

		ESTIMATED
	UNIT	QUANTITY
DBILIZATION	LS	1
	AC	16
DN/EARTHWORK	CY	102,400
EXAMAT)	SY	48,603
BION MATTRESS)	SY	11,151
	CY	2,253
_ENT FLOWABLE FILL)	CY	60
ETE (BOX CULVERT)	CY	214
W/PLUG	LS	1
DNCRETE (GABION CAP)	SY	900
	CY	350
TAIL C12.10)	LF	10,500
MENT W/CONCRETE ENCASEMENT	LS	1
PLUG	LS	1

PREPARED FOR

MOHAVE COUNTY FLOOD CONTROL DISTRICT 3250 E KINO AVE PO BOX 7000 KINGMAN, AZ 86402 (928) 757-0925 CONTACT: PAUL BAUGHMAN, P.E.

PREPARED BY

HOLISTIC ENGINEERING AND LAND MANAGEMENT, INC 14040 N CAVE CREEK RD, SUITE 104 PHOENIX, AZ 85022 (602) 769-9034 CONTACT: BRIAN SCHALK, P.E.

BENCHMARK

THE VERTICAL DATUM FOR THIS PROJECT IS BASED ON THE CITY OF KINGMAN ESTABLISHED BENCHMARK, 95-2-85A, A CITY OF KINGMAN 2" BRASS DISK IN CONCRETE LOCATED AT THE SOUTHWEST RETURN OF JAGERSON AVE. AND BANKS ST.

PUBLISHED ELEVATION 3367.01' NAVD88.

CONVERSION FROM NAVD88 TO NGVD29 (COK VERTICAL DATUM): NAVD88 ELEVATION - 2.68' = NGVD29 ELEVATION (COK)

HORIZONTAL DA	ТАИМ
	DLUTION - 99 TR7590850202305, APRIL 28, 2022
PROJECTION:	ARIZONA STATE PLANE WEST ZONE,
	NAD83 2011 (EPOCH 2010)
UNITS:	INTERNATIONAL FEET
GEOID MODEL:	GEOID18

MODIFIED TO GROUND AT (GRID) NORTHING:1555326.820, EASTING:623216.451, UTILIZING A COMBINED SCALE FACTOR OF 1.0002166436.

UTILITY CONTACTS:

UNISOURCE ENERGY SERVICES 2498 AIRWAY AVE KINGMAN, AZ 86409 (928) 681-8924 (800) 891-6810 (EMERGENCY)

WATER & SEWER CITY OF KINGMAN PUBLIC WORKS DEPT 3700 E ANDY DEVINE AVE KINGMAN, AZ 86401 (928) 716-5545 (928) 753-5561 (EMERGENCY)

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14040 N. CAVE CREEK ROAD, SUITE 104 PHOENIX, AZ 85022 (602) 769-9034
(602) 769-9034

MCFCD CONTRACT #: 21-PS-07-02			S-07-02
COK PR	OJECT #:	ENG22-0112	
HELM PROJECT #:		220	07
DRAWN	CLJ	DATE	2/22/23
DESIGN	RAK	DATE	2/22/23
CHECK	BNS	DATE	2/22/23
SHEET G1		SHEE 1 O	T NO. F 26

GENERAL CONSTRUCTION NOTES:

1.	ALL CONSTRUCTION SHALL BE PERFORMED ACCORDING TO APPLICABLE MOHAVE COUNTY STANDARDS
	AND BY REFERENCE THE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) SPECIFICATION AND DETAILS
	2016 REVISIONS UNLESS NOTED OTHERWISE ON THE DRAWINGS.

- THE OWNER DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING UTILITIES SHOWN ON PLANS. EXISTING UNDERGROUND UTILITIES SHOWN ON PLANS ARE BASED UPON BEST AVAILABLE INFORMATION. CAUTION SHOULD BE TAKEN IN ALL EXCAVATIONS. UTILITY LINES MAY BE ENCOUNTERED DURING EXCAVATION THAT ARE NOT SHOWN IN PLANS OR KNOWN TO EXIST.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND/OR ELEVATION OF EXISTING UTILITIES WHICH PERTAIN TO AND AFFECT THE CONSTRUCTION OF THIS PROJECT AND SHALL NOTIFY THE OWNER OF ANY CONFLICTING CONDITIONS.
- THE OWNER IS NOT RESPONSIBLE FOR LIABILITY ACCRUED DUE TO DELAYS AND/OR DAMAGE TO UTILITIES IN CONJUNCTION WITH THIS CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES AND SHALL TAKE ALL PRECAUTIONS TO PROTECT AND AVOID DAMAGE TO EXISTING FACILITIES. ACTIVE OR INACTIVE UTILITIES ENCOUNTERED SHALL BE HANDLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANIES
- 6. TWO (2) WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL CALL THE BLUE STAKE CENTER (1-800-STAKEIT).
- 7. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY THEMSELVES AS TO THE ACTUAL CONDITIONS AND REQUIREMENTS OF THE WORK. NO CLAIM SHALL BE MADE AGAINST THE OWNER OR THE ENGINEER FOR ANY ALLEGED MISUNDERSTANDING OF THE CONDITIONS OR NATURE OF THE WORK
- 8. NOTHING CONTAINED IN THE CONSTRUCTION PLANS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR
- THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK
- 10. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AT HIS OWN EXPENSE, SUCH PERMITS AS ARE REQUIRED FROM THE APPROPRIATE AGENCY.
- 11. THE ENGINEER SHALL BE NOTIFIED 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION. 12. WORK NOT IN CONFORMATION WITH THE PLANS AND SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- 13. IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO VERIFY ALL QUANTITIES, INCLUDING EXCAVATION. BORROW, EMBANKMENT, SHRINK OR SWELL, GROUND COMPACTION, HAUL AND ANY OTHER ITEMS AFFECTING THEIR BID AND TO BASE THEIR BID SOLELY UPON THEIR OWN VERIFIED QUANTITIES, IRRESPECTIVE OF THE INFORMATION PROVIDED. IT SHALL BE THE BIDDER'S RESPONSIBILITY TO NOTIFY THE ENGINEER PRIOR TO BIDDING OF ANY MAJOR DISCREPANCIES
- 14. DISPOSAL AND/OR STOCKPILING OF MATERIAL SHALL BE DONE IN SUCH A WAY THAT WILL NOT CREATE A NUISANCE. PLACING OF MATERIAL ON PRIVATE PROPERTY REQUIRES WRITTEN AUTHORIZATION.
- 15. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING, CAREFUL GRADE CONTROL AND GRADE CHECKING WITH FINISH AS-BUILT PLANS AS REQUIRED TO PROVIDE PROPER DRAINAGE RELEASE.
- 16. NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL PAVEMENT IS SWEPT CLEAN OF ALL DIRT AND DEBRIS.

GENERAL GRADING NOTES

AS REQUIRED BY ITEM 8 ABOVE.

EXCAVATED MATERIAL SHALL BE BORROW MATERIAL SHOULD BE FREE OF DEBRIS, ORGANIC MATERIALS, AND THREE INCH (3-INCH) SIZE PARTICLES OR LARGER. WE RECOMMEND FILL MATERIAL CONFORM TO THE FOLLOWING GENERAL SPECIFICATION OR APPROVED EQUAL:

STANDARD SIEVE	PERCENT PASSING
6-INCH	100
4-INCH	85-100
3/4-INCH	70-100
NO. 4 SIEVE	40-100
NO. 200 SIEVE	40 (MAX)

- THE PLASTICITY INDEX SHOULD BE BETWEEN 2 AND 15 UNLESS OTHERWISE SPECIFIED IN THE PROJECT SOILS REPORT
- ALL SUBGRADE MATERIALS SHALL BE SCARIFIED TO A DEPTH OF EIGHT INCHES (8"), THE MOISTURE CONTENT ADJUSTED TO NEAR OPTIMUM, THEN COMPACTED TO 95 PERCENT OF ASTM D-698.
- SUFFICIENT COMPACTION TESTS SHALL BE TAKEN TO VERIFY COMPLIANCE WITH THESE SPECIFICATIONS. CLEARING AND GRUBBING SHALL EXTEND TO THE LIMITS OF GRADING AND CONSTRUCTION SHALL BE IN
- ACCORDANCE WITH MAG SPECIFICATIONS, SECTION 201. TRENCH EXCAVATIONS, BACKFILLING AND COMPACTION SHALL CONFORM TO MAG SPECIFICATIONS. SECTION 601, TYPE I, UNLESS NOTED OTHERWISE.
- THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION,
- NONCOMPLYING FILL, AND OTHER UNSUITABLE MATERIALS. NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN 6 INCHES
- SHALL BE ALLOWED IN FILLS IN THE ABSENCE OF A SOILS REPORT AND INSPECTION BY A SOILS ENGINEER. ALL FILLS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AND VERIFIED BY A COMPACTION REPORT WHEN SUPPORTING A STRUCTURE EXCEPT WHERE SPECIFIED OTHERWISE IN THE
- PROJECT SOILS REPORT.
- GRADING INSPECTION SHALL BE SCHEDULED WITH THE BUILDING DIVISION AS FOLLOWS: 10. AFTER THE REMOVAL OF VEGETATION AND OTHER UNSUITABLE MATERIALS AND BEFORE ANY FILL 11.
- MATERIAL IS PLACE. 12. AFTER PLACEMENT AND COMPACTION OF EACH LIFT OF FILL MATERIAL. FILL MATERIAL SHALL BE PLACED IN NO GREATER THAN 8 INCHES VERTICAL INCREMENTS. EXCEPTION: IF INSPECTED BY A SOILS ENGINEER
- 13. AFTER RECEIVING A COMPACTION REPORT, A FINAL GRADING INSPECTION AND APPROVAL IS REQUIRED.

CITY OF KINGMAN - NOTES FOR SEWER PLANS

- CONSTRUCTION BEGINS TELEPHONE (928) 753-8195.

- COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601 & CITY OF KINGMAN SUPPLEMENTS. 4
- 5. NEW SEWER LINES ARE TO BE BUILT IN STANDARD UTILITY LOCATIONS PER CITY OF KINGMAN DETAIL 120
- THE PROCESS THAT DEVELOPER(S)/CONTRACTOR(S) MUST GO THROUGH IN ORDER TO OBTAIN A CONSTRUCTION SITE AT ALL TIMES.
- APPROVAL
- 8. ACCORDANCE WITH MAG STANDARD SPECIFICATION 615.11(C) AND AAC R18-9-E301(D)(2)(I).
- 9. NEGATIVE AIR PRESSURE (VACUUM) TEST PRIOR TO BACKFILL"
- 10. JOINTS AND SEAL THE MANHOLE TO A WATER TIGHT CONDITION.
- 11. WITH AAC R18-9E301(D)(2)(J).
- 12. (MUTCD)
- 13. NEW MANHOLES ARE TO BE BUILT WITHOUT STEPS. 14.
- 15. WATER SERVICE TO OUTSIDE OF DRY UNDERGROUND UTILITY.
- 17.
- 18. CODES OR ORDINANCES TAKE PRECEDENCE.
- 19. LASER
- REPLACED IN KIND PRIOR TO FINAL INSPECTION.
- 22. PLAN APPROVAL IS VALID FOR ONE YEAR

ENGINEER'S NOTES

- SUBCONTRACTOR
- 2. CONNECTION WITH THE WORK.
- THE CONTRACT DOCUMENTS.
- 4 RECORD DRAWING BY THE JURISDICTIONAL AGENCY.
- COMPLETED
- 6. CONSTRUCTION.
- CONTRACT SPECIFICATIONS.
- FOR DISPOSAL. CONTRACTOR SHALL PAY ALL DISPOSAL FEES
- DOCUMENTS

ENGINEERING DEPARTMENT'S CIVIL/SITE INSPECTION STAFF SHALL BE NOTIFIED 48 HOURS BEFORE ANY

ANY SEWER MAIN 15" IN SIZE OR 12' IN DEPTH, OR GREATER, REQUIRES 5' MANHOLES.

ALL CONSTRUCTION TO CONFORM TO M.A.G. SPECIFICATIONS AND DETAILS AND CITY OF KINGMAN SUPPLEMENT TO M.A.G. SPECIFICATIONS AND DETAILS, UNLESS MODIFIED ON THE PLANS.

THIS SET OF PLANS HAS BEEN INITIALLY REVIEWED BY THE CITY OF KINGMAN. SUCH REVIEW IS PART OF

CONSTRUCTION PERMIT. THE RESULTS OF SUCH INITIAL REVIEW SHALL NOT DICTATE THE CITY OF KINGMAN'S FINAL DETERMINATION AS TO THE ACCEPTABILITY OF THE PLANS, NOR SHALL IT PREVENT THE CITY OF KINGMAN FROM REQUIRING ERRORS AND OMISSIONS, AS FOUND ON PLANS, BE ADDRESSED BY DEVELOPER(S) /CONTRACTOR(S), WHERE SUCH ERRORS AND OMISSIONS CAUSE THE PLANS TO BE IN VIOLATION OF OR INADEQUATE UNDER APPLICABLE FEDERAL/STATE/COUNTY/LOCAL CODES, ORDINANCES, REGULATIONS, OR OTHER LAWS. THIS REVIEWED AND STAMPED SET OF PLANS MUST BE KEPT AT THE

ALL LINES MUST BE TESTED FOR UNIFORM SLOPE BY LAMP LIGHTING OR REMOTE CAMERA BEFORE THEY ARE ACCEPTED AS COMPLETE. TESTING METHOD MUST BE APPROVED IN ADVANCE BY THE ENGINEERING DEPARTMENT. THE RESULTS SHALL BE RECORDED AND SUBMITTED TO THE ENGINEER FOR REVIEW AND

DEFLECTION TESTING FOR THE ENTIRE LENGTH OF PVC SEWER LINES SHALL BE PERFORMED IN

ALL MANHOLES SHALL BE TESTED USING ONE OF THE FOLLOWING PROCEDURES: A. WATER TESTING IN ACCORDANCE WITH AAC R-18-9-E301(D)(3)(E), THE ENTIRE MANHOLE SHALL BE FILLED WITH WATER AND EXFILTRATION SHALL BE LIMITED TO 0.0034 OF THE TOTAL MANHOLE VOLUME IN ONE HOUR. B. VACUUM TESTING IN ACCORDANCE WITH AAC R-18-9-E301(D)(3)(E), MANHOLES SHALL BE TESTED IN ACCORDANCE WITH ASTM C1244-02, "STANDARD STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY

THE CONTRACTOR SHALL PERFORM MANHOLE TESTING AFTER INSTALLATION OF THE MANHOLE CONE TO VERIFY WATER TIGHTNESS OF THE MANHOLE FROM THE TOP CONE DOWN. UPON SATISFACTORY TEST RESULTS, THE CONTRACTOR SHALL INSTALL THE MANHOLE RINGS AND SPACERS, COMPLETE WITH THE

THE ENTIRE SEWER LINE SHALL BE TESTED FOR TIGHTNESS FOR EACH PIPE MATERIAL IN ACCORDANCE

ALL WORK MUST COMPLY WITH REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION FROM ANY UNDERGROUND UTILITY SHALL BE PROVIDED FOR SEWER MAINS, AND WATER MAINS. THE MINIMUM HORIZONTAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN, OR WATER MAIN TO OUTSIDE OF UNDERGROUND UTILITY.

A ONE (1) FOOT MINIMUM VERTICAL SEPARATION FROM ANY DRY UNDERGROUND UTILITY CROSSING SHALL BE PROVIDED FOR SEWER MAINS, SEWER SERVICES, WATER MAINS, AND WATER SERVICES. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN, SEWER SERVICE, WATER MAIN, OR

A TWO (2) FOOT MINIMUM VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN ANY WATER MAIN OR STORM DRAIN CROSSING A SEWER MAIN. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN TO OUTSIDE OF WATER MAIN OR STORM DRAIN MAIN. SEE CITY OF KINGMAN STANDARD DETAIL 404 FOR ADDITIONAL INFORMATION AND/OR PROVISIONS FOR CLEARANCE.

