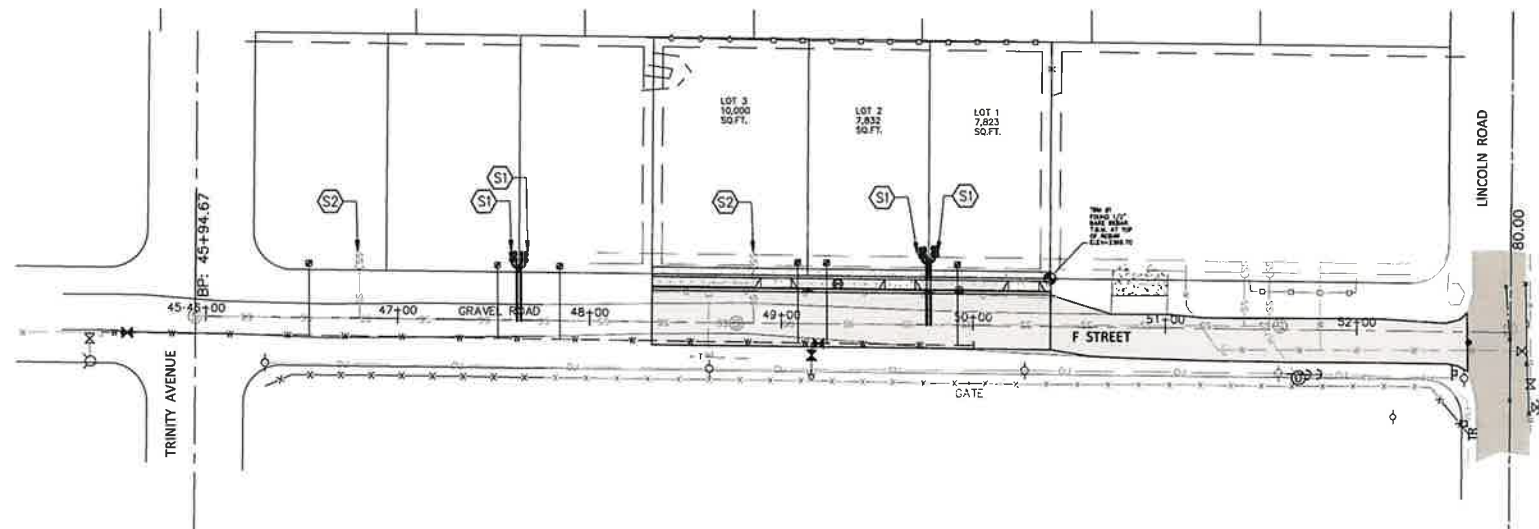
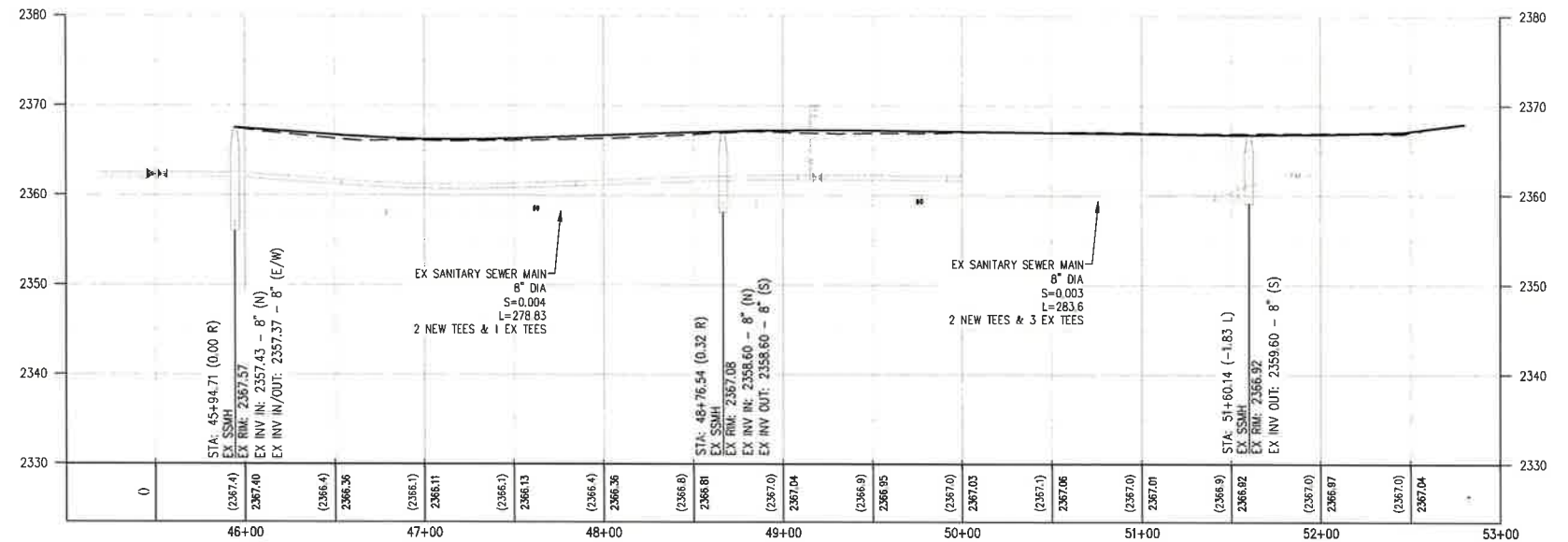


