

LEGEND AND ABBREVIATIONS

	TRAVERSE POINT		TILE		DRAIN TILE		EDGE OF BRUSH
	POWER POLE		PVC P		PVC PIPE		EDGE OF WOODS
	LIGHT POLE		CO		CLEANOUT		HEDGE ROW
	FLAG POLE		R BAR		REBAR		RIP RAP
	MANHOLE		BM.		BENCH MARK		CHAIN LINK FENCE
	STORM INLET		TMH		TELEPHONE MANHOLE		GUARD RAIL
	WATER VALVE		GSV		GAS SERVICE VALVE		BURIED CABLE TV
	GAS VALVE		WSV		WATER SERVICE VALVE		BURIED ELECTRIC LINE
	FIRE HYDRANT				CATCH BASIN		OVERHEAD ELECTRIC LINE
	MAIL BOX				CONIFEROUS TREE		BURIED GAS MAIN
	TELEPHONE PEDESTAL				STUMP		BURIED FORCE MAIN
	CONTROL BOX				BUSH		BURIED STREET LIGHTING
	TRAFFIC SIGNAL		METAL		METAL POST		BURIED SANITARY SEWER
	GUY WIRE				HANDHOLE		BURIED MIS SEWER
	MONUMENT				MISCELLANEOUS METER		BURIED STORM SEWER
	1" IRON PIPE		WOOD		WOOD POST		BURIED TELEPHONE LINE
	2" IRON PIPE				ABANDONED POLE		BURIED WATER MAIN
	VENT PIPE		YL		YARD LIGHT		EXISTING PROPERTY LINE
	PULL BOX				SIGN		EXISTING RIGHT OF WAY
	AIR CONDITIONER				INLET PROTECTION		
	DECIDUOUS TREE				CULVERT PIPE DITCH CHECK		

ASPH.	ASPHALT	I.E.	INVERT ELEVATION
BSM'T.	BASEMENT	I.P.	IRON PIPE
BIT.	BITUMINOUS	LAT.	LATERAL
CB.	CATCHBASIN	MH.	MANHOLE
C/L	CENTERLINE	M.J.	MECHANICAL JOINT
CIPP	CURED-IN-PLACE PIPE	PAV'T.	PAVEMENT
COMM	COMMUNICATIONS	PROP.	PROPOSED
CONC.	CONCRETE	PVC	POLYVINYL CHLORIDE
CMP	CORRUGATED METAL PIPE	PVC P.	PVC PIPE
CMPA	CORRUGATED METAL PIPE ARCH	OH	OVERHEAD
C&G	CURB & GUTTER	R. BAR	REBAR
DRAIN T.	DRAIN TILE	REQ'D.	REQUIRED
D.I.P.	DUCTILE IRON PIPE	R.J.	RESTRAINED JOINT
DWY.	DRIVEWAY	R.O.W.	RIGHT-OF-WAY
ECC.	ECCENTRIC	SAN.	SANITARY
ELEC.	ELECTRIC	S.	SLOPE
EXIST.	EXISTING	STL.	STEEL
EX.	EXISTING	STM.	STORM
F.F.	FIRST FLOOR	SUMP D.	SUMP DISCHARGE
FM.	FORCE MAIN	S/W	SIDE WALK
F.O.C.	FACE OF CURB	TELE	TELEPHONE
G.V.	GAS VALVE	TYP.	TYPICAL
GR.	GRAVEL	VENT P.	VENT PIPE
G.W.	GUY WIRE	WM.	WATER MAIN
HYD.	HYDRANT	W.V.	WATER VALVE
INL.	INLET	W/	WITH

SHEET INDEX

Sheet No.	01	COVER SHEET
Sheet No.	02	INDEX SHEET
Sheet No.	03-06	PROPOSED HYDRANT ALTERATIONS
Sheet No.	07	PROPOSED WATER MAIN RELAY
Sheet No.	08-13	TRAFFIC CONTROL

TOTAL SHEETS = 13

CITY OF OAK CREEK

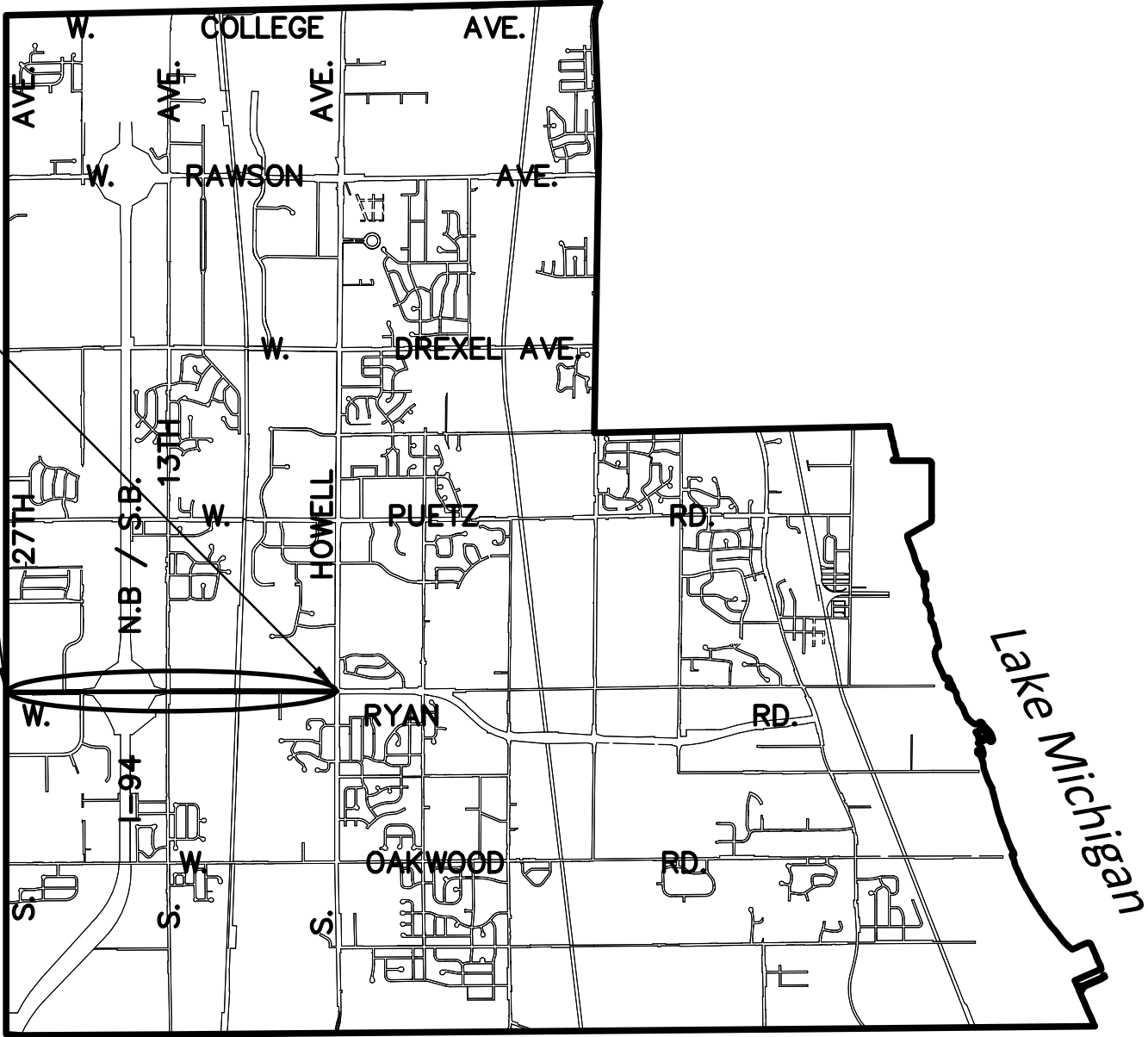
WATER AND SEWER UTILITY

W. RYAN ROAD (STH 100)
WATER MAIN RELAY
AND
HYDRANT RELOCATIONS

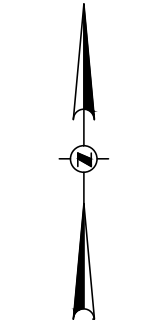
PROJECT NUMBER
14104

JANUARY 16, 2014

PROJECT LOCATION
IN: W. RYAN ROAD (STH 100)
FROM: S. 27TH STREET (STH 241)
TO: S. HOWELL AVENUE (STH 38)

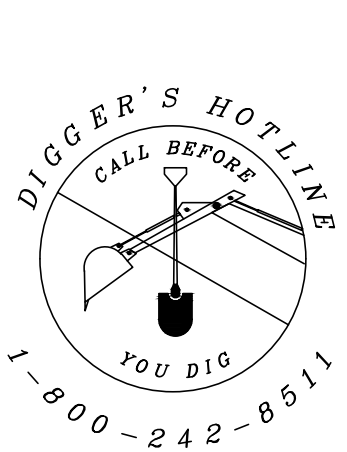
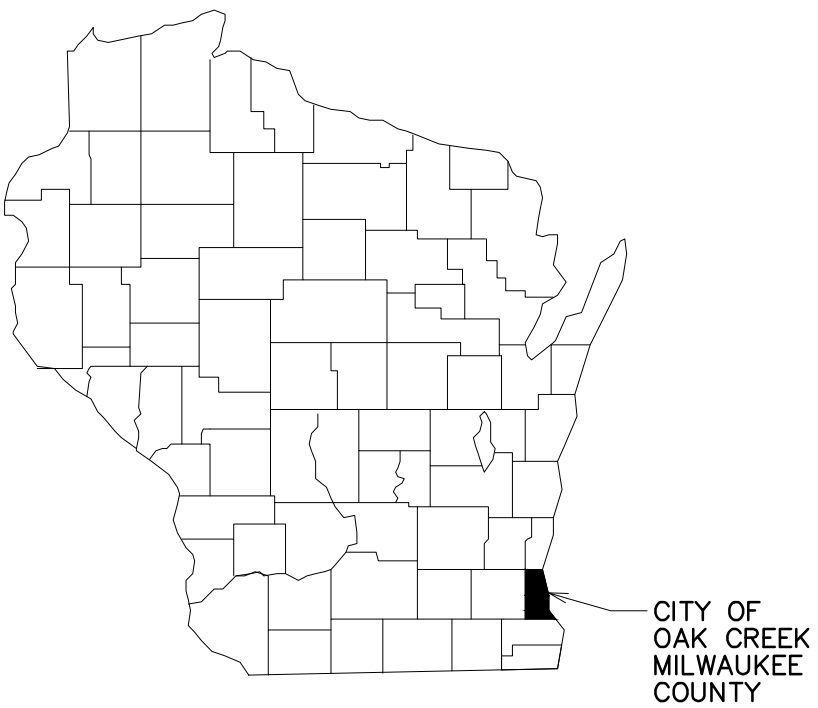


CITY OF OAK CREEK
VICINITY MAP



WATER and SEWER UTILITY

A COMMITMENT TO WATER QUALITY



Gräef

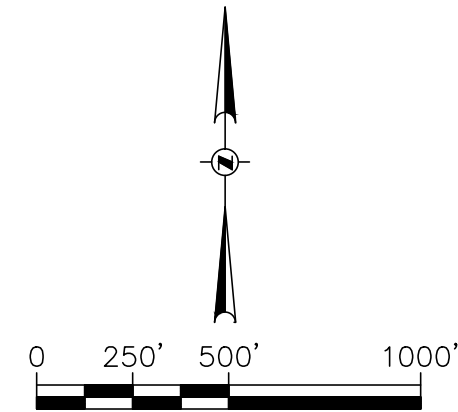
One Honey Creek Corporate Center
125 South 84th Street, Suite 401
Milwaukee, WI 53214-1469
414 / 259 1500
414 / 259 0037 fax
www.graef-usa.com

PROJECT ENGINEER: GRAEF

1. THE BASE SURVEY AND PROPOSED LINEWORK WAS PREPARED BY OTHERS. ALL UNDERGROUND UTILITIES AND STRUCTURES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE THERETO.
2. CONTRACTOR SHALL VERIFY LOCATION OF PROPOSED WORK AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
3. CONTRACTOR SHALL FURNISH ALL PROPOSED HYDRANTS WITH A BURY DEPTH OF 6- FEET AND PROVIDE EXTENSIONS AS REQUIRED TO SET BOTTOM HYD. FLANGE AT THE PROPOSED GROUND ELEVATION.
4. ALL JOINTS AND FITTINGS SHALL BE RESTRAINED WITH MEGA LUGS OR ENGINEER APPROVED EQUAL.
5. CONTRACTOR SHALL VERIFY PROPOSED ROADWAY IMPROVEMENTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES WITH PROPOSED PLAN.
6. CONTRACTOR SHALL PROVIDE CONCRETE BUTTRESS RESTRAINT AT ALL HORIZONTAL BENDS W/STANDARD DIMENSIONS PER FILE NO. 44 OF THE STANDARD SPECIFICATIONS.
7. ALL DIMENSIONS ARE TO CENTER OF STRUCTURE OR OPERATING NUT OF HYDRANT.

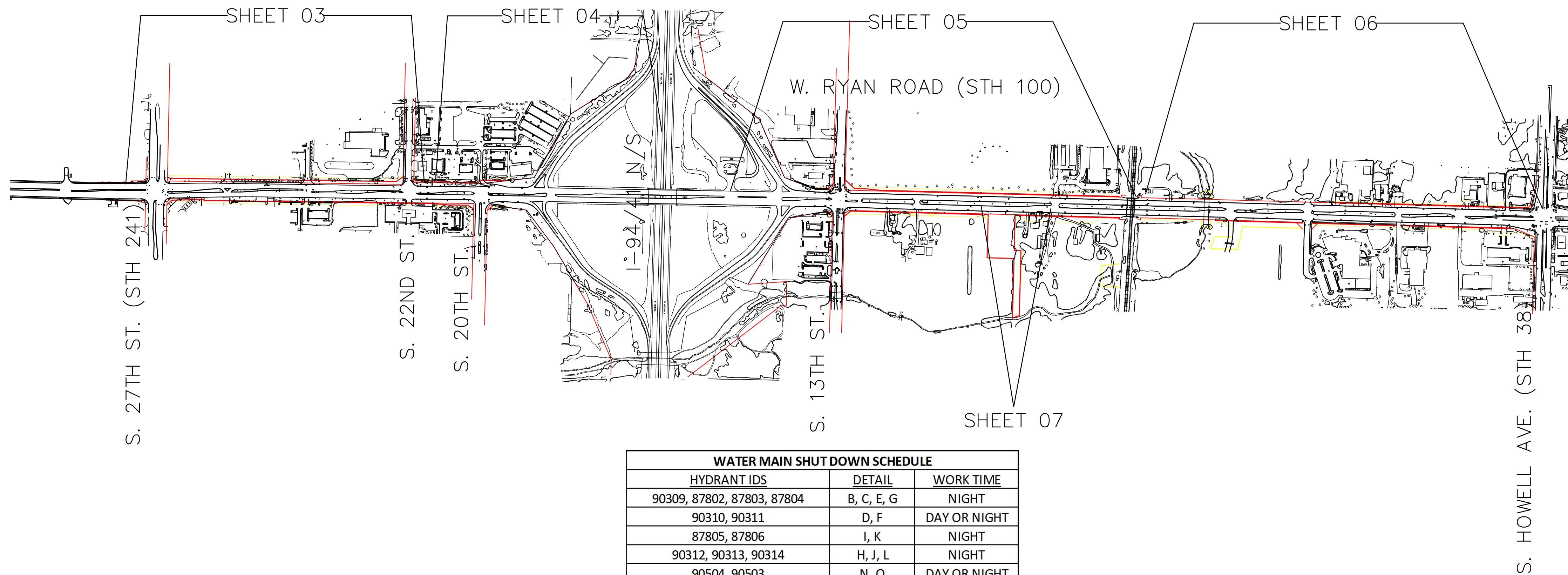
8. RESTRAIN ALL HYDRANT LEAD JOINTS.
9. LOCATE PROPOSED HYDRANT BASED ON DIMENSION FROM EXISTING CURB.
10. CONTRACTOR SHALL FURNISH ALL HYDRANTS NOT SALVAGED UNDER HYDRANT RELOCATION AND ALTERATION BID ITEMS.
11. CONTRACTOR SHALL INSULATE ALL HYDRANT LEADS AND MAINLINE WATER MAIN WHERE GROUND COVER IS LESS THAN 6- FEET. INSULATION IS INCIDENTAL TO WATER MAIN AND HYDRANT ALTERATION/RELOCATION BID ITEMS.
12. CONTRACTOR SHALL BACKFILL ALL TRENCH EXCAVATIONS WITH GRANULAR BACKFILL AS DESIGNATED IN SECTION 209 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL CURB AND GUTTER AND ROADWAY RESTORATION SHALL BE ASPHALT PAVEMENT.
13. PHASING TABLE PROVIDES HYDRANT SETS CORRESPONDING TO SINGLE MAIN LINE SHUT DOWN. EACH PHASE CORRESPONDS TO A SINGLE 5-HOUR SHUT-DOWN PERIOD BETWEEN THE HOURS OF 10:00 PM AND 3:00 AM FOR HYDRANT ABANDONMENT WORK. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE WORK RESTRICTIONS AS SET FORTH IN THE PROJECT MANUAL. CONTRACTOR SHALL SUBMIT SCHEDULE/PHASING PLAN FOR UTILITY REVIEW/APPROVAL.

