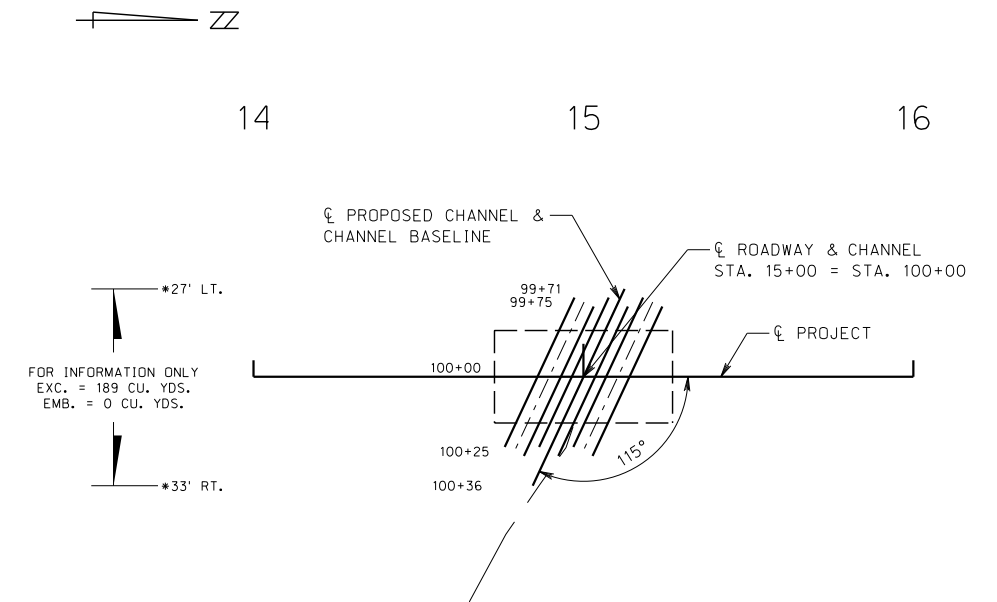
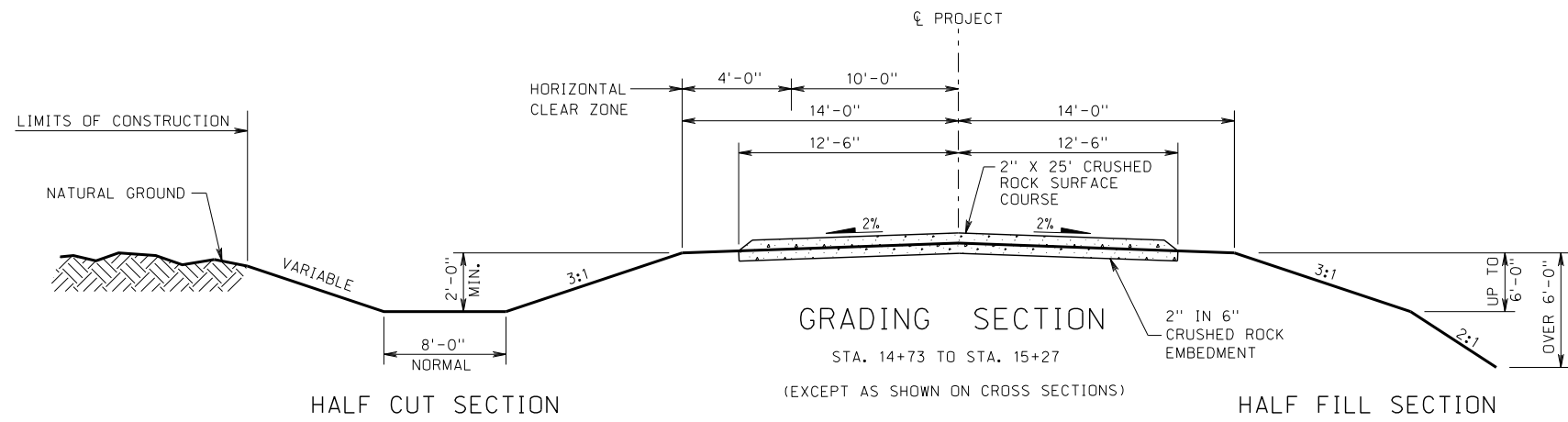


