

Madison, Wisconsin

CITY OF MADISON

WATER UTILITY

DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

WHITNEY WAY WATER PIPELINE 2017

CITY PROJECT NO. 53W1910 (MUNIS #10452)
CONTRACT NO. 7457

PUBLIC IMPROVEMENT PROJECT APPROVED

MAY 3, 2016

BY THE COMMON COUNCIL
OF MADISON, WISCONSIN

PUBLIC IMPROVEMENT DESIGN
APPROVED BY:

[Signature] 1-6-17
Water Principal Engineer Date

WATER MAIN
DESIGNED BY:



PAVEMENT MARKING
& TRAFFIC CONTROL
DESIGNED BY:



INDEX OF SHEETS

SHEET NO.	TITLE
1	ALIGNMENTS
A1	EROSION CONTROL
EC1-EC4	WATER PLAN AND PROFILE
W1-W5	WATER IMPACT PLAN
W6	WATER MATERIALS AND DETAILS
W7	PAVING PLAN
P1-P4	TRAFFIC CONTROL
TC1-TC12	PAVEMENT MARKING
MI-M2	

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

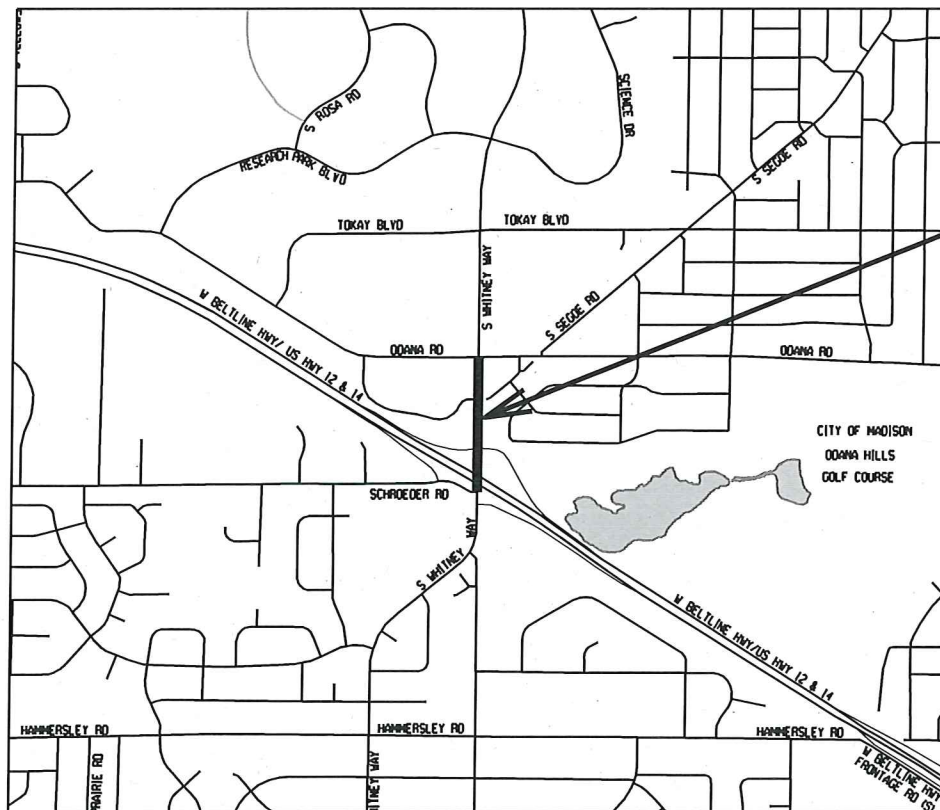


CONVENTIONAL SIGNS	
FIELD VERIFY ALL UTILITY LOCATIONS	
GAS	— G —
STORM SEWER	— ST —
SANITARY SEWER	— SAN —
WATER	— W —
OVERHEAD ELECTRIC	— OH —
POWER POLE	□

NOTES:

ALL GUTTERS SHALL DRAIN WITH A MINIMUM GRADE OF 0.50% TOWARD STORM SEWER INLETS.

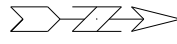
SIDEWALK RAMPS AND CURB THRU SIDEWALK RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1" PER 12". SIDEWALK AND CURB RAMPS SHALL BE CONSTRUCTED WITH A SIDE SLOPE OF 2.00%. SIDEWALK SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 0.50% AND A MAXIMUM LONGITUDINAL SLOPE OF 5.00%



PROJECT
LOCATION

WHITNEY WAY ALIGNMENTS

CITY OF MADISON



PLOT SCALE:

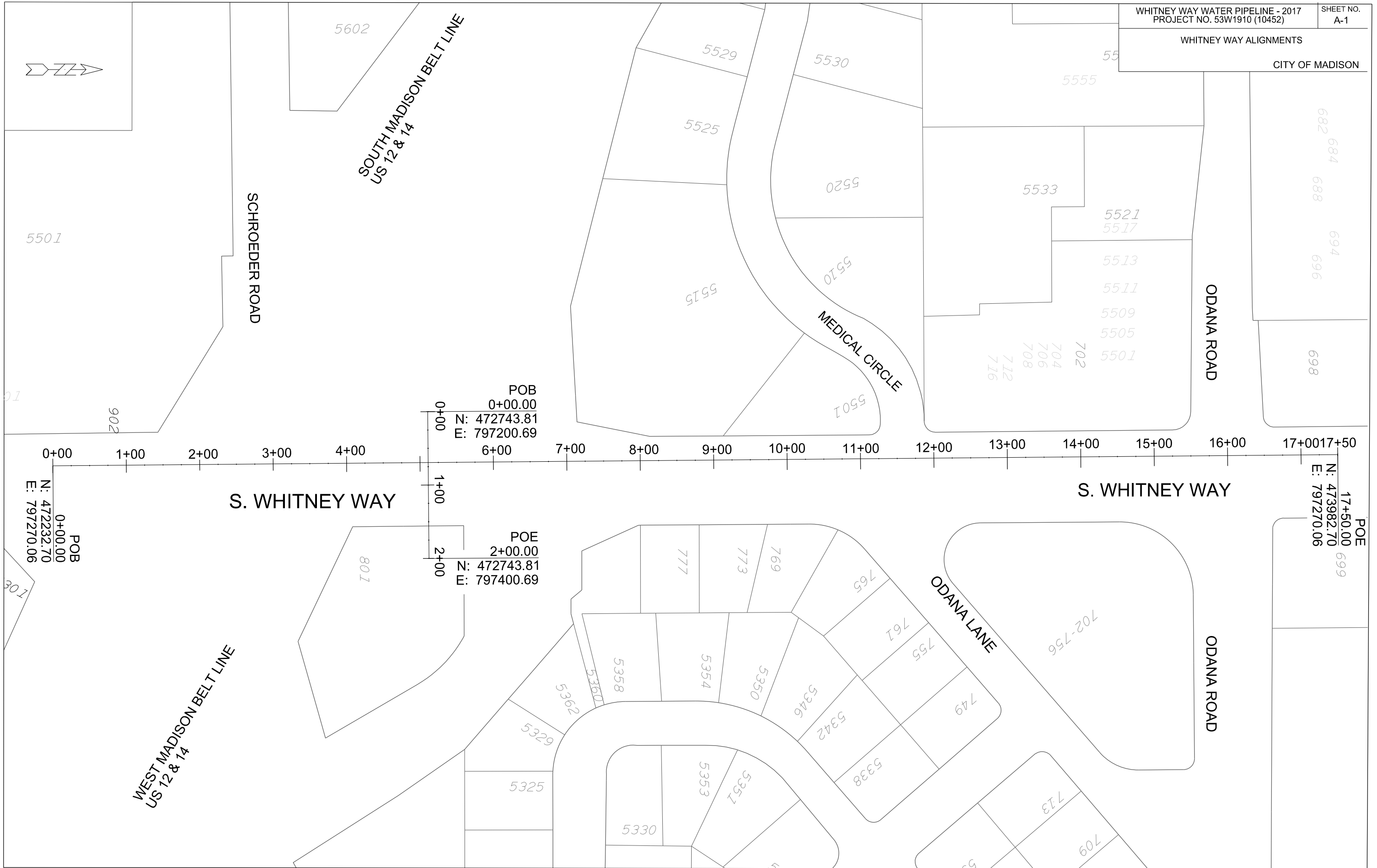
PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

FILE NAME:

DATE:



SOUTH MADISON BELT LINE
US 12 & 14

WEST MADISON BELT LINE
US 12 & 14

SCHROEDER ROAD

MEDICAL CIRCLE

ODANA LANE

ODANA ROAD

ODANA ROAD

S. WHITNEY WAY

S. WHITNEY WAY

POB
0+00.00
N: 472743.81
E: 797200.69

POE
2+00.00
N: 472743.81
E: 797400.69

POE
17+50.00
N: 473982.70
E: 797270.06

5501

5602

5529

5530

5555

5525

5520

5533

5521

5517

5513

5511

5509

5505

5501

702

704

706

708

712

716

682

684

688

694

696

698

801

777

773

769

765

761

755

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5358

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5350

5346

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5338

5329

5325

5330

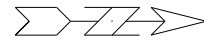
5353

5351

EROSION CONTROL PLAN

S. WHITNEY WAY

CITY OF MADISON

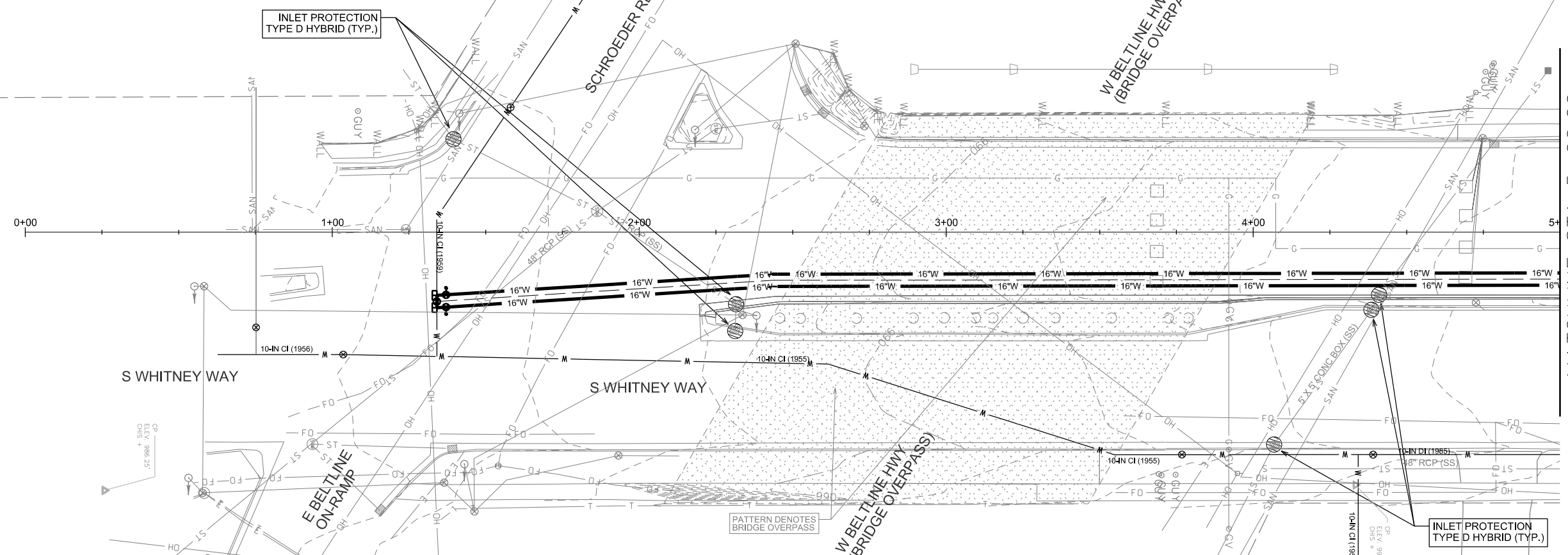


INLET PROTECTION
TYPE D HYBRID (TYP.)

SCHROEDER RD

W BELTLINE HWY
(BRIDGE OVERPASS)

MATCHLINE STA 5+00.00



PATTERN DENOTES
BRIDGE OVERPASS

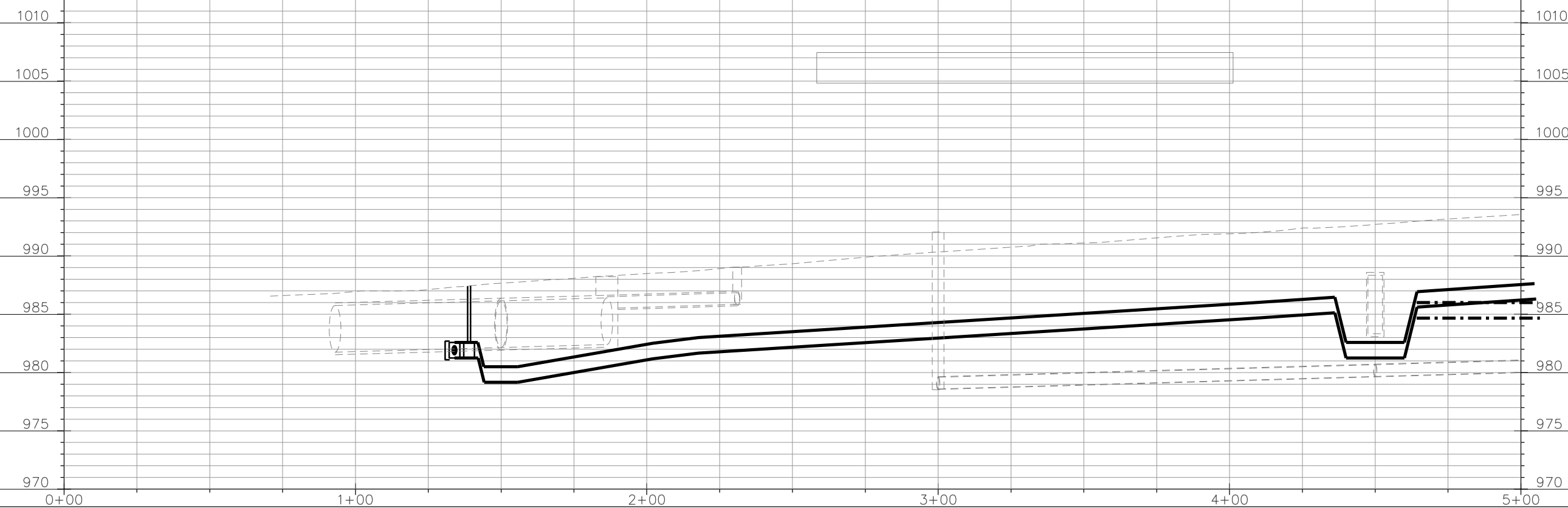
INLET PROTECTION
TYPE D HYBRID (TYP.)

