



Purchasing Division
Finance Department
Room 120
411 West First Street
Duluth, Minnesota 55802

218-730-5340
purchasing@duluthmn.gov

Addendum 2
Solicitation 24-99375
Eng Svcs for Junction Avenue/St. Marie Street Reconditioning

This addendum serves to notify all bidders of the following changes to the solicitation documents:

Answers to questions received **after** 3/21/24 are indicated in *red*:

1. Are we able to use 11" x 17" paper (as in landscape layout) that is then tri folded- i.e. folded in half and then the top is folded back so the final page size is 11" x 8.5 (portrait layout)?

It depends upon what the 11" x 17" paper is being used for. One sheet will be allowed for information that doesn't lend itself to a smaller sheet, for example work plan/schedule or if any drawings are included. Larger sheets aren't allowed to add space for content like goals and objectives or experience.

2. We assume that the limit of 10 pages is for single sided and not double sided.
Correct, the page limit is the total number of pages plus a cover letter.

3. Would the City be willing to assist with cleaning the storm pipes if clogs are found to be in the way of televising?

The City won't jet clogs but will likely be able to have a vactor truck come out to assist if needed, they typically take about an hour to show up after they are requested though.

4. It doesn't look like the low point structures on Junction Ave are included for replacement. Is there any history of flooding in this area? Capacity could be greatly increased by replacing these inlet structures and adding castings with curb boxes. These catch basins don't look to be in great condition. Could also change the pipe configuration to use less pipe length and correct a reverse flow situation. There are 3 castings total, one is a double inlet and could possibly be one structure.

The purpose of the structure evaluation is to determine the condition of the structure and include adjusting or reconstructing the structure during the project. Adding curb boxes to inlets as part of a structure reconditioning can be considered. Modifying the underground system, unless excavation is already required due to a discovered failing pipe, is outside the scope of this project.

5. The GIS map that was included in Addendum 1 does not appear to show the storm structure located in the green area on the west side of Junction Ave to the north of the trail access of parking lot W and to the south of parking lot Q1. I also don't see a manhole in parking lot Q1, so maybe that is the structure and it's just shown in the wrong location?

The GIS mapping is likely incorrect and the casting to the south of the parking lot is the connecting structure to the larger system. See the attached record plans that show an apron in that location as recently as 2002.

6. According to Addendum 1 the pavement depth is estimated to be 7.25". In non-reconstruction areas, what depth does the City intend to use for mill and overlay? Will a pavement recommendation be needed from a geotechnical engineer?

We scoped the preliminary cost estimate at 3.5" but the designer or geotech should provide a recommendation if the current roadway doesn't meet state aid standards.

7. In the reconstruction areas, does the City intend to replace the pavement to match the existing typical section of 7.25" bituminous over 8" class V? Or design to geotechnical recommendations?

We would like to match the reconstruct sections to the existing, but it will also need to comply with state aid standards.

8. Does the signalization at the intersection of Junction Ave and College Street have loop detectors in the pavement?

The signal has video detection and does not seem to have handholes or loops in the pavement.

9. Can you provide more information on the curb extensions? The note on the map is at Kirby Drive, which already has curb and gutter. The project background references installing curb extensions at Oakland Avenue, but it appears that Oakland Avenue was recently reconstructed. Please clarify the location(s) and lengths.

Curb extensions in this context refers to extending the curb into the roadway and is another way to say bump out.

10. Please confirm that the 62" Culvert crossing St. Marie at Tischer Creek is not being replaced. It's located in the reconstruct area shown on Addendum 1 but is not highlighted.

This project will not do any work in the 62" culvert, the reconstruct is just to correct the failing surface in this location.

11. Do you have a rough idea of the length of curb replacement and sidewalk replacement you are expecting?

The scoping estimate assumed approximately 2100 LF of curb and gutter replacement but project totals will be determined when the locations are decided on in the field.

12. Does the City intend to replace all non-compliant pedestrian ramps on the project as well? Pedestrian ramps are referenced in item 3a and 5d of the scope of services but not mentioned in the project background. If not replacing all pedestrian ramps in the project area, can you provide a number and location of which ones are being replaced? (I am counting 23 within the project area that are non-compliant.)

The City intends to replace all non-compliant pedestrian ramps in the project.

13. The RFP mentions bump out installation, but no location has been identified. Can you clarify where bump outs are desired?

As mentioned above, bump outs and curb extensions are used interchangeably in the RFP. Bump outs will be constructed at Kirby Drive/Oakland Avenue as part of the project, likely on both the NE and SE quadrants but the exact locations will need to be determined through consultation with UMD and to some extent the DTA.

14. Can the public participation meetings with the neighborhood and with UMD be held virtually? If not, is engineer responsible for securing a venue for the neighborhood meeting? Will engineer be responsible for notifying the community of the neighborhood meeting?

Neighborhood meeting will be held in person, UMD meetings can be held in whatever manner works best for UMD. The City will secure the venue and notify the public.

15. How many coordination meetings should be expected with UMD?

The consultant will need to scope an appropriate number of meetings that they expect will be necessary to coordinate the work with UMD.

16. What will be determination for curb and gutter removal extents? Poor condition found throughout much of the project.

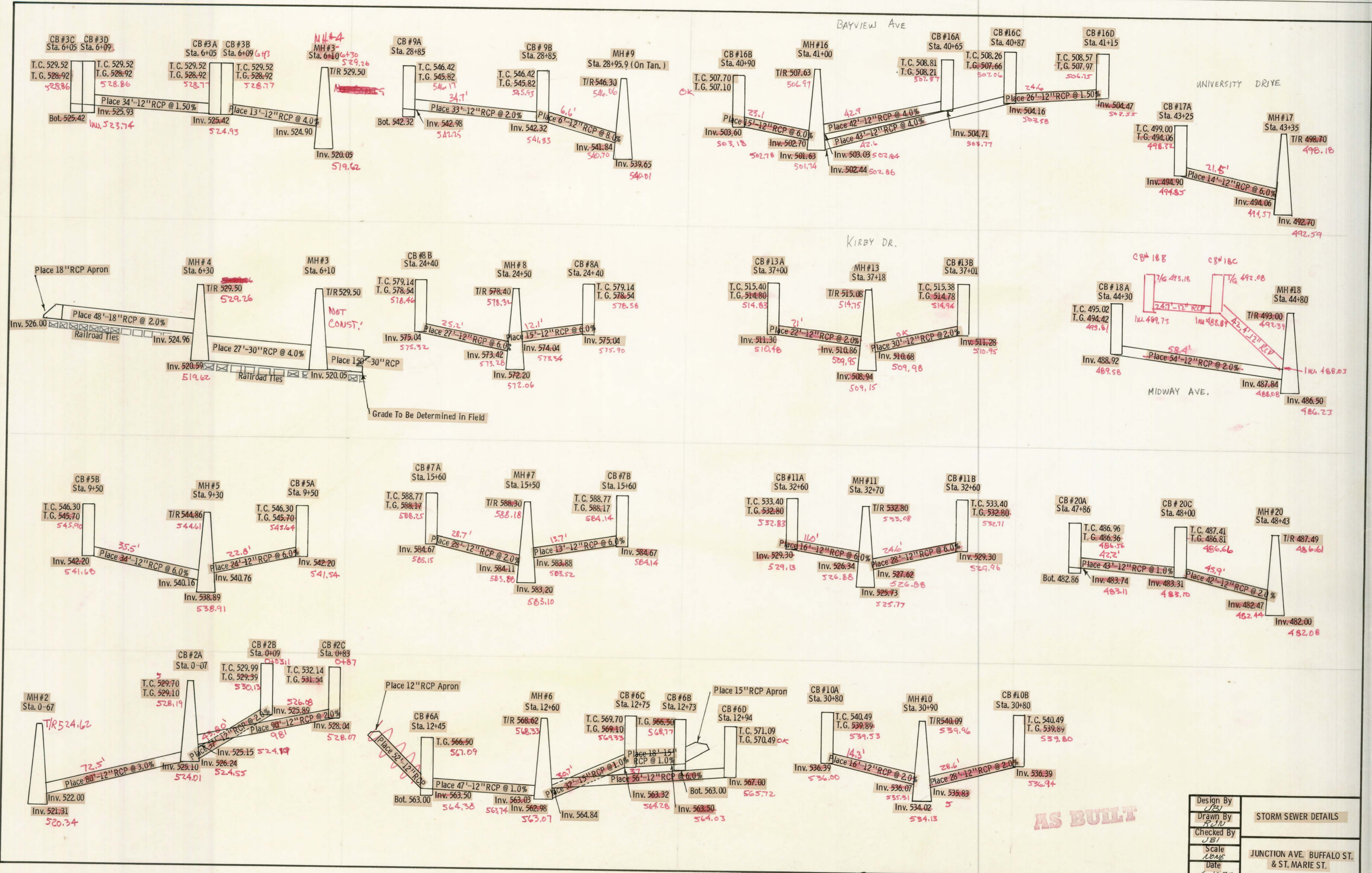
The site visit called for in the scope of services will be used to determine removal limits for the plans.

17. We noticed the route is designated a Scenic Byway, does this designation mean anything for the design of project?

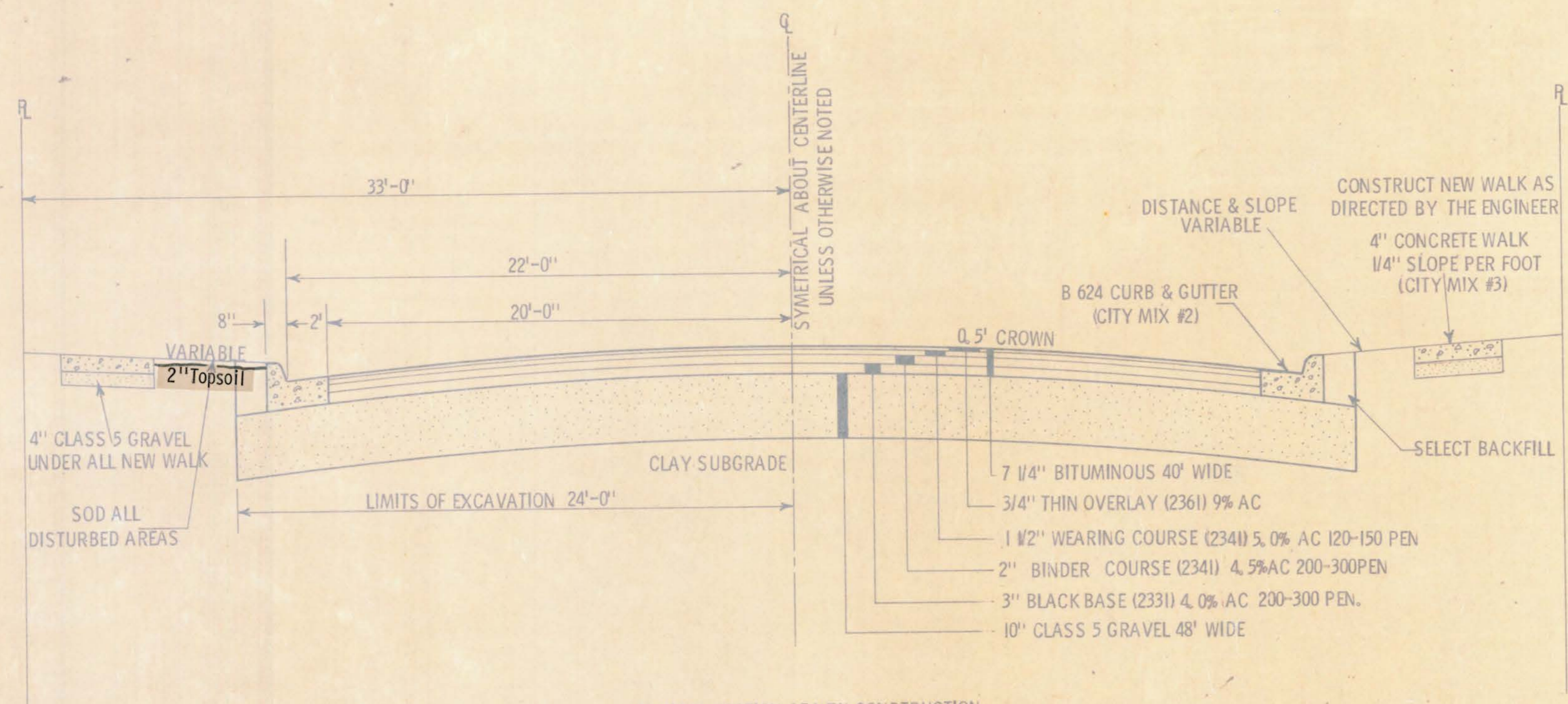
No, the road only needs to be designed to State Aid Standards.

Please acknowledge receipt of this Addendum by including a copy of it with your proposal. The pages included will not count toward any page limitation, if any, identified in the RFP.

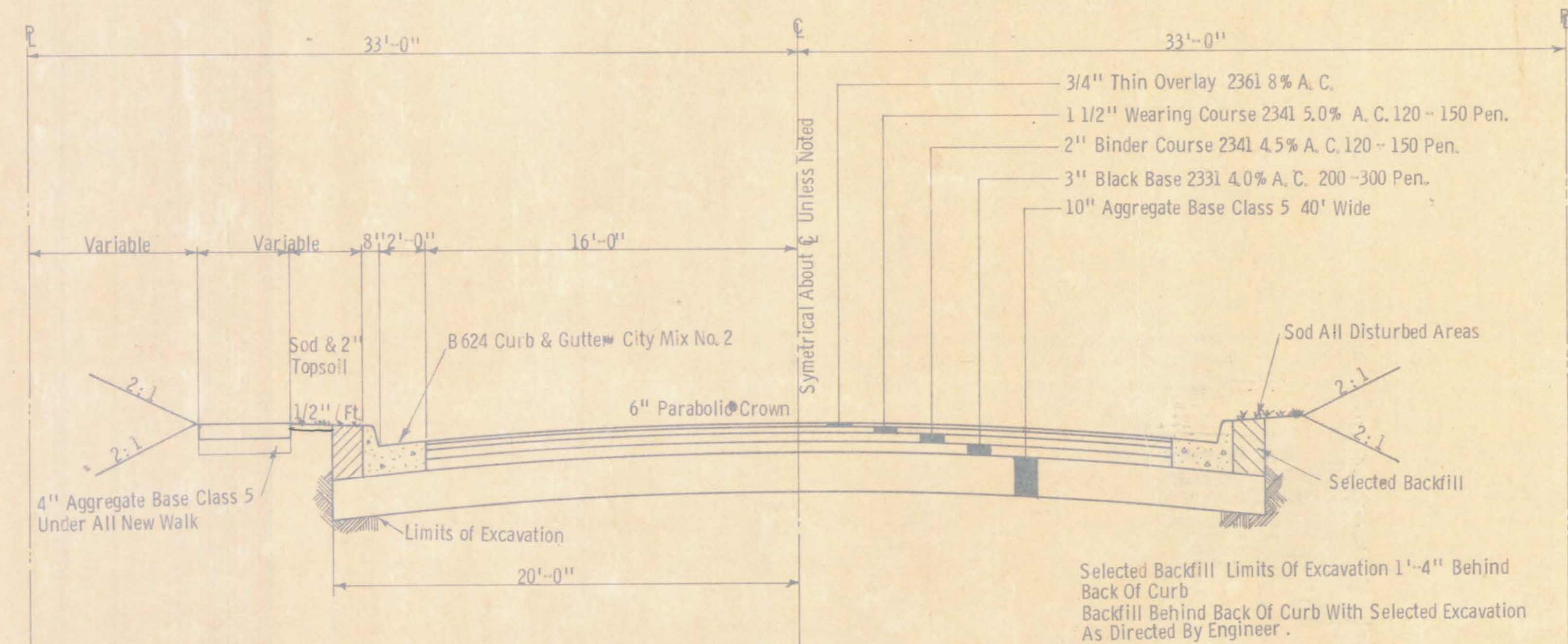
Posted: **March 29, 2024**



Design By L/S	STORM SEWER DETAILS
Drawn By R/J	
Checked By J/B	
Scale NONE	
Date 6-16-75	JUNCTION AVE, BUFFALO ST. & ST. MARIE ST.



