

N.T.S.

OPTIONAL CONNECTION AT BRACE

TOP AND BOTTOM

N.T.S. (SEE NOTE 4)

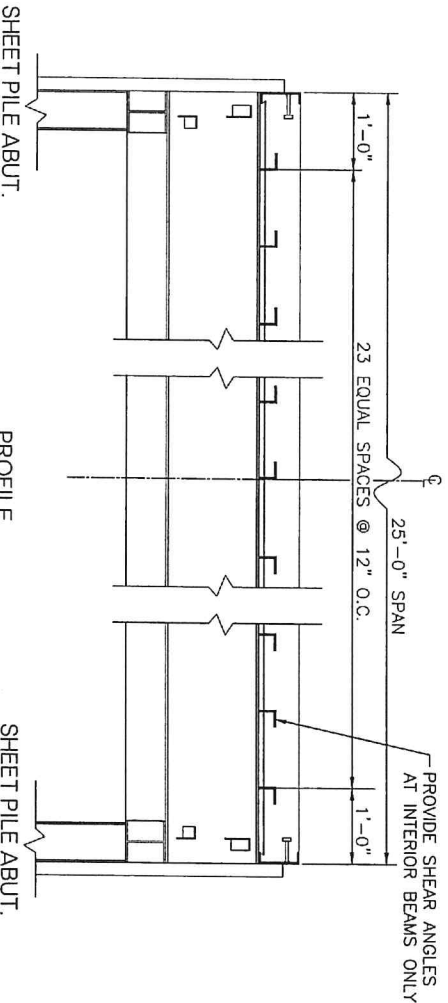


SHEET PILE ABUT.

PROFILE

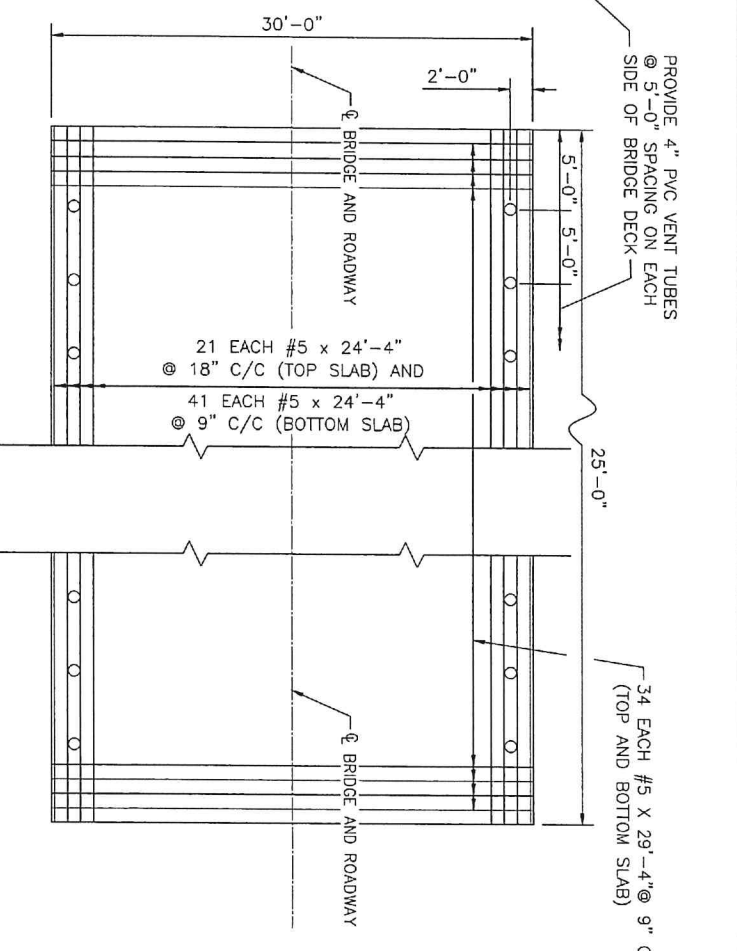
N.T.S.

SHEET PILE ABUT.



TYPICAL SLAB REINFORCING

N.T.S.



5/8"øx6" WELDED STUDS @ 12" C/C

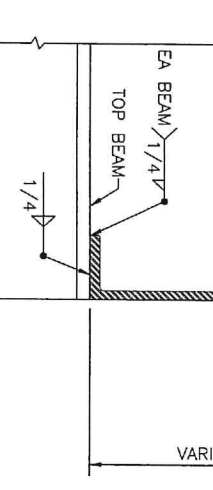
TOP SLAB

EA BEAM 1/4"

TOP BEAM

1/4"

VARIES



(25'-0" SPAN) BEGIN OR END BRIDGE

TOP SLAB

DIAPHRAGM

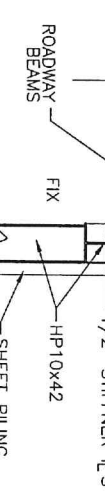
END OF BEAM

1/2" STIFFENER P'S

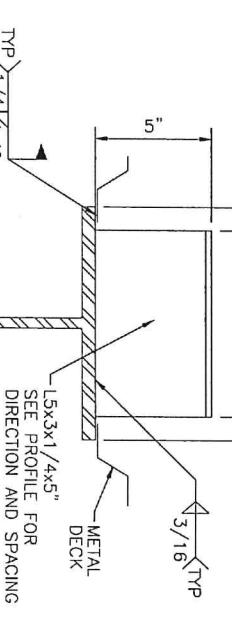
CUT STEEL CHANNEL HEADER

HP10x42

SHEET PILING



MAXIMUM SPACING @ 4'-0" C/C
SLAB SPACER DETAIL
OR EQUIVALENT
N.T.S.



