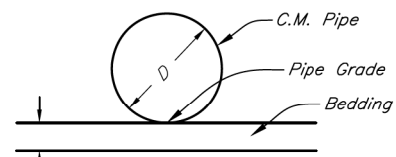
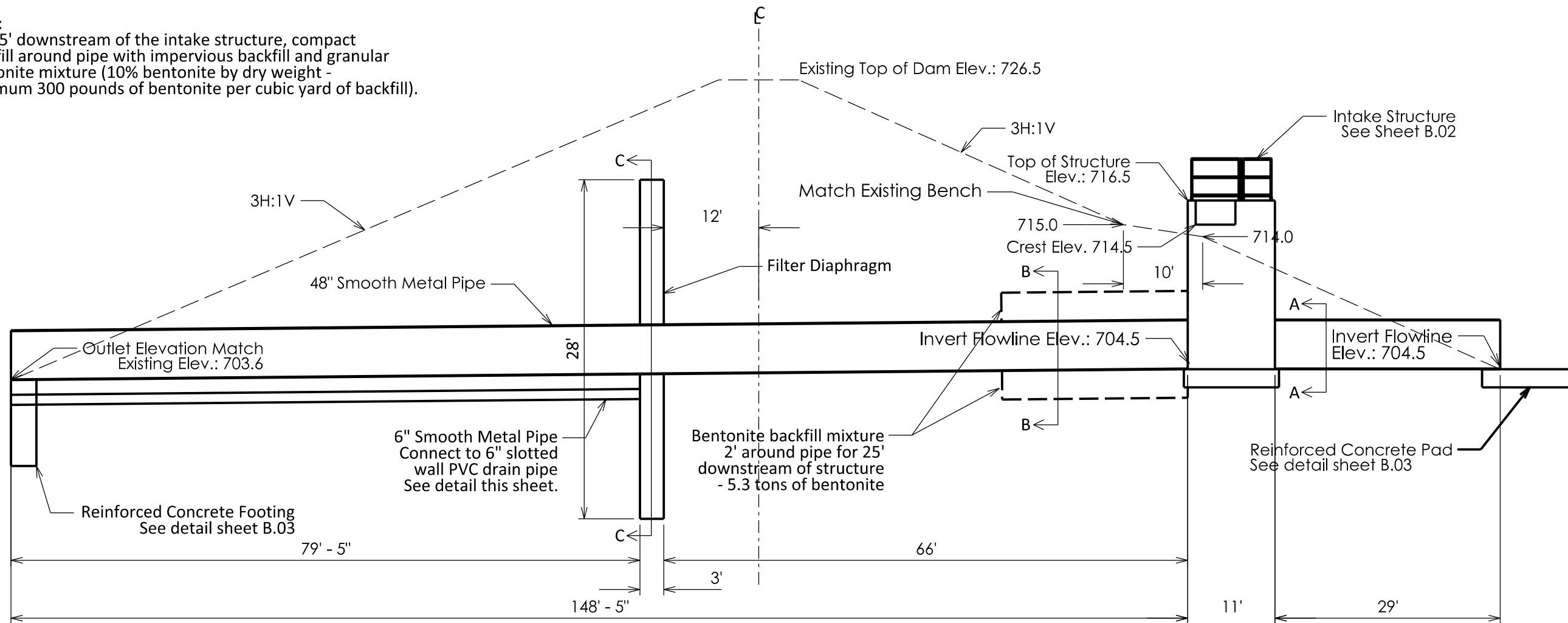






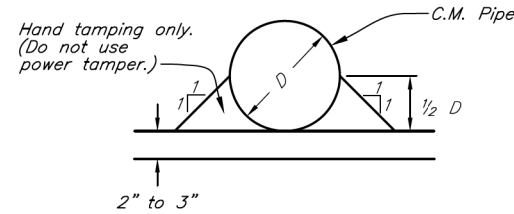
Note:  
For 25' downstream of the intake structure, compact  
backfill around pipe with impervious backfill and granular  
bentonite mixture (10% bentonite by dry weight -  
minimum 300 pounds of bentonite per cubic yard of backfill).



Excavate 2 to 3 inches below pipe grade. Then backfill with damp friable soil free from lumps and raked or graded to a true plane, before placing C.M. Pipe. No compaction of bedding is required.

**CORRUGATED OR SMOOTH METAL PIPE  
PRINCIPAL SPILLWAY  
BEDDING DETAIL**

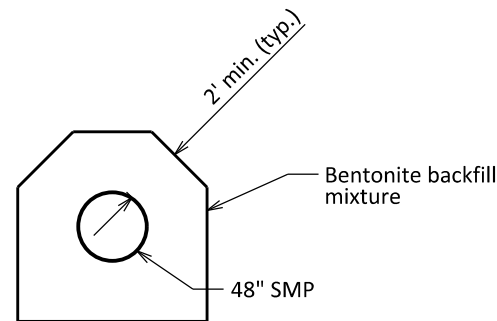
Note  
Begin backfill immediately  
after pipe has been placed.