EXCEPTIONS OR DEVIATIONS FROM THE ABOVE MINIMUM CLEARANCES MUST BE APPROVED AND SHOWN ON THE APPROVED WATER AND SEWER PLANS. WHEN UTILITY CONFLICTS ARE FOUND DURING CONSTRUCTION, ALL CHANGES AND REVISIONS MUST BE PRECEDED BY AN APPROVED PLAN REVISION. ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL

ANY SEWER LINES THAT ARE INSTALLED WITH LESS THAN .004 FT/FT SLOPE MUST BE INSTALLED USING A

20. WHEN DIP SEWER PIPE IS USED, AN EPOXY LINING IS REQUIRED AS APPROVED BY THE CITY ENGINEER. 21. CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE REMOVED AND

NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE NOR SHALL BE CONSTRUED TO CREATE ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY

THE ENGINEER AND/OR OWNER ARE NOT RESPONSIBLE FOR CONSTRUCTION MEANS. METHODS. TECHNIQUES, SEQUENCES OR PROCEDURES FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN

THE ENGINEER AND/OR OWNER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS NOR ANY COSTS INCURRED WHETHER INITIAL OR ADDITIONAL TO CORRECT MODIFY OR ALTER ANY CONSTRUCTION COMPLETED CONTRARY TO

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ACCURATE RECORD DRAWING MEASUREMENTS OF ALL EXISTING AND NEW IMPROVEMENTS AND SECURING THE ACCEPTANCE OF THE

THE CONTRACTOR SHALL NOTIFY MOHAVE COUNTY BEFORE THE WORK IS COVERED SO RECORD DRAWING MEASUREMENT MAY BE TAKEN. WORK SHALL NOT BE COVERED UNTIL MEASUREMENTS HAVE BEEN

A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATIONS OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OBSTRUCTIONS AND UTILITY LINES ENCOUNTERED DURING CONSTRUCTION AND SHALL DETERMINE THE EXACT LOCATION OF UTILITIES IN THE AREA AND SO NOTE ON THE RECORD DRAWINGS. FIELD VERIFY LOCATION AND INVERT OF ALL UTILITIES PRIOR TO

ALL EARTHWORK CONSTRUCTION SHALL CONFORM TO THE LATEST MOHAVE COUNTY STANDARDS AND/OR

ALL DEMOLITION DEBRIS SHALL BE HAULED BY THE CONTRACTOR TO AN APPROVED LANDFILL FACILITY

SITE GRADING SHALL BE COMPLETED TO MATH GRADE AND CONTOURS SHOWN IN THESE CONTRACT

CITY OF KINGMAN - NOTES FOR WATER PLANS

- ENGINEERING DEPARTMENT'S CIVIL/SITE INSPECTION STAFF SHALL BE NOTIFIED 48 HOURS BEFORE ANY CONSTRUCTION BEGINS TELEPHONE (928) 753-8195.
- ALL WATER VALVE BOXES SHALL BE PER CITY OF KINGMAN DETAIL 391-1 & 391-2.
- ALL CONSTRUCTION TO CONFORM TO M.A.G. SPECIFICATIONS AND DETAILS AND CITY OF KINGMAN SUPPLEMENT TO M.A.G. SPECIFICATIONS AND DETAILS, UNLESS MODIFIED ON THE PLANS.
- COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601 & CITY OF KINGMAN SUPPLEMENTS.
- NEW WATER LINES ARE TO BE BUILT IN STANDARD UTILITY LOCATIONS PER CITY OF KINGMAN DETAIL 120.
- THIS SET OF PLANS HAS BEEN INITIALLY REVIEWED BY THE CITY OF KINGMAN. SUCH REVIEW IS PART OF 6. THE PROCESS THAT DEVELOPER(S)/CONTRACTOR(S) MUST GO THROUGH IN ORDER TO OBTAIN A CONSTRUCTION PERMIT. THE RESULTS OF SUCH INITIAL REVIEW SHALL NOT DICTATE THE CITY OF KINGMAN'S FINAL DETERMINATION AS TO THE ACCEPTABILITY OF THE PLANS, NOR SHALL IT PREVENT THE CITY OF KINGMAN FROM REQUIRING ERRORS AND OMISSIONS, AS FOUND ON PLANS, BE ADDRESSED BY DEVELOPER(S) /CONTRACTOR(S), WHERE SUCH ERRORS AND OMISSIONS CAUSE THE PLANS TO BE IN VIOLATION OF OR INADEQUATE UNDER APPLICABLE FEDERAL/STATE/COUNTY/LOCAL CODES, ORDINANCES, REGULATIONS, OR OTHER LAWS. THIS REVIEWED AND STAMPED SET OF PLANS MUST BE KEPT AT THE CONSTRUCTION SITE AT ALL TIMES.
- PIPE DEFLECTION SHALL NOT EXCEED ONE-HALF (1/2) THE MANUFACTURERS' RECOMMENDATIONS.
- 8. ALL WORK MUST COMPLY WITH REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- THE CONTRACTOR IS TO NOTIFY THE PUBLIC THAT WILL BE AFFECTED BY ANY SHUTDOWNS A MINIMUM OF 9. 48 HOURS IN ADVANCE.
- A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION FROM ANY UNDERGROUND UTILITY SHALL BE PROVIDED 10. FOR SEWER MAINS AND WATER MAINS. THE MINIMUM HORIZONTAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN OR WATER MAIN TO OUTSIDE OF UNDERGROUND UTILITY.
- A ONE (1) FOOT MINIMUM VERTICAL SEPARATION FROM ANY DRY UNDERGROUND UTILITY CROSSING SHALL 11. BE PROVIDED FOR SEWER MAINS, SEWER SERVICES, WATER MAINS, AND WATER SERVICES, THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN. SEWER SERVICE, WATER MAIN, OR WATER SERVICE TO OUTSIDE OF DRY UNDERGROUND UTILITY.
- A TWO (2) FOOT MINIMUM VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN ANY SEWER MAIN AND 12. STORM DRAIN CROSSING A WATER MAIN. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF WATER MAIN TO OUTSIDE OF SEWER MAIN OR STORM DRAIN MAIN. SEE CITY OF KINGMAN STANDARD DETAIL 404 FOR ADDITIONAL INFORMATION AND/OR PROVISIONS FOR CLEARANCE.
- EXCEPTIONS OR DEVIATIONS FROM THE ABOVE MINIMUM CLEARANCES MUST BE APPROVED AND SHOWN 13. ON THE APPROVED WATER AND SEWER PLANS. WHEN UTILITY CONFLICTS ARE FOUND DURING CONSTRUCTION, ALL CHANGES AND REVISIONS MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL 14 CODES OR ORDINANCES TAKE PRECEDENCE
- 15. WATER SERVICES SHALL BE INSTALLED PERPENDICULAR TO THE WATER MAIN. WATER SERVICES AT THE END OF CUL-DE SACS MAY VARY AS NECESSARY, BUT WILL BE APPROVED ON A CASE BY CASE BASIS.
- ALL SERVICES SHALL RUN IN A STRAIGHT LINE FROM THE WATER MAIN TO THE METER BOX. 16. 17. NEITHER WATER SERVICE METER BOX NOR ANY PORTION OF A WATER SERVICE SHALL BE INSTALLED UNDER AN EXISTING OR PROPOSED DRIVEWAY OR SIDEWALK RAMP.
- 18. CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE REMOVED AND REPLACED IN KIND PRIOR TO FINAL INSPECTION.
- 19. PLAN APPROVAL IS VALID FOR ONE YEAR.

EROSION & WATER QUALITY CONTROL NOTES:

- INSTALL ALL TEMPORARY EROSION CONTROL MEASURES IN ACCORDANCE WITH MAG STANDARDS PRIOR TO 1. SITE DISTURBANCE
- 2. INSTALL BASIN OUTLET PROTECTION TO PREVENT CLOGGING OF THE STORM SEWER AND SEDIMENT LOADS TO DOWNSTREAM STORM WATER FACILITIES OF WATER BODIES
- IF THE STORM WATER BMP IS BEING DESIGNED TO SERVE AS A TEMPORARY SEDIMENT BASIN, GRADE TO THE BMP WITHIN THREE (3) FEET OF FINAL GRADE TO PREVENT CLOGGING OF IN-SITU SOIL. ONCE CONSTRUCTION IN CONTRIBUTING DRAINAGE AREA HAS BEEN COMPLETED AND THE SITE IS STABILIZED. EXCAVATE THE INFILTRATION TRENCH TO FINAL GRADE AND COMPLETE CONSTRUCTION OF THE INFIL TRATION TRENCH
- GRADING OF THE INFILTRATION TRENCH SHALL BE ACCOMPLISHED USING LOW-IMPACT EARTH-MOVING EQUIPMENT TO PREVENT COMPACTED OF THE UNDERLYING SOILS. WIDE TRACKED VEHICLES SUCH AS BACK HOES, SMALL DOZERS AND BOBCATS ARE RECOMMENDED.
- EXCAVATE THE INFILTRATION TRENCH TO THE SPECIFIED DEPTH (ELEVATION). ALL SUB MATERIAL BELOW THE SPECIFIED ELEVATION SHALL BE LEFT UNDISTURBED, UNLESS OTHERWISE DIRECTED BY THE **FNGINFFR**
- GRADE TO THE DEPTH (ELEVATION) SPECIFIED IN THE CONSTRUCTION DOCUMENTS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION. THE SEDIMENT WILL NEED TO BE REMOVED FROM THE INFILTRATION TRENCH PRIOR TO INITIATING THE NEXT STEP IN THE INFILTRATION TRENCH CONSTRUCTION PROCESS.
- MATERIAL EXCAVATED FROM THE INFILTRATION TRENCH AND BASIN SHALL BE SORTED AS TOPSOIL SUITABLE MATERIAL AND UNSUITABLE MATERIAL, STOCKPILED SEPARATELY, AND TEMPORARILY STORED ONSITE AT LOCATION DESIGNATED BY THE ENGINEER.
- TOPSOIL WILL GENERALLY CONSIST OF THE TOP 6"-12" OF SOIL AND ORGANICS SHALL BE STOCKPILED SEPARATELY AND REPLACED AS PER PLANS. UNSUITABLE EXCAVATED MATERIAL WILL CONSIST OF MATERIAL FROM THE RESTRICTIVE LAYER AND OTHER SOILS OF LOW HYDRAULIC CONDUCTIVITY (E.G. CLAYS AND SILTS) AS IDENTIFIED BY THE ENGINEER SHALL BE STOCKPILED SEPARATELY FOR REMOVAL FROM THE SITE. OTHER SUITABLE EXCAVATED MATERIAL WILL BE REPLACED AS PER PLANS WITH EXCESS REMOVED FROM THE SITE.
- 10. CLEAN, WASHED 1 TO 3 INCH GRAVEL SHALL BE PLACED IN THE BOTTOM OF THE INFILTRATION TRENCH TO THE DEPTH SPECIFIED IN THE CONSTRUCTION DOCUMENTS. GRAVEL SHOULD BE PLACED IN LIFTS AND LIGHTLY COMPACTED WITH PLATED COMPACTORS.

ABBREVIA	ATIONS

ABC	AGGREGATE BASE COURSE
AC	ASPHALT CONCRETE
ACP APN	ASBESTOS CEMENT PIPE ACCESSOR'S PARCEL NUMBER
APROX.	APPROXIMATE
ARV	AIR RELEASE VALVE
B/C	BACK OF CURB
BVC BC	BEGIN VERTICAL CURVE BRASS CAP
BOS	BOTTOM OF STEP
C&G	CURB AND GUTTER
CBC	CONCRETE BOX CULVERT
CFS CF	CUBIC FEET PER SECOND CUBIC FEET
CL	CONSTRUCTION CENTER LINE
D/S	DOWNSTREAM
DB	DAYBREAK (CUT OR FILL LINE)
DE DET	DRAINAGE EASEMENT DETAIL
	DUCTILE IRON PIPE
DWG	DRAWING
EB	ELECTRICAL BOX
EF	EACH FACE EXISTING GROUND/GRADE
EG EOP	EDGE OF PAVEMENT
EVC	END VERTICAL CURVE
=VV	EACH WAY
EA =	EACH ELEVATION
EL ELEC	ELECTRIC
ESMT	EASEMENT
ΞX	EXISTING
FB	FREEBOARD
FD FG	FOUND FINISHED GRADE
FL	FLOW LINE
FO	FIBER OPTIC
G	GAS
GB GALV	GRADE BRAKE GALVANIZED
GV	GATE VALVE
GNC	GRACE NEAL CHANNEL
HDPE	HIGH-DENSITY POLYETHYLENE
E NV	INVERT ELEVATION INVERT
_F	LINEAR FEET
ML	MONUMENT LINE
MH	MANHOLE
MISC NTS	MISCELLANEOUS NOT TO SCALE
	ON CENTER
OE	OVERHEAD ELECTRIC
	PAVEMENT
기 PL	POINT INTERSECTION PROPERTY LINE
POC	POINT OF CURVATURE
РОТ	POINT OF TANGENCY
PP PPOP	POWER POLE/UTILITY POLE
PROP PUE	PROPOSED PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE (TYPICALLY PIPE)
PVI	POINT OF INTERSECTION (VERTICAL)
RCBC	REINFORCED CONCRETE BOX CULVERT
ROW S	RIGHT OF WAY SLOPE
SF	SQUARE FEET
SHT	SHEET
SS	SANITARY SEWER
STD S/W	STANDARD SIDEWALK
SY	SQUARE YARD
TEMP	TEMPORARY
TCE	TEMP CONSTRUCTION EASEMENT
TOC TOG	TOP OF CURB TOP OF GABION
TOP	TOP OF STRUCTURE
TOW	TOP OF WALL
T	
TP TYP	TELEPHONE POLE TYPICAL
J/S	UPSTREAM
JE	UNDERGROUND ELECTRIC
UT VC	
VC W	VERTICAL CURVE WATER
ŴM	WATER METER
WL	WATER LINE

SYMBOLS

\bigcirc	CONTROL POINT
	BENCHMARK
\bigcirc	SEWER MANHOLE
———————————————————————————————————————	UTILITY POLE/GUY WIRE (TELE OR ELEC)
	WATER VALVE
	SECTION LINE
— OHE ———	OVERHEAD ELECTRIC
<u> </u>	FENCING
— DB — —	DAYBREAK LINE (EITHER CUT OR FILL)
S	SEWER LINE (EXIST) SEWER LINE (NEW)
NEW 14" WATER	WATER LINE (EXIST) WATER LINE (NEW)
\frown	

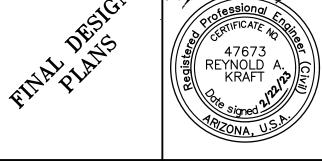
SHEET LOCATION AND CUT SECTION IDENTIFIER

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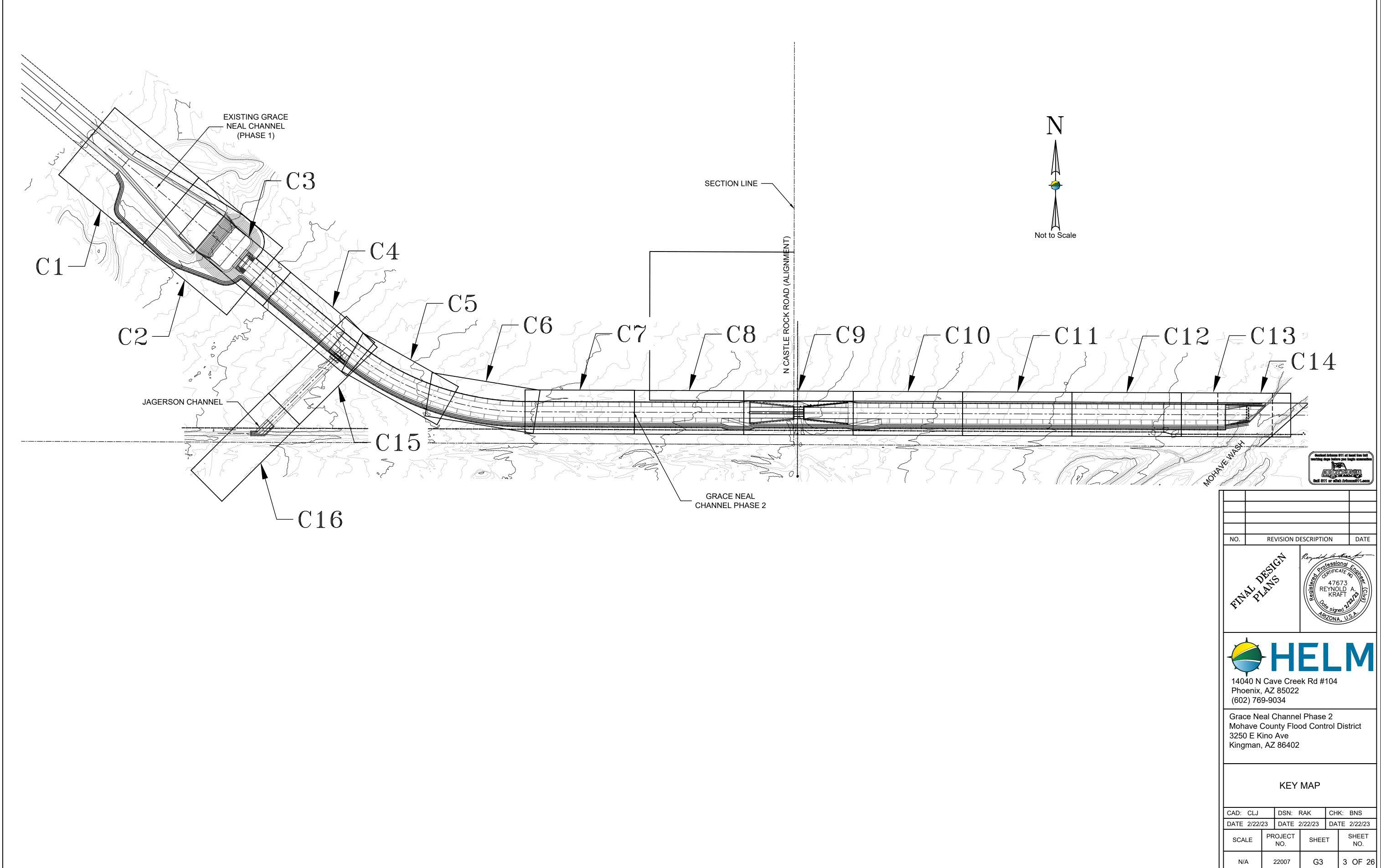
14040 N Cave Creek Rd #104