SHEAR ANGLE CONNECTION

N.T.S.

PAYNE COUNTY

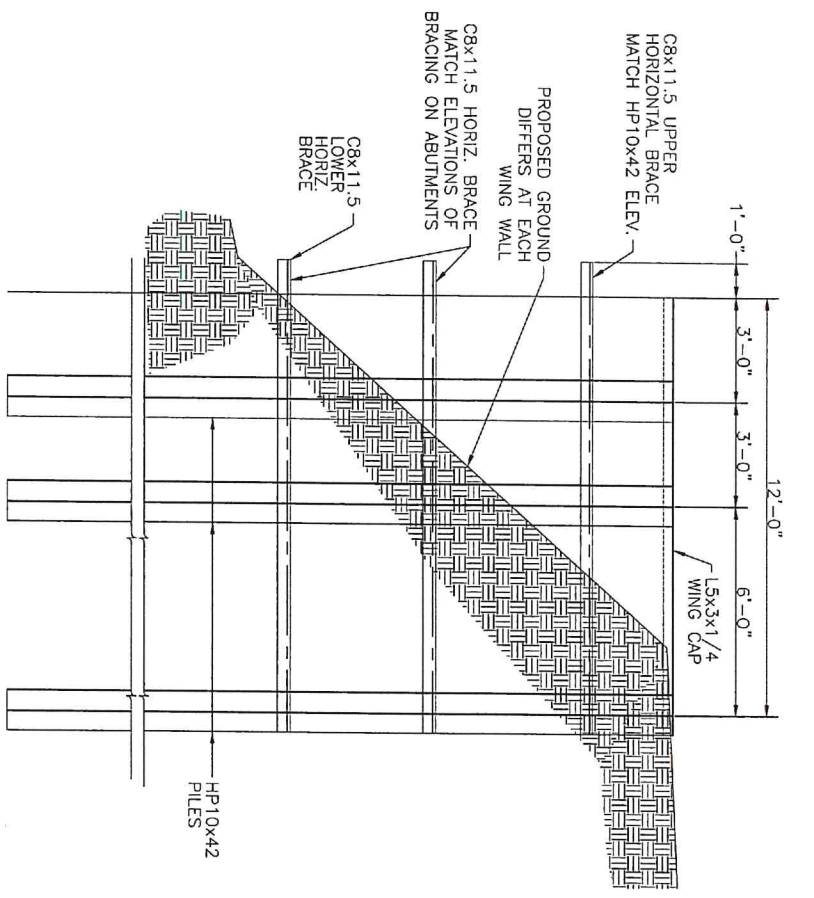
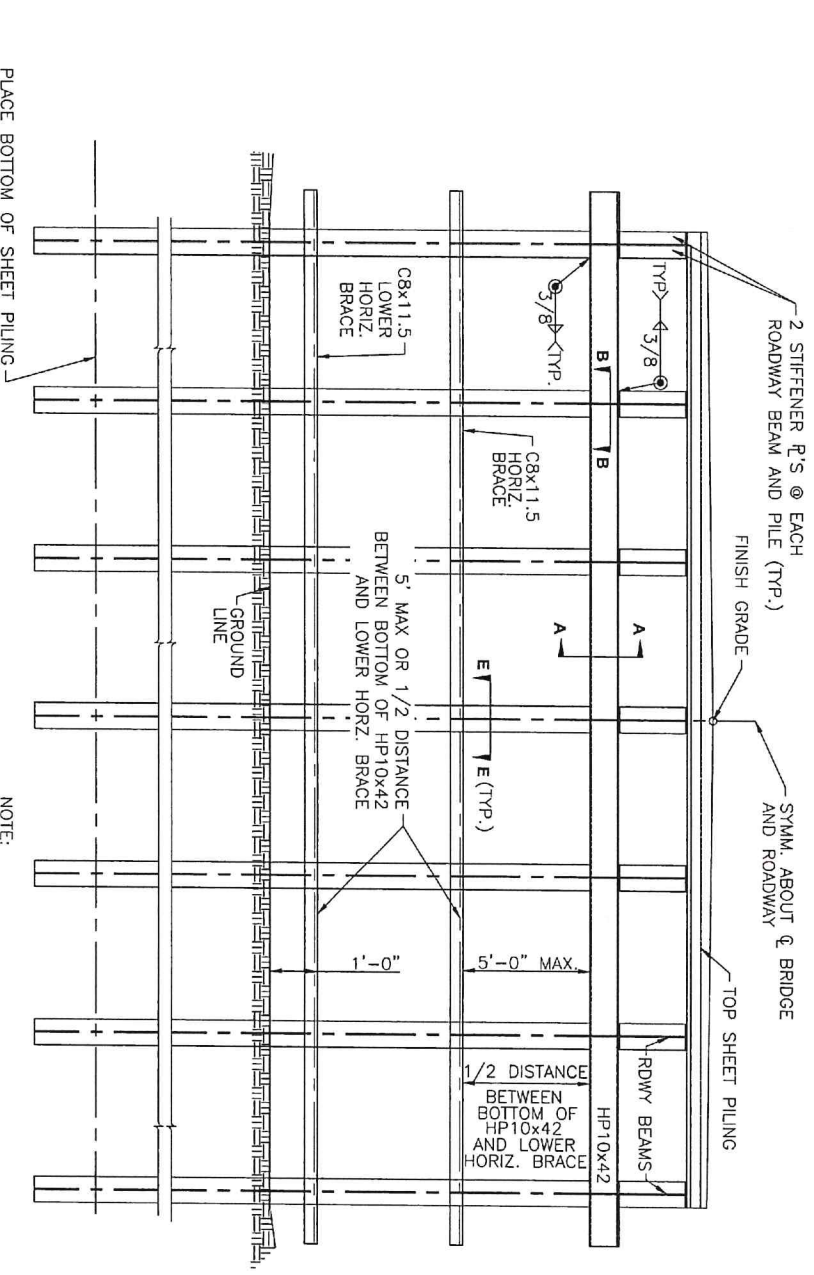
