

PROJECT ID: 122816

COUNTY: DOUGLAS

CITY OF SUPERIOR DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

POPLAR AVENUE STORM SEWER AND WETLAND BASIN PROJECT

(BELKNAP ST. - 12TH ST.)

LOCAL STREET DOUGLAS COUNTY

TABLE OF CONTENTS

SHEET #	SHEET DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	PROJECT OVERVIEW
4	ALIGNMENT PLANS
5-6	STATEMENT OF ESTIMATED QUANTITIES
7	WATER TABULATIONS
8-12	CONSTRUCTION DETAILS
13	INTERSECTION DETAILS
14-15	TYPICAL SECTIONS
16-18	EROSION CONTROL PLANS
19-20	STORM WATER BASIN PLANS
21-24	SANITARY SEWER PLANS
25-28	STORM SEWER PLANS
29-32	WATER PLANS
33	TRAFFIC CONTROL PLAN
34-35	SIGNING AND STRIPING PLANS
(NONE)	STANDARD DETAIL SHEETS
TOTAL SHEETS = 35 (EXCLUDES STANDARD DETAIL SHEETS)	

WIS/DOT DETAILS NOT INCLUDED

SEH PROJECT NUMBER
122816



ENGINEER
PROJECT ENGINEER
RESIDENT PROJECT REP.
SURVEYOR

GENERAL CONTRACTOR
SUBCONTRACTORS

AGG. & SEL. GRAN. BASE
BITUMINOUS
EXCAVATING & GRADING
EROSION CONTROL
CONC. CURB & WALKS
TURF ESTABLISHMENT
UNDERGROUND UTILITIES
(SANITARY, STORM, WATER)
UNDERGROUND UTILITIES
(GAS, ELEC., TELE., CABLE)
HDPE PIPE FUSING
CASING PIPE BORE/INSTALL
TESTING-MATERIALS
TESTING-UTILITIES
YEAR OF CONSTRUCTION

SHORT ELLIOTT HENDRICKSON INC.
DAN HINZMANN
STEVE VOLLHABER, JEROLD HALDORSON
NWBE
McCABE CONSTRUCTION

McCABE CONSTRUCTION
MONARCH PAVING
McCABE CONSTRUCTION
SUPERIOR LANDSCAPING
CHIPPEWA CONCRETE
SUPERIOR LANDSCAPING
McCABE CONSTRUCTION

BY UTILITY OWNER

McCABE CONSTRUCTION
EJM PIPE SERVICES
TWIN PORTS TESTING
McCABE, SEH, CITY
2016

CONVENTIONAL SYMBOLS

- PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such)
- SPECIAL DITCH
- GRADE ELEVATION
- CULVERT (Profile View)
- UTILITIES
- ELECTRIC
- FIBER OPTIC
- GAS
- SANITARY SEWER
- STORM SEWER
- TELEPHONE
- WATER
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE



LAYOUT
SCALE 0 600FT

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DOUGLAS COUNTY.

PROJECT LOCATION

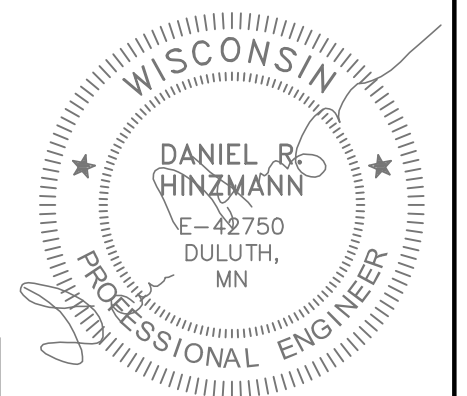


Know what's below.
Call before you dig.

ORIGINAL PLANS PREPARED BY:



02/11/2016



PREPARED BY

Surveyor KA

Designer AO/DB

Project Manager DH

**RECORD DRAWINGS
UPDATED 01/2017**

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STANDARD ABBREVIATIONS

ABUT	ABUTMENT	MIN	MINIMUM
AC	ACRE	mm	MILLIMETER
ADT	AVERAGE DAILY TRAFFIC	M/L	MATCH LINE
AEW	APRON ENDWALL	MV	MEDIUM VOLUME
AH	AHEAD	N	NORTH
APPRX	APPROXIMATELY	N	NORTH GROUND COORDINATE
ASPH	ASPHALTIC	NB	NORTHBOUND
AV	AVENUE	NO	NUMBER
BK	BACK	NOM	NOMINAL
BLDG	BUILDING	NOR	NORMAL
BLVD	BOULEVARD	OD	OUTSIDE DIAMETER
BM	BENCHMARK	OGBC	OPEN GRADED BASE COURSE
BR	BRIDGE	PAVT	PAVEMENT
C	CURVE	PC	POINT OF CURVATURE
CABC	CRUSHED AGGREGATE BASE COURSE	PCC	POINT OF COMPOUND CURVATURE
CB	CATCH BASIN	PCC	PORTLAND CEMENT CONCRETE
CC	CENTER-TO-CENTER	PCP	PIPE CATTLE PASS
CE	COMMERCIAL ENTRANCE	PE	PRIVATE ENTRANCE
C & G	CURB AND GUTTER	PI	POINT OF INTERSECTION
CL	CLASS	PK	PARKER-KALON NAIL
C/L	CENTERLINE	PL	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	PLE	PERMANENT LIMITED EASEMENT
CO	COUNTY	POC	POINT ON CURVE
CONC	CONCRETE	POT	POINT ON TANGENT
CP	CULVERT PIPE	PRC	POINT OF REVERSE CURVATURE
CR	CREEK	PSD	PASSING SIGHT DISTANCE
CTH	COUNTY TRUNK HIGHWAY	PT	POINT
CWT	HUNDREDWEIGHT	PT	POINT OF TANGENT
CY	CUBIC YARD	PVC	POINT OF VERTICAL CURVATURE
D	DEGREE OF CURVE	PVC	POLYVINYL CHLORIDE
D	DIRECTIONAL DISTRIBUTION	PVI	POINT OF VERTICAL INTERSECTION
DG	DITCH GRADE	PVT	POINT OF VERTICAL TANGENT
DHV	DESIGN HOUR VOLUME	R	RADIUS
DIA	DIAMETER	R	RIVER
DR	DRIVEWAY	RCCP	REINFORCED CONCRETE CULVERT PIPE
E	EAST GROUND COORDINATE	RD	ROAD
E	EAST	RCPS	REINFORCED CONCRETE PIPE STORM SEWER
E	UNDER GROUND ELECTRIC	REQ'D	REQUIRED
EA	EACH	RES	RESIDENCE OR RESIDENTIAL
EB	EASTBOUND	RHF	RIGHT-HAND FORWARD
EBS	EXCAVATION BELOW SUBGRADE	RP	RADIUS POINT
ELEV	ELEVATION	RP	REFERENCE POINT
ESALS	EQUIVALENT SINGE AXLE LOADS	RR	RAILROAD
EW	ENDWALL	RT	RIGHT
EXIST	EXISTING	R/L	REFERENCE LINE
FE	FIELD ENTRANCE	R/W	RIGHT-OF-WAY
FERT	FERTILIZE	S	SOUTH
FF	FACE TO FACE	SAN	SANITARY SEWER
FL	FLAG LINE	SAN S	SANITARY SEWER SERVICE
F/L	FLOW LINE	SB	SOUTHBOUND
FO	FIBER OPTIC	SDD	STANDARD DETAIL DRAWINGS
FT	FEET	SF	SQUARE FEET
G	GAS	SHLDR	SHOULDER
GN	GRID NORTH	SQ	SQUARE
GRAV	GRAVEL	SS	STORM SEWER
GV	GATE VALVE	SSD	STOPPING SIGHT DISTANCE
ha	HECTARE	STA	STATION
HR	HANDICAP RAMP	STH	STATE TRUNK HIGHWAY
HV	HIGH VOLUME	SW	SIDEWALK
HYD	HYDRANT	SY	SQUARE YARD
ID	INSIDE DIAMETER	T	TANGENT
INL	INLET	T	TELEPHONE
INV	INVERT	T	TRUCKS
IP	IRON PIPE OR PIN	TC	TOP OF CURB
kg	KILOGRAM	TEMP	TEMPORARY
km	KILOMETER	TLE	TEMPORARY LIMITED EASEMENT
kPa	KILOPASCAL	TOC	TOP OF CASTING
L	LITER	TYP	TYPICAL
L	LENGTH OF CURVE	UG	UNDERGROUND CABLE
Lb	POUND	USH	UNITED STATES HIGHWAY
LC	LONG CHORD OF CURVE	V	DESIGN SPEED
LF	LINEAR FOOT	VAR	VARIABLE
LHE	LIMITED HIGHWAY EASEMENT	VC	VERTICAL CURVE
LHF	LEFT-HAND FORWARD	VP	VITRIFIED CLAY PIPE
LS	LUMP SUM	W	WEST
LT	LEFT	WB	WESTBOUND
LV	LOW VOLUME	WM	WATER MAIN
m	METER	WS	WATER SERVICE
m2	SQUARE METER	WV	WATER VALVE
m3	CUBIC METER	X	EAST GRID COORDINATE
MAX	MAXIMUM	Y	NORTH GRID COORDINATE
Mg	MEGAGRAM	YD	YARD
MH	MANHOLE		

DESIGN CONTACT

SEH INC.
 418 WEST SUPERIOR ST
 SUITE 200
 DULUTH, MN 55802-1512
 TELEPHONE 218.279.3000
 ATTENTION: DAN HINZMANN
 EMAIL: DHINZMANN@SEHINC.COM

DIGGERS HOTLINE
 2040 WEST WISCONSIN AVENUE
 SUITE 10
 MILWAUKEE, WISCONSIN 53233
 TELEPHONE: 811

UTILITY CONTACTS

SUPERIOR WATER, LIGHT & POWER CO.
 2915 HILL AVENUE
 P.O. BOX 519
 SUPERIOR, WISCONSIN 54880
 TELEPHONE: 715.395.6288
 ATTENTION: JAMIE MEHLE
 EMAIL: JMEHLE@SWLP.COM

CHARTER COMMUNICATIONS
 302 E, SUPERIOR STREET
 DULUTH, MINNESOTA 55802
 TELEPHONE: 218.529.7961
 ATTENTION: ALAN SEIFERT

CITY OF SUPERIOR
 PUBLIC WORKS
 SUPERIOR, WISCONSIN 54880
 TELEPHONE: 715.935.7334
 ATTENTION: TODD JANIGO
 EMAIL: PUBLICWORKS@CI.SUPERIOR.WI.US

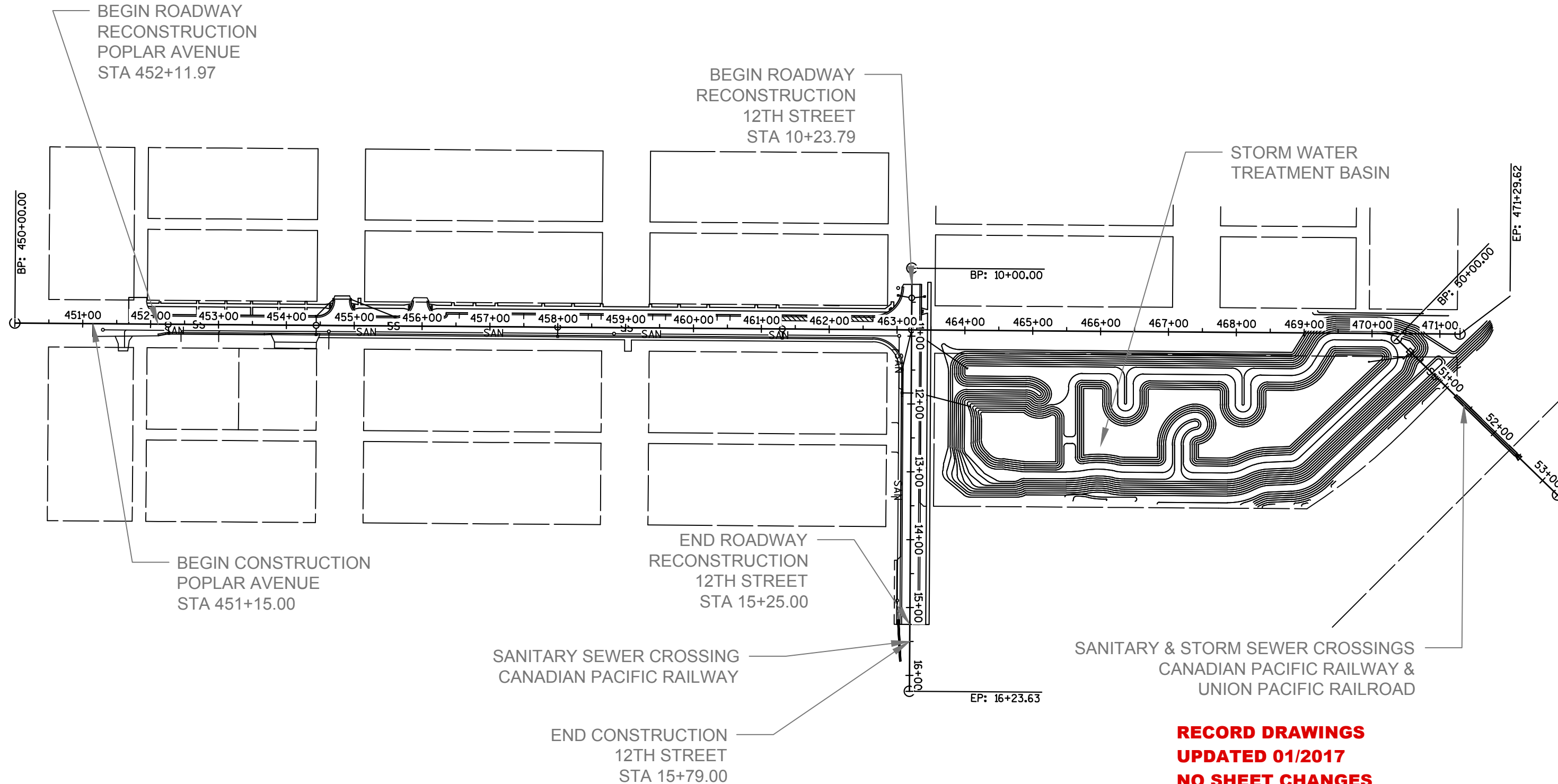
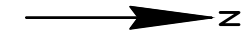
CENTURYTEL SERVICE GROUP
 135 N. 21ST STREET
 SUPERIOR, WISCONSIN 54880
 ENGINEERING TELEPHONE: 715.392.0033
 ATTENTION: ARNOLD MILLER
 EMAIL: ARNOLD.MILLER@CENTURYTEL.COM

MAGELLEN PIPELINE COMPANY, LP
 ONE WILLIAMS CENTER
 MD 27-2
 TULSA, OK 74172
 TELEPHONE: 918.574.7464
 ATTENTION: CYNTHIA PIERCE
 EMAIL: CYNTHIA.PIERCE@MAGELLENLP.COM

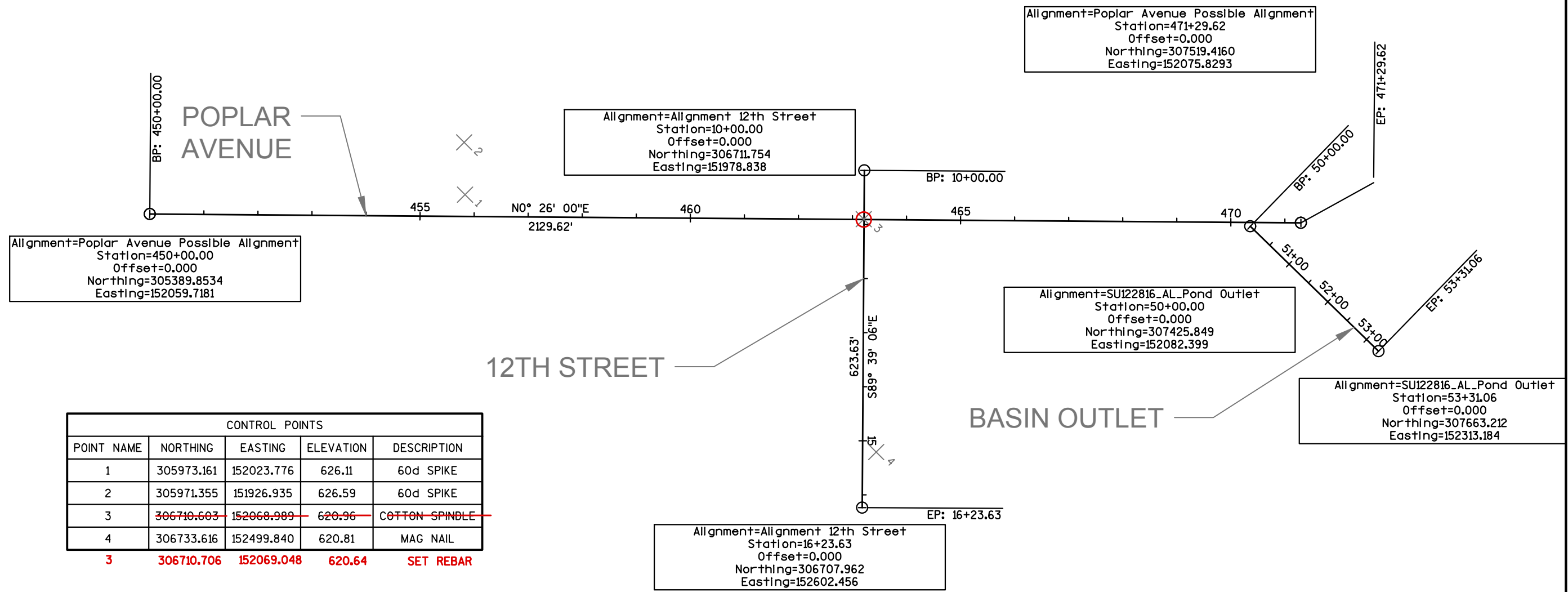
GENERAL NOTES:

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
 CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. ANY REQUIRED UTILITY WORK SHALL BE COORDINATED BY THE CONTRACTOR.
 NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER OUTSIDE OF THOSE SPECIFIED IN THIS PLAN.
 CURVE DATA IS BASED ON THE ARC DEFINITION.
 A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.
 ALL MANHOLE AND INLET STATION, OFFSET, AND ELEVATION NOTATIONS SHOWN REFER TO THE CENTER OF STRUCTURE. RIM ELEVATIONS SHOWN FOR INLETS ARE FOR THE DEPRESSED GUTTER FLOW LINE (7" LOWER THAN TOP OF CURB ELEVATION).
 ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS AND GRADES ARE COMPUTED CENTER-TO-CENTER OF THE STRUCTURES.
 COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DOUGLAS COUNTY.
 ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
 TOPSOIL (SALVAGED MAY BE USED IF IT MEETS THE REQUIREMENTS TOPSOIL IN THE STANDARD SPECIFICATIONS), SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS. NO PAYMENT SHALL BE MADE FOR DISTURBED AREAS USED FOR CONTRACTOR STAGING OF MATERIALS OR EQUIPMENT OR CONTRACTOR CONVENIENCE.

**RECORD DRAWINGS
 UPDATED 01/2017
 NO SHEET CHANGES**



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 UPDATED 01/2017
 NO SHEET CHANGES**



**RECORD DRAWINGS
UPDATED 01/2017**

STATEMENT OF ESTIMATED QUANTITIES

NOTE	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY
STORM SEWER & ROADWAY ITEMS				
	203.0100	REMOVING SMALL PIPE CULVERTS	EA	5 5
	204.0100	REMOVING PAVEMENT	SY	1139 1050
	204.0110	REMOVING ASPHALTIC SURFACE	SY	7346 40512
	204.0150	REMOVING CURB AND GUTTER	LF	86 86
	204.0155	REMOVING CONCRETE SIDEWALK	SY	693 693
	204.0210	REMOVING MANHOLES	EA	3 3
	204.0215	REMOVING CATCH BASINS	EA	1 1
1	205.0100	EXCAVATION COMMON (ROADWAY)	(P) CY	6606 6606
11	208.1100	SELECT BORROW	CY	0 0
1	305.0115.S	BASE AGGREGATE DENSE 3/4-INCH	CY	195 195
1	305.0125.S	BASE AGGREGATE DENSE 1 1/4-INCH	(P) CY	2448 2448
1	312.0115.S	SELECT CRUSHED MATERIAL	(P) CY	2155 2155
2,3,4	465.0105	ASPHALTIC SURFACE	TON	1951 1092.90
	522.1036	APRON ENDWALLS FOR CULVERT PIPE 36-INCH	EA	1 1
	522.1084	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 84-INCH	EA	1 1
	601.0411.S	CONCRETE CURB AND GUTTER 24-INCH TYPE SPECIAL	LF	1000 997
	601.0411	CONCRETE CURB AND GUTTER 30-INCH TYPE D	LF	2130 2115
12	602.0405	CONCRETE SIDEWALK 4-INCH	SF	7238 6622
9,12	602.0420	CONCRETE SIDEWALK 7-INCH	SF	4567 5688
	602.0515	CONCRETE RAMP DETECTABLE WARNING FIELD NATURAL PATINA	SF	56 56
6	606.0300	RIPRAP HEAVY	CY	217 177
	608.3012	STORM SEWER PIPE CLASS III-A 12-INCH	LF	326 192
	608.3015	STORM SEWER PIPE CLASS III-A 15-INCH	LF	26 25
	608.3018	STORM SEWER PIPE CLASS III-A 18-INCH	LF	72 69
	608.3036	STORM SEWER PIPE CLASS III-A 36-INCH	LF	199 189
	608.0354	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 54-INCH	LF	56 47
	608.0372	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 72-INCH	LF	1117 4488
	608.0384	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 84-INCH	LF	93 92
	611.0530	MANHOLE COVERS TYPE J	EA	1 1
	611.0612	INLET COVERS TYPE C	EA	4 4
	611.0624	INLET COVERS TYPE H	EA	7 7
	611.0639	INLET COVERS TYPE H-S	EA	6 6
	611.2005	MANHOLES 5-FT DIAMETER	EA	2 2
	611.2007	MANHOLES 7-FT DIAMETER	EA	1 1
	611.2008	MANHOLES 8-FT DIAMETER	EA	1 1
	611.2010	MANHOLES 10-FT DIAMETER	EA	4 4
	611.2012	MANHOLES 12-FT DIAMETER	EA	1 1
	611.3003	INLETS 3-FT DIAMETER	EA	2 2
	611.3004	INLETS 4-FT DIAMETER	EA	4 4
	611.3230	INLETS 2x3-FT	EA	8 8
5	612.0106	PIPE UNDERDRAIN 6-INCH	LF	3112 3112
	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS	LS	1 1
	619.1000	MOBILIZATION	EA	1 1
1,17	625.0105.S	TOPSOIL	CY	1253 1253
	628.1504	SILT FENCE	LF	850 850
15	628.1905	MOBILIZATIONS EROSION CONTROL	EA	6 6
	628.7005	INLET PROTECTION TYPE A	EA	4 4
	628.7010	INLET PROTECTION TYPE B	EA	2 2
	628.7015	INLET PROTECTION TYPE D	EA	4 4
	628.7504	TEMPORARY DITCH CHECKS	LF	15 15
	628.7560	TRACKING PADS	EA	3 3
18	637.2210	SIGNS TYPE II REFLECTIVE H	SF	30 30
18	638.3000	REMOVING SMALL SIGN SUPPORTS	EA	6 6
	643.0100	TRAFFIC CONTROL (PROJECT)	EA	1 1
	645.0140	GEOTEXTILE FABRIC TYPE SAS	(P) SY	7742 7742
	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	400 374
	646.0116	PAVEMENT MARKING EPOXY 6-INCH	LF	175 168
	690.0150	SAWING ASPHALT	LF	161 148
8	690.0250	SAWING CONCRETE	LF	48 48

ADD #2

ADD #2

ADD #2

ADD #2

ADD #2

NOTES:

1	TO BE PAID AS COMPACTED IN PLACE VOLUME
2	SHALL CONFORM TO REQUIREMENTS OF HMA PAVEMENT TYPE E-1 PG58-34
3	CALCULATED AT A RATE OF 120 LB PER SQUARE YARD-INCH
4	TACK COAT INCIDENTAL
5	BASE AGGREGATE OPEN GRADED INCIDENTAL
6	GEOTEXTILE FABRIC INCIDENTAL
7	TRACER WIRE INCIDENTAL
8	CONCRETE SIDEWALK SAWCUTS INCIDENTAL
9	INCLUDES PEDESTRIAN RAMP AREAS AND DRIVE APRONS
10	SHALL MEET ALL RAILROAD PERMIT REQUIREMENTS
11	ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER
12	AGGREGATE BASE INCIDENTAL
13	QUANTITY ASSUMES PLASTIC STORM PIPING IS SELECTED. NO ADJUSTMENT IN UNIT PRICE WILL BE MADE FOR CHANGES IN QUANTITY.
14	BULKHEADS FOR SEWER PIPE, SEALING CASING PIPES INCIDENTAL
15	INCLUDES MAINTENANCE OF EROSION CONTROL MEASURES
16	INCLUDES CARRIER PIPE
17	PLACE AT 3" DEPTH
18	INCLUDES ENTIRE SIGN (SIGN, POST, BASE)
19	WEEKLY INSPECTIONS REQUIRED BY STORMWATER PERMIT. SUBMIT COMPLETED FORMS WEEKLY.
20	ANY CLEANOUTS ENCOUNTERED SHALL BE INCIDENTAL
21	ALL WYES INCIDENTAL
22	PAYMENT INCLUDES VOLUME OF ALL PAVEMENT REMOVALS
23	ALL DEWATERING (INCLUDING MATERIALS) IS CONSIDERED INCIDENTAL. NOTE STANDING WATER EXISTS ALONG RAILROAD TRACKS NEAR POND OUTLET.
24	ALL SURVEY MONUMENTS WITHIN THE PROJECT LIMITS SHALL BE REPLACED BY THE ENGINEER AFTER PAVING OPERATIONS. NOTIFY ENGINEER PRIOR TO REMOVAL OF ANY SURVEY MONUMENTS.