SEWER KEY NOTES	
ITEM No.	DESCRIPTION
S1	PROPOSED 4" PVC SDR 35 SANITARY SIDE-SEWER SERVICE. CONNECTION TO MAIN PER CITY OF SPOKANE STANDARD PLAN Z-116.
S2	EXISTING 4" PVC SANITARY SIDE-SEWER SERVICE. CONTRACTOR TO LOCATE AND INSPECT. REPLACE PER KEY NOTE S1 IF NECESSARY.

SEWER SHEET NOTES:

- UTILITY TRENCH AND BACKFILL PER CITY OF SPOKANE STANDARD PLANS A-1 AND A-2.
- UTILITY LOCATIONS PER CITY OF SPOKANE STANDARD PLAN A-6.
- WATER & SEWER CROSSINGS PER CITY OF SPOKANE STANDARD PLANS A-5, A-6 AND A-9.
- MAINTAIN MINIMUM CLEARANCE OF 5 FEET FROM ALL SANITARY & STORM STRUCTURES TO PREVENT ADJACENT WATERLINES FROM FREEZING.
- CONTRACTOR WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF SPOKANE GENERAL SPECIAL PROVISIONS (GSPs) FOR PRIVATE CONTRACTS.



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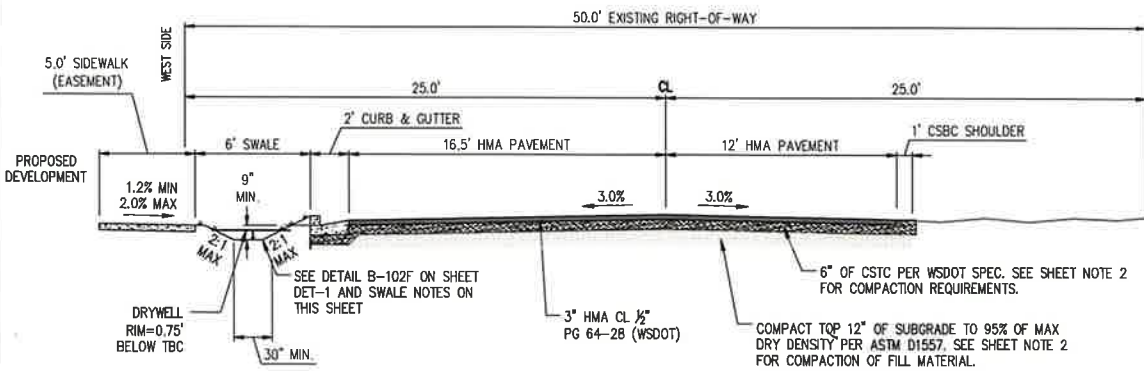
SA-1
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REVISIONS		NAVD88 = (OLD CBM ELEV.) - (13.13)	AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)		CURRENT C.O.S. DESIGN STANDARDS ADOPTED FEB, 2007		FIRE MARSHAL APPROVAL SIGNATURE: DAVE KOKOT		DATE: _____		PROJECT NAME: BROWN ESTATES	
		NAVD88 ELEV.: 2201.41	BENCH MARK LOCATION: NW CORNER OF LOT 3, BLOCK 7 1/2" BARE REBAR EL: 1970.71 (USFT)		BY: _____ DATES: _____		CITY OF SPOKANE, WASHINGTON DEPARTMENT OF ENGINEERING SERVICES 808 WEST SPOKANE FALLS BLVD. SPOKANE, WASHINGTON 99201-3343 (509) 625-6700		PROJECT LIMITS: F STREET TRINITY AVE TO LINCOLN RD		TYPE OF IMPROVEMENT: SEWER	
		CBM NO.: N/A	SCALE: HORIZONTAL SCALE (22 x 34) 1" = 50' PLAN & PROFILE VERTICAL SCALE (22 x 34) 1" = 10'		DRAWN: _____ APPROVED: _____		PROJECT LIMITS: 10TH AVE		PROJECT NO. _____		PLAN NO. _____	
DATE	BY	PROJECT	DESCRIPTION									