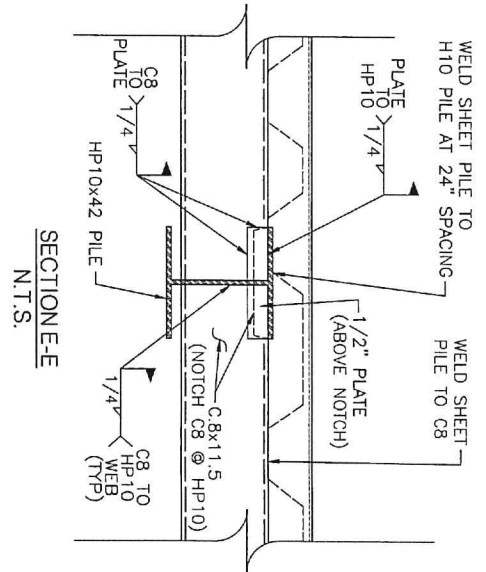
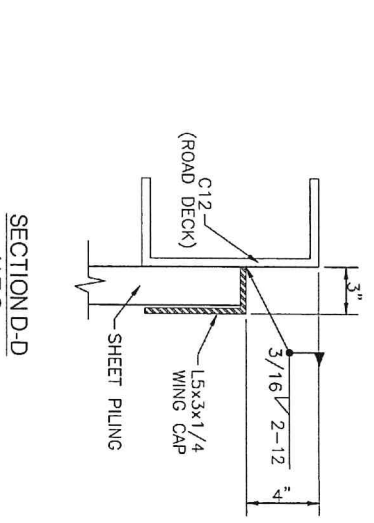
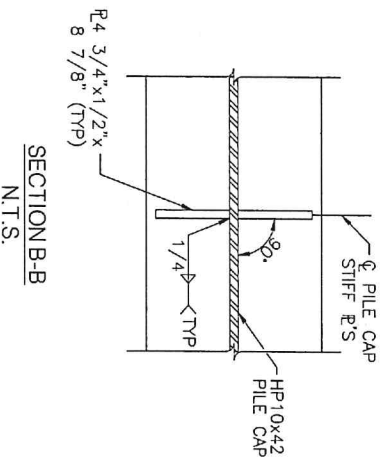