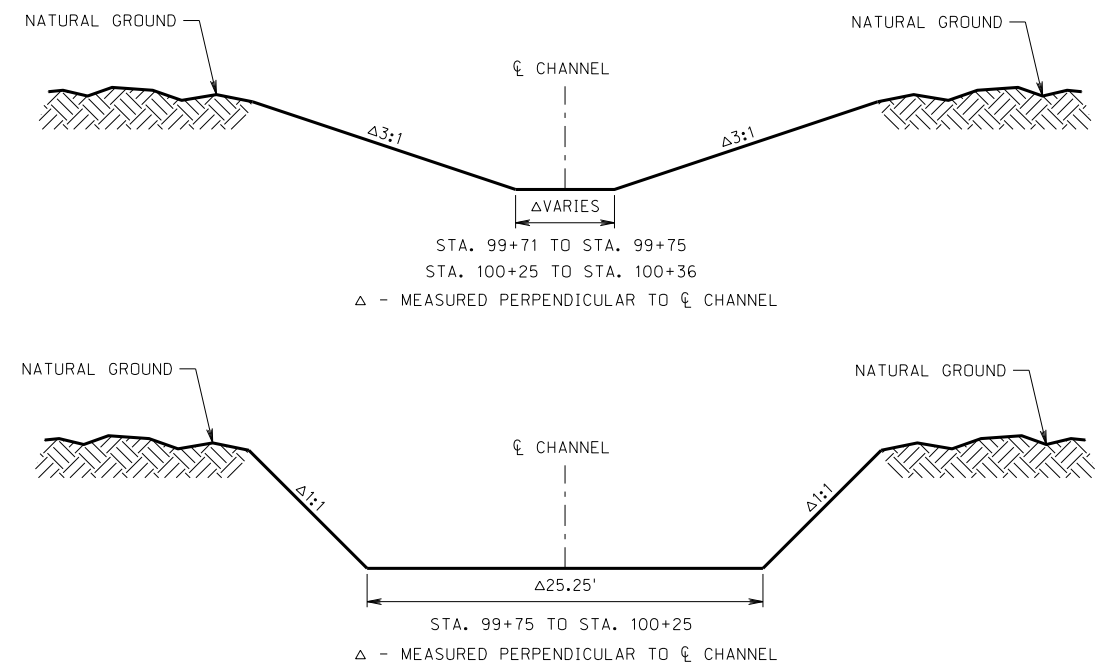


# TYPICAL CROSS SECTIONS



## QUANTITIES

ITEM	QUANTITY	UNIT
SITE PREPARATION	1.00	LS
EARTHWORK MEASURED IN EMBANKMENT	172.00	CY
CRUSHED ROCK SURFACE COURSE	22.50	TONS
CRUSHED ROCK EMBEDMENT	150.00	SY
WATER, APPLIED	1.00	MGAL.
COVERCROP SEEDING	1.00	ACRES
SEEDING, TYPE A	1.00	ACRES
MULCH	2.00	TONS
TEMPORARY SILT FENCE	50.00	LF
SILT CHECK, TYPE WATTLE	134.00	LF
EROSION CONTROL, CLASS 1D	26.00	SY
66" ROUND EQUIVALENT CULVERT PIPE, TYPE 5	150.00	LF



TYPICAL CROSS SECTIONS  
OF IMPROVEMENT

RICHARDSON CO07423305

906 SOUTH 26th ST.  
LINCOLN, NE 68510  
(402)483-5466  
www.speecelewis.com



**EARTHWORK QUANTITIES**

STATION TO	STATION	DESCRIPTION	EXCAVATION AVAILABLE (CU. YDS.)	EARTHWORK MEASURED IN EMBANKMENT (CU. YDS.)
14+73	15+27	ROADWAY	7	172
99+71	100+36	CHANNEL	189	0
TOTALS			196	172

\* Pipe volumes subtracted from embankment quantity.



THE LOCATIONS OF ALL AERIAL AND UNDERGROUND UTILITY FACILITIES MAY NOT BE INDICATED IN THESE PLANS. UNDERGROUND UTILITIES, WHETHER INDICATED OR NOT WILL BE LOCATED AND FLAGGED BY THE UTILITIES AT THE REQUEST OF THE CONTRACTOR. NO EXCAVATION WILL BE PERMITTED IN THE AREA OF THE UNDERGROUND UTILITY FACILITIES UNTIL ALL SUCH FACILITIES HAVE BEEN LOCATED AND IDENTIFIED TO THE SATISFACTION OF ALL PARTIES. THE EXCAVATION MUST BE ACCOMPLISHED WITH EXTREME CARE IN ORDER TO AVOID ANY POSSIBILITY OF DAMAGE TO THE UTILITY FACILITY.