**RECORD DRAWINGS
UPDATED 01/2017**

3

NOTE	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY
STORM SEWER & ROADWAY ITEMS (CONTINUED)				
	SPV.0060.17	EROSION CONTROL INSPECTIONS	EA	19 19
13	SPV.0090.08	SEWER FIELD QUALITY CONTROL - DEFLECTION TEST	LF	2114 2300
	SPV.0090.09	SEWER FIELD QUALITY CONTROL - TELEVISION	LF	3111 3792
	SPV.0105.01	CONSTRUCTION STAKING	LS	1 1
	SPV.0180.03	HYDROSEEDING	SY	2668 4000
WETLAND BASIN ITEMS				
	201.0120	CLEARING	ID	54 54
	201.0220	GRUBBING	ID	54 54
1	205.0100	EXCAVATION COMMON (POND)	(P) CY	46391 46000
	522.1048	APRON ENDWALLS FOR CULVERT PIPE 48-INCH	EA	0 1
16	608.3048	STORM SEWER PIPE CLASS III-A 48-INCH	LF	223 240
	628.2006	EROSION MAT URBAN CLASS I TYPE A	SY	8764 8707
	SPV.0060.04	OUTLET STRUCTURE	EA	1 1
11	SPV.0060.05	CORE DRILLING	EA	4 4
	SPV.0060.08	REMOVE MISCELLANEOUS STRUCTURES	EA	6 6
	SPV.0060.09	NATIVE PLANT PLUGS	EA	396 396
	SPV.0060.10	SERVICEBERRY, AT LEAST 7 GAL CONTAINER	EA	0 1
	SPV.0060.11	HACKBERRY, AT LEAST 7 GAL CONTAINER	EA	6 6
	SPV.0060.12	RED-OSIER DOGWOOD, AT LEAST 5 GAL CONTAINER	EA	34 34
	SPV.0060.13	NINEBARK, AT LEAST 5 GAL CONTAINER	EA	14 14
	SPV.0060.14	WHITE SPRUCE, AT LEAST 7 GAL CONTAINER	EA	14 14
	SPV.0060.15	BASSWOOD, AT LEAST 7 GAL CONTAINER	EA	10 10
	SPV.0060.16	HIGH-BUSH CRANBERRY, AT LEAST 7 GAL CONTAINER	EA	10 10
10	SPV.0090.02	STEEL CASING PIPE, 66-NCH	LF	125 125
	SPV.0105.02	6" DIP BYPASS SYSTEM	LS	1 1
	SPV.0180.01	GRASSED PAVING SYSTEM	SY	808 1020
	SPV.0180.02	FLEXAMAT	SY	243 243
	SPV.0180.04	SEED TYPE MN 33-311	SY	10033 10000
	SPV.0180.05	SEED TYPE MN 33-361	SY	2162 2162
SANITARY SEWER ITEMS				
14	204.0280	SEALING PIPES	EA	10 10
	SPV.0060.01	CONNECT TO EXISTING SANITARY SEWER	EA	2 2
	SPV.0060.02	CONNECT TO EXISTING SANITARY SEWER SERVICE	EA	4 4
	SPV.0060.03	CONNECT TO EXISTING SANITARY SEWER MANHOLE	EA	1 1
	SPV.0060.06	SANITARY MANHOLE, 48-INCH	EA	7 7
	SPV.0060.07	SANITARY SEWER CASTING	EA	7 7
10	SPV.0090.01	STEEL CASING PIPE, 24-INCH	LF	59 59
20	SPV.0090.03	REMOVING SEWER PIPES 6-INCH - 18-INCH	LF	385 440
	SPV.0090.04	SANITARY SEWER MAIN, 12-INCH	LF	1122 1170
16	SPV.0090.05	SANITARY SEWER MAIN, 15-INCH	LF	480 480
7,21	SPV.0090.06	SANITARY SEWER SERVICE, 6-INCH	LF	34 40
7,21	SPV.0090.07	SANITARY SEWER SERVICE, 8-INCH	LF	42 42
	SPV.0090.10	ABANDONING SEWER PIPES	LF	0 300
WATER ITEMS				
	612.0902.S	INSULATION BOARD POLYSTYRENE, 4-INCH	SY	39 47
	SPV.W.0060.01	REMOVE WATER VALVE	EA	9 9
	SPV.W.0060.02	REMOVE HYDRANT	EA	3 3
7	SPV.W.0060.03	GATE VALVE AND BOX, 8-INCH	EA	1 1
7	SPV.W.0060.04	GATE VALVE AND BOX, 12-INCH	EA	4 4
	SPV.W.0060.05	HYDRANT ASSEMBLY	EA	4 4
	SPV.W.0060.06	CONNECT TO EXISTING WATER MAIN	EA	2 2
	SPV.W.0060.07	CONNECT TO EXISTING WATER SERVICE	EA	10 10
	SPV.W.0060.08	TAPPING TEE WITH ELECTROFUSION SADDLE, 1-INCH	EA	9 9
	SPV.W.0060.09	TAPPING TEE WITH ELECTROFUSION SADDLE, 2-INCH	EA	0 1
	SPV.W.0060.10	CURB STOP AND BOX, 1-INCH	EA	9 9
	SPV.W.0060.11	CURB STOP AND BOX, 2-INCH	EA	0 1
11	SPV.W.0060.12	ADJUST GAS VALVE BOX	EA	2 2
	SPV.W.0090.01	REMOVE OR ABANDON WATER PIPE	LF	453 1000
	SPV.W.0090.02	WATER MAIN AND FITTINGS, 12-INCH HDPE DR-11	LF	1650 1650
7	SPV.W.0090.03	WATER SERVICE, 1-INCH HDPE	LF	68 68
7	SPV.W.0090.04	WATER SERVICE, 2-INCH HDPE	LF	0 1
7	SPV.W.0090.05	WATER SERVICE, 8-INCH HDPE	LF	53 53
	SPV.W.0105.01	TEMPORARY WATER	LS	1 1

NOTES:	
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3	CALCULATED AT A RATE OF 120 LB PER SQUARE YARD-INCH
4	TACK COAT INCIDENTAL
5	BASE AGGREGATE OPEN GRADED INCIDENTAL
6	GEOTEXTILE FABRIC INCIDENTAL
7	TRACER WIRE INCIDENTAL
8	CONCRETE SIDEWALK SAWCUTS INCIDENTAL
9	INCLUDES PEDESTRIAN RAMP AREAS AND DRIVE APRONS
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12	AGGREGATE BASE INCIDENTAL
13	QUANTITY ASSUMES PLASTIC STORM PIPING IS SELECTED. NO ADJUSTMENT IN UNIT PRICE WILL BE MADE FOR CHANGES IN QUANTITY.
14	BULKHEADS FOR SEWER PIPE, SEALING CASING PIPES INCIDENTAL
15	INCLUDES MAINTENANCE OF EROSION CONTROL MEASURES
16	INCLUDES CARRIER PIPE
17	PLACE AT 3" DEPTH
18	INCLUDES ENTIRE SIGN (SIGN, POST, BASE)
19	WEEKLY INSPECTIONS REQUIRED BY STORMWATER PERMIT. SUBMIT COMPLETED FORMS WEEKLY.
20	ANY CLEANOUTS ENCOUNTERED SHALL BE INCIDENTAL
21	ALL WYES INCIDENTAL
22	PAYMENT INCLUDES VOLUME OF ALL PAVEMENT REMOVALS
23	ALL DEWATERING (INCLUDING MATERIALS) IS CONSIDERED INCIDENTAL. NOTE STANDING WATER EXISTS ALONG RAILROAD TRACKS NEAR POND OUTLET.
24	ALL SURVEY MONUMENTS WITHIN THE PROJECT LIMITS SHALL BE REPLACED BY THE ENGINEER AFTER PAVING OPERATIONS. NOTIFY ENGINEER PRIOR TO REMOVAL OF ANY SURVEY MONUMENTS.

**RECORD DRAWINGS
UPDATED 01/2017**

3

REMOVALS				
STATION TO STATION	LOCATION	SPV.0090.09 REMOVE WATER PIPE LIN FT	SPV.0060.15 REMOVE HYDRANT EACH	SPV.0060.14 REMOVE WATER VALVE EACH
POPLAR AVENUE				
451+17.69 - 459+03.63	13.84 RT - 9.25 RT	786		
451+77.74 - 454+45.42	10.24 LT - 9.67 LT	268		
451+91.30 - 451+98.41	10.55 LT - 35.28 LT	25		
451+94.22	22.96 LT			1
452+90.77 - 452+84.90	11.10 LT - 35.31 LT	26		
452+90.95	23.59 LT			1
453+01.39 - 453+03.74	10.95 LT - 35.32 LT	25		
453+01.55	22.79 LT			1
453+73.89 - 453.79.09	9.92 LT - 35.35 LT	30		
453+74.05	21.45 LT			1
454+17.78 - 454+19.95	10.16 LT - 35.36 LT	25		
454+17.69	20.14 LT			1
454+44.38 - 454+44.42	9.71 LT - 22.69 LT	12		
454+44.42	22.69 LT		1	1
455+44.67	33.38 RT			1
459+03.63 - 259+03.79	9.25 RT - 29.67 RT	20		
459+03.79	29.67 RT		1	1
462+61.73	23.64 LT			
462+96.40	33.35 LT			
463+43.36	32.21 LT			
12TH STREET				
10+28.79 - 14+21.87	8.41 LT - 30.66 LT	401		
13+09.08	278.34 LT		1	1
13+62.63 - 13+62.66	29.50 LT - 33.24 LT	4		
14+02.00 - 14+15.00	33.55 RT - 31.23 LT	66		
PROJECT ITEM TOTALS		453 1688	3	9

ADDITIONAL WATER ITEMS INCLUDED IN CHANGE ORDER NO. 5

SERVICE NOTES (ALSO SEE SHEETS 30-32 FOR LOCATIONS)
 SERVICE TO 225 N. 12TH ST. (LAKEHEAD PAINT) APPROX. 50' OF PLAN END OF MAIN
 ADD SERVICE STA. 9+93 LT. TO 403 N. 12TH ST. (MAIN EXTENSION TO WEST OF POPLAR AVE.)
 ADD SERVICE STA. 454+55 LT. TO 1402 CYPRESS AVE., SERVES 2 HOUSES (EXIST. 3/4" Cu. /CONNECT 1" HDPE)

WATER SERVICES										
STATION	LOCATION	SPV.0090.11 WATER SERVICE, 1-INCH HDPE	SPV.0090.12 WATER SERVICE, 2-INCH HDPE	SPV.0090.13 WATER SERVICE, 8-INCH HDPE	SPV.0060.21 TAPPING TEE WITH ELECTROFUSION SADDLE, 1-INCH	SPV.0060.22 TAPPING TEE WITH ELECTROFUSION SADDLE, 2-INCH	SPV.0060.19 CURB STOP AND BOX, 1-INCH	SPV.0060.20 CURB STOP AND BOX, 2-INCH	SPV.0060.23 GATE VALVE & BOX, 8-INCH	SPV.0060.17 CONNECT TO EXISTING WATER SERVICE
		LIN FT	LIN FT	LIN FT	EACH	EACH	EACH	EACH	EACH	EACH
POPLAR AVENUE										
451+98.41	35.28 LT	7			1		1			1
452+84.90	35.31 LT	7			1		1			1
453+03.74	35.32 LT	7			1		1			1
453+69.81	35.34 LT	7			1		1			1
453+79.09	35.35 LT	7			1		1			1
454+19.95	35.36 LT	7			1		1			1
455+44.59	9.00 LT			59					1	1
454+55	LT.				1					1
12TH STREET										
13+62.63	33.24 LT	4			1		1			1
14+02.00	33.55 RT		67					1		1
PROJECT ITEM TOTALS		68 46	0 67	53 59	9 7	0 1	9 7	0 1	1 1	10 9

WATER MAIN AND VALVES				
STATION TO STATION	LOCATION	SPV.0090.10 WATER MAIN AND FITTINGS, 12-INCH HDPE DR-11	SPV.0060.24 GATE VALVE & BOX, 12-INCH	SPV.0060.16 CONNECT TO EXISTING WATER MAIN
		LIN FT	EACH	EACH
POPLAR AVENUE				
451+77.71 - 451+82.51	14.23 LT - 28.77 LT	23		1
451+82.51	28.77 LT		1	
451+82.51 - 454+88.10	28.77 LT - 29.28 LT	306		
454+88.10	29.28 LT		1	
454+88.10 - 463+50.84	29.28 LT - 30.72 LT	863		
POPLAR AVE./N. 12TH ST.				
12TH STREET				
9+66 10+28.79 10+28.79	8.41 LT - 29.50 LT	21		1
10+28.79 10+32.79	29.50 LT - 29.50 LT	4		
10+32.79	29.50 LT		1	
10+32.79 10+60.20	29.50 LT - 29.50 LT	27		
10+60.20 14+26.30	29.50 LT - 29.50 LT	366		
TEE 10+63, END E. 14+84				
PROJECT ITEM TOTALS		1650 1610	4 3	2

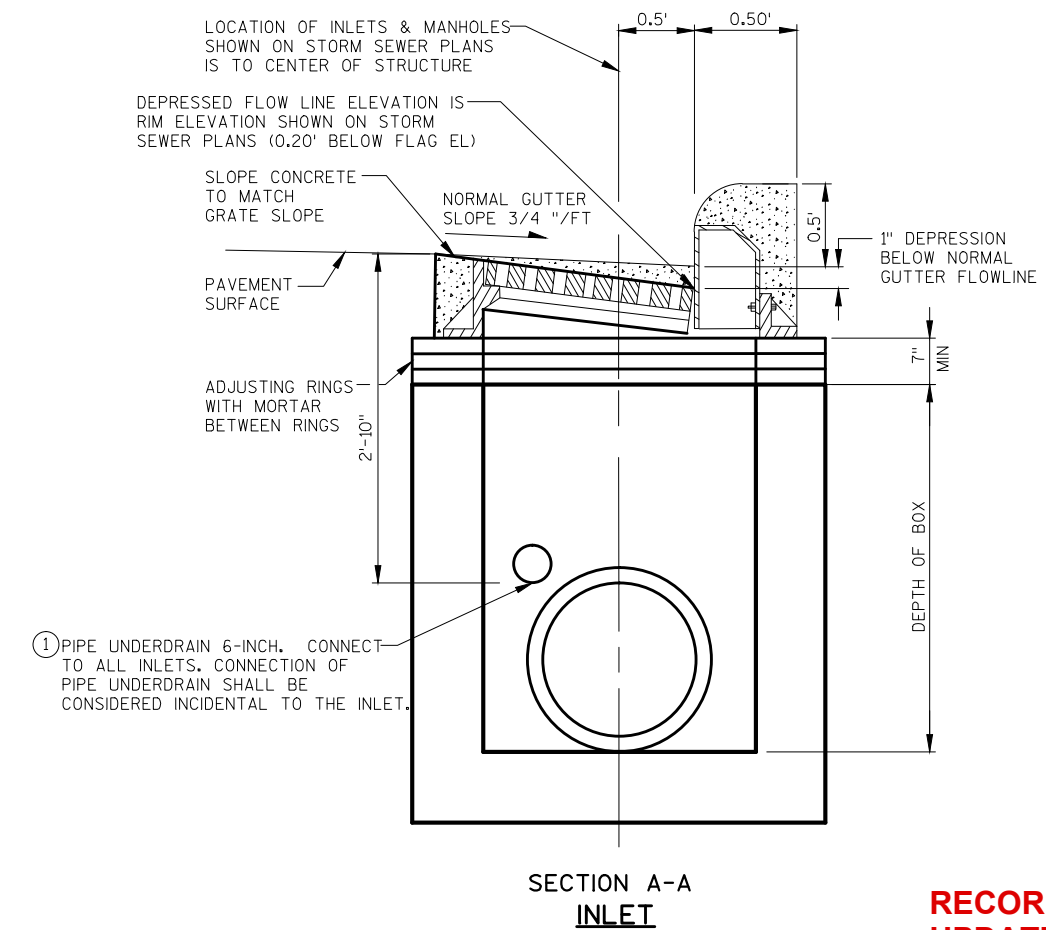
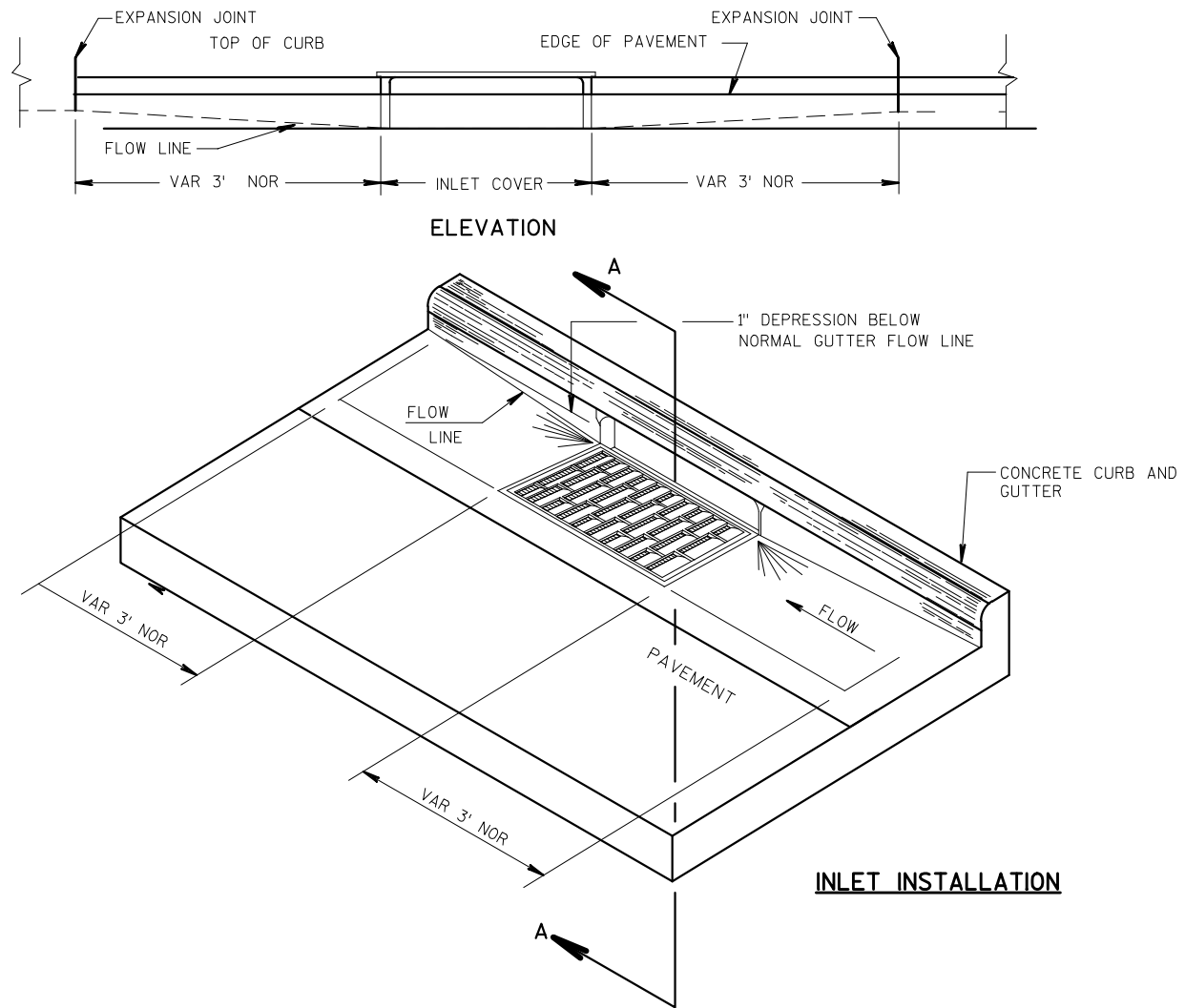
N. 12TH STREET WATER MAIN: 9+53 (CONNECT TO WEST) TO 14+84 (END TO EAST)

INSULATION		
STATION TO STATION	LOCATION	612.0902.S INSULATION BOARD POLYSTYRENE (INCH), 4-INCH SQ YD
POPLAR AVENUE		
454+59.75	29.23' LT (STORM SEWER CROSSING)	7
455+44.61	WATER SERVICE	15
463+21.34	30.68' LT (STORM SEWER CROSSING)	9
12TH STREET		
11+11.08	29.50' LT (STORM SEWER CROSSING)	9
11+88.69	29.50' LT (STORM SEWER CROSSING)	7
PROJECT ITEM TOTALS		39 47

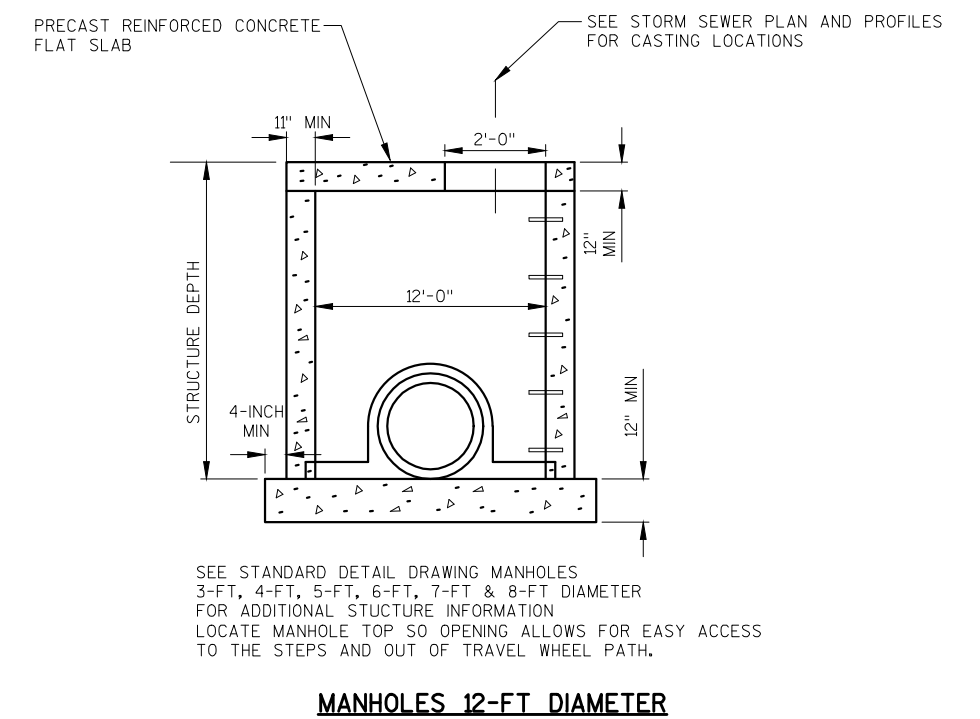
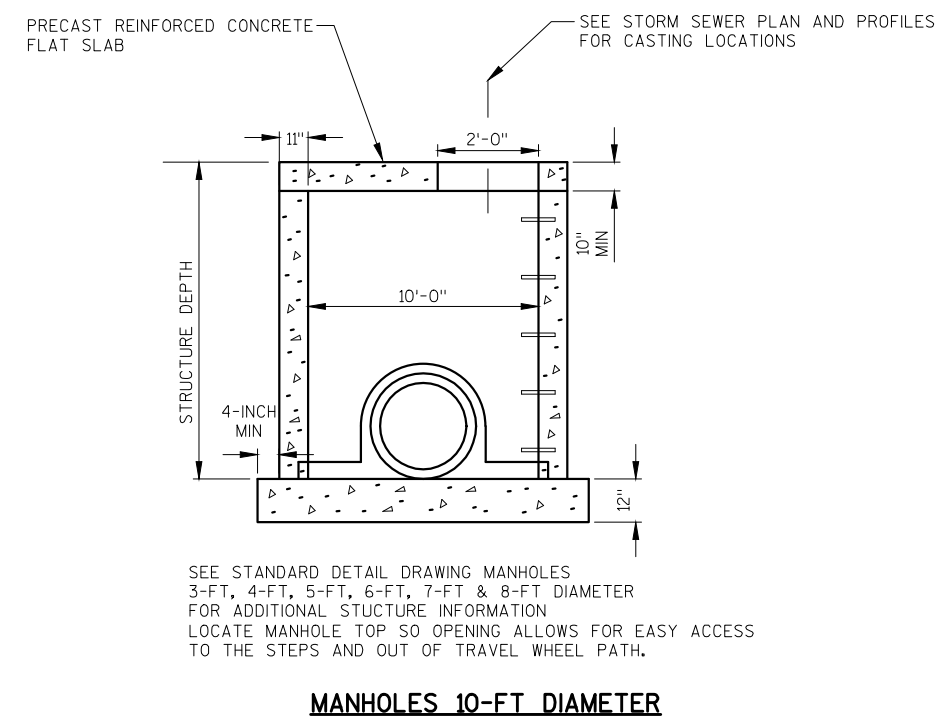
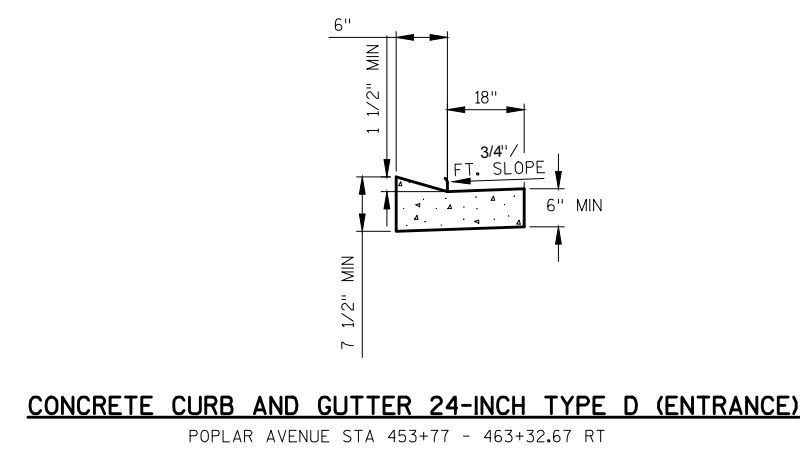
SWLP SUPPLIED TRACER WIRE BOXES (HYDRANTS)
HYDRANT DRAIN PLUGS INSTALLED

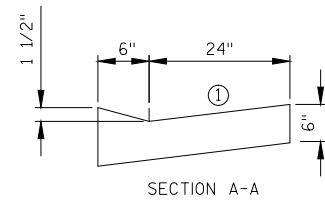
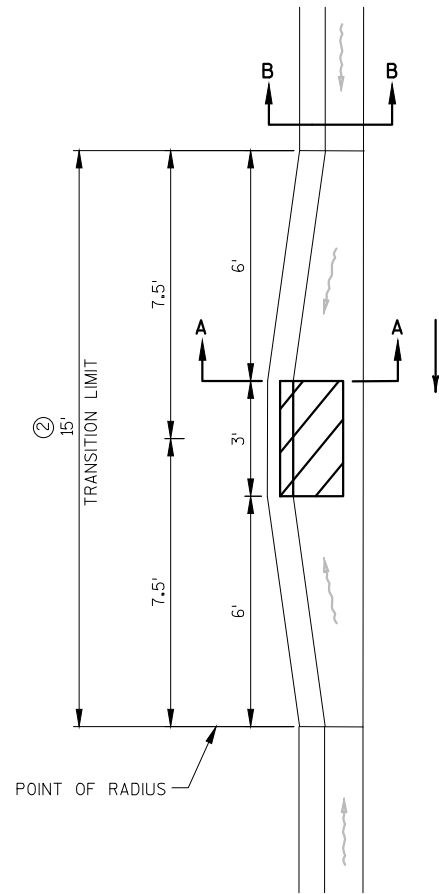
HYDRANTS		
STATION TO STATION	LOCATION	SPV.0060.18 HYDRANT ASSEMBLY EACH
POPLAR AVENUE		
454+35.19	18.19 LT	1
458+79.69	23.00 LT	1
462+64.02	23.04 LT	1
MOVED TO 462+46		
12TH STREET		
14+26.67	31.87 RT	1
MOVED TO 14+18		
PROJECT ITEM TOTALS		4

RECORD DRAWINGS
UPDATED 01/2017

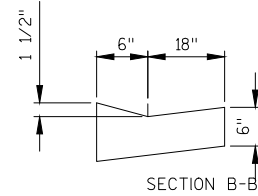


**RECORD DRAWINGS
UPDATED 01/2017
NO SHEET CHANGES**





① FURNISH AND INSTALL TYPE H CASTING WITH MOUNTABLE CURB BOX

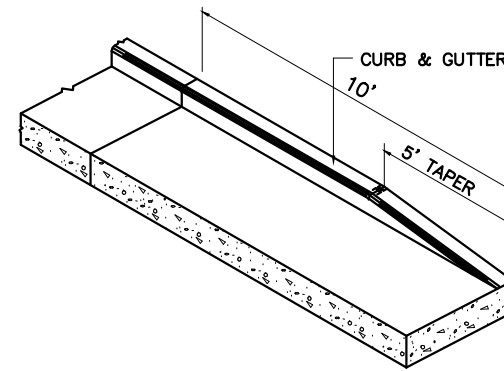


NOTES:

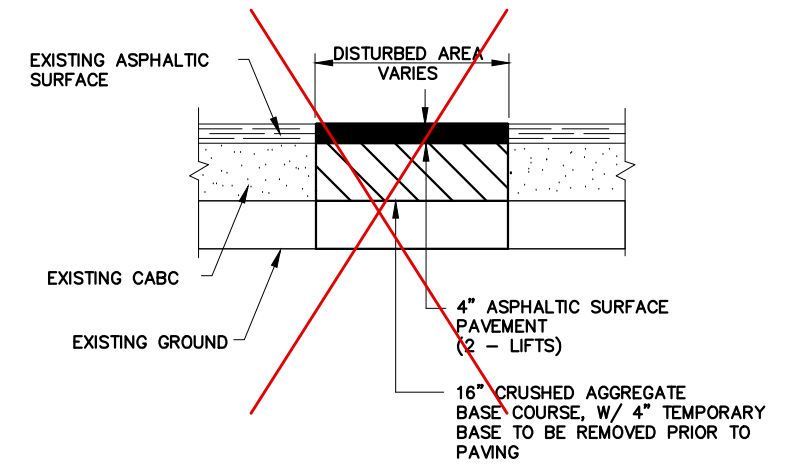
② PAYMENT FOR TRANSITIONS AND AREA AT INLETS SHALL BE PAID AS THE ITEM OF CONCRETE CURB AND GUTTER 24-INCH TYPE D.