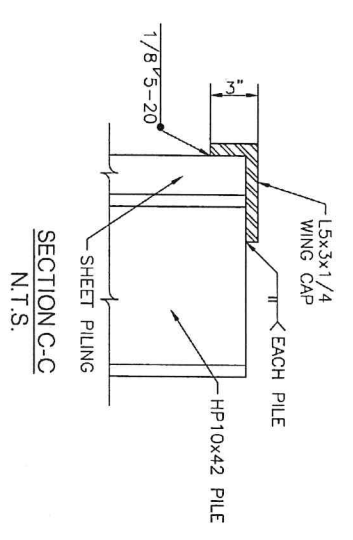
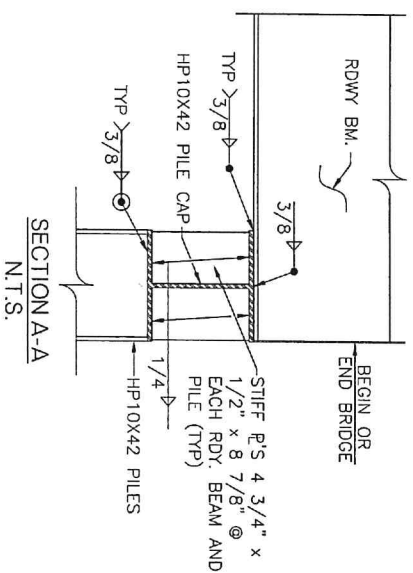
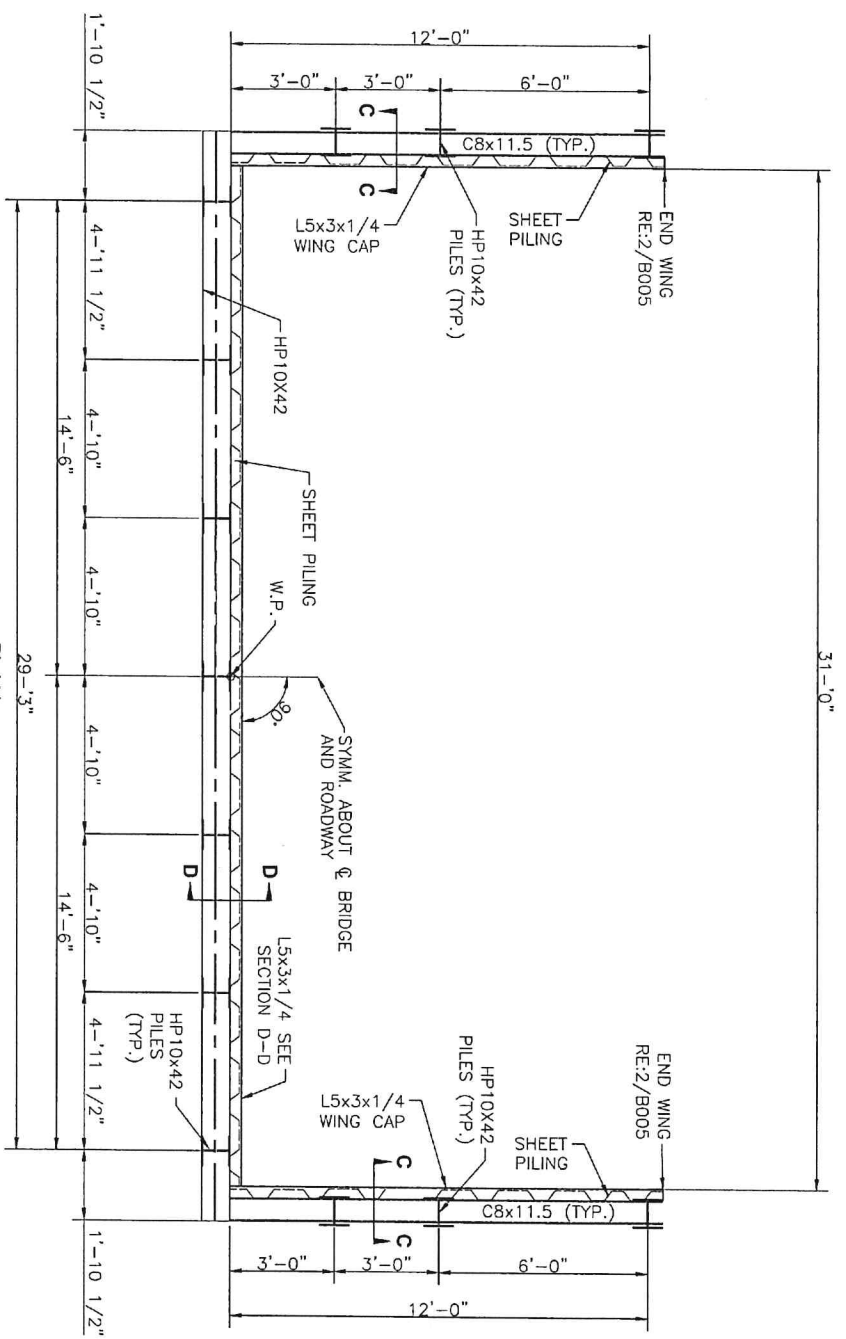
DIST. #3

