



STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENT
JACKSON DISTRICT OFFICE

JENNIFER M. GRANHOLM
GOVERNOR

REBECCA A. HUMPHRIES
DIRECTOR

January 21, 2010

Mr. Timothy R. Cullen
University of Michigan
1239 Kipke Drive
Ann Arbor, Michigan 48109

Dear Mr. Cullen:

SUBJECT: Department of Natural Resources and Environment File Number 09-81-0051-P
T3S, R6E, Section 5, Pittsfield Township, Washtenaw County

We received your letter dated January 7, 2010 requesting a minor revision for work authorized by your Department of Environmental Quality (DEQ) permit.

This letter authorizes revision of your permit to: Jack and bore a 12-inch water main, with a 20-inch casing pipe, a minimum of four (4) feet beneath the bottom of a stream and its adjacent wetland in accordance with the attached revised project plans dated January 21, 2010.

You are reminded that all conditions as set forth in the original permit remain in full force. This letter must be attached to your permit, kept at the site of the work, and be available for inspection at all times during the duration of the project or until the date of expiration. This revision does not obviate the need for other Federal, State, and/or local permits as may be required by law.

If you have additional questions, please contact this office.

Sincerely,

A handwritten signature in cursive script that reads "James Sallee".

James Sallee
Environmental Quality Specialist
Land and Water Management Division
517-780-7910

Attachment

cc/att: City of Ann Arbor

Description of Proposed Project, Associated Activities, Construction Sequence, and Methods.

The work that will be taking place on the University of Michigan Wrestling Facility site will include the construction of a new water main connection. Please refer to sheets two through twelve for photos, location, and detailed information on the proposed water main construction.

The construction sequence for the project will be as follows:

1. Install silt fence around defined perimeter as shown on plans, install tree protection and construct temporary construction access, and place silt sacks where indicated on the plans.
2. Clear, grub, and strip topsoil in areas of earth disruption.
3. Complete land balancing operations.
4. Install underground utilities.
5. Perform paving operations, fine grading, and landscaping.
6. Erosion control measures are not to be removed until U of M OSEH grants its approval. Inlet filters shall be periodically inspected and cleaned/replaced as necessary.

REVISED

The methods used to construct the proposed work on this project will be normal construction practices. Low impact construction will be used in the areas around the wetlands. All necessary soil erosion and sedimentation control measures including, but not limited to, silt fence and sedimentation barriers will be used to prevent soil erosion and to protect the existing wetland. All drilling mud will be prevented from entering the wetlands.

The project involves the construction of a new 12" water main below an existing stream and wetland. A 20" O.D. casing will be installed below the stream bed by means of jack & bore, resulting in zero impact to the adjacent stream and wetland. The casing will have a minimum of 48" from the top of casing to bottom of stream bed. There will be 22 lined feet of pipe below the stream and wetland. There will be no fill or excavation of the adjacent wetland. All drilling mud will be prevented from entering the wetlands. Soil erosion will be prevented by means of silt fence and sedimentation barriers.

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DRAWN	DATE	SPALDING DEDDECKER ASSOCIATES, INC.		University of Michigan Wrestling Facility Water Main Project Description Ann Arbor, Michigan	JOB NO.	DRAWING NO.
D. Suggitt	01/07/10	ENGINEERS	SURVEYORS		DV09-019	DV0919WT
CHECKED	DATE	905 SOUTH BLVD. EAST ROCHESTER HILLS, MI 48307 www.spaldingdedecker.com			SCALE:	SHEET
J. Arnold	01/07/10	PHONE: (248) 844-5400 FAX: (248) 844-5404			Not To Scale	1 OF 13