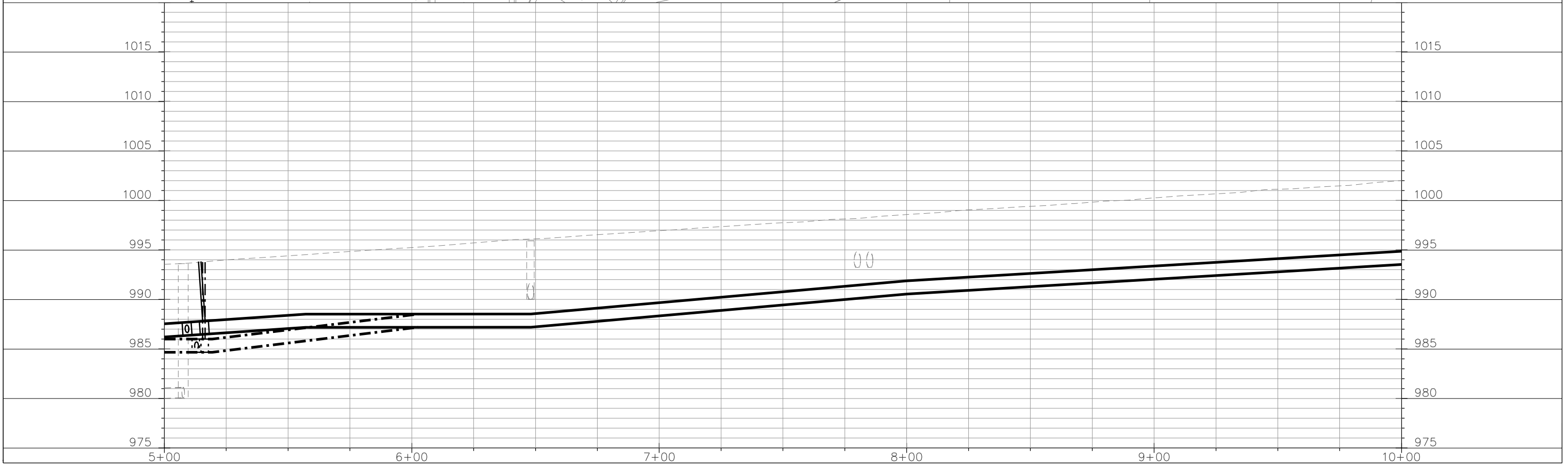
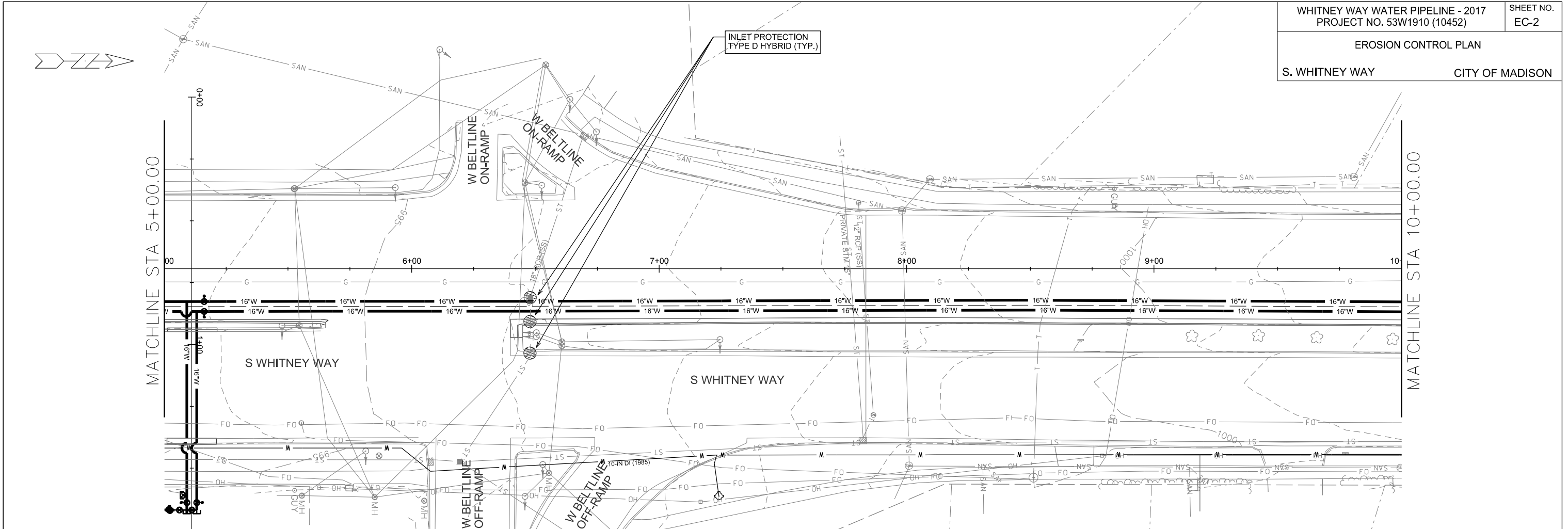
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PLOT NAME:

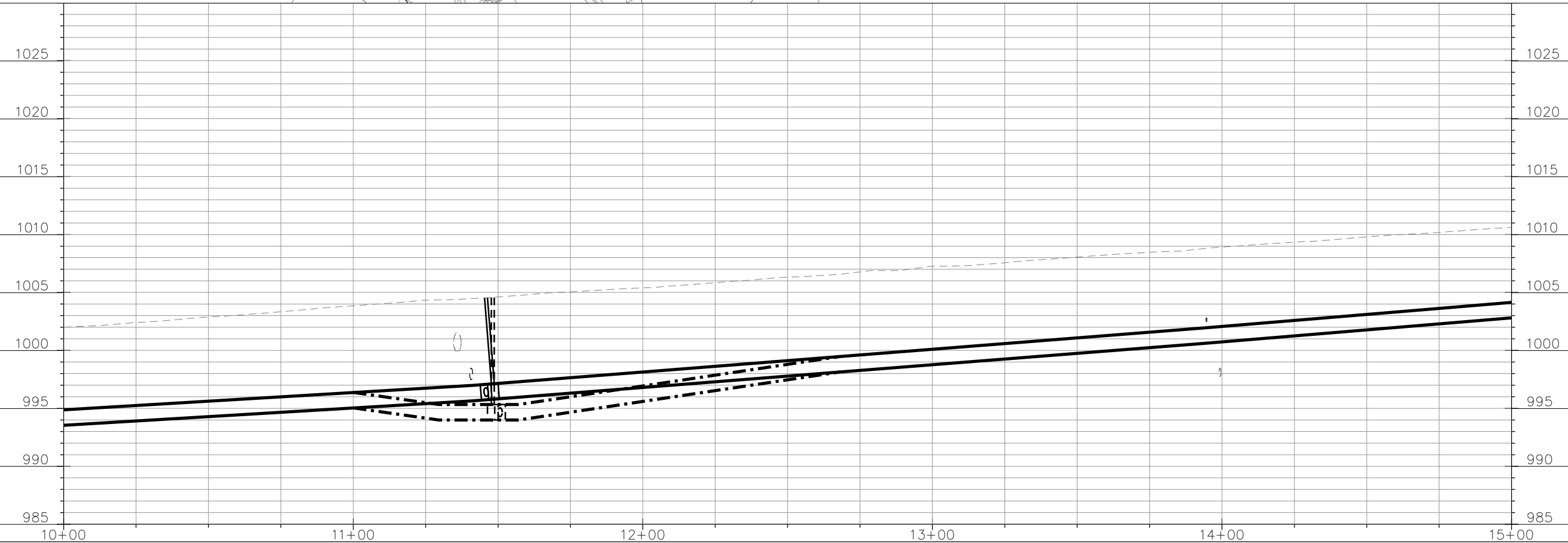
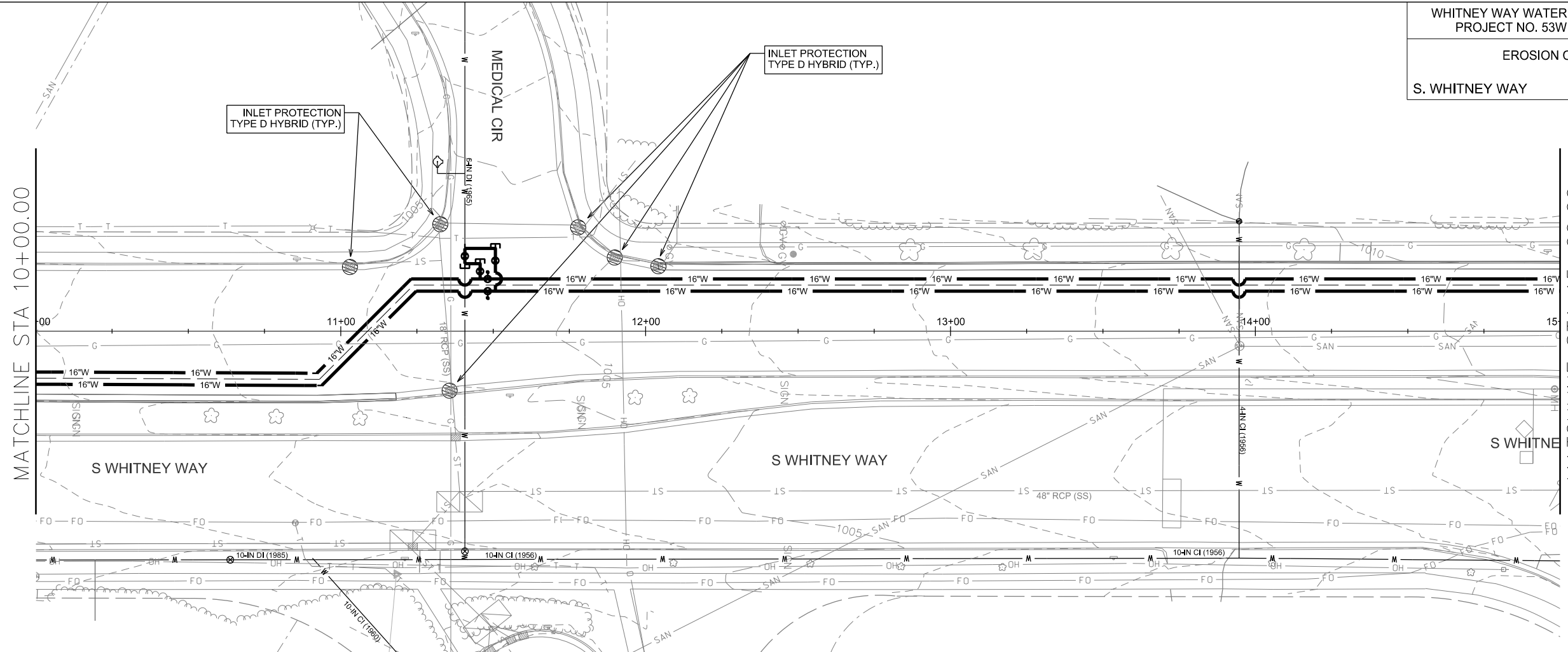
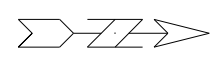
REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION





PLOT SCALE:
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 ORIGINATOR: CITY OF MADISON, STREETS DIVISION



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EROSION CONTROL PLAN

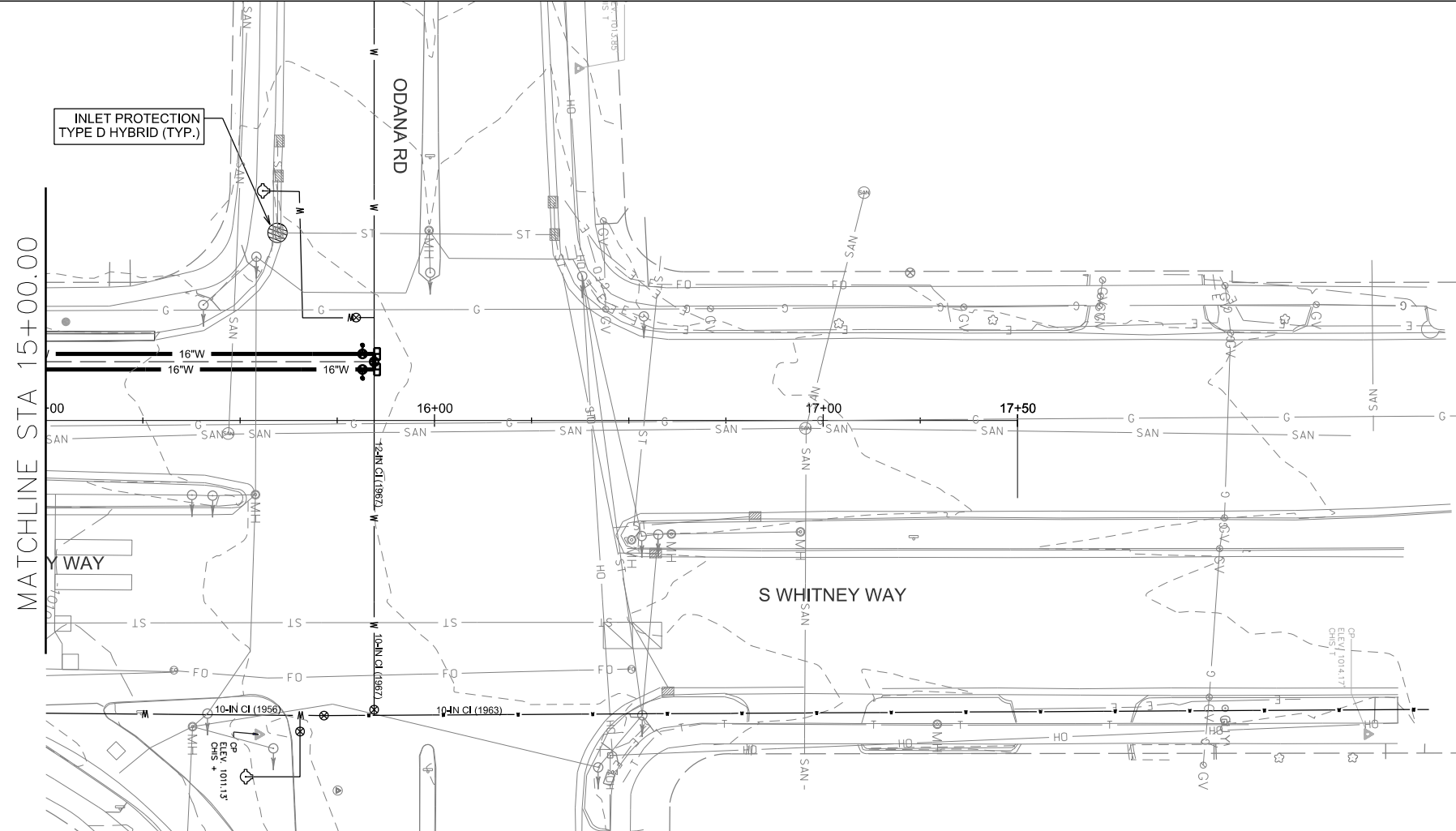
S. WHITNEY WAY

CITY OF MADISON



INLET PROTECTION
TYPE D HYBRID (TYP.)