CNH 088

25'-0" 1-BEAM SPAN
BRIDGE DETAILS
(SHEET 1 OF 3)

B003-92472

SHEET NO. B003. (6 OF 11)



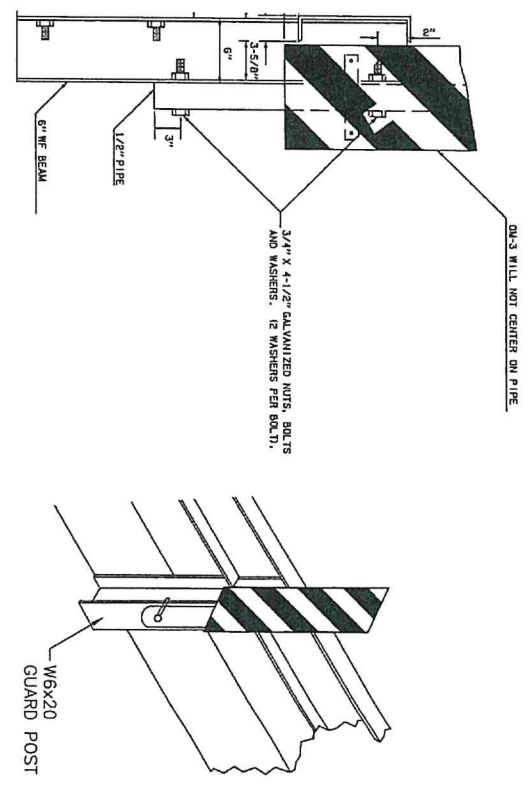
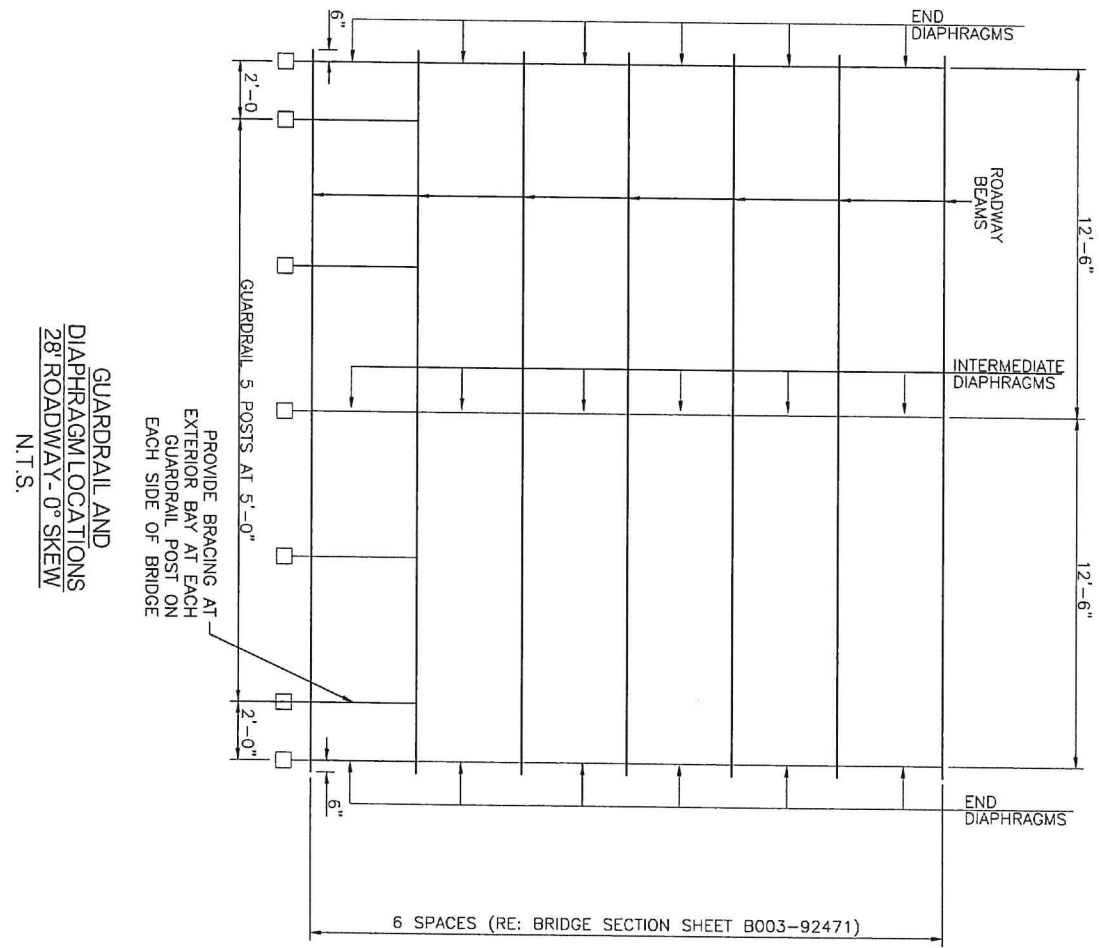
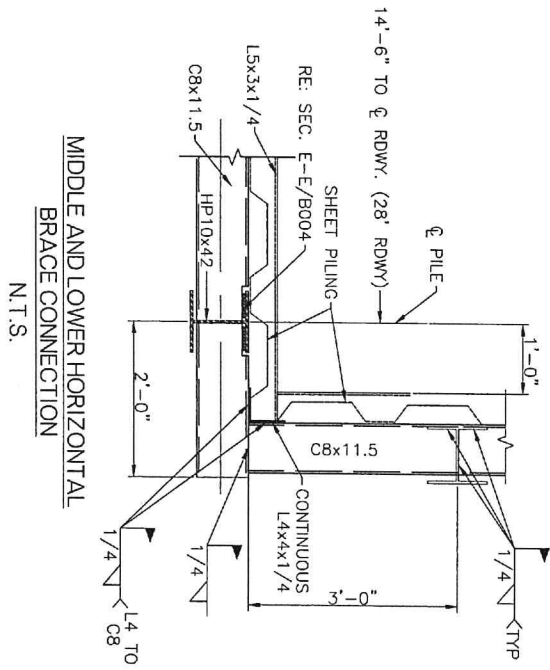
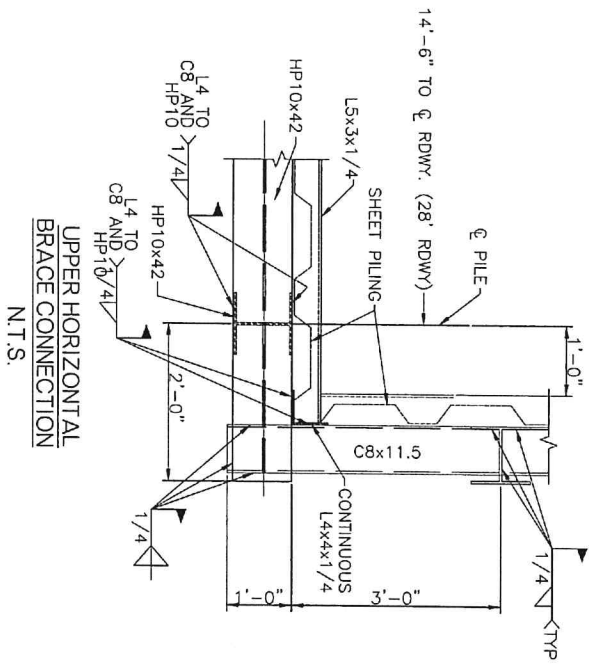
NOTE: PILES SHALL BE DRIVEN SO THAT THE BOTTOM OF PILES ARE A MINIMUM OF 10' BELOW CREEK FLOW LINE ELEVATION OR 5' INTO ROCK, WHICHEVER IS GREATER.