UPON COMPLETION OF THE GRADING OPERATIONS PERMANENT SEEDING OF THE DISTURBED AREAS CREATED BY THE GRADING OPERATIONS AND PERMANENT SEEDING OF A 50' WIDE BUFFER STRIP ALONG EACH SIDE OF THE NEW CHANNEL WILL BE PERFORMED BY THE CONTRACTOR AS DIRECTED BY THE PROJECT MANAGER.

ALL SIGNING AND PAVEMENT MARKING WILL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

THE CONTRACTOR MAY CLOSE THE ROAD TO ALL BUT LOCAL TRAFFIC SUBJECT TO THE CONDITIONS PRESCRIBED IN THE 2017 STANDARD SPECIFICATIONS.

THE COUNTY SHALL PROVIDE ROUTING THROUGH TRAFFIC AROUND THE PROJECT IF DEEMED NECESSARY.

UNSUITABLE MATERIAL ENCOUNTERED DURING CULVERT CONSTRUCTION SHALL BE EXCAVATED AND REPLACED WITH CRUSHED ROCK OR CRUSHED CONCRETE AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR WILL BE REQUIRED TO FURNISH BORROW ON THIS PROJECT.

**DATUM INFORMATION**

<u>HORIZONTAL</u>	<u>VERTICAL</u>
NAD 83 (1995)	NAVD 88
D.A.F. = 1.0000627	

**COMPACTION REQUIREMENTS**

ROADWAY EMBANKMENT	CLASS II
EMBANKMENT FOR INTERSECTING PUBLIC ROADS	CLASS II
PRIVATE DRIVES	CLASS I

(SEE SEC. 205 IN THE 2017 SPECIFICATIONS)

**CULVERT PIPE LEGEND**

TYPE	DESCRIPTION
1 RCSP	Reinforced Concrete Sewer Pipe
2 RCP	Reinforced Concrete Pipe
3 GCCMP	Galvanized (zinc) Coated Corrugated Metal Pipe
4 ACCMP	Aluminum Coated Corrugated Metal Pipe
5 PCCMP	Polymer Coated Corrugated Metal Pipe
6 HDPE-CI	High Density Polyethylene (corrugated Interior)
7 HDPE-SI	High Density Polyethylene (smooth Interior)
8 PVC	Polyvinyl Chloride Pipe

**GEOPAK ALIGNMENT INFORMATION**

ALIGNMENT	CHAIN	PROFILE
€ PROJECT & SECTION LINE	MAINLINE	PRO_MAINLINE
€ CHANNEL	CHANNEL	*

**MAINLINE**

Beginning chain MAINLINE description  
 Feature: Mainline  
 =====  
 Point MAINLINE1 N 119.707.27 E 2,840,766.28 Sta 0+39.87  
 Course from MAINLINE1 to MAINLINE2 N 2° 37' 17.18" W Dist 2,639.82  
 Point MAINLINE2 N 122,344.33 E 2,840,645.55 Sta 26+79.69  
 =====  
 Ending chain MAINLINE description

**CHANNEL**

Beginning chain CHANNEL description  
 =====  
 Point 20 N 121,177.06 E 2,840,672.32 Sta 99+70.61  
 Course from 20 to 21 S 67° 37' 17.18" E Dist 65.80  
 Point 21 N 121,152.01 E 2,840,733.17 Sta 100+36.41  
 =====  
 Ending chain CHANNEL description

**CONTROL POINTS**

POINT NO.	STATION	OFFSET TO STATION (FT.)	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	4+55.48	10.70' LT.	120121.96	2840736.59	908.56	GPS BASE - 5/8" REBAR
100	0+39.87	0.00	119707.27	2840766.28	908.07	W 1/4 CORNER SEC. 2-T1N-R15E 1" PIPE
101	26+79.69	0.00	122344.33	2840645.55	914.43	NW CORNER SEC. 2-T1N-R15E SPIKE

**BUILD EROSION CONTROL, CLASS 1D, PLAN 501-R7**

STATION TO	STATION	SIDE	DESCRIPTION	WIDTH	SO. YDS.
14+62	14+80	RT.	ALL DISTURBED AREA	VARIES	13
14+73	14+95	LT.	ALL DISTURBED AREA	VARIES	7
14+99	15+27	RT.	ALL DISTURBED AREA	VARIES	4
15+20	15+27	LT.	ALL DISTURBED AREA	VARIES	2