**CORRUGATED OR SMOOTH METAL PIPE  
PRINCIPAL SPILLWAY  
BACKFILL DETAIL**

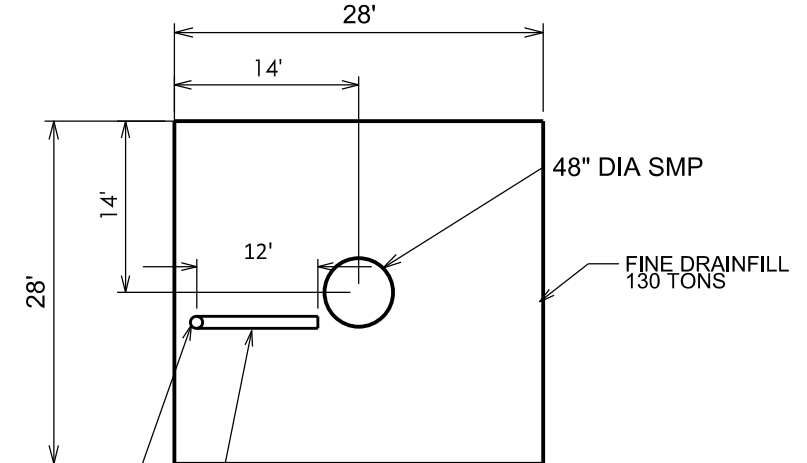
**SECTION A-A**

**BENTONITE BACKFILL**



**SECTION B-B**

**FILTER DIAPHRAGM**

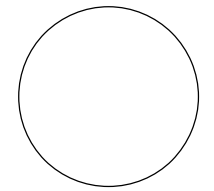


**SECTION C-C**

Connect to 6" SMP with  
Fernco Shielded Transition  
Coupling or approved equal

6" slotted wall PVC  
drain pipe - centered  
in diaphragm filter

CONSULTANT:



**IOWA DEPARTMENT OF  
NATURAL RESOURCES**

ENGINEERING SERVICES - WALLACE BUILDING  
502 E. 9TH ST., DES MOINES, IA 50319-0034



**TYPICAL CROSS SECTIONS AND DETAILS**

WATER CONTROL STRUCTURE REPLACEMENT FOR:

**LAKE SUGEMA WMA**

VAN BUREN COUNTY

NO. BY REVISION

DATE

DRAWN BY: PROJECT NUMBER:

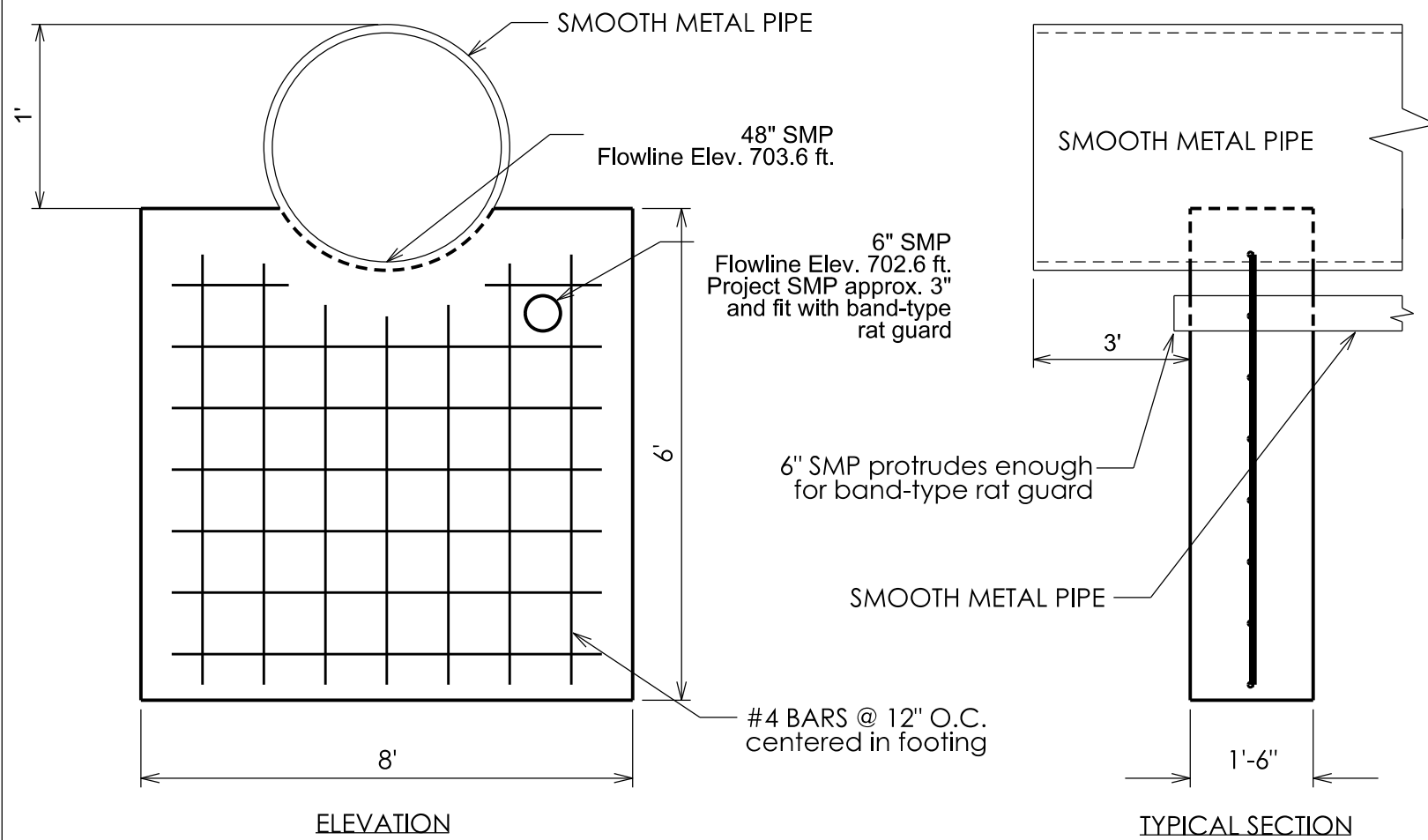
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CHK'D BY: DATE:

SHEET NO.:

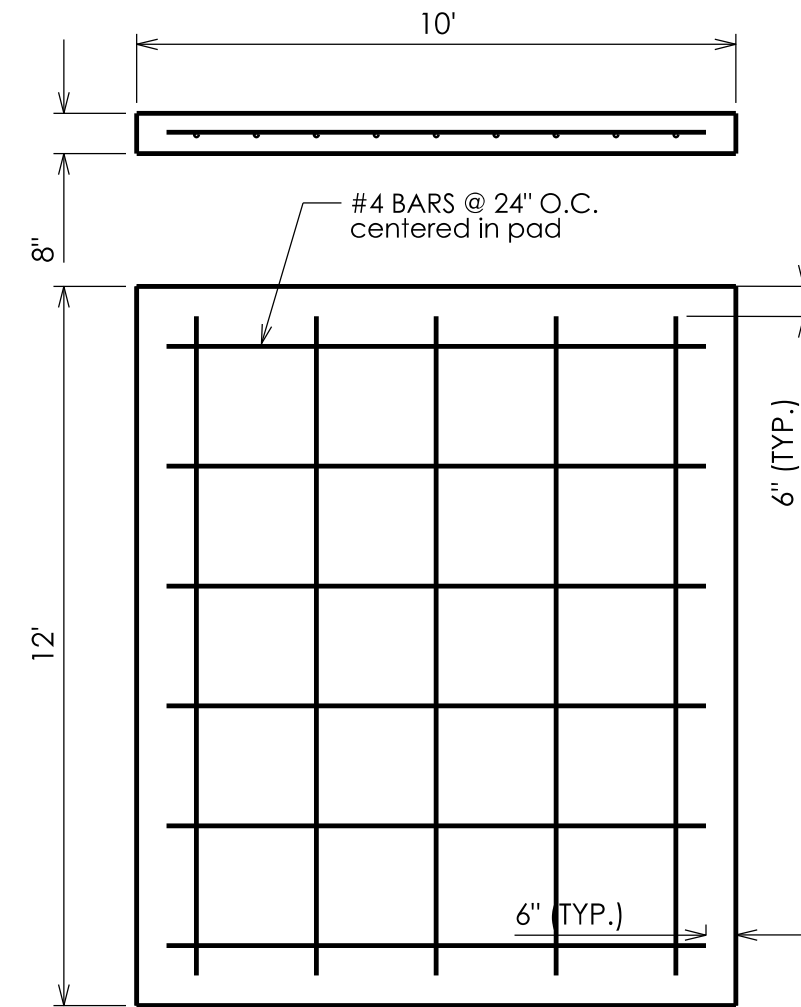
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### Reinforced Concrete Footing

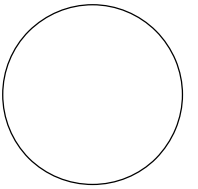
NOT TO SCALE



### Reinforced Concrete Pad

NOT TO SCALE

CONSULTANT:



**IOWA DEPARTMENT OF  
NATURAL RESOURCES**

ENGINEERING SERVICES - WALLACE BUILDING  
502 E. 9TH ST., DES MOINES, IA 50319-0034



TYPICAL CROSS SECTIONS AND DETAILS

WATER CONTROL STRUCTURE REPLACEMENT FOR:

LAKE SUGEMA WMA

VAN BUREN COUNTY

NO.	BY	REVISION

DRAWN BY: PROJECT NUMBER:  
22-06-89-01

CHK'D BY: DATE:

SHEET No:

**B.03**