ELEVATION N.T.S.

NOTE: PILES SHALL BE DRIVEN SO THAT THE BOTTOM OF PILES ARE A MINIMUM OF 10' BELOW CREEK FLOW LINE ELEVATION OR 5' INTO ROCK, WHICHEVER IS GREATER.

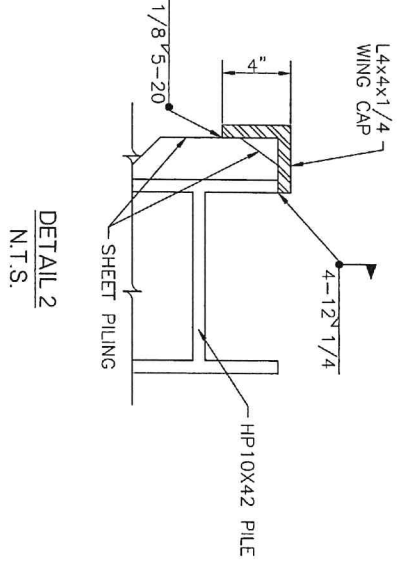
SIDE ELEVATION N.T.S.

NOTE: CONTRACTOR IS ALLOWED TO USE ANGLE IRON TO CONNECT SHEET PILE TO C8 MEMBER. ADDITIONAL COST OF MATERIAL, EQUIPMENT AND LABOR TO BE INCLUDED ON "OTHER ITEMS OF WORK".



MOUNTING HEIGHT FOR OBJECT MARKERS
WHEN USED FOR MARKING OBJECTS 8'-0" OR LESS FROM THE SHOULDER, THE MOUNTING HEIGHT SHOULD BE 4'-0" ABOVE THE NEAR TRAFFIC LANE.

DETAIL 1
N.T.S.



DETAIL 2
N.T.S.

PAYNE COUNTY DIST. #3 CN# 088

25'-0" 1-BEAM SPAN
BRIDGE DETAILS
(SHEET 3 OF 3)

B005-92472 SHEET NO. B005 (8 OF 11)

STORM WATER MANAGEMENT PLAN

SITE DESCRIPTION

EROSION AND SEDIMENT CONTROLS

PROJECT LIMITS: W. 44TH ST. (E0660 RD.) BRIDGE *A* OVER TRIBUTARY OF CLEAR CREEK,
COUNTY COMMISSIONERS DISTRICT #3, PAYNE COUNTY, OKLAHOMA

PROJECT DESCRIPTION: CN-088 BRIDGE REPLACEMENT, 25' COMPOSITE I-BEAM WITH 28'

CLEAR ROADWAY, APPROACHING ROADWAY AND BRIDGE

APPROACHES BEING THE RESPONSIBILITY OF THE COUNTY.

STA. 11+02.55 TO STA. 11+27.55

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

1. PLACE TEMPORARY SEDIMENT CONTROL DEVICES AT ALL OFF SITE DRAINAGE LOCATIONS.
2. PERFORM CLEARING & GRUBBING OPERATIONS, PRESERVING ANY EXISTING VEGETATION NOT IMPEDING CONSTRUCTION.
3. REMOVE & STOCKPILE TOPSOIL.
4. ADD ADDITIONAL TEMPORARY SEDIMENT CONTROL DEVICES AND MAINTAIN AS NEEDED.
5. AS GRADING PROCEEDS, PLACE TEMPORARY MULCHING OR PERMANENT GRASS DEPENDING ON ULTIMATE SLOPES.
6. AS PERMANENT GRASSING IS ESTABLISHED (70% COVER), REMOVE TEMPORARY SEDIMENT CONTROL DEVICES.

