

# CONSTRUCTION PLANS

## FOR

# BROWNSVILLE PUBLIC UTILITIES BOARD

# TOWN RESACA WATERSHED PROJECT

## BROWNSVILLE, TEXAS

BPUB BID #: B012-24  
TTCEQ CONTRACT #: 582-20-11819

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#### OWNER/DEVELOPER

BROWNSVILLE PUBLIC UTILITIES BOARD  
1425 ROBINHOOD DR  
BROWNSVILLE, TX 78521  
PHONE (956) 983-6100

#### UTILITY DISCLAIMER:

THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING SIZE, TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT THE TEXAS "ONE CALL" SYSTEM AT 811 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION FOR EXISTING UTILITY LOCATIONS. THE CONTRACTOR SHALL ALSO BE FULLY RESPONSIBLE FOR FIELD VERIFYING LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES, AND SHALL IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR-DAMAGED UTILITIES TO THE UTILITY COMPANY'S APPROVAL AT THE EXPENSE OF THE CONTRACTOR.

#### ENGINEER OF RECORD:

HALFF ASSOCIATES, INC.  
1075 PAREDES LINE ROAD, SUITE B  
BROWNSVILLE, TEXAS 78521  
CONTACT: JOHN W. CLINT, P.E.  
EMAIL: JCLINT@HALFF.COM  
TEL: (956) 303-7110  
TBPE FIRM# F-312

#### DISCLAIMER

THE SEAL(S) APPEARING ON THIS CONSTRUCTION SET WERE AUTHORIZED BY:  
JOHN W. CLINT, 85417  
ON 6/26/2023  
ALTERATION OF SEALED DOCUMENTS WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT. THE RECORD COPY OF THIS DRAWING IS ON FILE AT THE OFFICES OF

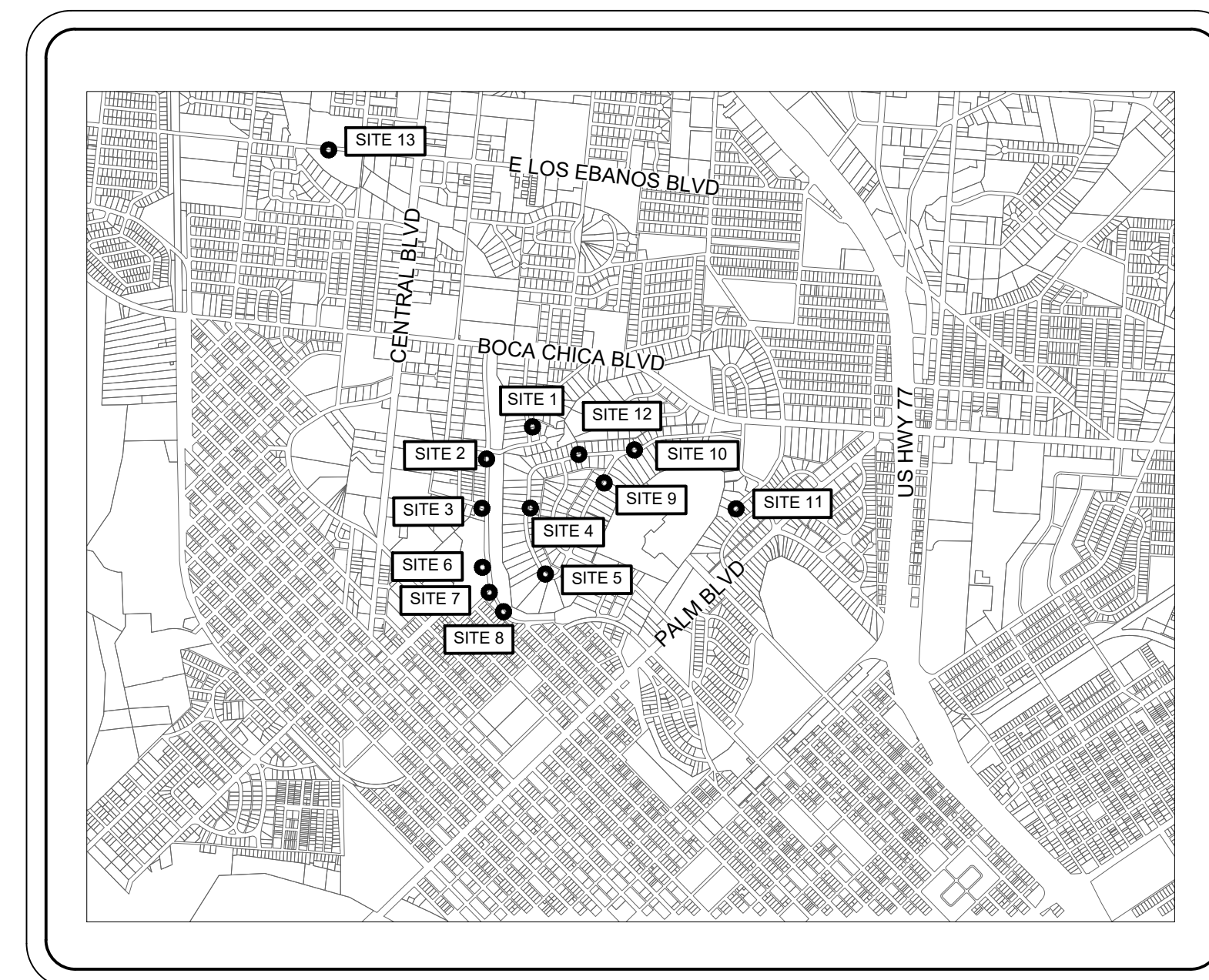
HALFF ASSOCIATES, INC.  
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SUITE B  
BROWNSVILLE, TEXAS 78521  
TBPE FIRM #F-312

#### BROWNSVILLE PUBLIC UTILITIES BOARD

#### BPUB ENGINEER'S STATEMENT

THE ABOVE IDENTIFIED PLANS AND SPECIFICATIONS HAVE BEEN REVIEWED AND FOUND TO BE IN COMPLIANCE WITH THE APPLICABLE ENGINEERING PROVISIONS (WATER AND WASTEWATER IMPROVEMENTS) OF THE MUNICIPAL CODE OF THE CITY OF BROWNSVILLE AND BPUB WATER AND WASTEWATER STANDARD DETAILS. ISSUANCE OF THIS APPROVAL SHALL NOT BE CONSTRUED AS APPROVAL OF CONCEPT FOR THE CONSTRUCTION DETAILS OF THE PROPOSED IMPROVEMENTS AND SHALL NOT IN ANY WAY RELEASE THE DEVELOPER AND THE DESIGN ENGINEER FROM LIABILITY FOR THE ADEQUACY OF THE DESIGN NOR FROM LIABILITY CAUSED BY AND RESULTING FROM THE CONSTRUCTION OF IMPROVEMENTS AS PROVIDED IN THE ABOVE SPECIFIED DOCUMENTS.