TYPICAL SECTION OF NEW CONSTRUCTION
 NO SCALE
 St. Marie St.
 Carver Ave. To Dunedin Ave.
 Sta. 43+34 To Sta. 51+25

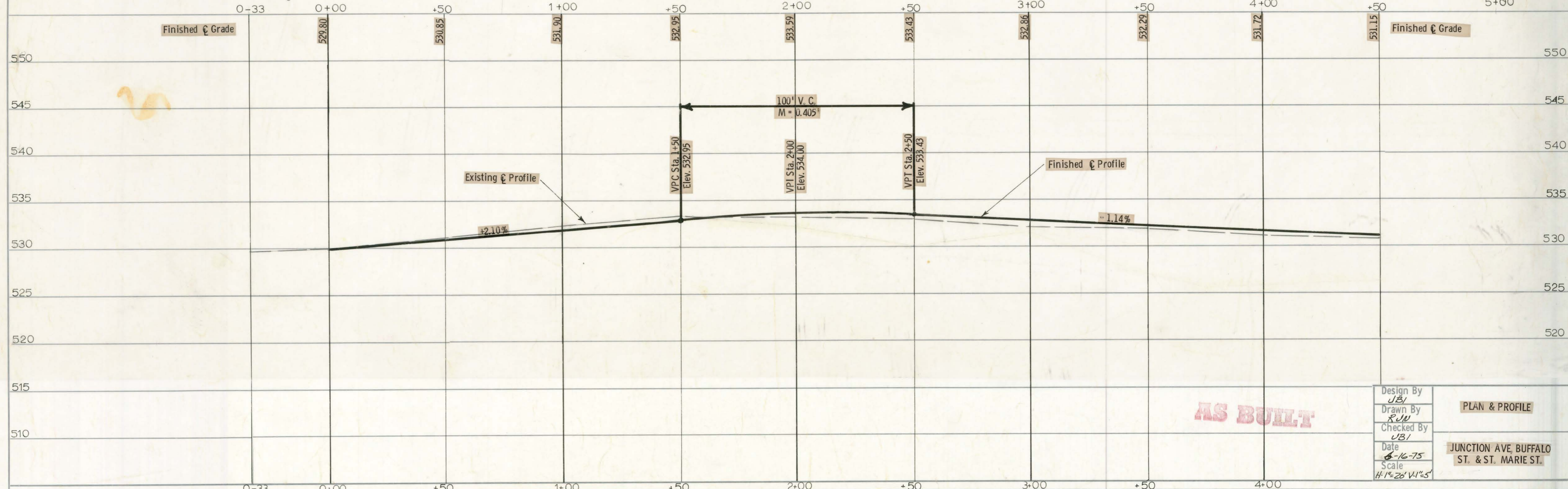
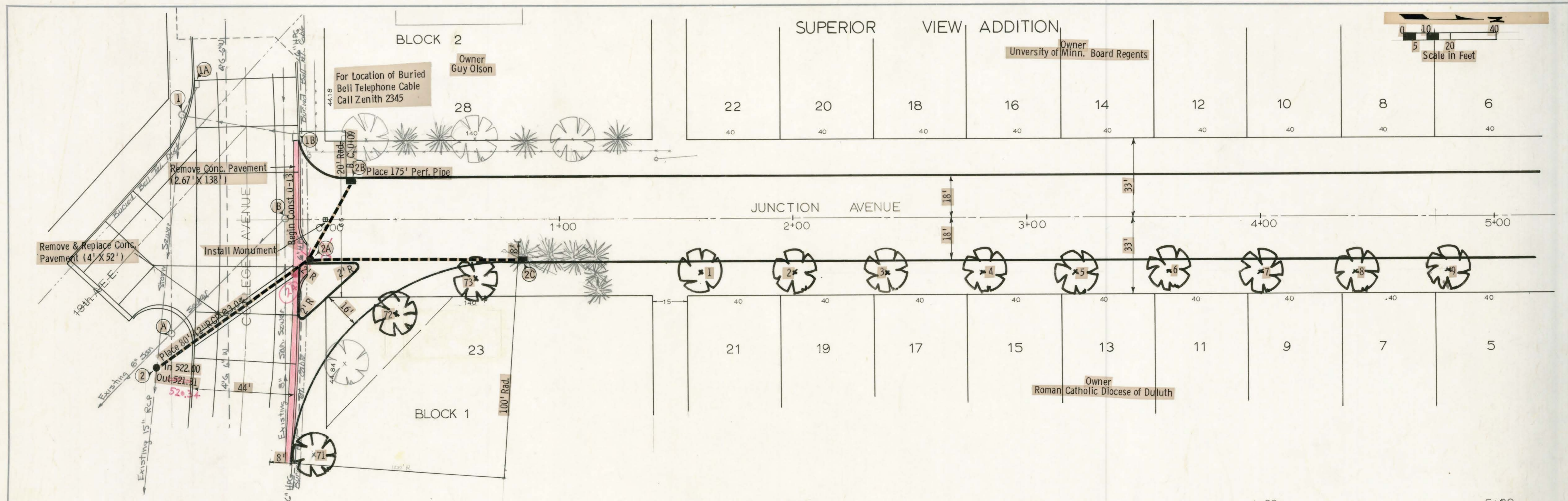


TYPICAL SECTION
 NO SCALE
 Junction Ave.
 College St. To Buffalo St.
 Buffalo St.
 Junction Ave To St. Marie St.
 St. Marie St.
 Buffalo St. To Oakland Ave.
 Sta. 0+00 To Sta. 37+25

SOIL BORINGS				
NO.	STATION	LOCATION	DEPTH	REMARKS
1	14+00	10'R	7	Gravel, No Rock
2	14+50	10'R	2.5	Boulders
3	14+60	10'R	2.5	Boulders
4	14+65	10'R	6	Gravel, Hard Pan & Boulders
5	15+00	10'R	4	Boulders & Hard Pan
6	15+05	10'R	2	Boulders & Hard Pan
7	15+15	10'R	2	Probable Rock
8	15+25	10'R	2	" "
9	15+45	10'R	4	" "
10	15+50	10'R	1.5	" "
11	16+00	5'R	3.5	" "
12	16+05	5'R	4	" "
13	16+07	10'R	2.5	Probable Rock
14	16+12	10'R	9	Gravel, Hard Pan
15	16+15	10'R	2.5	Probable Rock
16	16+25	10'R	2.5	" "
17	16+31	10'R	2.5	" "
18	16+38	10'R	3	" "
19	16+50	10'R	4	" "
20	16+52	10'R	4	" "
21	16+60	10'R	4	" "
22	17+00	10'R	2.5	" "
23	17+12	10'R	2.5	" "
24	17+14	10'R	2.5	" "
25	17+25	10'R	4	" "
26	17+32	10'R	1.5	" "
27	17+37	10'R	2	" "
28	17+50	10'R	2.5	" "
29	18+00	10'R	2.5	" "
30	18+50	10'R	2.5	Probable Rock
31	18+25	14'L	2.5	Gravel, Probable Rock or Boulders
32	18+25	18'L	2	" " " "
33	18+50	C	2.5	" " " "
34	18+60	C	2.5	" " " "
35	18+70	17'L	3	Gravel, Probable Rock or Boulders
36	19+95	18'L	2.5	Probable Rock
37	20+10	17'L	3	" "
38	20+50	17'L	2	" "
39	21+00	18'L	2	" "
40	21+00	9'L	2	" "
41	21+05	8'L	2	" "
42	21+25	18'L	2.5	" "
43	21+40	20'L	2	" "
44	21+45	28'L	2	" "
45	21+95	15'L	2.5	" "
46	22+00	18'L	2.5	" "
47	22+05	15'L	2.5	Probable Rock
48	24+50	6'L	9	Gravel, Fine Silty Loam
49	25+50	7'L	9	Gravel, Fine Silty Loam
50	25+90	5'L	9	Gravel, Fine Silty Loam
51	26+00	C	9	Gravel, Fine Silty Loam
52	26+08	C	6	Gravel, Fine Silty Loam
53	26+18	7'L	7	Gravel, Fine Silty Loam
54	26+35	7'L	8	Gravel, Fine Silty Loam
55	26+50	7'L	9	Gravel, Fine Silty Loam

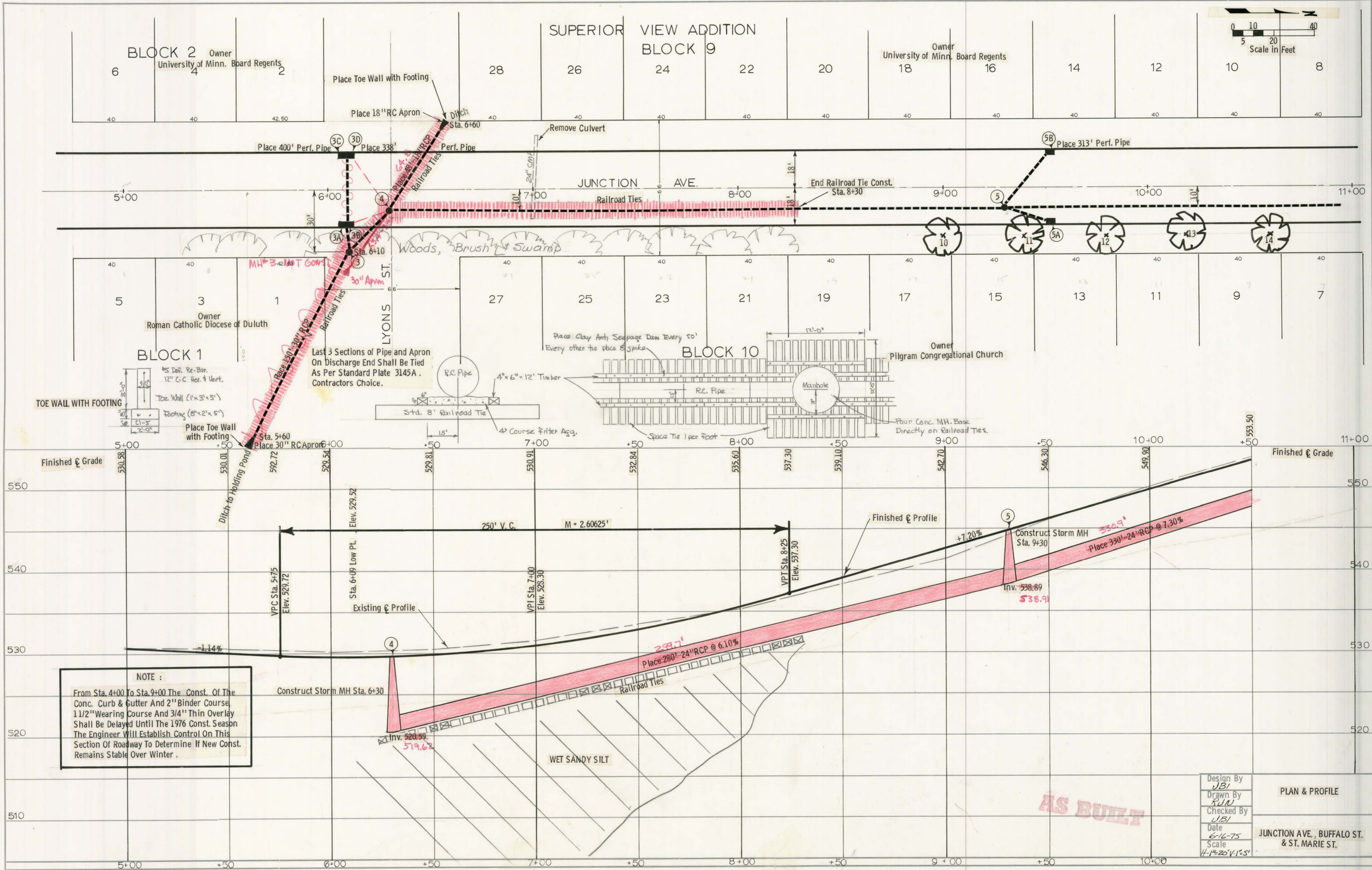
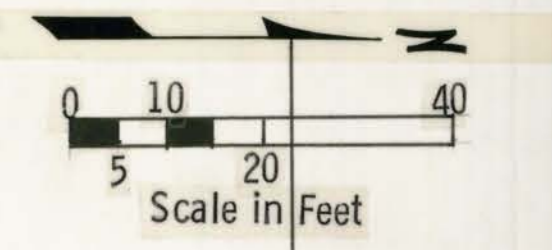
AS BULLY

Design By 1/13/75	TYPICAL SECTION & SOIL BORING CHART
Drawn By RJM	
Checked By 1/13/75	JUNCTION AVE. BUFFALO ST. & ST. MARIE ST.
Scale As Shown	
Date 6-16-75	



AS BUILT

Design By <i>JBI</i>	PLAN & PROFILE JUNCTION AVE, BUFFALO ST. & ST. MARIE ST.
Drawn By <i>RJM</i>	
Checked By <i>JBI</i>	
Date <i>6-16-75</i>	
Scale <i>H-1"=20' V-1"=5'</i>	



BLOCK 2 Owner University of Minn. Board Regents

SUPERIOR VIEW ADDITION BLOCK 9

Owner University of Minn. Board Regents

BLOCK 1 Owner Roman Catholic Diocese of Duluth

BLOCK 10 Owner Pilgram Congregational Church

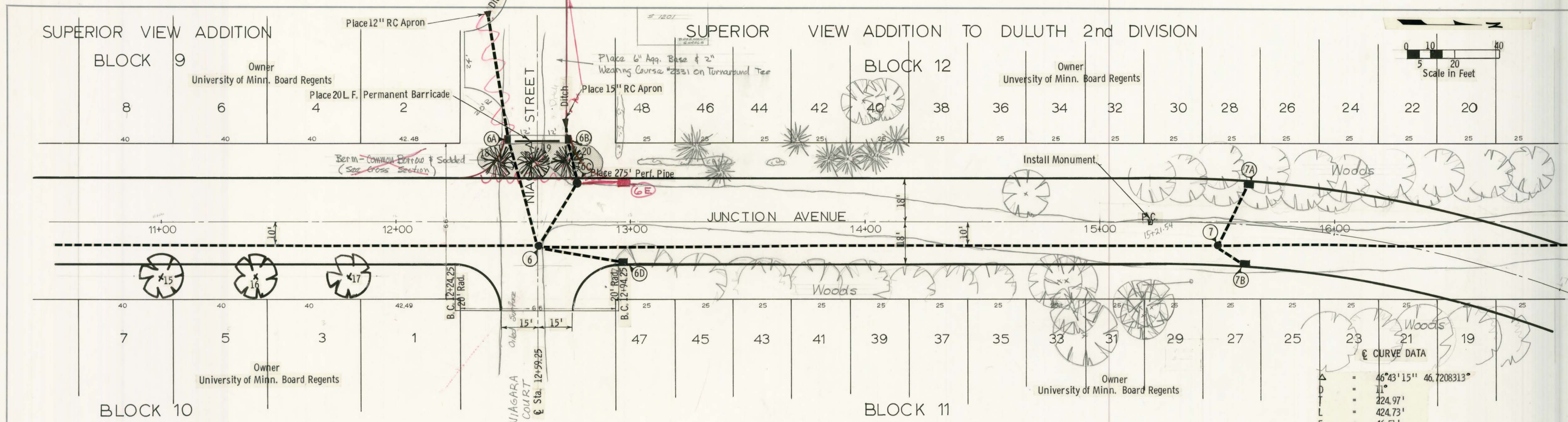
NOTE :
From Sta. 4+00 To Sta. 9+00 The Const. Of The Conc. Curb & Gutter And 2" Binder Course 1 1/2" Wearing Course And 3/4" Thin Overlay Shall Be Delayed Until The 1976 Const. Season The Engineer Will Establish Control On This Section Of Roadway To Determine If New Const. Remains Stable Over Winter .

Design By JBI
Drawn By RIN
Checked By JBI
Date 6-16-75
Scale 1/4"=20' V. 1"=5'

PLAN & PROFILE

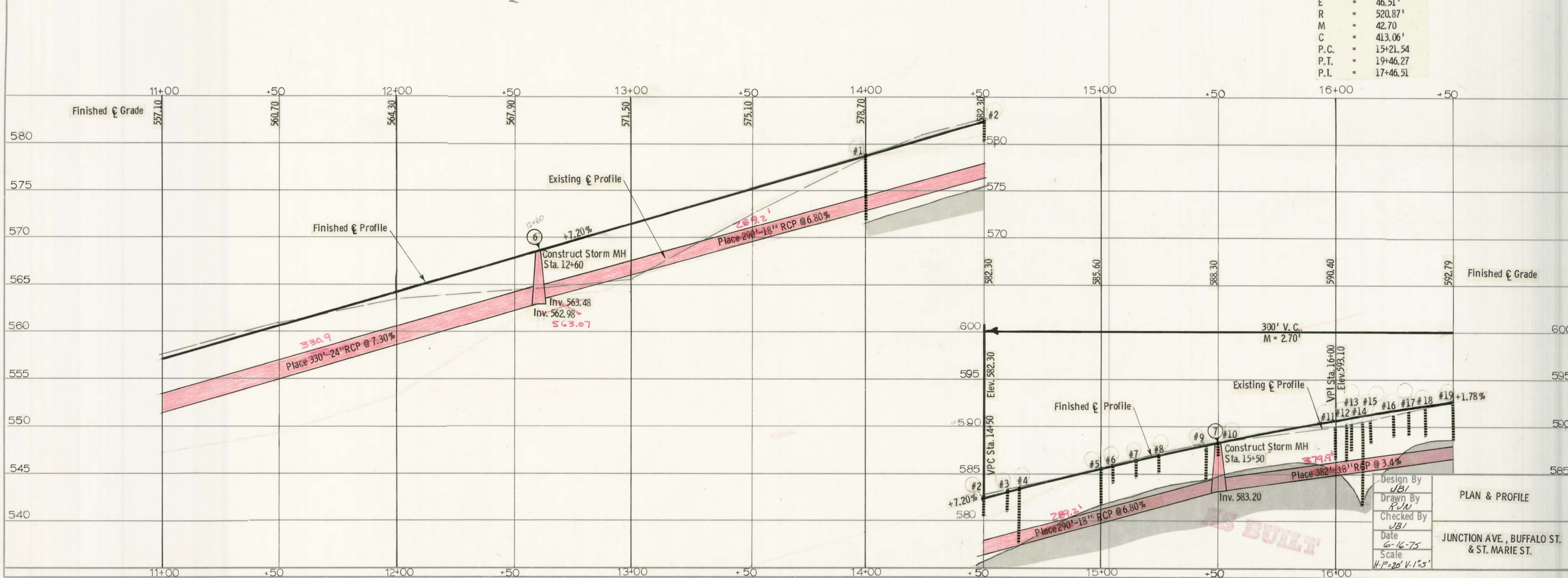
JUNCTION AVE., BUFFALO ST. & ST. MARIE ST.