ITEM No.	DESCRIPTION
1	PROPOSED PAVEMENT SECTION PER CITY OF SPOKANE STANDARD PLAN W-101A. SEE DETAIL 1 ON THIS SHEET FOR TYPICAL PAVED CROSS SECTION.
2	CONCRETE SIDEWALK PER CITY OF SPOKANE STANDARD PLANS F-102 AND F-102B
3	CONCRETE CURB & GUTTER PER CITY OF SPOKANE STANDARD PLANS F-106 (TYPICAL) AND F-104B (AT DRIVEWAYS).
4	BIO-INFILTRATION SWALE W/ OVERFLOW STRUCTURE PER CITY OF SPOKANE STANDARD PLAN B-102F.
5	TYPE 2 DRYWELL PER STANDARD PLAN B-102D DETAIL ON SHEET DET-2
6	CONCRETE DRIVEWAY WITH INTEGRATED SWALE INLET PER CITY OF SPOKANE STANDARD PLAN F-104B. DRIVEWAY WIDTH PER PLAN. SEE DRIVEWAY APPROACH TABLE ON THIS SHEET FOR ADDITIONAL GRADING INFORMATION.
7	SIGN "NO PARKING - FIRE LANE" STANDARD SIGN R7-19. PER DETAIL ON SHEET DET-2

SHEET NOTES:

- CONTRACTOR WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF SPOKANE GENERAL SPECIAL PROVISIONS (GSPs) FOR PRIVATE CONTRACTS.
- ALL FILL MATERIAL AND CRUSHED SURFACING SHALL BE COMPACTED PER THE GEOTECH REPORT AS NOTED BELOW:
 - BACKFILL FOR UTILITY TRENCHES AND EXTERIOR WALLS: 92% OF MAXIMUM DRY DENSITY PER ASTM D1557
 - MATERIAL PLACED UNDER PAVEMENT, DRIVEWAYS, SLABS, FOUNDATIONS, SIDEWALKS, AND OTHER EXTERIOR HARDSCAPES: 95% OF MAXIMUM DRY DENSITY PER ASTM D1557.
 - MATERIAL PLACED IN NON-STRUCTURAL FILL AREAS AND VEGETATED AREAS: 85% OF MAXIMUM DRY DENSITY PER ASTM D1557.
- DRYWELLS ARE TO BE INSPECTED AT THE TIME OF INSTALLATION PER THE GEOTECHNICAL ENGINEERING REPORT.