MARIE C. LEAL, P.E. \_\_\_\_\_ DATE \_\_\_\_\_  
DIRECTOR OF SPECIAL PROJECTS AND WATER / WASTEWATER ENGINEERING,  
PLANNING & OPERATIONS  
FOR THE BROWNSVILLE PUBLIC UTILITIES BOARD



LOCATION MAP  
SCALE 1" = 2000'

#### PREPARED BY:



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AVO: 42947.001 DATE: JUNE 2023

**BROWNSVILLE PUB  
TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS



Revision No.	Date	Description



Project No.: 42947.001  
Issued: 6/26/2023  
Drawn By: MH  
Checked By: JWC  
Scale: AS NOTED  
Sheet Title

COVER SHEET

C001  
Sheet Number

**GENERAL CONSTRUCTION NOTES:**

- ALL MATERIALS, WORKMANSHIP AND IMPROVEMENTS SHALL BE IN ACCORDANCE WITH ALL LOCAL CODES, INCLUDING THE STANDARD CONSTRUCTION DETAILS AND TECHNICAL SPECIFICATIONS FROM CITY OF BROWNSVILLE, TEXAS DEPARTMENT OF TRANSPORTATION AND ALL OTHER GOVERNING AGENCIES.
- PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL SCHEDULE A PRECONSTRUCTION CONFERENCE BETWEEN THE CONSULTING ENGINEER, CONTRACTOR, BROWNSVILLE P.U.B., CITY OF BROWNSVILLE, AND ALL AFFECTED PARTIES.
- PRE-CONSTRUCTION PHOTOGRAPHS SHALL BE TAKEN TO SHOW EXISTING CONDITIONS OF THE SITE AND ADJOINING STRUCTURES TO REMAIN. PHOTOS SHALL INCLUDE DAMAGE TO FINISH SURFACES THAT MIGHT BE MISCONSTRUED AS DAMAGE CAUSED BY DEMOLITION OPERATIONS. (NO SEPARATE PAY)
- THE CONTRACTOR SHALL HAVE A PERSON ON CALL 24 HOURS A DAY TO ADDRESS CONSTRUCTION AREA MAINTENANCE ITEMS, TRAFFIC CONTROL, OR OTHER NEEDS NECESSARY FOR PUBLIC SAFETY. THIS PERSON SHALL HAVE AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR IN EMERGENCY CONDITIONS. THE PERSON SHALL BE STATIONED WITHIN 1/2 HOUR TRAVEL TIME FROM THE PROJECT SITE. THE PERSON SHALL BE IDENTIFIED IN WRITING PRIOR TO START OF CONSTRUCTION. THE ON-SITE REPRESENTATIVE SHALL HAVE ACCESS ALL EQUIPMENT AND MATERIAL AND HAVE FULL AUTHORITY NECESSARY TO CORRECT ANY PROBLEMS, DEFICIENCIES, OR EMERGENCIES WHICH MAY ARISE DURING NON-WORKING HOURS AND DURING THE ABSENCE OF THE SUPERINTENDENT.
- STANDARD WORK HOURS: THE STANDARD WORK HOURS FOR THE OWNER IS 8:00 AM TO 5:00 PM, MONDAY THROUGH FRIDAY. SHOULD THE CONTRACTOR ELECT TO WORK ON SATURDAY, SUNDAYS OR HOLIDAYS, HE SHALL BE RESPONSIBLE FOR PAYING OVERTIME CHARGES FOR THE OWNERS PERSONNEL INVOLVED. THESE CHARGES WILL BE AT COST AND WILL BE CALCULATED EITHER AT TIME AND A HALF OR DOUBLE TIME, AS APPLICABLE TO THE PARTICULAR DAY BEING WORKED. PRE-APPROVAL SHALL BE OBTAINED FROM THE ENGINEER OR ENGINEER'S REPRESENTATIVE BY COMPLETING AND SIGNING A OWNER'S FORM ENTITLED "CONSTRUCTION INSPECTORS OVERTIME COMPENSATION AUTHORIZATION", PRIOR TO COMMENCING ANY OVERTIME WORK. ANY WORK DONE OUTSIDE THE STANDARD WORKDAY, WITHOUT PRIOR AUTHORIZATION, SHALL BE CONSIDERED UNDER UNAUTHORIZED WORK. THE CONTRACTOR IS REQUIRED TO PAY THE OVERTIME WAGES OF THE OWNER INSPECTORS THAT WORK OVERTIME MONDAYS THROUGH FRIDAYS AT TIME IN A HALF. THE CONTRACTOR IS RESPONSIBLE FOR THE OVERTIME WAGES OF THE OWNER INSPECTORS THAT WORK HOLIDAYS AT DOUBLE TIME. MINIMUM HOURS WILL BE BILLED TO CONTRACTOR FOR CALL OUTS OR FOR INSUFFICIENT NOTICE OF TWO (2) HOURS.
- THE CONTRACTOR SHALL VERIFY ALL HORIZONTAL AND VERTICAL DIMENSIONS AND THE LOCATION OF EXISTING AND PROPOSED PROJECT ELEMENTS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND OWNER. NO CONSTRUCTION ACTIVITY SHALL CONTINUE WITHOUT APPROVAL FROM THE OWNER.
- ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR.
- CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE, EQUIPMENT, MATERIALS OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S AND/OR OWNER'S APPROVAL IN WRITING. IF APPROVAL HAS NOT BEEN OBTAINED IN WRITING PRIOR TO PROCEEDING WITH ANY CHANGE, CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
- CONTRACTOR TO PLAN AND PERFORM HIS WORK IN A MANNER THAT WILL PERMIT SAFE PUBLIC TRAFFIC MOVEMENT ON ALL STREETS.
- THE CONTRACTOR SHALL PLAN AND SEQUENCE ALL CONSTRUCTION ACTIVITY IN SUCH A MANNER THAT WILL PERMIT SAFE PEDESTRIAN AND VEHICULAR MOVEMENT.
- TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH TXDOT SPECIFICATIONS. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, FOR APPROVAL BY THE OWNER, PRIOR TO CONSTRUCTION. THE TRAFFIC CONTROL PLAN SHALL BE PREPARED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS. ALL TRAFFIC CONTROL / TRAFFIC SAFETY SHALL BE IN ACCORDANCE WITH THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CRITERIA.
- CONTRACTOR SHALL PROVIDE PROTECTIVE DEVICES SUCH AS SIGNS, LIGHTS, SIGNALS, AND OTHER DEVICES, AS NEEDED FOR THE SAFETY OF THE PUBLIC AND WORKERS. (NO SEPARATE PAY)
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND SAFETY OF THE WORK SITE, WORKERS, SUBCONTRACTORS, MATERIALS AND EQUIPMENT.
- THE DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURES/DESIGN. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES AND MEANS NECESSARY TO PROTECT PERSONS AND STRUCTURES DURING CONSTRUCTION. OBSERVATION BY THE ENGINEER OR THE OWNER DOES NOT INCLUDE REVIEW OF THESE MEASURES.
- THESE PLANS, PREPARED BY HALFF ASSOCIATES, INC., DO NOT EXTEND TO OR INCLUDE DESIGN OF SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF HALFF ASSOCIATES, INC., REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED IN THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY THE HOUSE BILLS 662 AND 665 ENACTED BY THE TEXAS LEGISLATURE IN THE 70TH LEGISLATURE REGULAR SESSION.
- CONTRACTOR SHALL PROVIDE A SEQUENCE OF WORK AND PERFORM ASSOCIATED GRADING THAT PROVIDES POSITIVE OUTFALLS AT ALL TIMES.
- CONTRACTOR TO COORDINATE WITH THE OWNER ON WORK SCHEDULES, TESTING, GENERAL INSPECTION, AND OPERATION AND LOCATION OF EXISTING LINES. 19 THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING ALL CONSTRUCTION MATERIALS TESTING AND GENERAL INSPECTIONS. THE CONTRACTOR SHALL COORDINATE THROUGH THE OWNER'S DESIGNATED FIELD REPRESENTATIVE A MINIMUM OF 24-HOURS PRIOR TO TESTING OR INSPECTION. FAILURE TO BE PREPARED FOR TESTING MAY RESULT IN TRAVEL CHARGES. RE-TESTING WILL BE BORNE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL INSPECT ALL MATERIALS AT DELIVERY AND NOTIFY THE OWNER OF ANY DAMAGED OR QUESTIONABLE MATERIALS. ANY DAMAGED OR QUESTIONABLE MATERIAL INSTALLED WITHOUT PRIOR INSPECTION BY THE OWNER SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED. (NO SEPARATE PAY)
- THE CONTRACTOR IS ENCOURAGED TO INSPECT AND DOCUMENT THE PRE-CONSTRUCTION CONDITION OF ALL PRIVATE DRIVEWAYS, MAILBOXES, PAVEMENT AREAS, SIDEWALKS, CURB AND GUTTER, FENCES AND ALL OTHER ITEMS TO BE AFFECTED BY PROPOSED CONSTRUCTION PRIOR TO COMMENCING.
- ANY DAMAGE TO EXISTING PAVEMENT OR EXISTING STRUCTURES SHALL BE REPAIRED TO PRECONSTRUCTION CONDITION OR BETTER AT CONTRACTOR'S EXPENSE. EXISTING STRUCTURES MAY INCLUDE BUT ARE NOT LIMITED TO INLETS, MANHOLES, POWER POLES, SIDEWALKS, CURB AND GUTTER, FENCES, SPRINKLER SYSTEMS, LAWNS OR PRIVATE PROPERTY IMPROVEMENTS.
- NO TREES SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER OR ENGINEER, UNLESS OTHERWISE NOTED.

- CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. NOTIFY TEXAS ONE CALL FOR UTILITY LOCATIONS PRIOR TO ANY AND ALL EXCAVATIONS.
- CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING FACILITIES AND/OR UTILITIES. ALL DAMAGE TO BE REPAIRED AT CONTRACTOR'S EXPENSE. ALL COSTS FOR INTERRUPTION OF GAS, ELECTRICAL, COMMUNICATIONS AND/OR WATER SERVICE DUE TO CONTRACTOR'S WORK SHALL BE BORNE BY THE CONTRACTOR.
- INFORMATION ON EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS FROM BEST AVAILABLE INFORMATION OF RECORD AND SPOT FIELD LOCATIONS. ALTHOUGH EVERY EFFORT HAS BEEN MADE TO ACCURATELY DEPICT ALL UTILITIES, NOT ALL (PUBLIC AND PRIVATE) MAY BE SHOWN. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION AND LOCATION OF THESE UNDERGROUND UTILITIES AS REQUIRED AT NO SEPARATE PAY. CONTRACTOR TO COORDINATE WITH ALL UTILITY COMPANIES.
- ALL WORK SHALL BE PERFORMED WITHIN THE OWNER'S RIGHT-OF-WAY, EASEMENTS OR ON PUBLIC-OWNED PROPERTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN PERMISSION TO USE PRIVATE PROPERTY, IF NECESSARY, FOR THE PURPOSES OF STAGING, STOCKPILE, STORAGE OR REFUSE AREAS. THE CONTRACTOR SHALL PROVIDE WRITTEN EVIDENCE TO THE OWNER PRIOR TO USE.
- THE CONTRACTOR SHALL NOTIFY ALL AFFECTED RESIDENTS OR BUSINESS OWNERS OF CONSTRUCTION ACTIVITY THROUGH THE USE OF BILINGUAL (ENGLISH AND SPANISH) DOOR TAGS, PAMPHLETS OR SIMILAR METHODS. ALL AFFECTED PARTIES MUST BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A SAMPLE OF THE NOTIFICATION TO THE OWNER PRIOR TO IMPLEMENTATION.
- CONTRACTOR TO ENSURE SAME DAY ACCESS TO ALL RESIDENCES AND BUSINESSES ADJACENT TO CONSTRUCTION.
- THE CONTRACTOR SHALL DO ALL NECESSARY CLEARING, EXCAVATION, TRENCHING, SHORING, DE-WATERING, DEMOLITION, GRADING, BACKFILLING, ETC. TO COMPLETE THE PROJECT. ASSOCIATED COSTS SHALL BE SUBSIDIARY TO THE RESPECTIVE BID ITEMS AS IDENTIFIED IN THE CONTRACT UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL PROVIDE A GROUNDWATER CONTROL PLAN FOR APPROVAL BY THE OWNER PRIOR TO CONSTRUCTION. THE PLAN SHALL BE DEVELOPED, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS AND OUTLINE THE CONTRACTOR'S MEANS AND METHODS FOR CONTROLLING GROUNDWATER INCLUDING THE LOCATION OF ALL PROPOSED GROUNDWATER MONITORING WELLS FOR VERIFICATION PRIOR TO BEGINNING EXCAVATION FOR THE CONTRACTOR'S PROPOSED EXCAVATION SAFETY SYSTEM. ADEQUACY AND IMPLEMENTATION OF THE PLAN IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER RESERVES THE RIGHT TO REJECT PLANS. THE GROUNDWATER CONTROL PLAN WILL BE MAINTAINED IN THE OWNER'S REPRESENTATIVE FILES FOR REFERENCE PURPOSES ONLY. NO REVIEW WILL BE MADE NOR IS ANY RESPONSIBILITY FOR THE PLAN ASSUMED BY THE OWNER OR THE OWNER'S REPRESENTATIVES. (NO SEPARATE PAY)
- THE CONTRACTOR SHALL PROVIDE AN EMERGENCY PLAN, IN CASE OF A LARGE RAIN EVENT OR OTHER IMPACTFUL EVENT, FOR APPROVAL BY THE OWNER PRIOR TO CONSTRUCTION. THE PLAN SHALL BE DEVELOPED, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS. ADEQUACY AND IMPLEMENTATION OF THE PLAN IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER RESERVES THE RIGHT TO REJECT THE PLANS. (NO SEPARATE PAY)
- ALL COMPACTION SHALL BE ACHIEVED BY MECHANICAL METHODS. NO WATER JETTING ALLOWED, UNLESS APPROVED BY THE OWNER.
- ALL SPOIL MATERIAL AND DEBRIS SHALL BE DISPOSED OFFSITE BY THE CONTRACTOR IN A LEGAL MANNER. FURNISHING AND TRANSPORTATION OF ALL OFFSITE MATERIAL TO BE AT CONTRACTOR'S EXPENSE.
- DEMOLITION, REMOVAL AND DISPOSAL OF ALL EXCESS CONCRETE, CURBS, RUBBLE, ETC. TO BE DONE IN A LEGAL MANNER AT CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL KEEP THE CONSTRUCTION AREA AS CLEAN AS POSSIBLE. ALL ASSOCIATED DEBRIS SHALL BE COLLECTED AND PROPERLY DISPOSED OF AT THE END OF EACH WORKDAY.
- UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL RETURN THE SITE TO ORIGINAL CONTOURS UNLESS DIFFERENT FINISHED ELEVATIONS ARE SHOWN ON PLANS. CONTRACTOR TO ENSURE NO AREAS OF PONDING ARE PRESENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING ALL FIELD CHANGES AND FURNISHING A LEGIBLE SET OF "AS-BUILT" DRAWINGS TO THE ENGINEER.
- WHEN INSTALLING ANY MANUFACTURED PRODUCT, THE CONTRACTOR SHALL FOLLOW ALL MANUFACTURERS RECOMMENDED INSTALLATION DIRECTIONS. IF ANY CONFLICTS OR DISCREPANCIES BETWEEN MANUFACTURERS DIRECTION AND THE CONTRACT DOCUMENTS ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING AND SHALL NOT PERFORM ANY WORK ON ANY ITEM UNTIL SUCH CONFLICT HAS BEEN RESOLVED IN WRITING.

**CONCRETE NOTES:**

- ALL CONCRETE WORK TO BE FORMED, UNLESS OTHERWISE APPROVED.
- ALL CONCRETE TO BE 3000-PSI MINIMUM AT 28 DAYS, UNLESS OTHERWISE SHOWN. STRENGTH TO BE DETERMINED BY CYLINDER BREAK TEST.
- ALL REINFORCING STEEL TO BE ASTM A-615, GRADE 60, UNLESS OTHERWISE SHOWN.
- ALL EXPOSED CONCRETE WORK TO BE CHAMFERED.
- ALL CONCRETE USED FOR CURB AND GUTTER, CONCRETE PAVEMENT, DRIVEWAYS, SIDEWALKS AND OTHER FLAT WORK SHALL CONTAIN A MINIMUM OF 1.5 POUNDS OF FIBER MESH PER CUBIC YARD.
- ALL EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH CURING COMPOUND RESIN BASE ASTM C 309 TYPE 2 WITH PIGMENTED TINT OF FUGITIVE DYE.
- EXPANSION JOINTS WILL BE PLACED AT CURB RETURNS, INLETS AND AT THE END OF EACH POUR WITH INTERVALS NOT TO EXCEED 40 FT. JOINTS SHALL CONSIST OF 1/2" PRE-MOLDED EXPANSION JOINT MATERIAL WITH 3, 36" X 1/2" DOWELS, ONE END GREASED AND WRAPPED. CARE MUST BE TAKEN THAT DOWELS ARE STRAIGHT AND LAID PARALLEL WITH CURB AND NO CONCRETE PLUGS OR OTHER MATERIAL BE ALLOWED THROUGH THE DOWEL HOLES OR EXPANSION MATERIAL WHICH WOULD PREVENT THE JOINT FROM OPERATION AS AN EXPANSION JOINT. EXPANSION JOINT MATERIALS SHALL BE PRE-MOLDED ASPHALT IMPREGNATED EXPANSION JOINT MATERIAL CONFORMING WITH ASTM D 994 (NOT WOOD FIBER TYPE)
- CONTRACTION (DUMMY, SAWED OR GROOVED) JOINTS SHALL BE 2" DEEP AND PLACED AT MAXIMUM OF 10-FOOT INTERVALS.
- WHEN CONNECTING TO EXISTING CURB AND GUTTER, THE CONTRACTOR SHALL DRILL AND DOWEL TWO #6 X 16" TIE BARS A MINIMUM OF 6-INCHES DEEP INTO THE EXISTING CURB AND GUTTER SECTION.