AS BUILT



Curve Data

Δ	=	46°43'15"	46.7208313°
D	=	11'	
T	=	224.97'	
L	=	424.73'	
E	=	46.51'	
R	=	520.87'	
M	=	42.70'	
C	=	413.06'	
P.C.	=	15+21.54	
P.T.	=	19+46.27	
P.L.	=	17+46.51	

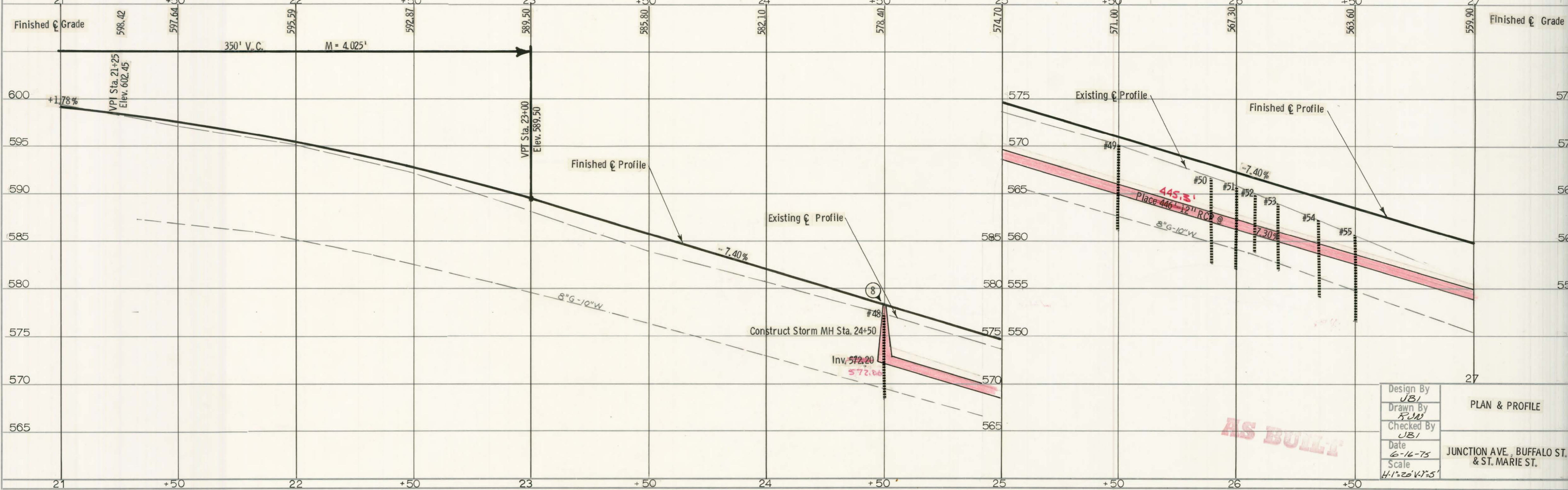
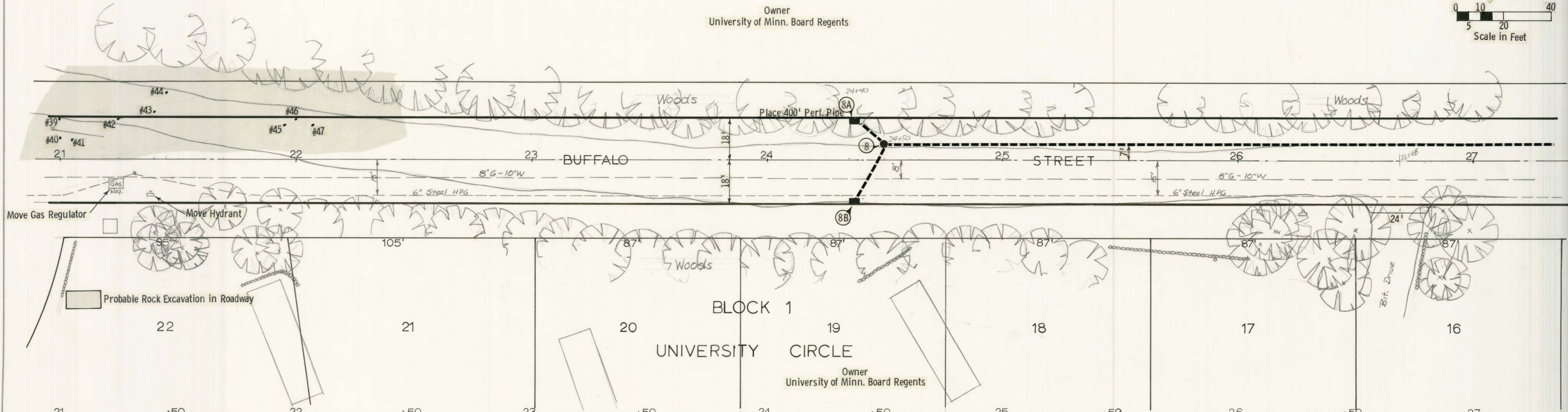
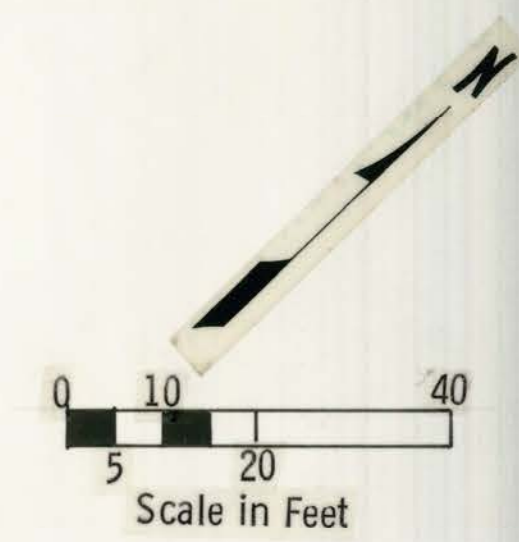


Design By
 UBI
 Drawn By
 R.W.
 Checked By
 UBI
 Date
 6-16-75
 Scale
 H-1"=20' V-1"=5'

PLAN & PROFILE
 JUNCTION AVE, BUFFALO ST.
 & ST. MARIE ST.

AUDITOR'S PLAT NO. 8 of FARRELL'S ADDITION

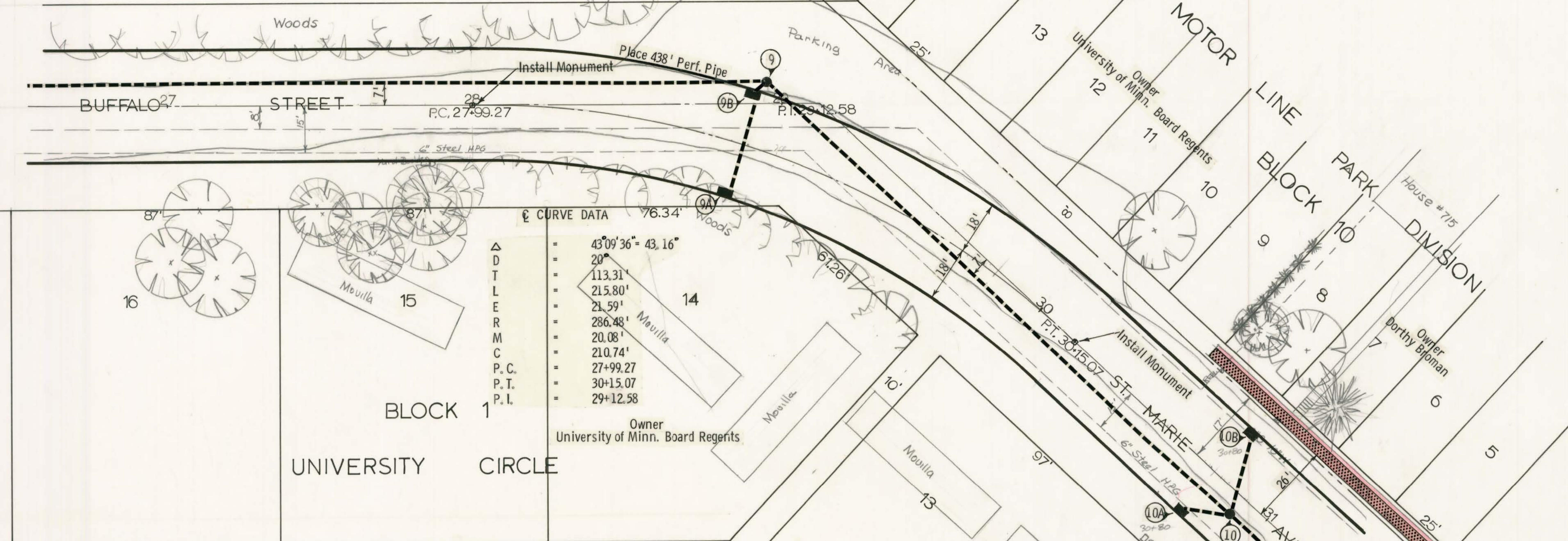
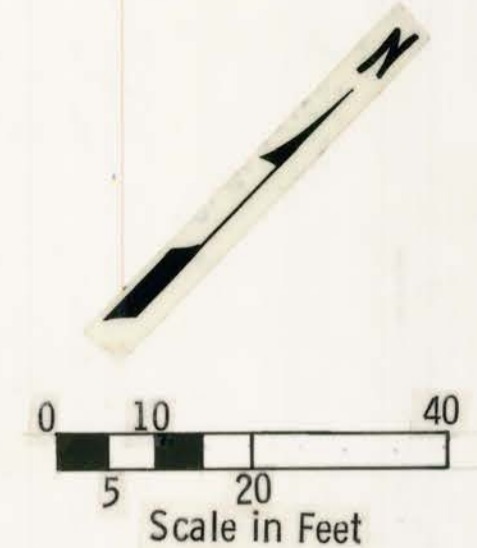
Owner
University of Minn. Board Regents



Design By	JB1	PLAN & PROFILE
Drawn By	SM	
Checked By	JB1	JUNCTION AVE., BUFFALO ST. & ST. MARIE ST.
Date	6-16-75	
Scale	4'-1" = 20' V-1" = 5'	

AS BUILT

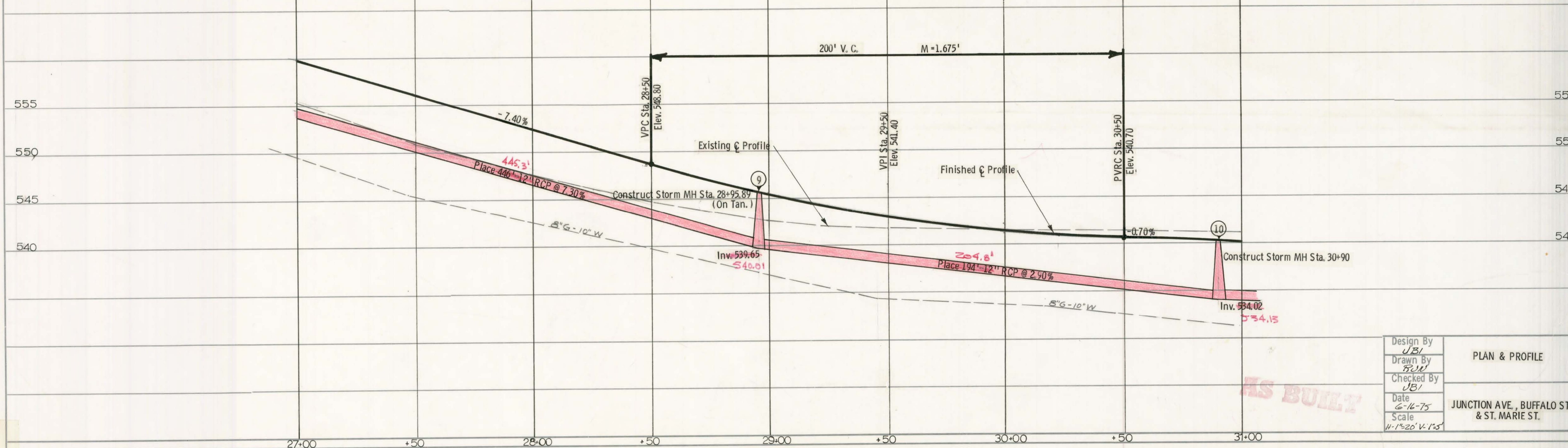
Owner
University of Minn. Board Regents



Δ D T L E R M C P. C. P. T. P. L.

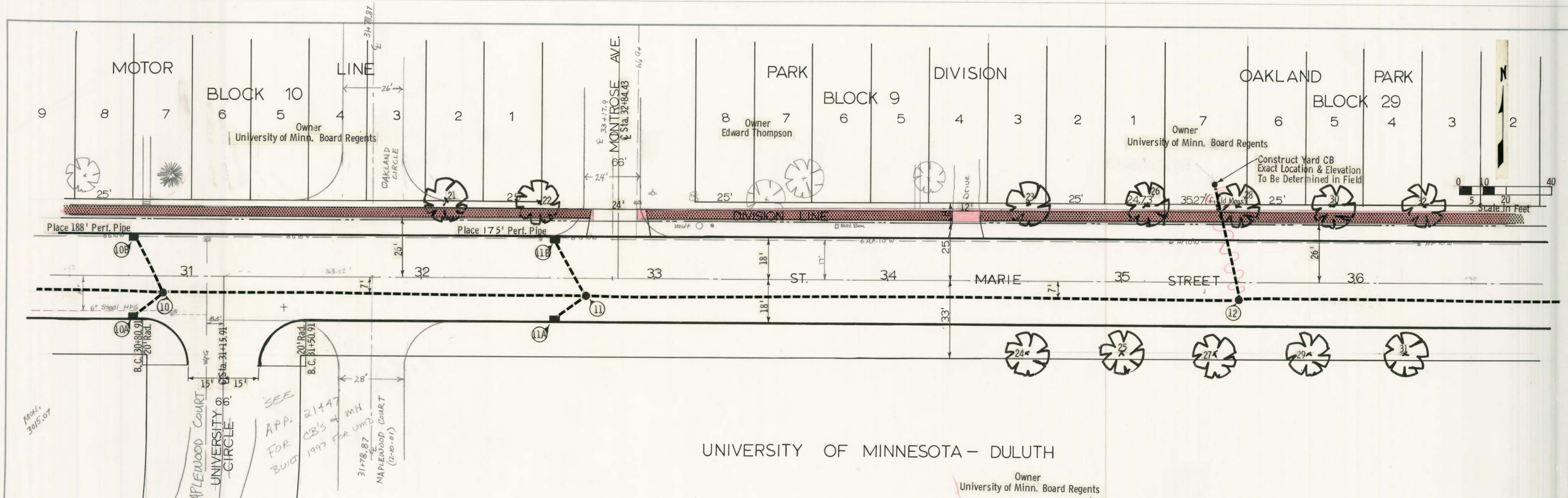
Δ	D	T	L	E	R	M	C	P. C.	P. T.	P. L.	
43°09'36"	43.16°	20°	113.31'	215.80'	21.59'	286.48'	20.08'	210.74'	27+99.27	30+15.07	29+12.58

Finished \bar{c} Grade
 27+00 559.90
 +50 556.20
 28+00 552.50
 +50 548.80
 29+00 545.52
 +50 543.08
 30+00 540.47
 +50 540.70
 31+00 540.02
 Finished \bar{c} Grade