MATCHLINE STA 15+00.00



1035

1035

1030

1030

1025

1025

1020

1020

1015

1015

1010

1010

1005

1005

1000

1000

995

995

15+00

16+00

17+00

17+50

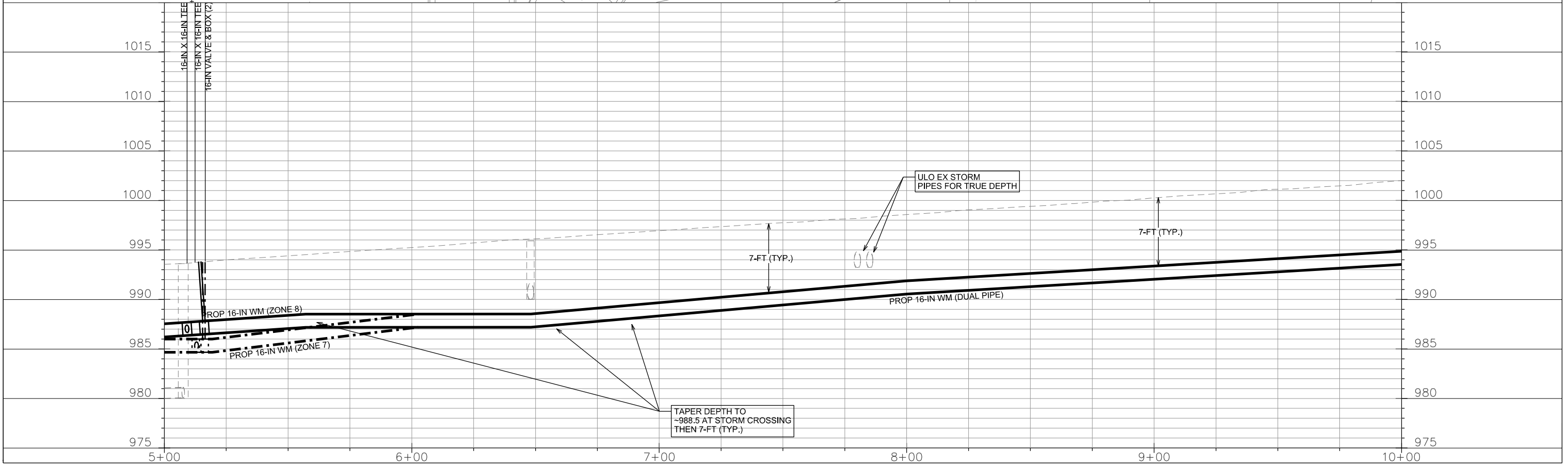
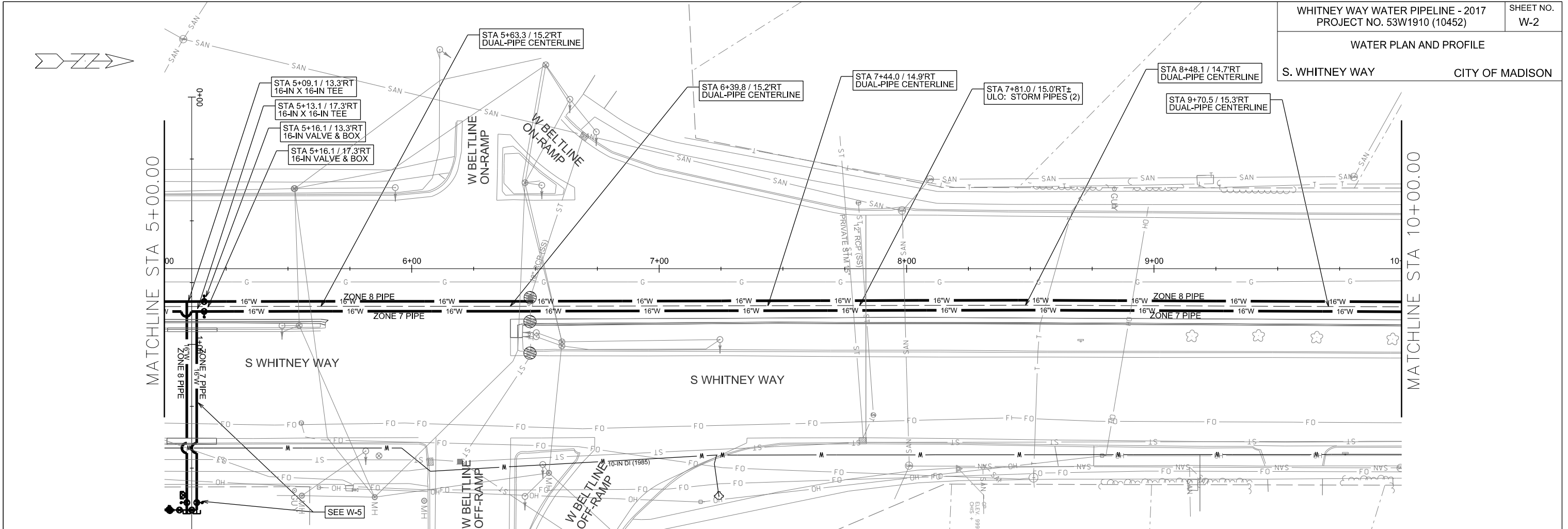


PLOT SCALE:

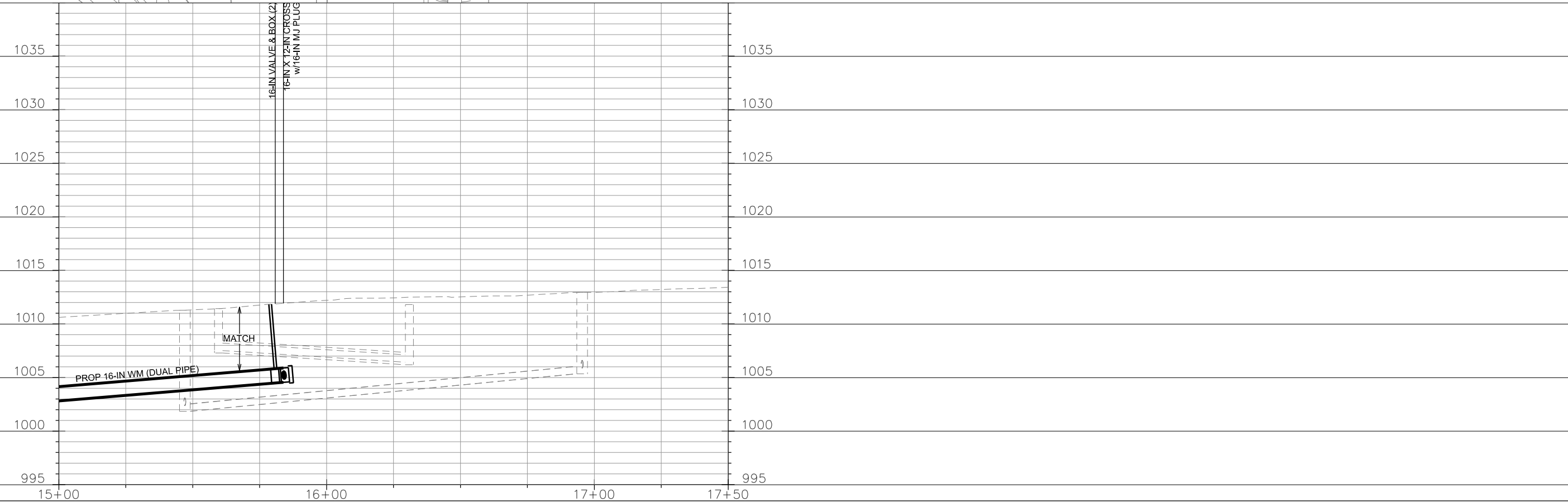
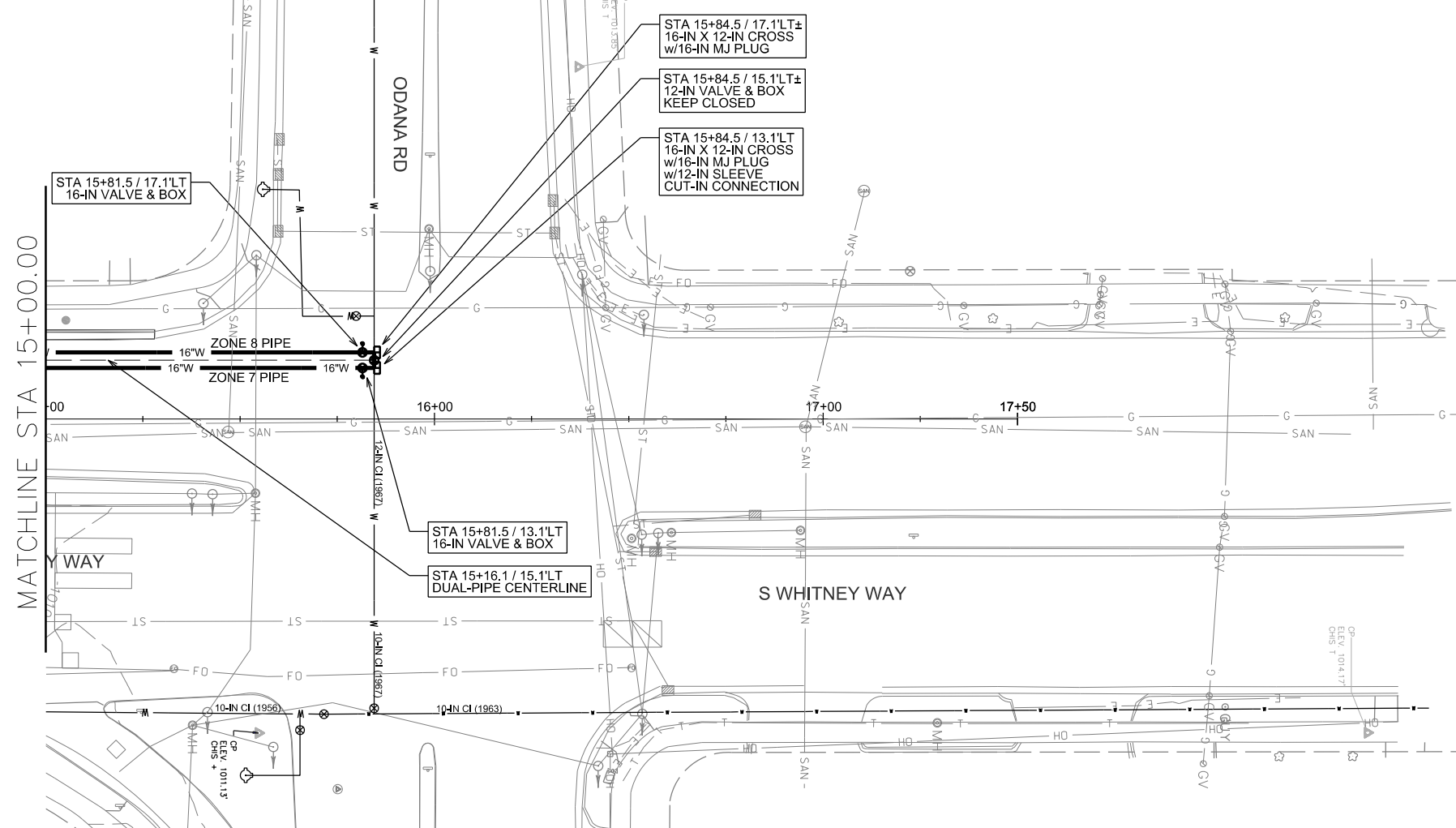
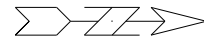
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PLOT SCALE:
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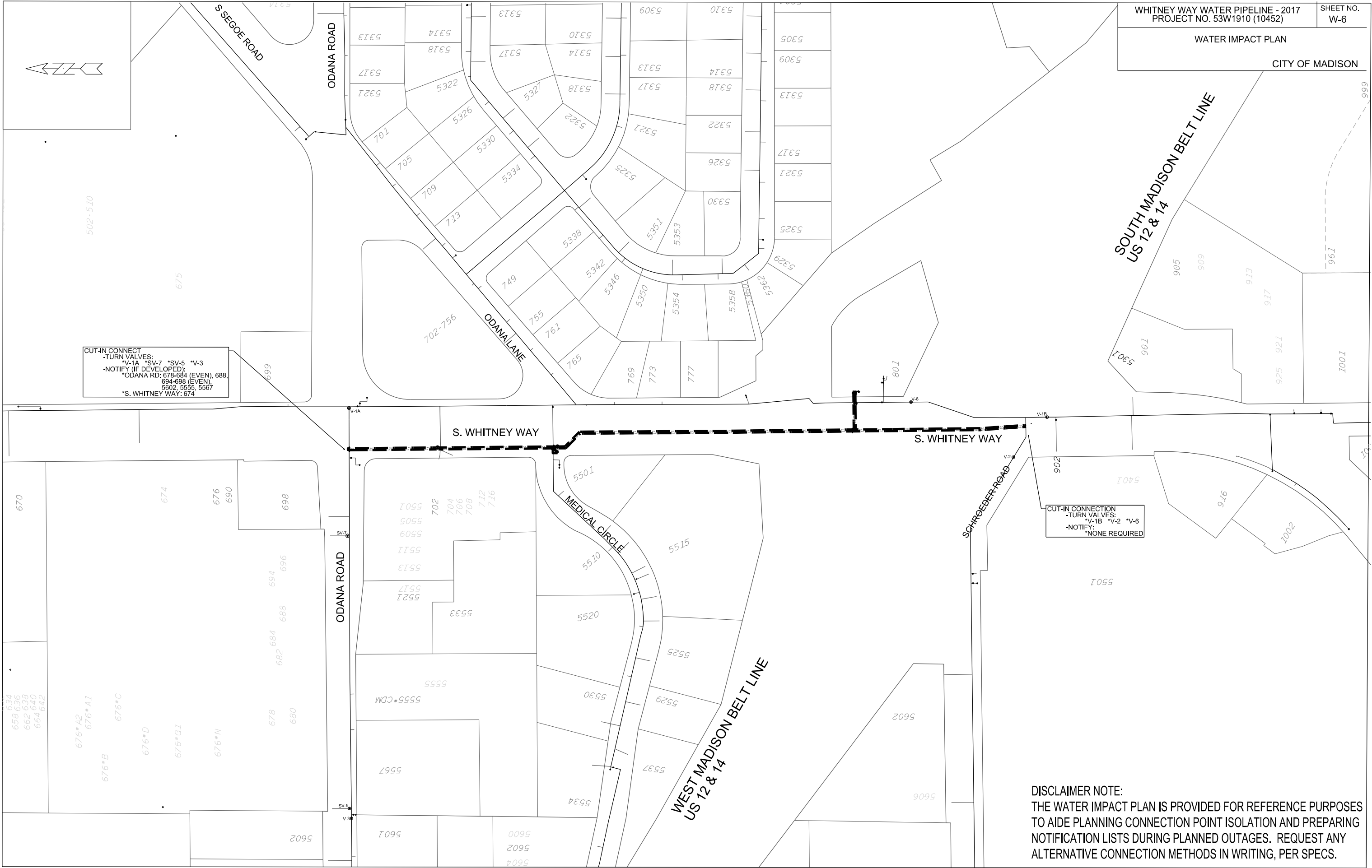


PLOT SCALE:

PLOT NAME:

REV. DATE:

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CUT-IN CONNECT
-TURN VALVES:
*V-1A *SV-7 *SV-5 *V-3
-NOTIFY (IF DEVELOPED):
*ODANA RD: 678-684 (EVEN), 688,
694-698 (EVEN),
692, 685, 5567
*S. WHITNEY WAY: 674

CUT-IN CONNECTION
-TURN VALVES:
*V-1B *V-2 *V-6
-NOTIFY:
*NONE REQUIRED

DISCLAIMER NOTE:
THE WATER IMPACT PLAN IS PROVIDED FOR REFERENCE PURPOSES
TO AIDE PLANNING CONNECTION POINT ISOLATION AND PREPARING
NOTIFICATION LISTS DURING PLANNED OUTAGES. REQUEST ANY
ALTERNATIVE CONNECTION METHODS IN WRITING, PER SPECS.