24" CURB & GUTTER AT INLETS

POINT OF RADIUS



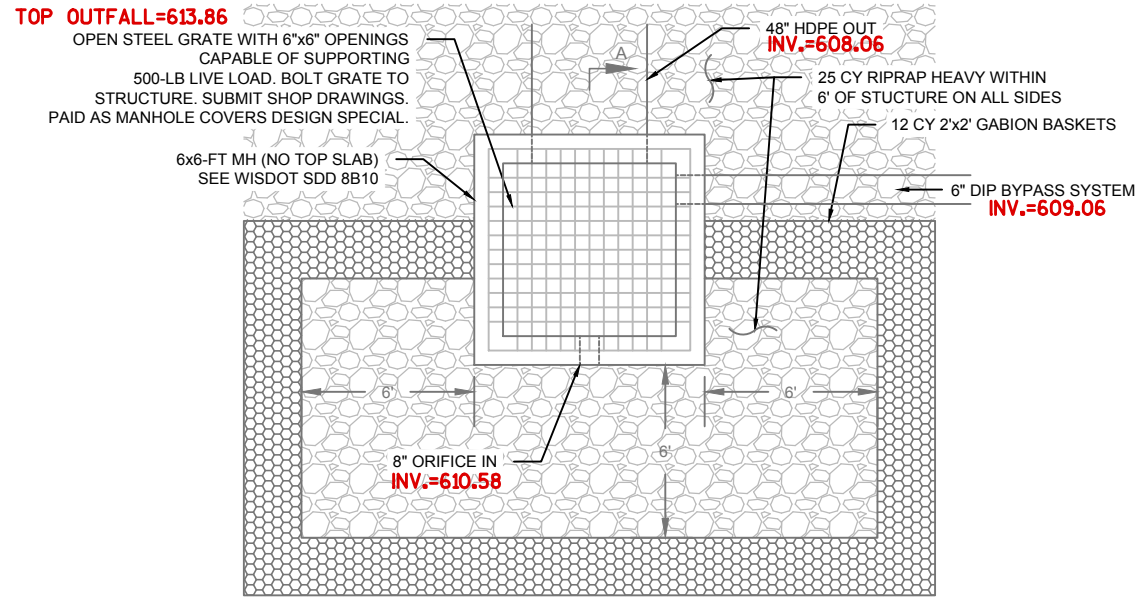
CURB TAPER



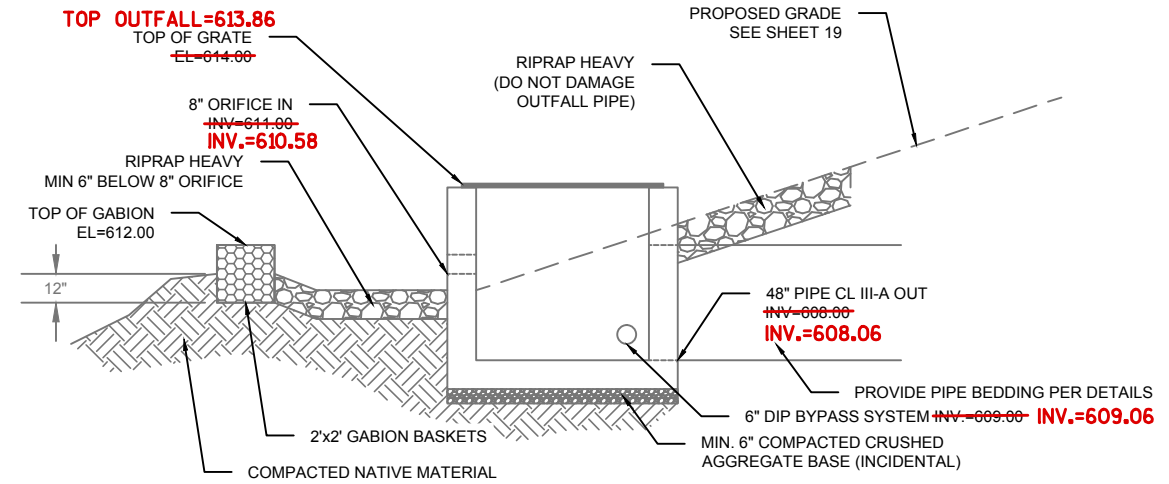
ASPHALTIC PAVEMENT RESTORATION

CONSTRUCTED PER TYPICAL SECTION DETAIL ON SHEET 14 FOR DISTURBED AREA ON POPLAR AVE. SOUTH OF UTILITY CONNECTIONS TOWARD BELKNAP STREET.

**RECORD DRAWINGS
UPDATED 01/2017
NO SHEET CHANGES**



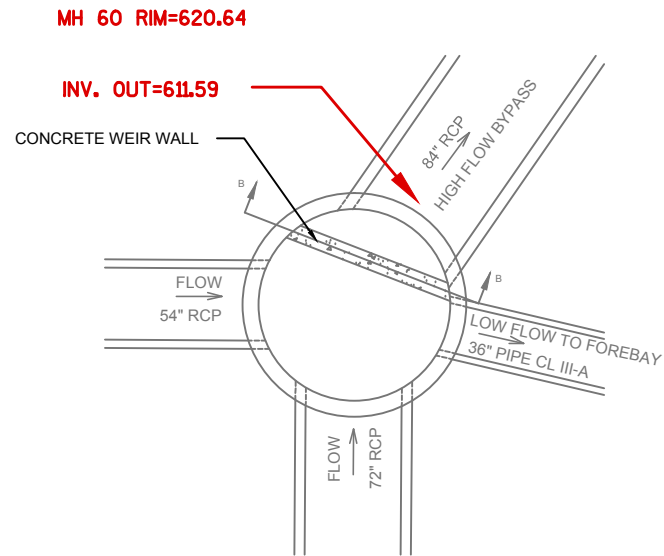
PLAN VIEW



SECTION A-A

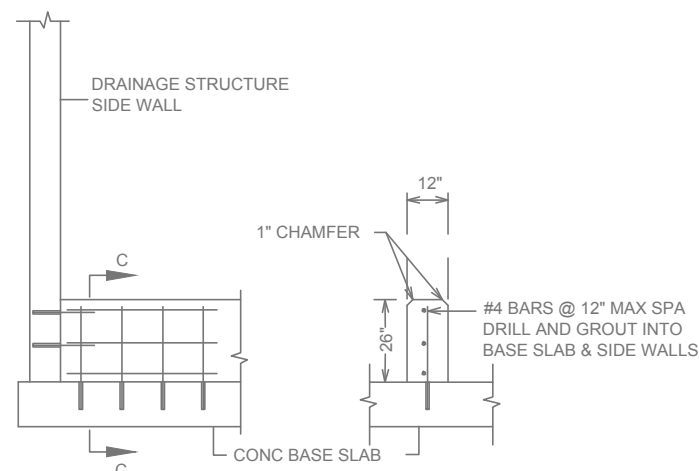
STORM WATER BASIN OUTFALL STRUCTURE

RECORD DRAWINGS
UPDATED 01/2017



PLAN VIEW

COULD NOT VERIFY OTHER PIPE INVERTS DUE TO ACCESS IN STRUCTURE/OFFSET COVER



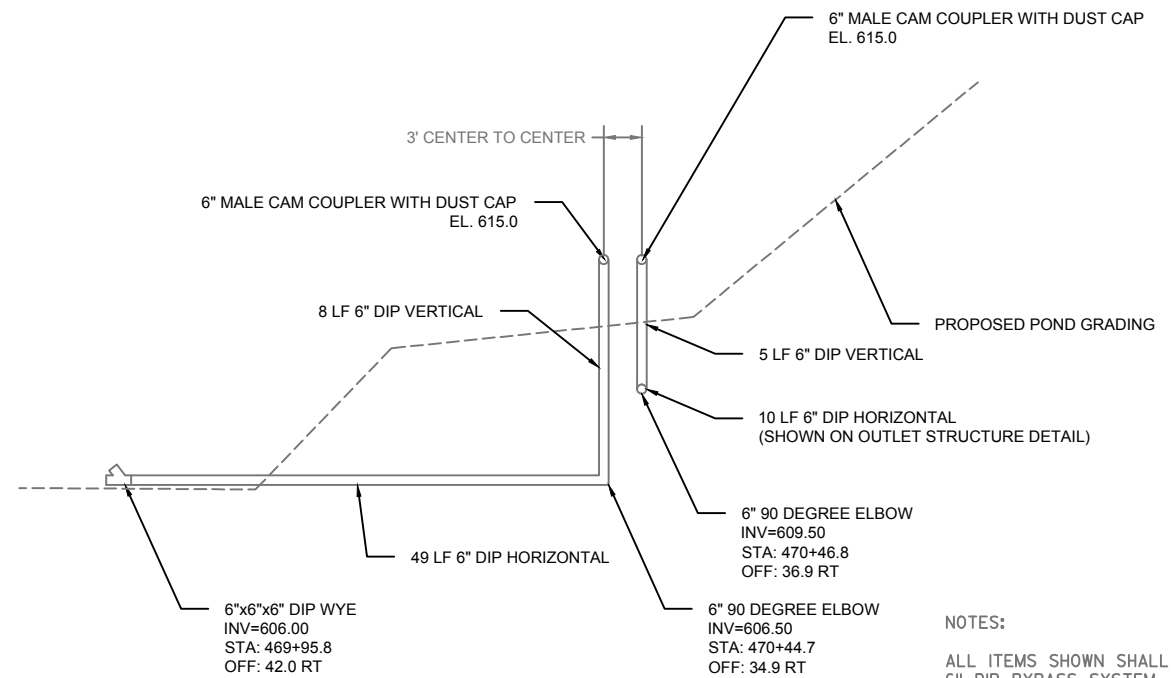
SECTION B-B

SECTION B-B

CONCRETE WEIR WALL

NOTE: ALL ITEMS SHOWN IN THIS DETAIL ARE INCIDENTAL TO STRUCTURE 60

MANHOLE 60 WEIR WALL



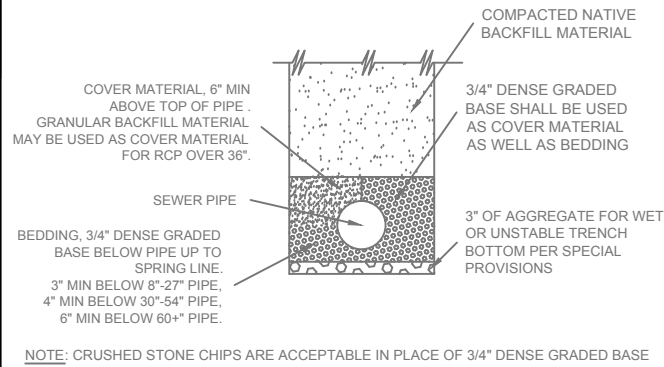
6" DIP BYPASS SYSTEM

NOTES:

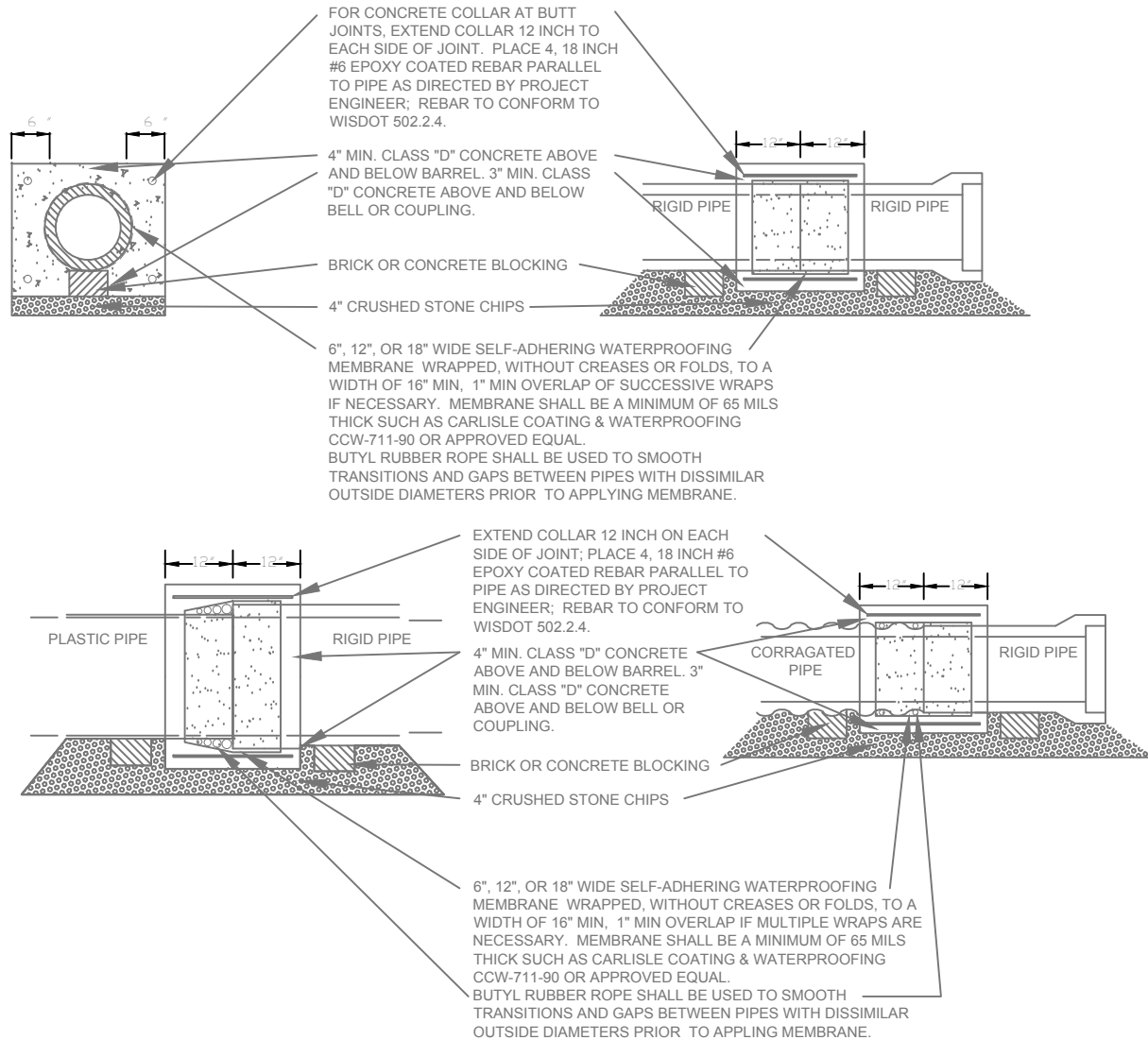
ALL ITEMS SHOWN SHALL BE PAID AS LUMP SUM ITEM
 6" DIP BYPASS SYSTEM.

ALL ITEMS TO BE COORDINATED WITH OWNER FOR
 SPECIFIC BYPASS PUMPING EQUIPMENT COMPATIBILITY.

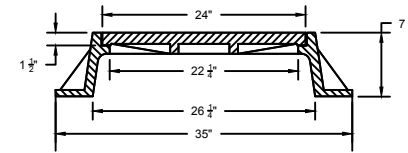
TYPICAL TRENCH BOTTOM DETAIL



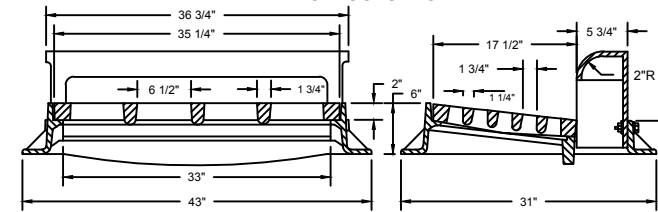
CONCRETE COLLAR DETAIL



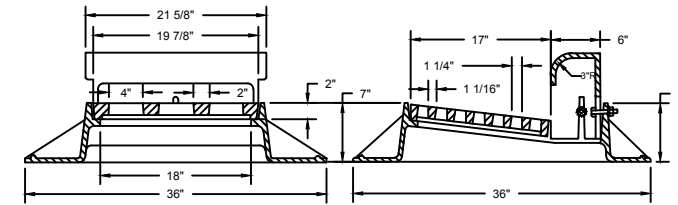
MANHOLE CASTING DIMENSIONS



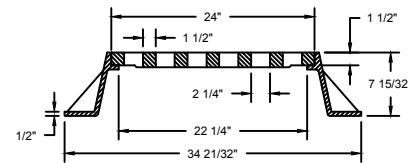
TYPICAL CURB INLET CASTING DIMENSIONS FOR RECTANGULAR STRUCTURES



TYPICAL CURB INLET CASTING DIMENSIONS FOR CIRCULAR STRUCTURES



CASTING DIMENSIONS FOR GRATED MANHOLE COVERS AND CIRCULAR INLETS IN NON-CURB INSTALLATIONS



ALL MANHOLE CASTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-48, CLASS NO. 30-B AND SHALL BE FREE FROM CRACKS, HOLES, SWELLS, AND COLD SHUTS.

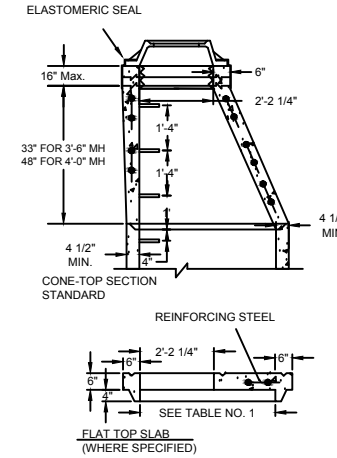
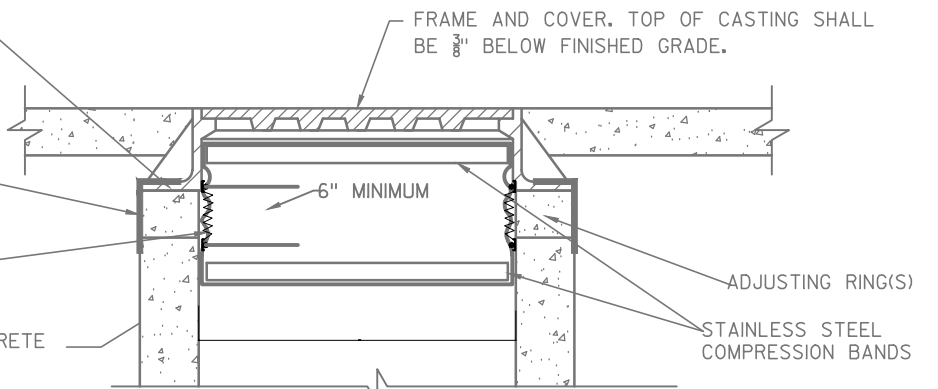
COVERS SHALL BE "SELF-SEALING", "T-SEAL" OR "GASKET SEALED" COVERS WITH "SANITARY" OR "STORM" LABELS AS APPLICABLE, OR OTHER LABELS APPROVED AS EQUAL.

PROVIDE BUTYL RUBBER CAULK BETWEEN CASTING AND ADJUSTING RINGS TO PROVIDE WATERTIGHT SEAL, FULLY COMPRESS PRIOR TO SURFACING OPERATIONS.

EXTERNAL CHIMNEY SEAL SHALL CONSIST OF ELASTOMERIC WATERPROOFING SEALER APPLIED MIN. 100-MIL THICK, EXTENDING FROM 4" BELOW CHIMNEY TO 2" ABOVE FRAME FLANGE

RUBBER SLEEVE OF INTERNAL CHIMNEY SEAL

PRECAST CONCRETE RISER SECTION



TYPE I FRAME/CHIMNEY JOINT REQUIRED ON ALL SANITARY MANHOLES UNLESS OTHERWISE SPECIFIED. ELASTOMERIC WATERPROOFING SEALER APPLIED TO EXTERIOR AND INTERIOR CHIMNEY SEAL.

FLAT TOP SLAB MAY ONLY BE USED FOR 5'-0" AND 6'-0" DIA. MANHOLES AND WITH PERMISSION OF THE ENVIRONMENTAL SERVICES DIVISION OF PUBLIC WORKS OR WHERE SHOWN ON THE PLANS.

ADJUST FRAME TO GRADE WITH BRICK OR CONCRETE RINGS OF VARIABLE THICKNESS. MAXIMUM RING HEIGHT = 6". MINIMUM RING HEIGHT = 2". CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY, RINGS SHALL BE GROOVED TO RECEIVE STEP. THE CHIMNEY SHALL BE CONSTRUCTED SO THAT AS FEW ADJUSTING RINGS AS POSSIBLE SHALL BE USED TO BRING MANHOLE TO GRADE.

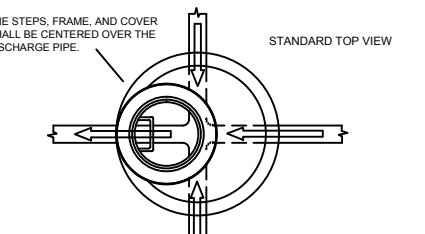
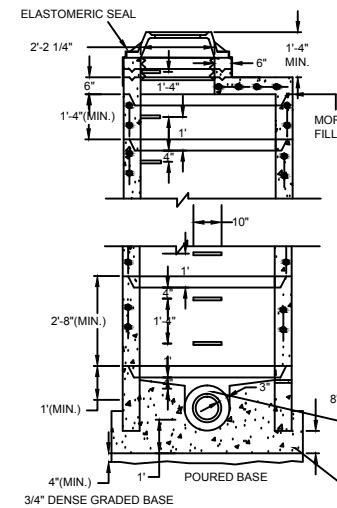
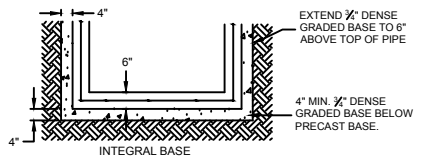
CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO DESIGNATION C-478 REQUIREMENTS OF ASTM SPECIFICATIONS.

JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING BUTYL RUBBER GASKETS. ALL JOINTS SHALL CONFORM TO ASTM-C443 VARIATIONS IN DIAMETER. DEFECTIVE OR DAMAGED ENDS, OR OTHER CONDITIONS WHICH, IN THE OPINION OF THE PROJECT ENGINEER, PREVENT MAKING A SATISFACTORY JOINT SHALL BE CONSIDERED CAUSE FOR REJECTION.

AREA OF CIRCUMFERENTIAL STEEL = 0.12 SQ INCH PER LINEAL FOOT.

4" MIN. 3/4" DENSE GRADED BASE UNDER CONCRETE BASE.

PRECAST BASE RISER SECTION WITH A SEPARATE PRECAST BASE SLAB SHALL NOT BE CONSIDERED GENERALLY ACCEPTABLE UNDER THIS SPECIFICATION.



THE FLOW CHANNEL THROUGH MANHOLES SHALL BE MADE TO CONFORM TO THE SHAPE AND SLOPE OF THE SEWERS AND SHALL EXTEND VERTICALLY FROM THE SPRINGLINE TO THE CROWN OF THE DISCHARGE PIPE. THE THROUGH MANHOLE FLOW CHANNEL SHALL BE THE SAME DIAMETER AS THE LARGER OF THE ADJOINING SEWERS.

BENCH SLOPE: [STORM MANHOLE 1 INCH PER FOOT] [SANITARY MANHOLE 2 INCH PER FOOT]

SPACE BETWEEN PIPE AND PRECAST MANHOLE WALL TO BE FILLED WITH BRICK MORTARED IN PLACE EXCEPT THAT AN APPROVED FLEXIBLE WATERTIGHT PIPE TO MANHOLE SEAL IS REQUIRED FOR ALL SANITARY SEWER CONNECTIONS. THE ANNULAR SPACE BETWEEN THE PIPE AND MANHOLE WALL SHALL BE FILLED WITH FLEXIBLE BUTYL RUBBER GASKET MATERIAL.

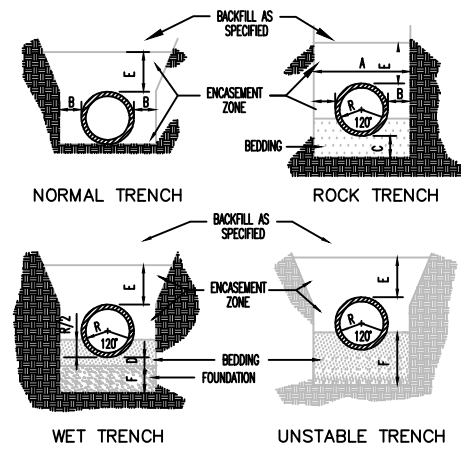
CLASS "D" CONCRETE, 12" MIN. BELOW BOTTOM OF PIPE

TABLE NO. 1

PIPE DIA.	MANHOLE DIA.	WALL THICKNESS
8" THRU 30"	4'-0"	5"
36"	5'-0"	6"
42"	6'-0"	7"

PRECAST MANHOLE

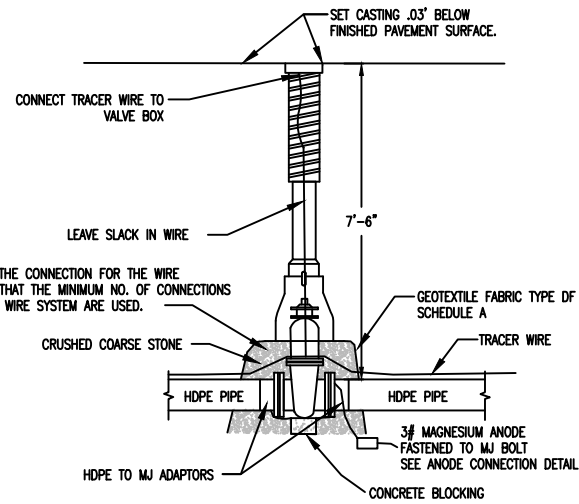
RECORD DRAWINGS
UPDATED 01/2017
NO SHEET CHANGES



1. DIMENSIONS:
 - A. MAXIMUM PAY WIDTH - O.D. PIPE +24"
 - B. MINIMUM - 6"
 - C. 6" BELOW BARREL
 - D. 3" BELOW BARREL
 - E. MINIMUM 12"
 - F. DETERMINED BY THE ENGINEER
2. ENCASUREMENT ZONE SHALL BE EXCAVATED MATERIALS THAT ARE CLASSIFIED SUITABLE, OR GRANULAR BACKFILL MATERIAL.
3. FOUNDATION MATERIAL - 3" CRUSHED STONE FOR WET OR UNSTABLE TRENCH BOTTOM.
4. BEDDING MATERIAL - CRUSHED STONE CHIPS

TRENCH SECTION FOR WATER MAIN

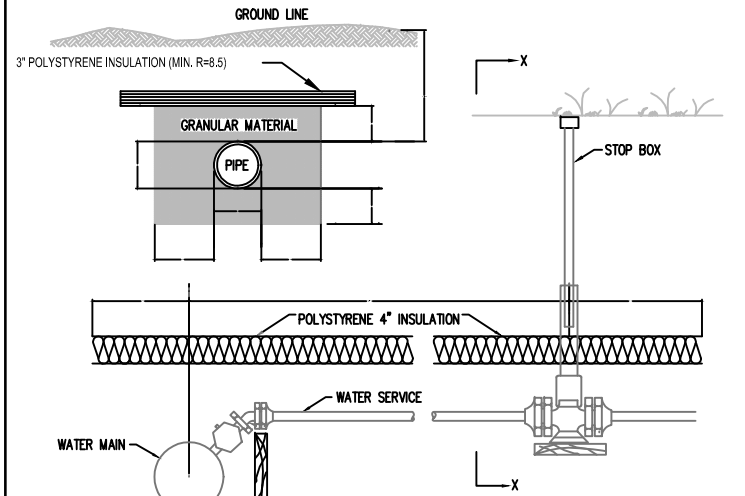
NTS



- NOTE: THE CONNECTION FOR THE WIRE IS SO THAT THE MINIMUM NO. OF CONNECTIONS IN THE WIRE SYSTEM ARE USED.
- NOTES:
1. VALVES SHALL BE CONNECTED DIRECTLY TO HDPE WITH HDPE TO MECHANICAL JOINT ADAPTORS.
 2. USE EPOXY COATING ON EXTERIOR OF VALVES.
 3. ALL BOLTS AND NUTS SHALL BE STAINLESS STEEL WITH 6 OUNCE ZINC ANODE CAPS CONFORMING TO ASTM B-418 FOR ALL MECHANICAL FITTINGS.
 4. FOR OPEN CUT PIPE INSTALLATIONS, ELECTROFUSION COUPLINGS ARE NOT ALLOWED FOR CONNECTION OF HDPE TO MJ ADAPTORS. FOR DIRECTIONAL DRILLED INSTALLATIONS, ONE ELECTROFUSION COUPLING MAY BE USED PER VALVE.