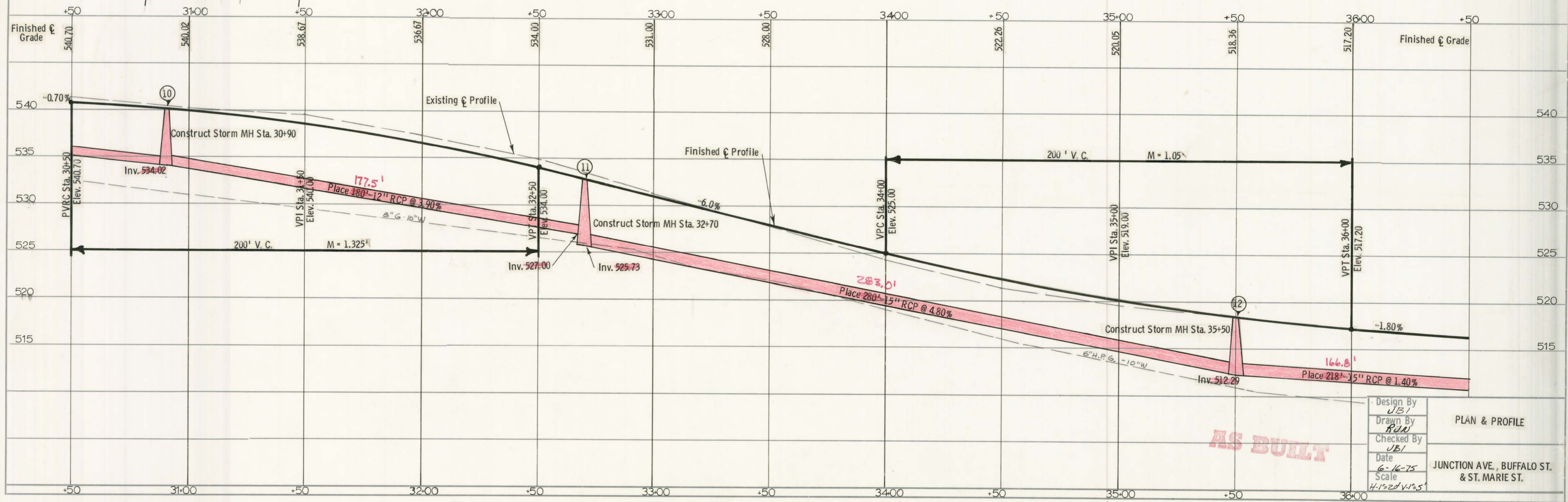


Design By JBI	PLAN & PROFILE JUNCTION AVE., BUFFALO ST. & ST. MARIE ST.
Drawn By JBI	
Checked By JBI	
Date 6-16-75	
Scale H-1"=20' V-1"=5'	

AS BUILT



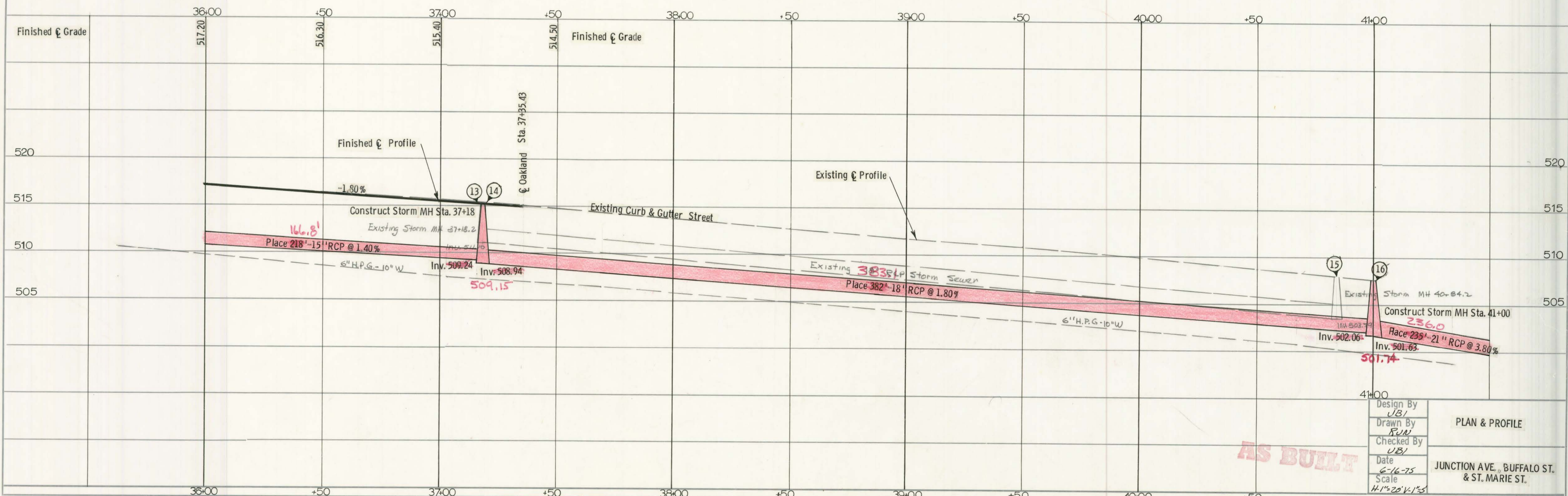
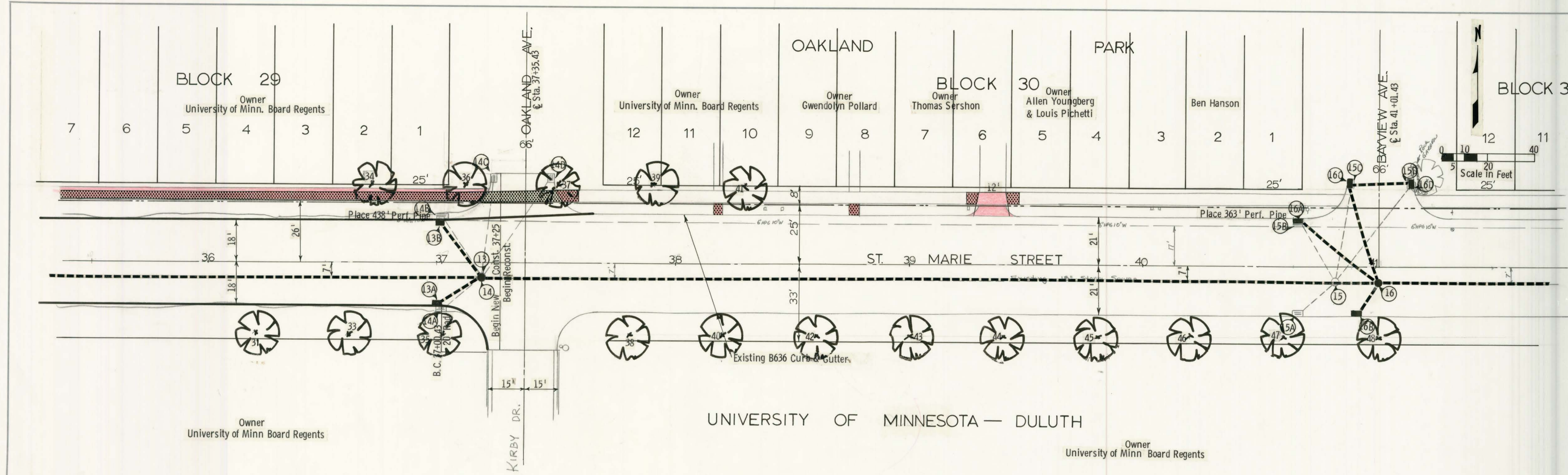
UNIVERSITY OF MINNESOTA - DULUTH
 Owner: University of Minn. Board Regents



AS BUILT

Design By	JEB
Drawn By	FWW
Checked By	JEB
Date	6-16-75
Scale	H-1"=20' V-1"=5'

PLAN & PROFILE
 JUNCTION AVE., BUFFALO ST. & ST. MARIE ST.



Design By JB1	PLAN & PROFILE AS BUILT JUNCTION AVE., BUFFALO ST. & ST. MARIE ST.
Drawn By RUN	
Checked By UB1	
Date 6-16-75	
Scale H: 1" = 20' V: 1" = 5'	

CITY OF DULUTH

DEPARTMENT OF PUBLIC SERVICE

DIVISION OF ENGINEERING

CONSTRUCTION PLANS

FOR
JUNCTION AVENUE
 from
 College St. to Buffalo St.
BUFFALO STREET
 from
 Junction Ave to St. Marie St.
ST. MARIE STREET
 from
 Buffalo St. to Dunedin Ave.

Construct Conc. C&G Street With Gravel and
 Bituminous Base, Bituminous Surface,
 Storm Sewer and Concrete Walk.

Soil Type	A-4	Gross Length	5125 Ft.	.9706 Miles	
Structure Design	9 Ton	Exceptions	None		HC.A.D.T. 150-300
Design Speed	30 MPH	Net Length	5125 Ft.	.9706 Miles	

ADT - 1972	0	VPD	ADT - 1972	516	VPD	ADT - 1972	4966	VPD
ADT - 1992	5160	VPD	ADT - 1992	5160	VPD	ADT - 1992	9932	VPD



SYMBOLS

- PROPERTY LINE
- CENTER LINE
- DIVISION LINE
- HIGH PRESSURE GAS LINE
- WATER & GAS LINES
- WATER & GAS VALVES
- FIRE HYDRANT
- SANITARY SEWER
- STORM SEWER
- CATCH BASIN
- TELEPHONE CABLE
- POWER POLE
- WIRE FENCE
- WOODEN FENCE
- GUARD RAIL
- STONE WALL OR FENCE
- HEDGE
- CONIFEROUS TREE
- DECIDUOUS TREE
- STREET SIGN
- TRAFFIC SIGNAL
- EDGE OF CUT
- TOE OF EMBANKMENT
- ROCK LEDGE
- MONUMENT
- MAIL BOX
- NEW CATCH BASIN
- NEW STORM MANHOLE
- NEW STORM SEWER

RIGHT OF WAY

INDEX

1. Title Sheet
- 2-4. Right of Way Plan.
3. Estimate Quantities & Tree Planting Schedule
4. Miscellaneous Details
5. Storm Sewer Details
6. Drainage Items & Typical Section
7. Typical Sections & Soil Boring Chart
- 8-18. Plan & Profile
- 19-27. Cross Section
28. Cross Section - Channel Excavation

Begin MSAP No. 118-156-05 Sta. 0+00

End MSAP No. 118-156-05 Sta. 51+25

THE MINNESOTA DEPARTMENT OF HIGHWAYS "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1972, SHALL GOVERN EXCEPT AS AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 1, 1974, AND THE SPECIAL PROVISIONS. ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

James B. Jackson
 PROJECT ENGINEER
 June 16, 1975 DATE 8000 REG. NO.

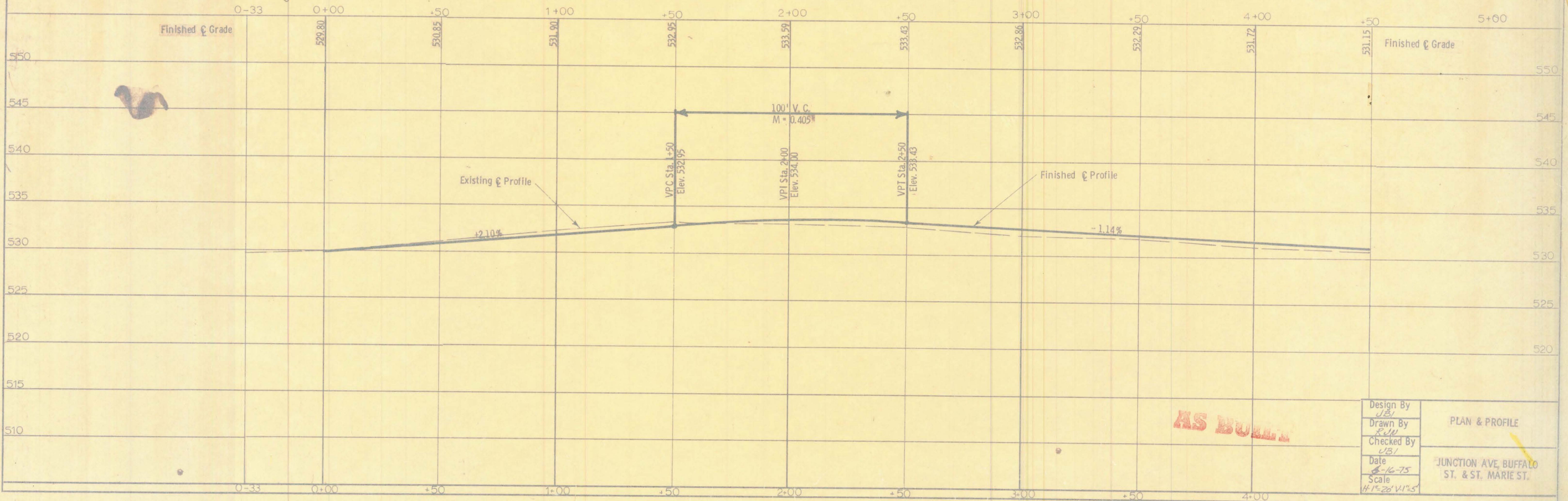
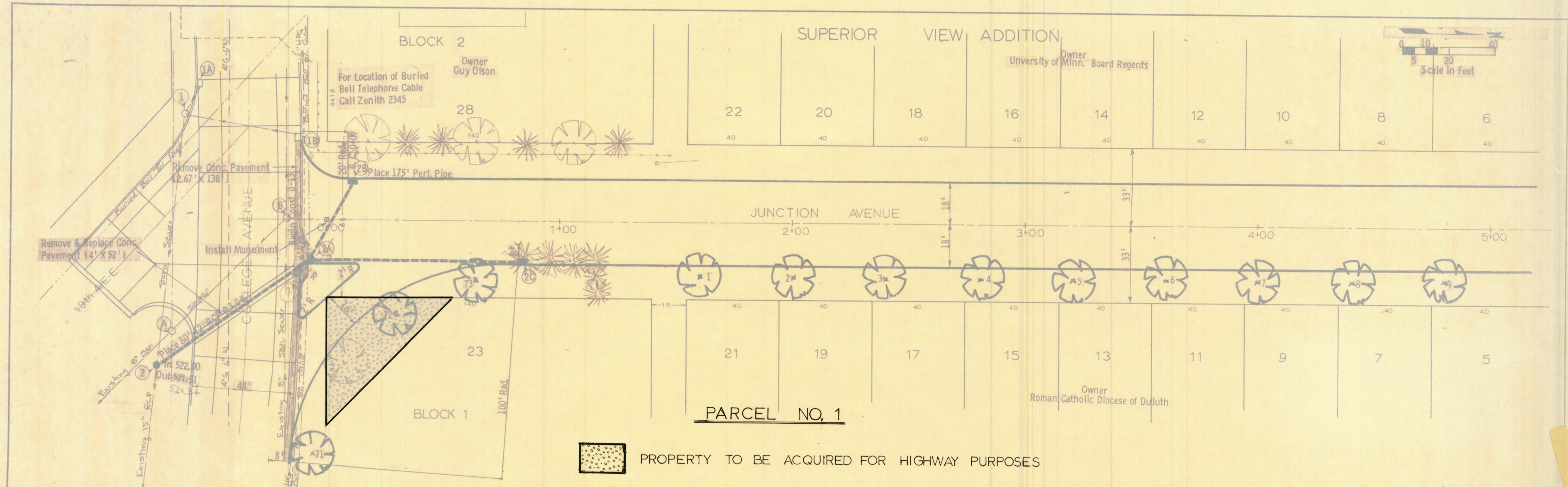
CITY APPROVAL

APPROVED *Paul Davidson* 6-16-75 5991
 CITY ENGINEER DATE REG. NO.
 APPROVED *Paul G. Smith* 6-16-75 3617
 DIRECTOR OF PUBLIC SERVICES DATE REG. NO.
 APPROVED *Paul G. Smith* 6-16-75 10065
 DIRECTOR OF PUBLIC UTILITIES DATE REG. NO.

STATE APPROVAL

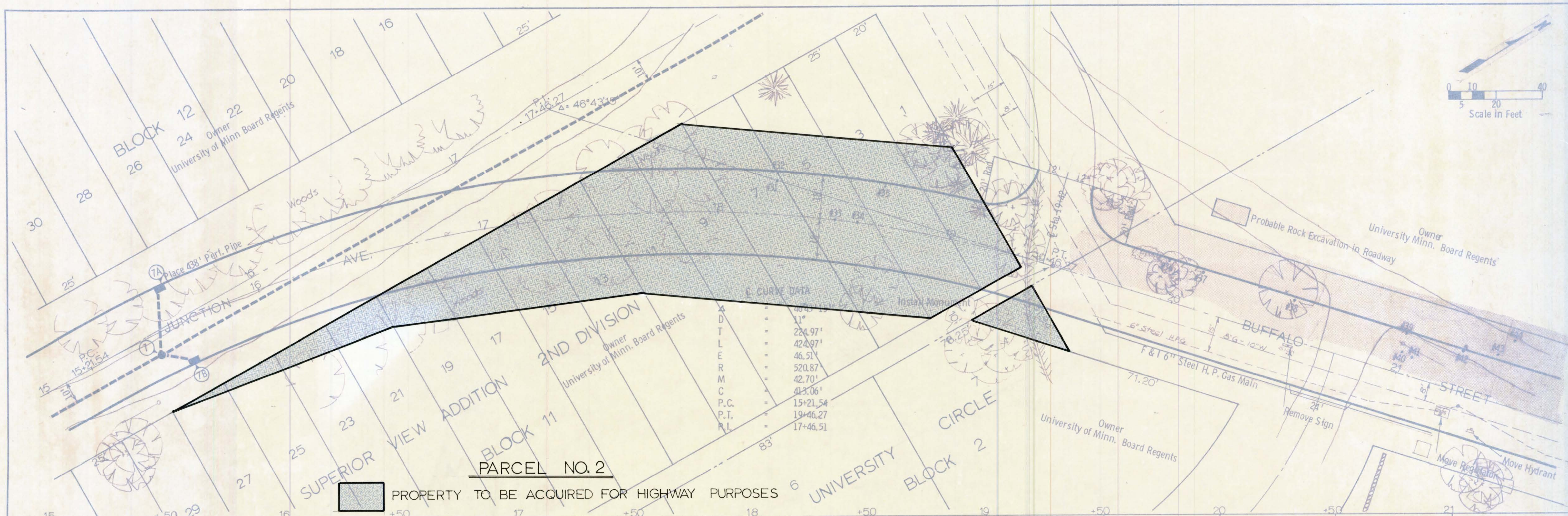
APPROVED *R. P. Pecore* 4-12-77 6117
 DISTRICT STATE AID ENGINEER DATE REG. NO.
 APPROVED *Delbert J. O'Brien* 5-11-77 11027
 DATE REG. NO.
 APPROVED *Ray A. Hanson* 5-11-77 6712
 STATE AID ENGINEER DATE REG. NO.