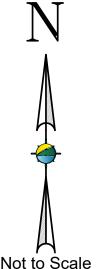
Phoenix, AZ 85022 (602) 769-9034

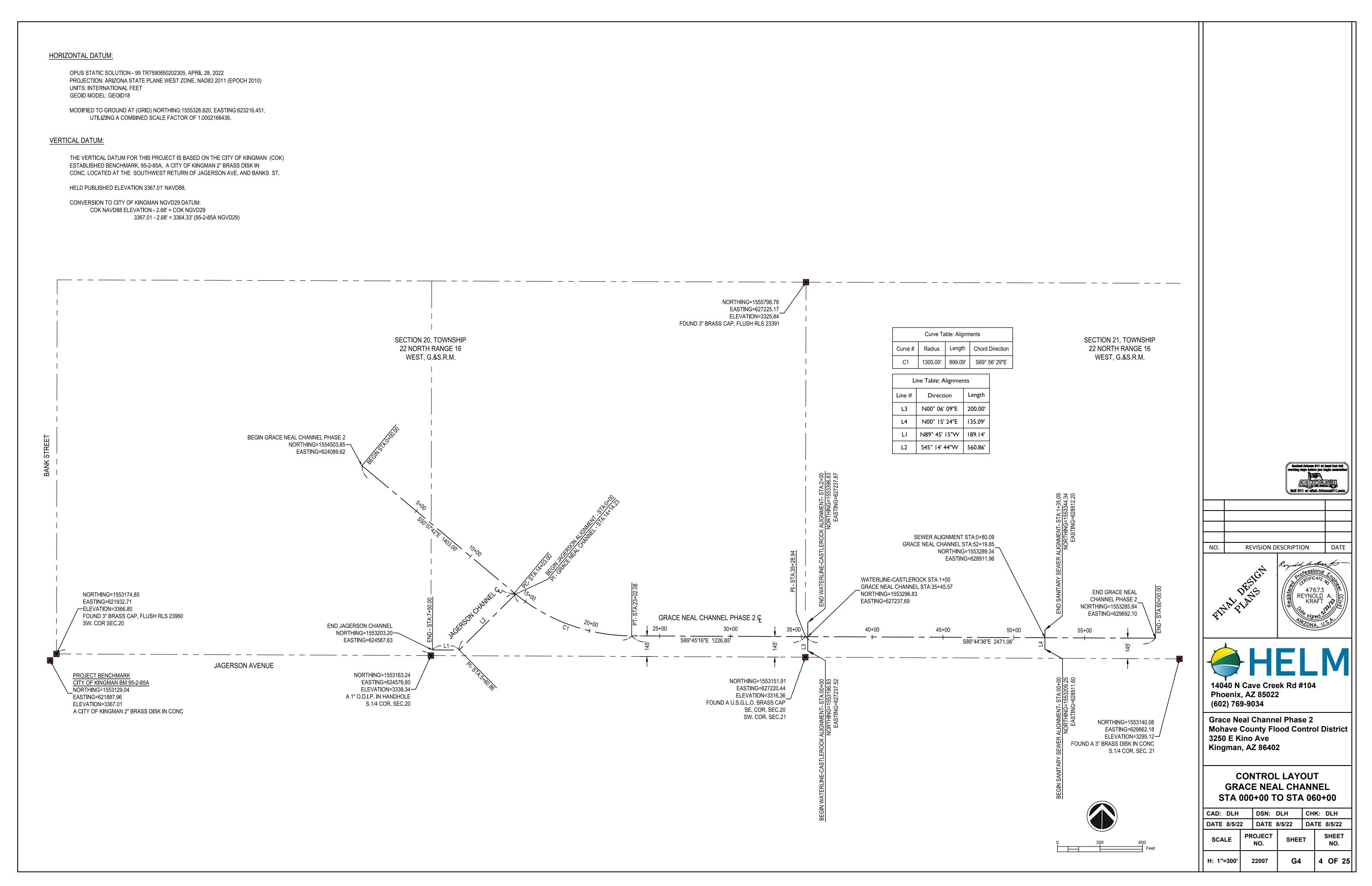
Grace Neal Channel Phase 2 Mohave County Flood Control District 3250 E Kino Ave Kingman, AZ 86402

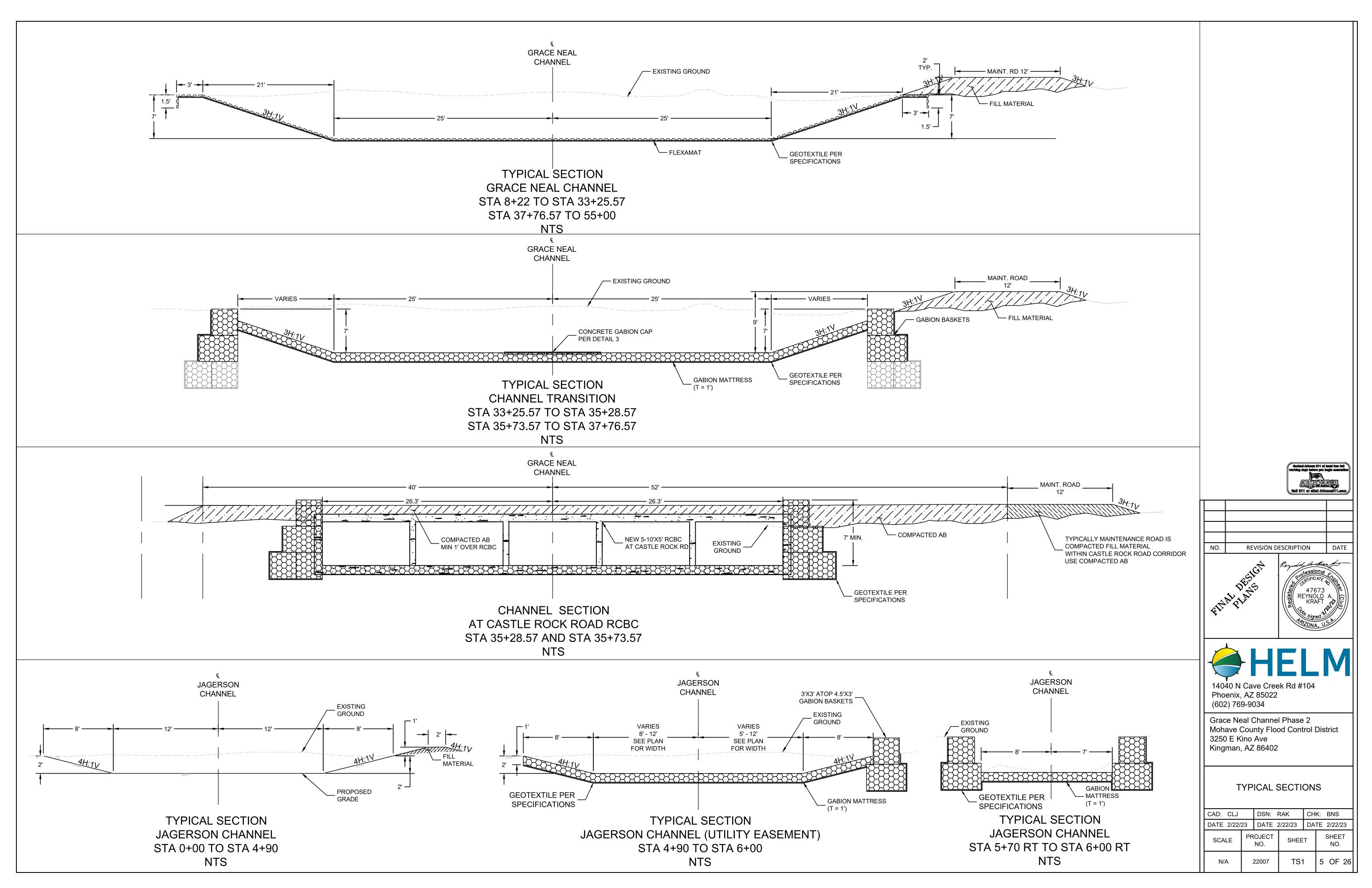
GENERAL CONSTRUCTION NOTES AND LEGEND

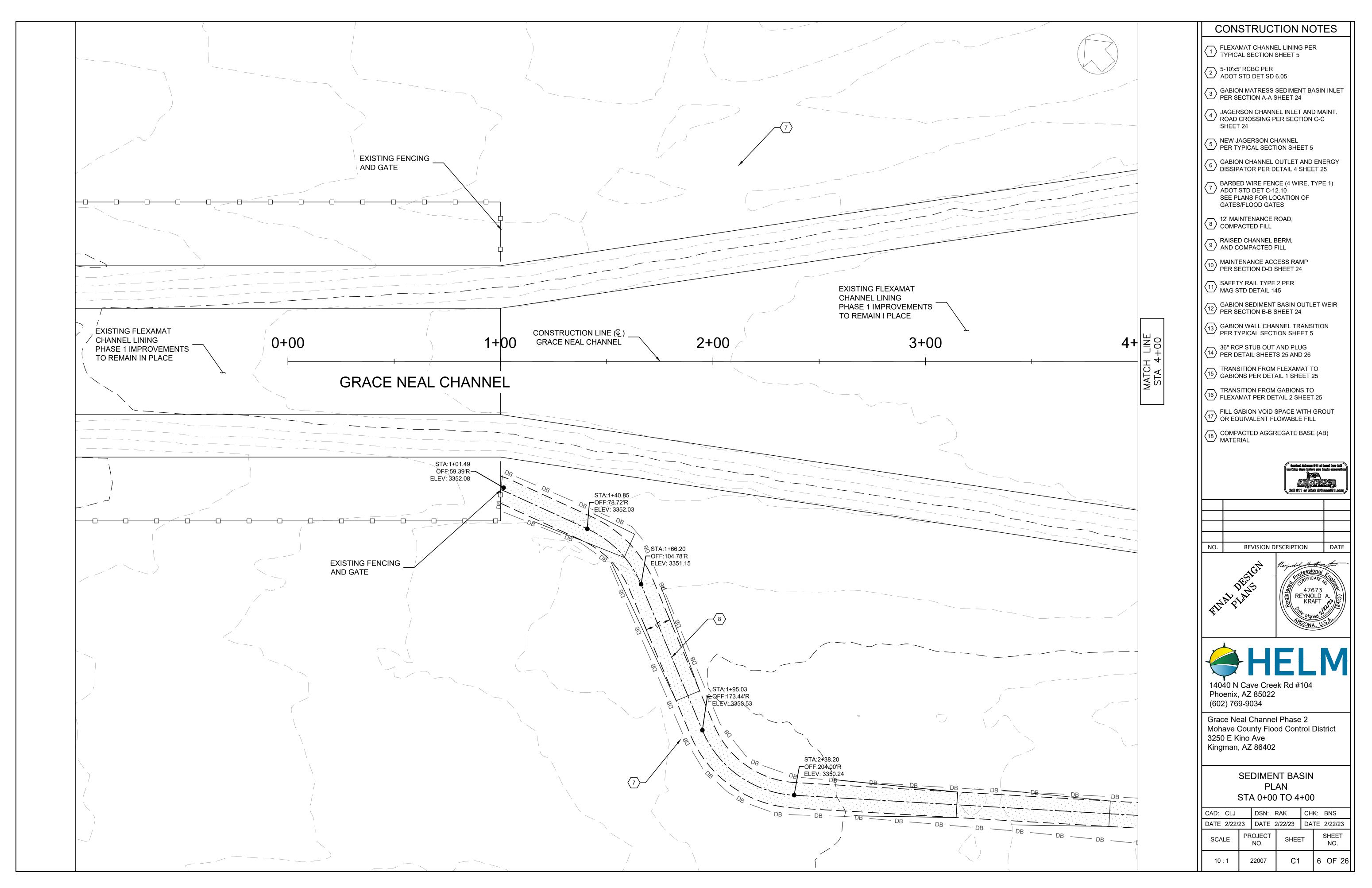
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SCALE	PR	OJECT NO.	SHEET		SHEET NO.
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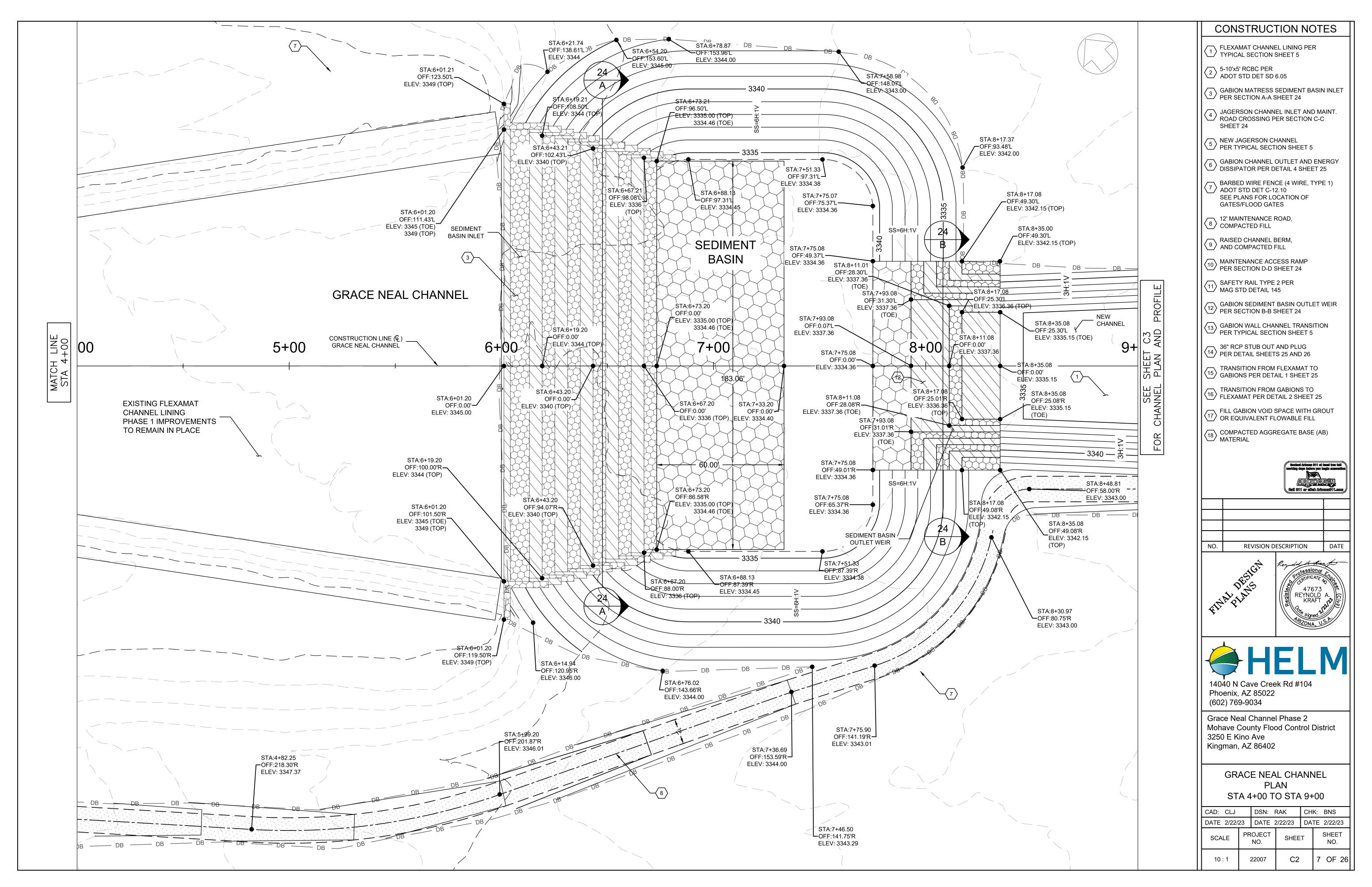


