## GENERAL NOTES

CORE TRENCH

The core trench shall be constructed along the proposed dam centerline over the entire length of the dam. The core trench shall be excavated to a depth of at least 3 feet below the bottom of the concrete box and the natural grade along the dam alignment. The core trench should have a width of about 5 feet.

The core trench shall be backfilled with cohesive soils having a plasticity index greater than 25 (such as the on-site fat clays in the reservoir area) and placed and compacted as recommended below. Granular soils and low plasticity clays are not considered suitable for the core trench.

SITE PREPARATION

The contractor shall strip the organic topsoil in the dam embankment area. After performing all cuts and excavations required, the exposed subgrade soils in the proposed dam and core trench areas should be proofrolled to locate zones that are soft or unstable. Proofrolling should be conducted with a loaded, tandem-axle dump truck, scraper, or other heavy, rubber-tired, construction vehicle weighing at least 25 tons. The proofrolling should consist of several overlapping passes over an area in mutually perpendicular directions. The subgrade in areas where excessive rutting or pumping occurs during proofrolling should be removed and replaced with suitable fill, as described below, if it cannot be satisfactorily densified in place.

After proofrolling the subgrade and prior to placing new fill, we recommend the exposed soils be scarified to a depth of about 9 inches. The subgrade moisture should be adjusted to meet the recommendations presented in the "Engineered Fill" section of this report and the subgrade compacted to at least 95% of their maximum dry density (by ASTM D-698). Fill materials could then be constructed on the compacted subgrade.

ENGINEERED FILL

All new fill should consist of approved, on-site or off-site soils that are free of organics and deleterious materials. The soils should be constructed in maximum lifts not exceeding 9 inches in loose thickness and compacted to at least 95%, of their maximum dry density as determined by the standard Proctor procedure, ASTM D-698.

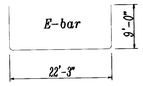
The moisture content at which the soils should be compacted is given as follows:

- Cohesive soils with a plasticity index (PI) greater than or equal to 30 (typical of the on-site soils) should be placed at a moisture content of at least 2% above their optimum moisture content (ASTM D-698).
- Cohesive soils with a PI less than 30 should be placed at a moisture content above their optimum moisture content.
- Granular soils should be placed at workable moisture content.

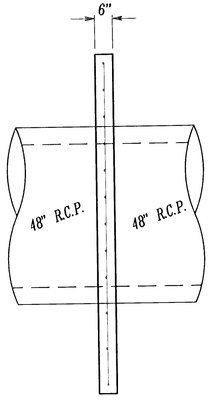
### 2-48" COLLAR RE-BAR SCHEDULE

| Mark | Shape | No. | Length | Weight |
|---|---|---|---|---|
| E | | 1 | 40'-3" | 27.69 |
| F | | 16 | 8'-9" | 96.32 |
| G | | 5 | 22'-9" | 78.26 |
| H1 | | 14 | 4'-1" | 39.33 |
| H2 | | 14 | 2'-8" | 25.69 |
| I | | 12 | 1'-10" | 15.14 |
| J | | 6 | 4'-10" | 19.95 |
| Total Rebar | | | 303 | Lbs. |
| Concrete | | | 3.63 | C.Y. |

All Concrete Reinforcement to be #4 bars.

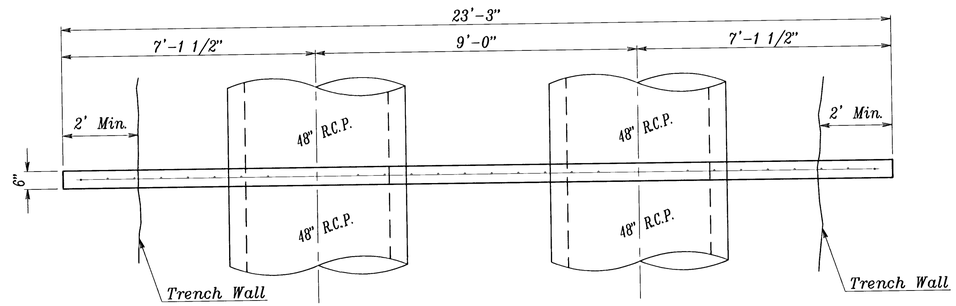



BENDING DIAGRAM

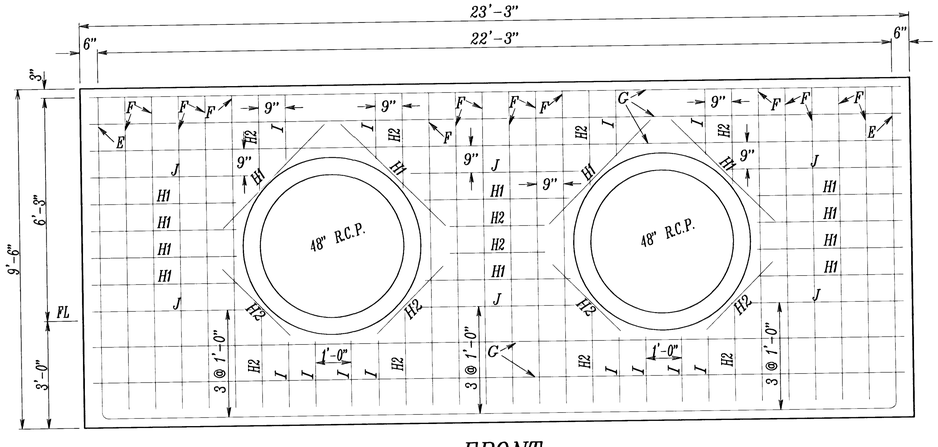



SECTION

NOTE: EXTEND COLLAR A MINIMUM OF 2' INTO UNDISTURBED SOIL.