**PAVING CONSTRUCTION NOTES:**

- HOT MIX ASPHALT CONCRETE TO BE IN ACCORDANCE WITH SPECIFICATION 32 12 16.13, HOT MIX ASPHALTIC CONCRETE PAVEMENT.
- SUBGRADE EXCAVATION AND COMPACTION TO BE INCLUDED IN PRICE BID PER SQUARE YARD FOR "PAVEMENT BID ITEMS."
- CONTRACTOR TO SHAPE, FILL, GRADE AND COMPACT TO ENSURE PROPER DRAINAGE.
- ALL PAVEMENTS SHALL BE NEATLY SAW-CUT PARALLEL OR PERPENDICULAR TO THE PAVEMENT EDGE (NO ANGLED SAW CUTS). DAMAGE TO PAVEMENT BEYOND THE EXTENTS OF CONSTRUCTION LIMITS AS A RESULT OF FAILURE TO PROPERLY SAW-CUT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONSTRUCTION JOINTS TO EXISTING PAVEMENT SHALL BE MADE BY EITHER CUTTING BACK EXISTING TO PRODUCE A SLIGHTLY BEVELED EDGE FOR THE FULL THICKNESS OF THE WEARING COURSE OR A SUITABLE LAP JOINT SHALL BE MADE. SAW CUTTING REQUIRED.
- NO TRAFFIC SHALL BE ALLOWED ON THE FINISHED WEARING SURFACE UNTIL AT LEAST 12 HOURS, OR UNTIL THE PAVEMENT HAS COOLED TO NO LESS THAN 160°F, AFTER COMPLETION OF ROLLING.
- ANY SETTLEMENT UNDER PAVEMENT DUE TO INADEQUATE COMPACTION OF UTILITY LINE BACKFILL SHALL BE CAUSE FOR RECOMPACTION OF TRENCH AND REPLACEMENT OF PAVEMENT SECTION AT CONTRACTOR'S EXPENSE.
- HOT MIX ASPHALT CONCRETE TRANSPORT TRUCKS TO BE EQUIPPED WITH CANVAS COVERS TO BE UTILIZED DURING MATERIAL HAULING. MATERIAL DELIVERED TO SITE AT IMPROPER TEMPERATURE SHALL BE REJECTED. HOT MIX SHALL BE LAID AT A MINIMUM TEMPERATURE OF 225 DEGREES FAHRENHEIT.
- CONTRACTOR TO REPLACE ALL PAVEMENT MARKINGS AND MARKERS THAT WERE REMOVED, DEMOLISHED, OR DAMAGED DURING CONSTRUCTION. (NO SEPARATE PAY)
- CONTRACTOR SHALL "LAY DOWN" CURB SECTION AT DRIVEWAY LOCATIONS SHOWN ON DRAWINGS. CONTRACTOR SHALL BE REQUIRED TO GRADE FROM EXISTING DRIVES AND PARKING AREAS TO MATCH GRADES AND ALLOW SMOOTH TRANSITIONS AND PROPER DRAINAGE. (NO SEPARATE PAY)

**UTILITY GENERAL NOTES:**

1. THE TYPE, SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES DEPICTED ON THE CONSTRUCTION PLANS WERE RESEARCHED WITH RESPECT TO THE BEST AVAILABLE DATA AND THEREFORE SHOWN APPROXIMATE. ALTHOUGH EVERY EFFORT HAS BEEN MADE TO ACCURATELY DEPICT ALL UTILITIES, NOT ALL (PUBLIC AND PRIVATE) MAY BE SHOWN. NEITHER THE ENGINEER NOR THE OWNER IS RESPONSIBLE FOR THE ACCURACY OF THE LOCATION OF THE UTILITIES SHOWN ON THE CONSTRUCTION PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL UTILITY COMPANIES WITH JURISDICTION WITHIN THE LIMITS OF CONSTRUCTION FOR FIELD VERIFICATION AT NO ADDITIONAL EXPENSE TO THE OWNER. UTILITY COMPANIES TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

BROWNSVILLE PUB	(956) 983-6100
BROWNSVILLE ENGINEERING DEPT.	(956) 541-1012
TXDOT - BROWNSVILLE OFFICE	(956) 542-2260
TEXAS 811	811
TEXAS GAS SERVICE	(800) 959-5325
SPECTRUM/TIME WARNER CABLE	(800) 222-5355
AT&T TEXAS	(800) 288-2020
AMERICAN ELECTRIC AND POWER (AEP) TEXAS	(800) 277-2177
MAGIC VALLEY ELECTRICAL COOPERATIVE (MVEC)	(866) 225-5683
FRONTIER COMMUNICATIONS	(800) 921-8101
CHARTER COMMUNICATIONS	(866) 874-2389
VERIZON	(800) 922-0204

2. CONTRACTOR SHALL EXPOSE ANY EXISTING UTILITY THAT MAY BE IN CONFLICT PRIOR TO COMMENCING CONSTRUCTION AND EXCAVATION.

3. THE CONTRACTOR SHALL NOTIFY ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS RESPONSIBLE FOR PUBLIC AND PRIVATE UTILITIES AFFECTED BY HIS/HER OPERATIONS PRIOR TO COMMENCING CONSTRUCTION.