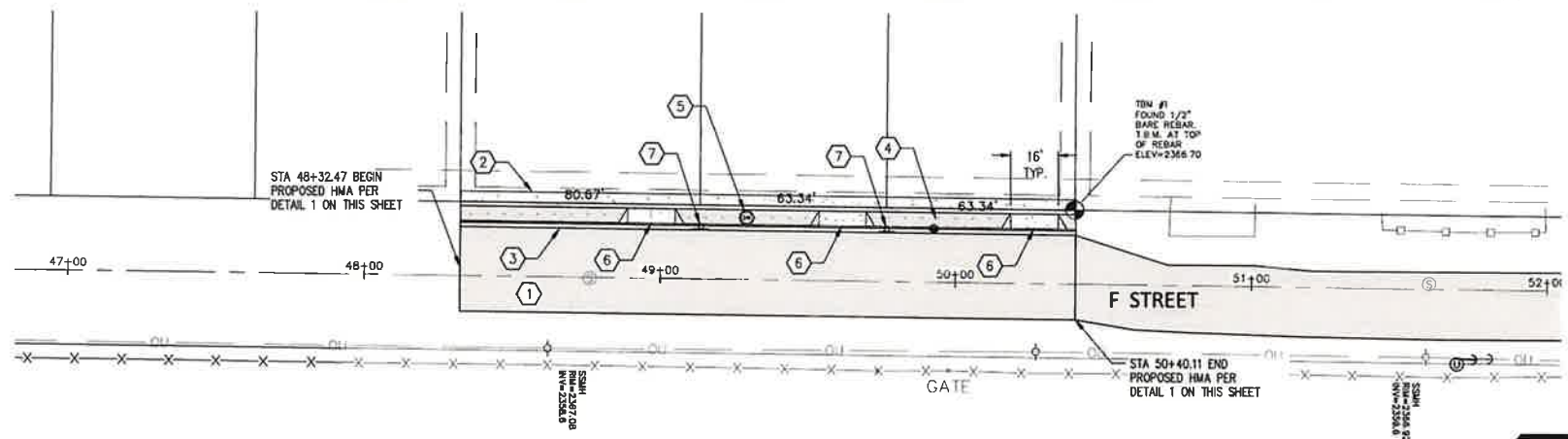
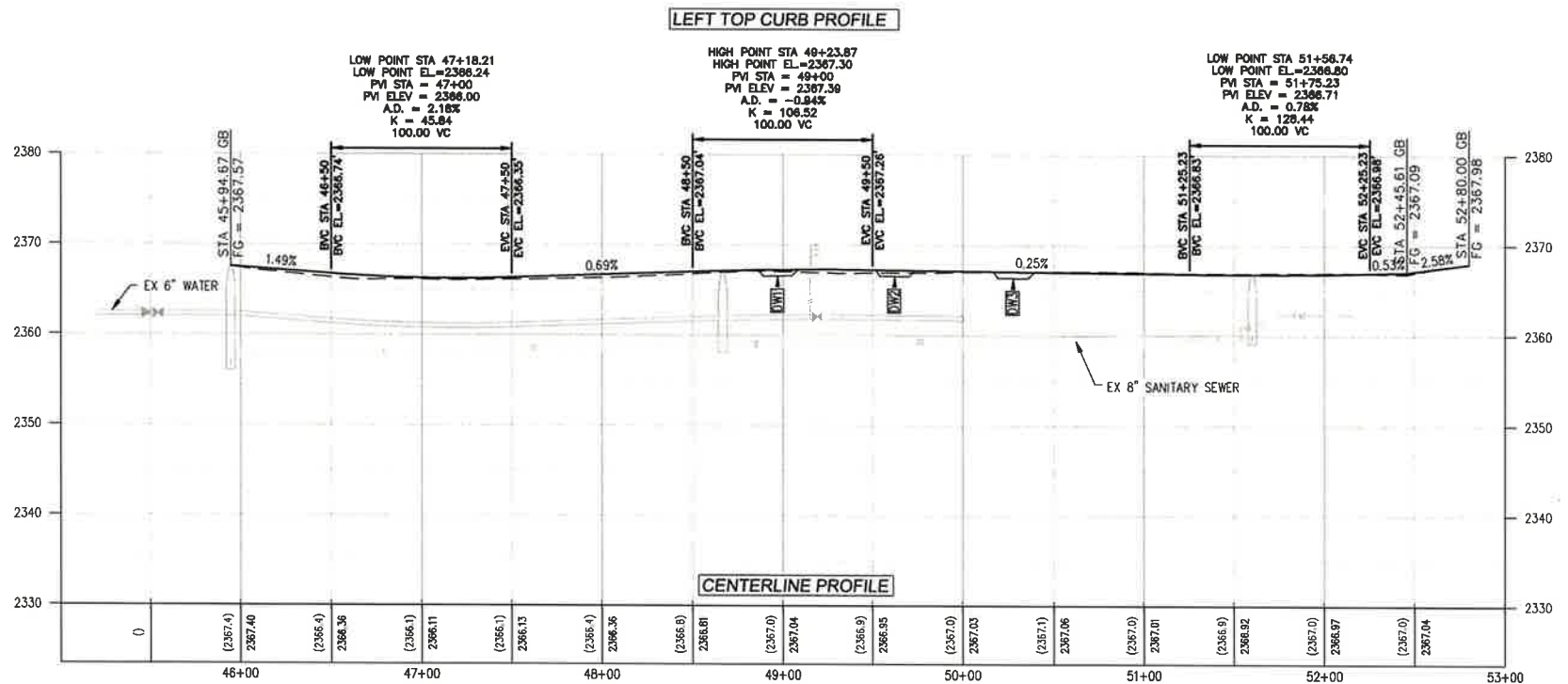