AS BUILT

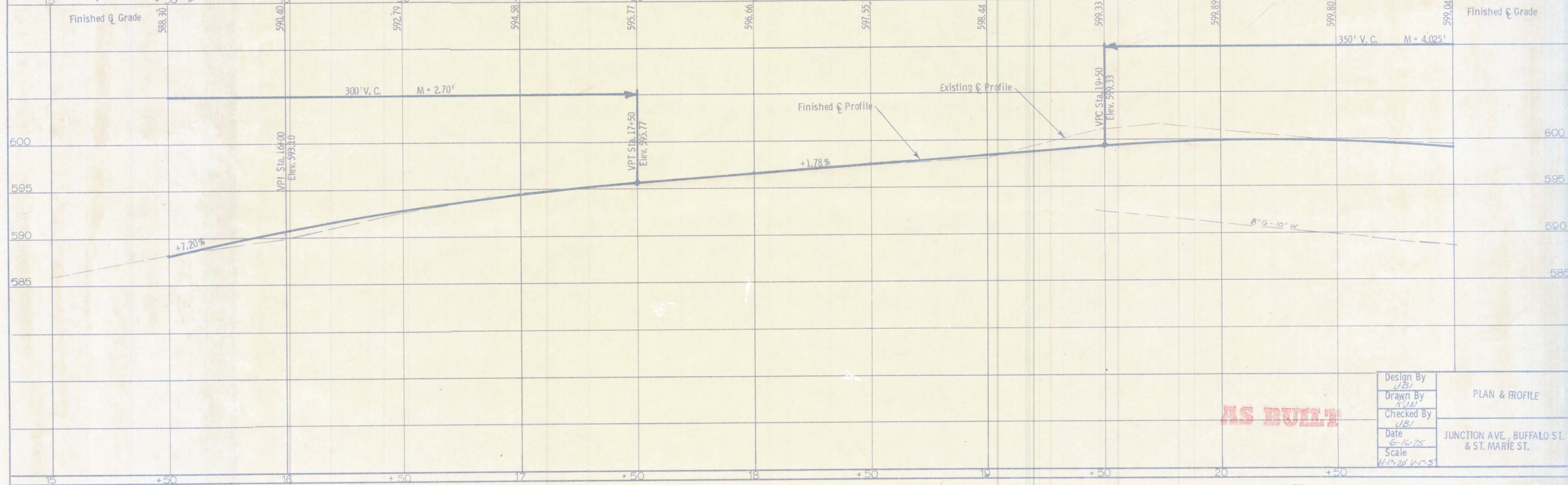


AS BUILT

Design By V.B.	PLAN & PROFILE JUNCTION AVE, BUFFALO ST. & ST. MARIE ST. H: 1"=20' V: 1"=5'
Drawn By R.W.	
Checked By V.B.	
Date 6-16-75	
Scale	

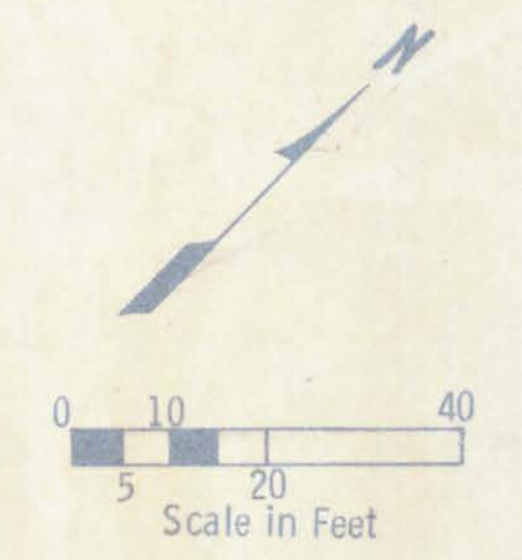
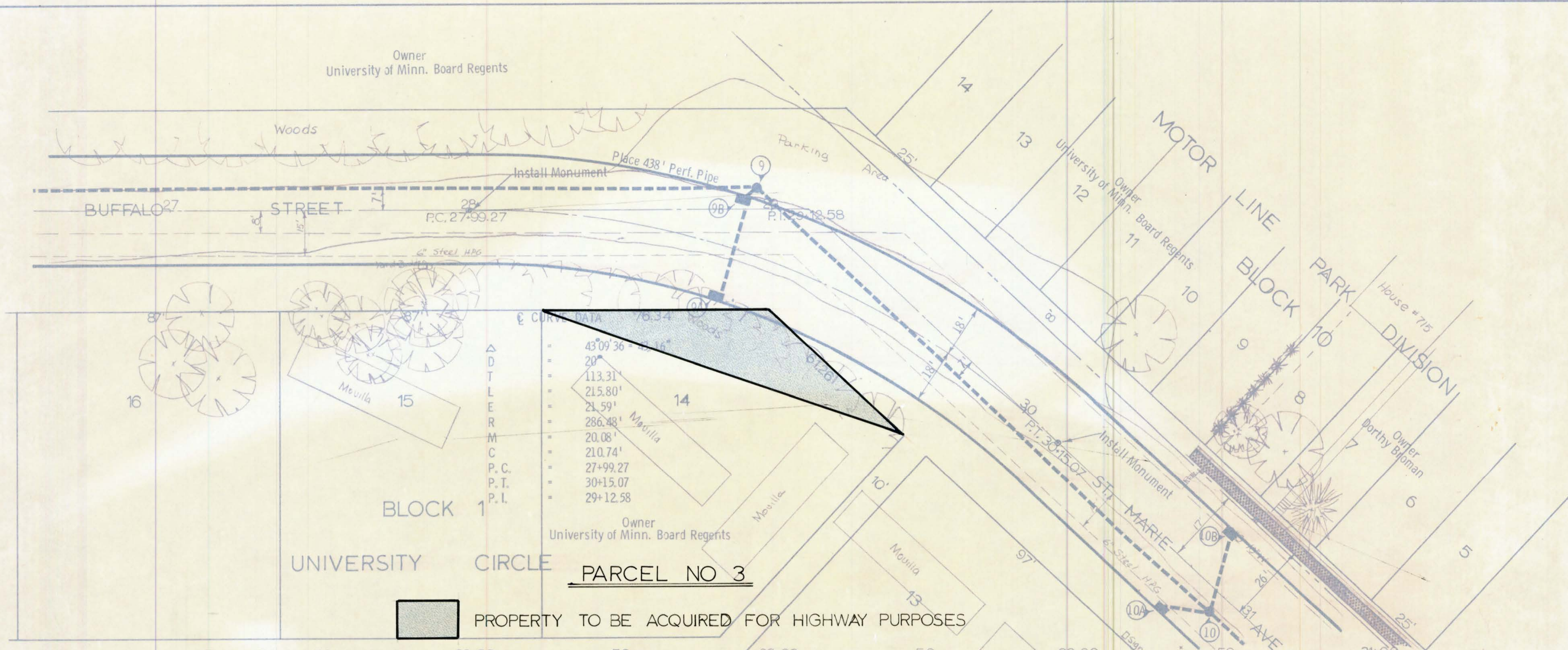


PARCEL NO. 2
 PROPERTY TO BE ACQUIRED FOR HIGHWAY PURPOSES



AS BUILT

Design By <i>JBI</i>	PLAN & PROFILE JUNCTION AVE, BUFFALO ST. & ST. MARIE ST.
Drawn By <i>JBI</i>	
Checked By <i>JBI</i>	
Date 6-16-75	
Scale 4" = 20' V-1" = 5'	

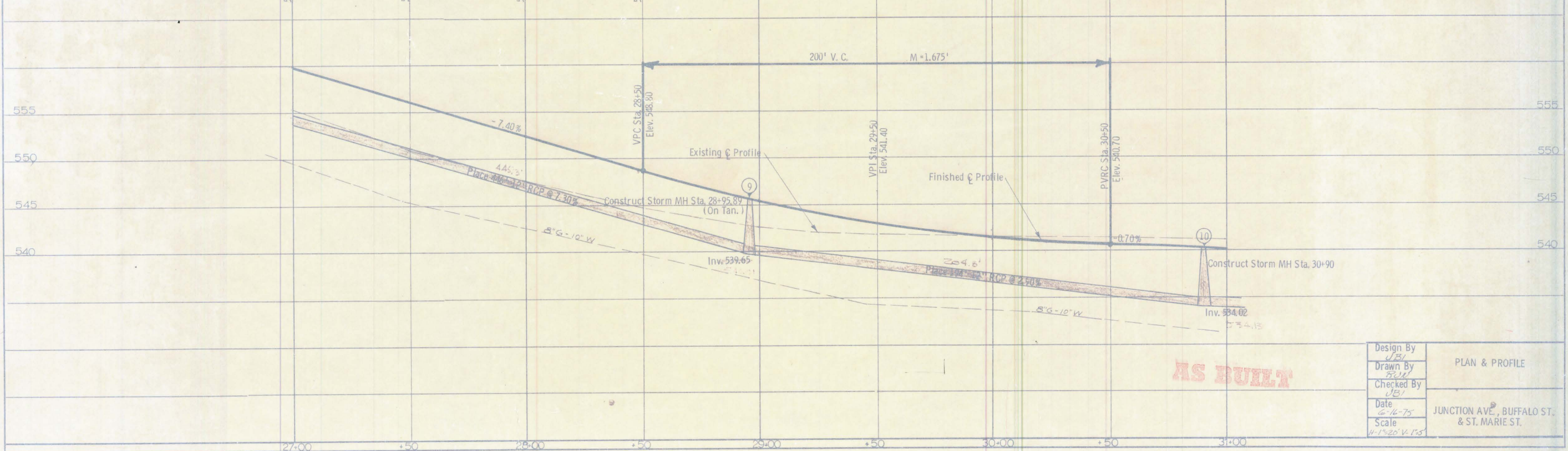


Finished & Grade

27+00 27+50 28+00 28+50 29+00 29+50 30+00 30+50 31+00

559.91 556.20 552.50 548.80 545.52 541.08 541.47 540.70 540.02

Finished & Grade



AS BUILT

Design By	JB/	PLAN & PROFILE
Drawn By	JB/	
Checked By	JB/	JUNCTION AVE., BUFFALO ST. & ST. MARIE ST.
Date	6-16-75	
Scale	H-1"=20' V-1"=5'	

PLAN SYMBOLS

COUNTY LINE	=====
SECTION LINE	-----
QUARTER LINE	-----
SIXTEENTH LINE	-----
NEW RIGHT OF WAY LINE	-----
PRESENT RIGHT OF WAY LINE	-----
CONTROL OF ACCESS LINE	-----
PROPERTY LINE	-----
VACATED PLATTED PROPERTY	-----
CORPORATE OR CITY LIMITS	-----
TRUNK HIGHWAY CENTER LINE	-----
RETAINING WALL	-----
RAILROAD	-----
WATER LINE	-----
MEANDER CORNER	-----
DRAINAGE DITCH	-----
DRAIN TILE	-----
CULVERT	-----
GUARD RAIL	-----
BARBED WIRE FENCE	-----
CHAIN LINK FENCE	-----
STONE WALL OR FENCE	-----
HEDGE	-----
RAILROAD CROSSING SIGN	-----
MARSH	-----
TIMBER	-----
ORCHARD	-----
BRUSH	-----
MURSEY	-----
OVERPASS	-----
UNDERPASS	-----
BRIDGE	-----
BUILDING	-----
F FRAME	-----
S STONE	-----
B BRICK	-----
C CONC.	-----
T TILE	-----
ST STUCCO	-----
DECIDUOUS TREE	-----
CONIFEROUS TREE	-----
MONUMENT (STONE, CONC., OR METAL)	-----
SMALL SIGN	-----
SLOPE EASEMENT	-----

UTILITY SYMBOLS

POWER POLE	-----
TELEPHONE POLE	-----
ANCHOR	-----
STEEL TOWER	-----
STREET LIGHT	-----
PEDestal (TELEPHONE CABLE TERMINAL)	-----
SIGNAL WITH STREET LIGHT	-----
GAS MAIN / WATER MAIN	-----
WATER MAIN	-----
CONDUIT	-----
TELEPHONE CABLE IN CONDUIT	-----
ELECTRIC CABLE IN CONDUIT	-----
TELEPHONE MANHOLE	-----
ELECTRIC MANHOLE	-----
STORM MANHOLE	-----
SANITARY MANHOLE	-----
WATER & GAS MANHOLE	-----
STEAM MANHOLE	-----
HANDHOLE	-----
INPLACE CATCH BASIN	-----
PROPOSED CATCH BASIN	-----
PARKING METER	-----
FIRE HYDRANT	-----
NEW SANITARY SEWER	-----
NEW STORM SEWER	-----
PVC PERFORATED PIPE	-----
BURIED TELEPHONE CABLE	-----
BURIED ELECTRIC CABLE	-----
STORM SEWER	-----
SANITARY SEWER	-----
GAS MAIN	-----
TELEVISION CABLE	-----
EXTRA BRANCH	-----
FURNISH & INSTALL	-----
CUT OFF WATER AT MAIN	-----
WATER & GAS MAIN JOINT	-----
WATER & GAS BELL JOINT	-----
WATER & GAS MECHANICAL JOINT	-----
WATER & GAS TRANSITION COUPLING	-----
COPPER WATER SERVICE	-----
WATER & GAS VALVE (NEW)	-----
WATER & GAS SHUTOFF VALVE	-----
WATER REPLACEMENT & EXC.	-----

MANHOLE & CATCH BASIN INDEX

ICB 10	INPLACE CATCH BASIN	PCB 10	PROPOSED CATCH BASIN
IMH 10	INPLACE DRAINAGE MANHOLE	PMH 10	PROPOSED DRAINAGE MANHOLE
TMH 10	INPLACE TELEPHONE MANHOLE	PTM 10	PROPOSED TELEPHONE MANHOLE
WGMH 10	INPLACE WATER/GAS MANHOLE	PWGMH 10	PROPOSED WATER/GAS MANHOLE

MINNESOTA DEPARTMENT OF TRANSPORTATION
CITY OF DULUTH
 DEPARTMENT OF PUBLIC WORKS AND UTILITIES
 ENGINEERING DIVISION

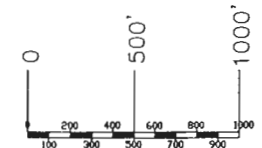
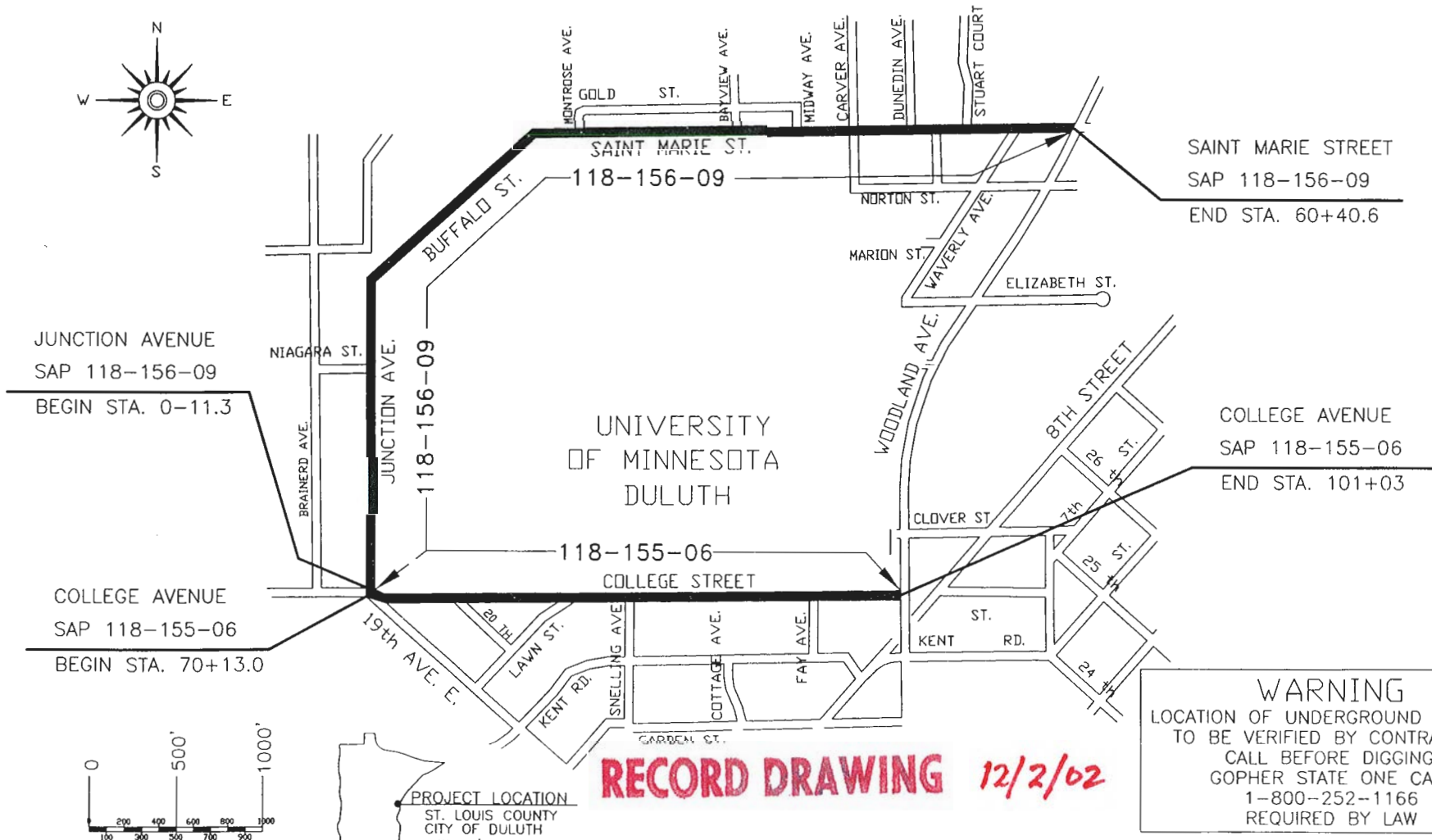
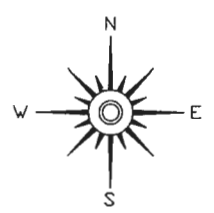
CONSTRUCTION PLANS FOR: MILLING AND BITUMINOUS SURFACE RESTORATION, RECONSTRUCT CATCH BASINS, BITUMINOUS AND CONCRETE PAVEMENT RECONSTRUCTION, STRIPING

LOCATED ON: JUNCTION AVE., BUFFALO ST., & SAINT MARIE ST.
 FROM COLLEGE ST. TO WOODLAND AVE. AND
 COLLEGE ST.
 FROM JUNCTION AVE. TO WOODLAND AVE.