PLAN



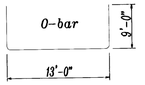

FRONT

NOTE: ALL REINFORCING STEEL SHALL BE SPACED 9" UNLESS OTHERWISE NOTED

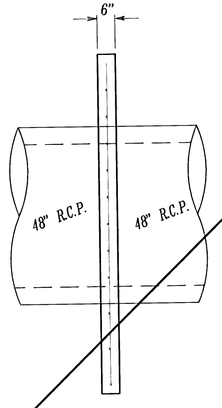
### 48" COLLAR RE-BAR SCHEDULE

| Mark | Shape | No. | Length | Weight |
|---|---|---|---|---|
| O | | 1 | 31'-0" | 21.33 |
| | | | | |
| P | | 10 | 8'-9" | 60.20 |
| Q | | 5 | 13'-6" | 46.44 |
| R1 | | 10 | 4'-1" | 20.09 |
| R2 | | 6 | 2'-8" | 11.01 |
| S | | 6 | 1'-10" | 7.57 |
| T | | 4 | 4'-10" | 13.30 |
| Total Rebar | | | 180 | Lbs. |
| Concrete | | | 2.11 | C.Y. |

All Concrete Reinforcement to be #4 bars.

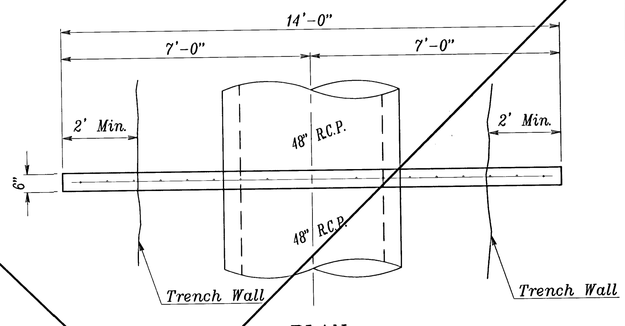



BENDING DIAGRAM

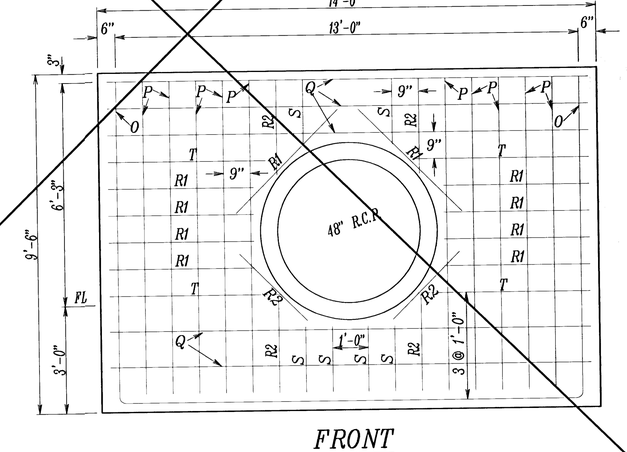



SECTION

NOTE: EXTEND COLLAR A MINIMUM OF 2' INTO UNDISTURBED SOIL.




PLAN




FRONT

NOTE: ALL REINFORCING STEEL SHALL BE SPACED 9" UNLESS OTHERWISE NOTED

## CONCRETE COLLAR NOTES

CONCRETE: BEVEL ALL EXPOSED EDGES WITH A 3/4" TRIANGULAR MOLDING OR FINISH WITH AN APPROVED EDGING TOOL. CONCRETE SHALL BE AS PER CITY OF WICHITA STANDARD SPECIFICATIONS FOR CONCRETE PAVING MIX EXCEPT THAT IT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. ALL PIPES SHALL BE FLUSH CUT PRIOR TO BEING CAST INTO THE HEADWALL.

REINFORCING STEEL: ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BAR UNLESS OTHERWISE NOTED. ALL CLEARANCES SHALL BE 2" UNLESS OTHERWISE NOTED. ALL REINFORCING STEEL SHALL CONFORM TO A.S.T.M. DESIGNATION A615 GRADE 60 AND SHALL BE EPOXY COATED.

PAYMENT: A DEDUCTION IN CONCRETE QUANTITIES HAS BEEN MADE FOR THE PIPE OPENINGS. THE 2-48" HEADWALL/COLLAR (REINFORCED CONCRETE) OR 48" HEADWALL/COLLAR (REINFORCED CONCRETE) SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH IN PLACE INCLUDING CONCRETE, REINFORCING STEEL, EXCAVATION AND ALL OTHER MISCELLANEOUS MATERIALS, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. QUANTITIES SHOWN ARE FOR INFORMATION ONLY.

# 2-48" COLLAR / 48" COLLAR DETAIL

| No. | Date | By | Approved | Revision |
|---|---|---|---|---|
| | | | | |

FALCON FALLS - PHASE 1
STREET IMPROVEMENTS
POND NOTES / COLLAR DETAILS
CITY OF WICHITA, KANSAS
NEIL D. CABLE, P.E. - CITY ENGINEER
C.O.W. Project # 472-83687 O.C.A. # 765782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Phone 316/685-4114 ■ FAX 316/685-4444


FINAL

Designed By: J. Ubert / B. Kulla
Drawn By: B. Kulla
Poe Job No.: 1748A
Date: May 2003

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