N F STREET TYPICAL PAVED SECTION
 STA 48+32.47 TO STA 50+40.11
 SCALE: NTS

SWALE NOTES:

- UNLINED POND AND BIO-INFILTRATION SWALE BOTTOMS ARE EXPECTED TO INFILTRATE VIA THE POND FLOOR, AND THEREFORE, SHALL NOT BE HEAVILY COMPACTED; EQUIPMENT TRAFFIC SHALL BE MINIMIZED ON THE POND BOTTOMS. THE FACILITY SUB-GRADE SHALL BE A MEDIUM- TO WELL- DRAINING MATERIAL, WITH A MINIMUM THICKNESS OF 72 INCHES AND A MINIMUM INFILTRATION RATE OF 0.15 IN/HR. THE FACILITY SHALL DRAIN WITHIN 72 HOURS OF A STORM EVENT. IF THE POND ALSO SERVES AS A WATER QUALITY TREATMENT FACILITY, THE TREATMENT ZONE (SOD AND 12 INCHES OF TREATMENT SOIL) SHALL BE A MEDIUM- TO WELL-DRAINING MATERIAL, WITH A MINIMUM INFILTRATION RATE OF 0.25-0.50 IN/HR. SCARIFY THE FINISH GRADE OF THE POND BOTTOM PRIOR TO HYDROSEEDING/SODDING. TESTING THAT VERIFIES SUBGRADE MINIMUM INFILTRATION RATE MAY BE REQUIRED BY THE LOCAL JURISDICTION PRIOR TO CONSTRUCTION CERTIFICATION TO ENSURE ADEQUATE DRAINAGE. INFILTRATIVE TESTING OF THE TREATMENT ZONE IS ONLY REQUIRED IF SOILS OTHER THAN SILTY LOAM OR LOAMY SOILS ARE PROPOSED.
- THE TREATMENT ZONE SOIL SHALL HAVE AN AVERAGE CATION EXCHANGE CAPACITY OF AT LEAST 15 MILLIEQUIVALENTS PER 100 GRAMS AND A MINIMUM ORGANIC MATTER CONTENT OF 2% BY WEIGHT.
- THE SWALE BOTTOM AND SIDE SLOPES SHALL BE SODDED OR HYDROSEEDED IN A TIMELY MANNER, TAKING INTO ACCOUNT THE CURRENT SEASON, AND IRRIGATED AS NECESSARY. SWALES WITHOUT IRRIGATION SHALL HAVE DROUGHT-TOLERANT DRYLAND GRASS.
- IF DURING FINAL INSPECTION, IT IS FOUND THAT THE CONSTRUCTED POND OR SWALE DOES NOT CONFORM TO THE ACCEPTED DESIGN, THE SYSTEM SHALL BE RECONSTRUCTED SO THAT IT DOES COMPLY. REFER TO APPENDIX 9A OF THE SPOKANE REGIONAL STORMWATER MANUAL FOR EROSION AND SEDIMENT CONTROL STANDARD NOTES.

DRIVEWAY APPROACH TABLE					
PROFILE LABEL	LOT #	STA @ CL OF D/W	CL ELEV	TC ELEV. @ CL OF D/W (13.5' LT)	FL ELEV. @ CL OF D/W (15' LT)
DW1	1	48+96.93	2365.26	2364.7	2364.6
DW2	2	49+61.72	2367.24	2366.7	2366.6
DW3	3	50+27.34	2367.04	2366.5	2366.4