WATER MAIN VALVE DETAIL

NTS



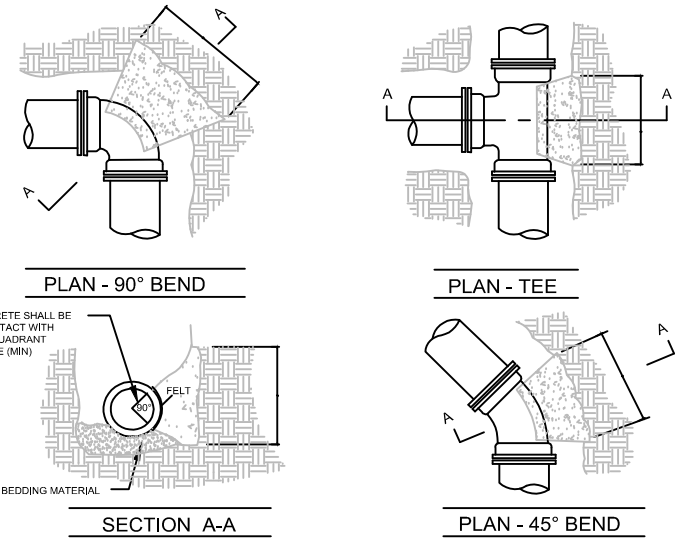
DEPTH (D)	WIDTH (W)
7.5' OR MORE	NONE
5.2' TO 7.4'	4 FEET
4.3' TO 5.1'	6 FEET
3.0' TO 4.2'	8 FEET

NOTES:

1. LAYERING OF 1", 1 1/2", 2" TO ARRIVE AT 3" IS PERMITTED. OFFSET JOINTS.
2. POLYSTYRENE SHALL BE HI DENSITY DOW HI 40 OR CERTIFOAM 40

WATER MAIN & SERVICE INSULATION DETAIL

NTS

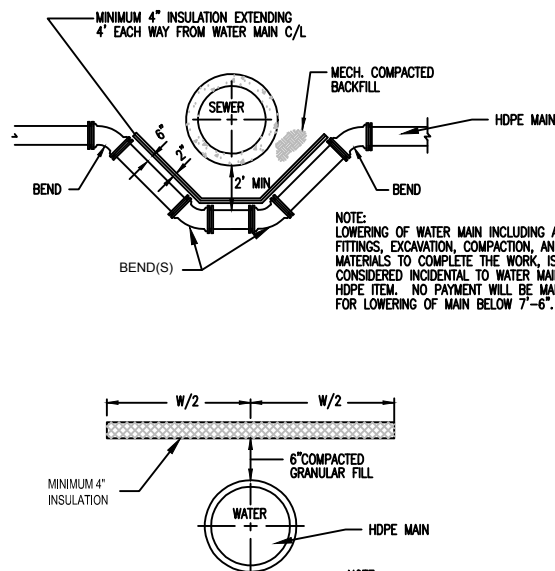


BEND OR BRANCH SIZE	BLOCKING DIMENSIONS							
	22 1/2° BENDS		45° BENDS		90° BENDS		TEES	
	B	D	B	D	B	D	B	D
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"	1'-3"	1'-0"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"	1'-6"	1'-4"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"	2'-3"	2'-0"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"	3'-2"	2'-4"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"	4'-0"	3'-0"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"	5'-3"	3'-4"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"	6'-3"	4'-3"

- NOTES:
1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND AN EARTH RESISTANCE OF 2 TONS PER SQ. FOOT
 2. BLOCKING TO BE SET AGAINST UNDISTURBED SOIL.
 3. CONCRETE SHALL BE CLASS "1F". CONCRETE SHALL NOT INTERFERE WITH MECHANICAL JOINTS.

THRUST BLOCKING FOR WATER MAIN

NTS

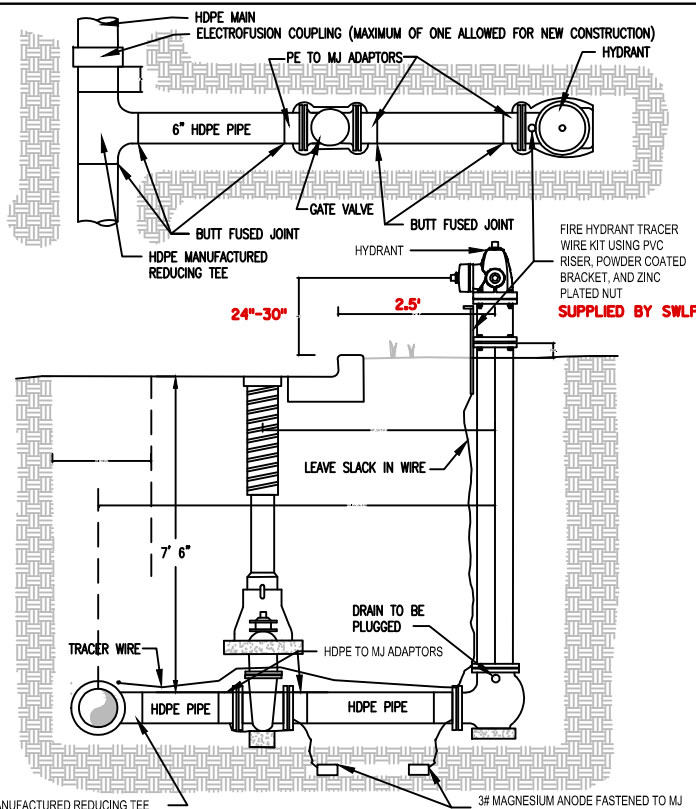


NOTE: LOWERING OF WATER MAIN INCLUDING ALL FITTINGS, EXCAVATION, COMPACTION, AND MATERIALS TO COMPLETE THE WORK, IS CONSIDERED INCIDENTAL TO WATER MAIN HDPE ITEM. NO PAYMENT WILL BE MADE FOR LOWERING OF MAIN BELOW 7'-6".

NOTE: ALL JOINTS SHALL BE MECHANICAL TYPE WITH RETAINER GLANDS

LOWER WATER MAIN W/INSULATION

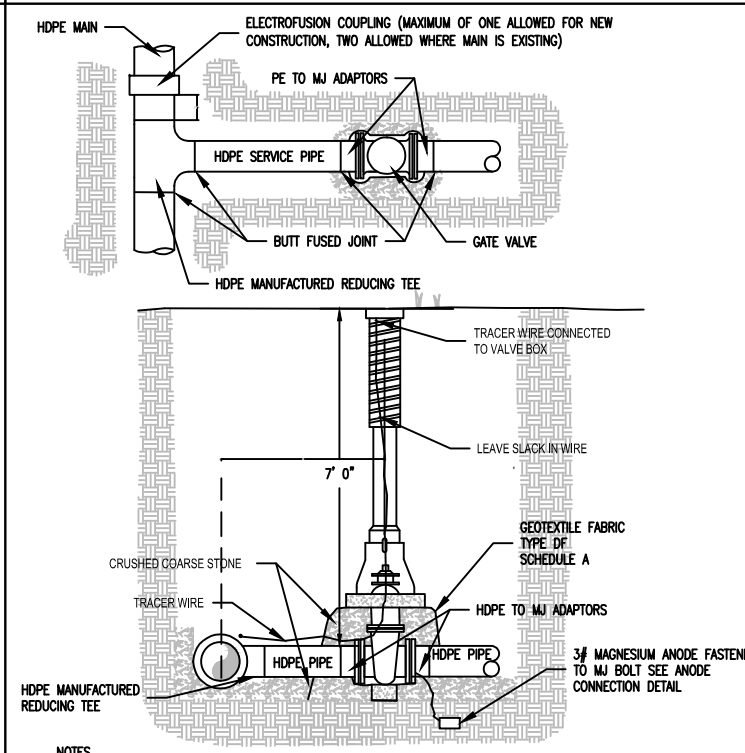
NTS



- NOTES:
1. VALVES SHALL BE CONNECTED DIRECTLY TO MECHANICAL JOINT ADAPTORS.
 2. USE EPOXY COATING ON VALVE AND HYDRANT BASE
 3. ALL BOLTS AND NUTS SHALL BE STAINLESS STEEL WITH 6 OUNCE ZINC ANODE CAPS CONFORMING TO ASTM B-418 FOR ALL MECHANICAL FITTINGS.

FIRE HYDRANT SETTING DETAIL

NTS



NOTES:

1. VALVES SHALL BE CONNECTED DIRECTLY TO MECHANICAL JOINT ADAPTORS.
2. USE EPOXY COATING ON EXTERIOR OF ALL VALVES.
3. ALL BOLTS AND NUTS SHALL BE STAINLESS STEEL WITH 6 OUNCE ZINC ANODE CAPS CONFORMING TO ASTM B-418 FOR ALL MECHANICAL FITTINGS.
4. FOR OPEN CUT PIPE INSTALLATIONS, ELECTROFUSION COUPLINGS ARE NOT ALLOWED FOR CONNECTION OF HDPE TO MJ ADAPTORS. FOR DIRECTIONAL DRILLED INSTALLATIONS, ONE ELECTROFUSION COUPLING MAY BE USED PER VALVE.

COMMERCIAL/INDUSTRIAL WATER SERVICE CONNECTION

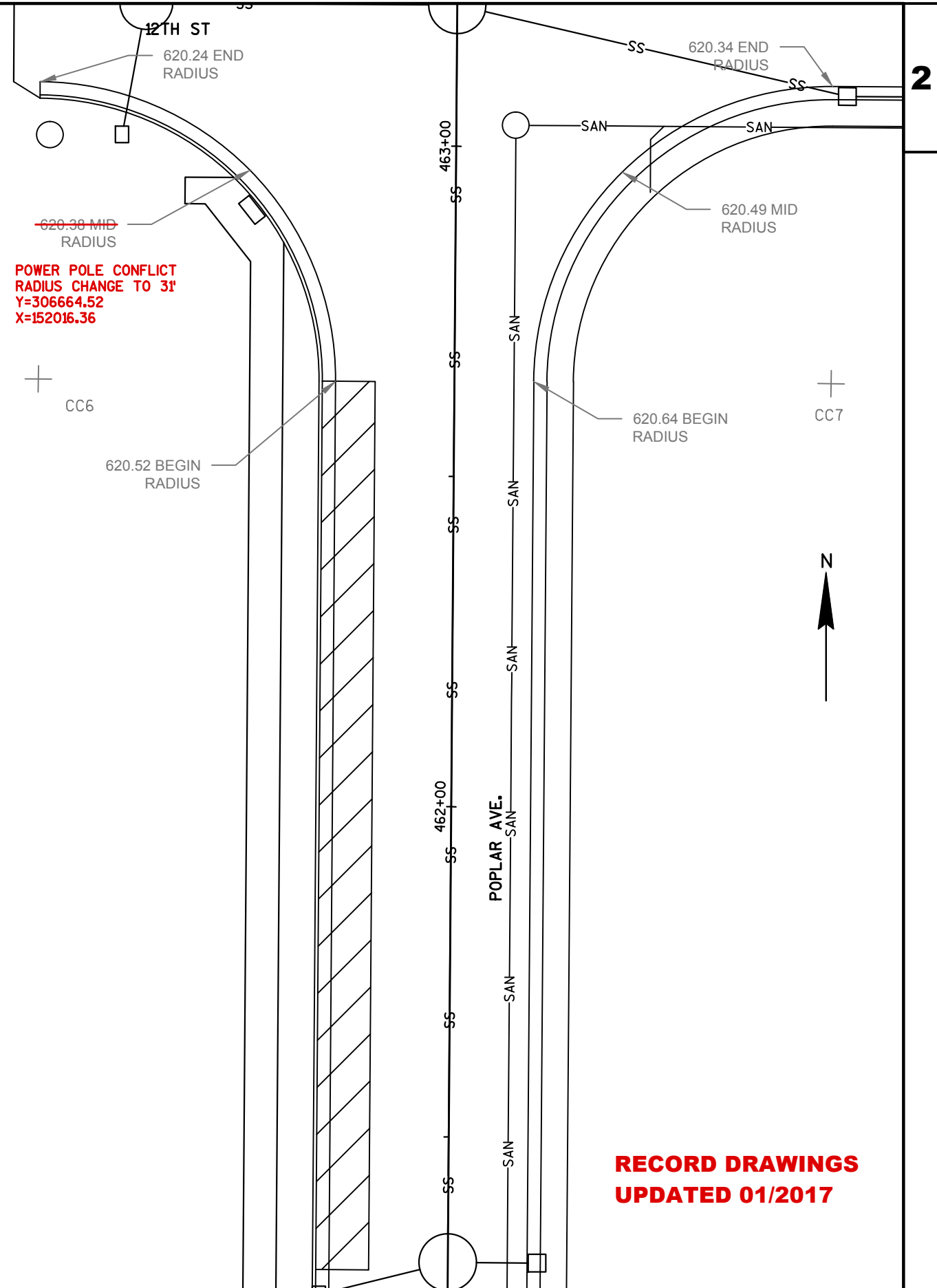
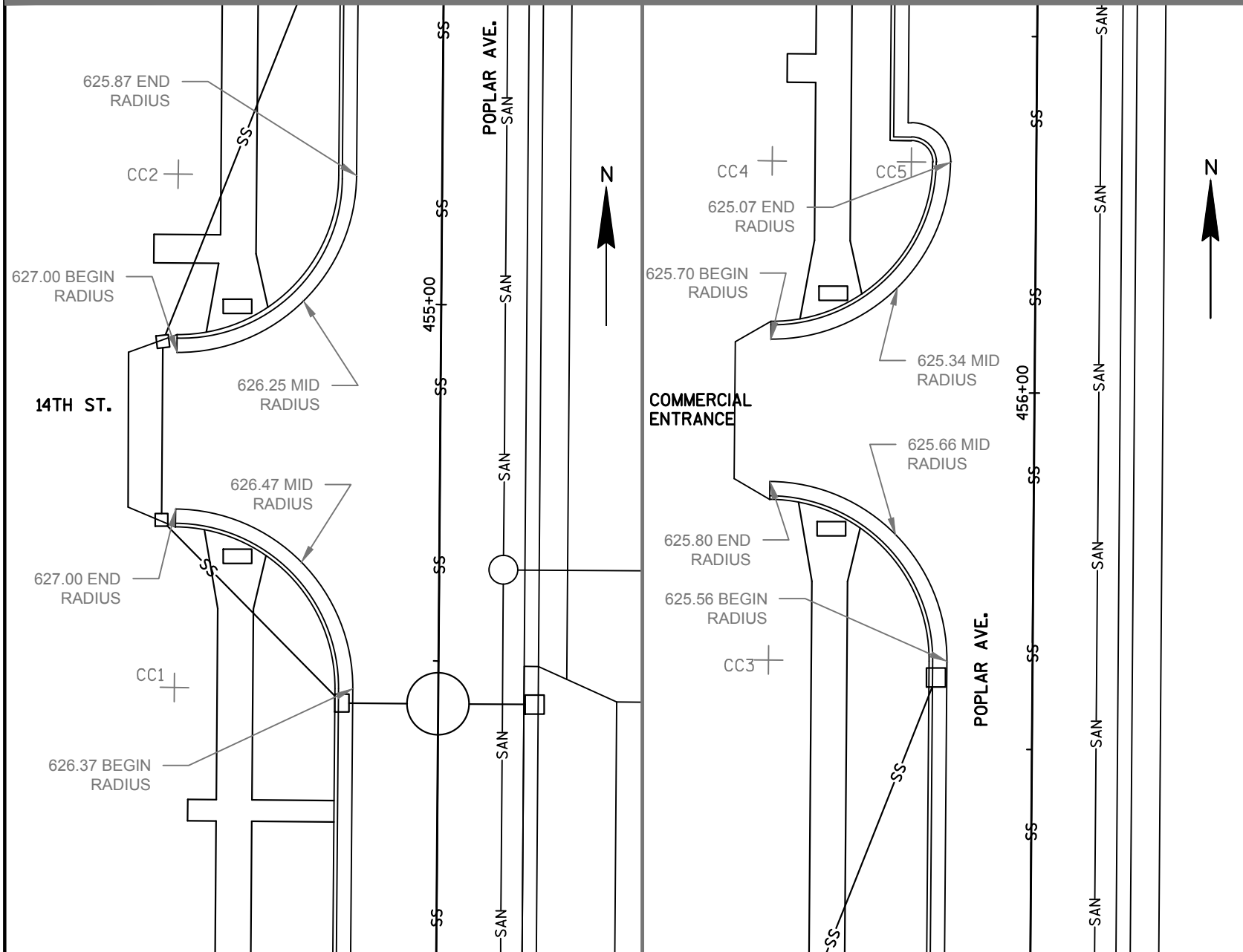
NTS

RECORD DRAWINGS
UPDATED 01/2017

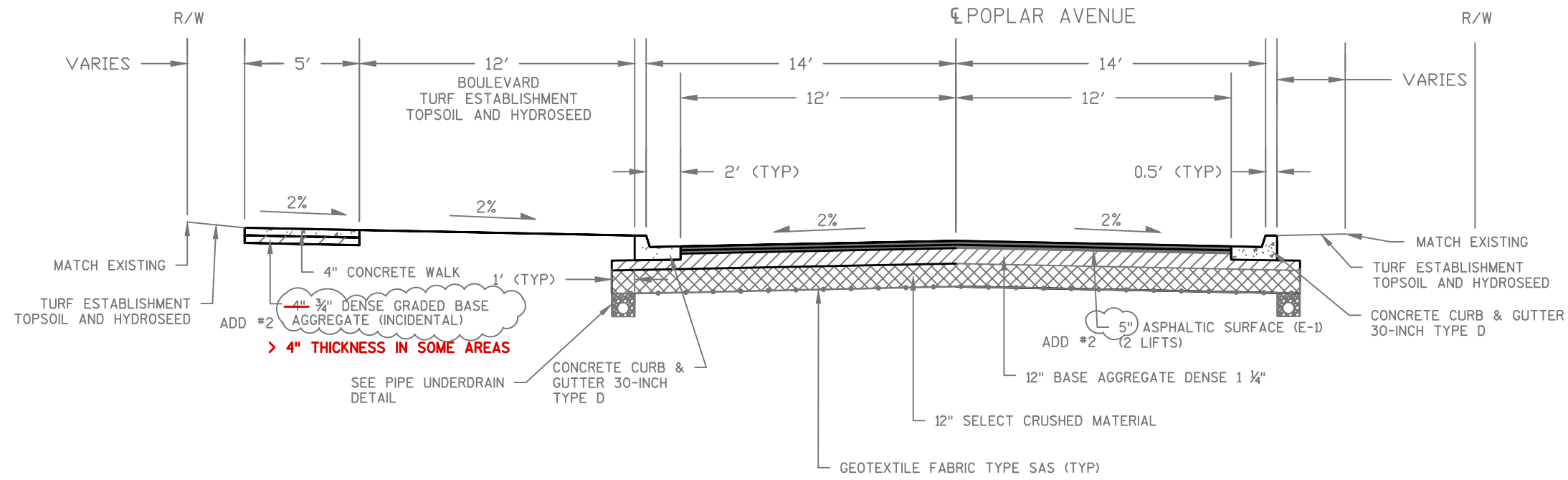
2

POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
CC1	454+46.02	-37.00	305836.14	152026.09	25'
CC2	455+18.02	-37.00	305908.14	152026.64	25'
CC3	455+62.28	-37.00	305952.40	152026.97	25'
CC4	456+32.28	-37.00	306022.40	152027.50	25'
CC5	456+32.28	-17.50	306022.25	152047.00	5.5'
CC6	462+64.47 462+64.29	-57.00 -53.00	306653.59 306664.52	152016.36 152016.36	45' 31'
CC7	462+64.47	57.00	306653.86	152126.28	45'

NOTE: ALL ELEVATIONS & RADIUS LENGTHS SHOWN ARE TO FLAG OF CURB AND GUTTER OR EDGE OF ASPHALT PAVEMENT

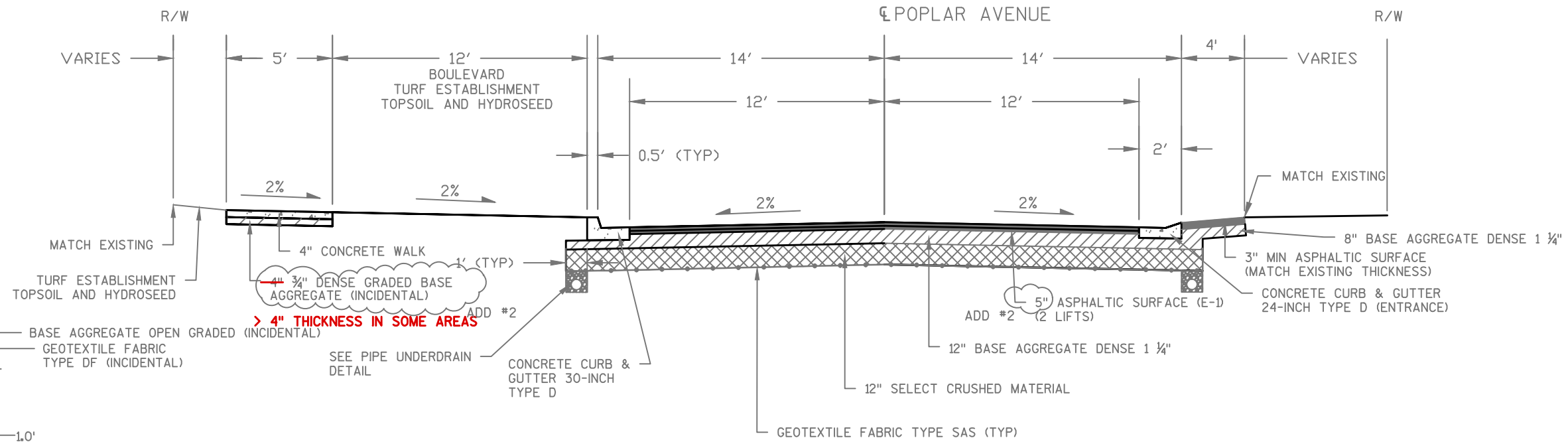


**RECORD DRAWINGS
UPDATED 01/2017**



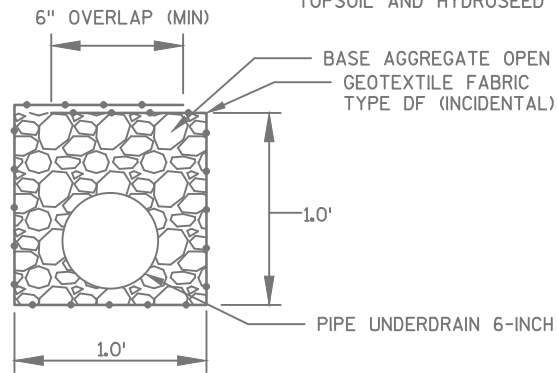
TYPICAL FINISHED SECTION

POPLAR AVENUE
STA 452+11.97 - 453+77.70



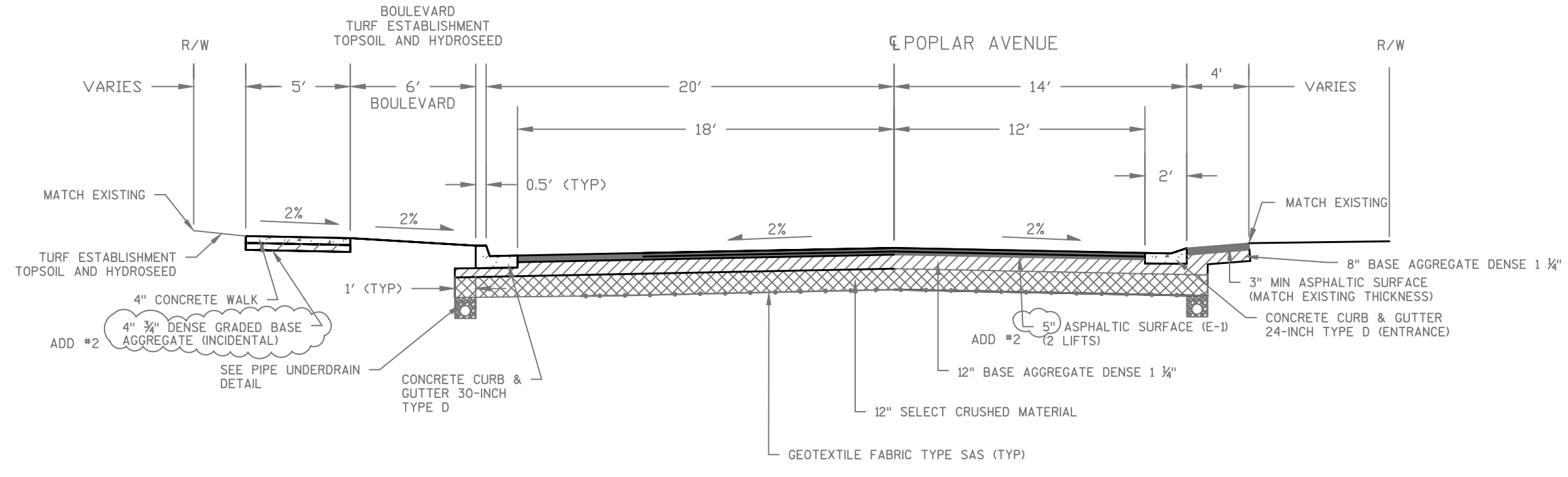
TYPICAL FINISHED SECTION

POPLAR AVENUE
STA 453+77.70 - 456+37.78



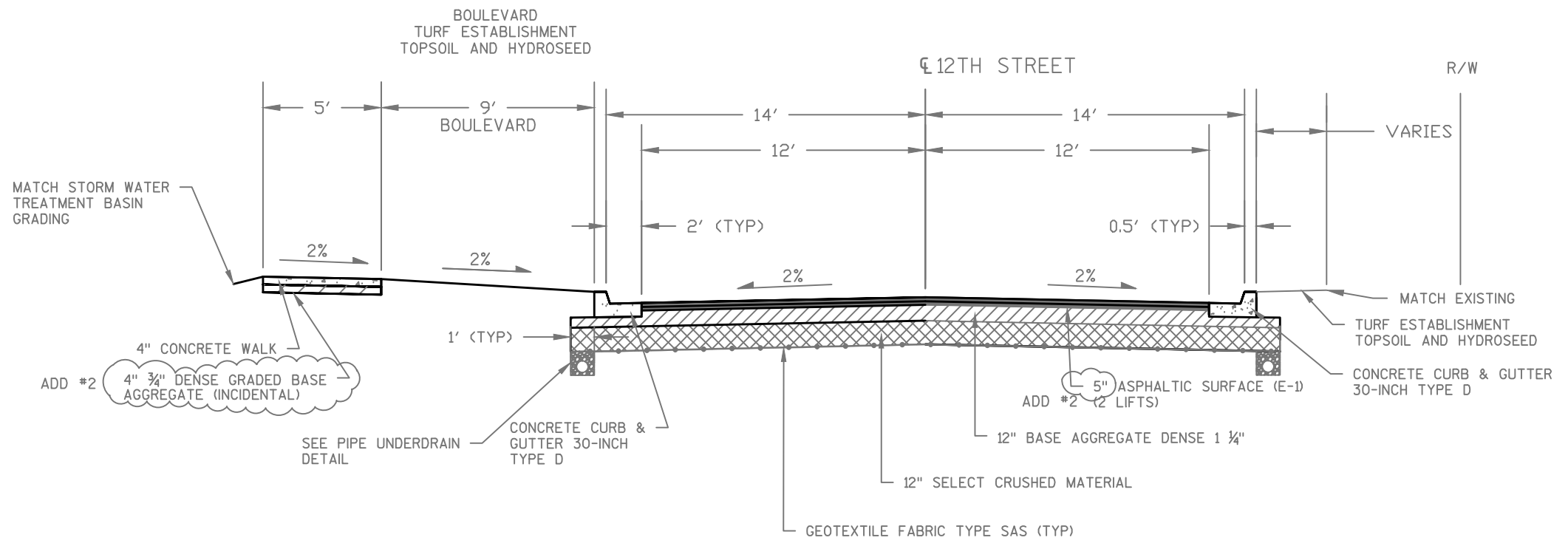
PIPE UNDERDRAIN DETAIL

**RECORD DRAWINGS
UPDATED 01/2017**



TYPICAL FINISHED SECTION

POPLAR AVENUE
STA 456+37.78 - 463+32.67



TYPICAL FINISHED SECTION

12TH STREET
STA 10+25 - 15+25

**RECORD DRAWINGS
UPDATED 01/2017
NO SHEET CHANGES**

SUMMARY/OVERVIEW:

THIS SITE-SPECIFIC EROSION CONTROL PLAN HAS BEEN DEVELOPED TO ADDRESS THE REQUIREMENTS OF THE GENERAL PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM (WPDES) PERMIT NO. WI-S067831-4.