**BUILD SILT CHECK, TYPE WATTLE, SPECIAL PLAN 1C**

STATION TO	STATION	SIDE	TYPE	SPACING	LIN. FT. EACH	TOTAL LIN. FT.
14+62	15+27	RT.	2-HIGH	*	*	54
14+73	15+27	LT.	2-HIGH	*	*	80

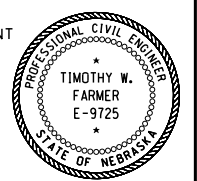
**LEGEND**

- G --- GAS LINE
- E ---- ELECTRICAL SERVICE
- P --- POWER LINE
- OP --- OVERHEAD POWER LINE
- SAN --- SANITARY SEWER
- SS --- STORM SEWER
- T --- TELEPHONE LINE
- FO --- FIBER OPTIC TELE. LINE
- OT --- OVERHEAD TELEPHONE LINE
- TV --- CABLE TV LINE
- OTV --- OVERHEAD CABLE TV LINE
- W --- WATER LINE
- O --- FENCE - CHAIN LINK
- X --- FENCE - R.O.W. OR WIRE
- □ --- FENCE - WOOD
- FLOWLINE
- CENTER LINE DRIVE
- Ⓚ BENCH MARK
- Ⓢ CENTER PIVOT
- Ⓞ CONTROL POINT
- XXXXXXXXX DIKE
- Ⓞ GAS METER
- ⊗ GAS VALVE
- ⊕ GRID TICK
- GUARDRAIL
- GUARD POST
- GUY POLE
- GUY WIRE
- ⊙ LIGHT POLE
- Ⓜ MAILBOX
- Ⓞ MANHOLE
- Ⓜ MARSH
- Ⓜ OIL WELL
- Ⓜ PHOTO CODE POINT
- Ⓜ POWER BOX
- Ⓜ POWER POLE
- Ⓜ POWER PULL BOX
- Ⓜ PROPANE TANK
- Ⓜ R.O.W. MARKER
- Ⓜ ADVANCED R.R. WARNING SIGN
- Ⓜ RAILROAD TRACKS
- Ⓜ RAILROAD WORKS
- Ⓜ RETAINING WALL
- Ⓜ SATELLITE DISH
- Ⓜ SIGN
- Ⓜ TRAFFIC SIGNAL
- Ⓜ TRAFFIC SIGNAL/ST. LIGHT
- Ⓜ TELEPHONE BOX
- Ⓜ TELE. FIBER OPTICS BOX
- Ⓜ TELEPHONE PULL BOX
- Ⓜ TELEPHONE POLE
- Ⓜ TELEVISION BOX
- Ⓜ TREE - CONIFEROUS
- Ⓜ TREE - DECIDUOUS
- Ⓜ TREE STUMP
- Ⓜ WATER HYDRANT
- Ⓜ WATER VALVE
- Ⓜ WATER METER
- Ⓜ WELL
- Ⓜ WINDMILL