PLAN VIEW

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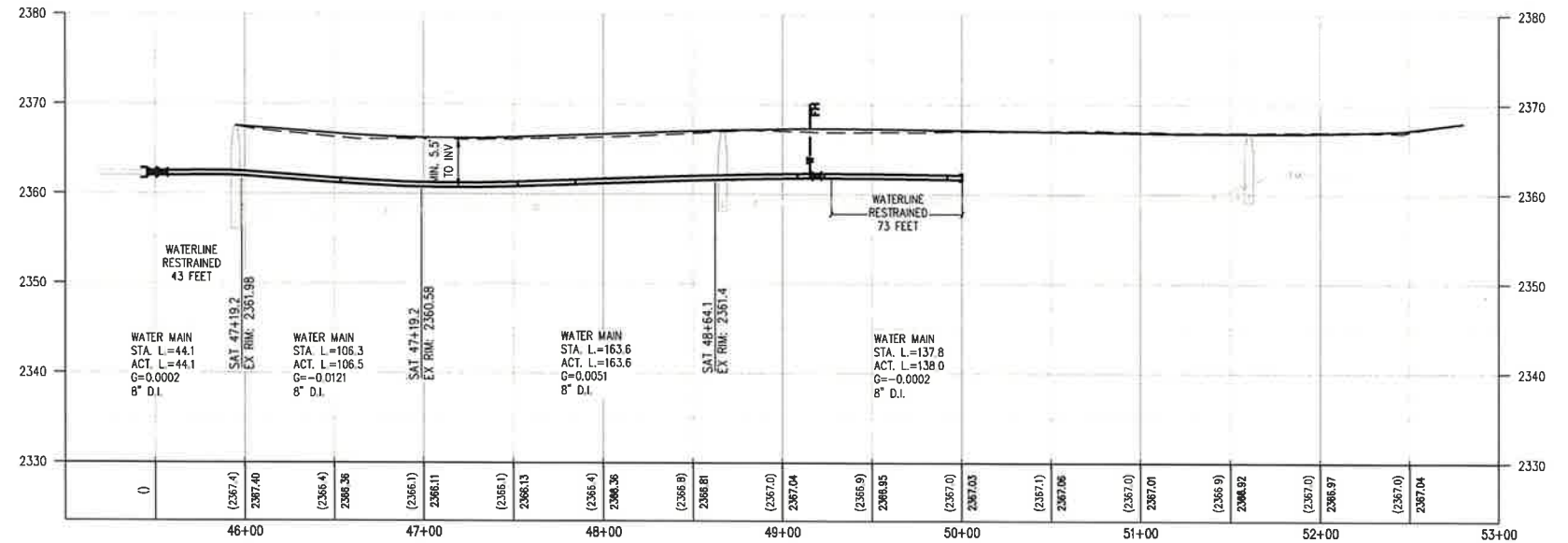
STR-1
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REVISIONS		NAVDB8 = (OLD CBM ELEV.) - (13.13)	AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVDB8)	FIRE MARSHAL APPROVAL SIGNATURE: DAVE KOKOT		DATE:	PROJECT NAME: BROWN ESTATES	
DATE	BY	PROJECT	DESCRIPTION	NAVDB8 ELEV.: 2201.41	BENCH MARK LOCATION: NW CORNER OF LOT 3, BLOCK 7 1/2" BARE REBAR EL: 1970.71 (USFT)	CURRENT C.O.S. DESIGN STANDARDS ADOPTED FEB, 2007	SEGMENT LIMITS: F STREET TRINITY AVE TO LINCOLN RD	
				CBM NO.: N/A	SCALE: HORIZONTAL SCALE (22 x 34) PLAN & PROFILE 1"= 50' VERTICAL SCALE (22 x 34) 1"= 10'	BY: DATES	TYPE OF IMPROVEMENT: STREET	
				NAVDB8 DATUM	SCALE	APPROVED:	PROJECT LIMITS: 10TH AVE	