4. CONTRACTOR SHALL AT ALL TIMES ALLOW ACCESS TO EXISTING DRIVEWAY OR PROVIDE/MAINTAIN ALTERNATIVE ALL-WEATHER ROUTES.

5. ALL TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION.

6. ANY DAMAGES TO FENCES, WALKS, OR PRIVATE PROPERTY SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

7. ALL CONSTRUCTION MATERIALS TESTING WILL BE COORDINATED THROUGH THE OWNER.

8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL EXCAVATED MATERIAL, EXCESS CONCRETE, AND DEBRIS FROM THE CONSTRUCTION SITE AT NO ADDITIONAL EXPENSE TO THE OWNER.

9. IN ACCORDANCE WITH HOUSE BILLS 662 AND 665 ENACTED BY THE TEXAS LEGISLATURE (70<sup>th</sup> REGULAR LEGISLATIVE SESSION), THE CONTRACTOR SHALL MEET THE REQUIREMENTS FOR TRENCH SAFETY AS OUTLINED IN THE CURRENT VERSION OF THE UNITED STATES DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS, 29 CFR, PART 1926, SUBPART P-EXCAVATIONS.

10. PRIOR TO COMMENCING ANY EXCAVATION, THE CONTRACTOR SHALL PROVIDE A TRENCH SAFETY PLAN. ALL PLANS SHALL BE PREPARED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS. THE PLAN SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL.

11. IN THE EVENT CONDITIONS ENCOUNTERED IN THE FIELD REQUIRE TRENCH SAFETY SYSTEMS OUTSIDE OF THE EXTENTS SUGGESTED TRENCH PROTECTION SHOWN ON THE CONSTRUCTION PLANS, ALL EXCAVATION SHALL CEASE AND THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A REVISED TRENCH SAFETY PLAN. NO EXCAVATION SHALL RESUME UNTIL THE REVISED TRENCH SAFETY PLAN HAS BEEN APPROVED. (NO SEPARATE PAY)

12. THE CONTRACTOR SHALL ENSURE APPROVED TRENCH SAFETY PLANS ARE IMPLEMENTED. FAILURE TO ADHERE TO THE TRENCH SAFETY PLAN WILL RESULT IN A STOP WORK ORDER. NON-COMPLIANCE INCIDENTS MAY BE REPORTED TO OSHA.

13. TRENCHES OR EXCAVATIONS MAY NOT BE LEFT OPEN OVERNIGHT UNLESS AUTHORIZED IN WRITING BY THE OWNER. IN CASES WHERE TRENCHES ARE LEFT OPEN, THE CONTRACTOR MUST PROVIDE TRAFFIC-RATED, ANCHORED STEEL PLATE COVERS APPROVED BY THE OWNER.

14. CONTRACTOR SHALL PROTECT AND SUSPEND ALL EXISTING UTILITIES TO REMAIN.

15. ALL UTILITIES SHALL REMAIN IN SERVICE AT ALL TIMES. THE PROTECTION, TEMPORARY BY-PASS PUMPING, ETC. OF ALL UTILITY LINES SHALL BE INCIDENTAL TO THE INSTALLATION OF THE PROPOSED UTILITIES. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS.

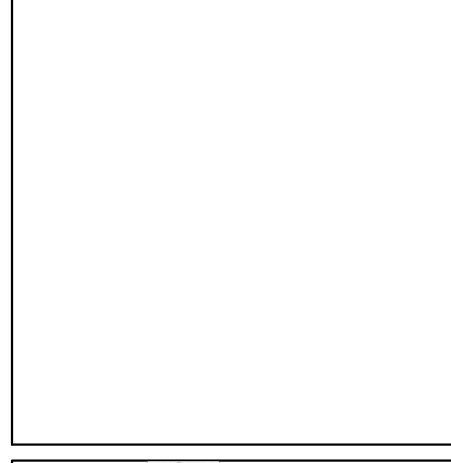
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS



Revision No.	Date	Description



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Sheet Title	GENERAL NOTES
<b>C002</b>	
Sheet Number	

**UTILITY NOTES**

1. ALL CONSTRUCTION OPERATIONS TO BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE.
2. ELECTRICAL LINES ARE LOCATED IN THE PROJECT AREA. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO STATE LAW (VERNON'S ANNOTATED TEXAS STATUTES, ARTICLE 1436 (C)) CONCERNING CONSTRUCTION OPERATIONS IN THE VICINITY OF ELECTRICAL LINES AND THE NEED FOR EFFECTIVE PRECAUTIONARY MEASURES.
3. ANY CHANGES OR REVISIONS TO THE UTILITY DESIGN MUST FIRST BE SUBMITTED TO BROWNSVILLE PUB FOR REVIEW AND WRITTEN APPROVAL.
4. THE CONTRACTOR SHALL GIVE THE CITY OF BROWNSVILLE AND BROWNSVILLE PUB 24 HOUR ADVANCE NOTICE PRIOR TO PLACEMENT OF ANY CONCRETE. TO PERMIT THE REVIEW OF FORMS. REINFORCING STEEL PLACEMENT, AND OTHER PREPARATIONS.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST CITY OF BROWNSVILLE AND BROWNSVILLE PUB STANDARD SPECIFICATIONS.
6. MAXIMUM LENGTH OF OPEN TRENCH TO BE 60', OR AS DIRECTED BY THE OWNER.