**GENERAL INFORMATION**

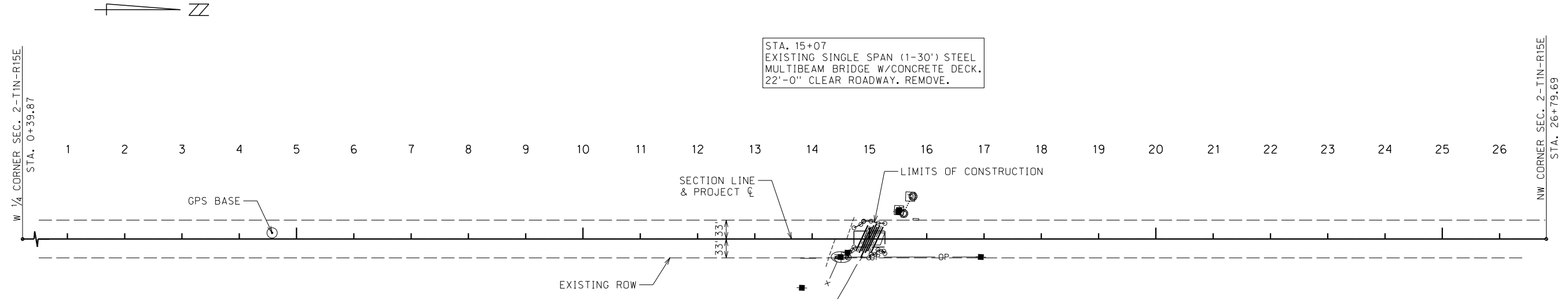
**RICHARDSON CO07423305**

906 SOUTH 26th ST.  
 LINCOLN, NE 68510  
 (402)483-5466  
 www.speecelewis.com



SEC. 3-T1N-R15E

PLAN	SURVEYED	BY	DATE
NO.	ALIGNED		
	CHECKED		
	RIGHT OF WAY		
	CHECKED		

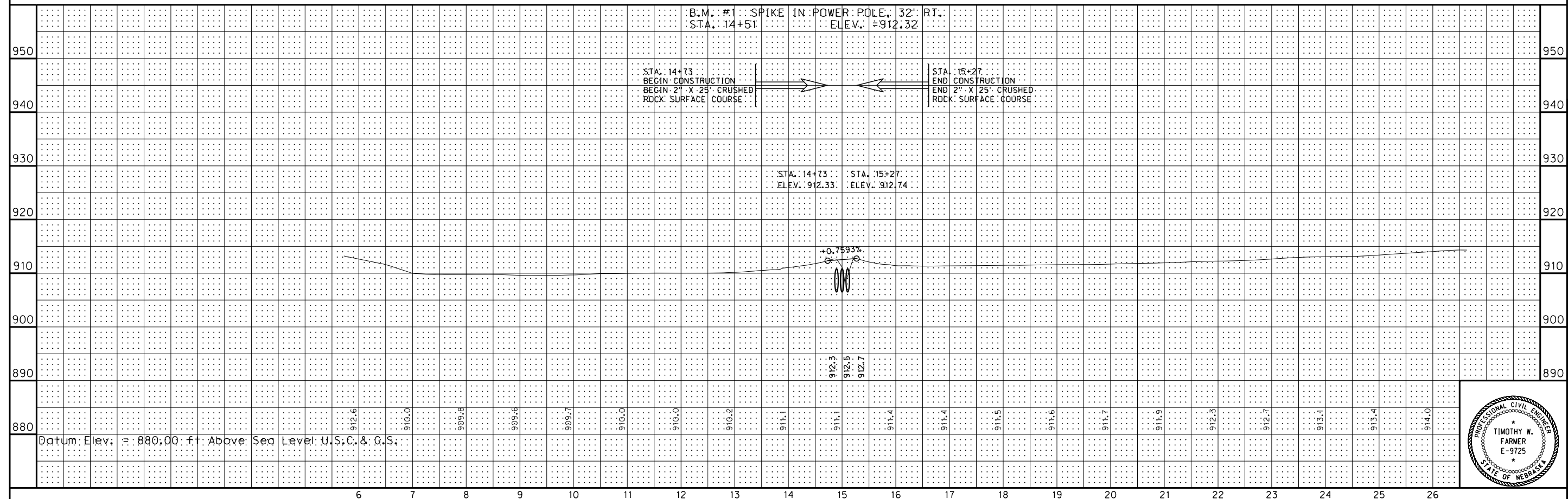


STA. 15+00  
DA= 1.05 SQ.MI., Q<sub>100</sub>= 4,000cfs., HW<sub>100</sub>= 5.82'  
BUILD TRIPLE 66" x 50' ROUND EQUIVALENT CULVERT PIPE TYPE 5 ON 25° SKEW (RHB).  
PLAN NO. 411-R2. FILL= 1.6'.

- TIES:
- GPS BASE
  - 5/8" REBAR, STA. 4+55.48, 10.70' LT.
  - NW 40.10' BASE OF SIGN POST
  - E 11.00' CL FIELD ENTRANCE
  - ESE 47.45' TOP OF FIBER OPTIC SIGN
  - W 1/4 CORNER SEC. 2-T1N-R15E
  - 1" PIPE, STA. 0+39.87
  - W 31.15' NAIL IN TOP OF CORNER POST
  - NW 21.30' NAIL IN 12" DECIDUOUS TREE
  - E 37.40' NAIL IN 24" DECIDUOUS TREE
  - NW CORNER SEC. 2-T1N-R15E
  - SPIKE, STA. 26+79.69
  - NNE 75.35' NAIL & SHINER IN POWER POLE
  - NE 53.93' TOP OF PEDESTAL POST
  - SE 45.45' CHAIR NAILS IN POWER POLE
  - SW 38.55' X NAILS IN TELEPHONE PEDESTAL POST