STATE AID PROJECT NUMBERS

118-156-09 & 18-155-06

GROSS LENGTH	6051.90	FEET	1.146	MILES	GROSS LENGTH	3090	FEET	.585	MILES
NET LENGTH	6051.90	FEET	1.146	MILES	NET LENGTH	3090	FEET	.585	MILES
EXCEPTIONS	NONE	FEET	NONE	MILES	EXCEPTIONS	NONE	FEET	NONE	MILES



PROJECT LOCATION
 ST. LOUIS COUNTY
 CITY OF DULUTH
 N.W. 1/4 SEC. 14
 T50N R14W

RECORD DRAWING 12/2/02

WARNING
 LOCATION OF UNDERGROUND UTILITIES
 TO BE VERIFIED BY CONTRACTOR.
 CALL BEFORE DIGGING.
 GOPHER STATE ONE CALL
 1-800-252-1166
 REQUIRED BY LAW

GOVERNING SPECIFICATIONS
 THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
 "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
 (AVAILABLE AT: <http://www.dot.state.mn.us/tecsup/>)

THE CITY OF DULUTH DEPARTMENT OF WATER AND GAS 1997
 SPECIFICATIONS SHALL APPLY.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE
 MN MUTCD, INCLUDING THE FIELD MANUAL DATED JANUARY 2001.
 (AVAILABLE AT: <http://www.dot.state.mn.us/trofficeng/>)

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	CHART INDEX & DRIVE WAY DETAIL
4	STANDARD PLATES & REMOVAL ITEMS
5-6	EXISTING STRUCTURES
7	CONSTRUCTION QUANTITIES
8	AGGREGATE, BITUMINOUS, & MILLING QUANTITIES
9	CATCH BASIN & CURB REPAIRS
10	SANITARY & STORM DETAILS
11-13	TYPICAL SECTIONS
14	CROSSWALK DETAIL & CHART
15-20	PAVEMENT MARKINGS, STRIPING LAYOUT
21-22	TRAFFIC LOOPS & SIGN DETAIL
23-37	PLAN SHEETS
38-39	TRAFFIC CONTROL

THIS PLAN CONTAINS 39 SHEETS

DESIGN DESIGNATION

PROJECT	
ADT (CURRENT YEAR) 2002	5,000
ADT (FUTURE YEAR) 2022	8,000
HCA DT (CURRENT)	125
HCA DT (FUTURE)	160
STRUCTURE DESIGN	9 TONS
SOIL FACTOR	130
DESIGN SPEED	30 MPH
BASED ON STOPPING SIGHT DISTANCE	
HEIGHT OF EYE =	3.5 FT.
HEIGHT OF OBJECT =	0.5 FT.

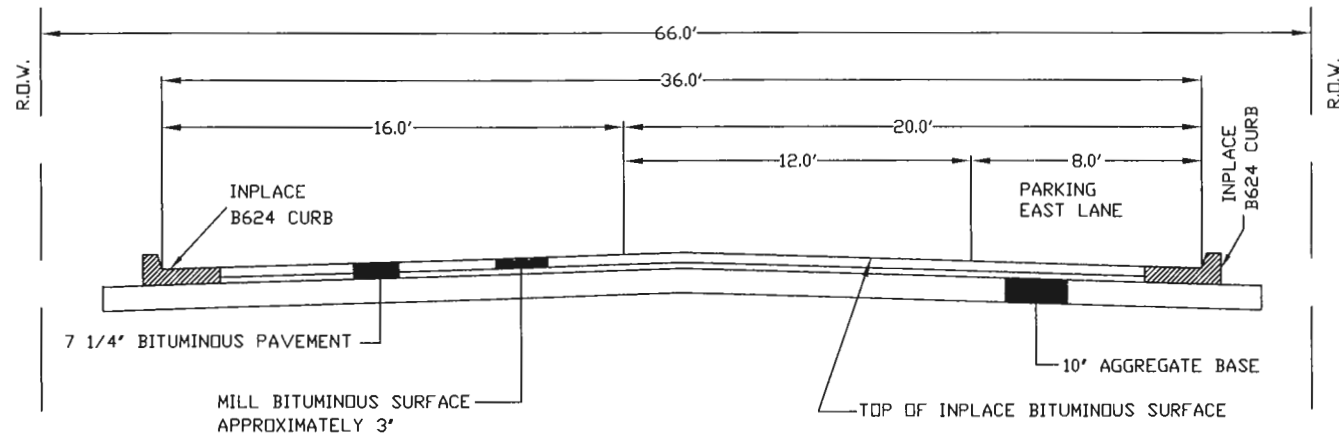
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED
 BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED
 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DEAN J. BEEMAN
 PROJECT ENGINEER (TYPED OR PRINTED NAME)
Dean J. Beeman 4-18-02 10758
 PROJECT ENGINEER DATE LIC. NO.

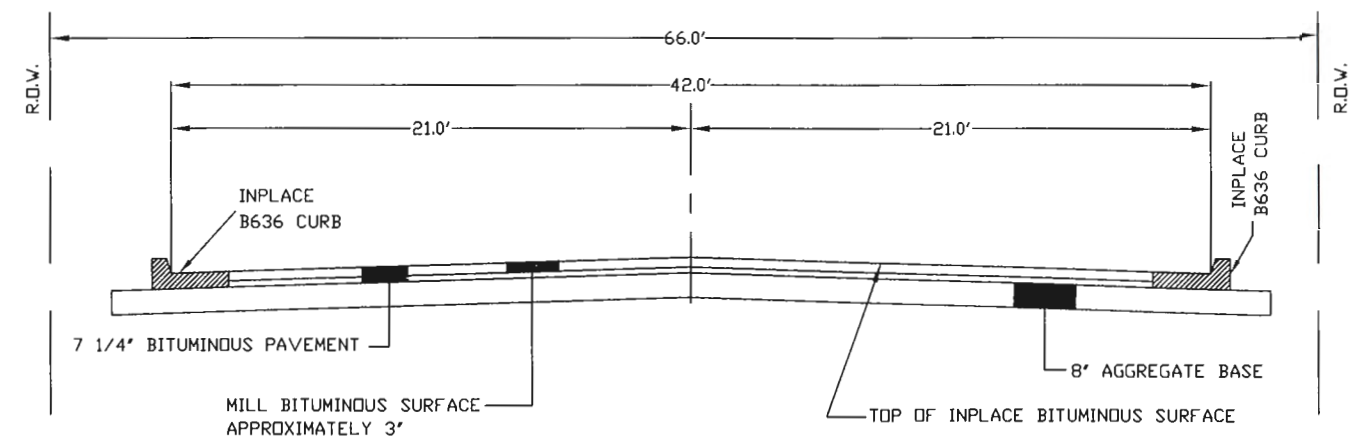
CITY APPROVALS:
 APPROVED *Dean J. Beeman* 4-18-02 DATE
 APPROVED *David J. Frank* 4-18-02 DATE
 APPROVED *Michael J. ...* 4/19/02 DATE
 CITY ENGINEER

STATE AID APPROVALS:
 DISTRICT STATE AID ENGINEER *Walter ...* 4/22/02 DATE
 REVIEWED FOR COMPLIANCE WITH STATE-AID RULES/POLICY
 APPROVED FOR STATE AID FUNDING: STATE AID ENGINEER *Walter ...* 4/22/02 DATE

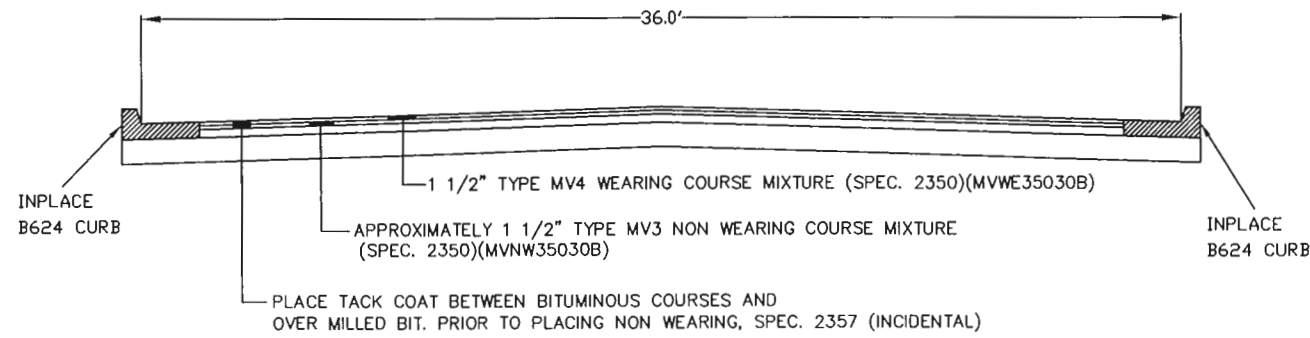
MILLING TYPICAL SECTION
 JUNCTION AVE. & BUFFALO ST.
 FROM COLLEGE ST. TO OAKLAND AVE., STA. 0-11.3 TO 37+35.4



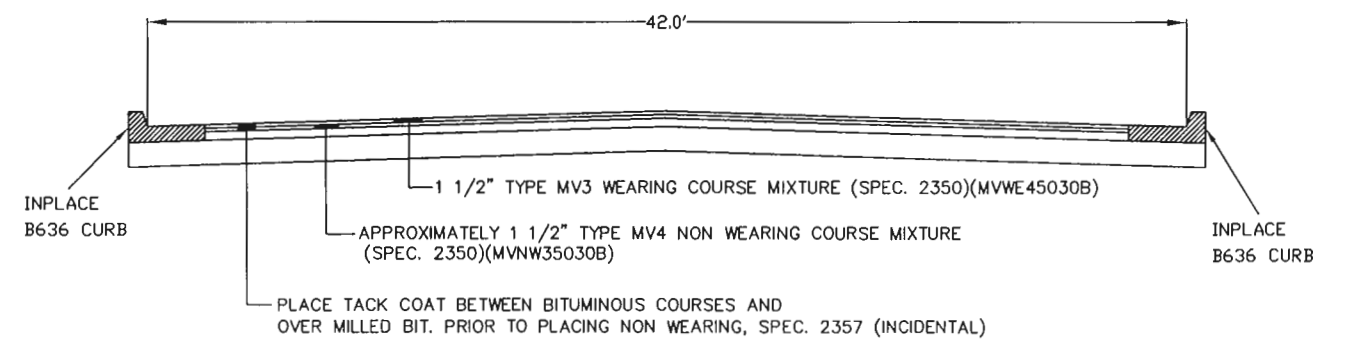
MILLING TYPICAL SECTION
 ST. MARIE STREET
 FROM OAKLAND AVE. TO CARVER AVE. STA. 37+35.4 TO 48+34.0



OVERLAY TYPICAL SECTION
 JUNCTION AVE. & BUFFALO ST.
 FROM COLLEGE ST. TO OAKLAND AVE., STA. 0-11.3 TO 37+35.4



OVERLAY TYPICAL SECTION
 ST. MARIE STREET
 FROM OAKLAND AVE. TO CARVER AVE. STA. 37+35.4 TO 48+34.0



RECORD DRAWING 12/2/02

CERTIFIED BY *[Signature]* LICENSED PROFESSIONAL ENGINEER I.C. NO. 10758 DATE 4-18-02

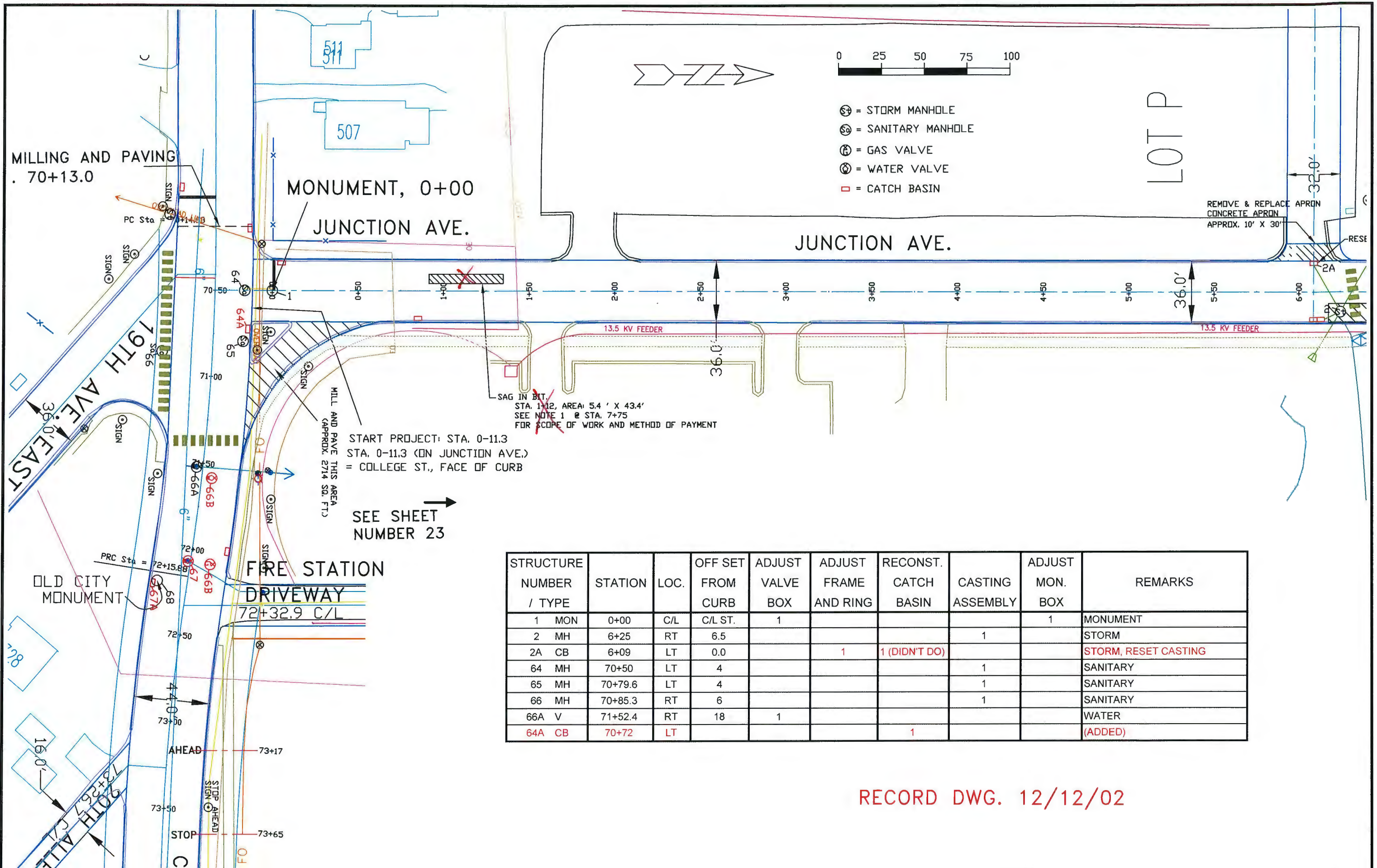
UMD MSA LOOP, COLLEGE ST., JUNCTION AVE., BUFFALO ST., ST. MARIE ST.