**UTILITY TESTING NOTES**

1. BROWNSVILLE PUBLIC UTILITIES BOARD TO BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING OF WATER LINES AND WASTEWATER LINES, AND DENSITY TESTING. REFER TO SPECIFICATIONS AND TCEQ NOTES FOR TESTING REQUIREMENTS. ALL TESTING TO BE CONDUCTED IN PRESENCE OF B.P.U.B. INSPECTOR.
2. SOIL DENSITY TESTS AND RELATED SOIL ANALYSIS TESTS TO BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY UNDER CONTRACT WITH THE OWNER. TESTS WHICH SHOW UNSATISFACTORY RESULTS ARE TO BE REPEATED AT THE EXPENSE OF THE CONTRACTOR SUBSEQUENT TO CONTRACTOR'S REMEDIAL ACTIVITIES.
3. DENSITY TESTING OF COMPACTED SUBGRADE MATERIAL FOR FIRST COURSE, AND SECOND COURSE OF COMPACTED BASE SHALL BE MADE AT ALL DRIVEWAYS AND INTERSECTING STREETS. IN ADDITION, ONE (1) DENSITY TEST PER LIFT PER FIVE HUNDRED (500) FEET OF INSTALLED PIPELINE SHALL BE CONDUCTED.

**TEXAS PARKS AND WILDLIFE CODE & MIGRATORY BIRD TREAT ACT:**

1. UNDER THE MIGRATORY BIRD TREATY ACT (MBTA) OF 1918, CODIFIED AT 16 U.S.C. §703-712 AND AS ENFORCED BY THE USFWS AND CHAPTER 64 OF THE TEXAS PARKS AND WILDLIFE CODE, ANY NECESSARY VEGETATION CLEARING OR SOIL EXCAVATION WITHIN THE PROJECT AREA OR ACCESS ROADS TO THE SITE BE SCHEDULED TO OCCUR OUTSIDE OF THE MARCH 15 THROUGH SEPTEMBER 15 MIGRATORY BIRD NESTING SEASON. CONTRACTORS SHOULD BE MADE AWARE OF THE POTENTIAL OF ENCOUNTERING MIGRATORY BIRDS (EITHER NESTING OR WINTERING) IN THE PROPOSED PROJECT SITE AND BE INSTRUCTED TO AVOID NEGATIVELY IMPACTING THEM. IF VEGETATION CLEARING MUST BE SCHEDULED TO OCCUR DURING THE NESTING SEASON, IMPACTED VEGETATION SHALL BE SURVEYED FOR ACTIVE NESTS BY A QUALIFIED BIOLOGIST. NEST SURVEYS SHOULD BE CONDUCTED NO MORE THAN FIVE DAYS PRIOR TO SCHEDULED CLEARING TO ENSURE RECENTLY CONSTRUCTED NESTS ARE IDENTIFIED. IF ACTIVE NESTS ARE OBSERVED DURING SURVEYS, A 150-FOOT BUFFER OF VEGETATION REMAIN AROUND THE NESTS UNTIL THE YOUNG HAVE FLEDGED OR THE NEST IS ABANDONED.

**STATE LISTED THREATENED AND ENDANGERED SPECIES:**

2. THERE IS A POTENTIAL FOR THE PRESENCE OF STATE-LISTED SPECIES AND SPECIES OF CONCERN IN THE PROJECT AREA AND STATE LAW PROHIBITS THE TAKING (INCIDENTAL OR OTHERWISE) OF STATE-LISTED SPECIES. TAKING IS DEFINED AS THE COLLECTION, HOOKING, HUNTING, NETTING, SHOOTING, OR SHARE BY ANY MEANS OR DEVICES. IF ANY LISTED SPECIES ARE OBSERVED, CEASE WORK IN THE IMMEDIATE AREA, DO NOT DISTURB SPECIES OR HABITAT AND CONTACT THE ENGINEER IMMEDIATELY. THE FOLLOWING STATE-LISTED SPECIES HAVE THE POTENTIAL TO OCCUR WITHIN THE PROJECT AREA. POTENTIAL IMPACTS MAY BE AVOIDED AND/OR MINIMIZED BY INCORPORATING THE RECOMMENDED BENEFICIAL MANAGEMENT PRACTICES (BMPS).

BLACK-SPOTTED NEWT (NOTOPHTHALMUS MERIDIONALIS)  
 SOUTH TEXAS SIREN (LARGE FORM) (SIREN SP. 1)  
 MEXICAN TREE FROG (SMILISCA BAUDINI)  
 NORTHERN CAT-EYE SNAKE (LEPTODEIRA SEPTENTRIONALIS SEPTENTRIONALIS)

3. BLACK-SPOTTED NEWT, SOUTH TEXAS SIREN AND MEXICAN TREE FROG: THE CONTRACTOR SHOULD BE AWARE OF THE POTENTIAL TO ENCOUNTER OR AFFECT STATE-LISTED AMPHIBIANS IN THE PROJECT AREA AND SHOULD IMPLEMENT BMPS TO AVOID NEGATIVELY IMPACTING THEM IF PRESENT IN THE PROJECT AREA. NEAR WATER BODIES, IT IS RECOMMENDED TO MINIMIZING IMPACTS TO ADJACENT VEGETATION, IF POSSIBLE, INSTALLING EROSION CONTROL BMPS, AND LOCATING STAGING AREAS AND FUELS OR OTHER HAZARDOUS CHEMICALS AWAY FROM WATER BODIES TO AVOID POTENTIAL SPILLS OR LEAKS INTO ADJACENT AQUATIC AREAS.
4. NORTHERN CAT-EYED SNAKE: THE NORTHERN CAT-EYED SNAKE IS NON-VENOMOUS; THE CONTRACTOR IS ADVISED TO AVOID IMPACTS TO THIS SPECIES AND OTHER SNAKES AS LONG AS THE SAFETY OF THE WORKS IS NOT COMPROMISED. FOR THE SAFETY OF WORKERS AND PRESERVATION OF A NATURAL RESOURCE, ATTEMPTING TO CATCH, RELOCATE AND/OR KILL NON-VENOMOUS OR VENOMOUS SNAKES IS DISCOURAGED BY FEDERAL AND STATE REGULATORY AGENCIES. IF ENCOUNTERED, SNAKES SHOULD BE PERMITTED TO SAFELY LEAVE PROJECT AREAS ON THEIR OWN. THE CONTRACTOR SHALL ENACT A "NO KILL" POLICY IN REGARD TO WILDLIFE ENCOUNTERS FOR ITS EMPLOYEES AND SUBCONTRACTORS.