14. CONTRACTOR SHALL DELIVER EXISTING HYDRANTS AND SALVAGED VALVES NOT BEING REINSTALLED TO THE OAK CREEK WATER AND SEWER BUILDING LOCATED AT 170 W. DREXEL AVE. OAK CREEK, W 53154 AND COORDINATE DELIVERY WITH UTILITY PERSONNEL.
15. COORDINATES IN THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM (WCOS), MILWAUKEE COUNTY (NAD 1983(GS)). ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88(91)).
16. CONTRACTOR SHALL INSTALL GALVANIC ANODE CORROSION PROTECTION AT EACH ABANDONED HYDRANT TEE, AND AT EACH CONNECTION TO EXISTING WATER MAIN.



1. CONSTRUCTION SITE AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF OAK CREEK, AND SHALL EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSTRUCTION SITE EROSION AND SEDIMENTATION CONTROL TECHNICAL STANDARDS.
2. ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
3. PERIODIC INSPECTION AND MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT LEAVING THE PROJECT LIMITS. EROSION CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORK DAY.
4. SILT FENCE SHALL BE INSTALLED AS DIRECTED BY THE FIELD ENGINEER.
5. INLET PROTECTION SHALL BE INSTALLED ON ALL INLETS RECEIVING RUNOFF FROM THE PROJECT AREA TO TRAP SEDIMENT.
6. EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.
7. ALL DISTURBED AREAS WILL BE PERMANENTLY STABILIZED BY THE APPLICATION OF SEED AND MULCH; THE TYPE OF SEED AND MULCH WILL BE WISDOT MIXTURE 40 AS SPECIFIED IN THE LATEST EDITION OF THE STATE OF WISCONSIN STANDARDS SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
8. TYPE "C" EROSION CONTROL MATTING SHALL BE USED ON ALL SLOPES 3:1 OR GREATER AND AS DIRECTED BY FIELD ENGINEER.

1. TRAFFIC CONTROL SHALL BE INSTALLED IN STAGES CORRESPONDING TO WORK ZONES, AND SHALL BE LIMITED TO AREAS WHERE WORK IS ACTIVELY TAKING PLACE TO MINIMIZE DISRUPTION TO MOTORISTS.
2. ALL TRAFFIC CONTROL SIGNAGE SHALL HAVE DIAMOND GRADE SHEETING PER WISDOT STANDARDS.
3. CONTRACTOR SHALL MAINTAIN A MINIMUM OF TWO LANES OF TRAFFIC ON EASTBOUND RYAN ROAD BETWEEN THE HOURS OF 3:00PM AND 7:00 PM, AND PROVIDE TEMPORARY ASPHALT PAVEMENT AS NEEDED TO MAINTAIN TRAFFIC. (INCIDENTAL TO WATER MAIN BID ITEM)