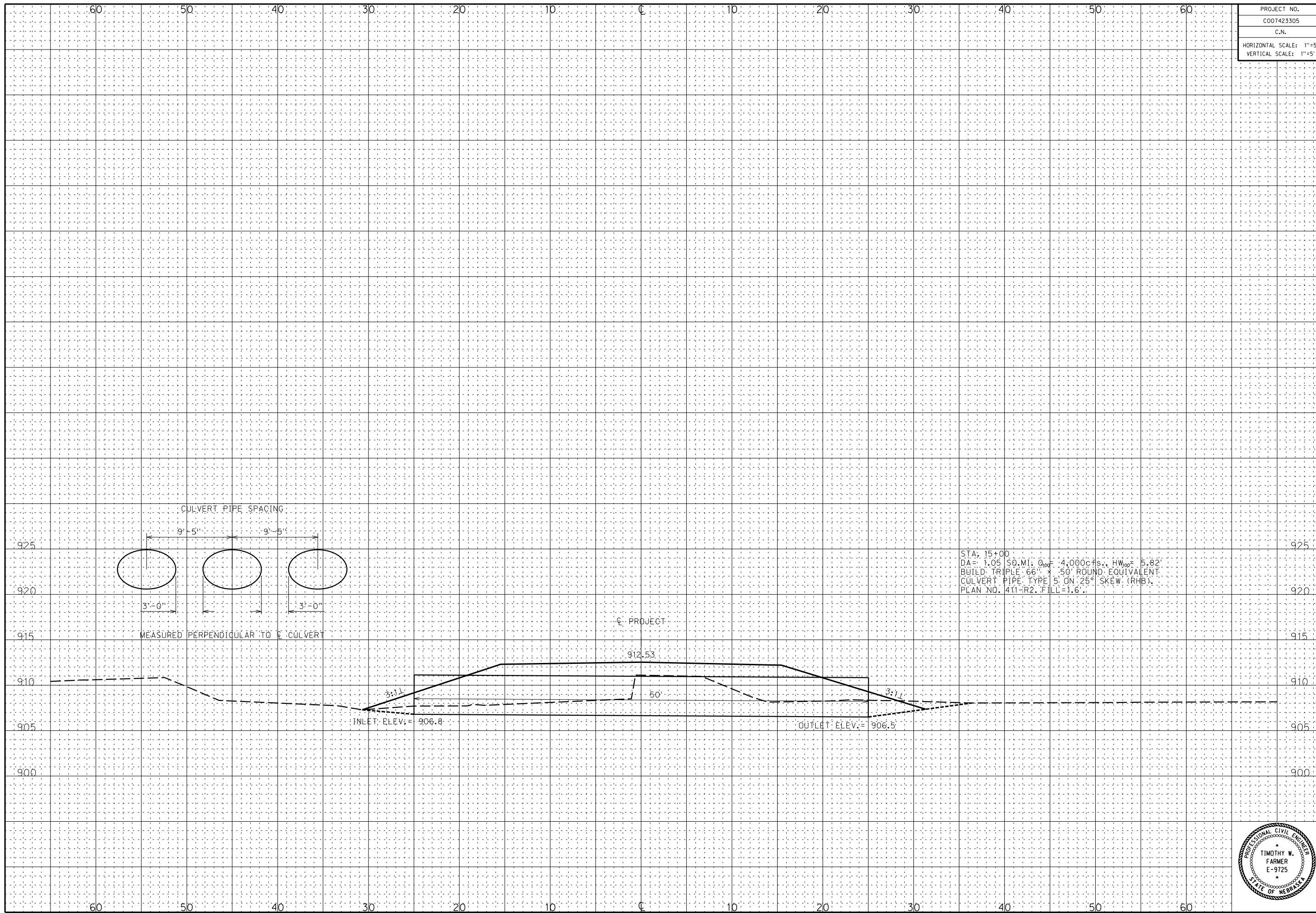
ALL BANDS FOR CULVERT PIPE SHALL BE 2'-0" WIDE (MINIMUM) UNLESS APPROVED BY THE ENGINEER.

SEC. 2-T1N-R15E



PROFILE	SURVEYED	BY	DATE
NO.	GRADES		
	CHECKED		
	B.M.'S		
	NOTED		
	STRUCTURE		
	NOTATIONS		
	CHKD.		





PROJECT NO.  
CO07423305  
C.N.  
HORIZONTAL SCALE: 1"=5'  
VERTICAL SCALE: 1"=5'

SHEET NO.  
**4**  
DRAINAGE STRUCTURE  
CROSS SECTIONS

RICHARDSON CO07423305

906 SOUTH 26th ST.  
LINCOLN, NE 68510  
(402)483-5466  
www.speeceilewis.com