PROJECT INFORMATION:

LOCATION:	POPLAR AVENUE/12TH STREET CITY OF SUPERIOR, WI
LONGITUDE/LATITUDE:	-92.083346 LONGITUDE, 46.724510 LATITUDE
PROJECT DESCRIPTION:	STREET RECONSTRUCTION, STORM WATER TREATMENT BASIN
LAND DISTURBING ACTIVITIES:	GRADING AND EXCAVATIONS, UNDERGROUND INSTALLATIONS

CONTACTS:

OWNER:	CITY OF SUPERIOR
CONTACT:	ERIN ABRAMSON
ADDRESS:	51 EAST FIRST STREET SUPERIOR, WI 54880
PHONE:	715.394.0392
EMAIL:	ABRAMSON@CI.SUPERIOR.WI.US

ENGINEER:	SHORT ELLIOTT HENDRICKSON INC. (SEH)
CONTACT:	DAN HINZMANN
PHONE:	218.279.3034
EMAIL:	DHINZMANN@SEHINC.COM
PROJECT NO.:	SUPER 122816

PROJECT SUMMARY:

TOTAL PROJECT AREA:	7.45 AC
TOTAL DISTURBED AREA:	5.79 AC

GENERAL RESPONSIBILITIES:

CONTRACTOR SHALL POST WDNR AND CITY OF SUPERIOR CERTIFICATES OF PERMIT COVERAGE ON SITE AND MAINTAIN UNTIL CONSTRUCTION ACTIVITIES HAVE CEASED, THE SITE IS STABILIZED AND A NOTICE OF TERMINATION IS FILED WITH WDNR.

THE CONTRACTOR SHALL KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.

THE CONTRACTOR SHALL SUBMIT PLAN REVISION OR AMENDMENTS TO THE WDNR AT LEAST 5 DAYS PRIOR TO FIELD IMPLEMENTATION.

IMPLEMENTATION:

EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED OR INSTALLED IN ACCORDANCE WITH THE PLAN DEVELOPED BEFORE LAND DISTURBING CONSTRUCTION ACTIVITIES BEGIN AND UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION.

FINAL STABILIZATION ACTIVITY SHALL COMMENCE WHEN LAND DISTURBING ACTIVITIES CEASE AND FINAL GRADE HAS BEEN REACHED ON ANY PORTION OF THE SITE.

BMPS THAT ARE NO LONGER NECESSARY FOR EROSION AND SEDIMENT CONTROL SHALL BE REMOVED BY THE RESPONSIBLE PARTY.

IMPLEMENTATION SEQUENCE:

CONTRACTOR SHALL STAGE CONSTRUCTION GRADING ACTIVITIES PER WDNR TECHNICAL STANDARD TEMPORARY GRADING PRACTICES FOR EROSION CONTROL *1067 TO MINIMIZE THE CUMULATIVE EXPOSED AREA.

1.	INSTALL ROCK CONSTRUCTION ENTRANCE(S)
2.	INSTALL PERIMETER CONTROL AND STABILIZE DOWN GRADIENT BOUNDARIES
3.	COMPLETE SITE GRADING
4.	INSTALL UTILITIES, STORM SEWER, INLET PROTECTION, CURB & GUTTER, PAVING
5.	COMPLETE FINAL GRADING AND STABILIZE DISTURBED SOILS
6.	REMOVE ANY ACCUMULATED SEDIMENT AND TEMPORARY BMPS

**RECORD DRAWINGS
UPDATED 01/2017
NO SHEET CHANGES**

COMPLIANCE WITH OTHER APPLICABLE REGULATIONS:

(DOCUMENTATION OF OTHER APPLICABLE MUNICIPAL REGULATORY PROVISIONS, COMPLIANCE WITH WHICH WILL ALSO MEET THE REQUIREMENTS OF THIS PERMIT.)

TYPE OF PERMIT/REVIEW	REQUIRED ACTIONS/HOW COMPLIANCE WILL BE ACHIEVED:
WETLAND INDIVIDUAL PERMIT	SUBMITTED TO WDNR
INDIVIDUAL WATERWAY PERMIT	SUBMITTED TO WDNR
WETLAND LETTER OF PERMISSION	SUBMITTED TO USACE

SITE SOIL INFORMATION:

(SITE SOIL INFORMATION PROVIDED IS FOR WPDES PERMIT INFORMATION ONLY. SOIL INFORMATION WAS OBTAINED FROM THE USGS WEB SOIL SURVEY. THE CONTRACTOR SHALL NOT RELY ON THIS SOIL INFORMATION FOR CONSTRUCTION PURPOSES.)

SOIL NAME:	HYDROLOGIC CLASSIFICATION:
AMNICON-CUTTRE COMPLEX 97.5%	D
MISKOAKI CLAY LOAM 2.5%	D

RECEIVING WATERS:

ID	NAME	TYPE	IMPAIRMENTS	TMDL
N/A	DRAINAGE SWALE	OPEN CHANNEL	N/A	NO
2751220	SUPERIOR	LAKE	ASNRI ENDANGERED THREATENED OR SPECIAL CONCERN AREA, CONTAMINATED FISH TISSUE	YES/NO

POLLUTANTS OF CONCERN ARE NOT RELATED CONSTRUCTION ACTIVITIES.

TEMPORARY SEDIMENT CONTROLS AND THE PROPOSED STORMWATER BASIN SHALL BE UTILIZED TO REDUCE THE SEDIMENT AND POLLUTANTS TO THE RECEIVING WATERS.

DOES THE PROJECT DISCHARGE TO AN ORW OR ERW?	NO
--	----

DOES THE PROJECT DISCHARGE TO A FISH AND AQUATIC LIFE WATER?	YES
--	-----

THE PERMITTEE SHALL NOT ESTABLISH ANY NEW STORMWATER DISCHARGE OF POLLUTANTS TO A FISH AND AQUATIC LIFE WATER UNLESS EROSION CONTROL AND STORMWATER MANAGEMENT PLANS ARE DESIGNED TO PREVENT THE SIGNIFICANT LOWERING OF WATER QUALITY TO ANY FISH AND AQUATIC LIFE WATER. THE CONSTRUCTION OF THE STORMWATER BASIN SHALL SATISFY THIS REQUIREMENT.

INSPECTIONS AND MAINTENANCE:

ALL INSPECTIONS, MAINTENANCE, REPAIRS, REPLACEMENTS, AND REMOVAL OF EROSION AND SEDIMENT CONTROLS ARE TO BE CONSIDERED INCIDENTAL TO THE BMP BID ITEMS.

EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED WEEKLY BY THE CONTRACTOR AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. INSPECTION REPORTS SHALL BE KEPT ON SITE AND SHALL BE AVAILABLE UPON REQUEST.

REPAIR OR REPLACEMENT OF EROSION AND SEDIMENT CONTROLS AS NECESSARY WILL OCCUR WITHIN 24 HOURS OF AN INSPECTION OR NOTIFICATION INDICATING THAT REPAIR OR REPLACEMENT IS NEEDED.

INSPECTIONS SHALL BE DOCUMENTED AND DOCUMENTATION SHALL INCLUDE:

- THE DATE, TIME AND EXACT LOCATION OF THE INSPECTION
- THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION
- AN ASSESSMENT OF THE CONDITION OF EROSION AND SEDIMENT CONTROLS
- A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL INSTALLATION OR MAINTENANCE PERFORMED IN RESPONSE TO THE INSPECTION
- A DESCRIPTION OF THE PRESENT PHASE OF THE CONSTRUCTION AT THE SITE

EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL THE EROSION AND SEDIMENT CONTROL MEASURES IN CONFORMANCE WITH THE WDNR TECHNICAL STANDARDS. WDNR TECHNICAL STANDARDS SHALL BE REVIEWED AND FOLLOWED FOR EROSION AND SEDIMENT CONTROL MEASURES.

THE CONTRACTOR SHALL IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. AREAS OF FINAL GRADING SHALL BE STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE.

PERIMETER EROSION CONTROLS AND ROCK TRACKING PAD CONSTRUCTION ENTRANCE(S) (WDNR TECHNICAL STANDARD STONE TRACKING PAD AND TIRE WASHING *1057) SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRUBBING.

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE USED TO PREVENT OR REDUCE ALL OF DISCHARGE OF SEDIMENT FROM DRAINAGE WAYS THAT FLOW OFF SITE AND SEDIMENT FROM EROSION FLOWS AT OUTLETS AND IN DOWNSTREAM CHANNELS.

THE CONTRACTOR SHALL INSTALL PROTECTION PER WDNR TECHNICAL STANDARD STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITES *1060 PRIOR TO LAND-DISTURBING ACTIVITIES IN THE CONTRIBUTING DRAINAGE AREA AND/OR IMMEDIATELY UPON INLET INSTALLATION.

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE USED TO MANAGE ALL OVERLAND FLOW AT ALL AREAS OF THE CONSTRUCTION SITE, UNLESS OTHERWISE CONTROLLED BY OUTFALL CONTROLS.

CONTRACTOR SHALL PERFORM DEWATERING OF ACCUMULATED SURFACE RUNOFF PER WDNR TECHNICAL STANDARD DE-WATERING *1061 AND DEWATER ONLY AFTER THE APPROPRIATE WDNR DEWATERING DISCHARGE PERMIT HAS BEEN OBTAINED.

ALL SEDIMENT/TRASH THAT MOVES OFF-SITE DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS SHALL BE SWEEP/CLEANED UP AND DISPOSED OF PROPERLY BEFORE THE END OF THE SAME WORKDAY.

ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR THE APPLICATION OF STABILIZED MEASURES MUST BE REPAIRED AND THE WORK REDONE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST ON SITE PER WDNR TECHNICAL STANDARD DUST CONTROL ON CONSTRUCTION SITES *1068.

CONTRACTOR SHALL COORDINATE WITH ENGINEER ON TEMPORARY STOCKPILE LOCATIONS. STOCKPILES SHALL BE IMMEDIATELY STABILIZED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES REMAIN INACTIVE FOR 7 DAYS OR LONGER.

CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCE PER WDNR TECHNICAL STANDARD SILT FENCE *1056.

FOR DORMANT SEEDING (NOV. 1 TO MAY 15), SEED WITH SPECIFIED MIX AT A RATE OF 150% OF WHAT IS SPECIFIED. ALL AREAS SEEDING IN LATE FALL/WINTER SHALL BE RE-SEEDING AFTER THE THREAT OF FROST IN THE SPRING PASSES.

ALL TEMPORARY EROSION CONTROL INSTALLATIONS SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED WITH 70% VEGETATION AND A NOTICE OF TERMINATION HAS BEEN APPROVED BY THE WDNR. CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL MEASURES UNTIL FINAL SITE STABILIZATION.

POLLUTION PREVENTION:

ALL WASTE, AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, OR TOXIC MATERIALS) SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO BE CARRIED OFFSITE BY RUNOFF OR WIND.

FUELING AND VEHICLE MAINTENANCE AREAS SHALL HAVE BMPS DESIGNED, INSTALLED, AND MAINTAINED TO REDUCE PETROLEUM WITHIN RUNOFF, SO THAT THE RUNOFF THAT ENTERS WATERS OF THE STATE CONTAINS NO VISIBLE PETROLEUM SHEEN, OR THE MAXIMUM EXTENT PRACTICABLE.

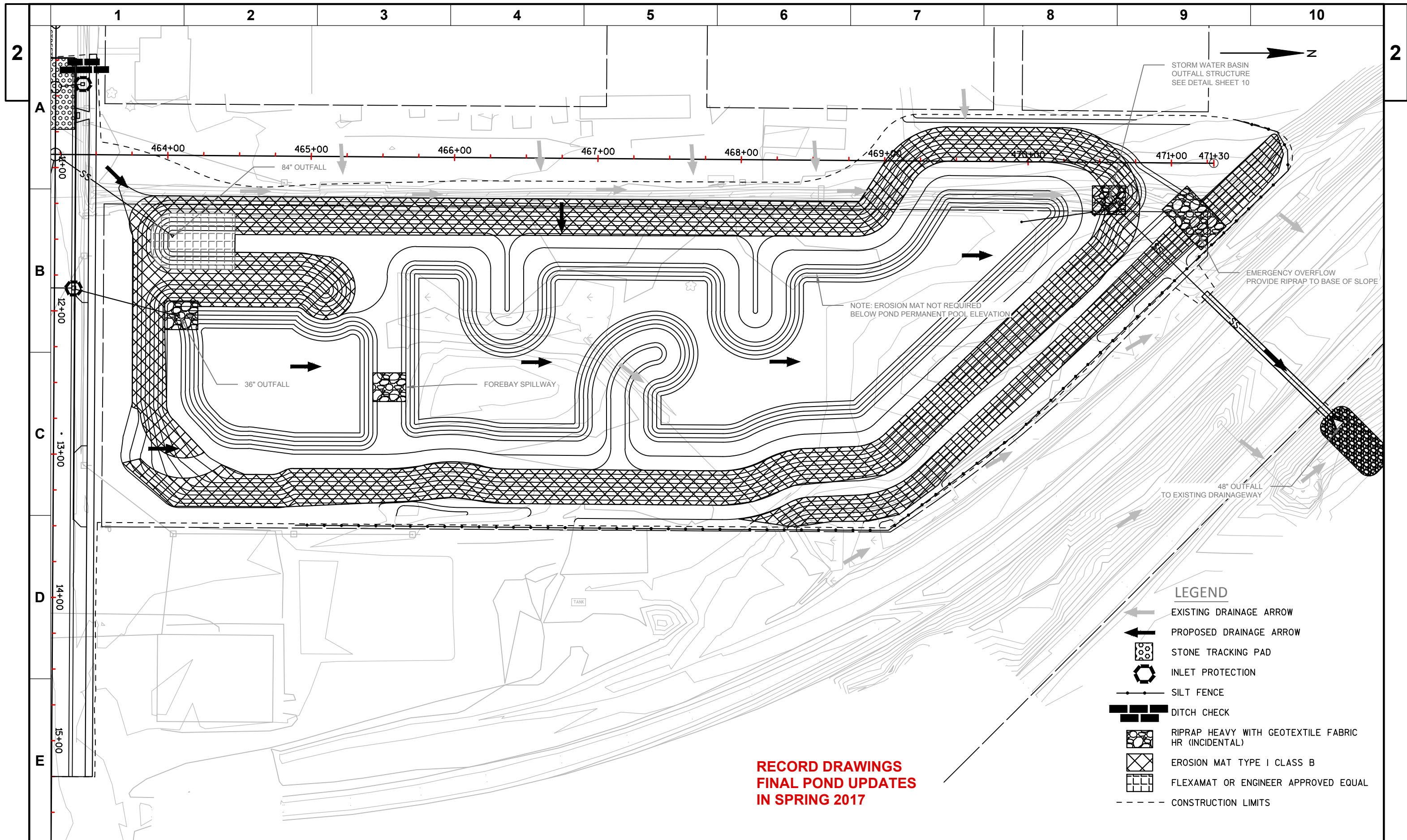
THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE WDNR REMEDIATION AND WASTE MANAGEMENT REQUIREMENTS FOR HANDLING AND DISPOSING OF CONTAMINATED MATERIALS.

THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT SITE SPECIFIC SPILL PREVENTION AND RESPONSE PROCEDURES.

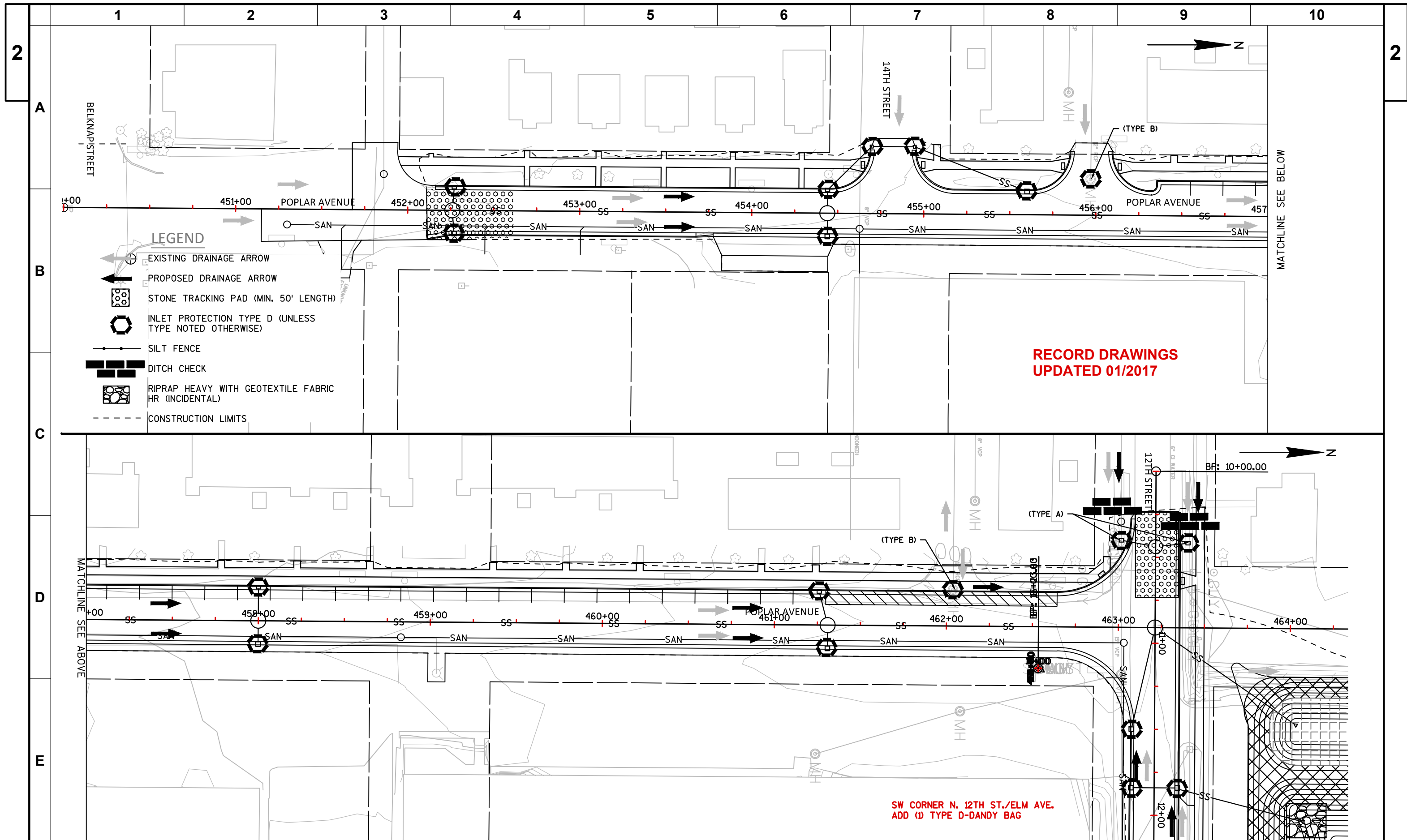
NO COAL TAR-BASED SEALANTS SHALL BE USED ON ASPHALT SURFACES.

CONTRACTOR TO PROVIDE SUITABLE GARBAGE RECEPTACLE FOR ONSITE PERSONNEL.

CONTRACTOR TO PROVIDE PORTABLE TOILET ONSITE FOR THE DURATION OF CONSTRUCTION ACTIVITIES. THE TOILET SHALL BE TEMPORARILY REMOVED FOR ANY PERIOD WHERE NO WORK IS ANTICIPATED FOR A ONE WEEK PERIOD.



**RECORD DRAWINGS
FINAL POND UPDATES
IN SPRING 2017**



BASIN RESTORATION:

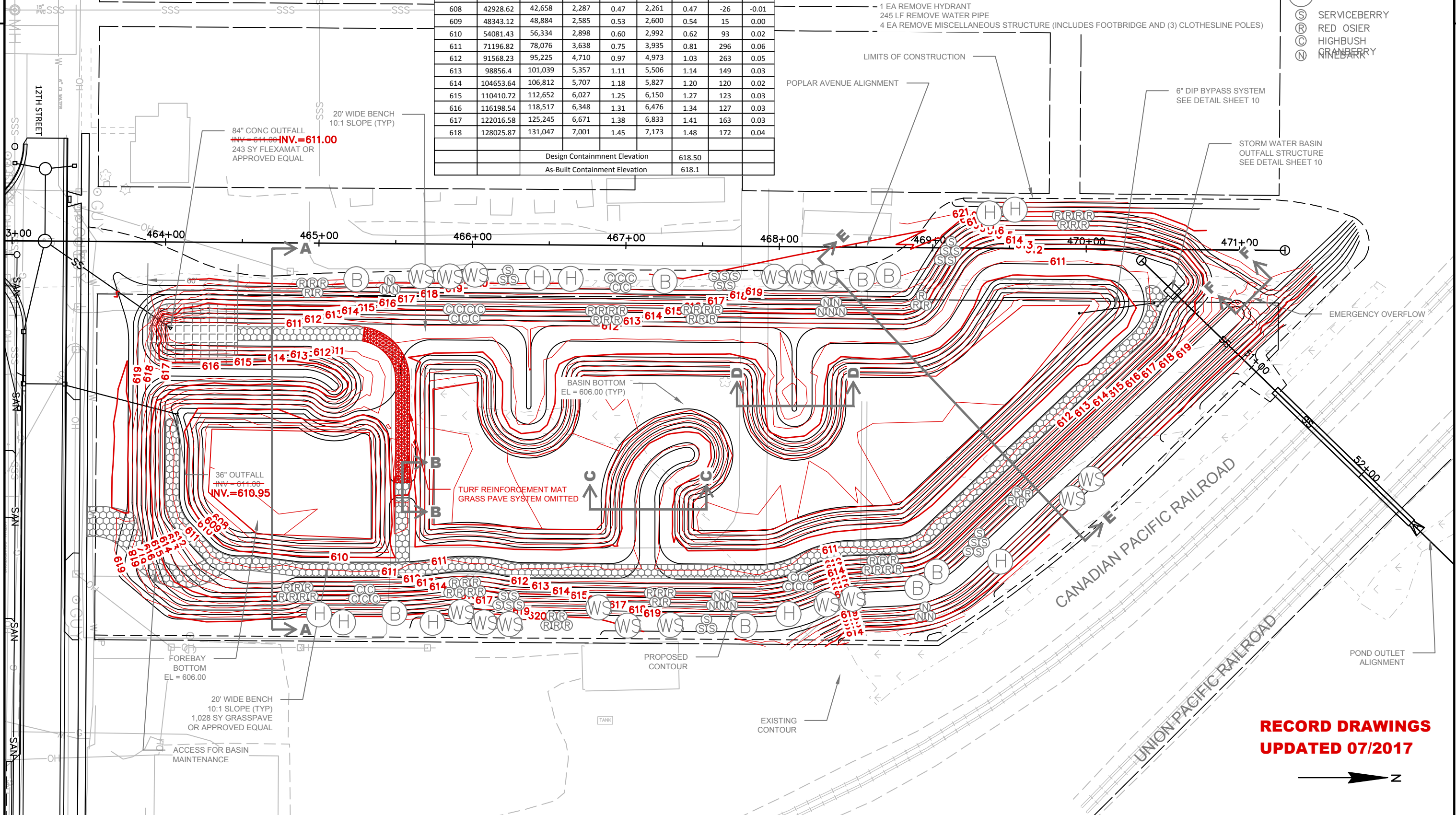
3" TOPSOIL OVER ALL DISTURBED AREAS ABOVE 610.0 (1098 CY)
 SEED TYPE MN 33-361 EL 611.0 TO 612.0 (2,162 SY)
 SEED TYPE MN 36-311 EL 612.0 TO TOP (10,033 SY)
 NO SEED BELOW EL 611.0 (PERMANENT POOL EL)
 PLANT PLUGS FROM EL 610.5 TO EL 611.5 INSTALLED AT 900 PLUGS / ACRE (1,872 SY)

Elevation	Contour Area (SF)		Cumulative Design Storage		Cumulative As-Built Storage		Difference		
	Design	As-Built	CY	Ac-Ft	CY	Ac-Ft	CY	Ac-Ft	
606	32444.86	25,265	0	0	0	0	0	0	
607	37628.79	36,759	1,994	0.41	1,829	0.38	-165	-0.03	
608	42928.62	42,658	2,287	0.47	2,261	0.47	-26	-0.01	
609	48343.12	48,884	2,585	0.53	2,600	0.54	15	0.00	
610	54081.43	56,334	2,898	0.60	2,992	0.62	93	0.02	
611	71196.82	78,076	3,638	0.75	3,935	0.81	296	0.06	
612	91568.23	95,225	4,710	0.97	4,973	1.03	263	0.05	
613	98856.4	101,039	5,357	1.11	5,506	1.14	149	0.03	
614	104653.64	106,812	5,707	1.18	5,827	1.20	120	0.02	
615	110410.72	112,652	6,027	1.25	6,150	1.27	123	0.03	
616	116198.54	118,517	6,348	1.31	6,476	1.34	127	0.03	
617	122016.58	125,245	6,671	1.38	6,833	1.41	163	0.03	
618	128025.87	131,047	7,001	1.45	7,173	1.48	172	0.04	
Design Containment Elevation							618.50		
As-Built Containment Elevation							618.1		

NOTE: REMOVE ALL EXISTING MATERIALS WITHIN POND FOOTPRINT.
 PAYMENT INCLUDES:

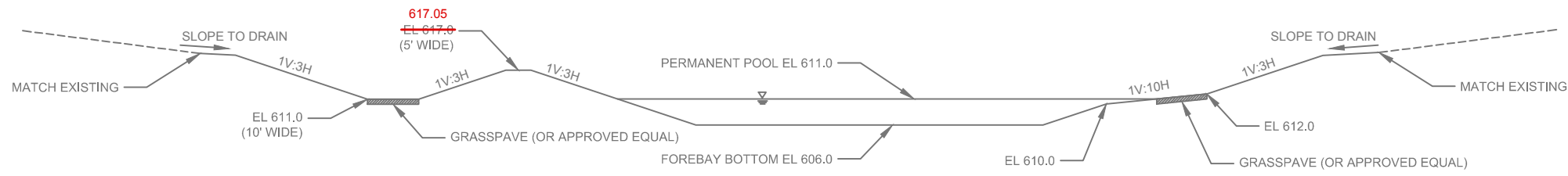
- 12 ID CLEAR AND GRUB (1 TREE)
- 1 EA REMOVING SMALL PIPE CULVERTS (12" CMP)
- 826 SY REMOVING PAVEMENT
- 4741 SY REMOVING ASPHALTIC SURFACE
- 95 SY REMOVING CONCRETE SIDEWALK
- 1 EA REMOVE HYDRANT
- 245 LF REMOVE WATER PIPE
- 4 EA REMOVE MISCELLANEOUS STRUCTURE (INCLUDES FOOTBRIDGE AND (3) CLOTHESLINE POLES)