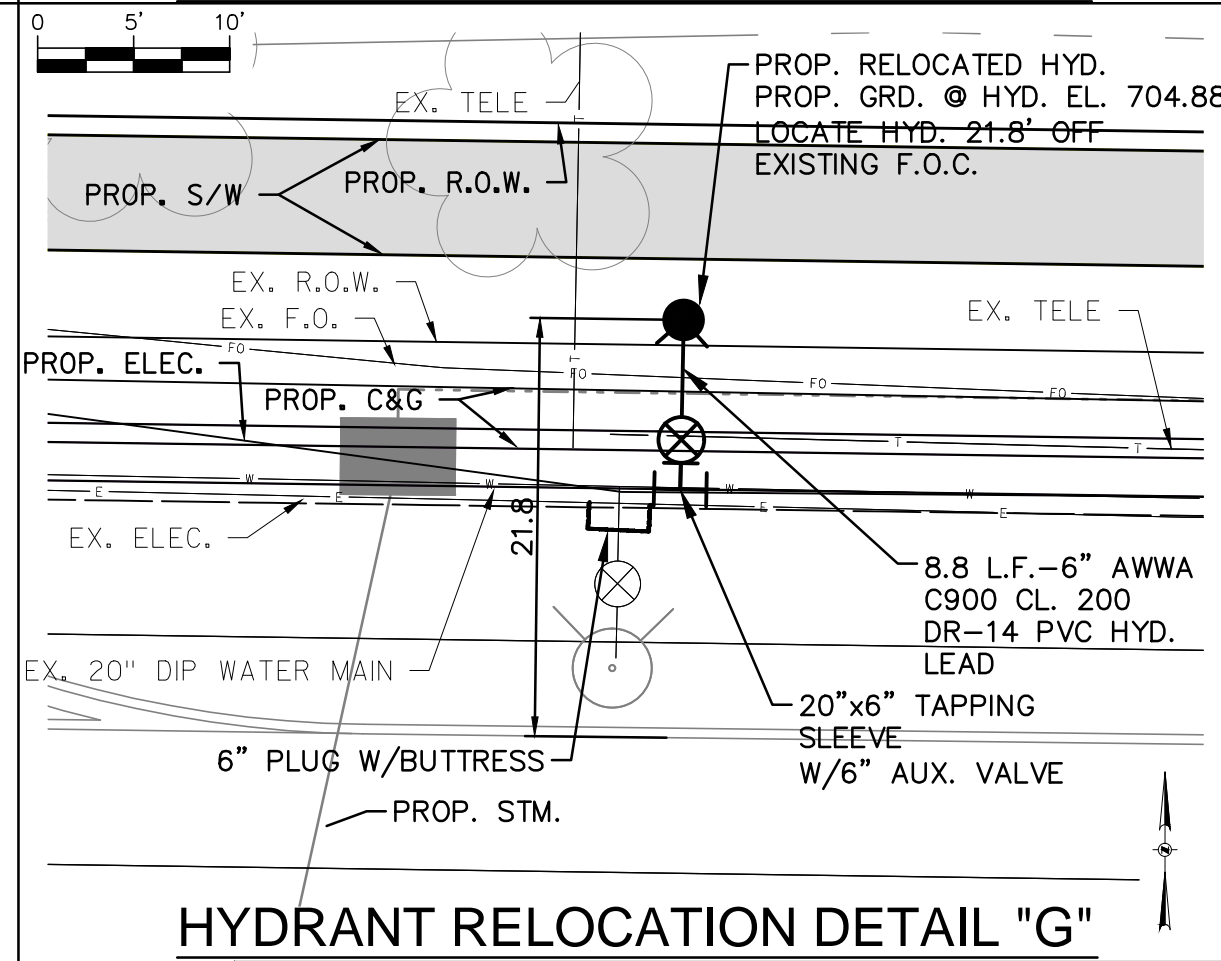
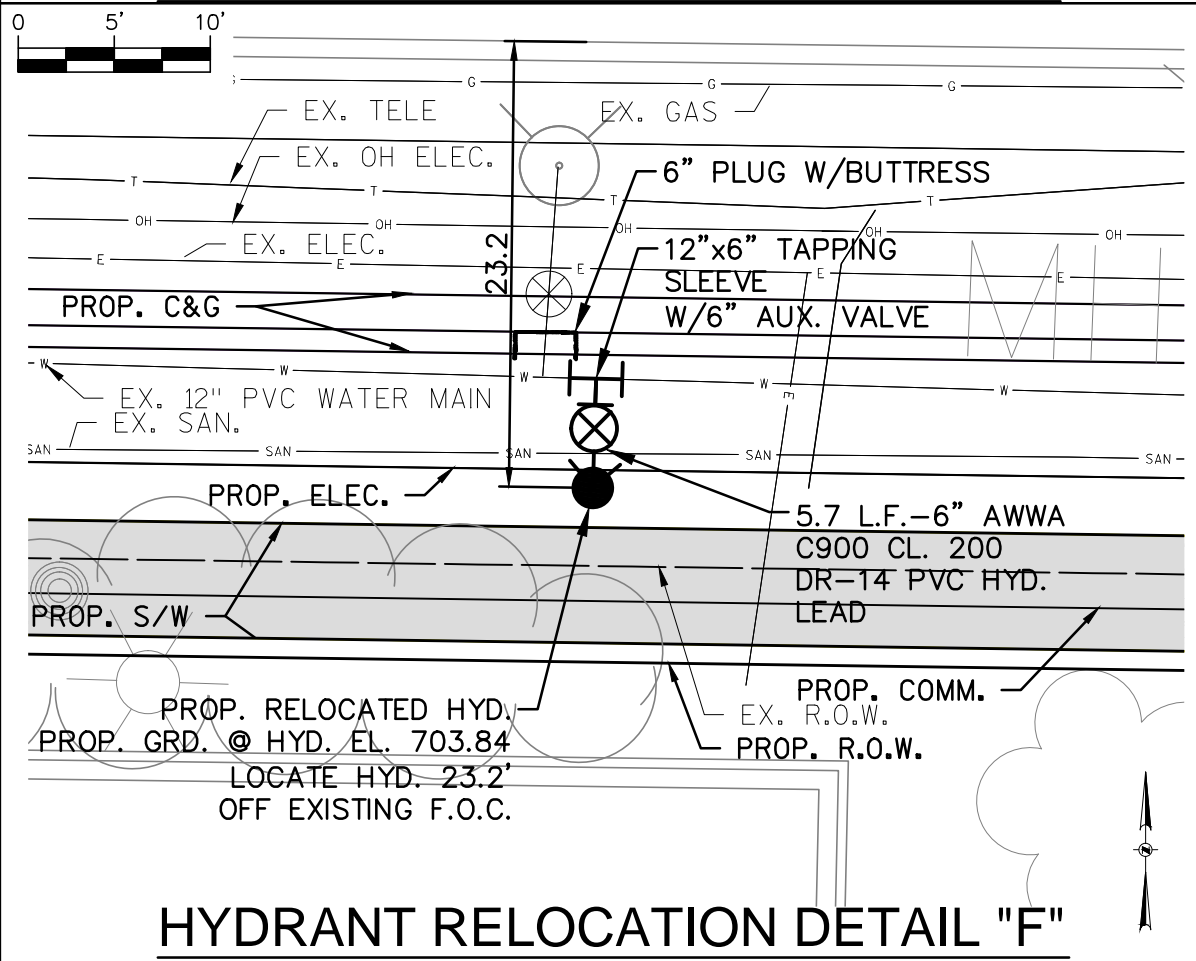
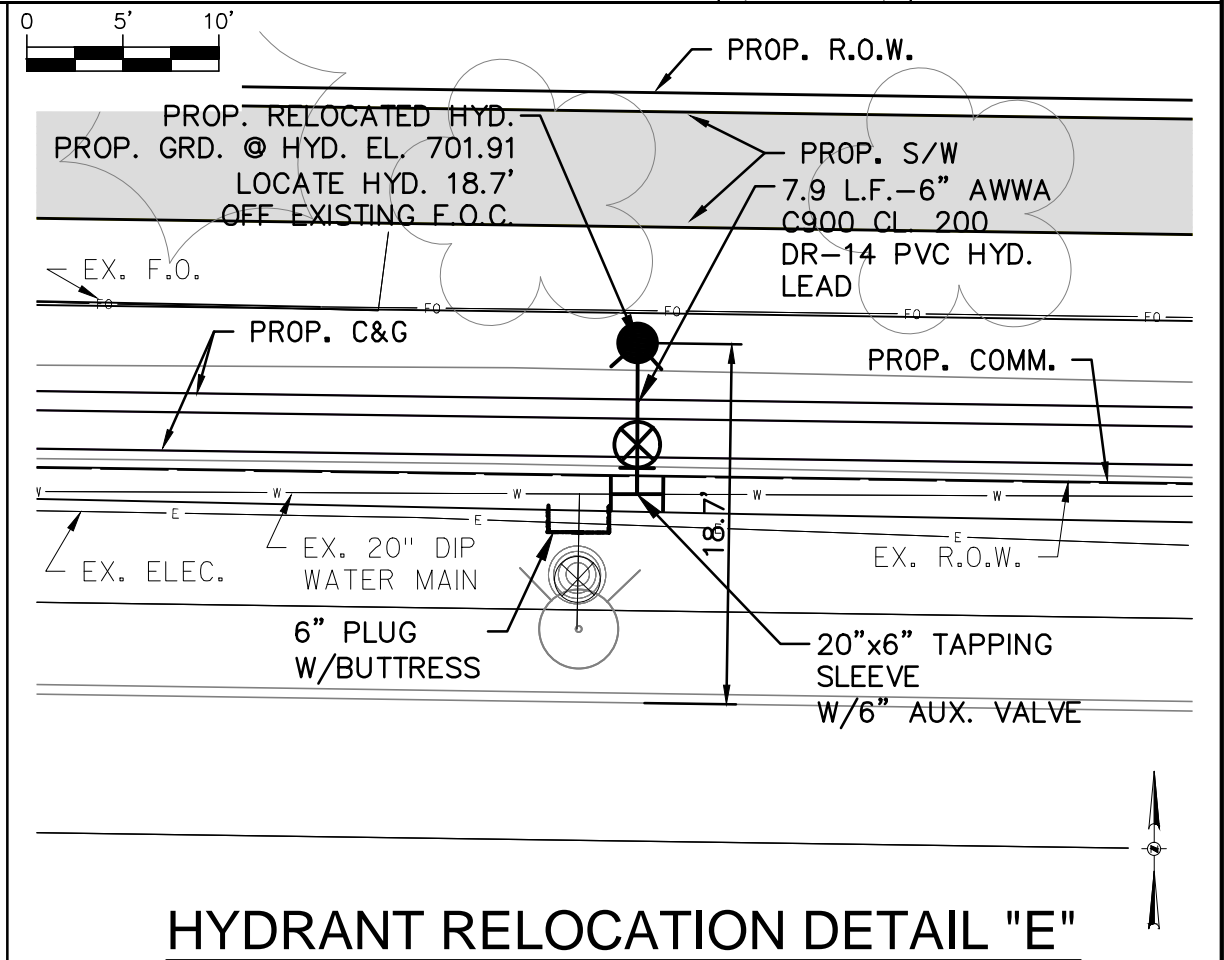
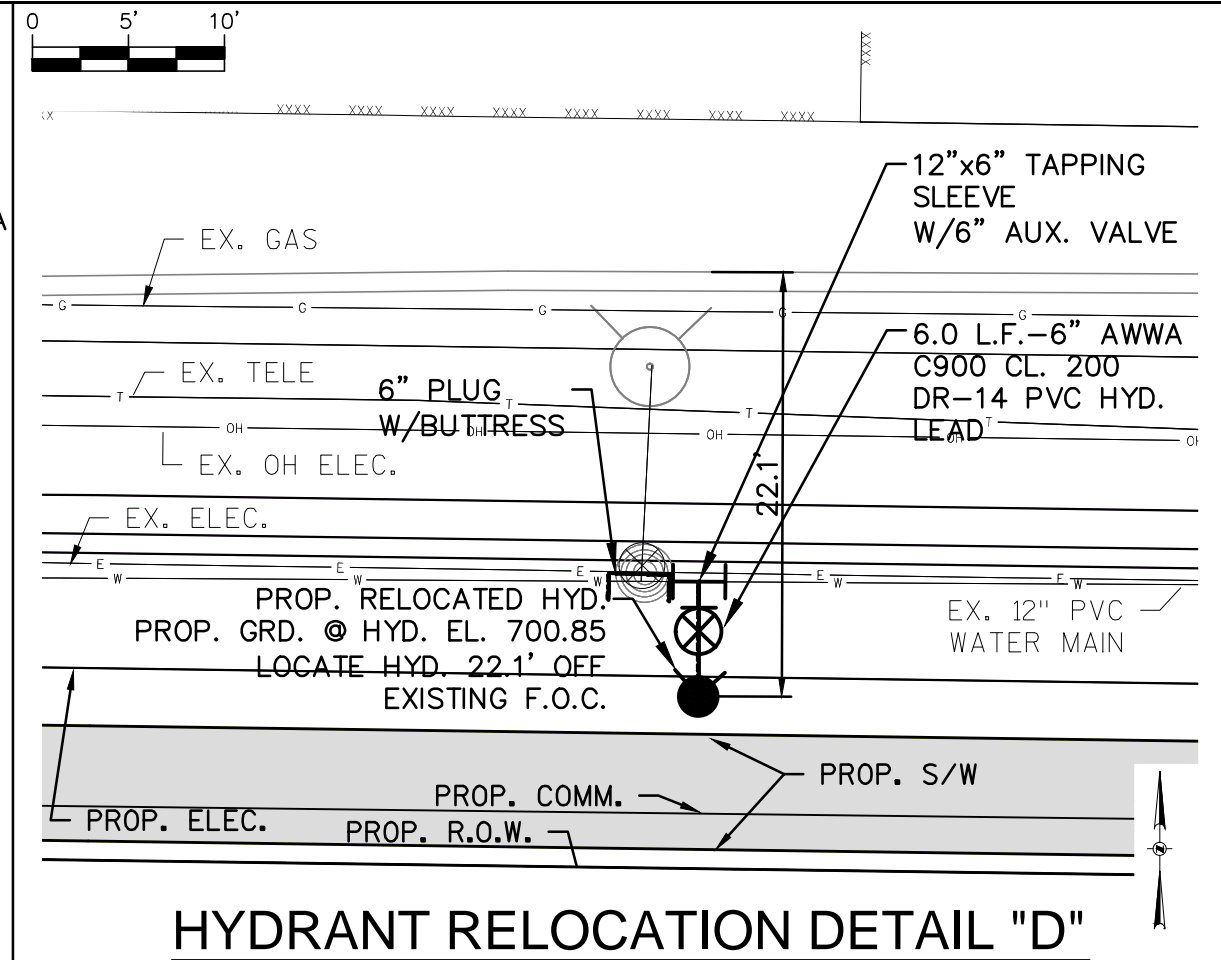
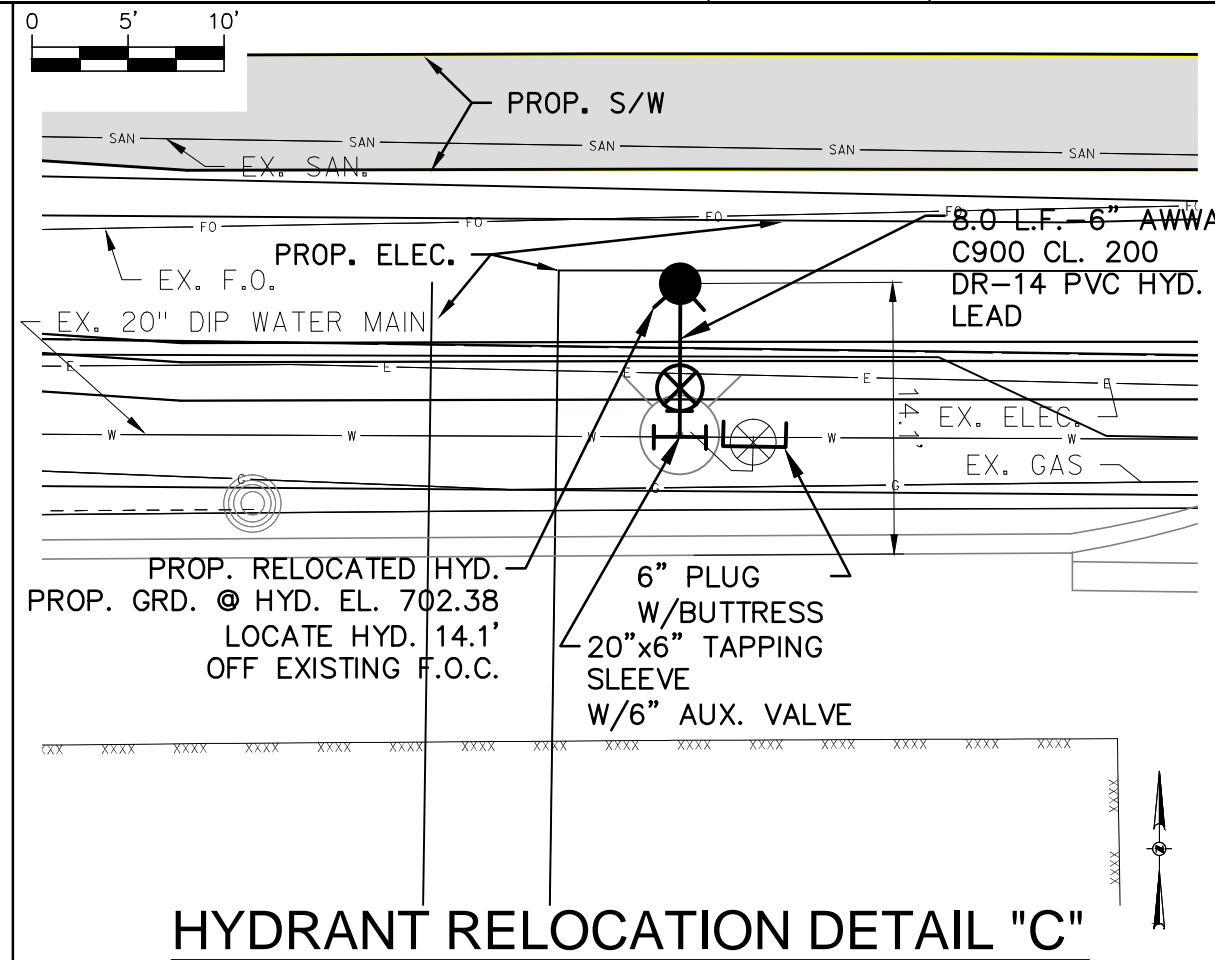
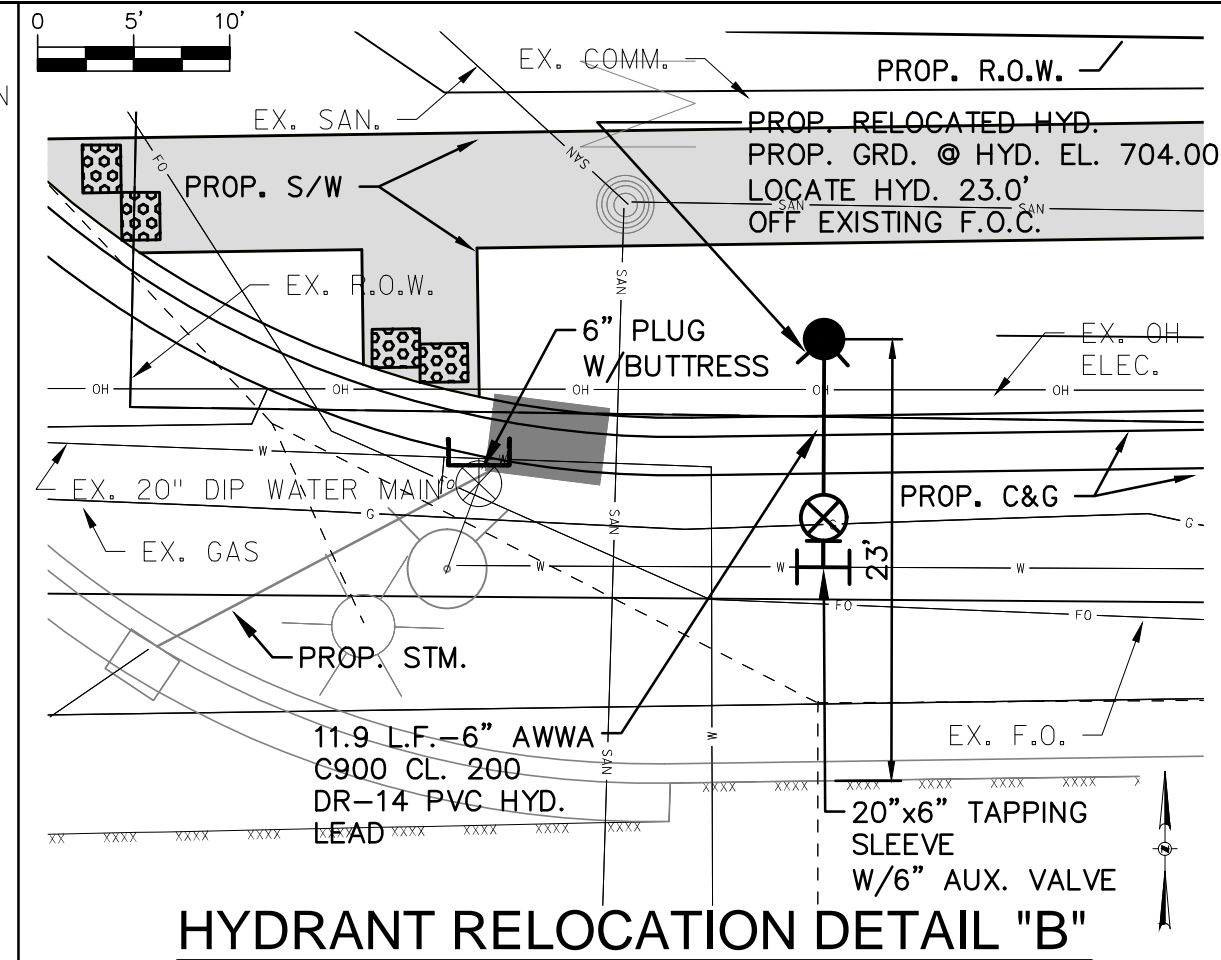
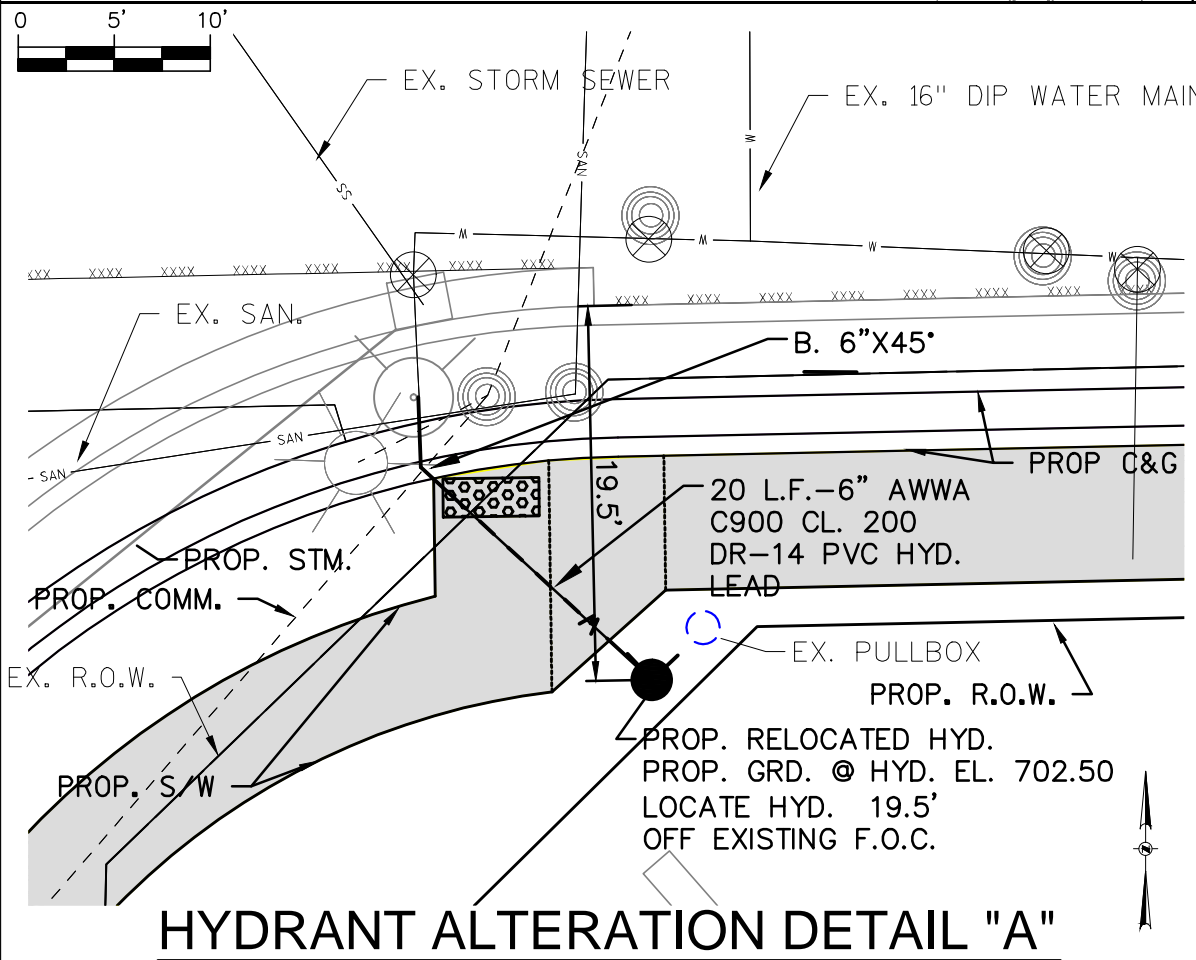
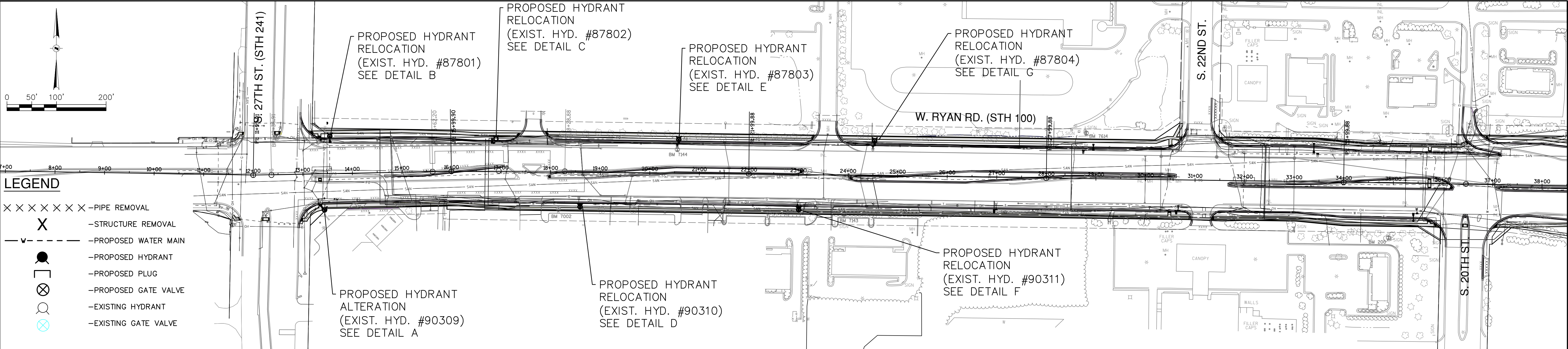
WATER MAIN SHUT DOWN SCHEDULE		
HYDRANT IDS	DETAIL	WORK TIME
90309, 87802, 87803, 87804	B, C, E, G	NIGHT
90310, 90311	D, F	DAY OR NIGHT
87805, 87806	I, K	NIGHT
90312, 90313, 90314	H, J, L	NIGHT
90504, 90503	N, O	DAY OR NIGHT
90602, 90625, 87503	Q, R, S	NIGHT
87502	U	DAY OR NIGHT
90309	A	DAY OR NIGHT
87701	M	DAY OR NIGHT
90501	P	DAY OR NIGHT
90606	T	DAY OR NIGHT
87501	V	NIGHT
90404	W	DAY OR NIGHT