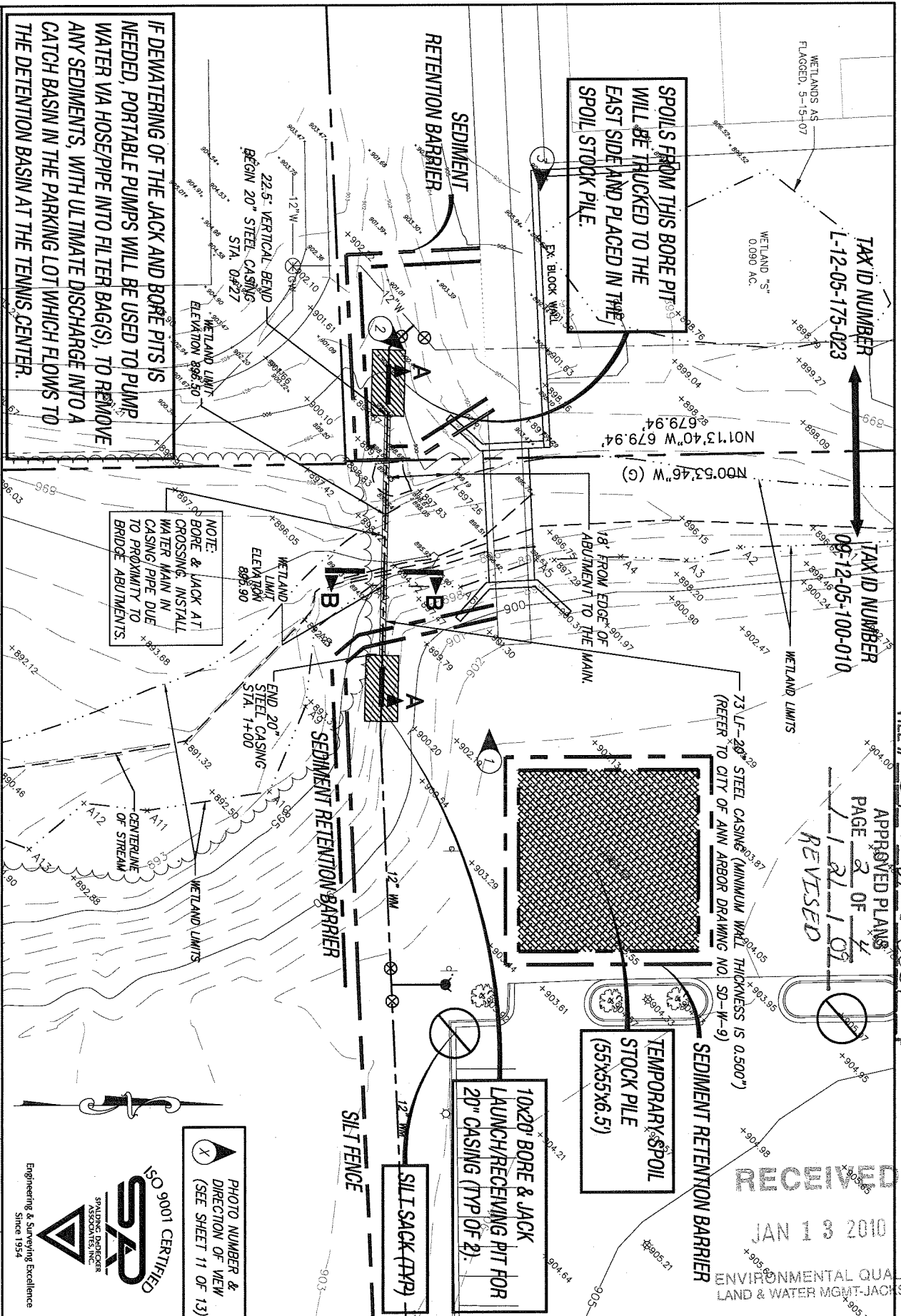
FILE # 09-81-0051 P

APPROVED PLANS
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IF DEWATERING OF THE JACK AND BORE PITS IS NEEDED, PORTABLE PUMPS WILL BE USED TO PUMP WATER VIA HOSE/PIPE INTO FILTER BAG(S), TO REMOVE ANY SEDIMENTS, WITH ULTIMATE DISCHARGE INTO A CATCH BASIN IN THE PARKING LOT WHICH FLOWS TO THE DETENTION BASIN AT THE TENNIS CENTER.