- (B) BASSWOOD
- (WS) WHITE SPRUCE
- (H) HACKBERRY
- (S) SERVICEBERRY
- (R) RED OSIER
- (C) HIGHBUSH
- (N) NINEBARK

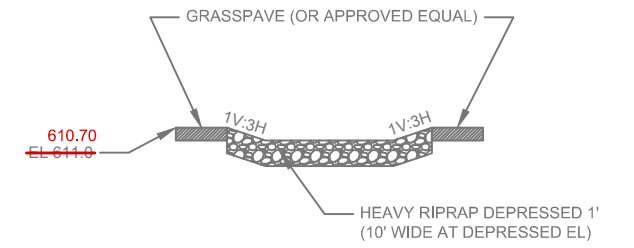


**RECORD DRAWINGS
 UPDATED 07/2017**

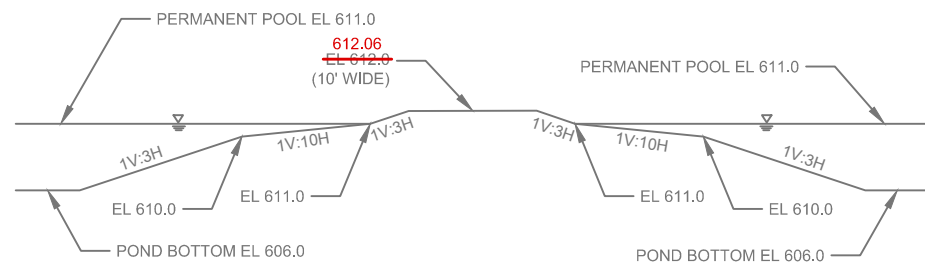




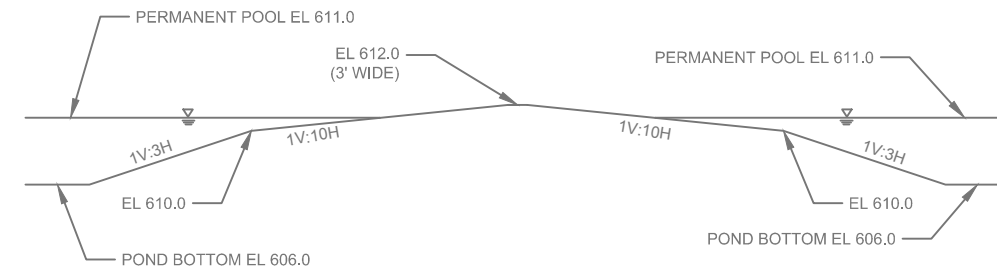
SECTION A-A



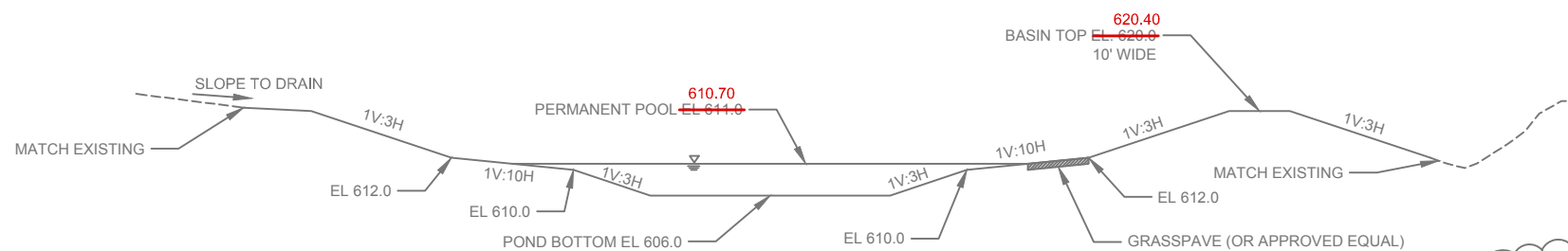
SECTION B-B
LOW FLOW SPILLWAY



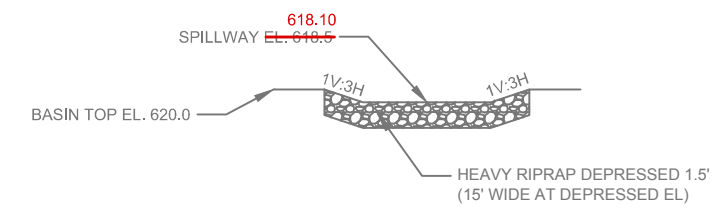
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F
EMERGENCY SPILLWAY

NOTE: GRASSPAVE SYSTEM SHALL CONSIST OF 6" DENSE GRADED BASE AGGREGATE 1-1/4" TO BE INSTALLED BELOW THE GRASSPAVE GRID. THIS SHALL BE INSTALLED IN NON-SATURATED CONDITIONS TO MEET 95% STANDARD PROCTOR DENSITY. THERE IS NO ADDITIONAL PAYMENT FOR ANY EXCAVATION RELATED TO THIS SYSTEM. THERE WILL BE SEPARATE PAYMENT FOR DENSE GRADED BASE AGGREGATE 1-1/4" MATERIAL AND RESTORATION ITEMS.

ADD #2

**RECORD DRAWINGS
UPDATED 07/2017**

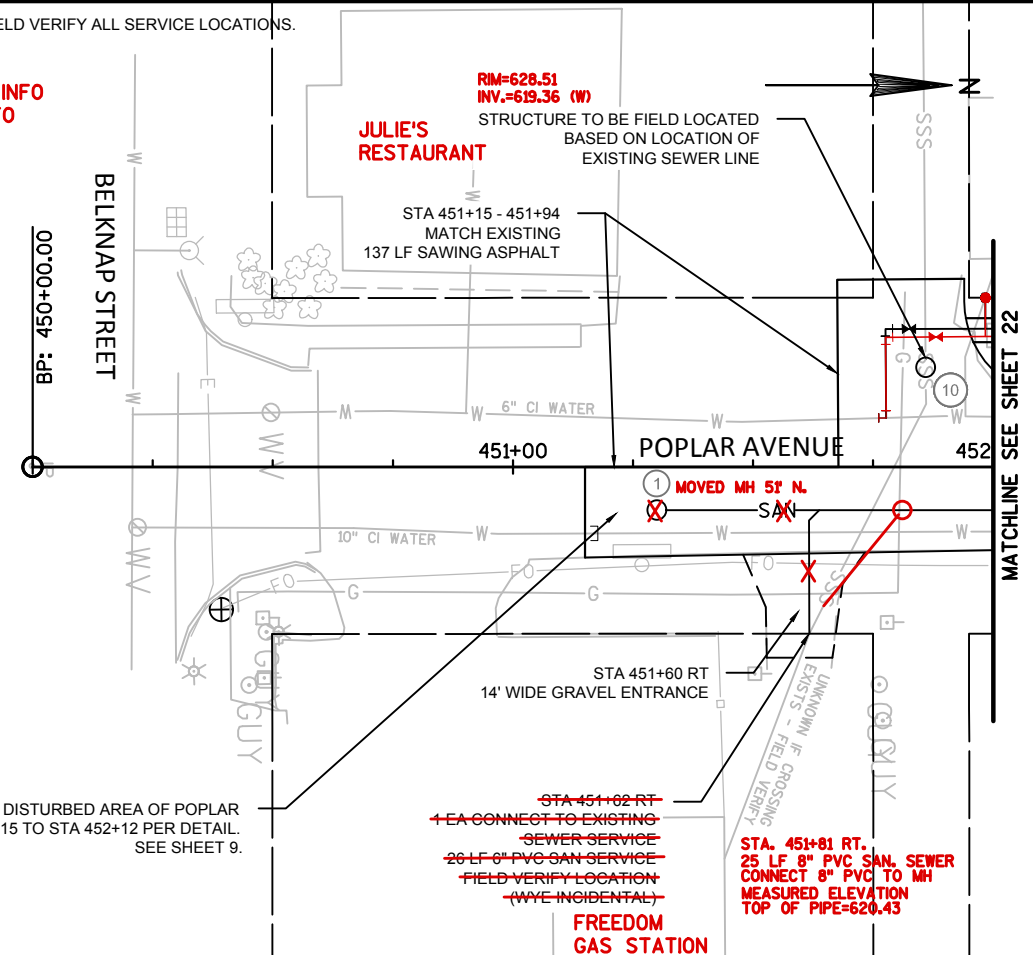
NOTES: FIELD VERIFY ALL SERVICE LOCATIONS.

SEE SHEETS 22-24 FOR SANITARY SEWER INFO
 SEE SHEETS 25-28 FOR STORM SEWER INFO
 SEE SHEETS 29-32 FOR WATER MAIN INFO

STRUCTURE TABLE			
NUMBER	ELEVATIONS	TYPE	LOCATION
1	RIM = 620.30 627.65 INV OUT (N) = 610.50 617.30	SAN MH 4-FT DIA	STA=451+30.00 OFF=9.00' R
2	RIM = 620.20 626.24 INV IN (S) = 617.00 615.74 INV IN (E) = 617.50 616.64 INV OUT (N) = 616.90 616.64	SAN MH 4-FT DIA	STA=454+62.07 OFF=9.00' R
3	RIM = 620.30 623.32 INV IN (S) = 615.01 614.91 INV OUT (N) = 614.91 614.67	SAN MH 4-FT DIA	STA=458+83.06 OFF=9.00' R
4	RIM = 620.30 620.54 INV IN (S) = 619.00 612.90 INV OUT (E) = 612.90 612.89	SAN MH 4-FT DIA	STA=463+03.24 OFF=9.00' R
5	RIM = 621.00 621.29 INV IN (W) = 611.22 611.09 INV OUT (E) = 611.12 611.09	SAN MH 4-FT DIA	STA=463+03.39 OFF=399.00' R
10	RIM = 620.00 628.51 INV OUT (W) = 610.30 619.36	SAN MH 4-FT DIA	STA=451+86.01 OFF=20.74' L
11	RIM = 610.00 619.53 INV OUT (W) = 613.46	SAN MH 4-FT DIA	STA=463+01.28 OFF=61.49' L

5A RIM=621.92
 INV OUT (W)=610.97
 ADD TO CONNECT TO EXISTING MH
 STA.=15+80 OFF=13.7' RT.

COULD NOT VERIFY SOME PIPE INVERTS DUE TO ACCESS IN STRUCTURE/OFFSET COVERS



5

5

STRUCTURE TABLE			
NUMBER	ELEVATIONS	TYPE	LOCATION
20	RIM = 620.00 627.95 INV IN (E) = 623.27 INV IN (W) = 623.27 617.60 INV IN (S) = 617.60 INV OUT (N) = 617.50 617.45	MH 10-FT DIA-J	STA=452+26.00 OFF=0.00'
21	RIM = 627.71 627.59 INV OUT (E) = 623.44 623.44 6" UNDER DRAIN (S)=624.04	INL 2x3-FT-H	STA=452+27.00 OFF=13.50' L
22	RIM = 627.71 627.65 INV OUT (W) = 623.41 623.41 6" UNDER DRAIN (S)=624.20	INL 2x3-FT-H	STA=452+27.00 OFF=13.50' R
30	RIM = 620.57 626.51 INV IN (S) = 616.74 INV IN (E) = 621.00 620.75 INV IN (W) = 620.75 INV OUT (N) = 618.04 616.51	MH 10-FT DIA-J	STA=454+44.00 OFF=0.00'
31	RIM = 625.47 625.44 INV OUT (S) = 622.06 622.06 6" UNDER DRAIN (S)=622.64	INL 2x3-FT-H-S	STA=455+60.00 OFF=13.50' L
32	RIM = 620.85 626.79 INV IN (N) = 622.05 621.89 INV OUT (S) = 621.80 621.89	INL 4-FT DIA-C	STA=454+94.52 OFF=38.99' L
33	RIM = 626.85 621.07 INV IN (N) = 621.07 621.17 INV OUT (SE) = 621.17	INL 4-FT DIA-C	STA=454+69.52 OFF=38.98' L
34	RIM = 626.20 626.18 INV IN (NW) = 620.99 620.99 INV OUT (E) = 620.99 620.48 6" UNDER DRAIN (S)=622.83	INL 4-FT DIA-H-S	STA=454+44.00 OFF=13.50' L
35	RIM = 620.20 626.21 INV OUT (W) = 621.07 621.07 6" UNDER DRAIN (S)=622.77	INL 2x3-FT-H	STA=454+44.00 OFF=13.50' R
40	RIM = 624.10 623.99 INV IN (S) = 614.40 INV IN (E) = 619.13 619.13 INV IN (W) = 619.13 INV OUT (N) = 614.00 614.14	MH 10-FT DIA-J	STA=458+00.00 OFF=0.00'

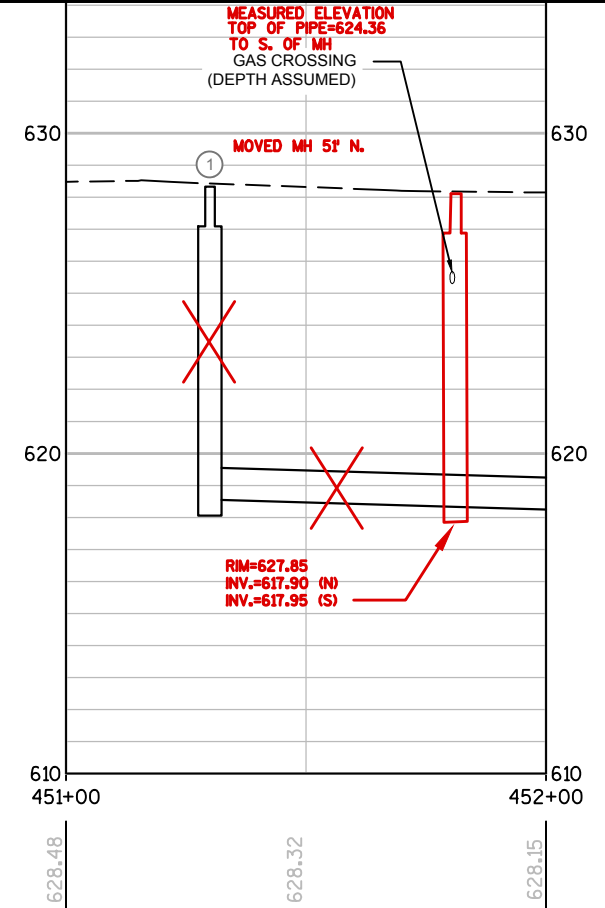
STRUCTURE TABLE			
NUMBER	ELEVATIONS	TYPE	LOCATION
41	RIM = 620.71 623.53 INV OUT (E) = 619.30 619.30 6" UNDER DRAIN (S)=619.78	INL 2x3-FT-H	STA=458+00.00 OFF=19.50' L
42	RIM = 620.00 623.69 INV OUT (W) = 619.45 619.45 6" UNDER DRAIN (S)=619.79	INL 2x3-FT-H	STA=458+00.00 OFF=13.50' R
50	RIM = 621.07 621.69 INV IN (S) = 612.45 INV IN (E) = 610.80 616.83 INV IN (W) = 616.83 INV OUT (N) = 612.35 612.20	MH 10-FT DIA-K	STA=461+31.00 OFF=0.00'
51	RIM = 621.44 621.25 INV OUT (E) = 617.00 617.00 6" UNDER DRAIN (S)=617.40	8" PVC (NW)=617.65 INL 2x3-FT-H-S	STA=461+26.00 OFF=19.50' L
52	RIM = 621.50 621.37 INV OUT (W) = 617.15 617.15 6" UNDER DRAIN (SE)=617.39	INL 2x3-FT-H	STA=461+31.00 OFF=13.50' R
60	RIM = 620.71 620.64 INV IN (W) = 611.60 TO 70 INV IN (S) = 611.60 INV IN (E) = 611.50 OUT TO 62 INV OUT (NE) = 611.50 611.59 TO 61	MH DIV 12-FT DIA-K	STA=463+21.39 OFF=0.00'
61	INV IN (SW) = 611.00 611.00	84" RCP AEW	STA=464+04.09 OFF=56.46' R
62	RIM = 620.02 620.05 INV IN (E) = 611.34 611.34 INV OUT (W) = 611.44 611.33 IN 6" UNDER DRAIN (SW)=616.53	MH 5-FT DIA-H	STA=463+07.98 OFF=59.14' R
63	RIM = 619.00 619.90 INV IN (N) = 611.21 611.21 INV OUT (W) = 611.01 611.15 6" UNDER DRAIN (NW)=616.15 6" UNDER DRAIN (SE)=616.15	MH 7-FT DIA-H-S	STA=463+08.02 OFF=93.14' R
64	RIM = 619.00 619.83 INV OUT (S) = 611.18 IN INV OUT (N) = 611.08 6" UNDER DRAIN (NW)=616.13 6" UNDER DRAIN (E)=616.13	MH 5-FT DIA-H-S	STA=463+35.02 OFF=93.10' R

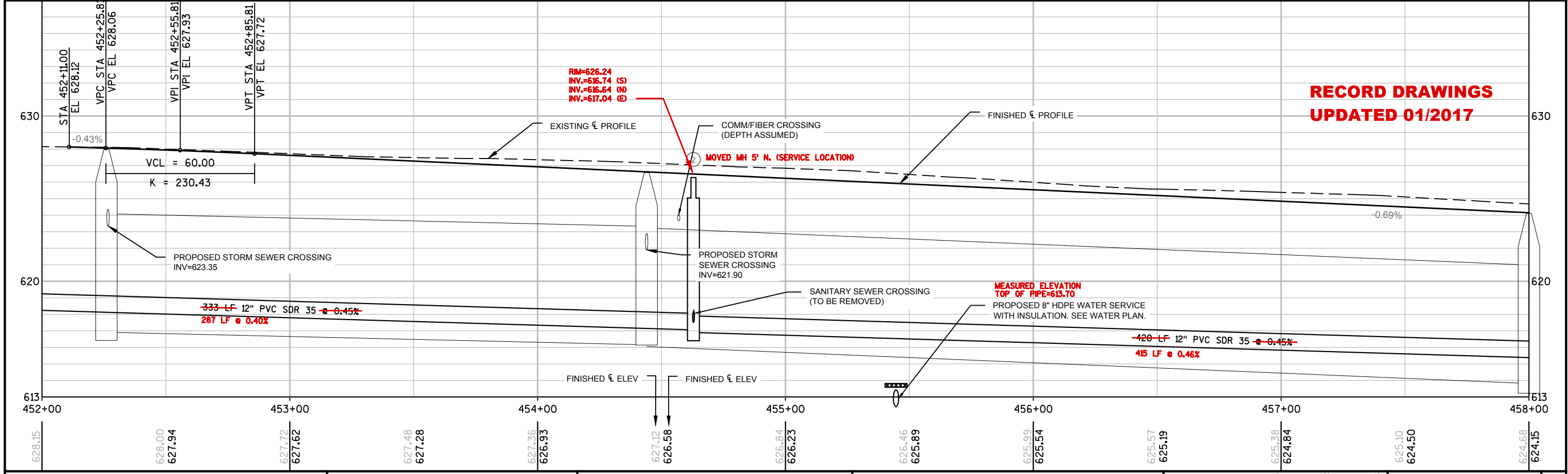
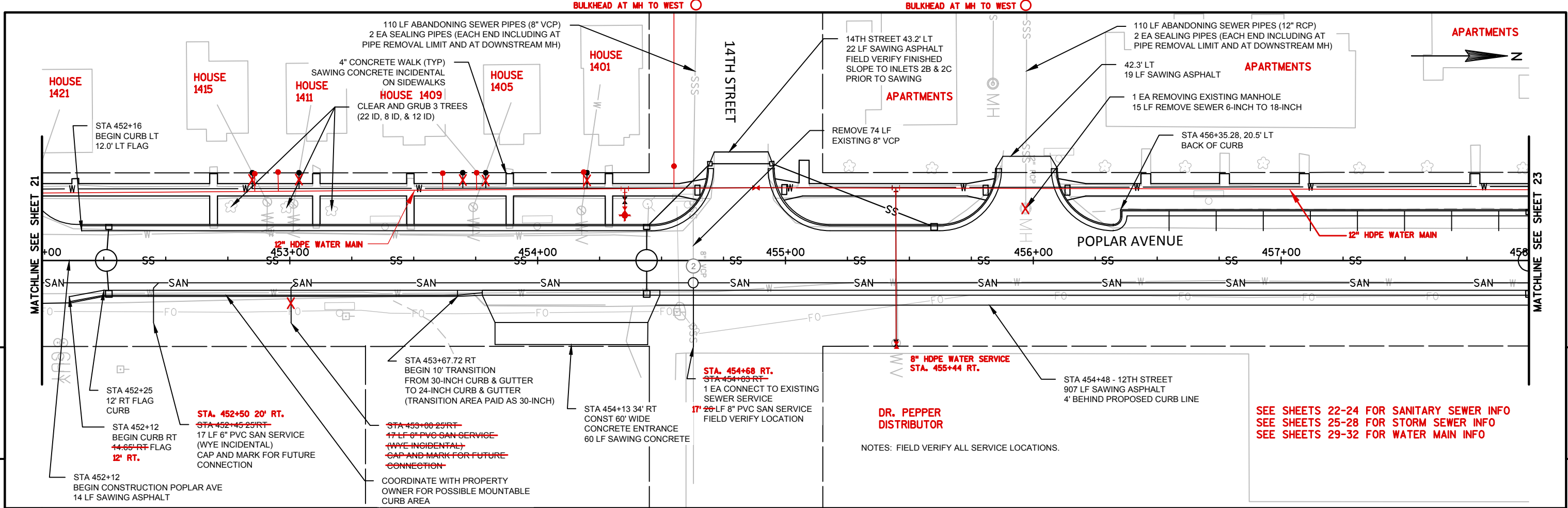
STRUCTURE TABLE			
NUMBER	ELEVATIONS	TYPE	LOCATION
65	INV IN (S) = 611.00 610.95	36" STEEL AEW	STA=464+08.77 OFF=112.38' R
70	RIM = 620.50 620.35 INV IN (N) = 613.31 INV IN (S) = 614.30 INV IN (W) = 611.82 INV OUT (E) = 611.72 611.45	MANHOLES 8-J	STA=463+21.32 OFF=47.08' L
71	RIM = 617.00 617.58 INV OUT (S) = 619.50 619.50 6" UNDER DRAIN (NE)=614.48	INLETS 3-C	STA=463+40.10 OFF=49.19' L
72	RIM = 610.50 618.44 INV OUT (N) = 614.50 614.74	INLETS 4-C	STA=463+01.35 OFF=50.60' L

CB/MH RIM=620.46
 INV OUT (SE)=618.76
 YARD DRAIN/CONNECT TO CB 51
 STA.=462+05 LT.

NOTE: STORM WATER BASIN OUTLET STRUCTURE NOT SHOWN IN STRUCTURE TABLE.

**RECORD DRAWINGS
 UPDATED 01/2017**

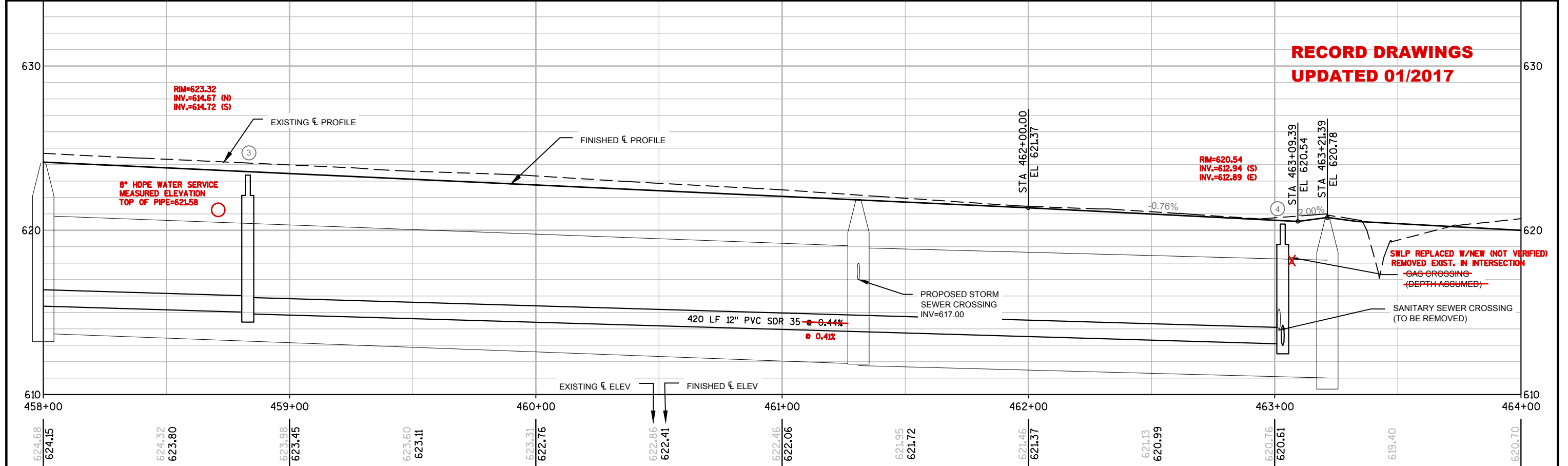
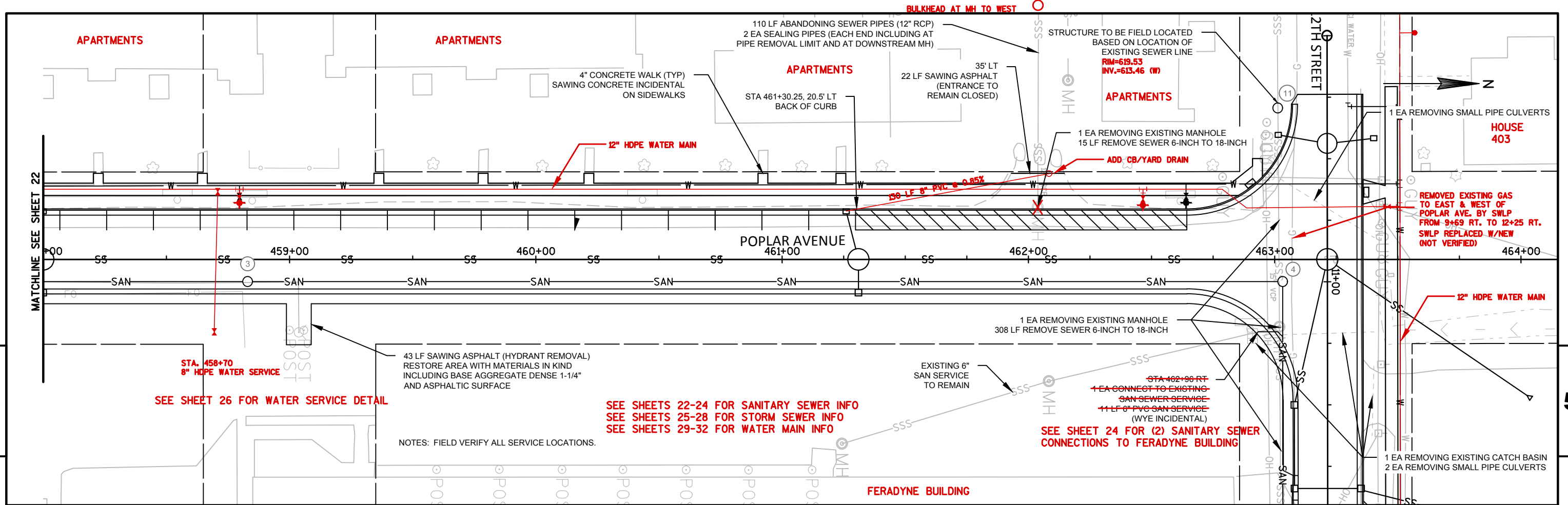