SOIL TYPE:

TOTAL AREA OF THE CONSTRUCTION SITE: 40.342 ACRES

ESTIMATED AREA TO BE DISTURBED: 40.202 ACRES

OFFSITE AREA TO BE DISTURBED:
(FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.12 AC.

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: .039 AC.

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.60

LATITUDE & LONGITUDE OF CENTER OF PROJECT: LAT: 36°04'20.20"N LONG: 97°17'54.88"W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: CIMARRON RIVER

SENSITIVE WATERS OR WATERSHEDS: YES NO

303(d) IMPAIRED WATERS: YES NO

IF YES, LIST IMPAIRMENT: _____

LOCATED IN A TMDL: YES NO

LAKE THUNDERBIRD TMDL: YES NO

MS4 ENTITY: YES NO

IF YES, LOCATION: _____

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- SOIL RETENTION BLANKET
- PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- STABILIZED CONSTRUCTION EXIT
- TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- TEMPORARY FIBER LOG
- DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ROCK FILTER DAMS
- TEMPORARY SLOPE DRAIN
- PAVED DITCH W/ DITCH-LINER PROTECTION
- TEMPORARY DIVERSION CHANNELS
- TEMPORARY SEDIMENT BASINS
- TEMPORARY SEDIMENT TRAPS
- TEMPORARY SEDIMENT FILTERS
- TEMPORARY SEDIMENT REMOVAL
- RIP RAP
- INLET SEDIMENT FILTER
- TEMPORARY BRUSH SEDIMENT BARRIERS
- SANDBAG BERMS
- TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- HALL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARP/ALUMIN
- EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:
ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:
PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:
PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURERS' RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:
A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (ODES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAMINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
- 221 TEMPORARY SEDIMENT CONTROL

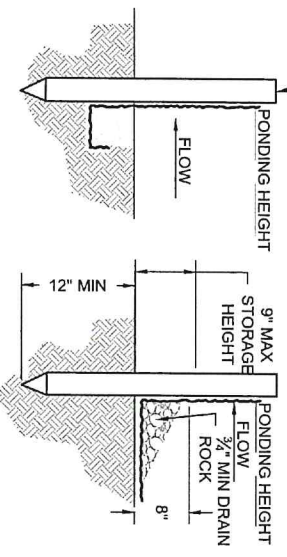
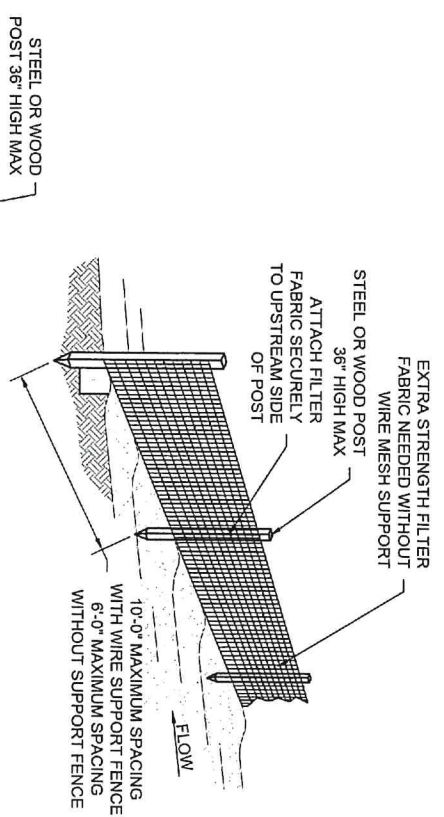
IN ADDITION:
ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA, ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.

PAYNE COUNTY DIST. #3 CN# 088

STORM WATER
MANAGEMENT PLAN

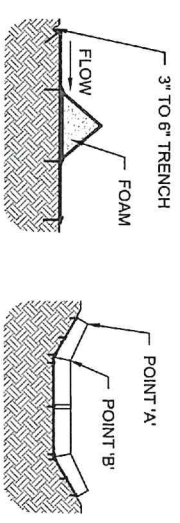
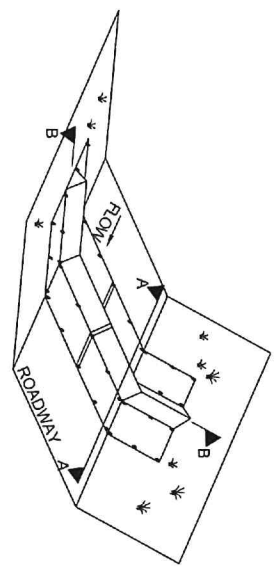
RO01-92472

SHEET NO. R001 (10 OF 11)



- NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
 2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
 3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTED SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