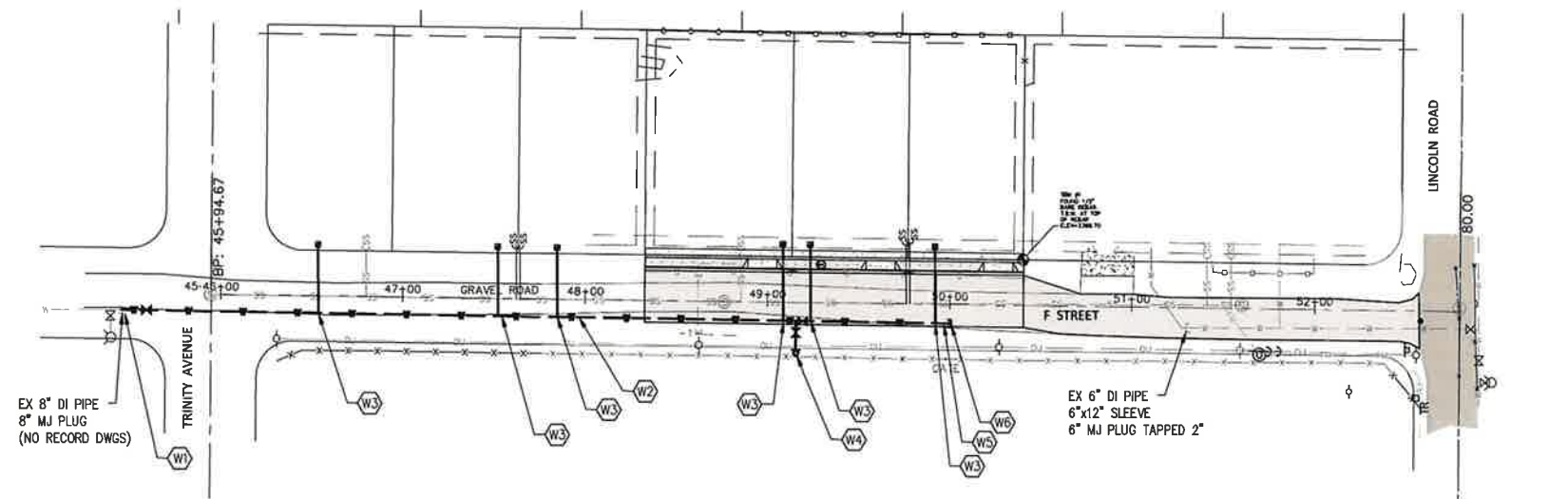
CITY OF SPOKANE, WASHINGTON
 DEPARTMENT OF ENGINEERING SERVICES
 808 WEST SPOKANE FALLS BLVD. SPOKANE, WASHINGTON 99201-3343 (509) 625-6700

WATER SHEET NOTES:

- a. UTILITY TRENCH AND BACKFILL PER CITY OF SPOKANE STANDARD PLANS A-1 AND A-2.
- b. UTILITY LOCATIONS PER CITY OF SPOKANE STANDARD PLAN A-6.
- c. WATER & SEWER CROSSINGS PER CITY OF SPOKANE STANDARD PLANS A-5, A-6 AND A-9.
- d. MAINTAIN MINIMUM CLEARANCE OF 5 FEET FROM ALL SANITARY & STORM STRUCTURES TO PREVENT ADJACENT WATERLINES FROM FREEZING.
- e. CONTRACTOR TO EXCAVATE & BACKFILL; CITY OF SPOKANE WATER FORCES TO PERFORM WORK RELATED TO TIE-IN CONNECTIONS AND SIDE SERVICES.
- f. CONTRACTOR WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF SPOKANE GENERAL SPECIAL PROVISIONS (GSPs) FOR PRIVATE CONTRACTS.
- g. RESTRAINT LENGTHS BASED ON EBAA'S RESTRAINT CALCULATOR USING SOIL TYPE ML (SILT), SAFETY FACTOR OF 1.5 FOR PIPE Ø 24" OR GREATER, 2.0 FOR PIPE Ø EQUAL TO 18", AND 2.5 FOR PIPE Ø 12" AND LESS, TRENCH TYPE 5 & TEST PRESSURE OF 200 PSI.
- h. SEE SHEET WA-2 FOR WATERMAIN JOINT DEFLECTION TABLES.
- i. CUT-OFF WALLS MAY BE PLACED AT THE DISCRETION OF THE FIELD ENGINEER.
- j. WATER SERVICES SHALL MEET CURRENT BACKFLOW STANDARDS PER WAC 246-290-490 AND FOLLOW CITY OF SPOKANE WATER DEPARTMENT RULES AND REGULATIONS FOR WATER SERVICE INSTALLATIONS.
- k. ON-PROPERTY SITE WATER LINES SHALL BE INSPECTED BY THE CITY OF SPOKANE WATER DEPARTMENT PRIOR TO BACKFILL.
- l. THE DEVELOPER MUST PROVIDE PASSING TESTING REPORTS FOR ALL BACKFLOW ASSEMBLIES (E.G. IRRIGATION AND FIRE SYSTEMS) TO THE CITY OF SPOKANE WATER DEPARTMENT. ALL REPORTS SHALL BE SENT TO WATERCROSSCONNECTION@SPOKANE.CITY.ORG PRIOR TO SCHEDULING A WATER USE SITE SURVEY/INSPECTION AND BEFORE A CERTIFICATE OF OCCUPANCY MAY BE ISSUED.
- m. THE DEVELOPER SHALL COORDINATE A WATER USE SITE SURVEY/INSPECTION WITH THE CITY OF SPOKANE WATER DEPARTMENT (AFTER BACKFLOW DEVICES HAVE BEEN TESTED) NO LESS THAN 48 HOURS PRIOR TO REQUESTING A CERTIFICATE OF OCCUPANCY. THE CROSS CONNECTION LINE TO SCHEDULE A WATER USE SURVEY/INSPECTION IS 509-625-7969.
- n. THE CITY OF SPOKANE HYDRANT PERMIT PROGRAM REQUIRES AN RPBA AND FLOW METER ASSEMBLY FOR ALL FIRE HYDRANT WATER USAGE IF NEEDED FOR THE CONSTRUCTION PHASE OF THE PROJECT (E.G. DUST CONTROL, ETC.). THIS HYDRANT PROGRAM REQUIRES A NEW PERMIT FEE, CONSUMPTION BILLING, AND DEPOSIT FOR THE RPBA & METER ASSEMBLY. PLEASE CALL 311 OR CONTACT THE CITY OF SPOKANE WATER DEPARTMENT AT 509-625-7800 FOR MORE INFORMATION.
- o. MANDATORY PRE-CONSTRUCTION MEETING INCLUDING THE WATER DEPT. IS REQUIRED (WARREN SIRIANNI 509-625-7800), WITH MINIMUM 5 DAYS NOTICE.
- p. WATER SERVICE STUB STAKE SHALL ALSO LIST PERMIT NUMBER OR ADDRESS FOR PARCEL TO BE SERVED IN PERMANENT WEATHERPROOF PAINT OR MARKER.