NOTICE:
In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

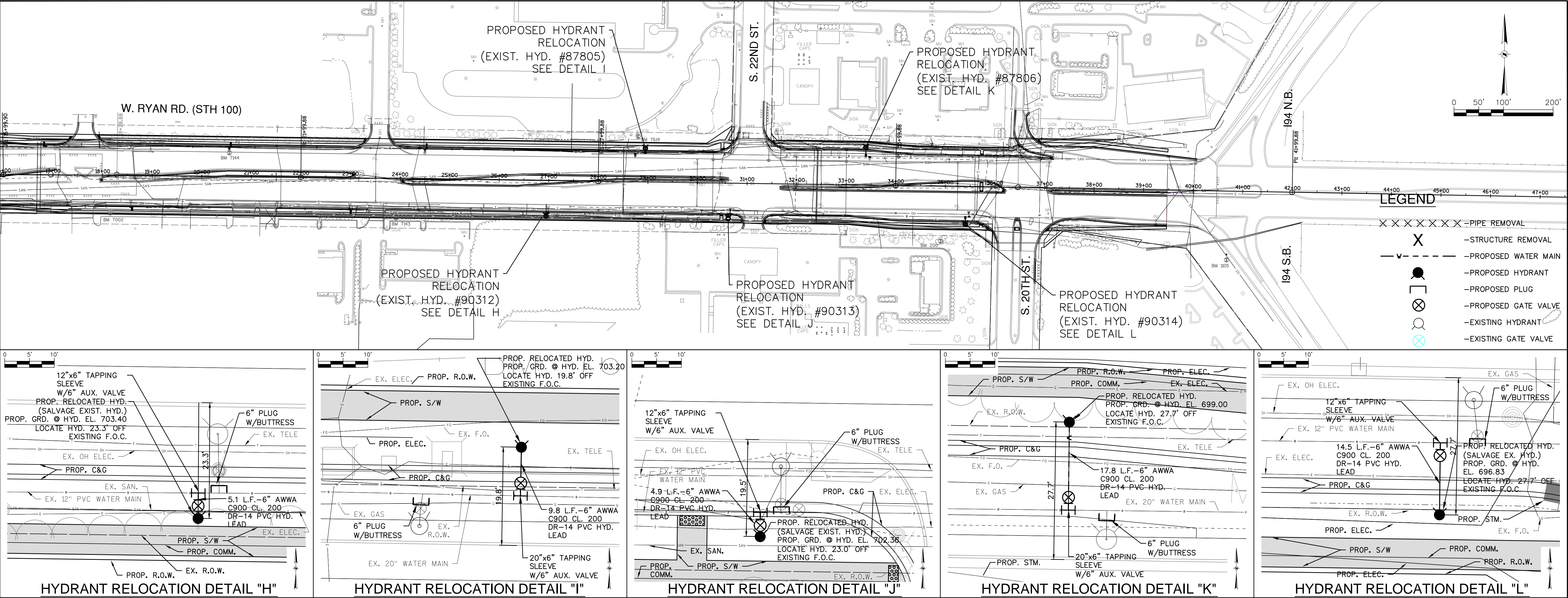
DISCLAIMER:
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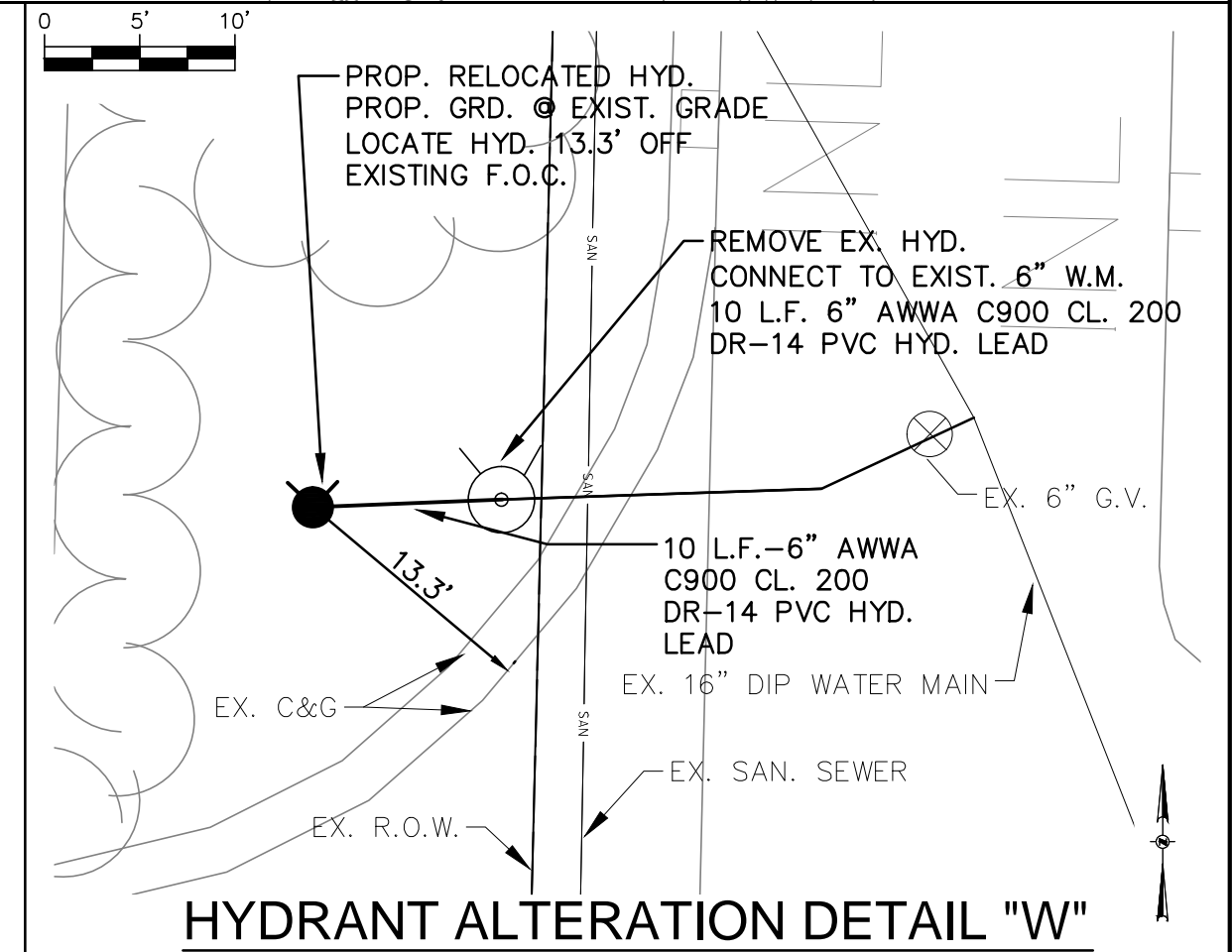
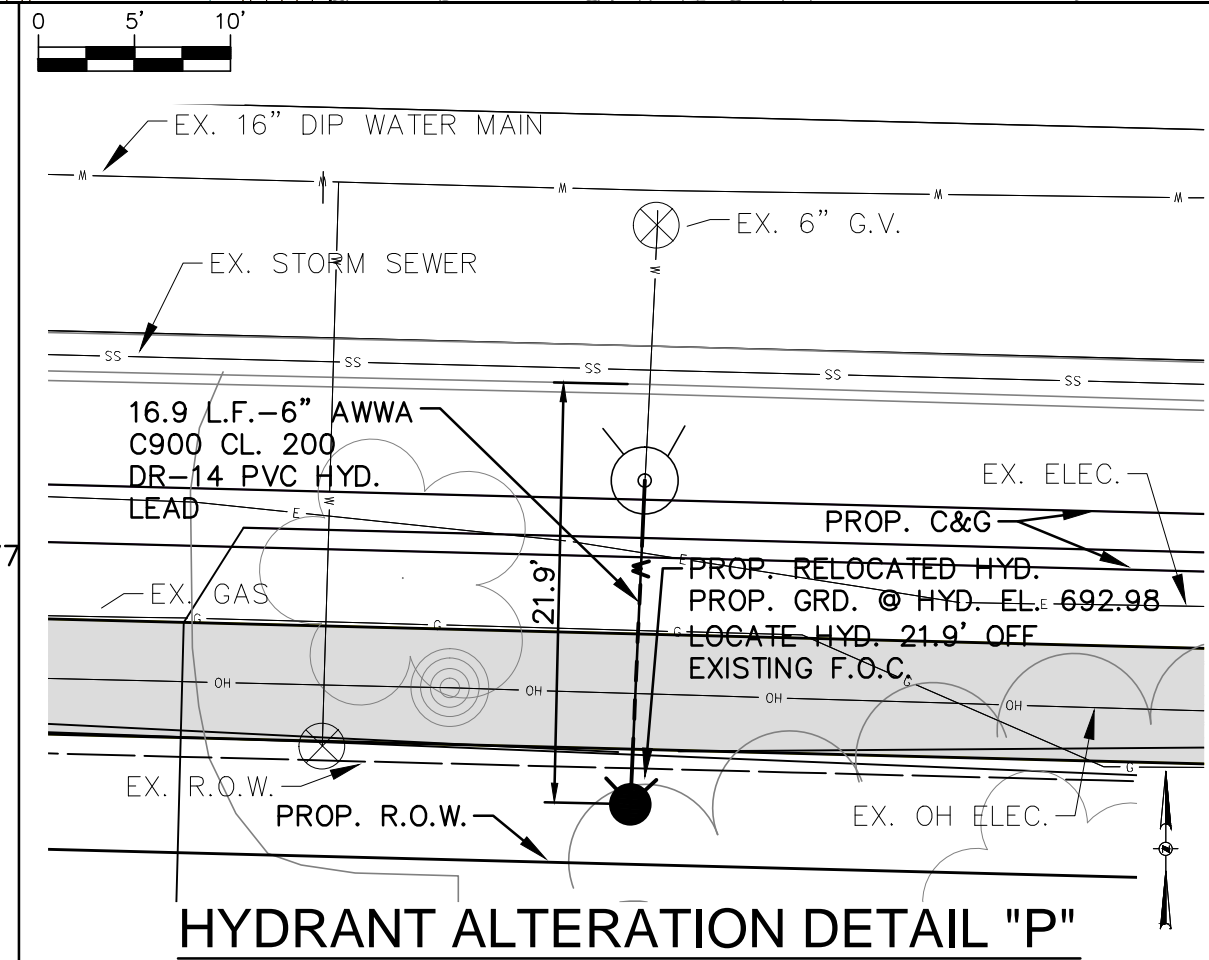
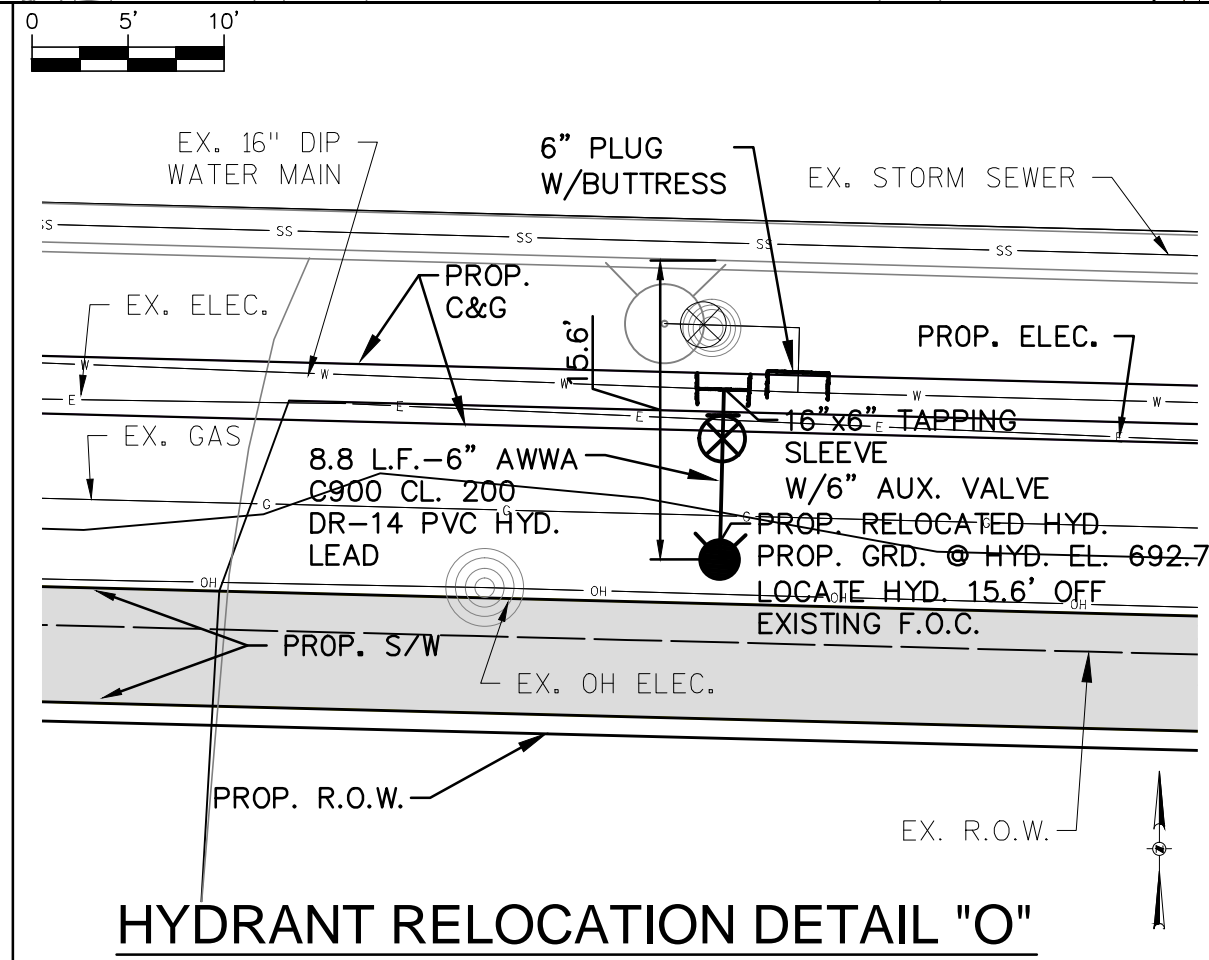
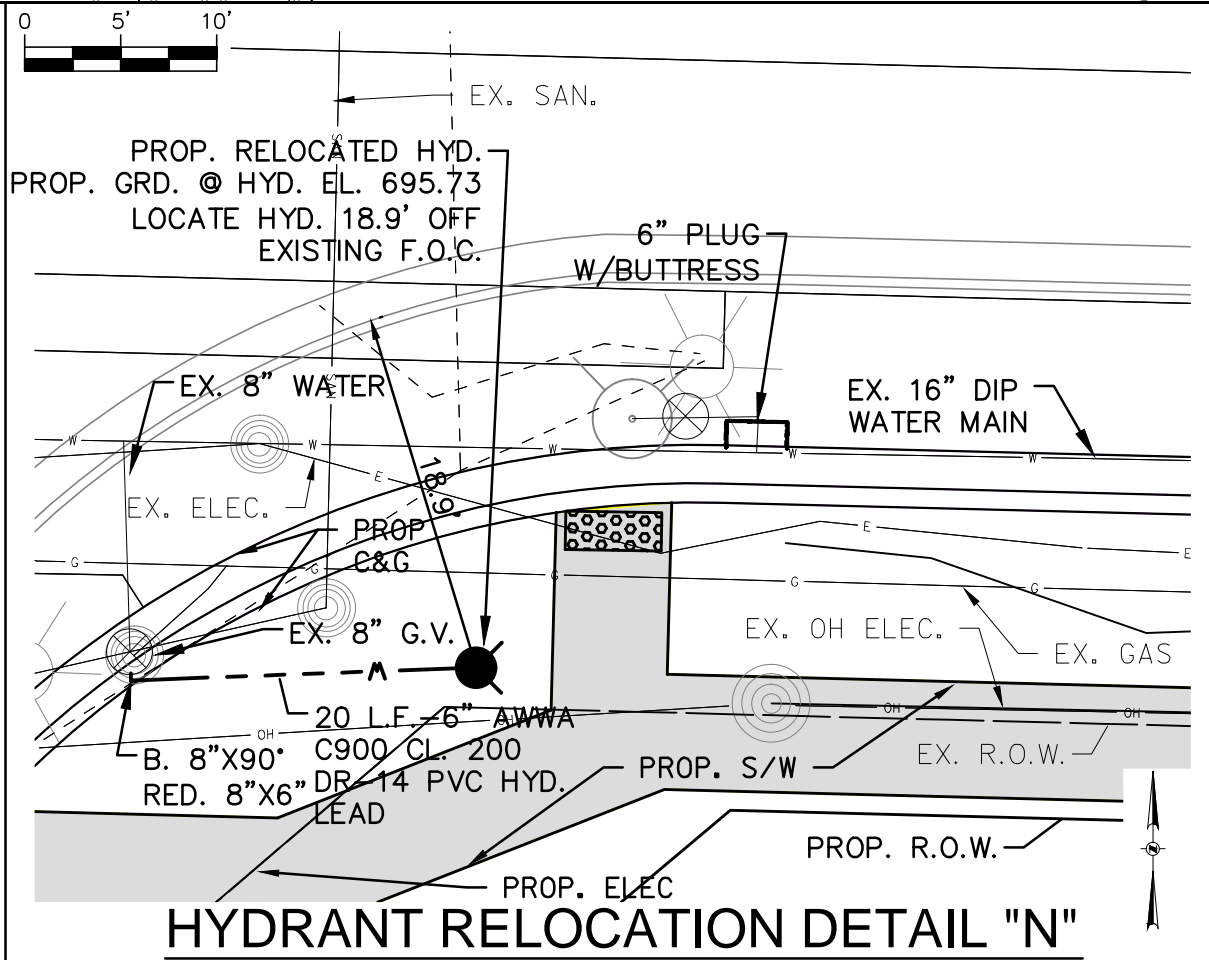
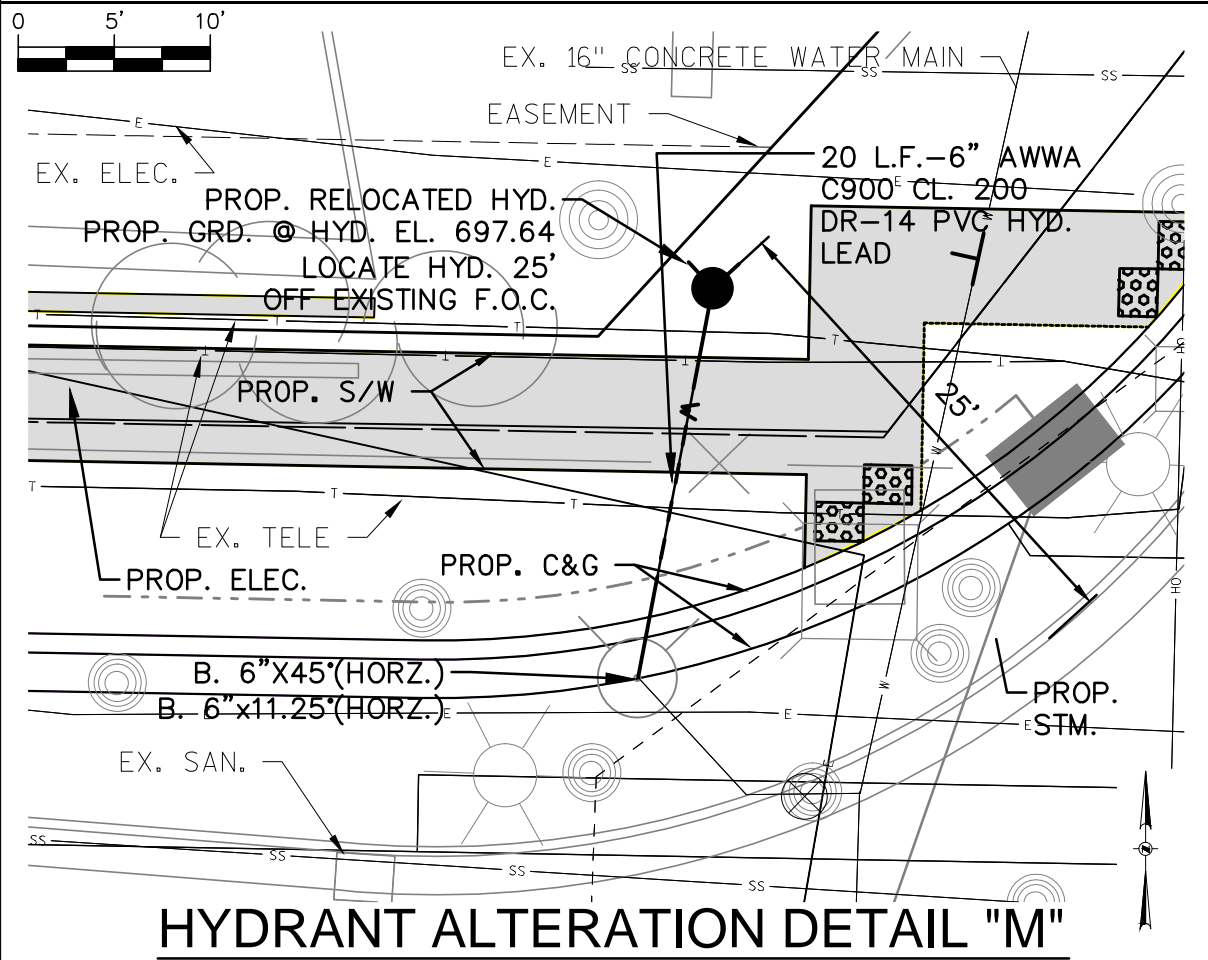
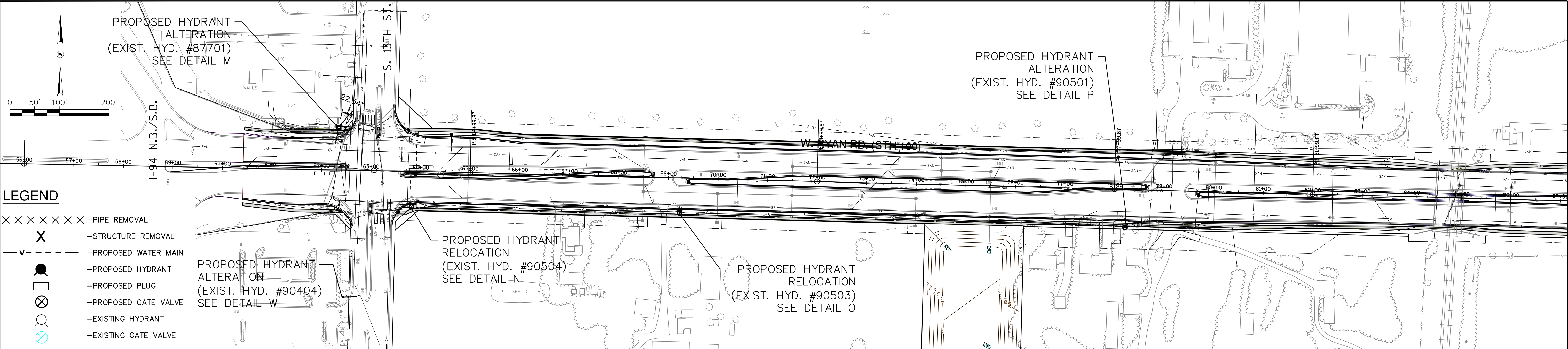
BID ITEM NOS.	ESTIMATE OF QUANTITIES	WATER MAIN		S.A.FKO	CITY OF OAK CREEK, WISCONSIN				APPROVED BY _____	
		CONTRACTOR:		ST.FKO					UTILITY ENGINEER _____ DATE _____	
		MAINLINE INSPECTED BY:		W. FKO					APPROVED BY _____	
		LATERALS INSPECTED BY:		G. FKO					CITY ENGINEER _____ DATE _____	
		DATE COMPLETED:		E. FKO					SCALE _____ SHEET _____	
		TYPE OF PIPE, ASTM NO.		T. FKO					PLAN HOR. <u>1"=500'</u> _____ <u>02</u>	
		TYPE OF PIPE, ASTM NO.		I. FKO					_____ <u>OF</u>	
		AS-BUILTS BY: _____ DATE: _____		TS.FKO					_____ <u>13</u>	
		This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.		PP.					REVISION BY _____ DATE _____	
		Utility Engineer _____ Date _____	FILE NO: 14104-2C-2197							