CITY PROJECT NO. 0150TR

S.A.P. 118-155-06 & 118-156-09

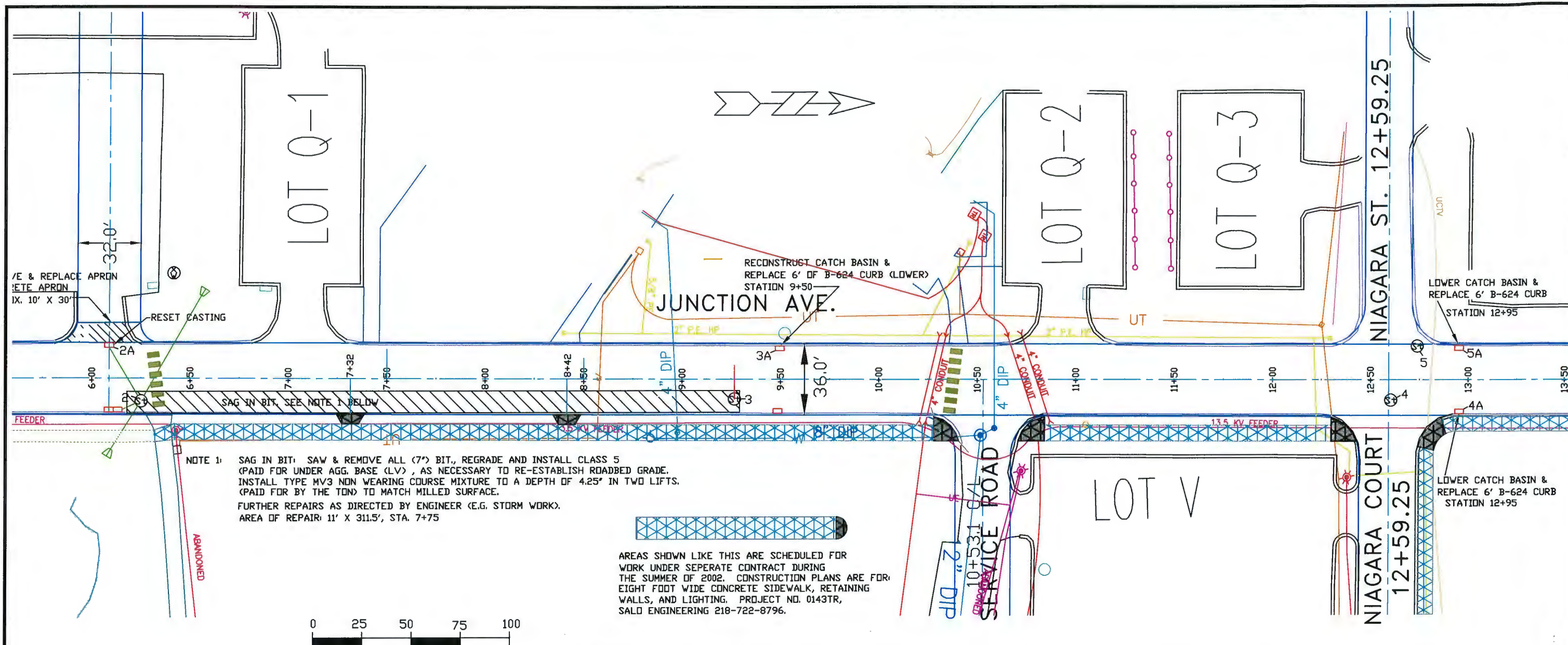
TYPICAL SECTIONS

SHEET NO. 11 OF 39 SHEETS



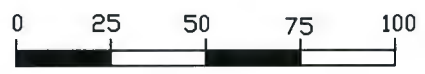
STRUCTURE NUMBER / TYPE	STATION	LOC.	OFF SET FROM CURB	ADJUST VALVE BOX	ADJUST FRAME AND RING	RECONST. CATCH BASIN	CASTING ASSEMBLY	ADJUST MON. BOX	REMARKS
1 MON	0+00	C/L	C/L ST.	1				1	MONUMENT
2 MH	6+25	RT	6.5				1		STORM
2A CB	6+09	LT	0.0		1	1 (DIDN'T DO)			STORM, RESET CASTING
64 MH	70+50	LT	4				1		SANITARY
65 MH	70+79.6	LT	4				1		SANITARY
66 MH	70+85.3	RT	6				1		SANITARY
66A V	71+52.4	RT	18	1					WATER
64A CB	70+72	LT				1			(ADDED)

RECORD DWG. 12/12/02



NOTE 1: SAG IN BIT: SAW & REMOVE ALL (7") BIT., REGRADE AND INSTALL CLASS 5 (PAID FOR UNDER AGG. BASE (LV)), AS NECESSARY TO RE-ESTABLISH ROADBED GRADE. INSTALL TYPE MV3 NON WEARING COURSE MIXTURE TO A DEPTH OF 4.25' IN TWO LIFTS. (PAID FOR BY THE TDN) TO MATCH MILLED SURFACE. FURTHER REPAIRS AS DIRECTED BY ENGINEER (E.G. STORM WORK). AREA OF REPAIR: 11' X 311.5', STA. 7+75

AREAS SHOWN LIKE THIS ARE SCHEDULED FOR WORK UNDER SEPERATE CONTRACT DURING THE SUMMER OF 2002. CONSTRUCTION PLANS ARE FOR: EIGHT FOOT WIDE CONCRETE SIDEWALK, RETAINING WALLS, AND LIGHTING. PROJECT NO. 0143TR, SALO ENGINEERING 218-722-8796.

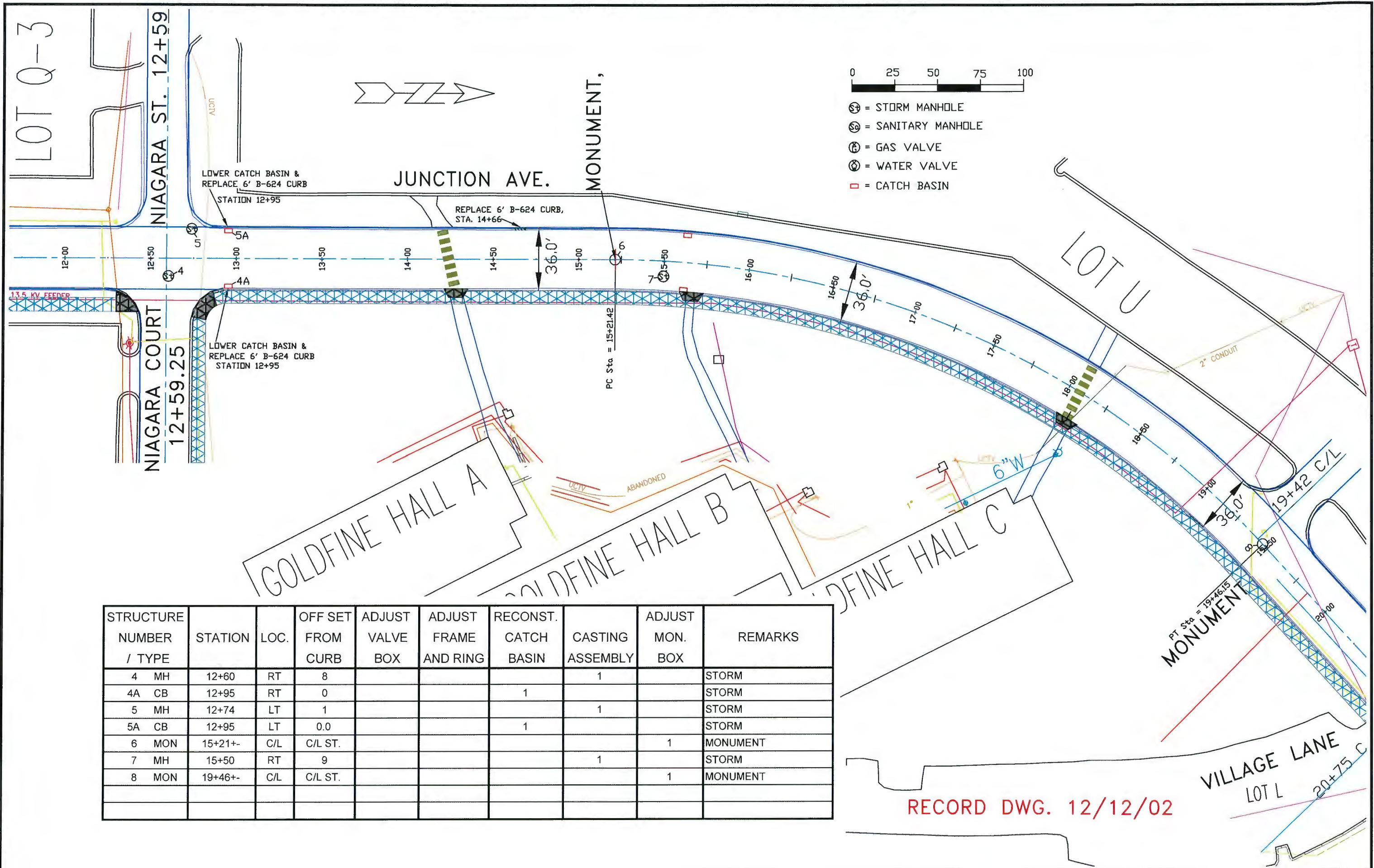


- ⊕ = STORM MANHOLE
- ⊙ = SANITARY MANHOLE
- ⊕ = GAS VALVE
- ⊕ = WATER VALVE
- = CATCH BASIN

STRUCTURE NUMBER / TYPE	STATION	LOC.	OFF SET FROM CURB	ADJUST VALVE BOX	ADJUST FRAME AND RING	RECONST. CATCH BASIN	CASTING ASSEMBLY	REMARKS
2 MH	6+25	RT	6.5				1	STORM, LOWER
2A CB	6+09	LT	0.0		1	1(DIDN'T DO)		STORM, RESET CASTING
3 MH	9+27	RT	8.0				1	STORM, LOWER
3A CB	9+50	LT	0			1		STORM
4 MH	12+60	RT	8				1	STORM
4A CB	12+95	RT	0			1		STORM
5 MH	12+74	LT	1				1	STORM
5A CB	12+95	LT	0.0			1		STORM

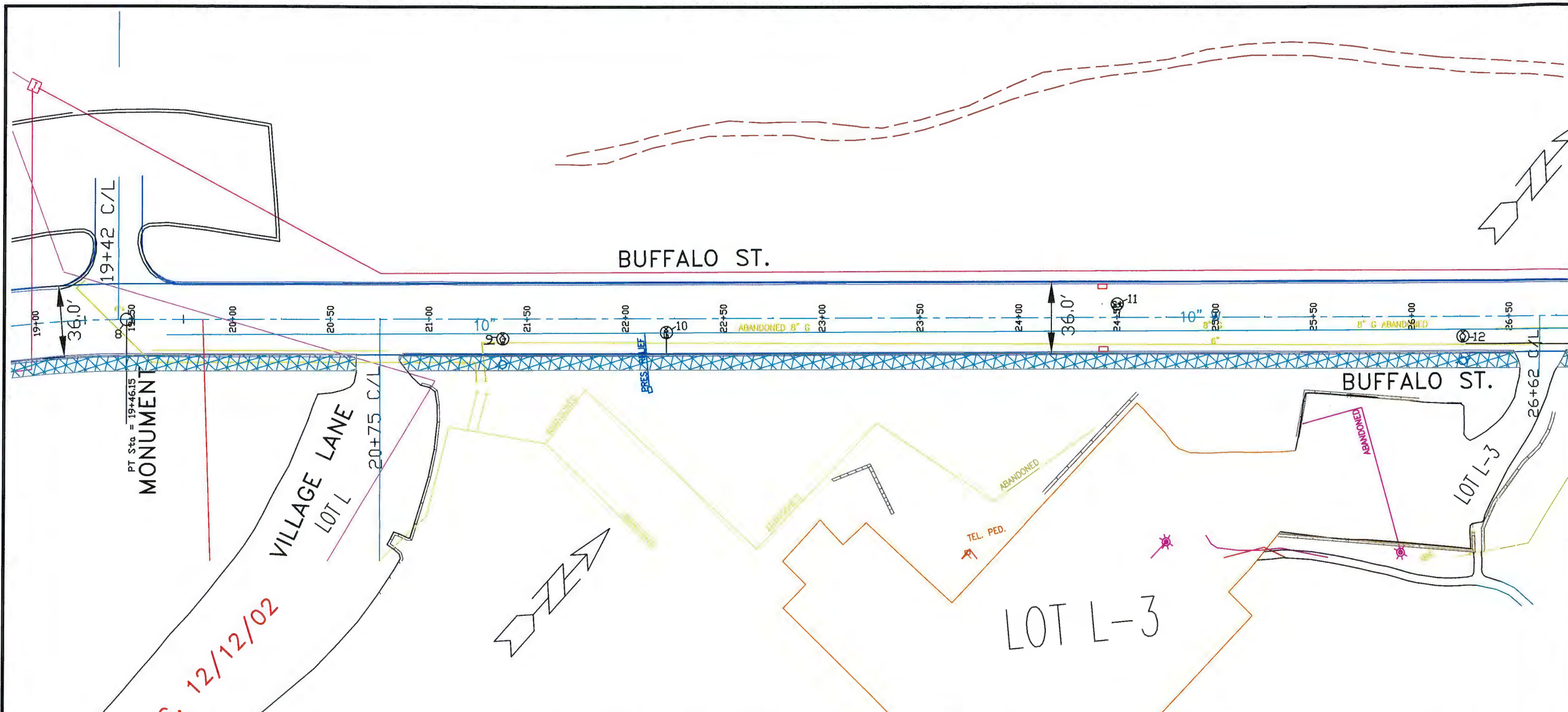
GOLD

RECORD DWG. 12/12/02

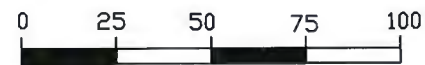


STRUCTURE NUMBER / TYPE	STATION	LOC.	OFF SET FROM CURB	ADJUST VALVE BOX	ADJUST FRAME AND RING	RECONSTR. CATCH BASIN	CASTING ASSEMBLY	ADJUST MON. BOX	REMARKS
4 MH	12+60	RT	8				1		STORM
4A CB	12+95	RT	0			1			STORM
5 MH	12+74	LT	1				1		STORM
5A CB	12+95	LT	0.0			1			STORM
6 MON	15+21+-	C/L	C/L ST.					1	MONUMENT
7 MH	15+50	RT	9				1		STORM
8 MON	19+46+-	C/L	C/L ST.					1	MONUMENT