WATER KEY NOTES	
ITEM No.	DESCRIPTION
W1	CONNECTION TO EXISTING 8" DUCTILE IRON WATER MAIN BY CITY OF SPOKANE WATER FORCES. 8" GATE VALVE. STA 45+45.0, 10.0' R
W2	PROPOSED 8" DUCTILE IRON CLASS 350 WATER MAIN WITH 5.66' MINIMUM DEPTH TO INVERT ELEVATION. TRENCH AND BACKFILL PER CITY OF SPOKANE STANDARD PLANS A-1 AND A-2.
W3	PROPOSED 1" WATER SERVICE PER CITY OF SPOKANE STANDARD PLAN Y-111.
W4	FIRE HYDRANT ASSEMBLY PER CITY OF SPOKANE STANDARD PLAN Y-101. PROVIDE ADDITIONAL 8" GATE VALVE ON NORTH BRANCH OF TEE. STA 49+16.0, 27.5' L
W5	2" BLOWOFF AT END OF PROPOSED WATER MAIN. PROVIDE 8" RESTRAINED D.I. MJ CAP WITH 2" THREADED PORT AND VALVE ASSEMBLY FOR TESTING/DISINFECTION, WHICH SHALL CONSIST OF A 2" DIA. BY 8" LONG NPT NIPPLE AND NPT VALVE (CURBSTOP OR BALL TYPE).
W6	STA 49+90.0, 10.0' R



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DAVE KOKOT DATE: _____

PROJECT NAME: **BROWN ESTATES**

SEGMENT LIMITS: **F STREET TRINITY AVE TO LINCOLN RD**

PROJECT LIMITS: **10TH AVE**

TYPE OF IMPROVEMENT: **WATER**

PROJECT NO. _____ PLAN NO. _____

REVISIONS		NAV88 = (OLD CBM ELEV.) - (13.13)		AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88)	
DATE	BY	PROJECT	DESCRIPTION	NAV88 ELEV.:	2201.41
				CBM NO.:	N/A
				NAV88 DATUM	

BENCH MARK LOCATION: NW CORNER OF LOT 3, BLOCK 7 1/2" BARE REBAR EL: 1970.71 (USFT)	CURRENT C.O.S. DESIGN STANDARDS ADOPTED FEB, 2007
SCALE: HORIZONTAL SCALE (22 x 34) 1"= 50' VERTICAL SCALE (22 x 34) 1"= 10'	BY: _____ DATES: _____
DRAWN: _____	APPROVED: _____