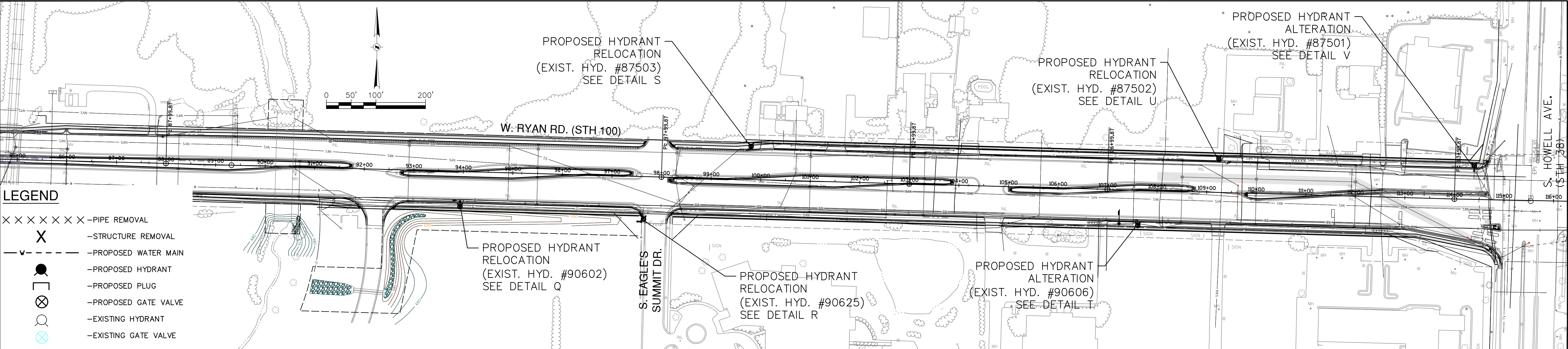
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		CONTRACTOR:		ST.FKO		PP.												
		1	Hydrant relocations, including removing existing hydrants, valves, and pipe as needed, furnishing and installing new 6.0 foot hydrants, hydrant extensions, 6" C900 CL 200 DR-14 PVC restrained water main pipe, 6" gate valve, fittings, tapping sleeves, live tap to existing water main, provide and install anode protection. buttresses, excavation, insulation, granular backfill and asphalt restoration as designated on the Drawings	6 EA.	MAINLINE INSPECTED BY:		W. FKO		DESIGNED BY		DATE		UTILITY ENGINEER		DATE			
					LATERALS INSPECTED BY:		G. FKO		DRAWN BY		DATE		APPROVED BY					
					DATE COMPLETED:		E. FKO		CHECKED BY		DATE							
					TYPE OF PIPE, ASTM NO.		T. FKO		AS		1-16-14		FKO		1-16-14		MNP	
		2	Hydrant alteration, including removing existing hydrants, valves, and pipe as needed, furnishing and installing new 6.0 foot hydrants, hydrant extensions, 6" C900 CL 200 DR-14 PVC restrained water main pipe, 6" gate valve, fittings, provide and install anode protection. temporary plugs, caps, buttresses, flushing vents for testing and sampling, excavation, insulation, granular backfill and asphalt restoration as designated on the Drawings	1 EA.	TYPE OF PIPE, ASTM NO.		I. FKO		RYAN RD. RELAY AND HYDRANT RELOCATIONS				CITY ENGINEER		DATE			
					AS-BUILTS BY: DATE:		TS.FKO		IN: W. RYAN ROAD (STH 100)				SCALE		SHEET			
					This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.		PP.		FR: S. 27TH ST.				KEY PLAN		HOR. 1"=100'		03	
					Utility Engineer		Date				TO: 600 FT. WEST OF S. 22ND ST.				DETAIL PLAN		HOR. 1"=10'	
								REVISION BY		DATE						FILE NO: 14104-3C-2198		



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			<div>Hydrant relocations, including removing existing hydrants, valves, and pipe as needed, furnishing and installing new 6.0 foot hydrants, hydrant extensions, 6" C900 CL 200 DR-14 PVC restrained water main pipe, 6" gate valve, fittings, tapping sleeves, live tap to existing water main, provide and install anode protection, buttresses, excavation, insulation, granular backfill and asphalt restoration as designated on the Drawings</div>			CONTRACTOR:		ST.FKO		DESIGNED BY DATE DRAWN BY DATE CHECKED BY DATE				UTILITY ENGINEER DATE	
						MAINLINE INSPECTED BY:		W. FKO		AS 1-16-14 FKO 1-16-14 MNP 1-16-14				APPROVED BY	
						LATERALS INSPECTED BY:		G. FKO		RYAN RD. RELAY AND HYDRANT RELOCATIONS				CITY ENGINEER DATE	
						DATE COMPLETED:		E. FKO		IN: W. RYAN ROAD (STH 100)				SCALE SHEET	
						TYPE OF PIPE, ASTM NO.		T. FKO		FR: 600 FT. WEST OF S. 22ND ST.				KEY PLAN	
						TYPE OF PIPE, ASTM NO.		I. FKO		TO: I-94 S.B. / I-94 N.B.				DETAIL PLAN	
						AS-BUILTS BY:		TS.FKO						HOR. 1"=100'	
						DATE:		PP.						HOR. 1"=10'	
						This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.								DATE	
Utility Engineer		Date		REVISION BY DATE		FILE NO: 14104-4C-2199									