SPOILS FROM THIS BORE PIT WILL BE TRUCKED TO THE EAST SIDE AND PLACED IN THE SPOIL STOCK PILE.

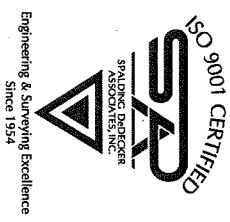
NOTE: BORE & JACK AT WATER MAIN IN CLOSING, INSTALL CASING PIPE DUE TO PROXIMITY TO BRIDGE ABUTMENTS.

73" LF-20" STEEL CASING (MINIMUM WALL THICKNESS IS 0.500") (REFER TO CITY OF ANN ARBOR DRAWING NO. SD-W-9)

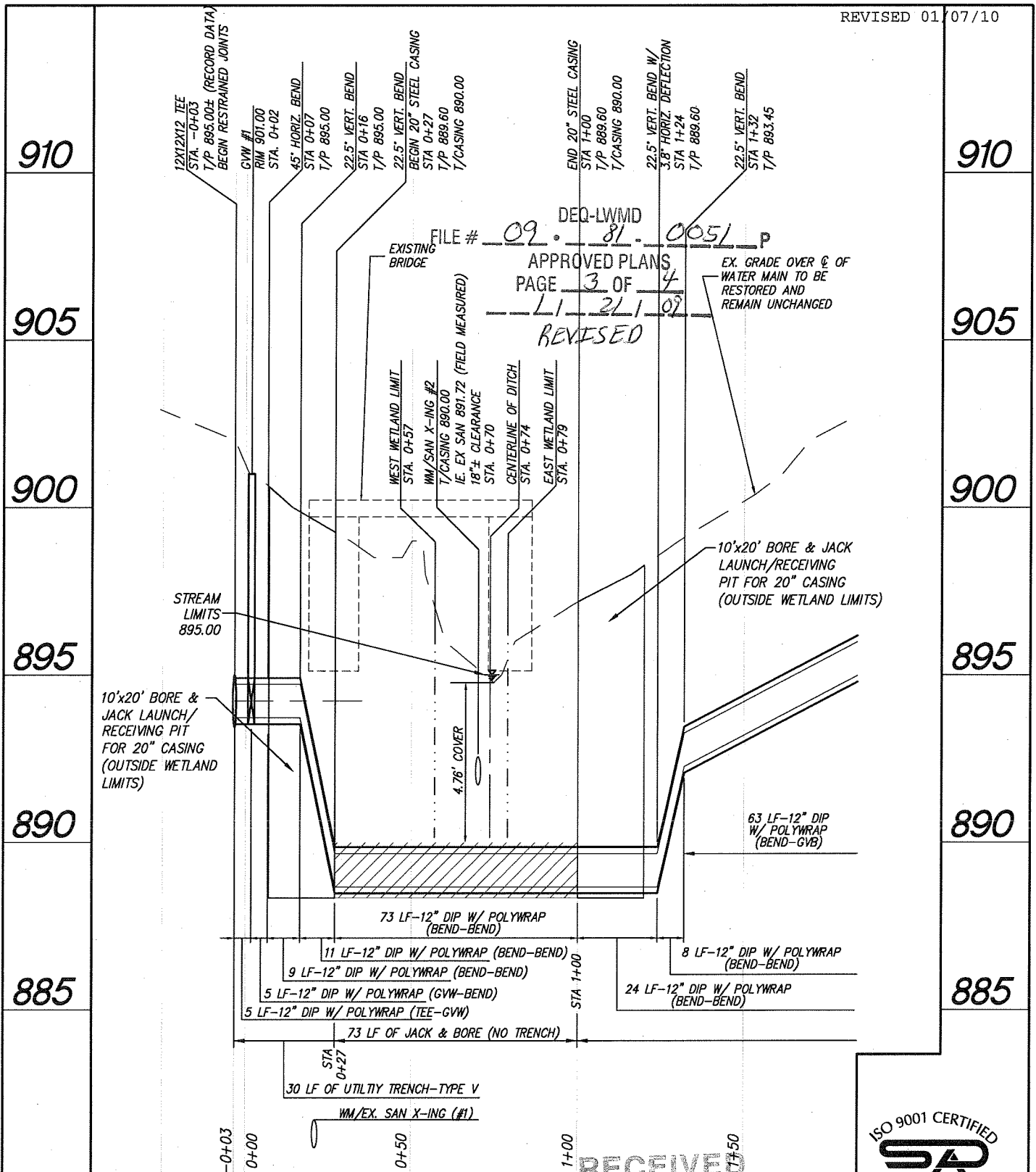
TEMPORARY SPOIL STOCK PILE (55'x55'x6.5')