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

FILE NAME:

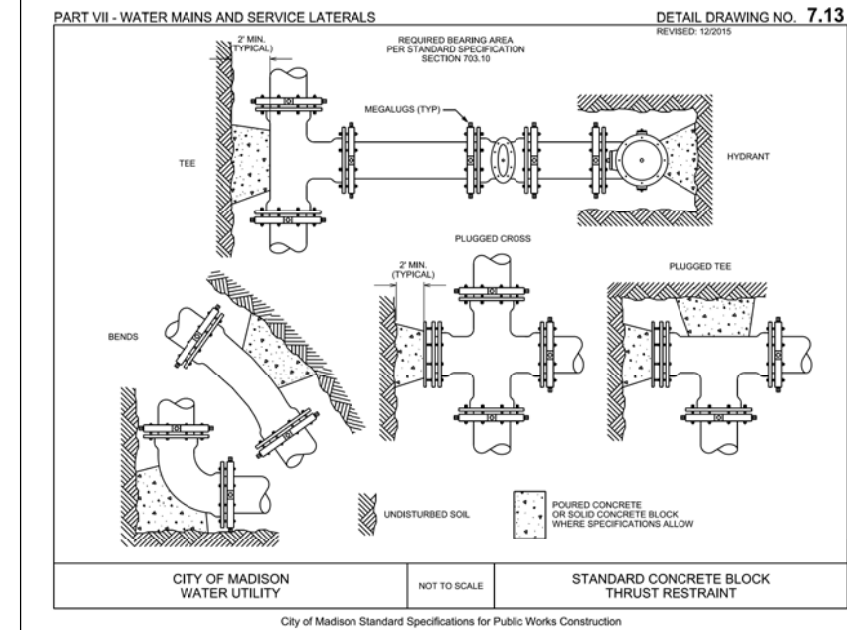
DATE:

CONSTRUCTION NOTES:

1. CONSTRUCT NEW WATER MAIN 6.0' BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED. INSULATE MAIN WITH POLYSTYRENE BOARD AT UTILITY CROSSINGS OR OTHER AREAS IDENTIFIED BY ENGINEER AS HAVING INADEQUATE COVER.
2. VERIFY SIZE OF EXISTING WATER SERVICES AND RECONNECT SERVICES AS INDICATED.
3. MINIMIZE DISRUPTION OF SERVICE TO EXISTING CUSTOMERS. NOTIFY PER CONTRACT REQUIREMENTS OF ANY PLANNED WATER OUTAGE.
4. THE EXISTING UTILITIES SHOWN ON THIS PLAN REPRESENT THE BEST INFORMATION AVAILABLE TO THE WATER UTILITY AT THE TIME OF PLAN PREPARATION. CONTRACTOR IS RESPONSIBLE FOR HAVING EACH UTILITY LOCATED PRIOR TO COMMENCING WORK.

- WN1 REPLACE THE EXISTING LEAD SERVICE WITH A NEW COPPER SERVICE.
- WN2 EXTEND AND RECONNECT THE EXISTING COPPER SERVICE TO THE NEW WATER MAIN.
- WN3 EXISTING SERVICE TO BE ABANDONED WHEN THE WATER MAIN IS CUT OFF.
- WN4 DISCONNECT FROM THE OLD WATER MAIN AND RECONNECT THE EXISTING COPPER WATER SERVICE LATERAL TO THE NEW WATER MAIN.
- WN5 RELOCATE THE EXISTING FIRE HYDRANT.
- WN6 ABANDON WATER VALVE ACCESS STRUCTURE.
- WN7 FURNISH AND INSTALL THE NEW TOP SECTION FOR THE WATER ACCESS STRUCTURE.
- WN8 ABANDON THE VALVE BOX.
- WN9 FURNISH THE DITCH, COMPACTION, AND ALL MATERIALS AND LABOR FOR THE INSTALLATION OF NEW SERVICE LATERAL.
- WN10 REMOVE AND SALVAGE EXISTING HYDRANT
- WN11 REPLACE THE EXISTING COPPER SERVICE WITH A COPPER SERVICE

 INDICATES INSULATION AT STORM SEWER CROSSING



ESTIMATE OF PROJECT WATER MATERIALS:

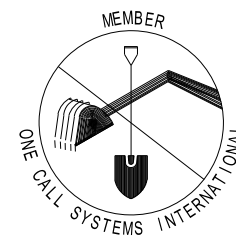
* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF. ALWAYS REFER TO PLANS.

WATER MAINS	TOTAL	WATER MAINS	TOTAL
6-IN PIPE (LF)	30	16-IN - 45° BENDS	24
8-IN PIPE (LF)	20	16-IN - 11.25° BENDS	2
10-IN PIPE (LF)	<10	16-IN X 6-IN CROSSES	1
12-IN PIPE (LF)	<10	16-IN X 12-IN CROSSES	2
16-IN PIPE (LF)	3150	16-IN X 10-IN CROSSES	2
POLY WRAP	3600	6-IN MJ PLUGS	2
6-IN VALVES & BOXES	4	8-IN MJ PLUGS	2
8-IN VALVES & BOXES	2	16-IN MJ PLUGS	6
10-IN VALVES & BOXES	1	6-IN MJ CAPS	1
12-IN VALVES & BOXES	1	10-IN SOLID SLEEVES	1
16-IN VALVES & BOXES	10	12-IN SOLID SLEEVES	1
6-IN X 6-IN TEES	2	5-IN HYDRANTS	1
8-IN X 6-IN TEES	2	2-IN STYROFOAM (LF)	96
16-IN X 6-IN TEES	2		
16-IN X 8-IN TEES	2		
16-IN X 16-IN TEES	2		

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE TOLL FREE
811 OR 1-800-242-8511
FAX-A-LOCATE 1-800-338-3860
TDD (FOR HEARING IMPAIRED) 1-800-542-2289

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

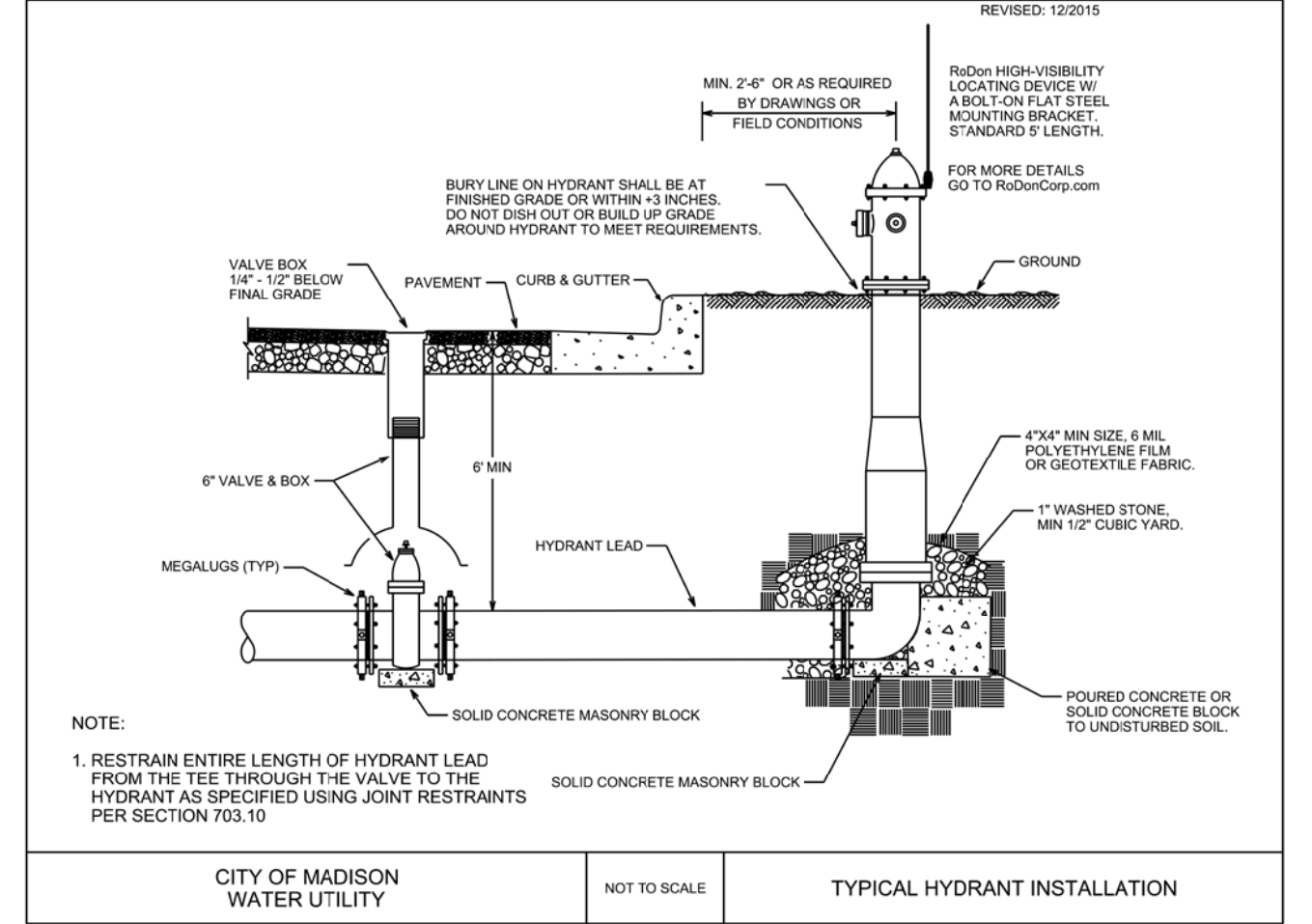


UTILITY LINE OPENINGS (ULO's)

SHEET	STATION	OFFSET	DESCRIPTION
W-2	7+81.0	15.0'RT	STORM (2)
W-3	11+40.7	15.1'LT	WATER
W-3	13+94.7	15.1'LT	WATER
W-5	1+46.6	0.0'LT	STORM / WATER / FIBER

DISCLAIMER NOTE:
UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING WORK.

PART VII - WATER MAINS AND SERVICE LATERALS DETAIL DRAWING NO. 7.04



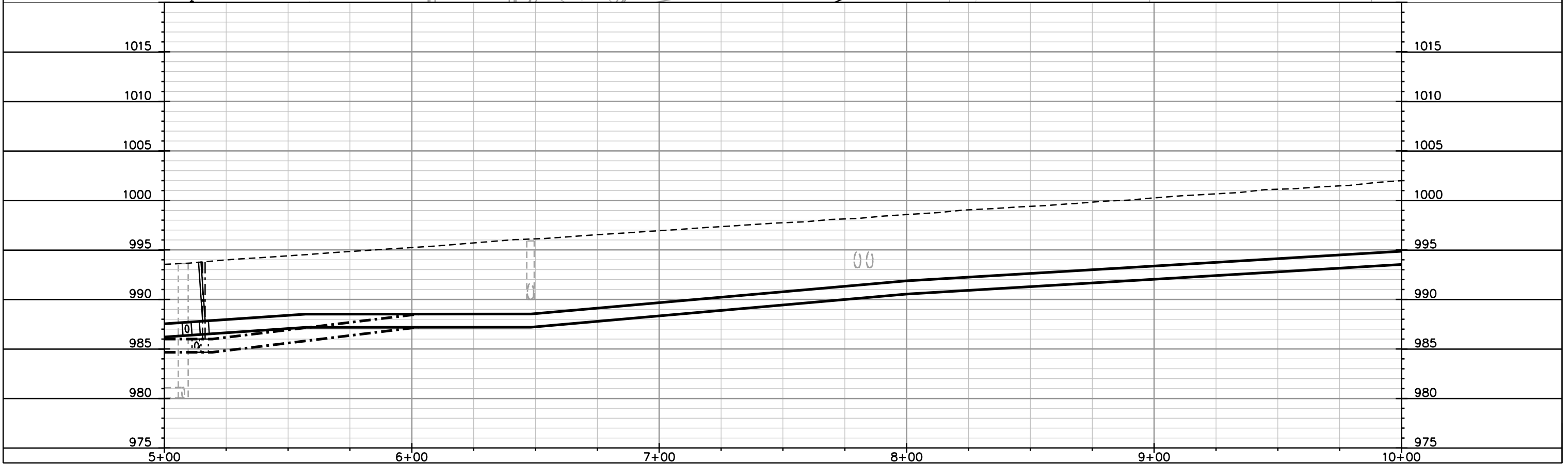
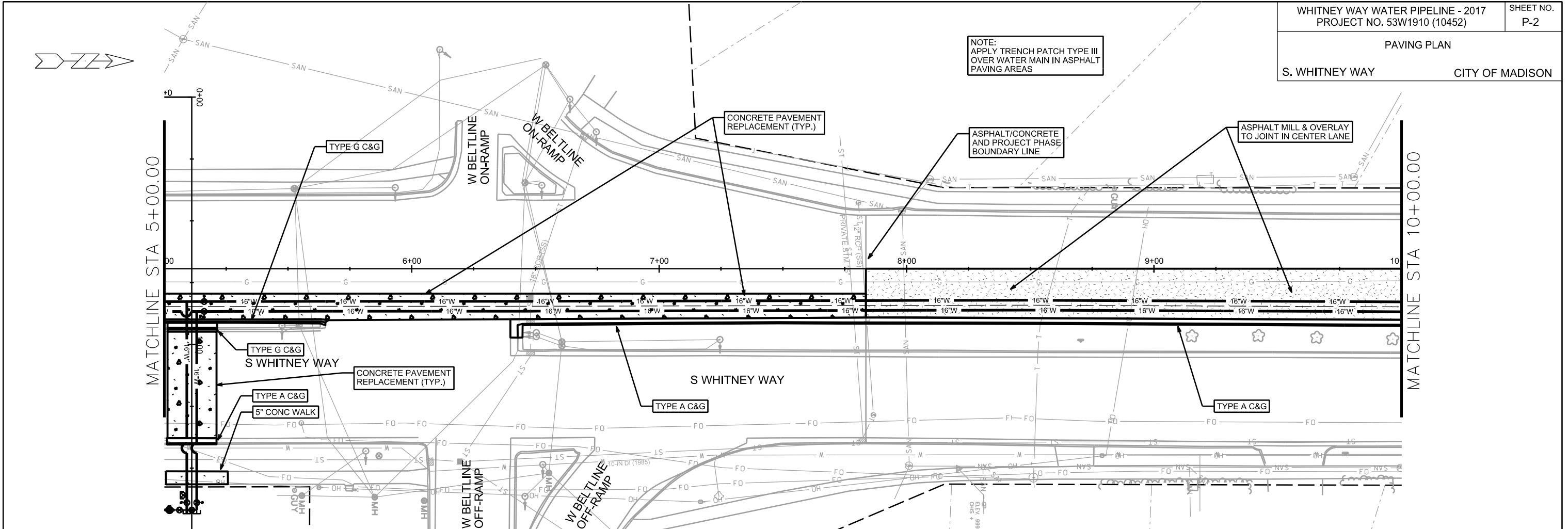
PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