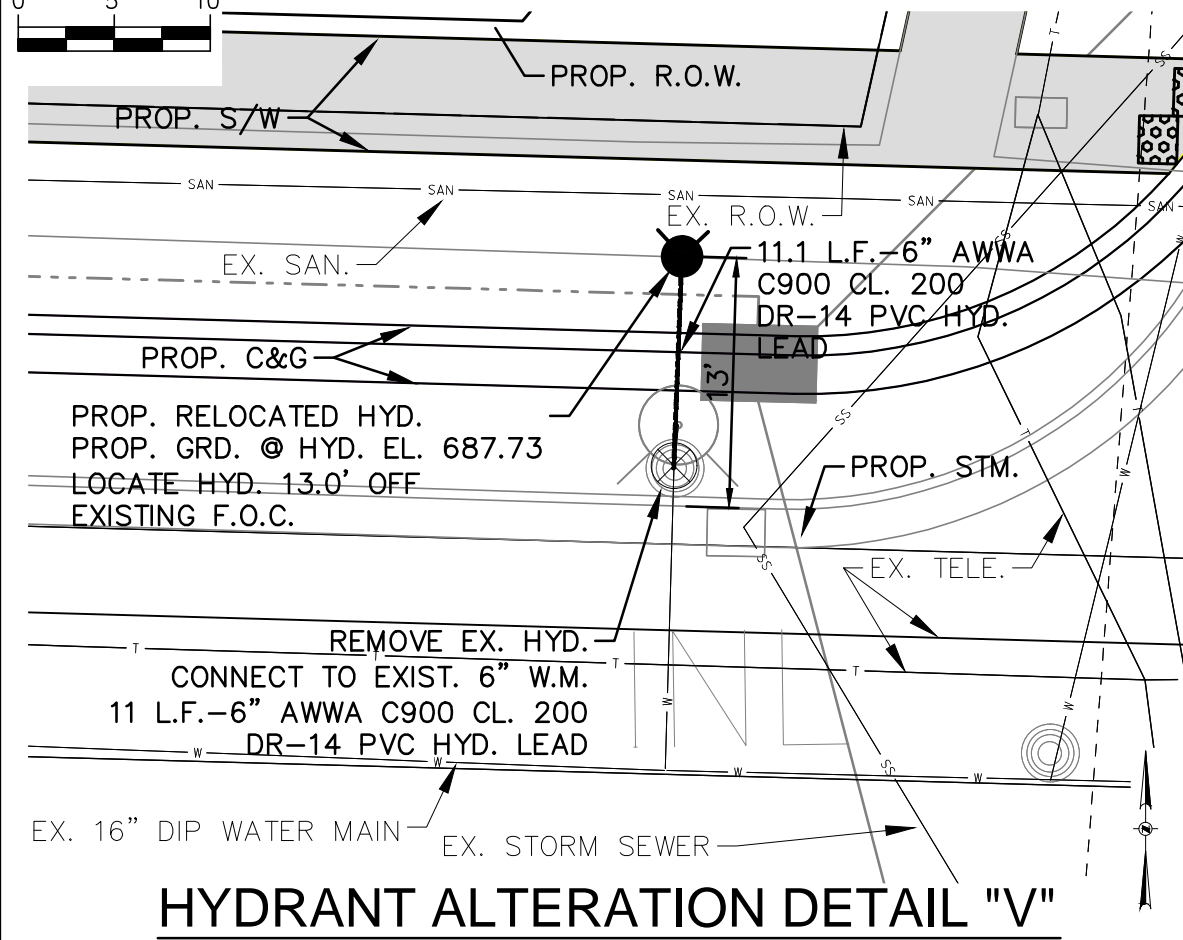
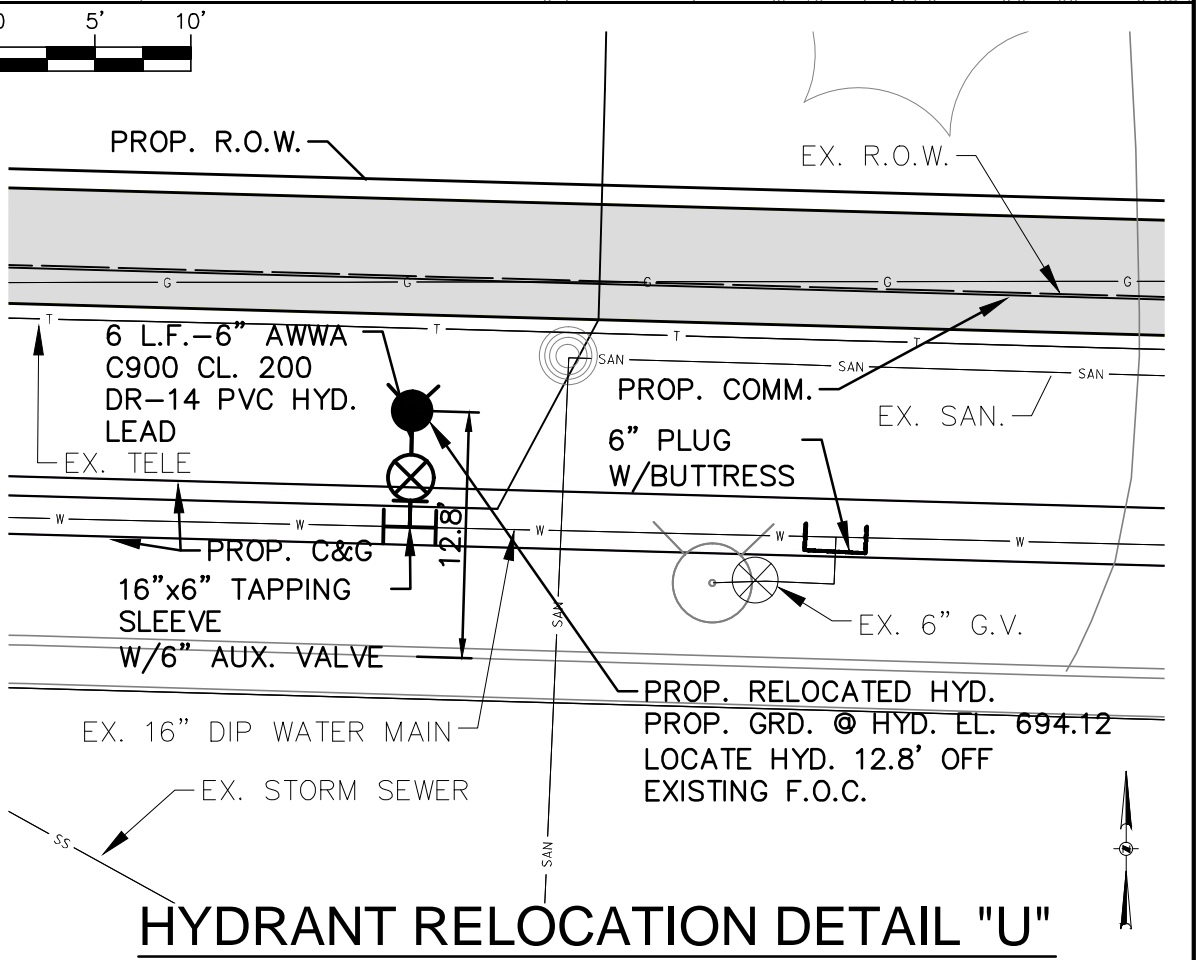
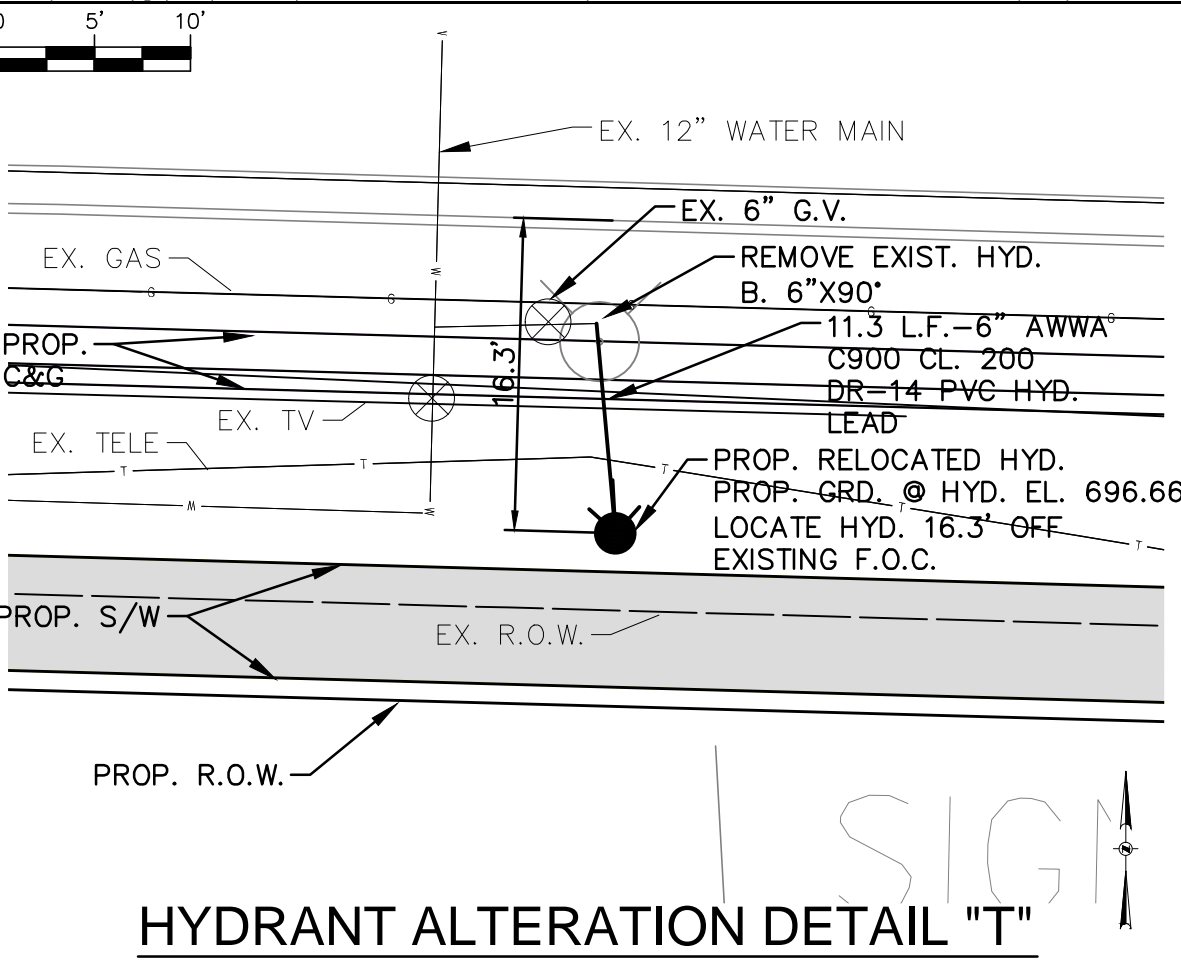
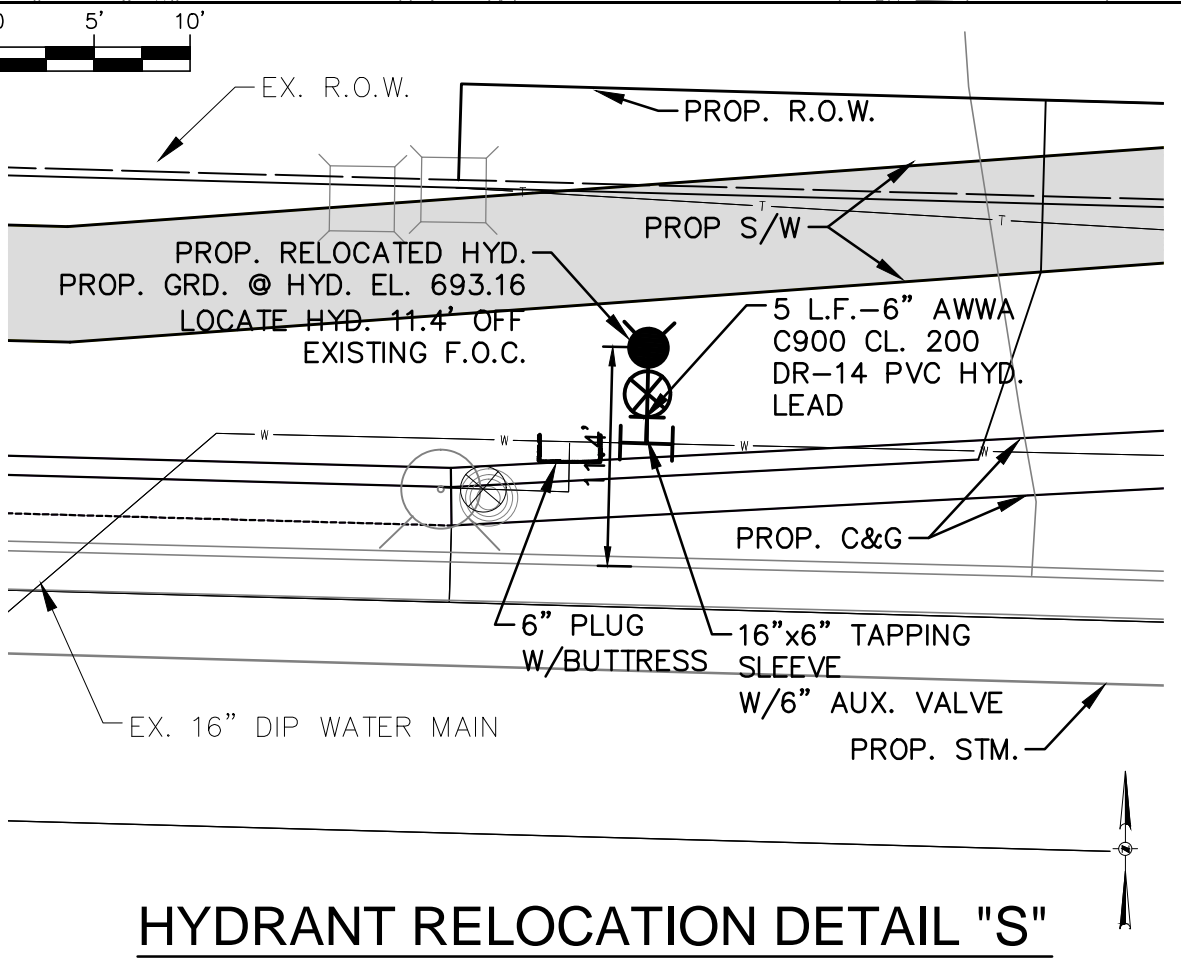
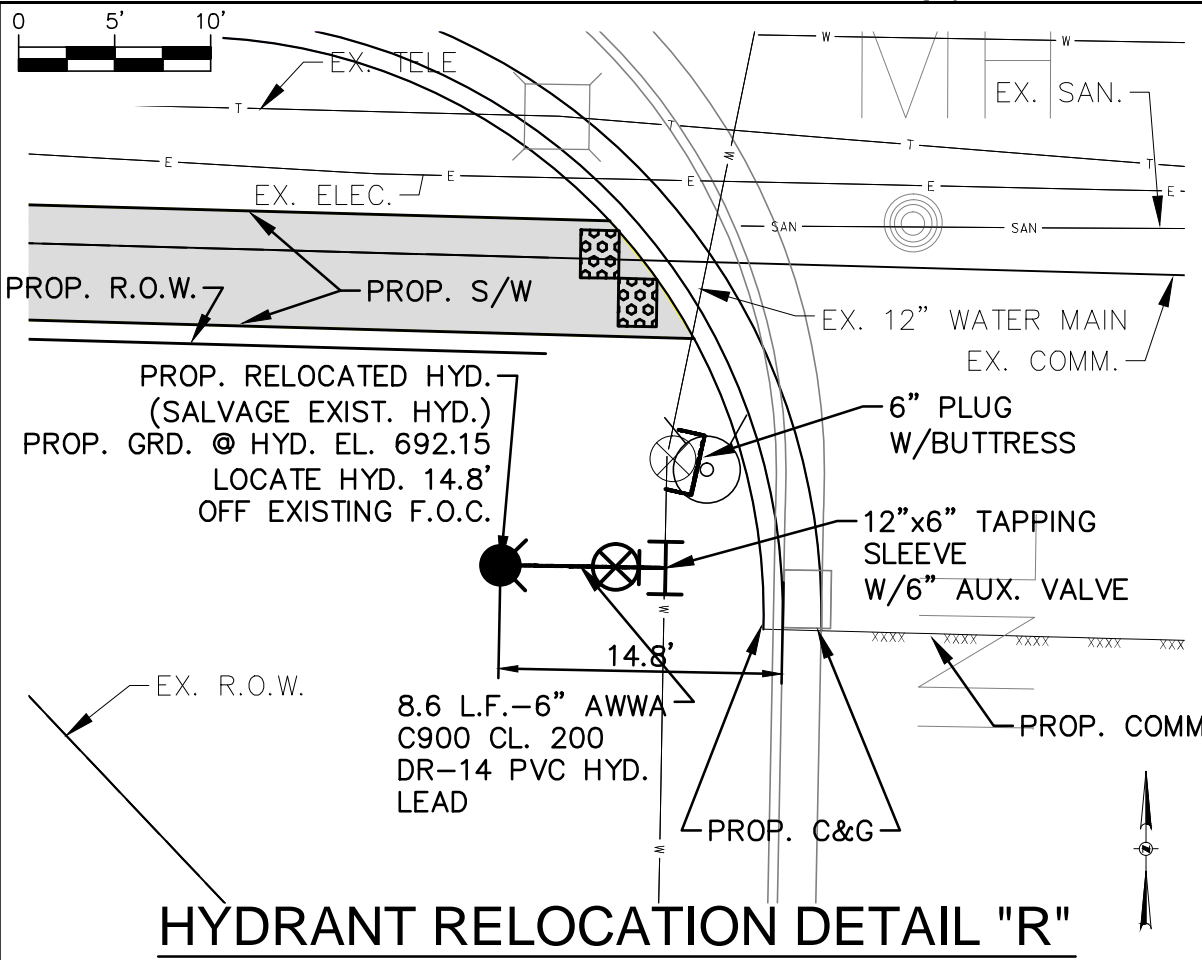
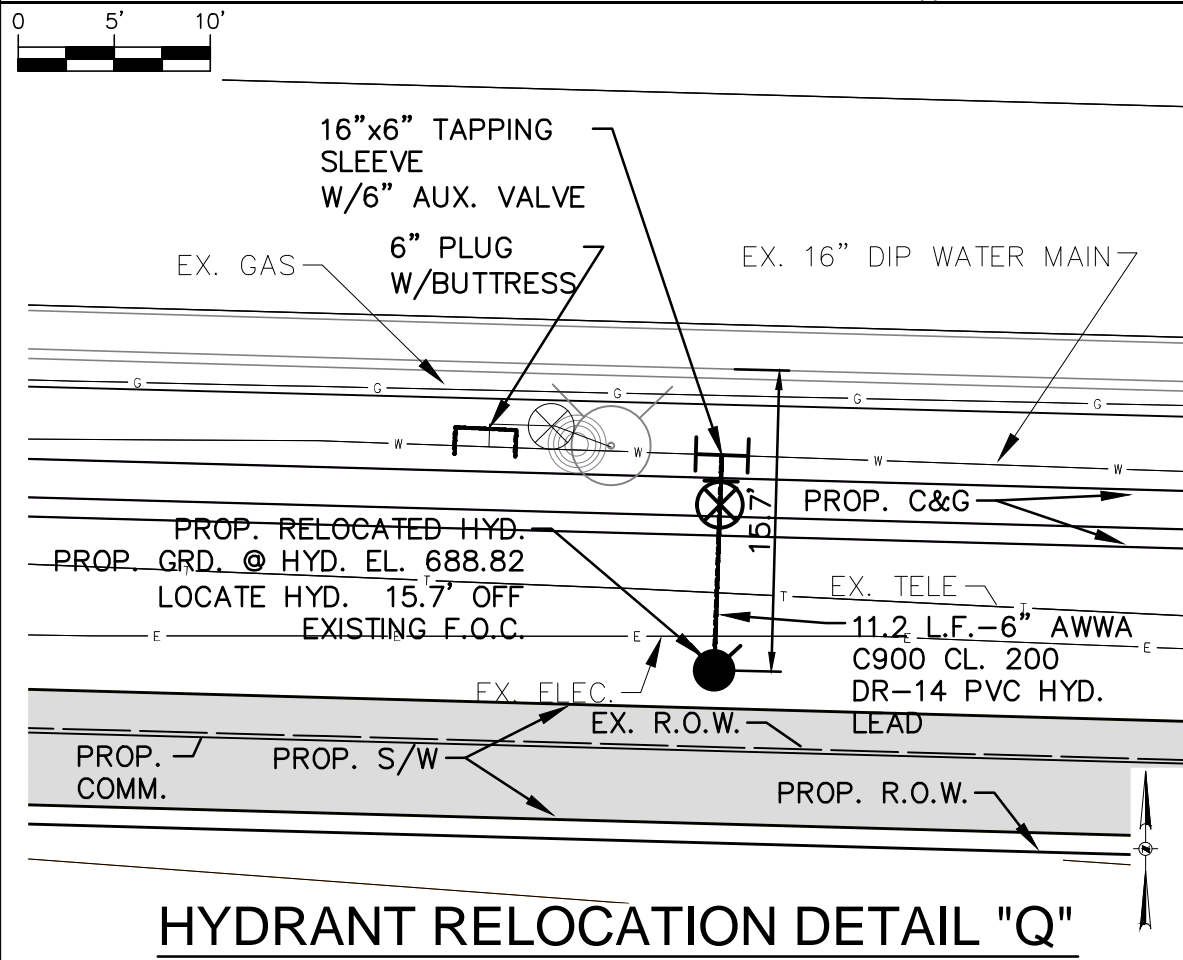