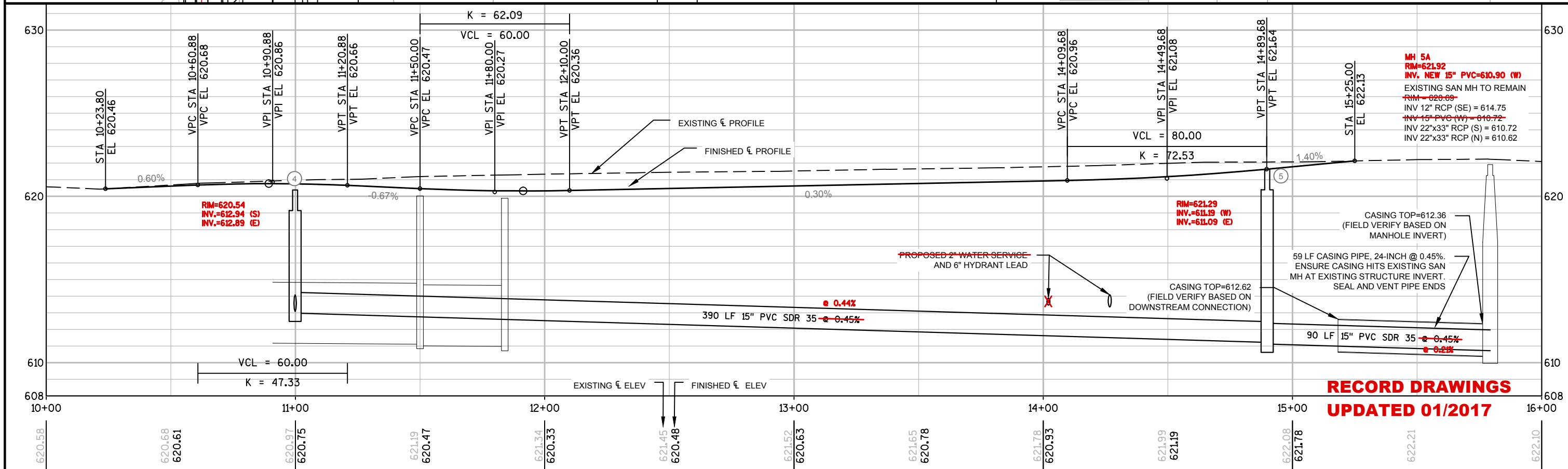
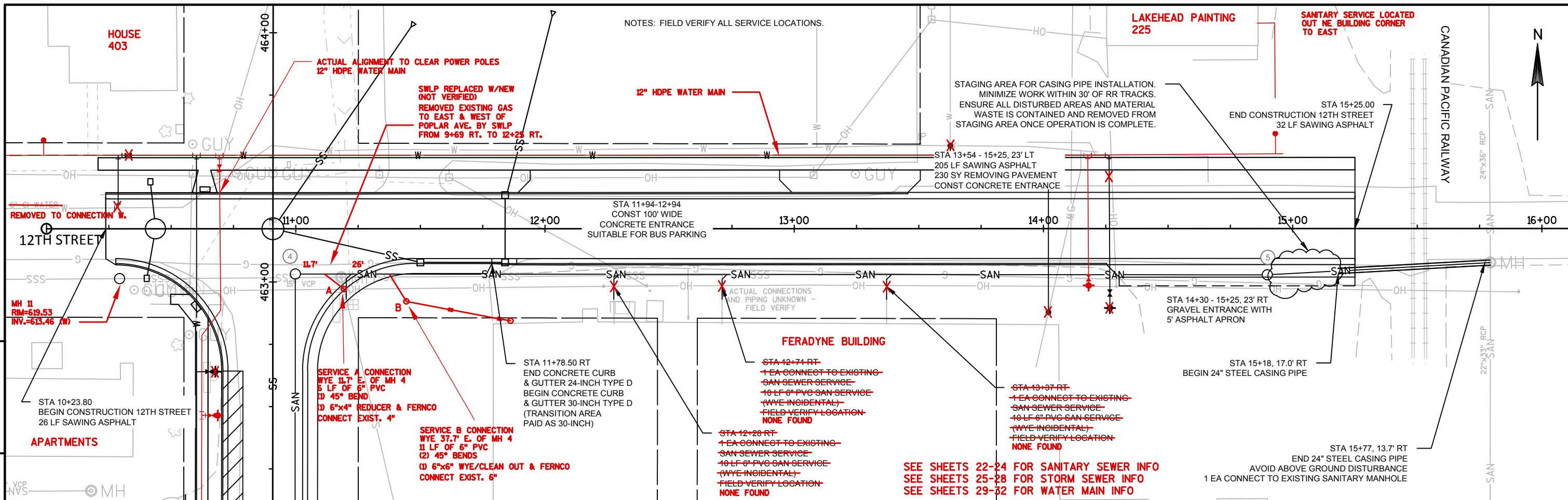


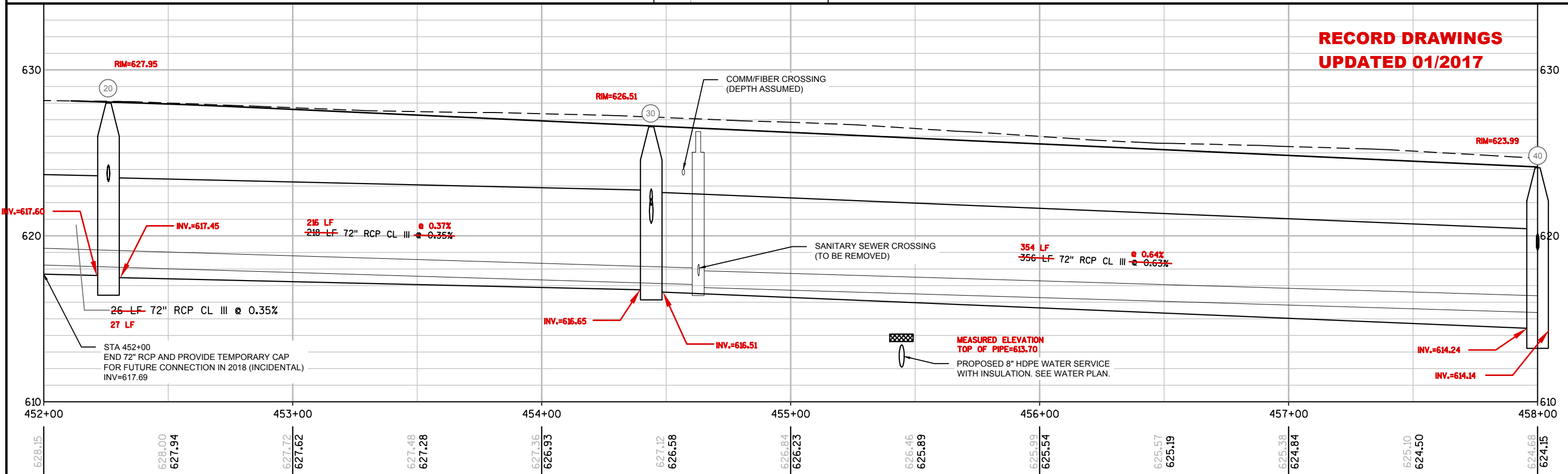
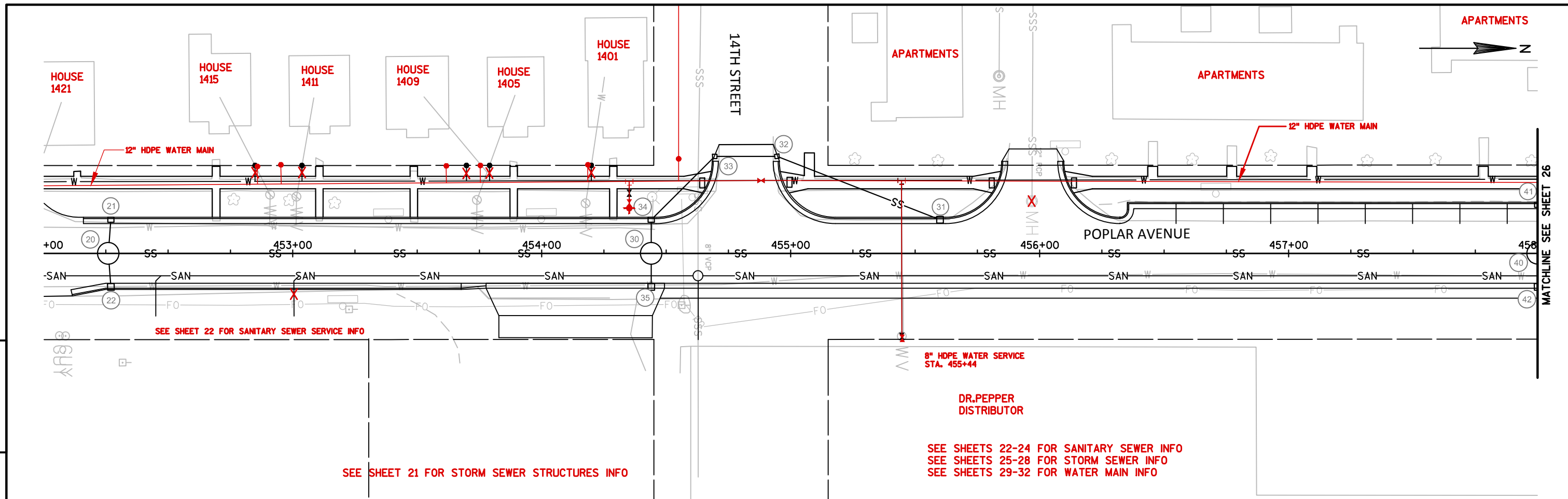
SEE SHEETS 22-24 FOR SANITARY SEWER INFO
 SEE SHEETS 25-28 FOR STORM SEWER INFO
 SEE SHEETS 29-32 FOR WATER MAIN INFO

NOTES: FIELD VERIFY ALL SERVICE LOCATIONS.

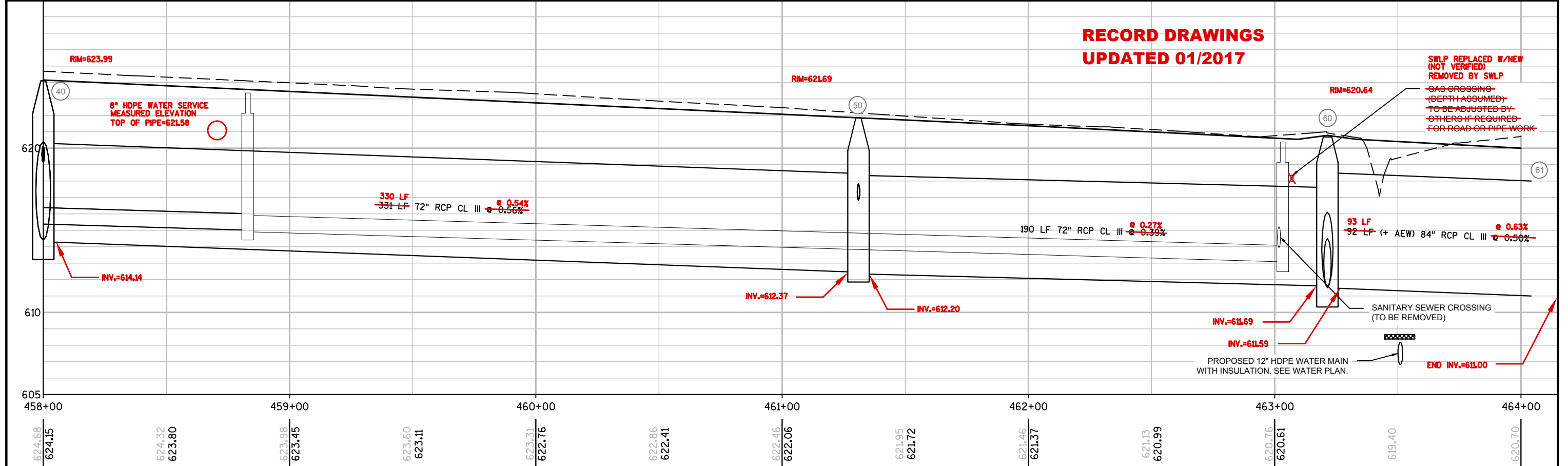
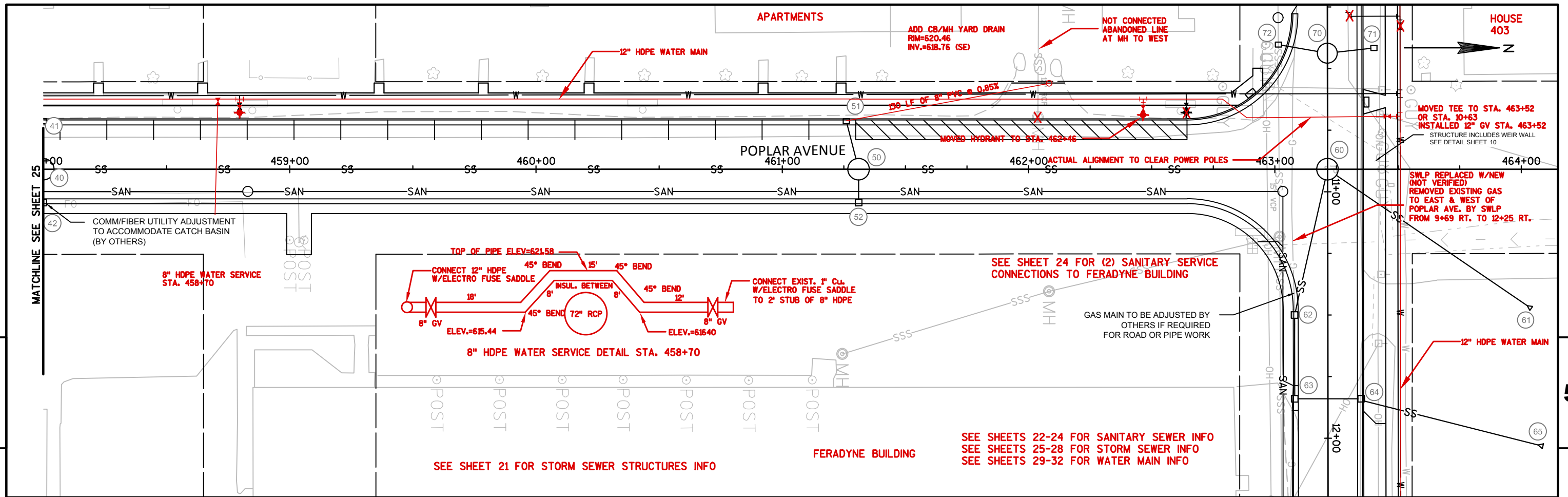
**RECORD DRAWINGS
 UPDATED 01/2017**

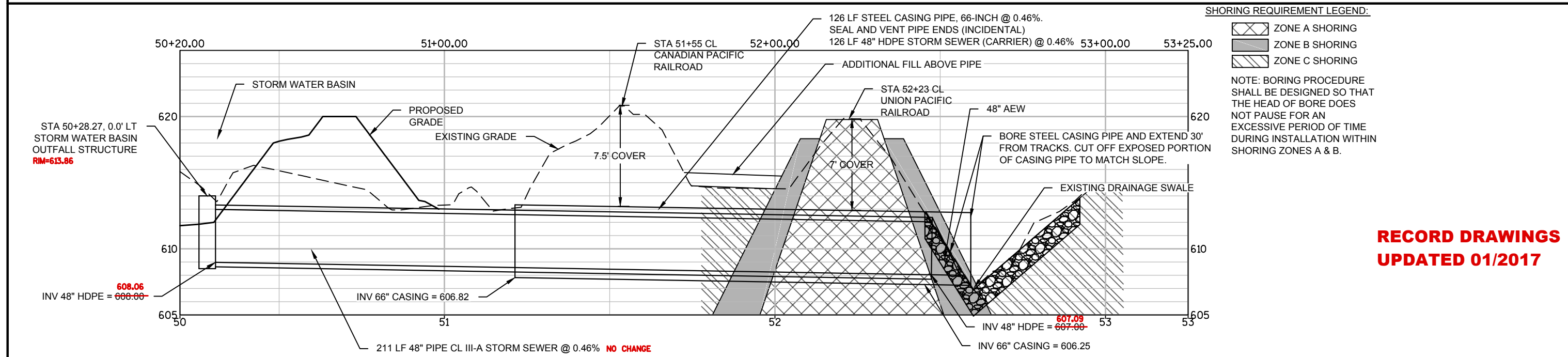
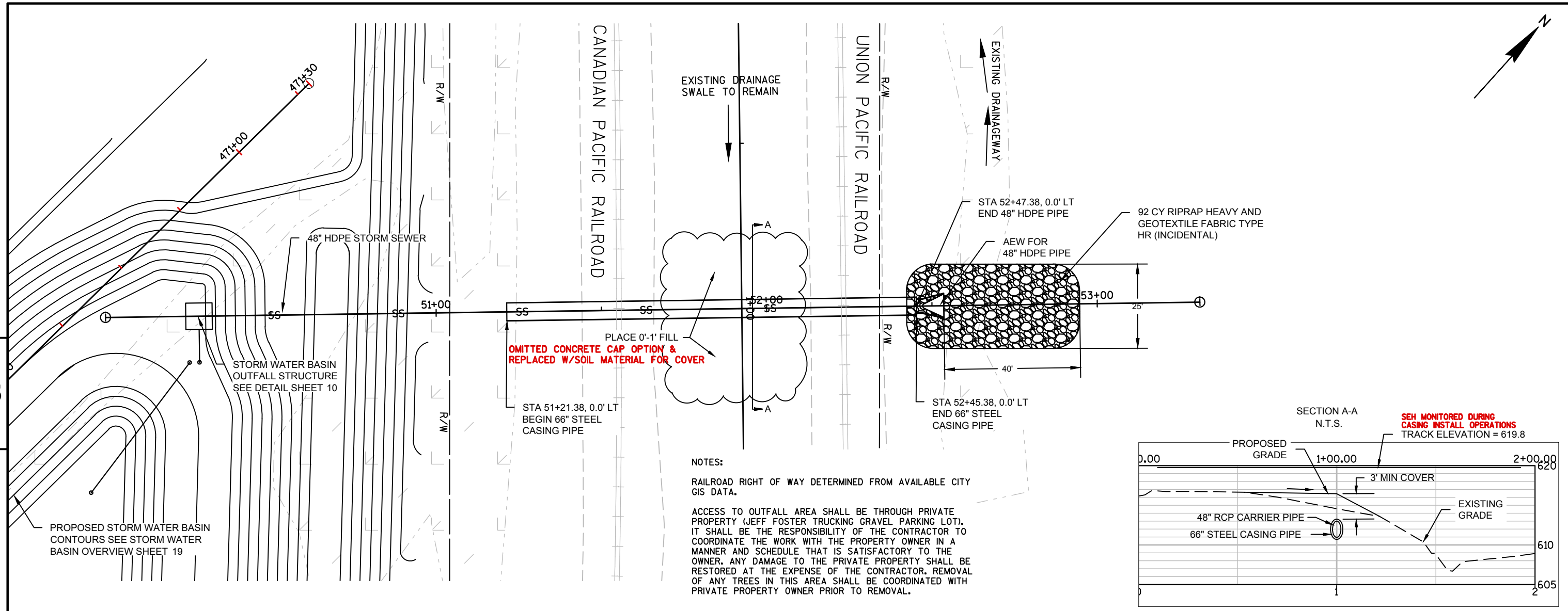




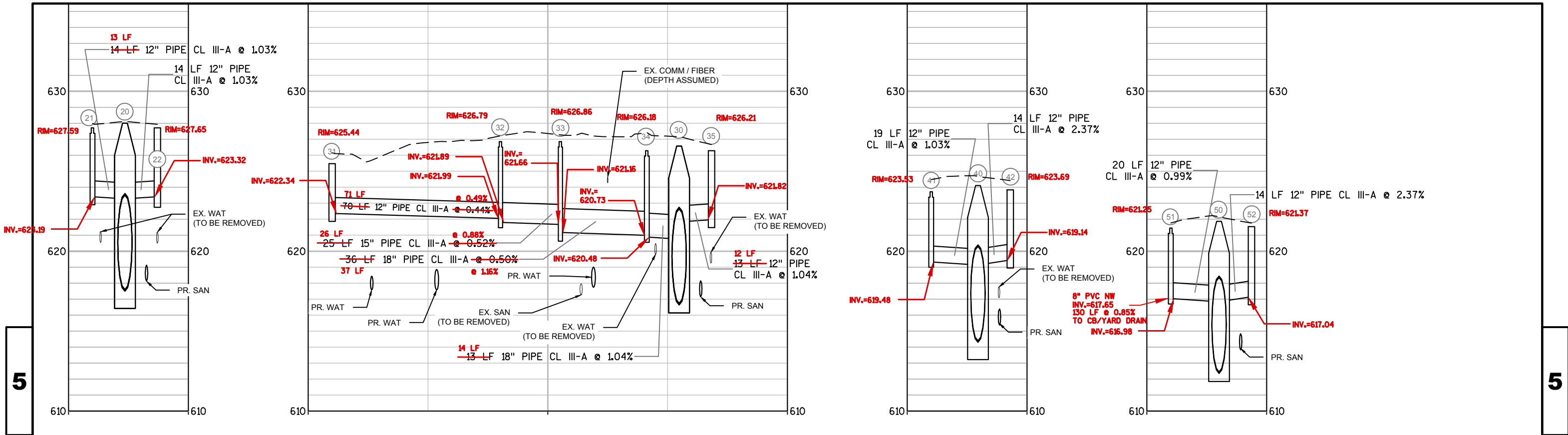


SEH PROJECT NO: SUPER 122816 POPLAR AVENUE CITY OF SUPERIOR STORM SEWER PLAN AND PROFILE SCALE, FEET SHEET 25 OF 35

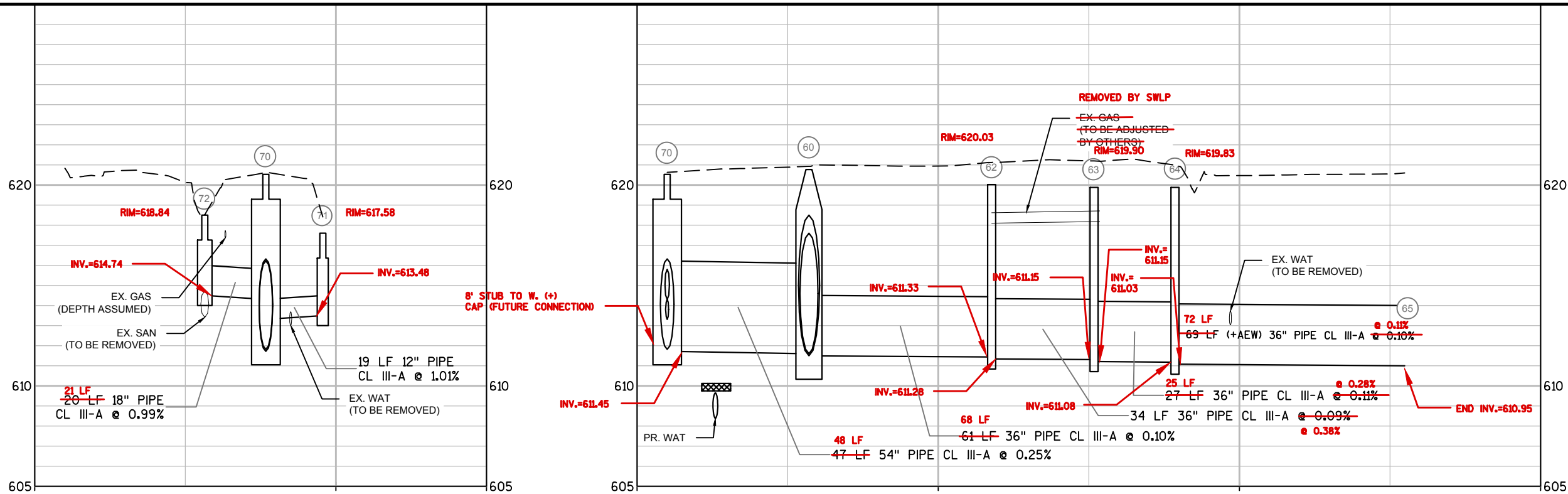




**RECORD DRAWINGS
UPDATED 01/2017**



SEE SHEET 21 FOR STORM SEWER STRUCTURES INFO



**RECORD DRAWINGS
UPDATED 01/2017**



STRUCTURE TABLE		
STATION	OFFSET	DESCRIPTION
451+77.74	10.24 LT	90° BEND WITH 12"X6" REDUCER
451+82.51	28.77 LT	12" GATE VALVE
451+77.60	28.76 LT	90° BEND
451+98.41	35.28 LT	1" CURB STOP
452+84.90	35.31 LT	1" CURB STOP
453+03.74	35.32 LT	1" CURB STOP
453+69.81	35.34 LT	1" CURB STOP
453+79.09	35.35 LT	1" CURB STOP
454+19.95	35.36 LT	1" CURB STOP
454+35.19	18.19 LT	HYDRANT
454+88.10	29.28 LT	12" GATE VALVE
455+44.56	29.38 LT	12"X12"X8" TEE
455+44.59	9.00 LT	8" GATE VALVE
458+79.69	2' B/C 29.00 LT	HYDRANT
462+46	2' B/C 29.04 LT	HYDRANT
10+63	29.50 LT	
10+63	29.50 LT	12"X12"X12" TEE
9+53	13.0 LT	90° BEND WITH 12"X6" REDUCER
9+56	29.0 LT	90° BEND
9+69	29.0 LT	12" GATE VALVE
14+62.03	39.24 LT	4" CURB STOP
14+62.00	39.55 RT	2" CURB STOP
14+84	29.50 LT	90° BEND WITH 12"X6" REDUCER
14+18	24.0 RT	HYDRANT

STA. 454+55 LT. W/1" CURB STOP. 27' SOUTH OF N. 14th ST. CENTERLINE. CONNECT SERVICE TO 1402 CYPRESS AVE., (2) HOUSES SERVICED ON 3/4" CL.

STA. 458+70 RT., 8" HDPE ACROSS POPLAR AVE. TO 8" GV. FOUND UNIDENTIFIED SERVICE TO FEREDYNE BUILDING. CONNECT EXISTING 1" TO EAST MOVED 18' SOUTH

N. 12th ST. ALIGNMENT
CONNECT EXISTING 6" DI (EXTENDED WEST OF PLAN)

MOVED WEST TO ELIMINATE EXISTING 6" GV AND CONNECT TO EXISTING. CONNECT SERVICE TO 403 N. 12th ST., STA. 9+93 LT. W/1" CURB STOP, 23.5' E. OF GV IN SIDEWALK.

NO EXISTING SERVICE FOUND

NO EXISTING SERVICE FOUND

EXTENDED MAIN TO EAST W/FUSED END CAP. CONNECT SERVICE TO 255 N. 12th ST., STA. 14+81 LT. W/1" CURB STOP.