10x20 BORE & JACK LAUNCH/RECEIVING PIT FOR 20" CASING (TYP OF 2).

PHOTO NUMBER & DIRECTION OF VIEW (SEE SHEET 11 OF 13)



DRAWN	DATE	SPALDING DECKER ASSOCIATES, INC.	UNIVERSITY OF MICHIGAN	JOB NO.	DRAWING NO.
D. Sugitt	01/07/10	ENGINEERS SURVEYORS	Wrestling Facility Water Main	DV09-019	DV0919WT
CHECKED	DATE	905 SOUTH BLVD. EAST ROCHESTER HILLS, MI 48307 FAX: (248) 844-5404 www.spaldingdecker.com	Engineering Plan Ann Arbor, Michigan	SCALE:	SHEET
J. Arnold	01/07/10			1" = 40'	8 OF 13



NOTE:

ALL LENGTHS SHOWN ARE HORIZONTAL DISTANCES.

JAN 13 2010

SCALE:

HORIZ. 1"=40'

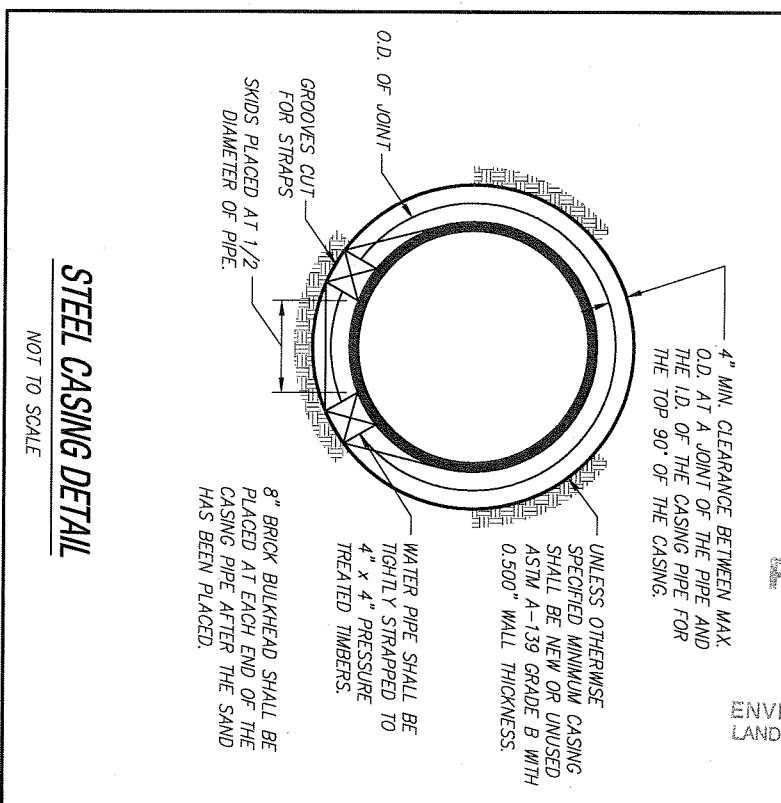
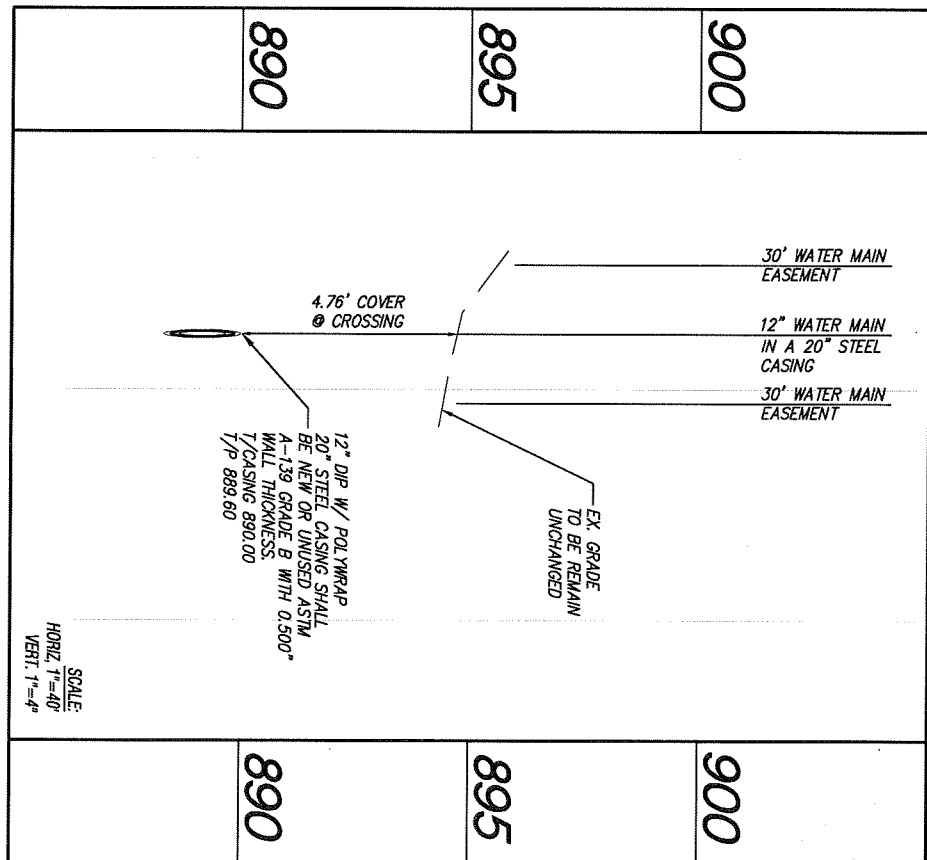
VERT. 1"=4"

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DRAWN D. Suggitt	DATE 01/07/10	SPALDING DeDECKER ASSOCIATES, INC. ENGINEERS SURVEYORS 905 SOUTH BLVD. EAST ROCHESTER HILLS, MI 48307 PHONE: (248) 844-5400 FAX: (248) 844-5404 www.spaldingdedecker.com	University of Michigan Wrestling Facility Water Main Water Main X-Section A-A Ann Arbor, Michigan	JOB NO. DV09-019	DRAWING NO. DV0919WT
CHECKED J. Arnold	DATE 01/07/10			SCALE: 1" = 40'	SHEET 9 OF 13



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REVISED

DRAWN	DATE	SPALDING DEDECKER ASSOCIATES, INC.	JOB NO.	DRAWING NO.
D. Sugitt	01/07/10	ENGINEERS SURVEYORS	DV09-019	DV0919WT
CHECKED	DATE	905 SOUTH BLVD. EAST ROCHESTER HILLS, MI 48307 www.spaldingdedecker.com	SCALE:	SHEET
J. Arnold	01/07/10	PHONE: (248) 844-5400 FAX: (248) 844-5404	1" = 40'	10 OF 13



University of Michigan
Westling Facility Water Main
Water Main X-Section B-B
Ann Arbor, Michigan