NOTE:
 APPLY TRENCH PATCH TYPE III
 OVER WATER MAIN IN ASPHALT
 PAVING AREAS

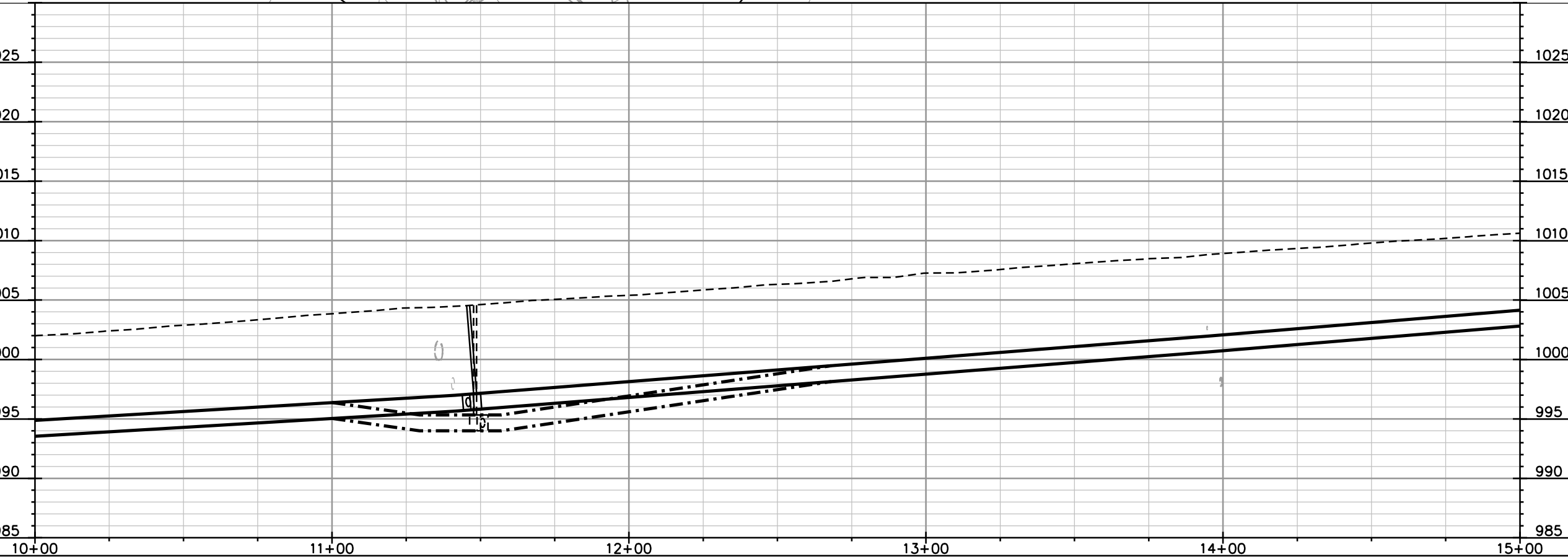
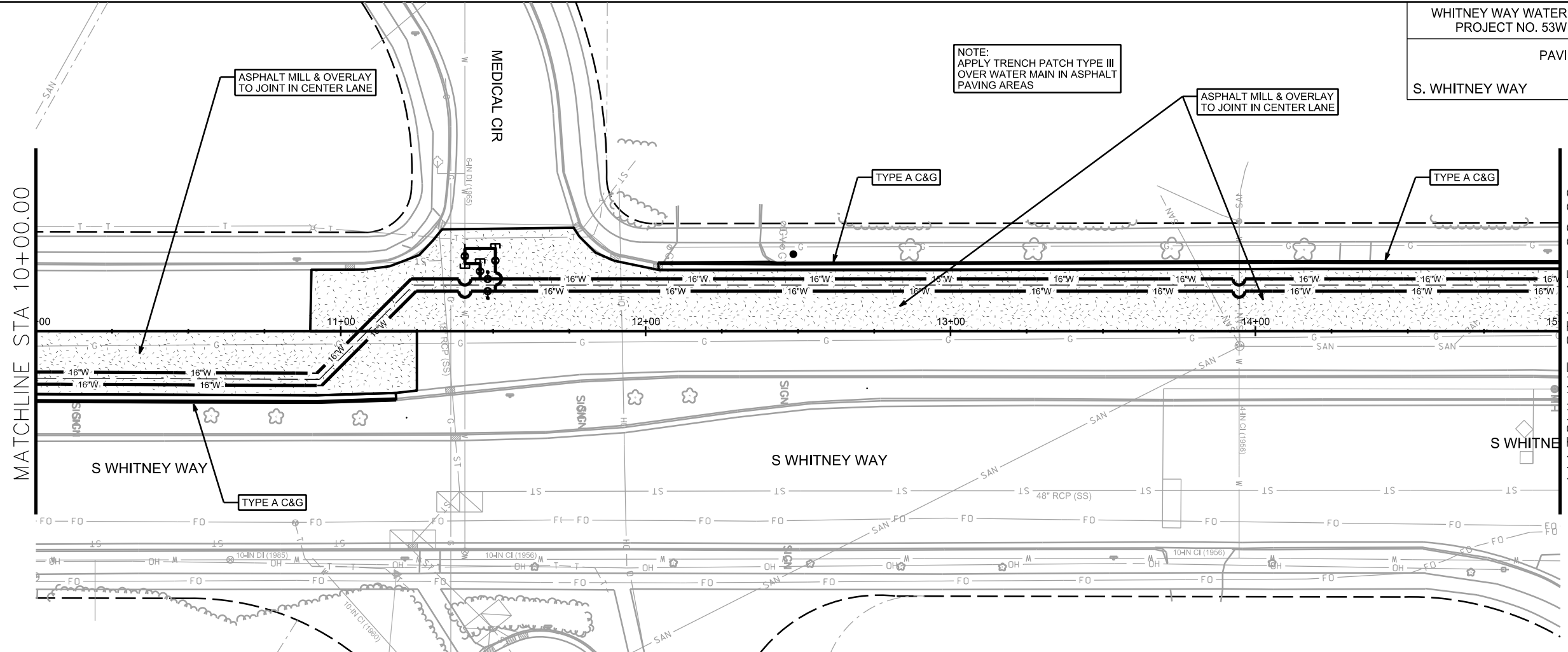


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PLOT SCALE:
 PLOT NAME:
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NOTE:
 APPLY TRENCH PATCH TYPE III
 OVER WATER MAIN IN ASPHALT
 PAVING AREAS

ASPHALT MILL & OVERLAY
 TO JOINT IN CENTER LANE

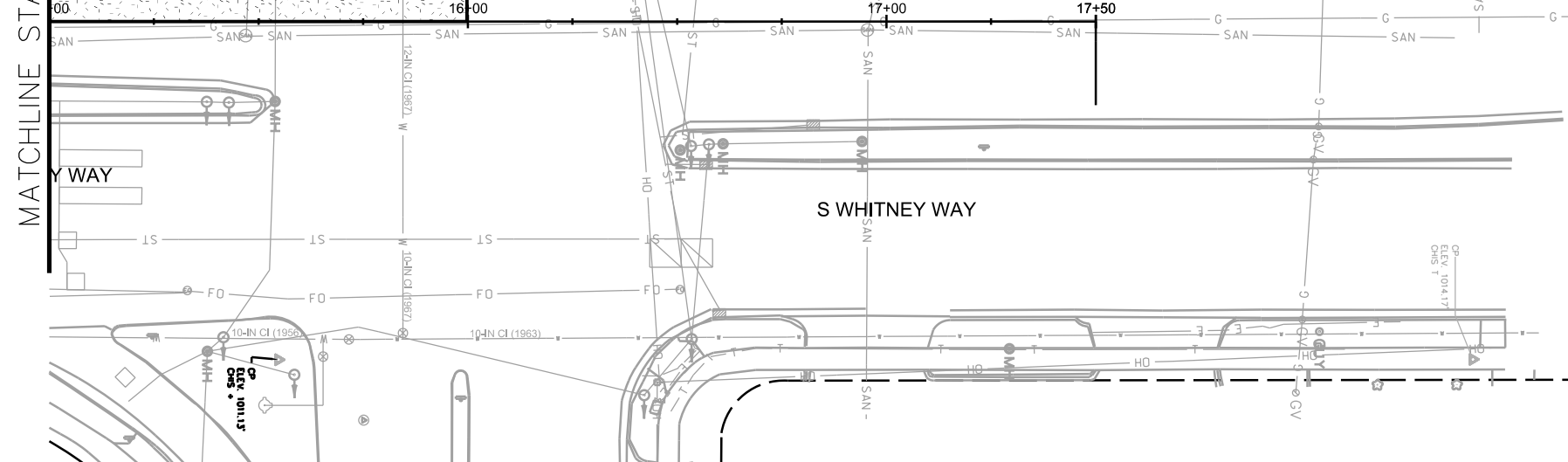
TYPE A C&G

MATCHLINE STA 15+00.00

ODANA RD

S WHITNEY WAY

16" W
 16" W
 16" W



1035
 1030
 1025
 1020
 1015
 1010
 1005
 1000
 995

1035
 1030
 1025
 1020
 1015
 1010
 1005
 1000
 995

15+00 16+00 17+00 17+50

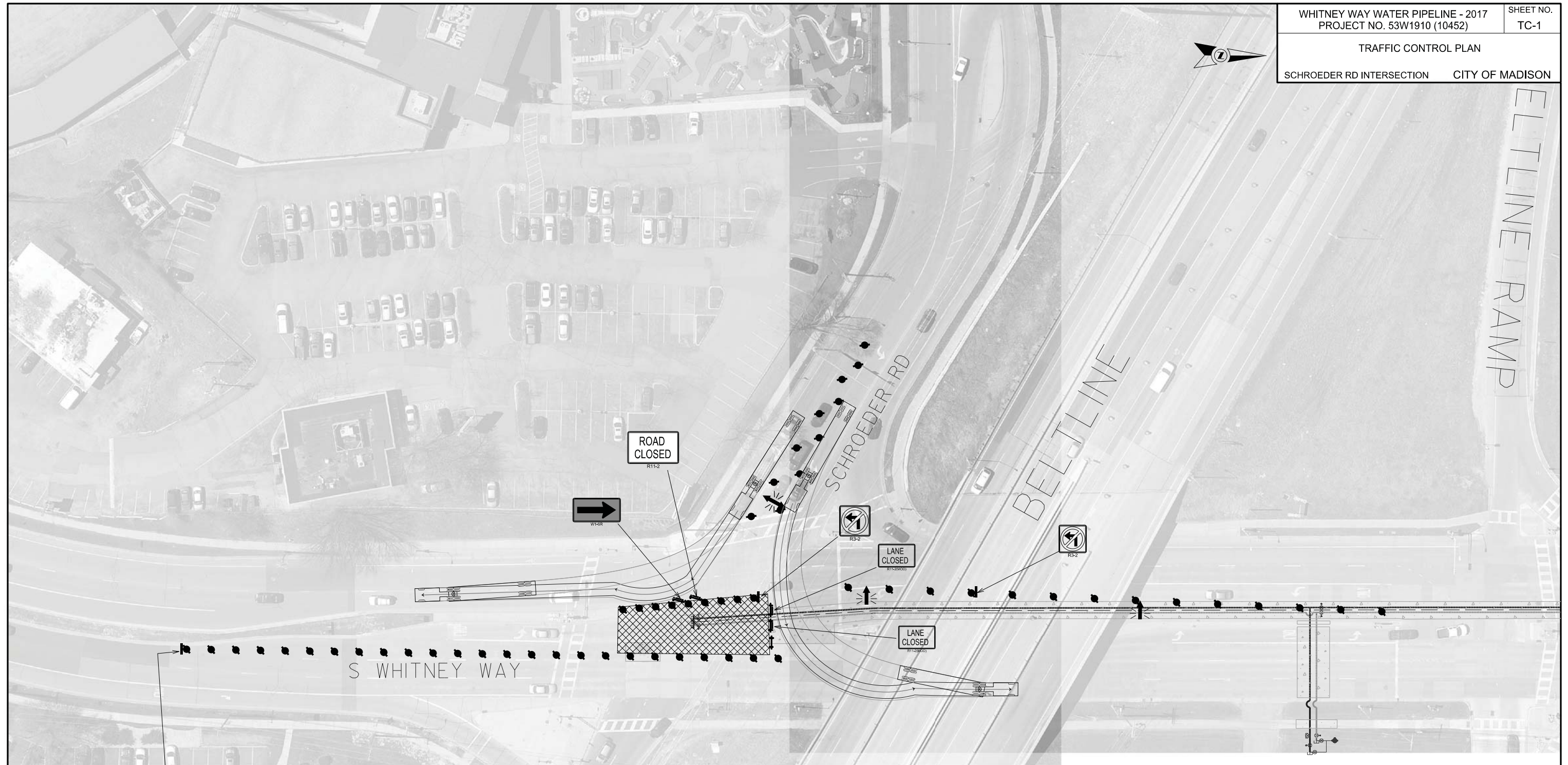
PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION

TRAFFIC CONTROL PLAN

SCHROEDER RD INTERSECTION CITY OF MADISON



PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



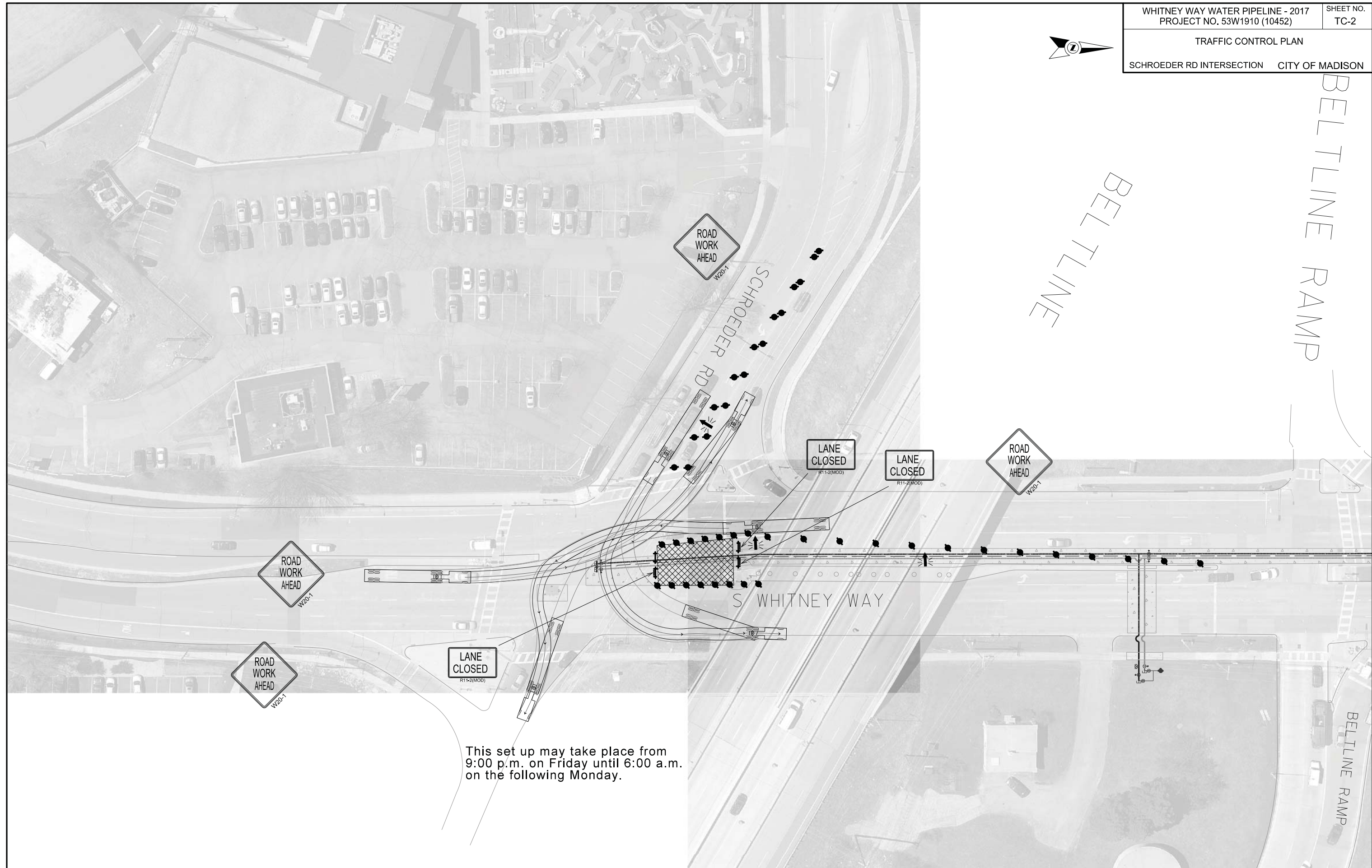
This set up may take place from
9:00 p.m. on Friday night until 8:00 a.m.
on Saturday morning.

BELTLINE RAMP

BELTLINE RAMP



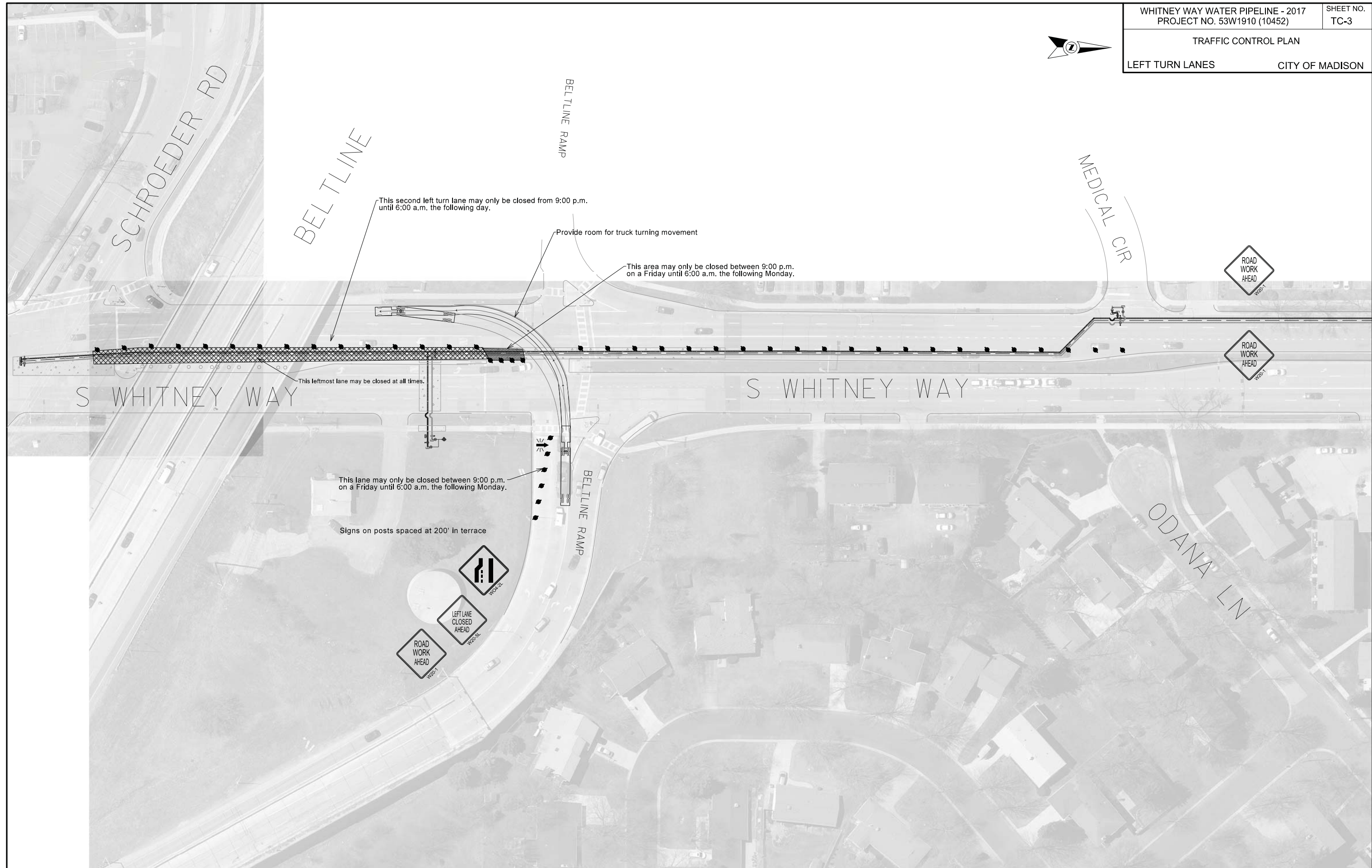
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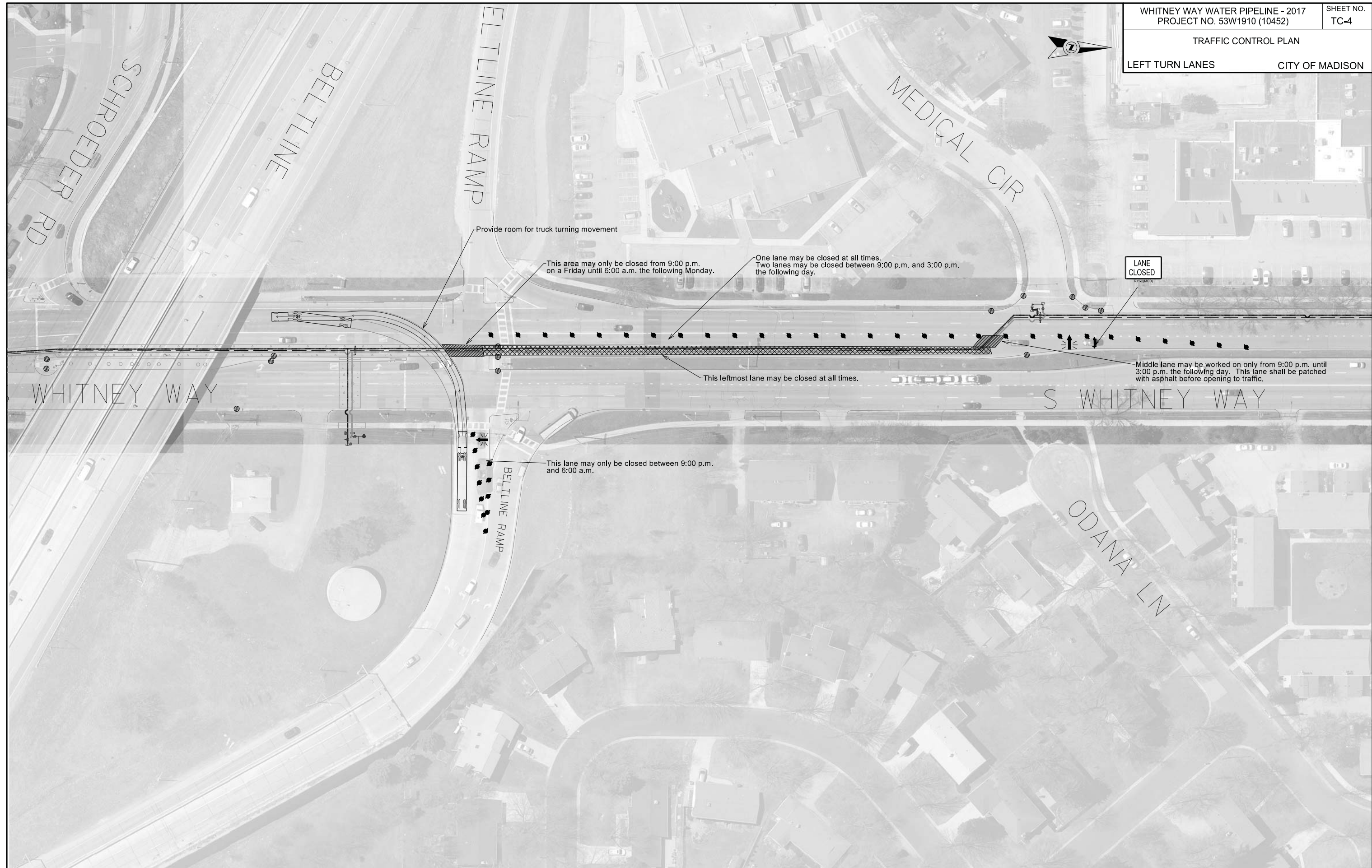


This set up may take place from
 9:00 p.m. on Friday until 6:00 a.m.
 on the following Monday.



PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.





PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

Provide room for truck turning movement

This area may only be closed from 9:00 p.m. on a Friday until 6:00 a.m. the following Monday.

One lane may be closed at all times. Two lanes may be closed between 9:00 p.m. and 3:00 p.m. the following day.

LANE CLOSED

Middle lane may be worked on only from 9:00 p.m. until 3:00 p.m. the following day. This lane shall be patched with asphalt before opening to traffic.

This leftmost lane may be closed at all times.

This lane may only be closed between 9:00 p.m. and 6:00 a.m.

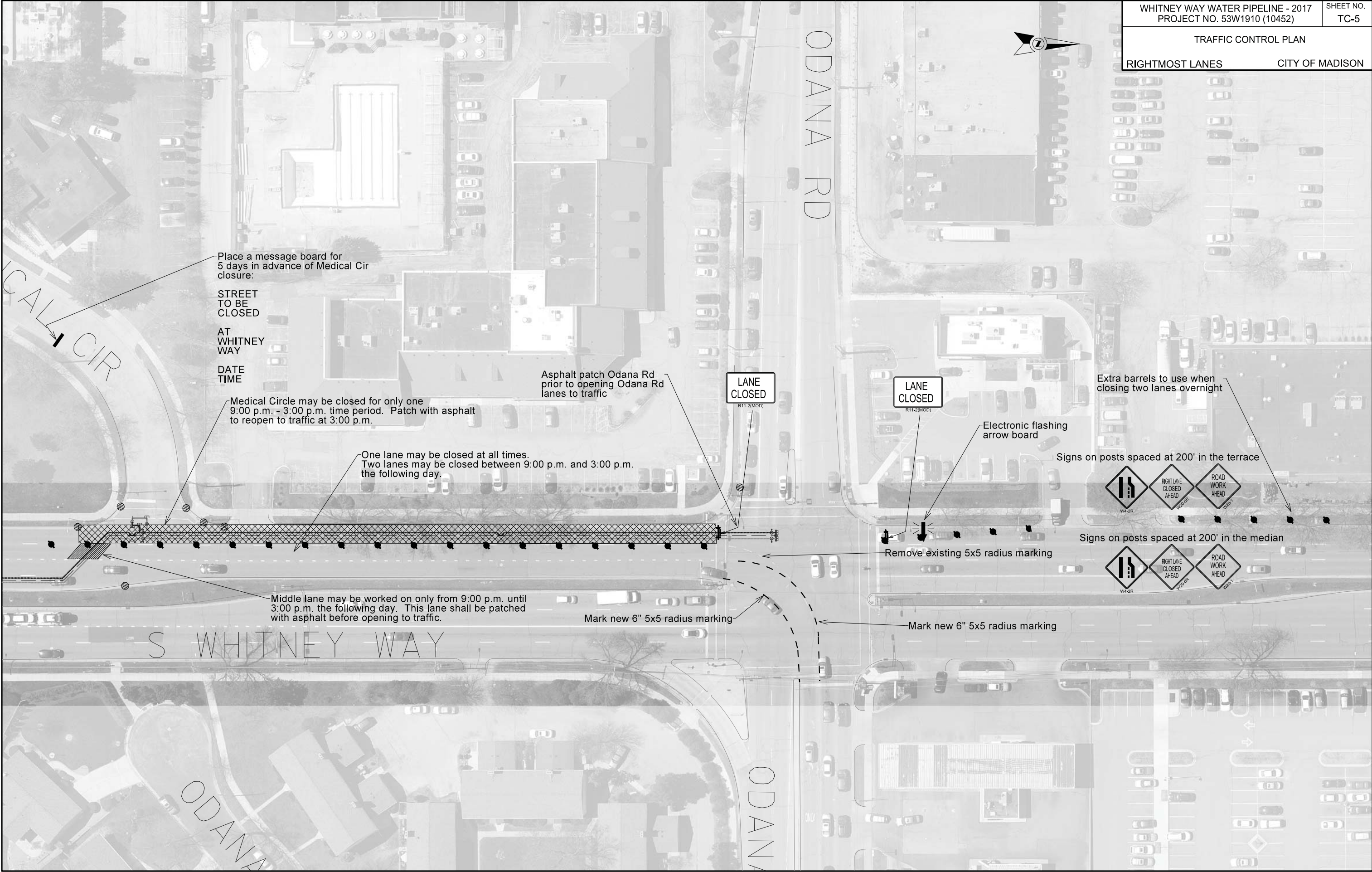


PLOT SCALE:

PLOT NAME:

REV. DATE:

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Place a message board for 5 days in advance of Medical Cir closure:

STREET TO BE CLOSED

AT WHITNEY WAY

DATE TIME

Asphalt patch Odana Rd prior to opening Odana Rd lanes to traffic

LANE CLOSED
R11-2(MOD)

LANE CLOSED
R11-2(MOD)

Extra barrels to use when closing two lanes overnight

Electronic flashing arrow board

Signs on posts spaced at 200' in the terrace



Signs on posts spaced at 200' in the median



Medical Circle may be closed for only one 9:00 p.m. - 3:00 p.m. time period. Patch with asphalt to reopen to traffic at 3:00 p.m.