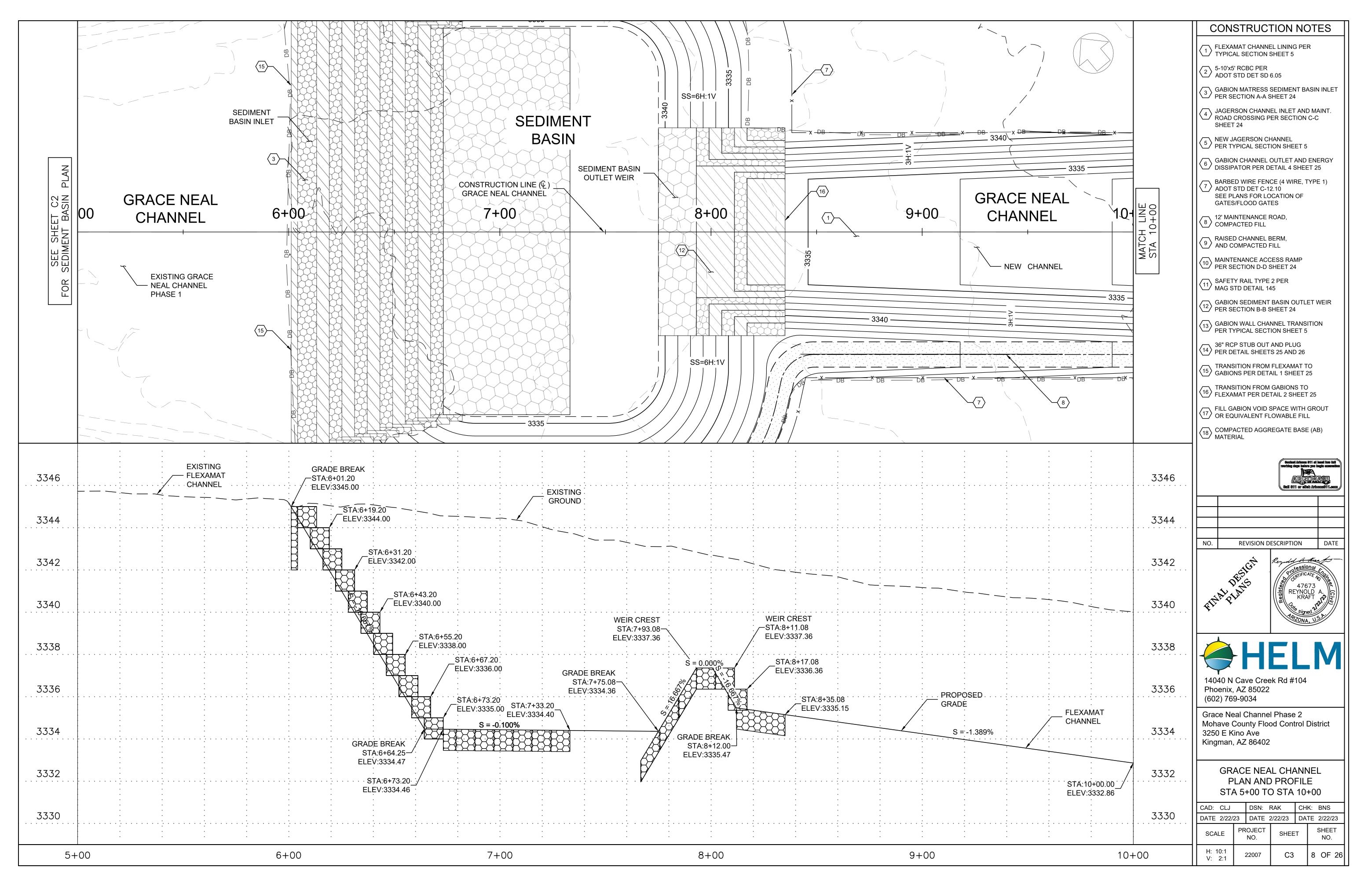


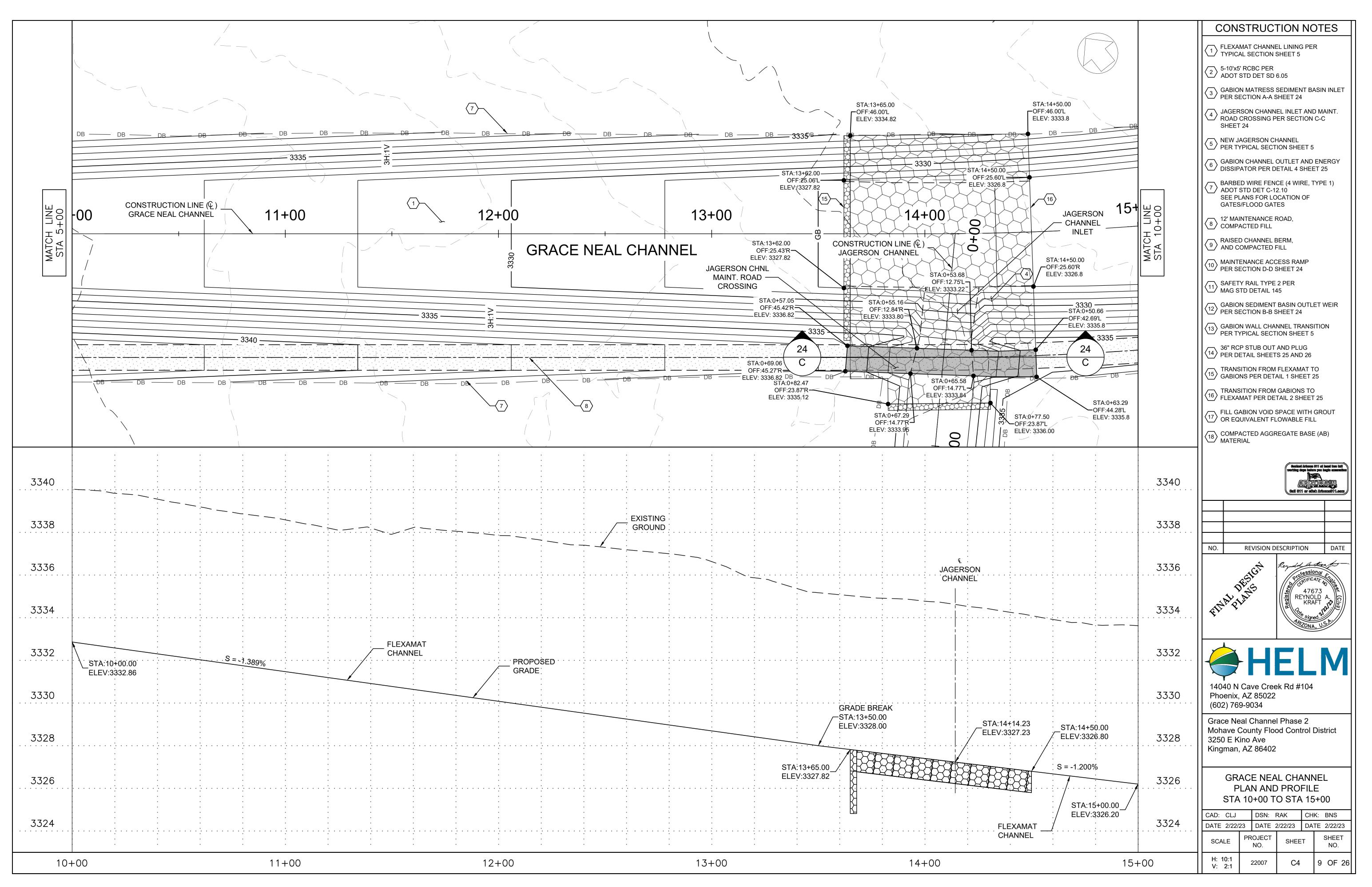


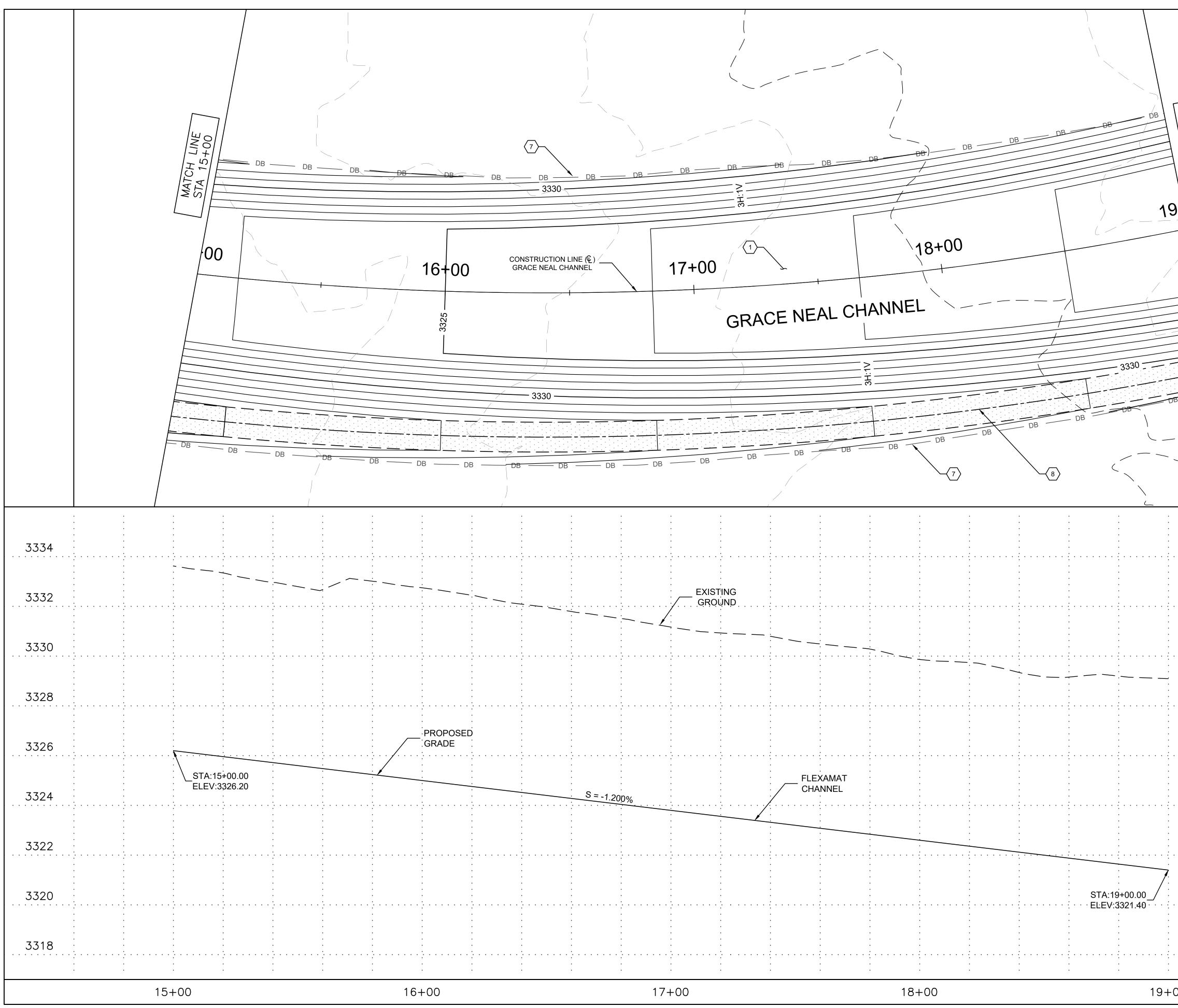




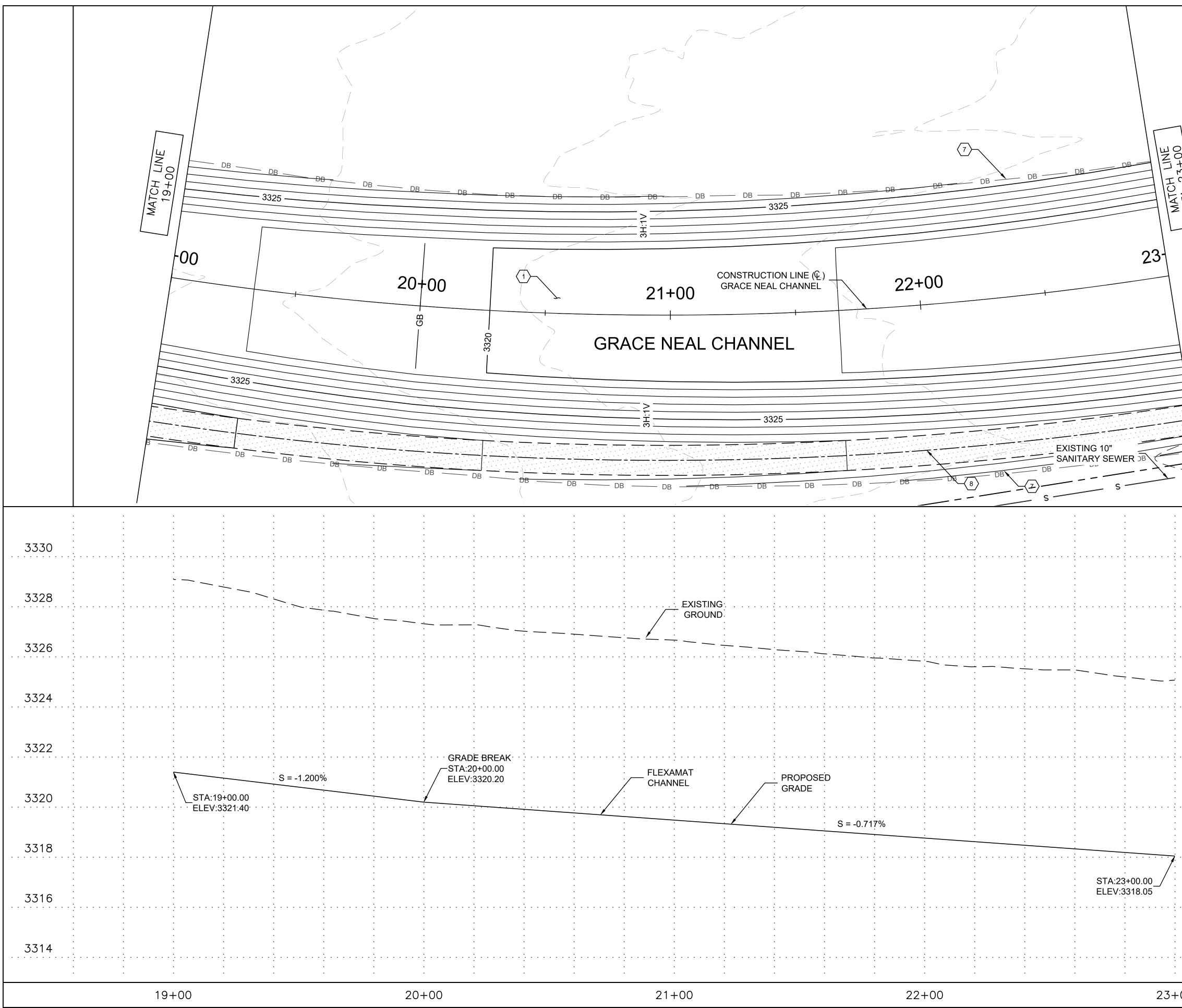




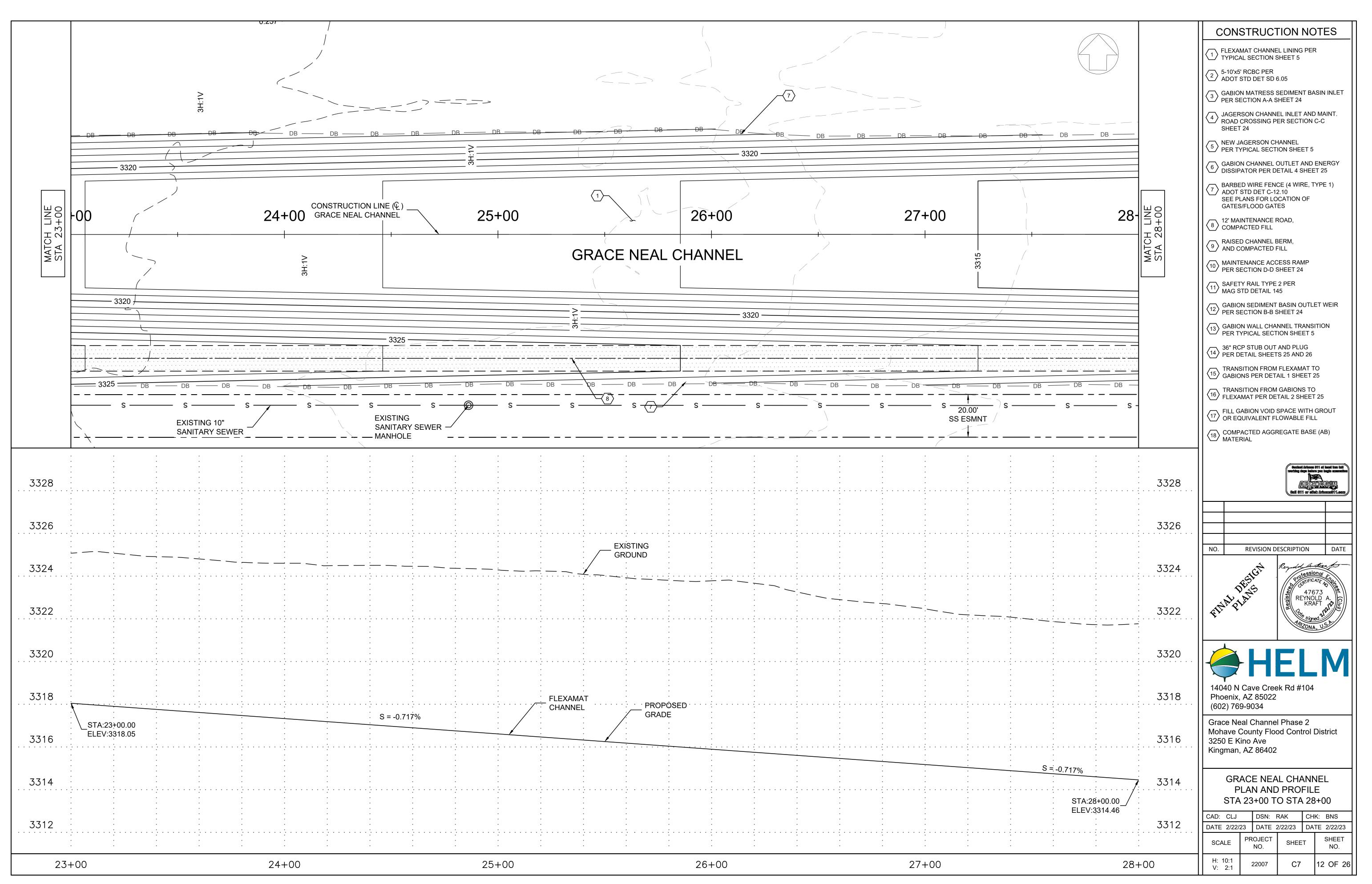




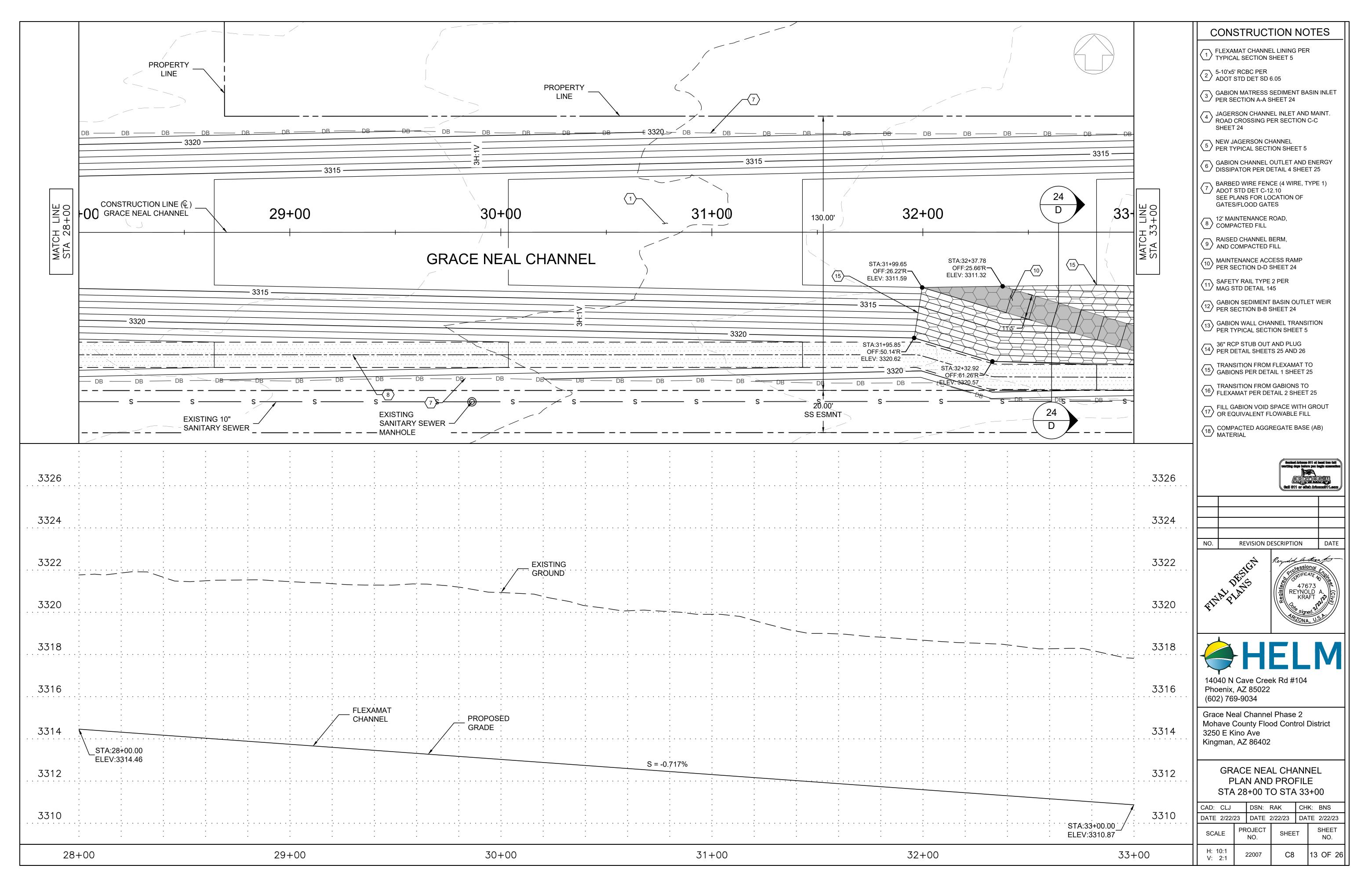
		CONSTRUCTION NOTES
		TYPICAL SECTION SHEET 5
		2 5-10'x5' RCBC PER ADOT STD DET SD 6.05
		GABION MATRESS SEDIMENT BASIN INLET PER SECTION A-A SHEET 24
		JAGERSON CHANNEL INLET AND MAINT. ROAD CROSSING PER SECTION C-C SHEET 24
		5 NEW JAGERSON CHANNEL 5 PER TYPICAL SECTION SHEET 5
STA 1		6 GABION CHANNEL OUTLET AND ENERGY DISSIPATOR PER DETAIL 4 SHEET 25
3-		 BARBED WIRE FENCE (4 WIRE, TYPE 1) ADOT STD DET C-12.10 SEE PLANS FOR LOCATION OF GATES/FLOOD GATES
		$ \begin{array}{c} & \text{COMINACTED FILE} \\ \hline & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\$
		10 MAINTENANCE ACCESS RAMP PER SECTION D-D SHEET 24
		SAFETY RAIL TYPE 2 PER MAG STD DETAIL 145
		GABION SEDIMENT BASIN OUTLET WEIR PER SECTION B-B SHEET 24
		$\langle 13 \rangle$ GABION WALL CHANNEL TRANSITION
		\bigcirc 26" RCP STUB OUT AND PLUG
18 -		$\begin{pmatrix} 14 \\ 14 \end{pmatrix}$ PER DETAIL SHEETS 25 AND 26 TRANSITION FROM FLEXAMAT TO
-		TRANSITION FROM GABIONS TO
		FILL GABION VOID SPACE WITH GROUT
		1×10^{10} COMPACTED AGGREGATE BASE (AB)
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	3328	FILMAT PLAT
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		14040 N Cave Creek Rd #104
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		Grace Neal Channel Phase 2
· · · · · · · · · · · · · · · · · · ·	3322	Mohave County Flood Control District 3250 E Kino Ave Kingman, AZ 86402
	3320	GRACE NEAL CHANNEL PLAN AND PROFILE
		STA 15+00 TO STA 19+00
	3318	CAD: CLJ DSN: RAK CHK: BNS DATE 2/22/23 DATE 2/22/23 DATE 2/22/23
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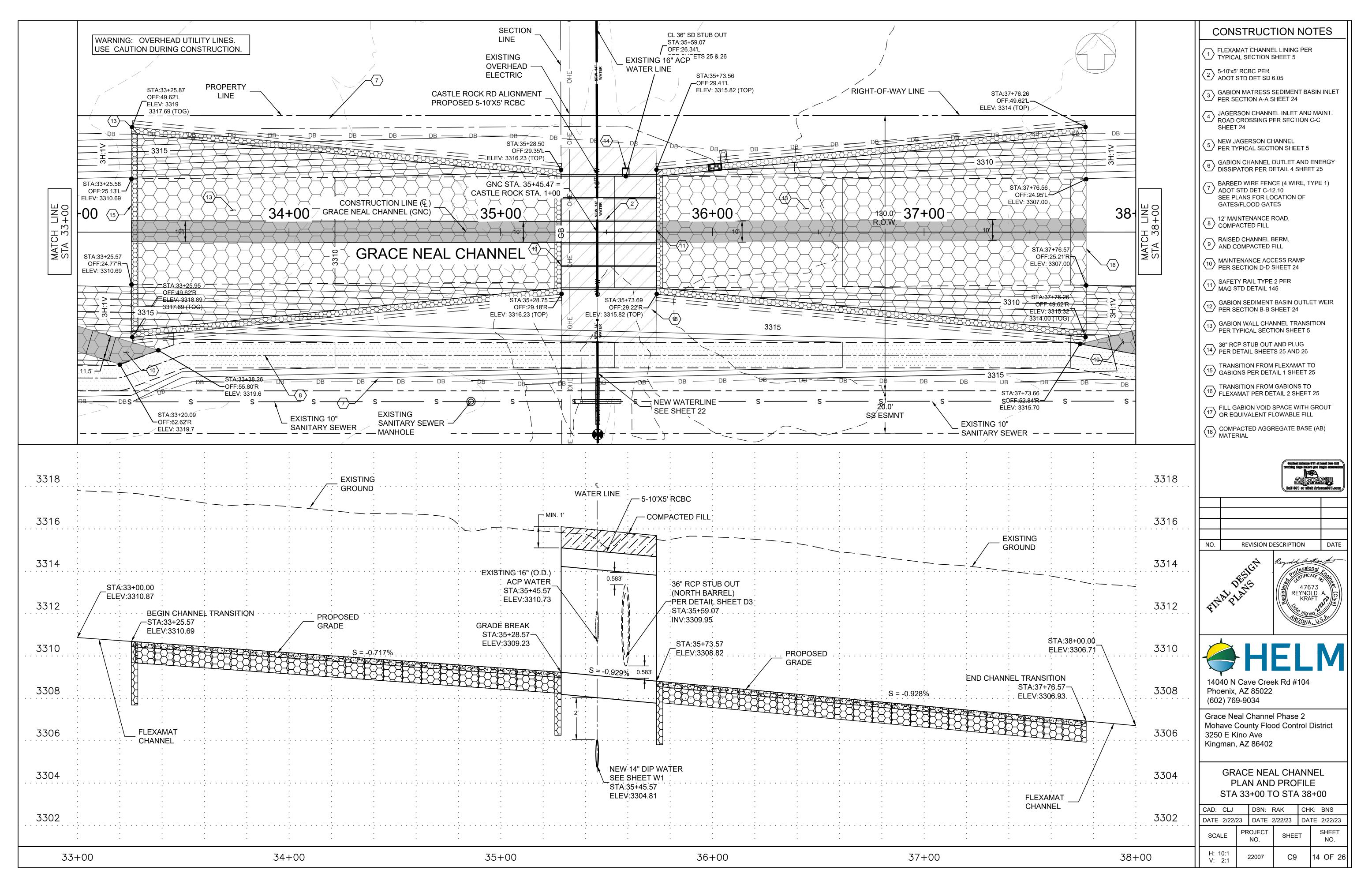