<div>NOTICE:</div> <div>In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.</div> <div>DISCLAIMER:</div> <div>The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.</div>	<div><div>GRaeF</div><div>One Honey Creek Corporate Center 125 South 84th Street, Suite 401 Milwaukee, WI 53214-1469 414 / 259 1500 414 / 259 0037 fax www.graef-usa.com</div></div>	<div>BID ITEM NOS.</div> <div>ESTIMATE OF QUANTITIES</div>		<div>WATER MAIN</div> <div>CONTRACTOR:</div> <div>MAINLINE INSPECTED BY:</div> <div>LATERALS INSPECTED BY:</div> <div>DATE COMPLETED:</div> <div>TYPE OF PIPE, ASTM NO.</div> <div>TYPE OF PIPE, ASTM NO.</div> <div>AS-BUILTS BY:</div> <div>DATE:</div> <div>This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.</div> <div>Utility Engineer</div> <div>Date</div>		<div>SA.FKO</div> <div>ST.FKO</div> <div>W. FKO</div> <div>G. FKO</div> <div>E. FKO</div> <div>T. FKO</div> <div>I. FKO</div> <div>TS.FKO</div> <div>PP.</div> <div></div> <div></div> <div></div> <div></div>		<div>CITY OF OAK CREEK, WISCONSIN</div> <div>DESIGNED BY DATE DRAWN BY DATE CHECKED BY DATE</div> <div>AS 1-16-14 FKO 1-16-14 MNP 1-16-14</div> <div>RYAN RD. RELAY AND HYDRANT RELOCATIONS IN: W. RYAN ROAD (STH 100) FR: I-94 S.B. / I-94 N.B. TO: 2400 FT. EAST OF S. 13TH STREET</div>			<div>APPROVED BY</div> <div>UTILITY ENGINEER DATE</div> <div>APPROVED BY</div> <div>CITY ENGINEER DATE</div> <div>SCALE SHEET</div> <div>KEY PLAN</div> <div>HOR. 1"=100'</div> <div>05</div> <div>DETAIL PLAN</div> <div>HOR. 1"=10'</div> <div>OF</div> <div>10</div>		
		1	Hydrant relocations, including removing existing hydrants, valves, and pipe as needed, furnishing and installing new 6.0 foot hydrants, hydrant extensions, 6" C900 CL 200 DR-14 PVC restrained water main pipe, 6" gate valve, fittings, tapping sleeves, live tap to existing water main, provide and install anode protection, buttresses, excavation, insulation, granular backfill and asphalt restoration as designated on the Drawings	2 EA.									
		2	Hydrant alteration, including removing existing hydrants, valves, and pipe as needed, furnishing and installing new 6.0 foot hydrants, hydrant extensions, 6" C900 CL 200 DR-14 PVC restrained water main pipe, 6" gate valve, fittings, provide and install anode protection, temporary plugs, caps, buttresses, flushing vents for testing and sampling, excavation, insulation, granular backfill and asphalt restoration as designated on the Drawings	3 EA.									
											REVISION BY	DATE	FILE NO: 14104-5C-2200



LEGEND

- × × × × × × × -PIPE REMOVAL
- X -STRUCTURE REMOVAL
- - - - -PROPOSED WATER MAIN
- -PROPOSED HYDRANT
- [] -PROPOSED PLUG
- ⊗ -PROPOSED GATE VALVE
- -EXISTING HYDRANT
- ⊗ -EXISTING GATE VALVE

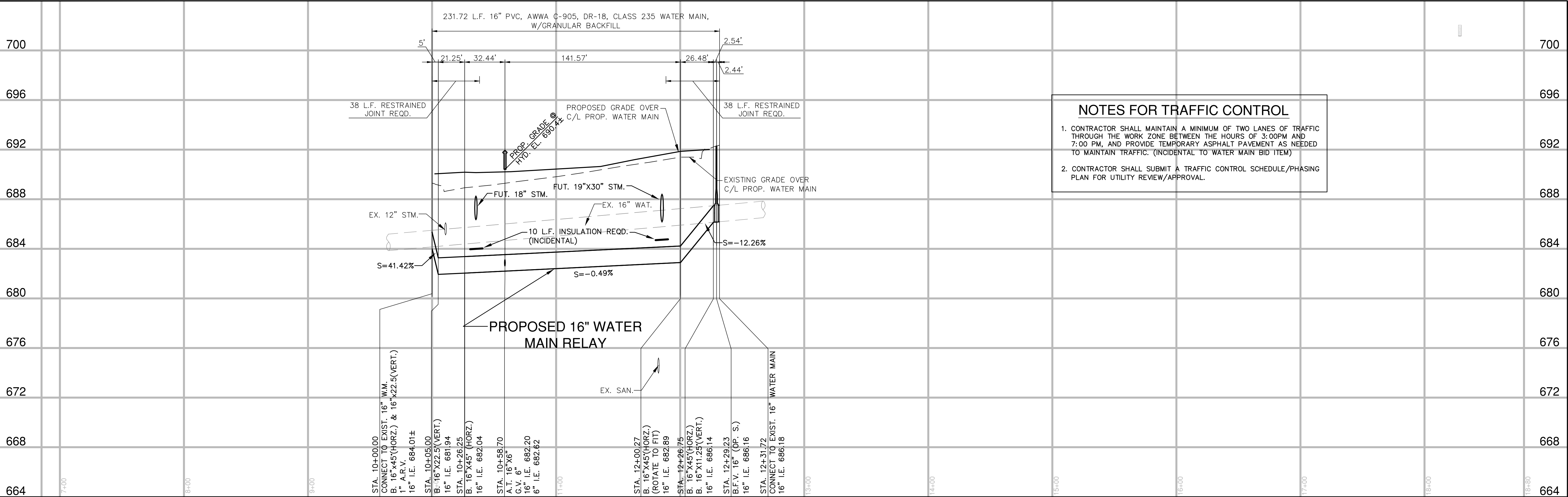


NOTICE:
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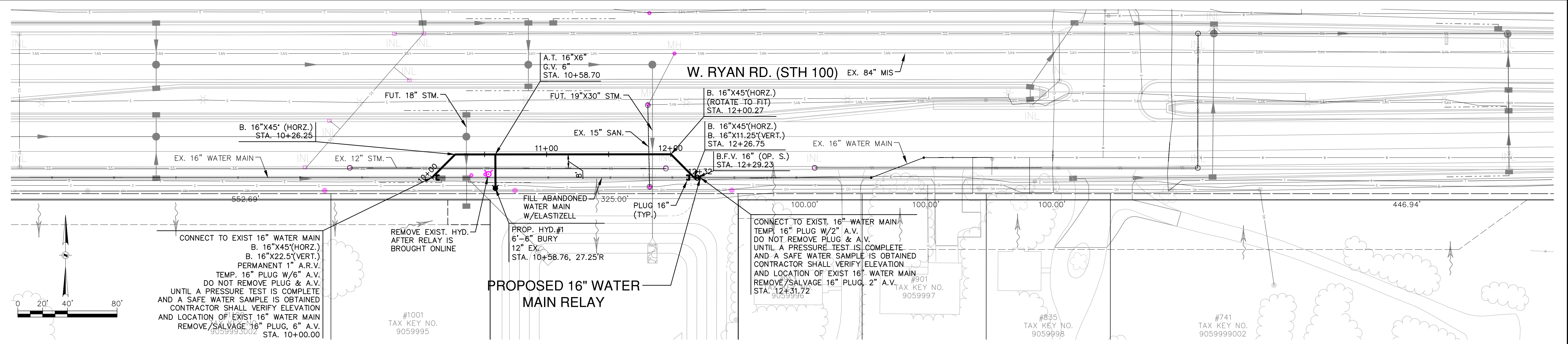
BID ITEM NOS.		ESTIMATE OF QUANTITIES		WATER MAIN		SAFKO		CITY OF OAK CREEK, WISCONSIN		APPROVED BY	
				CONTRACTOR:		ST.FKO		DESIGNED BY		UTILITY ENGINEER	
				MAINLINE INSPECTED BY:		W. FKO		DATE		DATE	
				LATERALS INSPECTED BY:		G. FKO		DRAWN BY		APPROVED BY	
				DATE COMPLETED:		E. FKO		DATE		DATE	
				TYPE OF PIPE, ASTM NO.		T. FKO		AS		CITY ENGINEER	
				TYPE OF PIPE, ASTM NO.		I. FKO		1-16-14		SCALE	
				AS-BUILTS BY:		TS.FKO		1-16-14		SHEET	
				DATE:		PP.		RYAN RD. RELAY AND HYDRANT RELOCATIONS		KEY PLAN	
				This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.				IN: W. RYAN ROAD (STH 100)		HOR. 1"=100'	
				Utility Engineer				FR: 500 FT. WEST OF S. EAGLES SUMMIT DR.		OF	
				Date				TO: S. HOWELL AVE.		10	
								REVISION BY		FILE NO: 14104-6C-2201	
								DATE			



NOTES FOR TRAFFIC CONTROL

1. CONTRACTOR SHALL MAINTAIN A MINIMUM OF TWO LANES OF TRAFFIC THROUGH THE WORK ZONE BETWEEN THE HOURS OF 3:00PM AND 7:00 PM, AND PROVIDE TEMPORARY ASPHALT PAVEMENT AS NEEDED TO MAINTAIN TRAFFIC. (INCIDENTAL TO WATER MAIN BID ITEM)

2. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL SCHEDULE/PHASING PLAN FOR UTILITY REVIEW/APPROVAL.



NOTICE:
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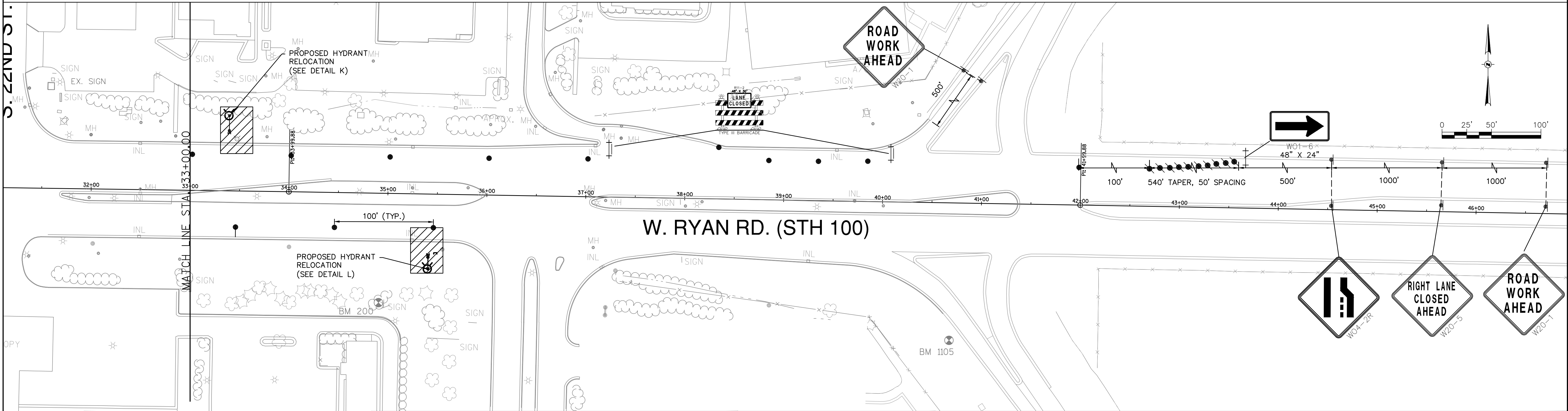
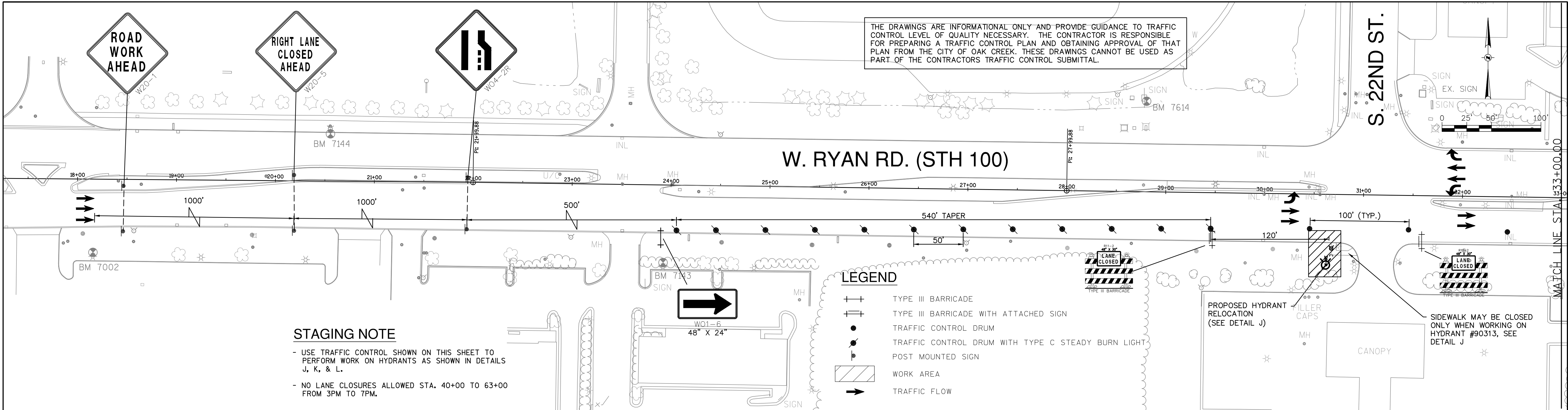
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Milwaukee, WI 53214-1469
414 / 259 1500
414 / 259 0037 fax
www.graef-usa.com

BID ITEM NOS.	ESTIMATE OF QUANTITIES	
1	16" PVC CL. 235 Water Main with granular backfill, full depth sawcutting, concrete pavement removal, asphalt pavement replacement, asphalt curb and gutter replacement, lawn restoration.	232 L.F.
2	16-inch Butterfly Valve	1 EA.
3	Permanent 1-inch Air Release Valve	1 EA.
4	Connect to Existing 16" Water Main, Provide and install anode protection.	2 EA.
5	Hydrant, Lead and 6-inch Gate Valve	1 EA.