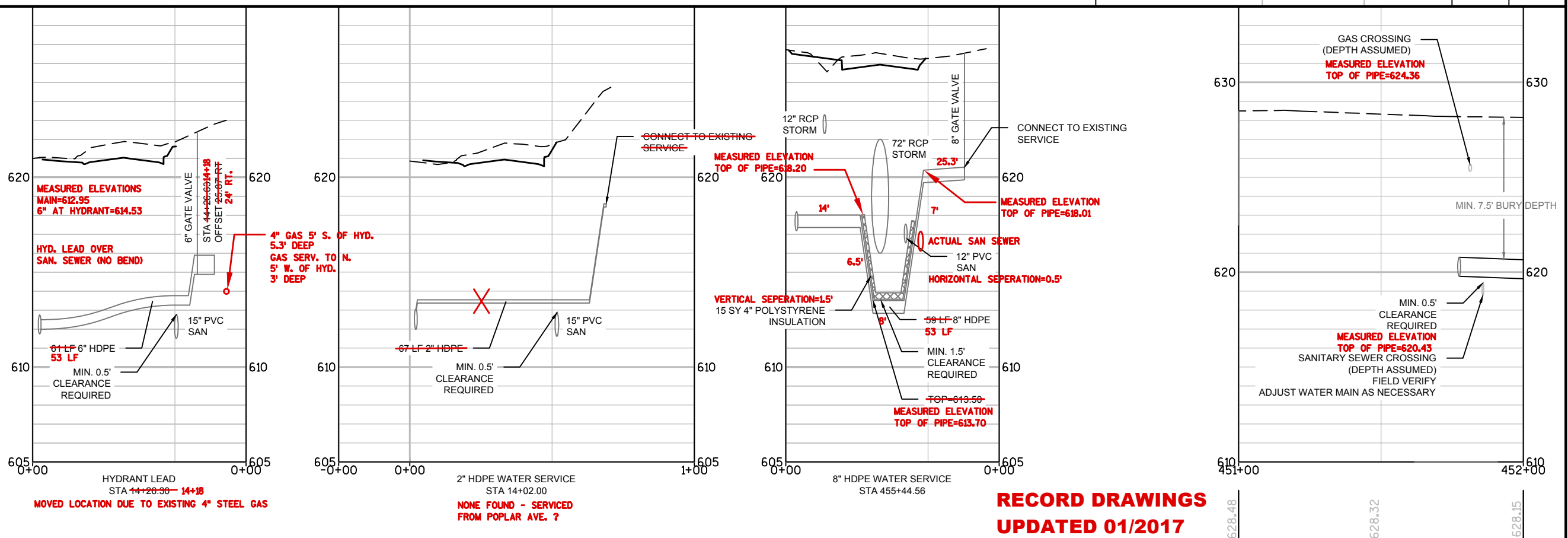
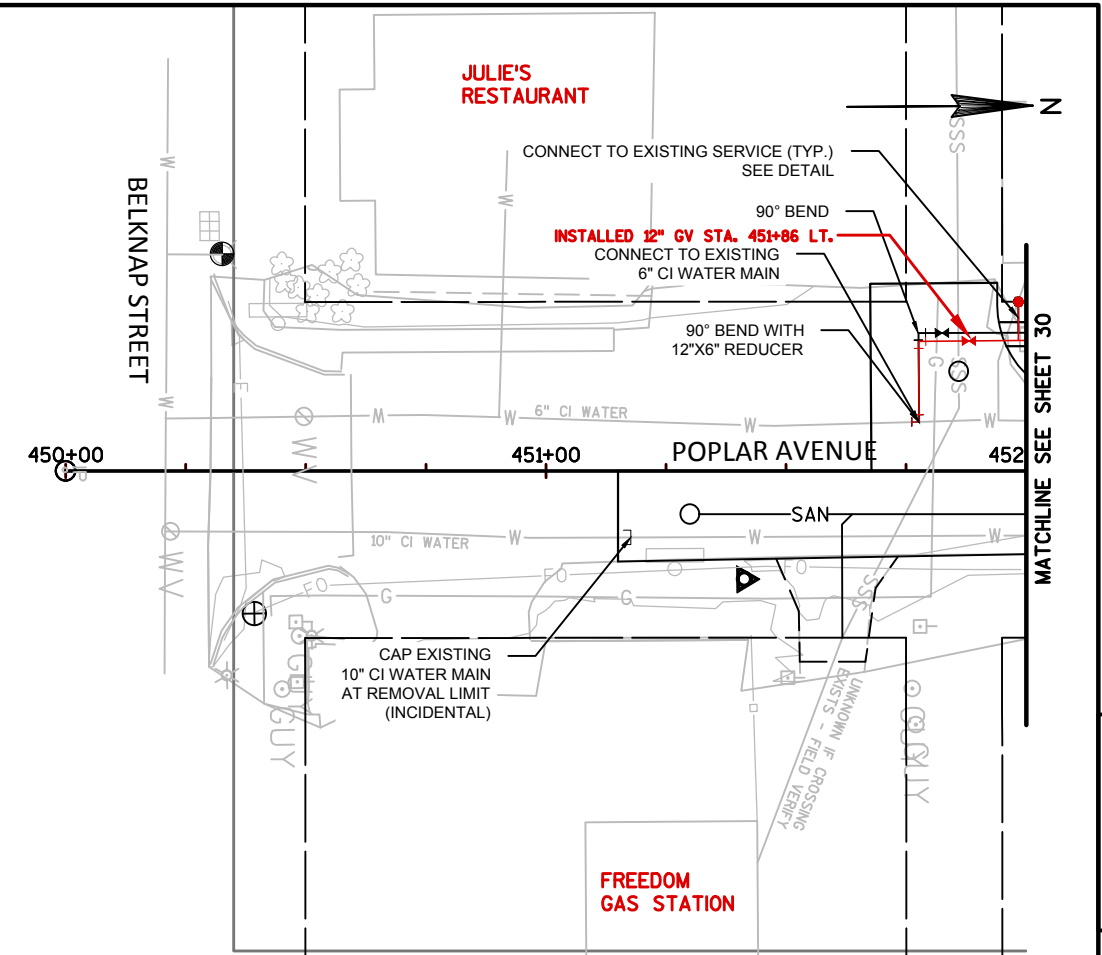
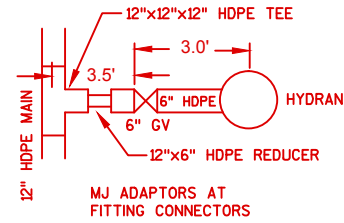
MOVED LOCATION DUE TO EXISTING 4" STEEL GAS AND SERVICE TO NORTH

- NOTES: 1. FIELD VERIFY ALL SERVICE LOCATIONS.
2. EXACT ALIGNMENT OF ALL WATER SERVICES TO BE COORDINATED BY CONTRACTOR.
3. REMOVE ALL EXISTING WATER MAIN AND APPURTENANCES WHILE NEW IS INSTALLED.
4. ALL BEND LOCATIONS ARE APPROXIMATE. FIELD VERIFY LOCATION AND IF BENDS ARE REQUIRED.
5. DEFLECTION OF PIPE IS PREFERRED TO BENDS.

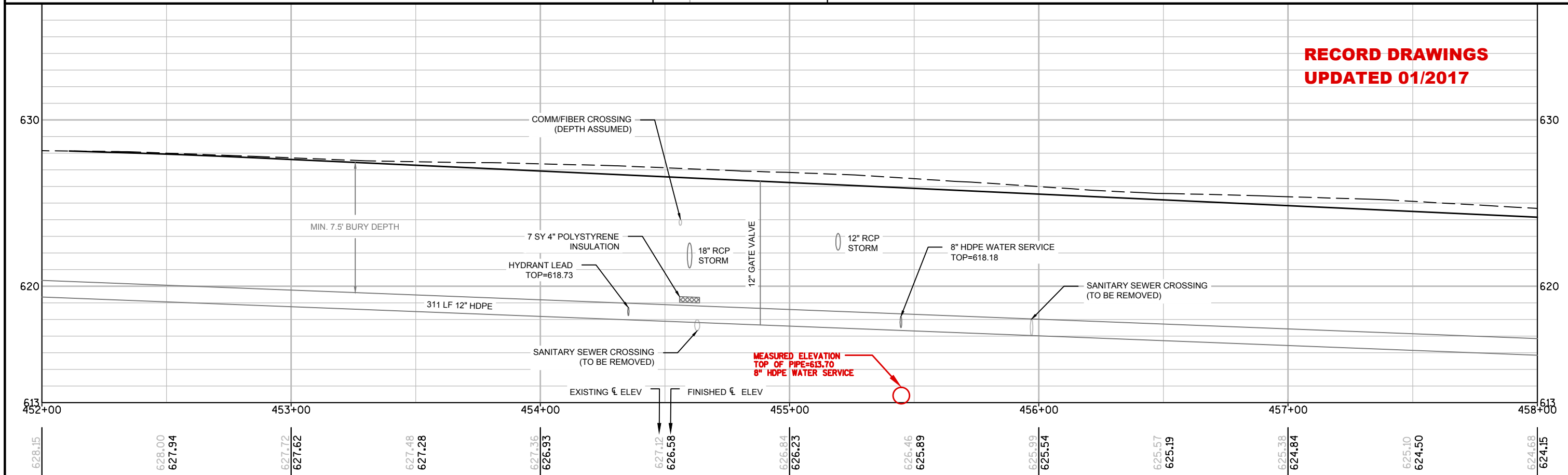
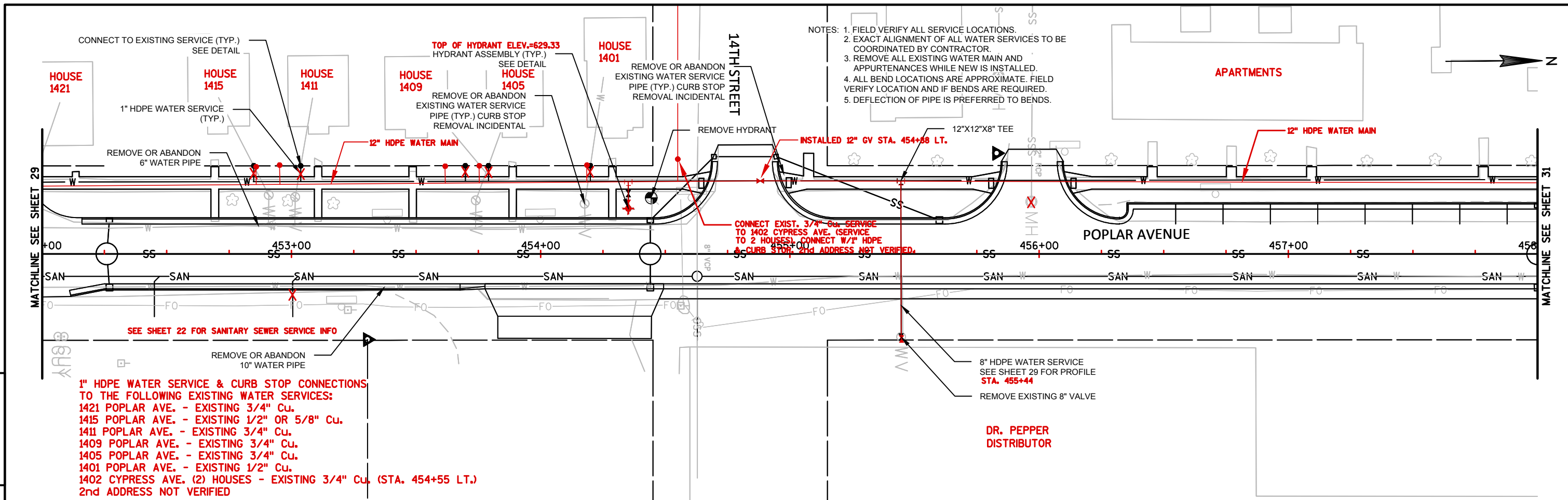
WATER MAIN MATERIALS

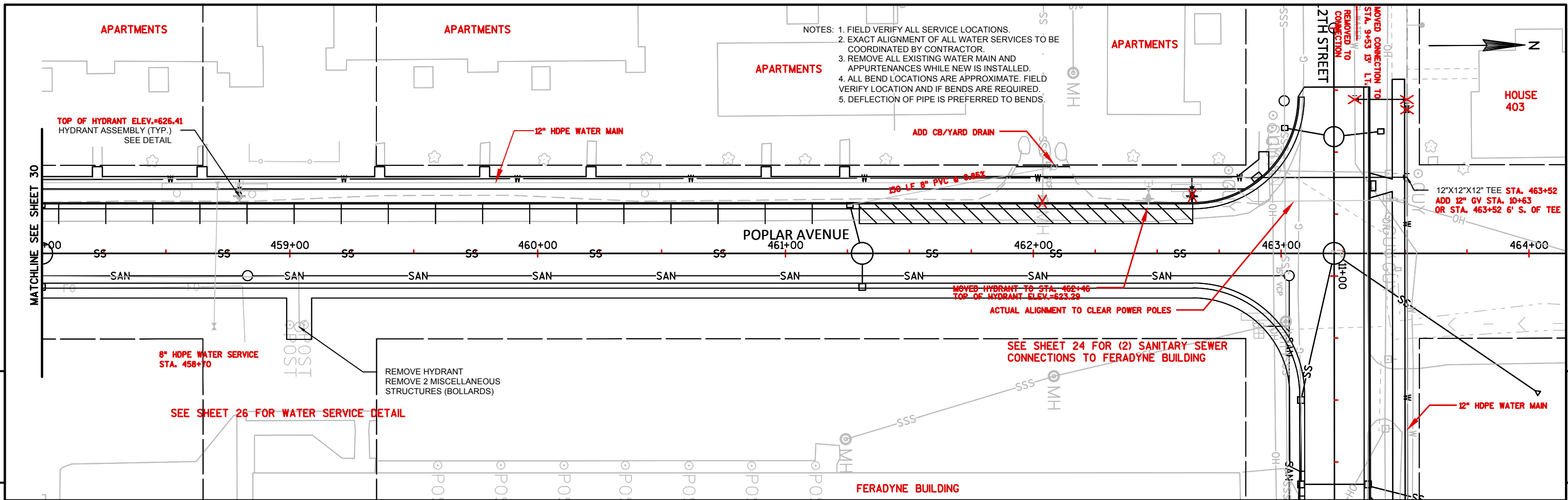
HYDRANTS: WATEROUS TYPE, 7'-6" BURY, DRAIN PLUGS INSTALLED
12" & 6" GATE VALVES: AMERICAN FLOW TYPE
12" GATE VALVE AT CONNECTION WEST OF POPLAR AVE: MUELLER TYPE
ANODE BAGS & CAPS ON ALL HYDRANT & GATE VALVE FITTINGS

TYPICAL HYDRANT DETAIL (POPLAR AVE.)



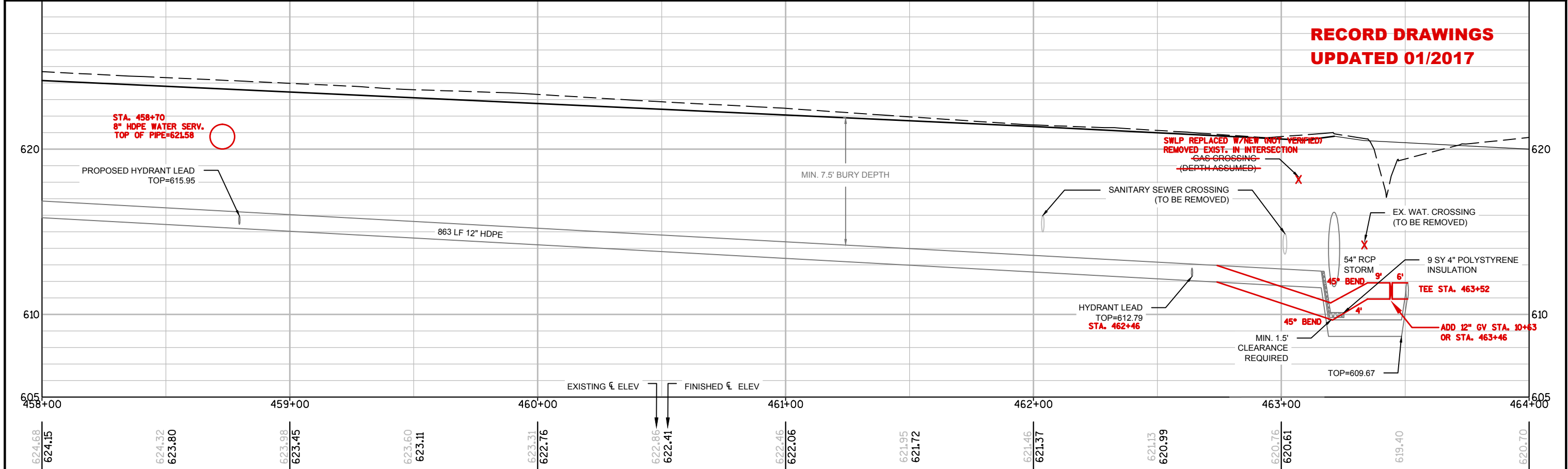
**RECORD DRAWINGS
UPDATED 01/2017**





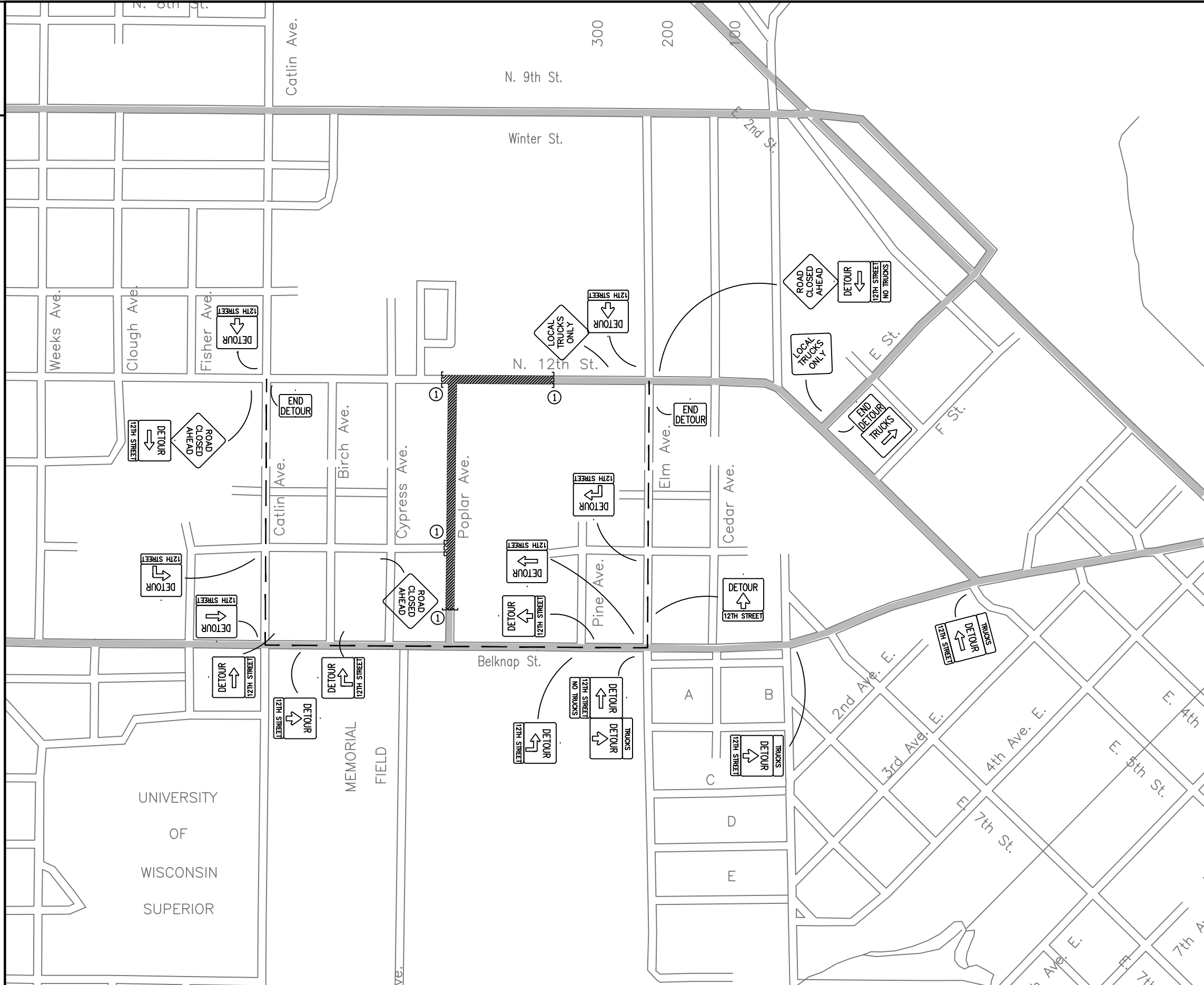
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**RECORD DRAWINGS
UPDATED 01/2017**





**RECORD DRAWINGS
UPDATED 01/2017
NO SHEET CHANGES**



LEGEND:

- CITY DESIGNATED TRUCK ROUTE
- DETOUR ROUTE (NON TRUCK)
- SEE S.D.D. 15C 3-1

NOTES:

NO ADDED PAYMENT SHALL BE MADE FOR ADJUSTMENTS TO THIS PLAN (I.E. AS NEEDED FOR CONTRACTOR OPERATIONS).

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MUTCD INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS" - CURRENT EDITION.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

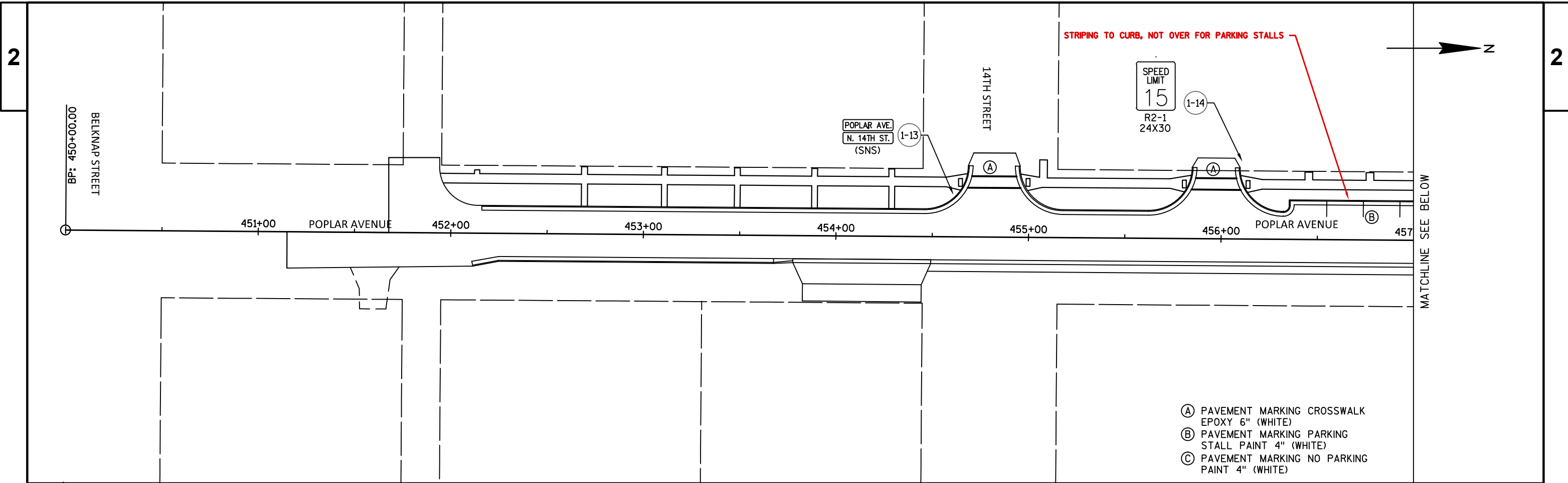
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

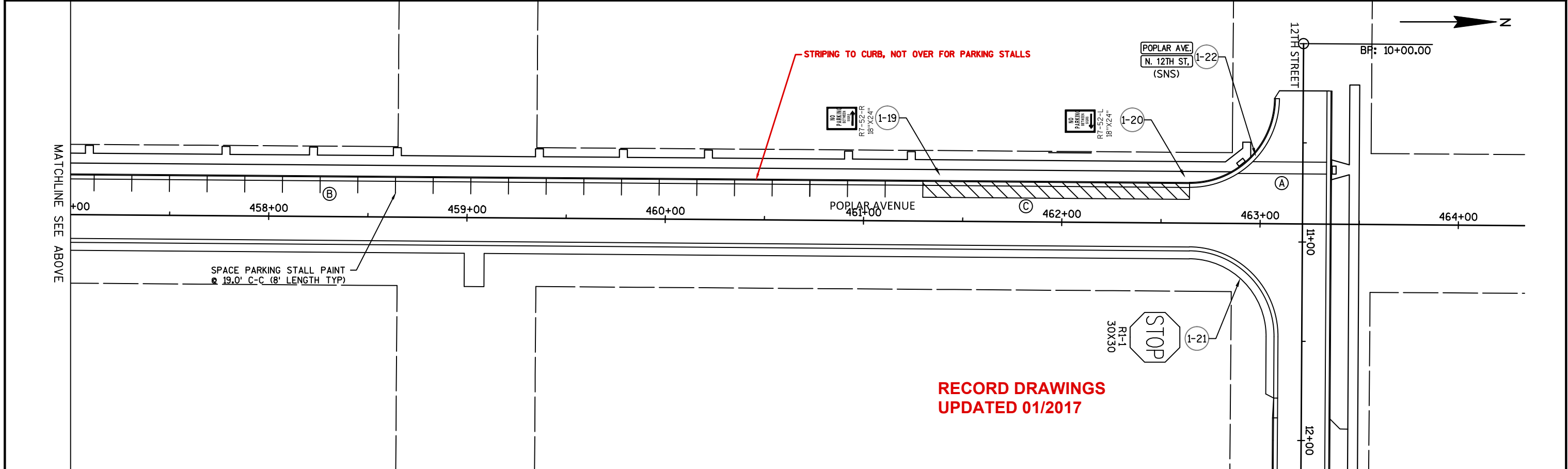
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

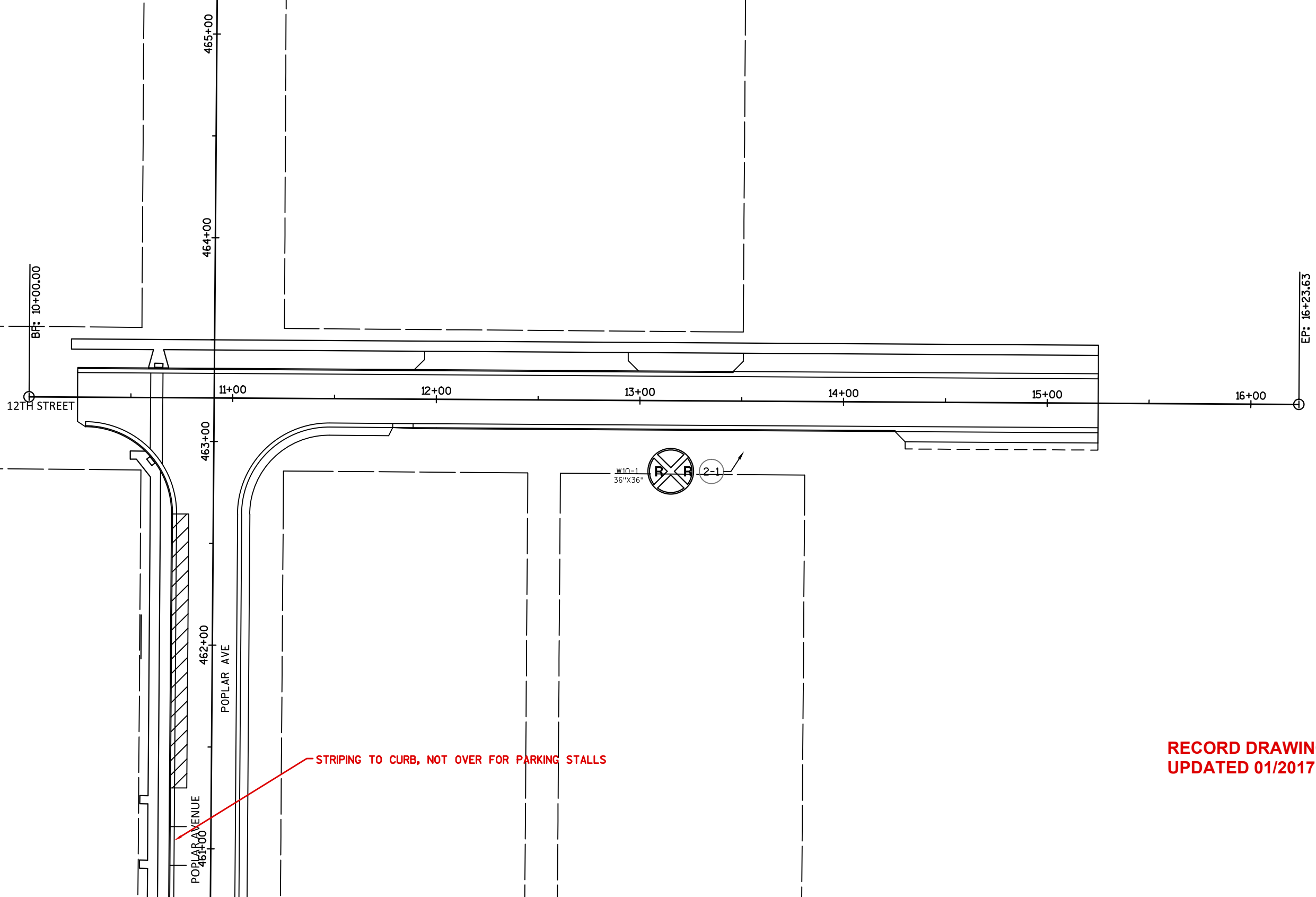
ALL SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE CONSTRUCTION TRAFFIC PATTERN SHALL BE REMOVED OR COVERED.



- Ⓐ PAVEMENT MARKING CROSSWALK EPOXY 6" (WHITE)
- Ⓑ PAVEMENT MARKING PARKING STALL PAINT 4" (WHITE)
- Ⓒ PAVEMENT MARKING NO PARKING PAINT 4" (WHITE)



**RECORD DRAWINGS
UPDATED 01/2017**



STRIPING TO CURB, NOT OVER FOR PARKING STALLS

RECORD DRAWINGS
UPDATED 01/2017