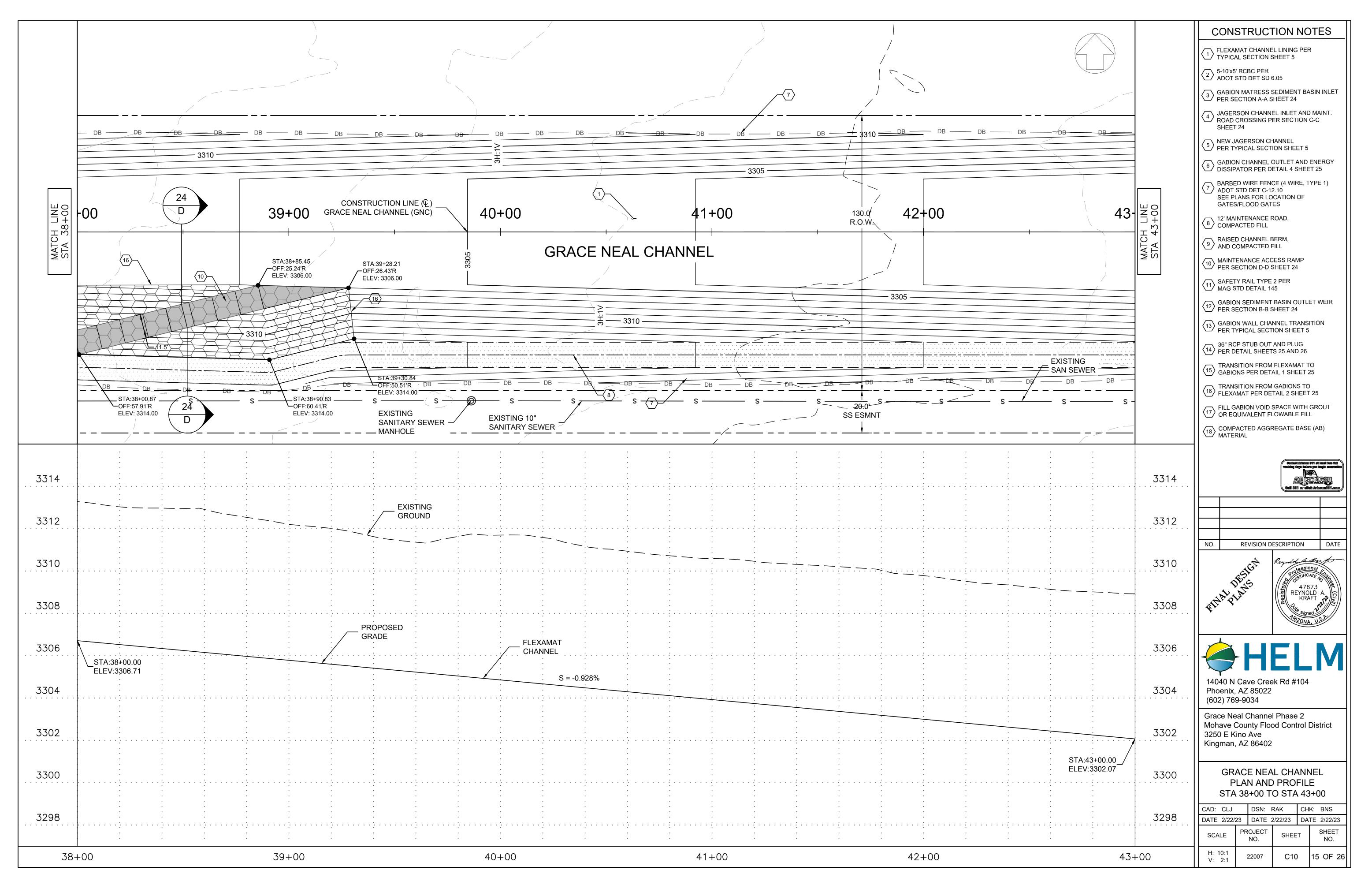
			CONSTRUCTION NOTES
	$\langle \langle \rangle \rangle$		TYPICAL SECTION SHEET 5
			2 5-10'x5' RCBC PER ADOT STD DET SD 6.05
			3 GABION MATRESS SEDIMENT BASIN INLET PER SECTION A-A SHEET 24
\			4 JAGERSON CHANNEL INLET AND MAINT. ROAD CROSSING PER SECTION C-C SHEET 24
			5 NEW JAGERSON CHANNEL PER TYPICAL SECTION SHEET 5
2			6 GABION CHANNEL OUTLET AND ENERGY DISSIPATOR PER DETAIL 4 SHEET 25
STA			7BARBED WIRE FENCE (4 WIRE, TYPE 1)ADOT STD DET C-12.10SEE PLANS FOR LOCATION OFGATES/FLOOD GATES
			8 12' MAINTENANCE ROAD, COMPACTED FILL
			9 RAISED CHANNEL BERM, AND COMPACTED FILL
			(10) MAINTENANCE ACCESS RAMP PER SECTION D-D SHEET 24
			(11) SAFETY RAIL TYPE 2 PER MAG STD DETAIL 145
			GABION SEDIMENT BASIN OUTLET WEIR PER SECTION B-B SHEET 24
			(13) GABION WALL CHANNEL TRANSITION PER TYPICAL SECTION SHEET 5
			36" RCP STUB OUT AND PLUG PER DETAIL SHEETS 25 AND 26
· · · · · · · · · · · · · · · · · · ·			TRANSITION FROM FLEXAMAT TO GABIONS PER DETAIL 1 SHEET 25
			TRANSITION FROM GABIONS TO FLEXAMAT PER DETAIL 2 SHEET 25
ST			FILL GABION VOID SPACE WITH GROUT OR EQUIVALENT FLOWABLE FILL
			(18) COMPACTED AGGREGATE BASE (AB) MATERIAL
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		3324	FINALPLANT REYNOLD A. KRAFT NO.
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		3320	14040 N Cave Creek Rd #104 Phoenix, AZ 85022
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		3318	Mohave County Flood Control District 3250 E Kino Ave
		· · · · · · · · · · · · · · · · · · ·	Kingman, AZ 86402
		3316	GRACE NEAL CHANNEL
	· · · · · · · · · · · · · · · · · · ·	:	PLAN AND PROFILE STA 19+00 TO STA 23+00
	· · · · · · · · · · · · · · · · · · ·	3314	CAD: CLJ DSN: RAK CHK: BNS DATE 2/22/23 DATE 2/22/23 DATE 2/22/23
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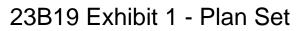