WATER MAIN	SAFKO
CONTRACTOR:	ST.FKO
MAINLINE INSPECTED BY:	W. FKO
LATERALS INSPECTED BY:	G. FKO
DATE COMPLETED:	E. FKO
TYPE OF PIPE, ASTM NO.	T. FKO
TYPE OF PIPE, ASTM NO.	I. FKO
AS-BUILTS BY:	TS.FKO
DATE:	PP.
Utility Engineer	Date

REVISION BY	DATE
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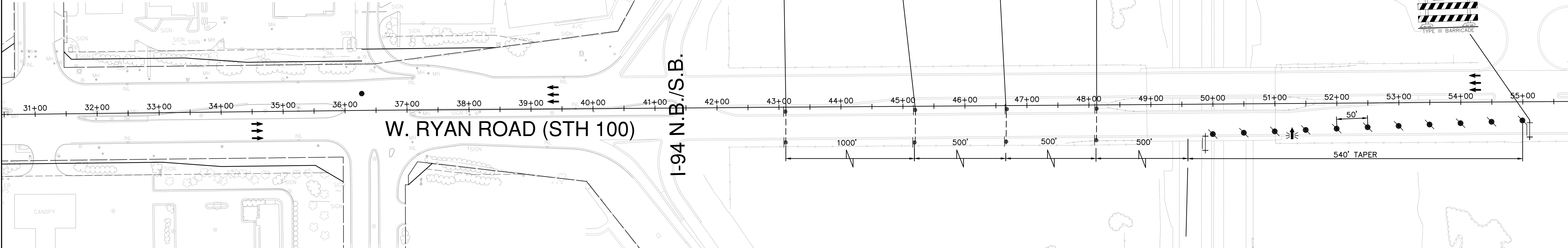
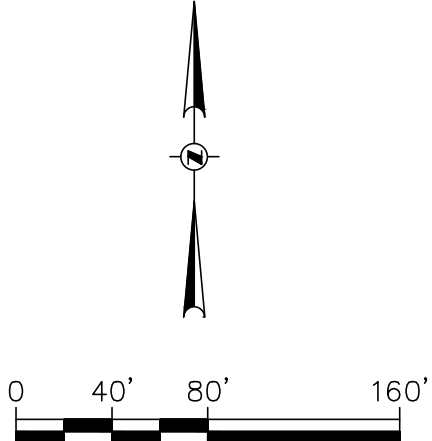
CITY OF OAK CREEK, WISCONSIN				APPROVED BY	
DESIGNED BY	DATE	DRAWN BY	DATE	UTILITY ENGINEER	DATE
AS	1-16-14	FKO	1-16-14	APPROVED BY	
W. RYAN RD. (STH 100) PROPOSED WATER MAIN RELAY				CITY ENGINEER	DATE
IN: W. RYAN RD. (STH 100)				SCALE	SHEET
FR: 990 FT. EAST OF S. 13TH ST.				PLAN HOR. 1"=40'	07
TO: 1695 FT. EAST OF S. 13TH ST.				PROFILE HOR. 1"=40'	OF
				VER. 1"=4'	13
FILE NO: 14104-7C-2202					



<div>NOTICE:</div> <div>In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.</div> <div>DISCLAIMER:</div> <div>The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.</div> <div><div><div>GRÄEF</div><div>One Honey Creek Corporate Center 125 South 84th Street, Suite 401 Milwaukee, WI 53214-1469 414 / 259 1500 414 / 259 0037 fax www.graef-usa.com</div></div></div>	BID ITEM NOS.	ESTIMATE OF QUANTITIES		WATER MAIN		SA.FKO		CITY OF OAK CREEK, WISCONSIN				APPROVED BY						
				CONTRACTOR:		ST.FKO						UTILITY ENGINEER		DATE				
				MAINLINE INSPECTED BY:		W. FKO		DESIGNED BY				DATE	DRAWN BY		DATE	CHECKED BY		DATE
				LATERALS INSPECTED BY:		G. FKO		AS				1-16-14	FKO		1-16-14	MNP		1-16-14
				DATE COMPLETED:		E. FKO		W. RYAN RD. TRAFFIC CONTROL STAGE 2				CITY ENGINEER				DATE		
				TYPE OF PIPE, ASTM NO.		T. FKO												
				TYPE OF PIPE, ASTM NO.		I. FKO												
				AS-BUILTS BY:		DATE:		TS.FKO		IN: W. RYAN ROAD (STH 100) FR: 1390 FT. WEST OF S. 22ND ST. TO: I-94 NB/SB				SCALE		SHEET		
				This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.				PP.										
									REVISION BY		DATE		FILE NO: 14104-9C-2204					
			Utility Engineer				Date											

LEGEND

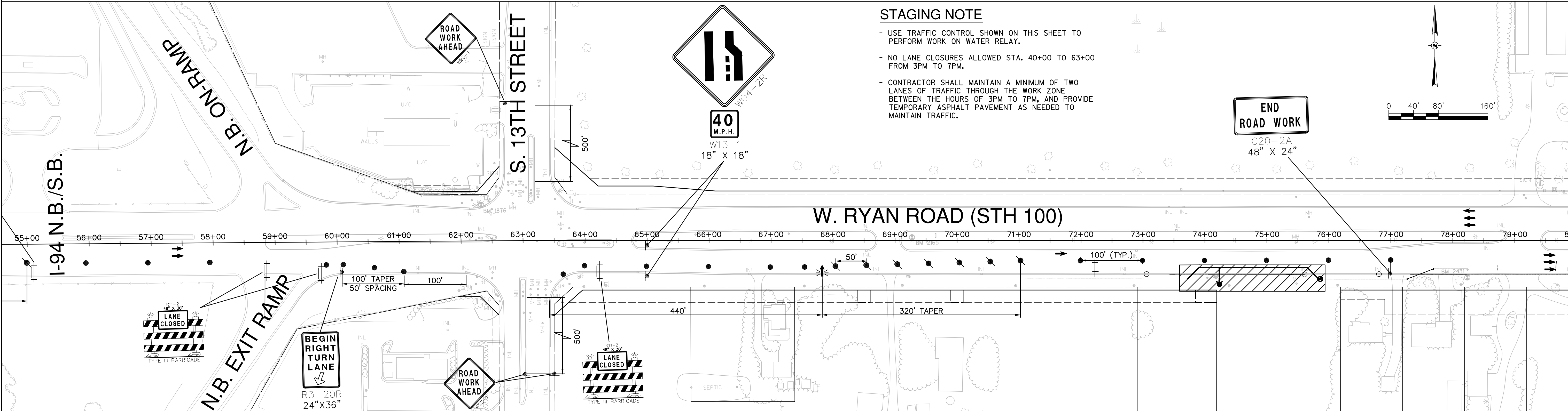
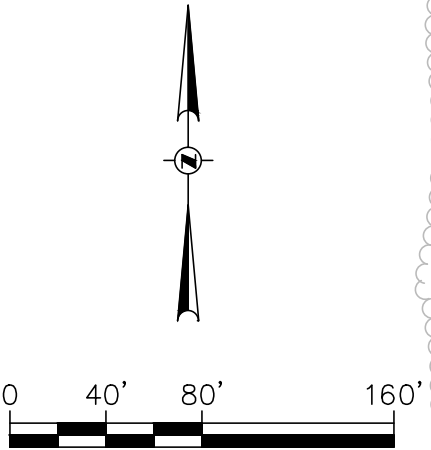
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- POST MOUNTED SIGN
- WORK AREA
- TRAFFIC FLOW
- FLASHING ARROW BOARD



THE DRAWINGS ARE INFORMATIONAL ONLY AND PROVIDE GUIDANCE TO TRAFFIC CONTROL LEVEL OF QUALITY NECESSARY. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING A TRAFFIC CONTROL PLAN AND OBTAINING APPROVAL OF THAT PLAN FROM THE CITY OF OAK CREEK. THESE DRAWINGS CANNOT BE USED AS PART OF THE CONTRACTORS TRAFFIC CONTROL SUBMITTAL.

STAGING NOTE

- USE TRAFFIC CONTROL SHOWN ON THIS SHEET TO PERFORM WORK ON WATER RELAY.
- NO LANE CLOSURES ALLOWED STA. 40+00 TO 63+00 FROM 3PM TO 7PM.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF TWO LANES OF TRAFFIC THROUGH THE WORK ZONE BETWEEN THE HOURS OF 3PM TO 7PM, AND PROVIDE TEMPORARY ASPHALT PAVEMENT AS NEEDED TO MAINTAIN TRAFFIC.

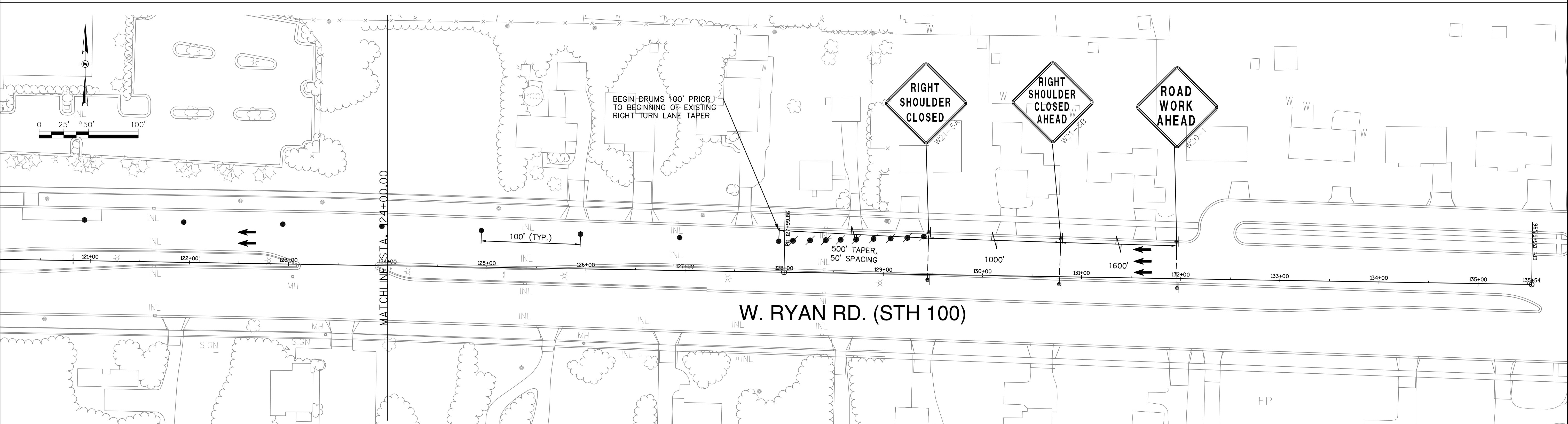
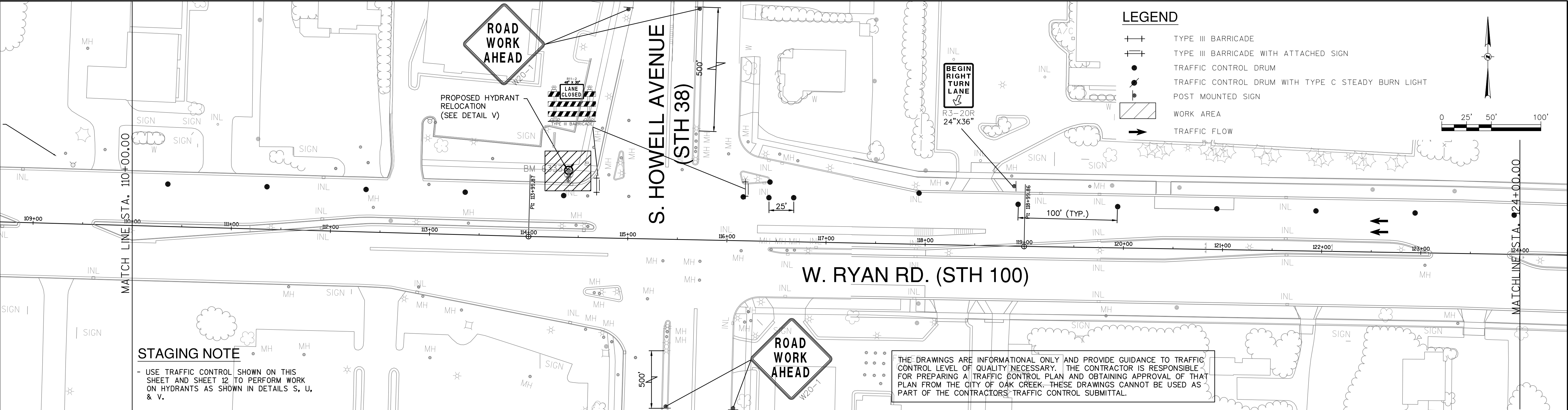


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414 / 259 0037 fax
www.graef-usa.com

BID ITEM NOS.	ESTIMATE OF QUANTITIES	WATER MAIN	SA.FKO	CITY OF OAK CREEK, WISCONSIN	APPROVED BY			
		CONTRACTOR:	ST.FKO		UTILITY ENGINEER DATE			
		MAINLINE INSPECTED BY:	W. FKO		APPROVED BY			
		LATERALS INSPECTED BY:	G. FKO		CITY ENGINEER	DATE		
		DATE COMPLETED:	E. FKO		SCALE	SHEET		
		TYPE OF PIPE, ASTM NO.	T. FKO		PLAN HOR. 1"=80'	11		
		TYPE OF PIPE, ASTM NO.	I. FKO		PROFILE HOR. _____	OF		
		AS-BUILTS BY: DATE:	TS.FKO		VER. _____	13		
		This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.			PP.	REVISION BY	DATE	FILE NO: 14104-11C-2206
		Utility Engineer Date						



<div>NOTICE:</div> <div>In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.</div> <div>DISCLAIMER:</div> <div>The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.</div>	<div><div><div><div></div><div>GR</div><div>AEF</div></div></div></div> <div>One Honey Creek Corporate Center</div> <div>125 South 84th Street, Suite 401</div> <div>Milwaukee, WI 53214-1469</div> <div>414 / 259 1500</div> <div>414 / 259 0037 fax</div> <div>www.graef-usa.com</div>	<div>BID</div> <div>ITEM</div> <div>NOS.</div>	<div>ESTIMATE OF QUANTITIES</div>		<div>WATER MAIN</div>		<div>SAFKO</div>		<div>CITY OF OAK CREEK, WISCONSIN</div> <div>DESIGNED BY DATE DRAWN BY DATE CHECKED BY DATE</div> <div>AS 1-16-14 FKO 1-16-14 MNP 1-16-14</div> <div>W. RYAN RD. TRAFFIC CONTROL STAGE 4</div> <div>IN: W. RYAN ROAD (STH 100)</div> <div>FR: 650 FT. EAST OF S. HOWELL AVE.</div> <div>TO: 850 FT. WEST S. HOWELL AVE.</div> <div>REVISION BY DATE</div> <div>FILE NO: 14104-13C-2208</div>			
					<div>CONTRACTOR:</div>		<div>ST.FKO</div>					
					<div>MAINLINE INSPECTED BY:</div>		<div>W. FKO</div>					
					<div>LATERALS INSPECTED BY:</div>		<div>G. FKO</div>					
					<div>DATE COMPLETED:</div>		<div>E. FKO</div>					
					<div>TYPE OF PIPE, ASTM NO.</div>		<div>T. FKO</div>					
					<div>TYPE OF PIPE, ASTM NO.</div>		<div>I. FKO</div>					
					<div>AS-BUILT BY: DATE:</div>		<div>TS.FKO</div>					
					<div>This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.</div>		<div>PP.</div>					
					<div>Utility Engineer Date</div>							