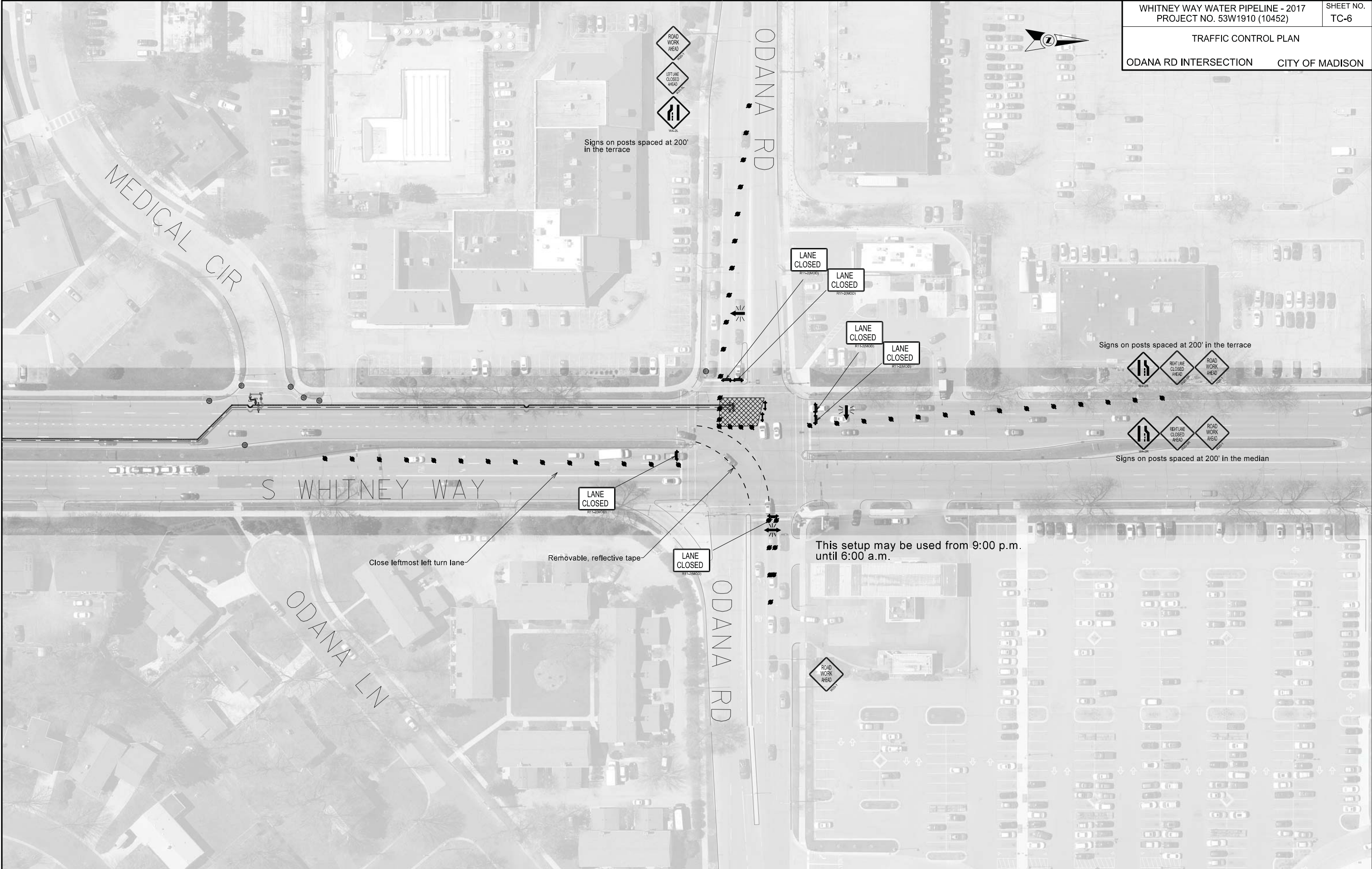
One lane may be closed at all times. Two lanes may be closed between 9:00 p.m. and 3:00 p.m. the following day.

Middle lane may be worked on only from 9:00 p.m. until 3:00 p.m. the following day. This lane shall be patched with asphalt before opening to traffic.

Remove existing 5x5 radius marking

Mark new 6" 5x5 radius marking

Mark new 6" 5x5 radius marking



PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



Signs on posts spaced at 200' in the terrace

ODANA RD

MEDICAL CIR

LANE CLOSED

LANE CLOSED

LANE CLOSED

Signs on posts spaced at 200' in the terrace



Signs on posts spaced at 200' in the median

S WHITNEY WAY

Removable, reflective tape

LANE CLOSED

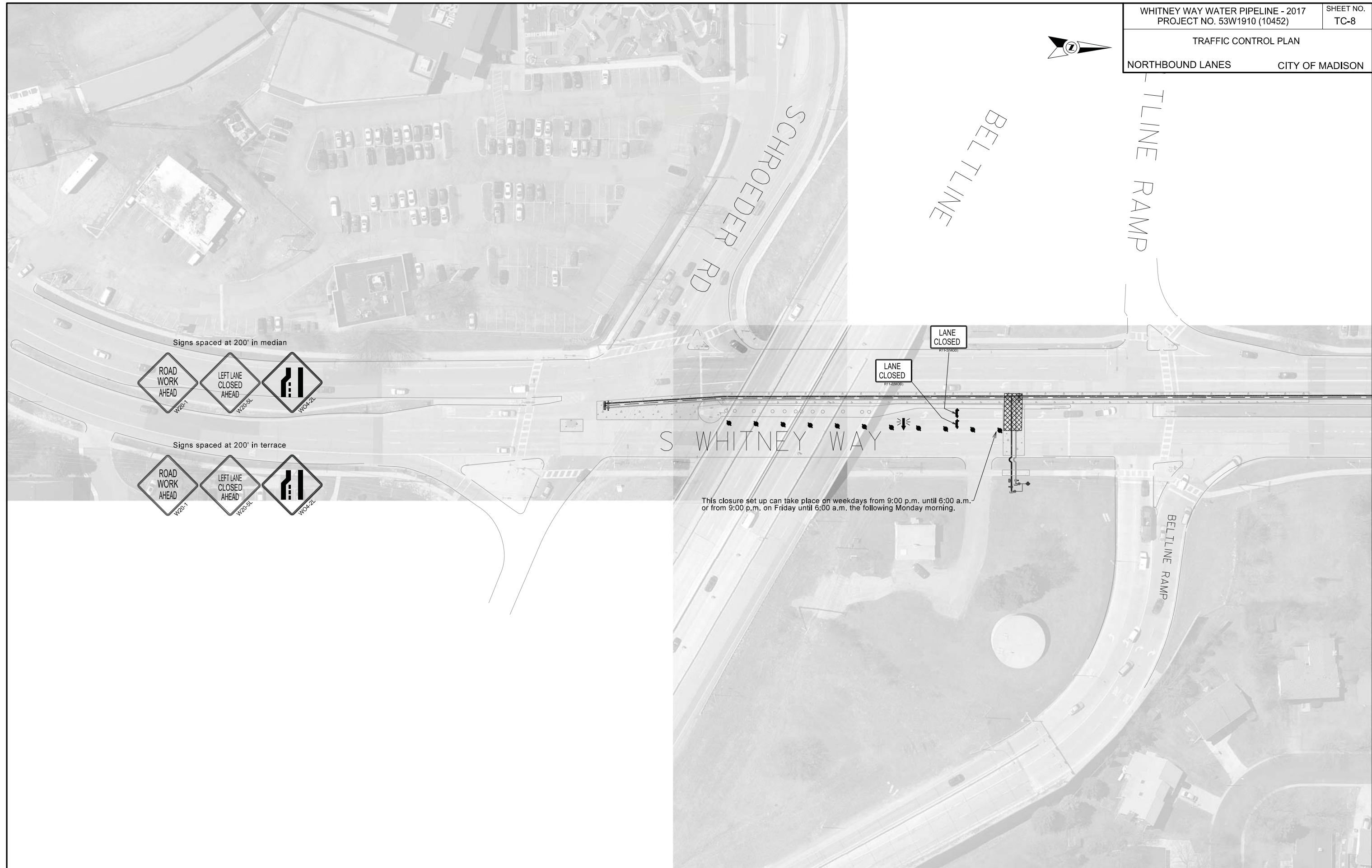
This setup may be used from 9:00 p.m. until 6:00 a.m. the following day.

ODANA RD

ODANA LN



PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



Signs spaced at 200' in median



Signs spaced at 200' in terrace



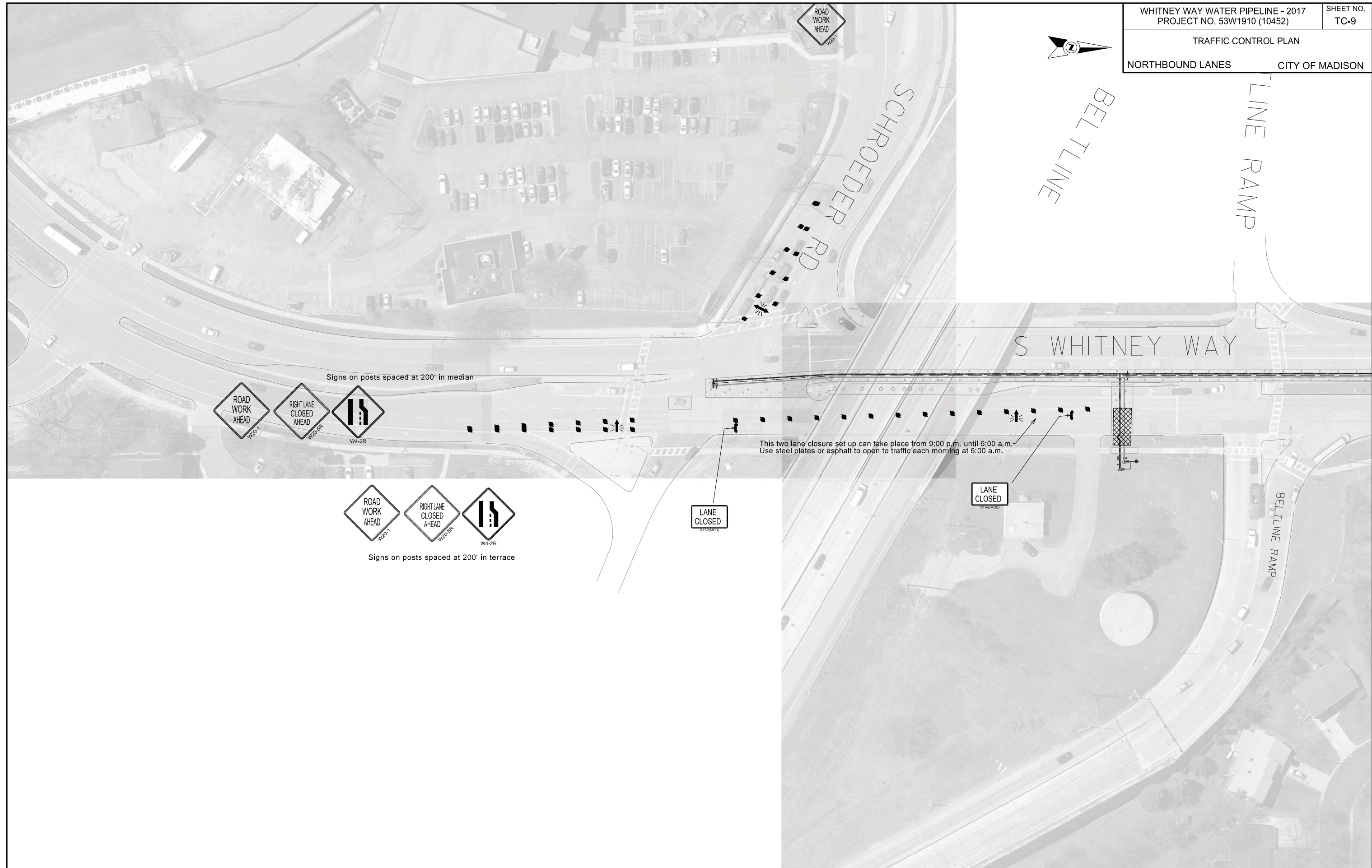
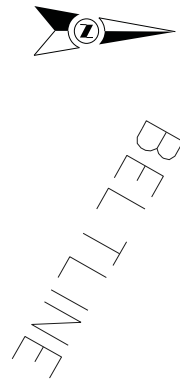
LANE CLOSED
R11-20(MOD)

LANE CLOSED
R11-20(MOD)

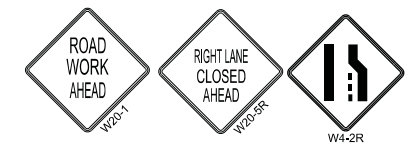
S WHITNEY WAY

This closure set up can take place on weekdays from 9:00 p.m. until 6:00 a.m. or from 9:00 p.m. on Friday until 6:00 a.m. the following Monday morning.

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



Signs on posts spaced at 200' in median



Signs on posts spaced at 200' in terrace

This two lane closure set up can take place from 9:00 p.m. until 6:00 a.m.
Use steel plates or asphalt to open to traffic each morning at 6:00 a.m.