RECORD DWG. 12/12/02



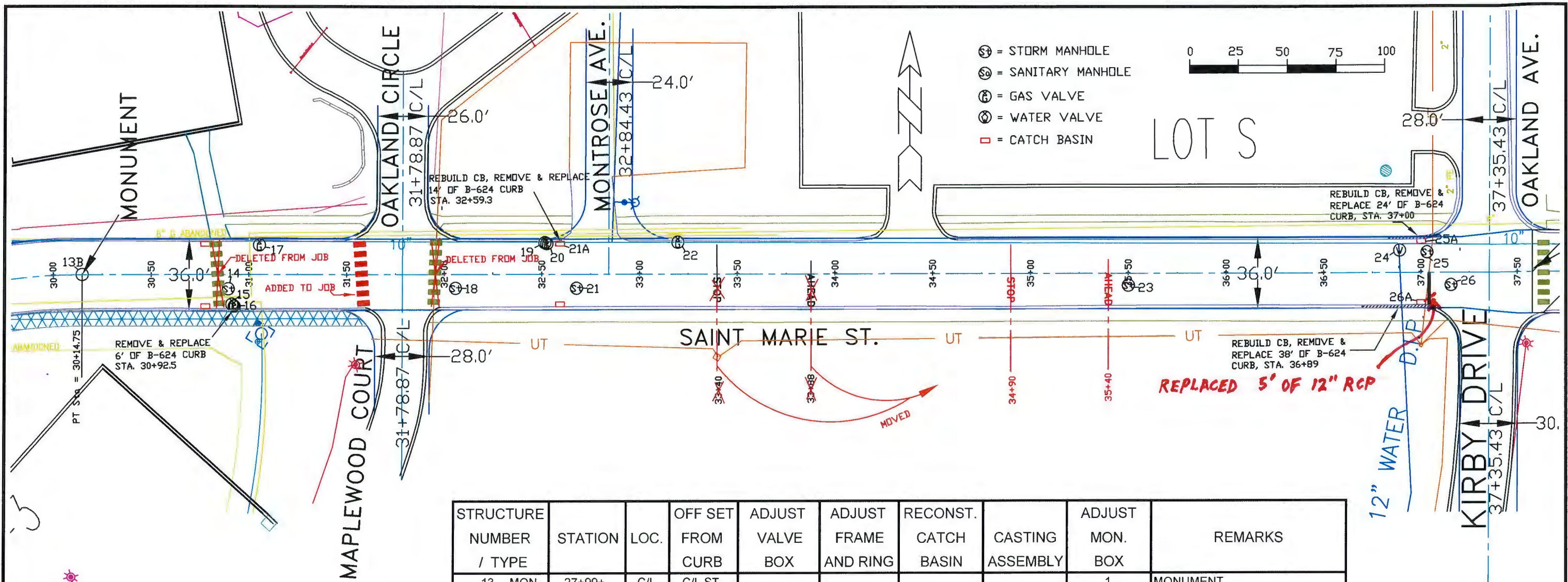
RECORD DWG. 12/12/02



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- ⊕ = GAS VALVE
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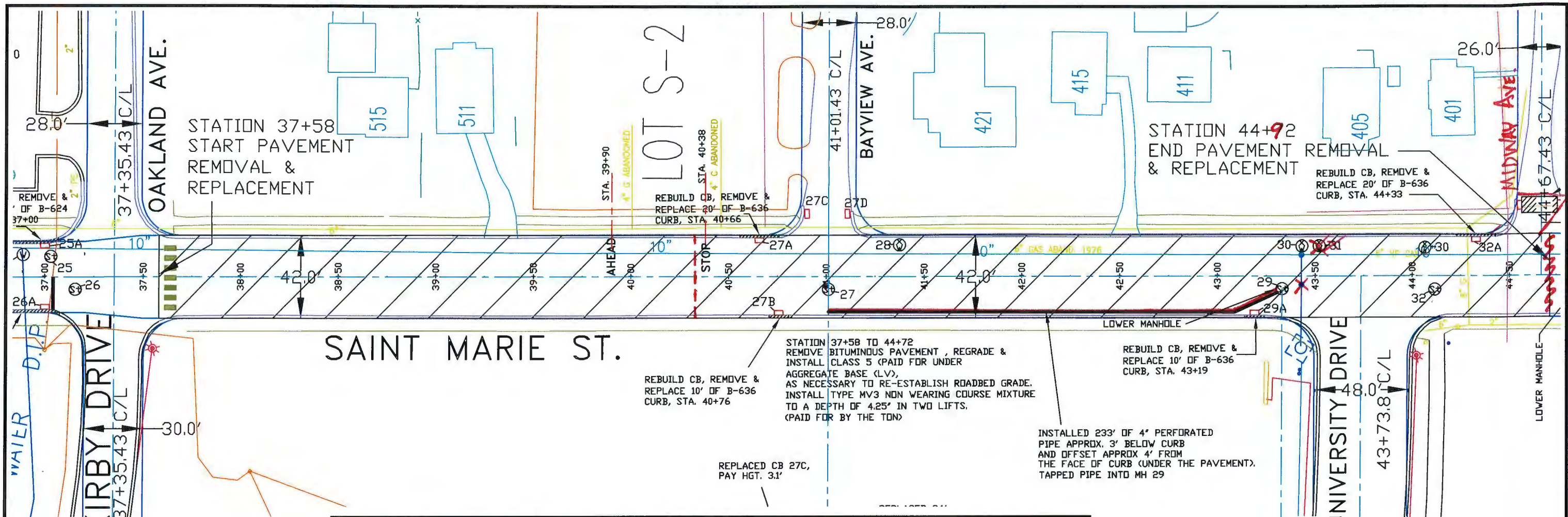
STRUCTURE NUMBER / TYPE	STATION	LOC.	OFF SET FROM CURB	ADJUST VALVE BOX	ADJUST FRAME AND RING	RECONST. CATCH BASIN	CASTING ASSEMBLY	ADJUST MON. BOX	REMARKS
8 MON	19+46+-	C/L	C/L ST.					1	MONUMENT
9 V	21+37.6	RT	8	1					WATER, HYDRANT VALVE
10 V	22+20.9	RT	11	1					GAS
11 MH	24+50	LT	11				1		STORM
12 V	26+26.4	RT	8	1					WATER, HYDRANT VALVE

RECORD DWG. 12/12/02



STRUCTURE NUMBER / TYPE	STATION	LOC.	OFF SET FROM CURB	ADJUST VALVE BOX	ADJUST FRAME AND RING	RECONST. CATCH BASIN	CASTING ASSEMBLY	ADJUST MON. BOX	REMARKS
13 MON	27+99+	C/L	C/L ST.					1	MONUMENT
14 MH	30+89.5	RT	11				1		STORM
15 V	30+91.3	RT	3	1					GAS
16 V	30+92.5	RT	2	1					GAS
17 V	31+05.5	LT	3	1					GAS
18 MH	32+05.8	RT	10				1		STORM
19 V	32+51.6	LT	1.5	1(DIDN'T DO)					GAS - IN CURB, NO ADJUST.
20 V	32+52.6	LT	0.5	1(DIDN'T DO)					GAS - ABAND., NO ADJUST.
21 MH	32+67.7	RT	10.4				1		STORM
21A CB	32+59	LT	0			1			STORM
22 V	33+19.7	LT	1	1(DIDN'T DO)					GAS - IN CURB, NO ADJUST.
23 MH	35+50	RT	11				1		STORM
24 MH	36+89	LT	6		1				WATER /REUSE CASTING
25 MH	37+03.1	LT	7				1		STORM
25A CB	37+00	LT	0			1			STORM
26 MH	37+15.6	RT	11				1		STORM
26A CB	36+89	RT	0			1			STORM

RECORD DWG. 12/12/02



STRUCTURE NUMBER / TYPE	STATION	LOC.	OFF SET FROM CURB	ADJUST VALVE BOX	ADJUST FRAME AND RING	RECONST. CATCH BASIN	CASTING ASSEMBLY	REMARKS
24 MH	36+89	LT	6		1			WATER /REUSE CASTING
25 MH	37+03.1	LT	7				1	STORM
25A CB	37+00	LT	0			1		STORM
26 MH	37+15.6	RT	11				1	STORM
26A CB	36+89	RT	0			1		STORM
27 MH	41+01.2	RT	13.8				1	STORM
27A CB	40+66	LT	0			1		STORM
27B CB	40+76	RT	0			1		STORM
28 V	41+37.5	LT	4.5	1				WATER
29 MH	43+33	RT	14				1	STORM
29A CB	43+19	RT	0			1		STORM
30 V	43+43.2	LT	5	1				WATER
32 MH	44+11.7	RT	13.5				1	STORM
32A CB	44+33	LT	0			1		STORM
30A V	44+06.8	LT	5					GAS - ABAND. NO PAY

REPLACED 5' OF 12" RCP FROM CB 26A OUT

REPLACED MH 29 PAY HGT. 5.3'

REPLACED 20' OF 12" RCP FROM MH 29 TO CB 29A

- ⊕ = STORM MANHOLE
- ⊙ = SANITARY MANHOLE
- ⊕ = GAS VALVE
- ⊕ = WATER VALVE
- = CATCH BASIN



SEE SHEET 29A →

CERTIFIED BY _____ LIC. NO. _____ DATE _____
LICENSED PROFESSIONAL ENGINEER

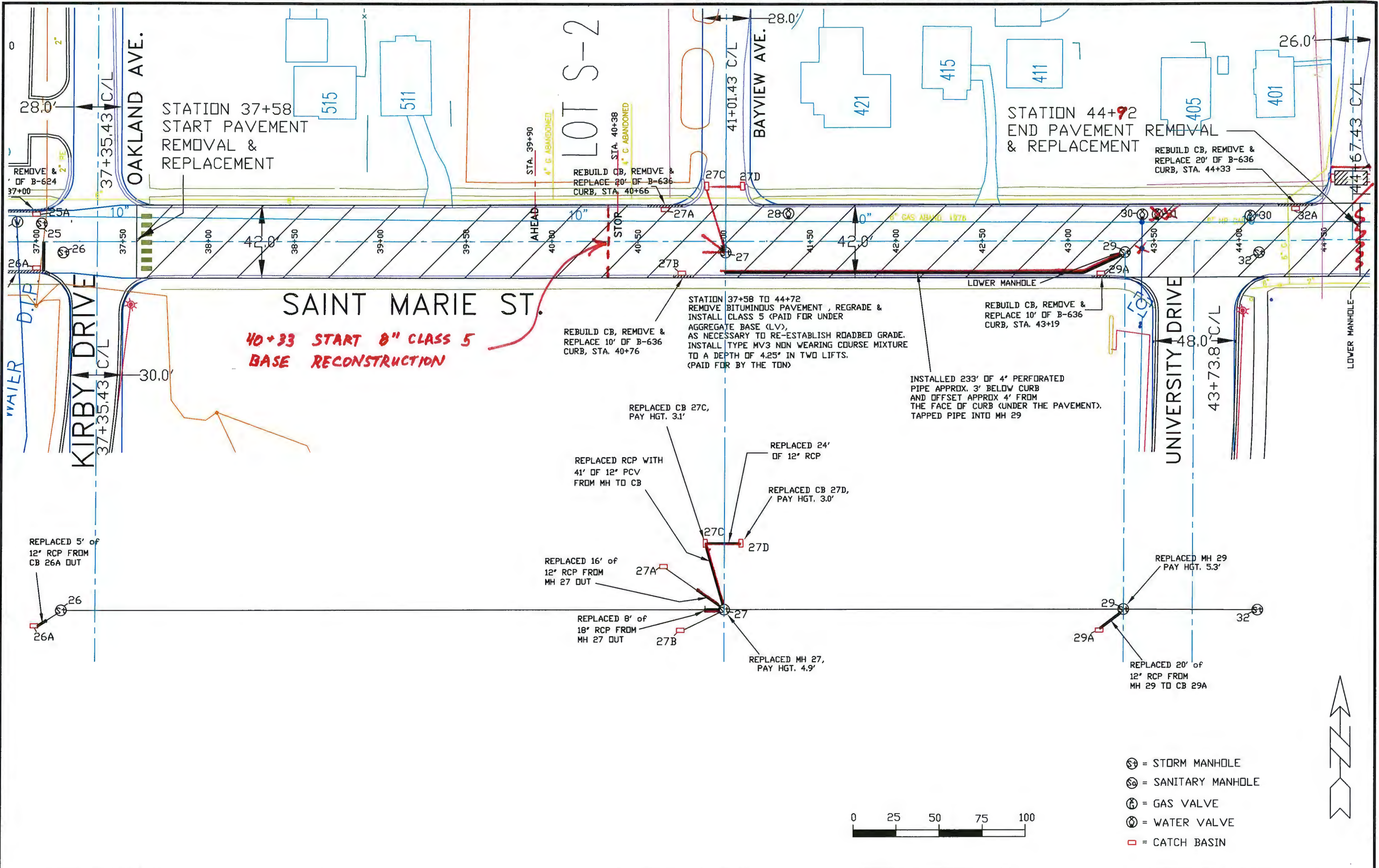
UMD MSA LOOP, COLLEGE ST., JUNCTION AVE., BUFFALO ST., ST. MARIE ST.

RECORD DWG. 12/12/02

CITY PROJECT NO. 0150TR

S.A.P. 118-155-06 & 118-156-09

SHEET NO. 29 OF 39 SHEETS



SAINT MARIE ST.
40+33 START 8" CLASS 5 BASE RECONSTRUCTION

STATION 37+58 TO 44+72
 REMOVE BITUMINOUS PAVEMENT, REGRADE &
 INSTALL CLASS 5 (PAID FOR UNDER
 AGGREGATE BASE (LV),
 AS NECESSARY TO RE-ESTABLISH ROADBED GRADE.
 INSTALL TYPE MV3 NON WEARING COURSE MIXTURE
 TO A DEPTH OF 4.25' IN TWO LIFTS.
 (PAID FOR BY THE TON)

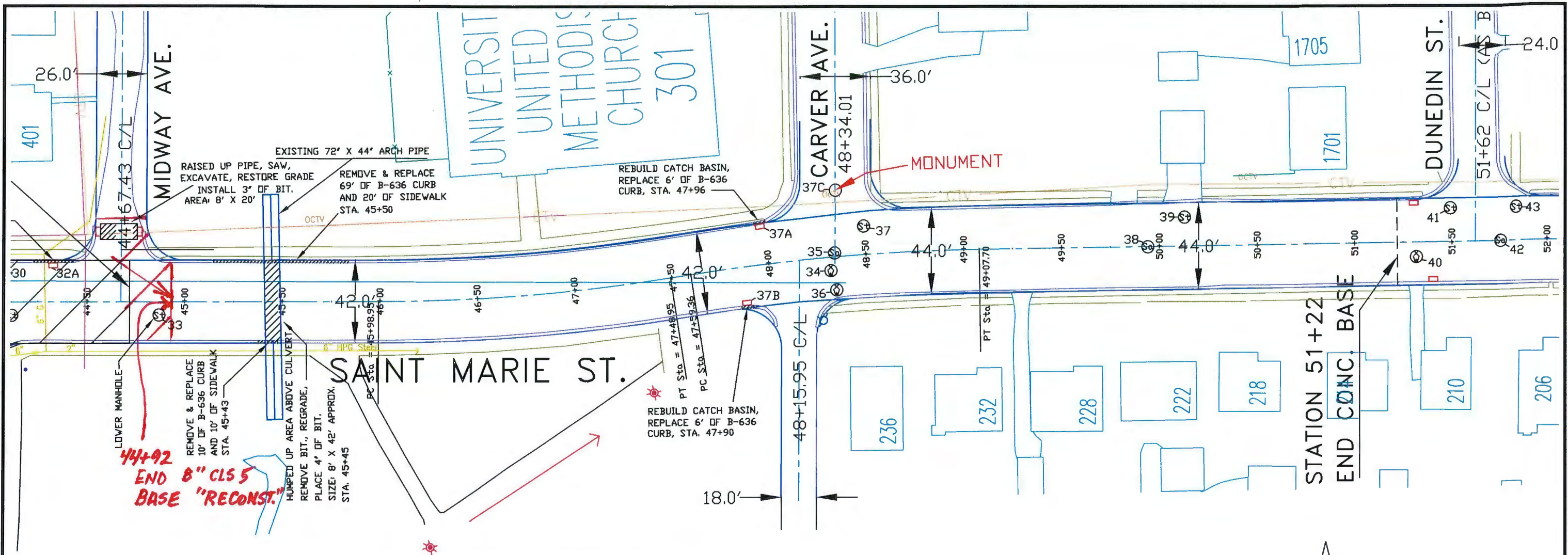
INSTALLED 233' OF 4" PERFORATED
 PIPE APPROX. 3' BELOW CURB
 AND OFFSET APPROX 4' FROM
 THE FACE OF CURB (UNDER THE PAVEMENT).
 TAPPED PIPE INTO MH 29

- REPLACED CB 27C,
PAY HGT. 3.1'
- REPLACED 24'
OF 12" RCP
- REPLACED CB 27D,
PAY HGT. 3.0'
- REPLACED RCP WITH
41' OF 12" PCV
FROM MH TO CB
- REPLACED 16' of
12" RCP FROM
MH 27 OUT
- REPLACED 8' of
18" RCP FROM
MH 27 OUT
- REPLACED MH 27,
PAY HGT. 4.9'

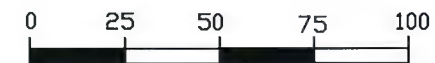
- REPLACED MH 29
PAY HGT. 5.3'
- REPLACED 20' of
12" RCP FROM
MH 29 TO CB 29A

- ⊕ = STORM MANHOLE
- ⊙ = SANITARY MANHOLE
- ⊗ = GAS VALVE
- ⊖ = WATER VALVE
- = CATCH BASIN





STRUCTURE NUMBER / TYPE	STATION	LOC.	OFF SET FROM CURB	ADJUST VALVE BOX	ADJUST FRAME AND RING	RECONST. CATCH BASIN	CASTING ASSEMBLY	REMARKS
32A CB	44+33	LT	0			1		STORM
33 MH	44+86.7	RT	13.3				1	STORM
34 V	48+32.1	RT	14.5	1				WATER
35 MH	48+34	C/L	C/L ST.				1	SANITARY
36 V	48+35.1	RT	3.5	1				WATER
37 MH	48+48.8	LT	8.5				1	STORM
37A CB	47+96	LT	0			1		STORM
37B CB	47+90	RT	0			1		STORM
37C MON	48+34	LT	-12					ADJUST MON. (ADDED)
38 MH	49+94.1	C/L	C/L ST.				1	SANITARY
39 MH	50+12.8	LT	7.5				1	STORM
40 V	51+31.9	RT	13.5	1				WATER
41 MH	51+49.2	LT	5				1	STORM
42 MH	51+75.1	C/L	C/L ST.				1	SANITARY
43 MH	51+83.4	LT	4.5				1	STORM



- ⊕ = STORM MANHOLE
- ⊙ = SANITARY MANHOLE
- ⊗ = GAS VALVE
- ⊖ = WATER VALVE
- = CATCH BASIN



RECORD DWG. 12/12/02

CERTIFIED BY _____ LIC. NO. _____ DATE _____
LICENSED PROFESSIONAL ENGINEER

UMD MSA LOOP, COLLEGE ST., JUNCTION AVE., BUFFALO ST., ST. MARIE ST.

PLAN SHEET

CITY PROJECT NO. 0150TR

S.A.P. 118-155-06 & 118-156-09

SHEET NO. 30 OF 39 SHEETS