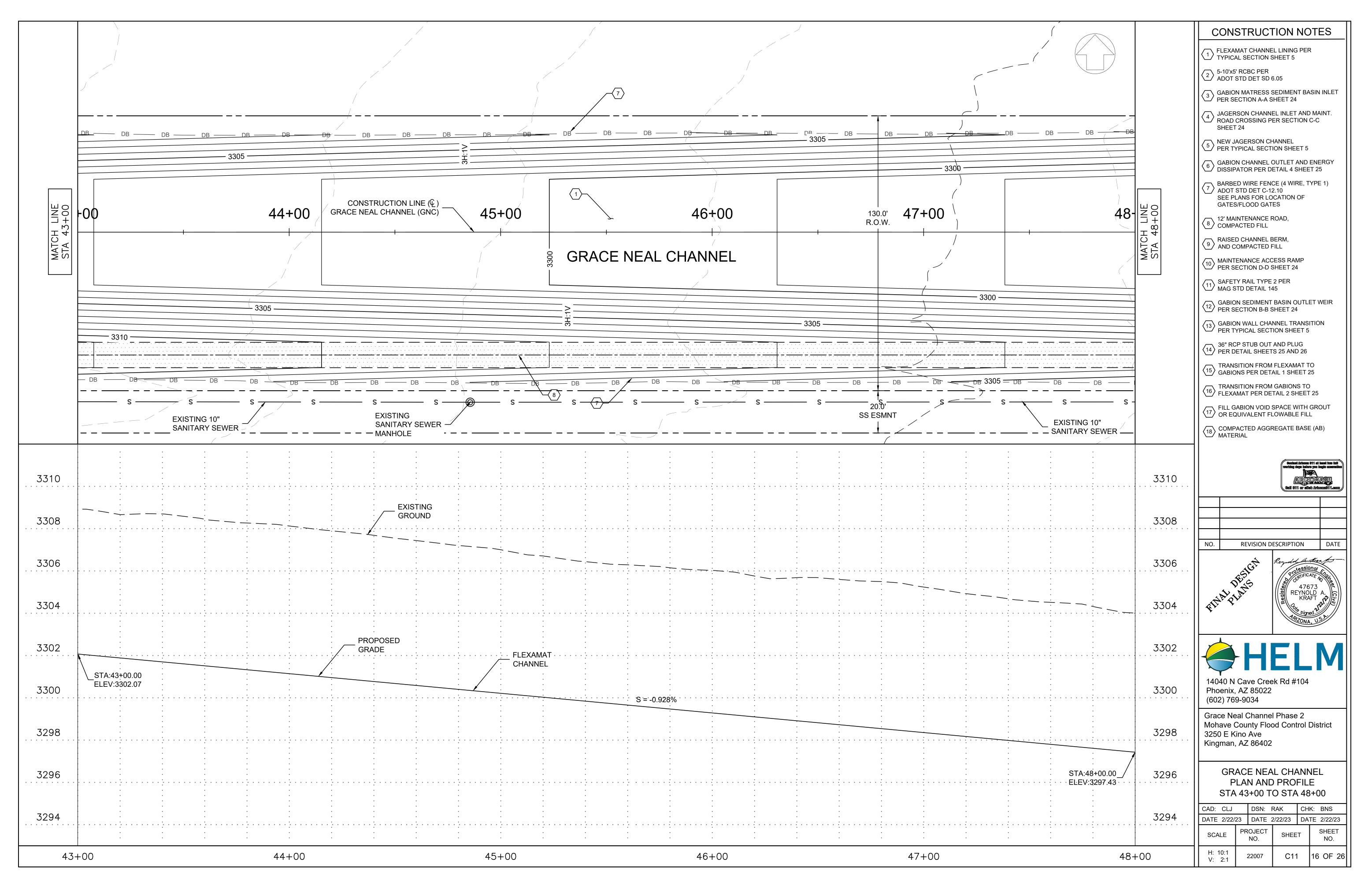
23B19 Exhibit 1 - Plan Set

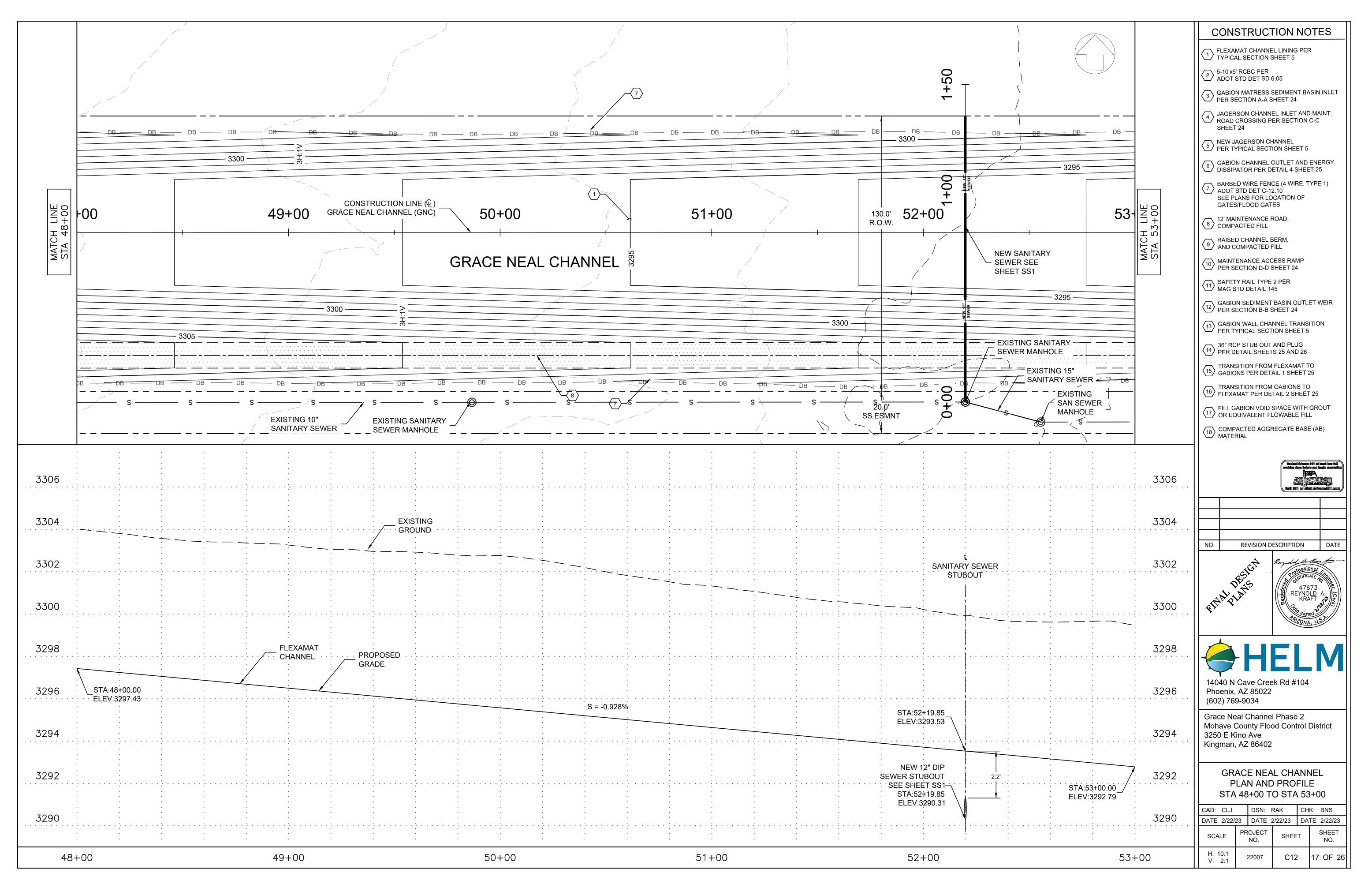


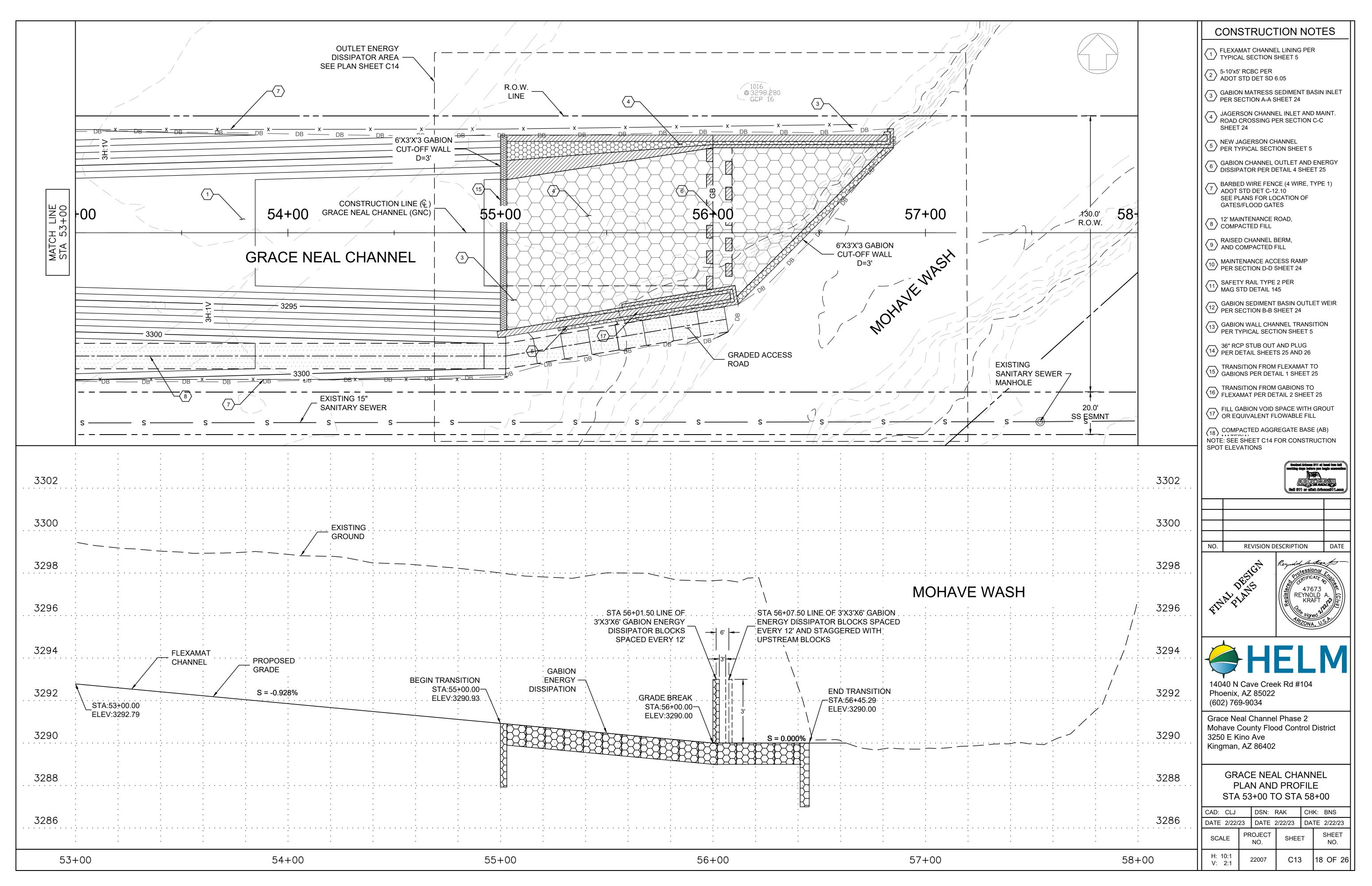


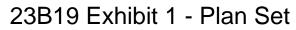


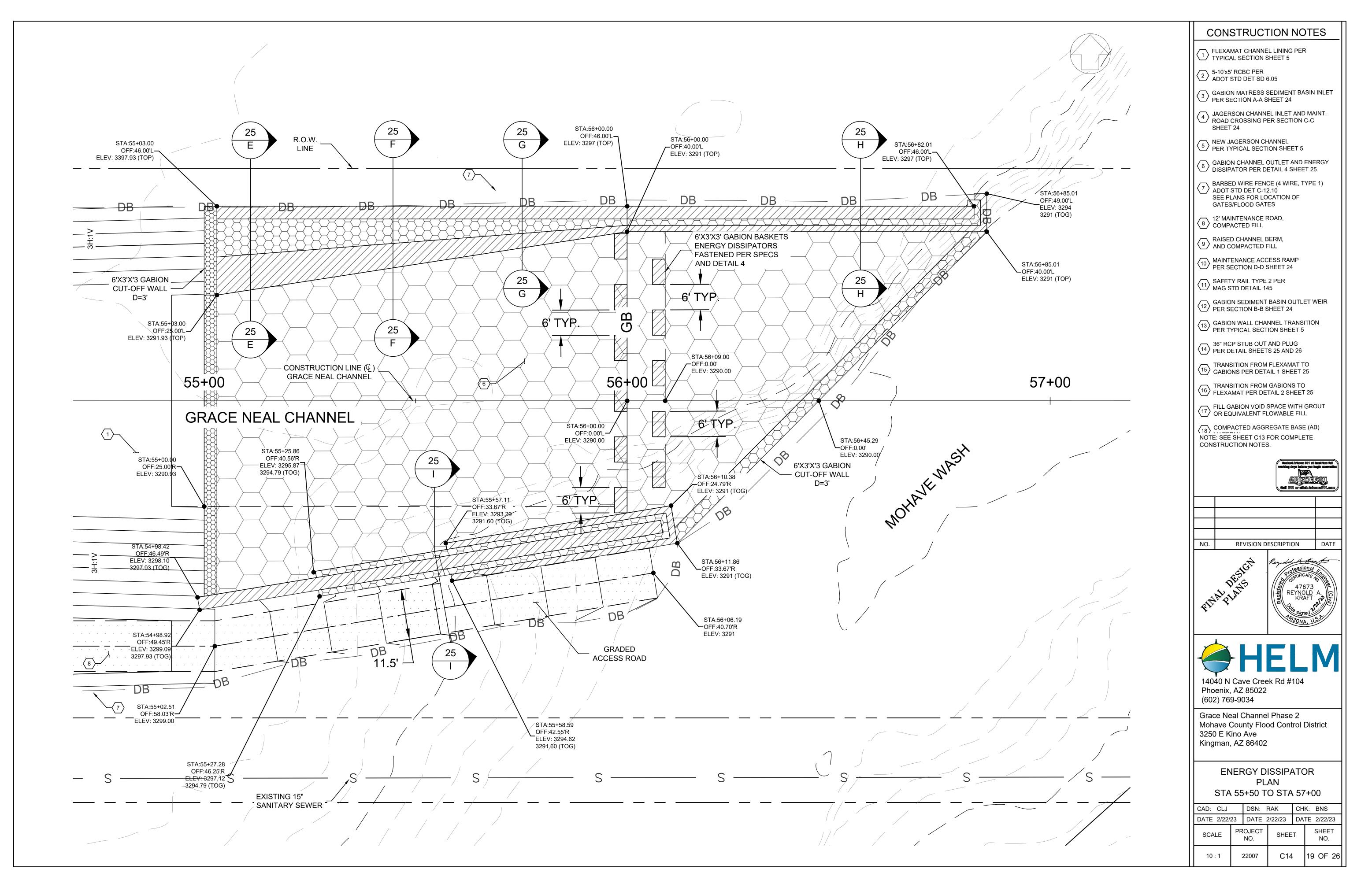


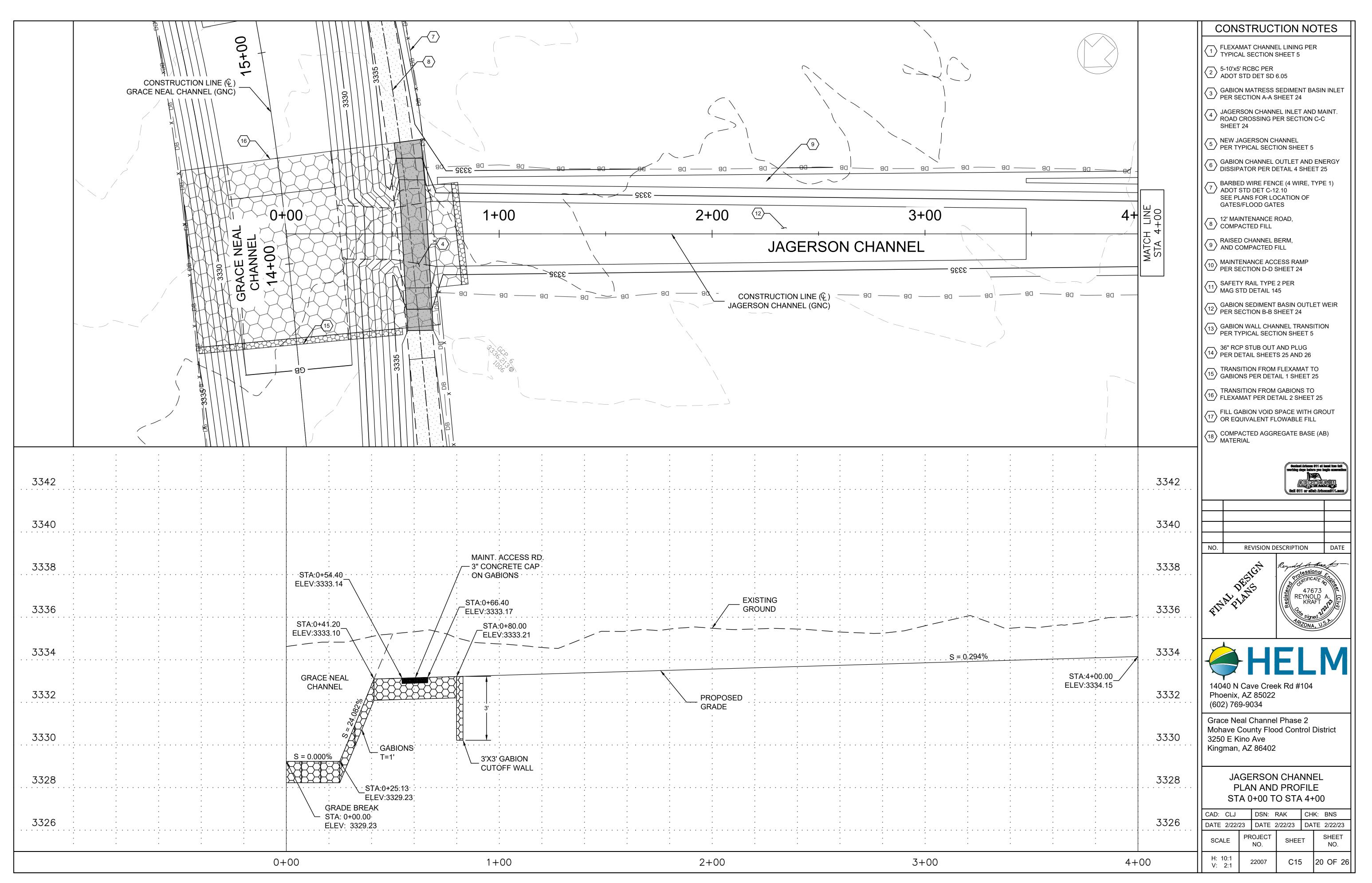


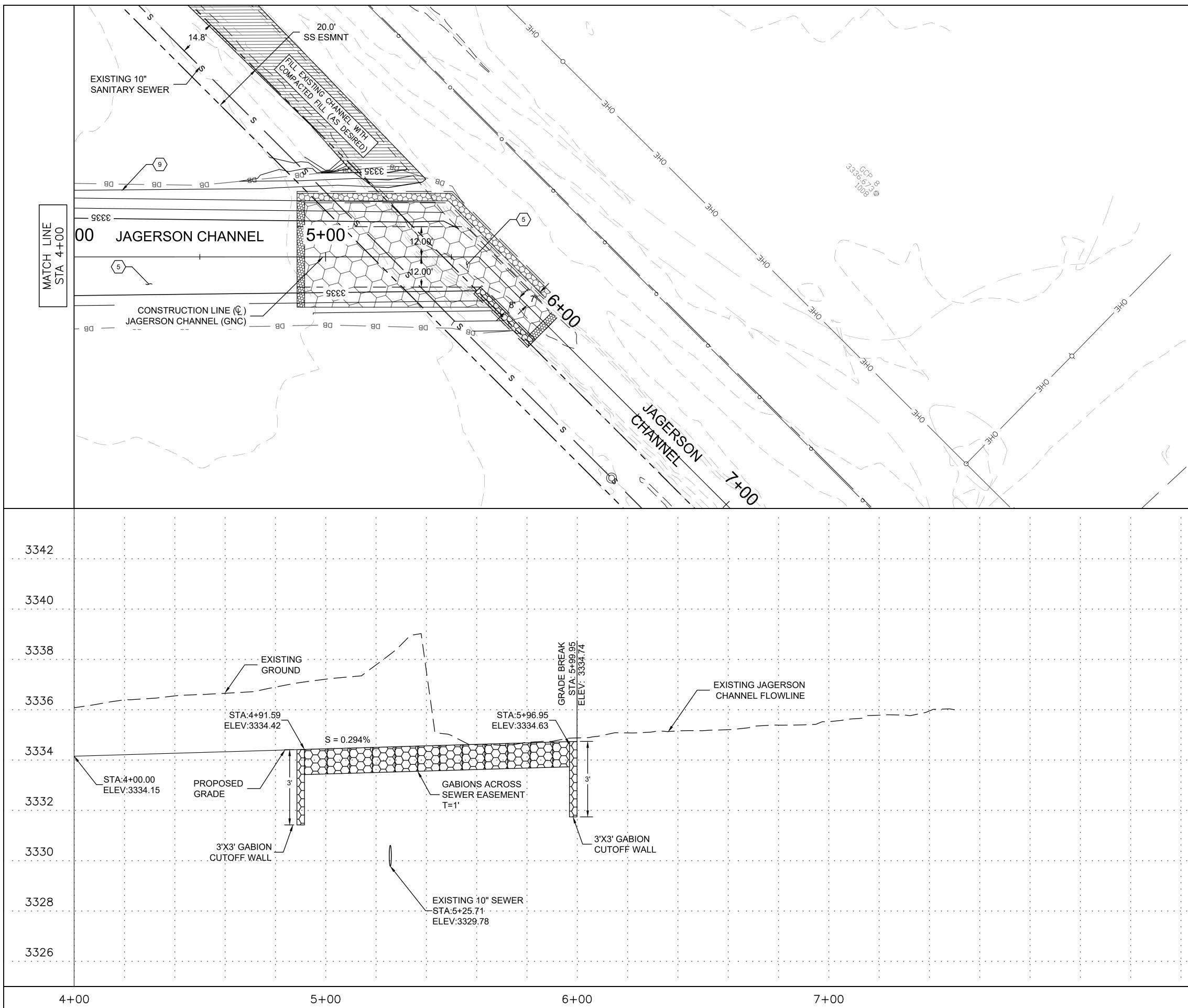




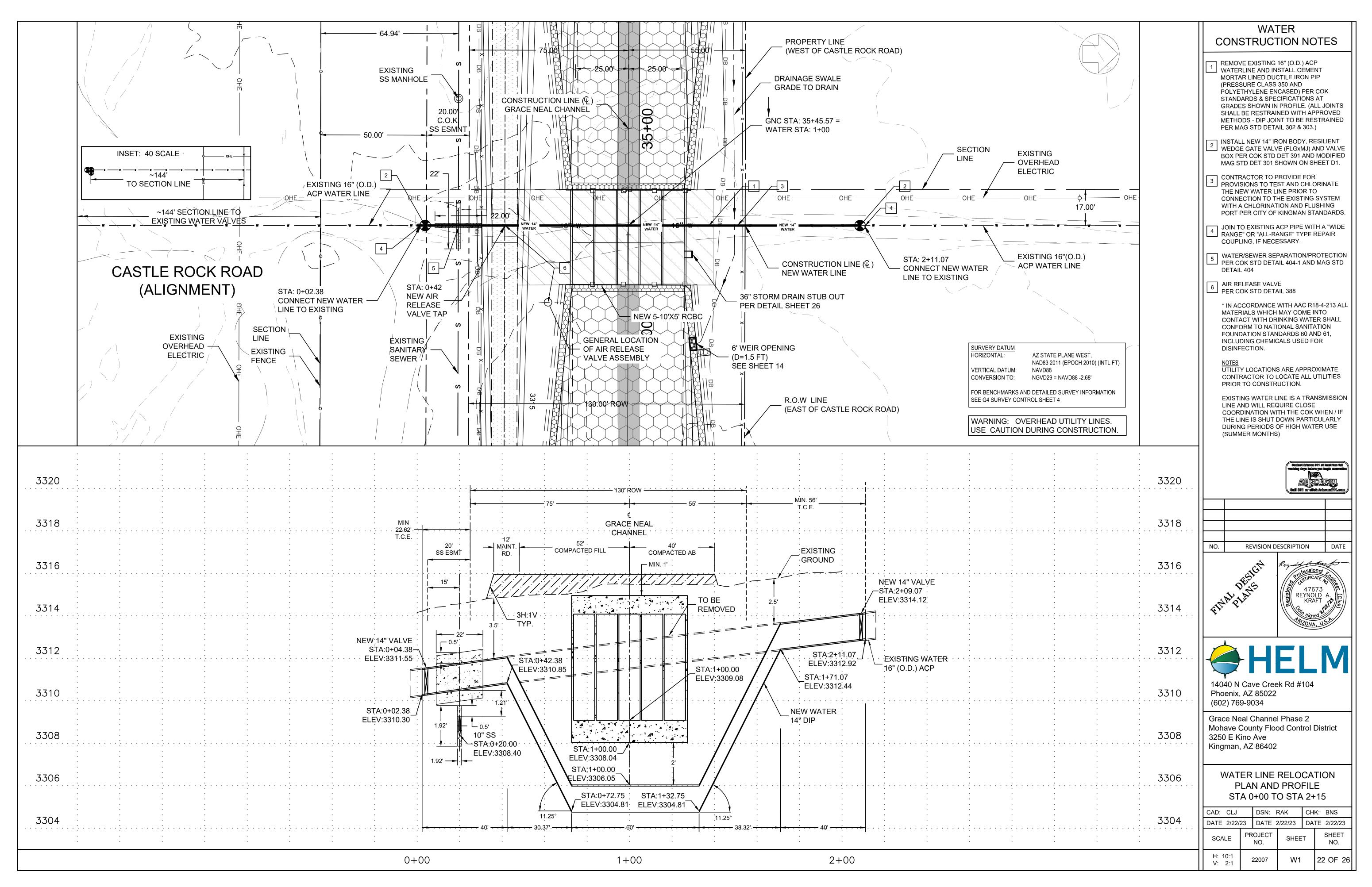


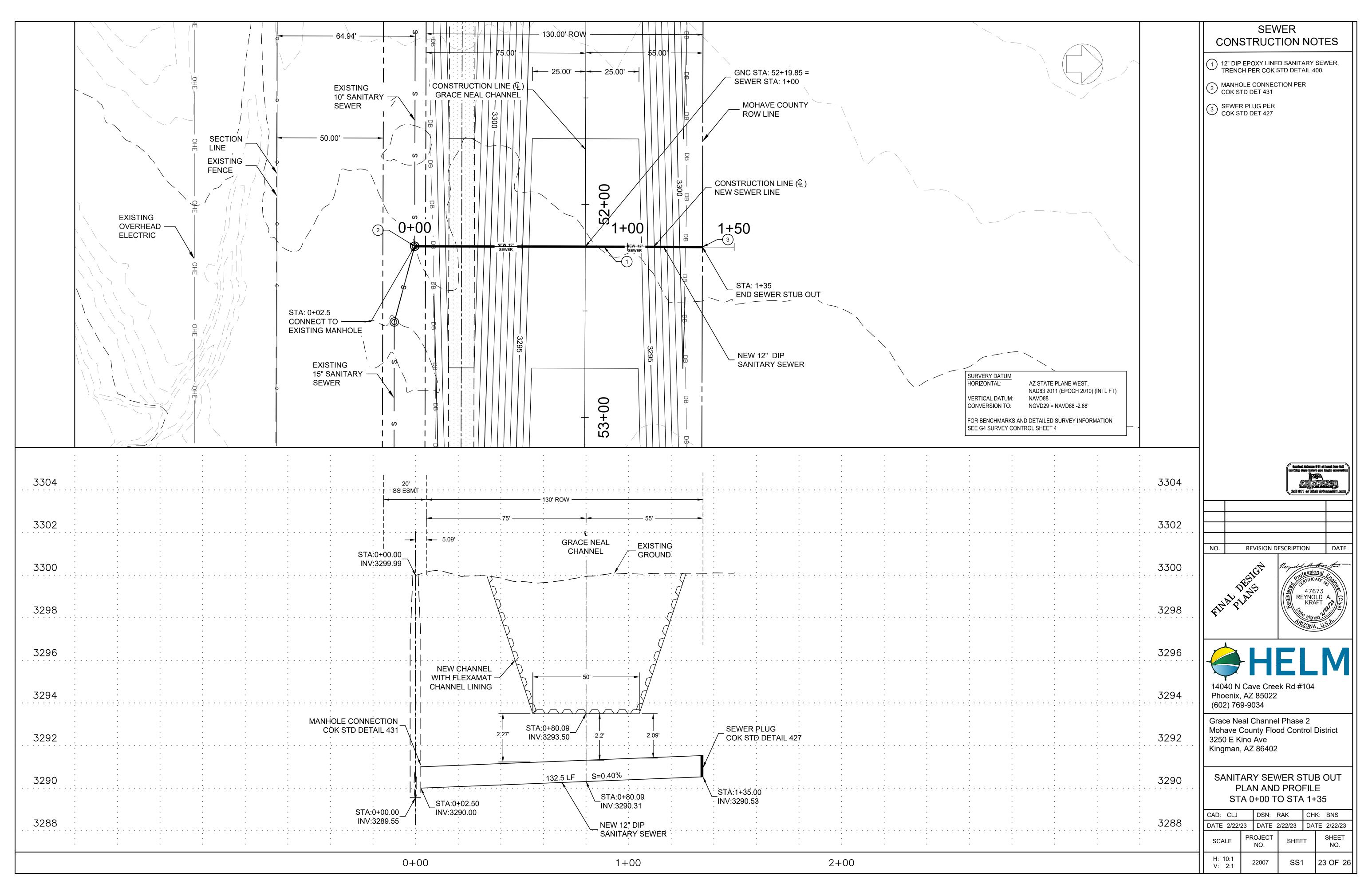


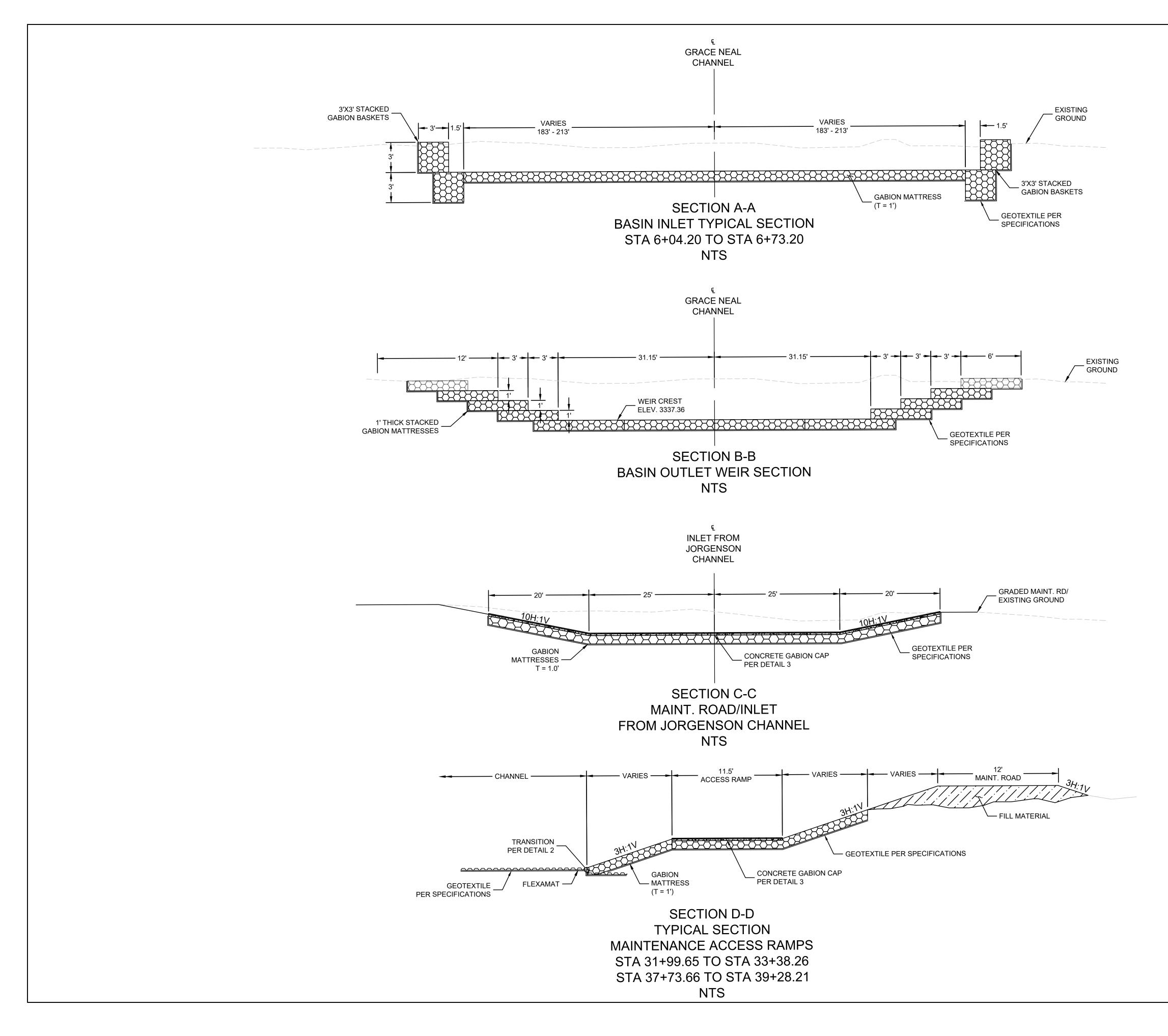




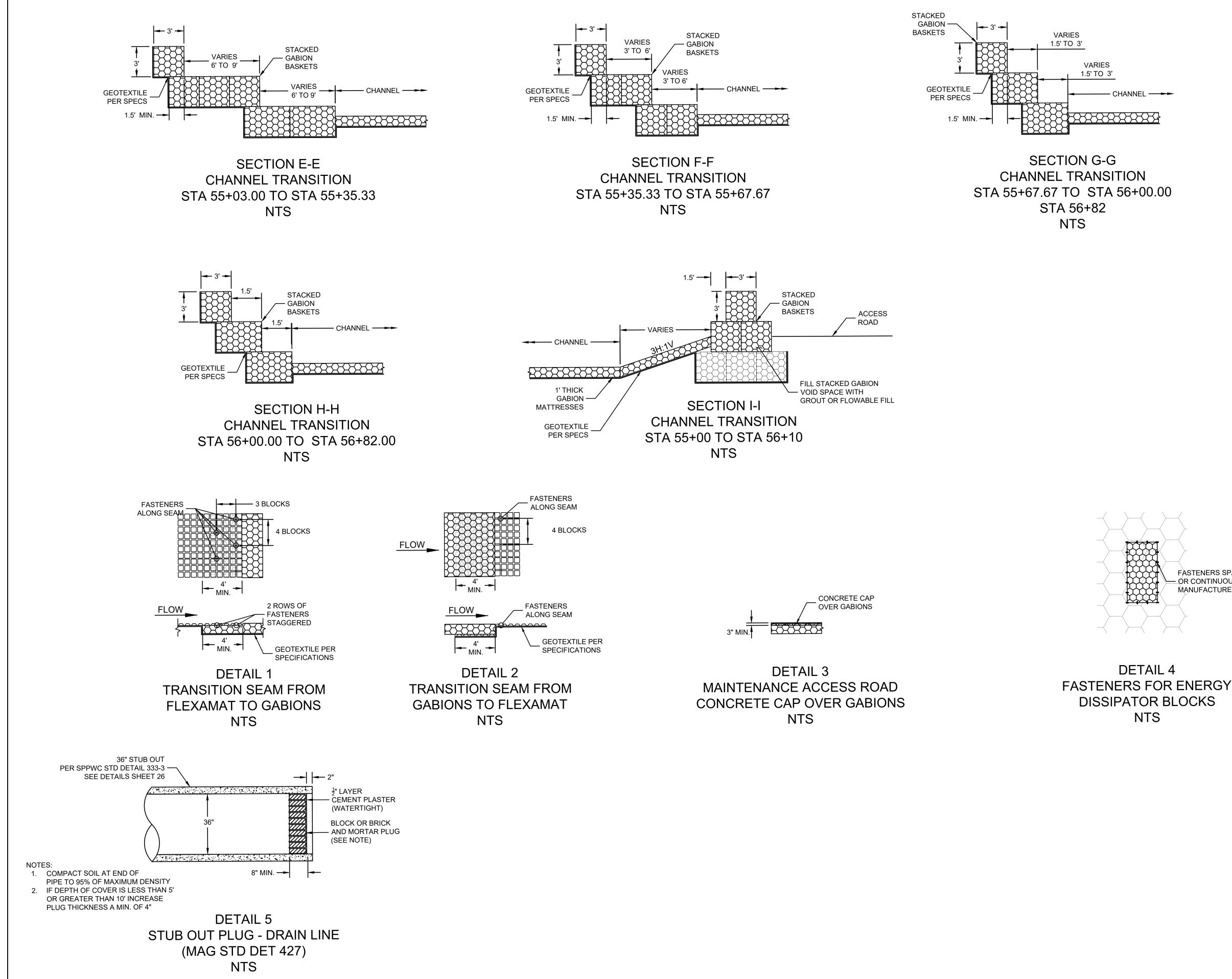
		CONSTRUCTION NOTES
		FLEXAMAT CHANNEL LINING PER
		$\sqrt{2}$ 5-10'x5' RCBC PER
		$\sqrt{3}$ GABION MATRESS SEDIMENT BASIN INLET
		4 JAGERSON CHANNEL INLET AND MAINT.
		SHEET 24
		5 NEW JAGERSON CHANNEL 5 PER TYPICAL SECTION SHEET 5
		6 GABION CHANNEL OUTLET AND ENERGY DISSIPATOR PER DETAIL 4 SHEET 25
		 BARBED WIRE FENCE (4 WIRE, TYPE 1) ADOT STD DET C-12.10 SEE PLANS FOR LOCATION OF GATES/FLOOD GATES
		8 12' MAINTENANCE ROAD, COMPACTED FILL
		9 RAISED CHANNEL BERM, AND COMPACTED FILL
		(10) MAINTENANCE ACCESS RAMP PER SECTION D-D SHEET 24