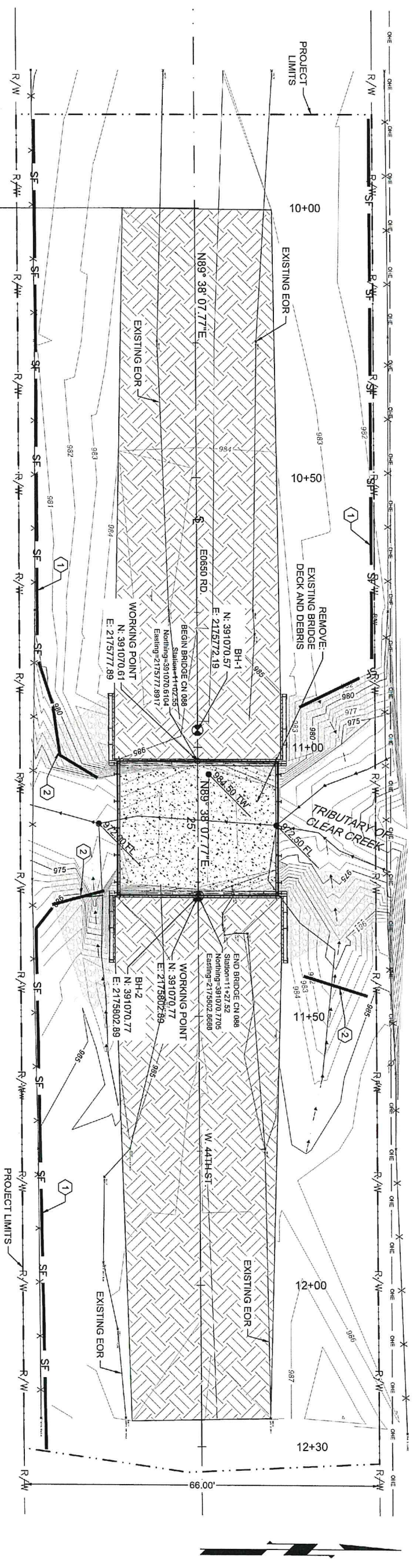
1 SILT FENCE DETAIL



- NOTES:
1. STAPLE SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE 7' UNIT AS SHOWN ON DETAIL 'A-A'.
 2. POINT 'A' MUST BE HIGHER THAN POINT 'B' TO ENSURE THAT THE WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

2 SILT DIKE INSTALLATION

EROSION BLANKETS



PLAN
SCALE 1" = 10'

GENERAL NOTES

- REFER TO SHEET B001-92472 FOR BASIS OF VERTICAL AND HORIZONTAL CONTROL.
- REFER TO SHEET AB01-92472 FOR ADDITIONAL NOTES AND REQUIREMENTS.
- EROSION CONTROL DEVICES, INSTALLATION AND MAINTENANCE SHALL CONFORM TO THE REQUIREMENTS OF PAYNE COUNTY, INCLUDING THE CURRENT COPY OF THE COUNTY "BEST MANAGEMENT / PRACTICES MANUAL FOR THE STORM WATER QUALITY MANAGEMENT DIVISION".
- THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE BEST MANAGEMENT PRACTICES (BMPs) SUCH THAT NO STORMWATER POLLUTION ENTERS EXISTING DRAINAGE SYSTEMS OR ROADWAYS AND MUST CONDUCE THE BMPs AS REQUIRED FOR CONSTRUCTION PHASING REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- WHEN MORE THAN ONE DETAIL IS GIVEN FOR A PARTICULAR EROSION CONTROL METHOD (E.G., INLET PROTECTION), THE CONTRACTOR MAY USE ANY OF THE DETAILED METHODS AT THEIR OPTION, PROVIDED THAT THE CONTRACTOR CONFORMS TO PAYNE COUNTY'S REQUIREMENTS.
- THE CONTRACTOR SHALL MAINTAIN A STORMWATER POLLUTION PREVENTION PLAN AT THE JOB SITE POSTED AND READILY AVAILABLE TO THE PUBLIC THAT INCLUDES THE MOST CURRENT VERSION OF THE EROSION CONTROL PLAN. THIS PLAN SHALL BE KEPT UPDATED TO SHOW ANY CHANGES TO THE EROSION CONTROL BMPs AND ALL MAINTENANCE THAT HAS BEEN PERFORMED ON THE BMPs, ALONG WITH THE DATES OF SUCH CHANGES AND MAINTENANCE, IN ACCORDANCE WITH THE REQUIREMENTS OF PAYNE COUNTY.
- THE CONTRACTOR SHALL MAINTAIN ALL BMPs IN A FUNCTIONAL CONDITION, EFFECTING MAINTENANCE AT ANY TIME A GIVEN BMP HAS IMPAIRED FUNCTION DUE TO DAMAGE OR SEDIMENT BUILDUP. IMPAIRED FUNCTION INCLUDES, BUT IS NOT LIMITED TO, TORN OR DOWNED SILT FENCE, TORN ROCK BAGS, WASHED-OUT GRAVEL AND RIP-RAP AND ANY OTHER DEFECT OR DAMAGE THAT IMPAIRS THE FUNCTION OF A BMP. THE CONTRACTOR SHALL INSPECT ALL BMPs AT LEAST ONCE PER WEEK AND AFTER ANY RAINFALL OF 1" OR MORE.

SHEET KEYNOTES

1. SILT FENCE, RE: 1/R002-92472
2. SILT DIKE, RE: 2/R002-92472

****IMPORTANT NOTE****
CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY EXCAVATION OR SHEET PILING ACTIVITIES. CONTRACTOR MUST VERIFY UTILITIES BOTH VERTICAL AND HORIZONTAL.