PLOT SCALE:

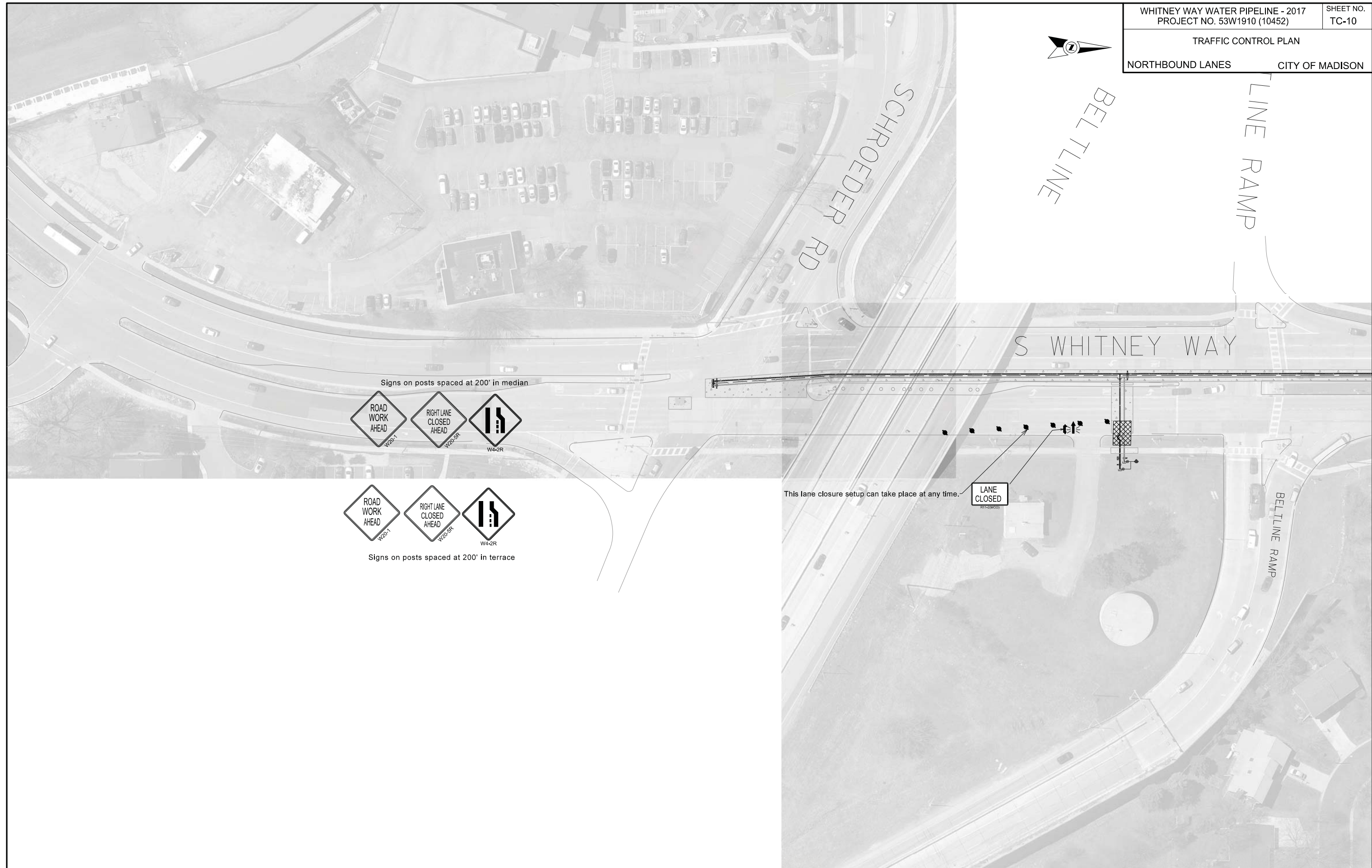
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REV. DATE:

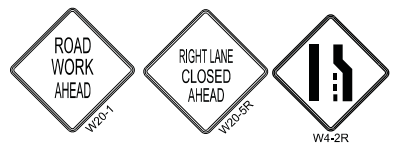
ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

TRAFFIC CONTROL PLAN

NORTHBOUND LANES CITY OF MADISON



Signs on posts spaced at 200' in median



Signs on posts spaced at 200' in terrace

This lane closure setup can take place at any time.



PLOT SCALE:

PLOT NAME:

REV. DATE:

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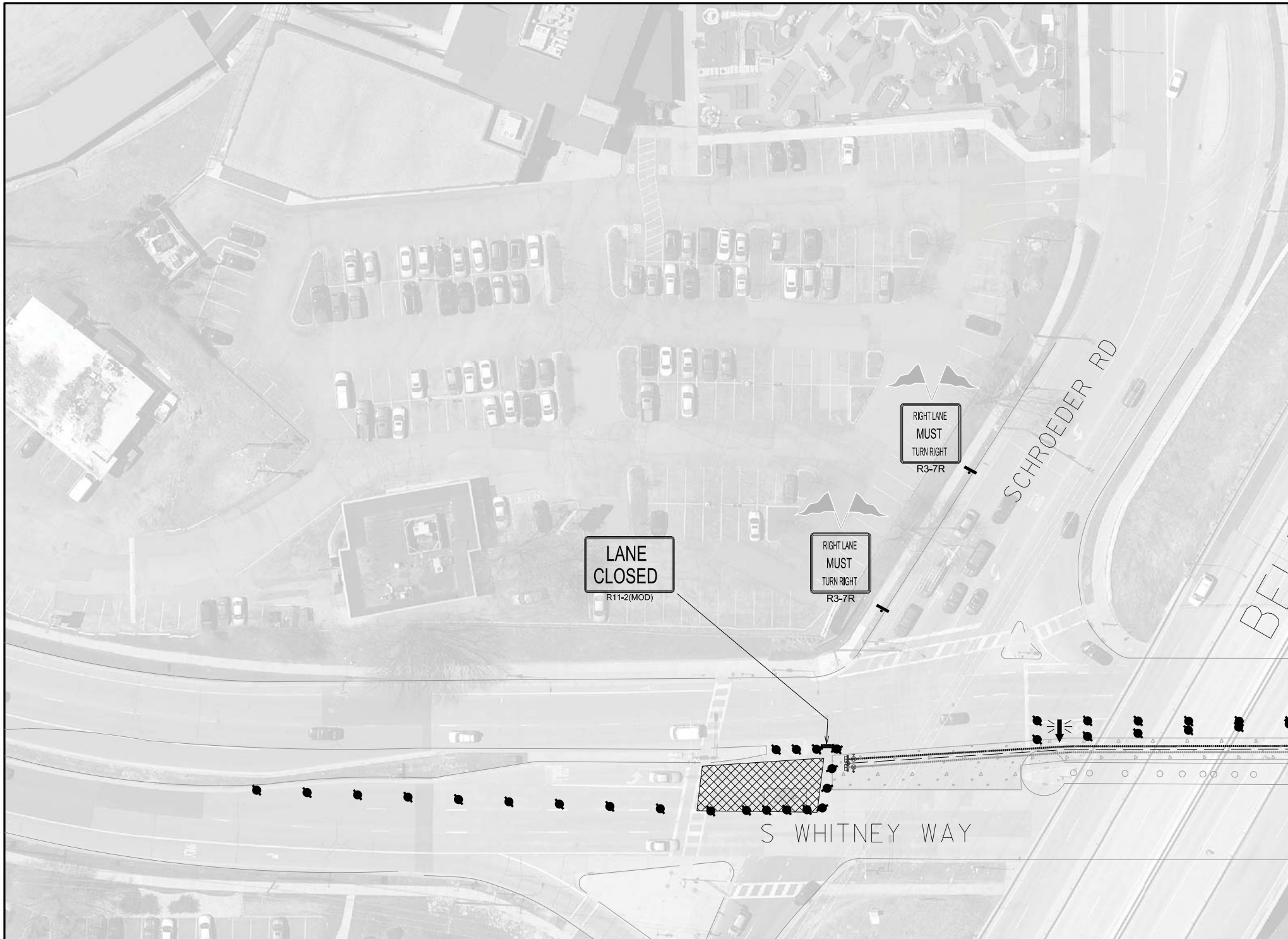


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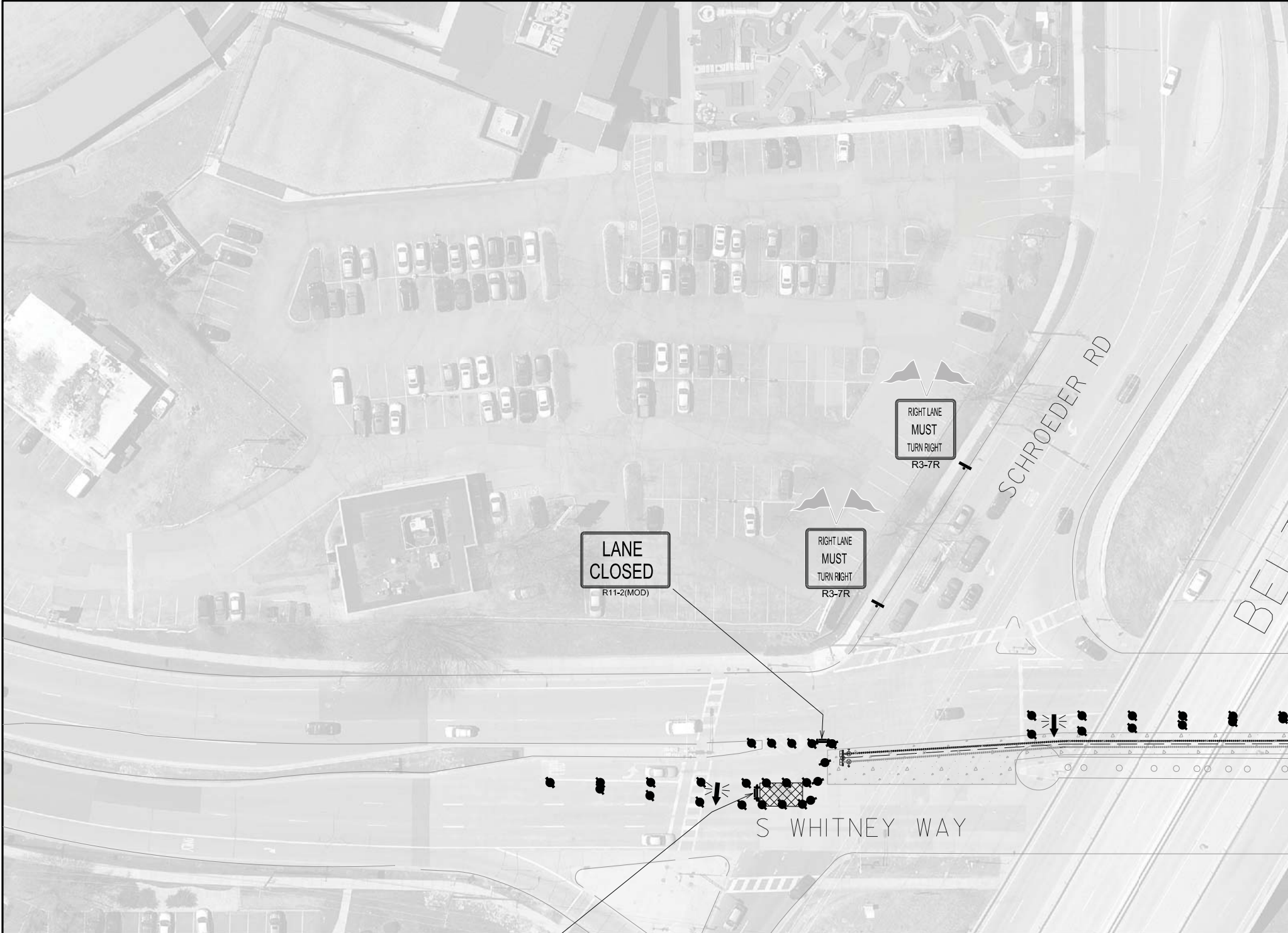
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REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



This set up may take place from 9:00 p.m. on Friday until 9:00 a.m. the following Saturday to remove existing asphalt patch and pour concrete.



LANE CLOSED
R11-2(MOD)

RIGHT LANE MUST TURN RIGHT
R3-7R

RIGHT LANE MUST TURN RIGHT
R3-7R

LANE CLOSED
R11-2(MOD)

This set up may take place from 9:00 p.m. on Friday until 6:00 a.m. the following Monday to allow concrete to cure.

BELTLINE RAMP

BELTLINE

BELTLINE RAMP

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

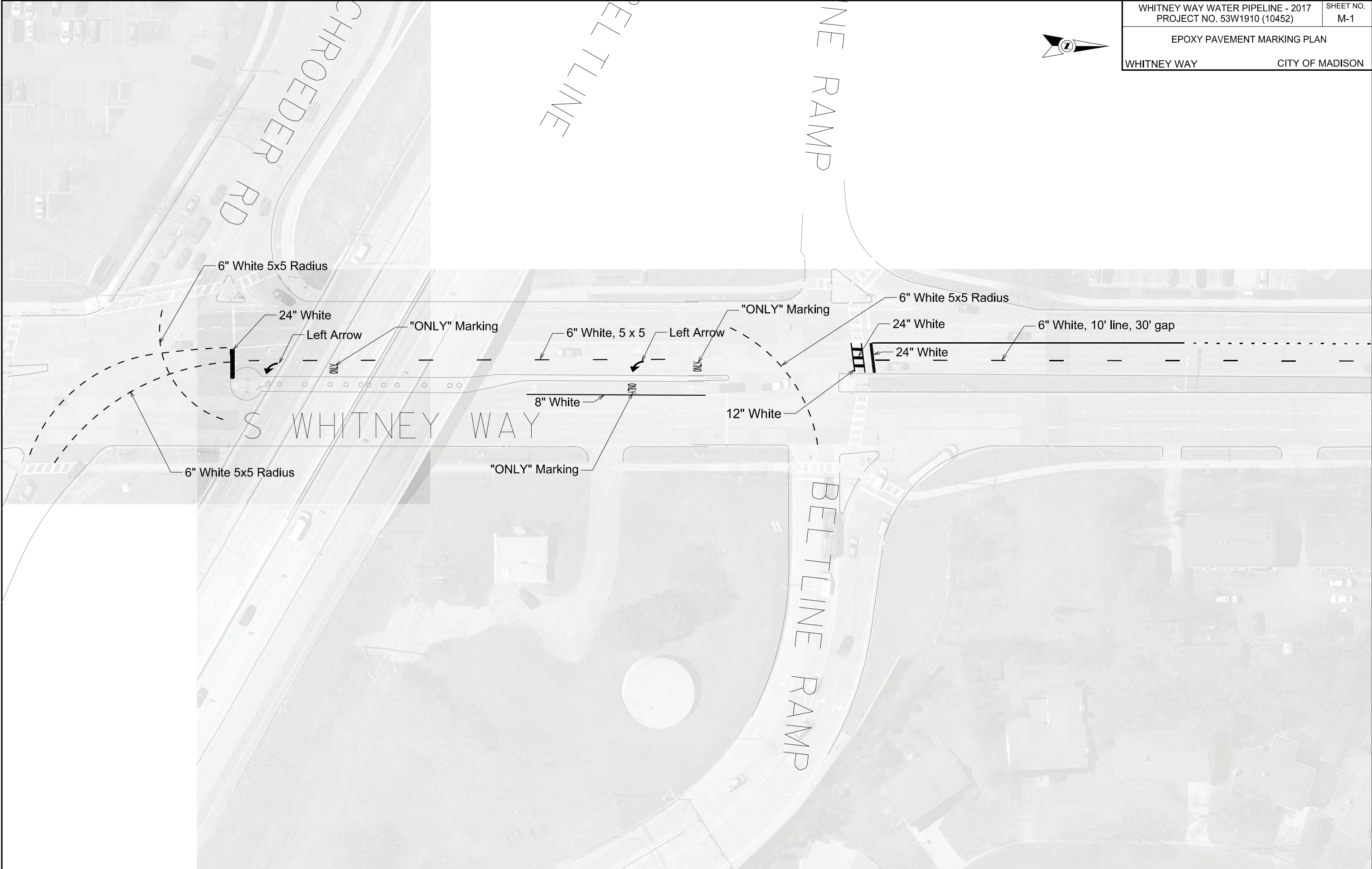


PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



EPOXY PAVEMENT MARKING PLAN

WHITNEY WAY

CITY OF MADISON



MEDICAL CIR

24" White

6" Crosswalk

6" White, 2' line, 6' gap

6" White, 10' line, 30' gap

6" White, 10' line, 30' gap

6" Crosswalk

6" White 5x5 Radius

S WHITNEY WAY

ODANA LN

ODANA RD

PLOT SCALE:

PLOT NAME:

REV. DATE:

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