		SAFETY RAIL TYPE 2 PER MAG STD DETAIL 145
		(14) 36" RCP STUB OUT AND PLUG PER DETAIL SHEETS 25 AND 26
		TRANSITION FROM FLEXAMAT TO GABIONS PER DETAIL 1 SHEET 25
		TRANSITION FROM GABIONS TO FLEXAMAT PER DETAIL 2 SHEET 25
		FILL GABION VOID SPACE WITH GROUT OR EQUIVALENT FLOWABLE FILL
		COMPACTED AGGREGATE BASE (AB) MATERIAL
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		VAZONA, US.A
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		(602) 769-9034 Grace Neal Channel Phase 2
	3330	Mohave County Flood Control District 3250 E Kino Ave
· · · · · · · · · · · · · · · · · · ·		Kingman, AZ 86402
	3328	JAGERSON CHANNEL
· · · · · · · · · · · · · · · · · · ·		PLAN AND PROFILE STA 4+00 TO STA 7+50
	3326	CAD: CLJ DSN: RAK CHK: BNS DATE 2/22/23 DATE 2/22/23 DATE 2/22/23
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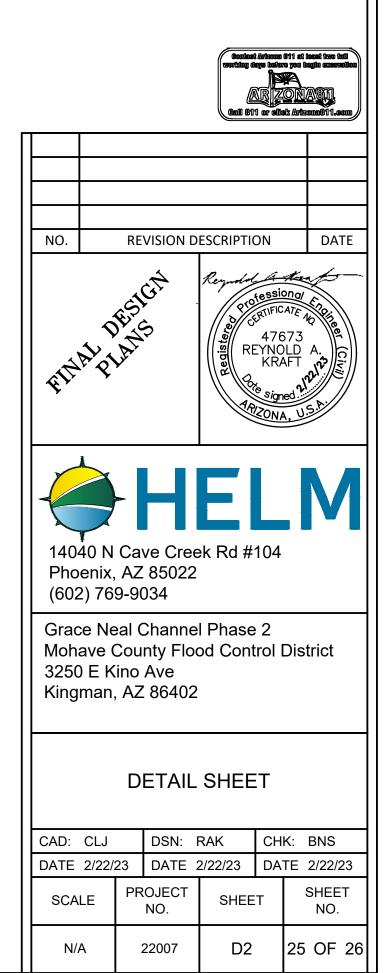


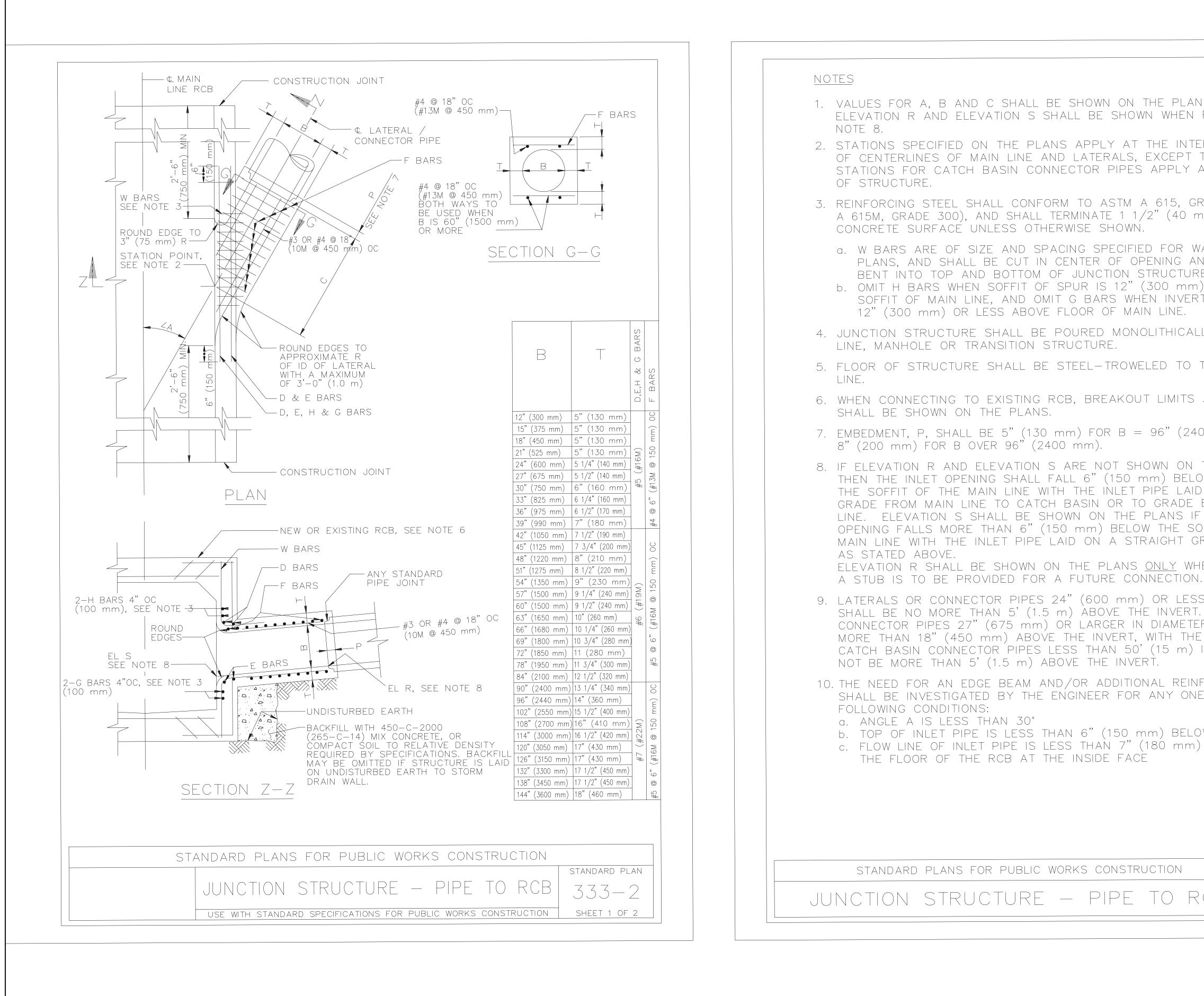






FASTENERS SPACED MAX. OF 6" — OR CONTINUOUS WIRE LACING PER MANUFACTURER SPECS





	DETAIL CONSTRUCTION NOTES
	FOR DETAIL: $A = 90^{\circ}$ (PERP. TO BOX)
	B = 36" C = 4 ELEVATION R = 3309.95
	ELEVATION S = 3310.00 FOR STUB OUT PLUG, SEE DETAIL 5 SHEET 25
S.	(BASED ON MAG STD DETAILS 427)
REQUIRED PER	
RSECTION	
THAT AT INSIDE WALL	
RADE 40, (ASTM m) CLEAR OF	
ALL STEEL ON	
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OR LESS BELOW	
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)0 mm) OR LESS	
	DETAIL REFERENCE:
THE PLANS	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION BY THE PUBLIC WORKS
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RADE	Centil 811 or ettek Antzonna 211.com
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	14040 N Cave Creek Rd #104
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	Grace Neal Channel Phase 2
	Mohave County Flood Control District 3250 E Kino Ave
STANDARD PLAN	Kingman, AZ 86402
CB 333-2	DETAIL SHEET
SHEET 2 OF 2	
	CAD: CLJ DSN: RAK CHK: BNS DATE 2/22/23 DATE 2/22/23 DATE 2/22/23
	SCALE PROJECT SHEET NO. SHEET NO.
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