**STORM DRAINAGE LINE CONSTRUCTION NOTES:**

1. CONTRACTOR SHALL PROVIDE POSITIVE STORM WATER DRAINAGE AT ALL TIMES.
2. CONTRACTOR TO PROVIDE POSITIVE OUTFLOW FOR DRAINAGE BASIN AT ALL TIMES. IN THE CASE OF A STORM EVENT, CAPACITY FOR STORM WATER RUNOFF SHALL BE PROVIDED ON SITE AS A TEMPORARY DETENTION FACILITY TO MINIMIZE ADJACENT LOCAL FLOODING.
3. CONTRACTOR SHALL PROVIDE A SEQUENCE OF WORK FOR STORM DRAINAGE TIE-INS THAT PROVIDES POSITIVE OUTFLOW AT ALL TIMES.
4. CONTRACTOR TO FIELD VERIFY THE LOCATION OF EXISTING UTILITIES AND FACILITIES PRIOR TO CONSTRUCTION.
5. ALL REINFORCED CONCRETE STORM PIPES SHALL BE ASTM C-76 CLASS III OR CLASS IV WITH O-RING RUBBER GASKET SEALED JOINTS, UNLESS OTHERWISE NOTED ON PLANS. ALL PIPE AND APPURTENANCES (INLETS, MANHOLES, JUNCTION BOXES, ETC.) SHALL CONFORM TO THE TECHNICAL SPECIFICATIONS.
6. REINFORCED CONCRETE PIPES SHALL EXTEND TO THE INSIDE FACE OF ALL STRUCTURES. ALL JOINTS SHALL BE GROUTED TO ENSURE A WATER-TIGHT FIT. IN NO INSTANCE SHALL GROUT BE USED TO EXTEND AN INCOMPLETE SEGMENT OF PIPE TO THE INSIDE FACE OF A STRUCTURE.
7. PRECAST REINFORCED CONCRETE STORM BOXES SHALL BE IN ACCORDANCE WITH ASTM C1577. THE JOINTS SHALL BE SEALED WITH GROUT FROM INSIDE THE BOXES.
8. CAST-IN-PLACE REINFORCED CONCRETE STORM BOXES SHALL BE CONSTRUCTED WITH CLASS "C" CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AND GRADE 60 REINFORCED STEEL. WELDED WIRE REINFORCEMENT IS NOT ALLOWED.
9. BANK RUN SAND BACKFILL IN LIEU OF NATIVE MATERIAL IS ALLOWED AT THE CONTRACTOR'S DISCRETION; NO SEPARATE PAY. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE BACKFILL MATERIAL TO THE OWNER FOR INSPECTION AND SHALL UTILIZE THE MATERIAL ONLY UPON APPROVAL BY THE OWNER.
10. EXPANSION JOINTS ARE REQUIRED BETWEEN ALL INLET STRUCTURES AND CURB AND GUTTER AND/OR SIDEWALK.
11. MANHOLE COVERS IN ROADWAYS SHALL BE H-20 RATED.
12. THE CONTRACTOR SHALL ENSURE THAT ALL EXISTING STORM SEWER INFRASTRUCTURE REMAINS FUNCTIONAL THROUGHOUT THE COURSE OF CONSTRUCTION. IN THE EVENT THAT ANY ASSOCIATED CONSTRUCTION ACTIVITY IMPEDES THE FUNCTION OF A SYSTEM, THE CONTRACTOR SHALL PROVIDE THE OWNER A PLAN TO ADDRESS THE ISSUE IN ANTICIPATION OF A STORM EVENT.
13. ALL NEWLY INSTALLED STORM SEWER PIPE AND APPURTENANCES ARE SUBJECT TO VIDEO INSPECTION.
14. ALL DIMENSION CONTROLS SHOWN ON PLANS ARE TO CENTER OF STRUCTURE.

**EROSION CONTROL NOTES:**

1. CONTRACTOR SHALL OBTAIN A SWPPP PERMIT AND POST IT AT THE CONSTRUCTION SITE, IN ACCORDANCE WITH TDPES REQUIREMENTS, PRIOR TO CONSTRUCTION.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING ANY EARTH DISTURBING ACTIVITY.
3. ALL EFFORTS SHALL BE MADE TO CONTAIN DISTURBED SOILS WITHIN THE EXTENTS OF PERIMETER EROSION AND SEDIMENT CONTROL MEASURES.
4. THE CONTRACTOR SHALL SEQUENCE ALL CONSTRUCTION IN SUCH A MANNER AS TO MINIMIZE THE AMOUNT AND EXTENTS OF DISTURBED EARTH.
5. A STABILIZED CONSTRUCTION EXIT IS REQUIRED AT ALL POINTS OF DESIGNATED EGRESS FROM THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION(S) UNLESS OTHERWISE NOTED ON THE PLANS. THE LOCATION(S) OF THE STABILIZED CONSTRUCTION EXIT(S) MAY BE MODIFIED WITH RESPECT TO THE SEQUENCE OF CONSTRUCTION.
6. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY MAINTAINED DURING THE COURSE OF THEIR INTENDED USE.
7. ALL STAGING, MATERIAL STORAGE, STOCKPILE AND REFUSE AREAS SHALL REQUIRE APPLICABLE EROSION AND SEDIMENT CONTROL MEASURES.
8. ALL CONSTRUCTION DEBRIS SHALL BE CONTAINED WITHIN APPROPRIATE RECEPTACLES (ROLL-OFF CONTAINERS, DUMPSTERS, TRASH CANS, WIRE-MESH CAGES, ETC.) AND CONFINED WITHIN PERIMETER EROSION AND SEDIMENT CONTROLS.
9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE DURING THE COURSE OF EARTH DISTURBING ACTIVITY AND UNTIL FINAL STABILIZATION IS ACHIEVED. STRUCTURAL MEASURES MAY BE REMOVED ONLY UPON FINAL PROJECT ACCEPTANCE BY THE OWNER OR AS DIRECTED BY THE OWNER.
10. PERMANENT STABILIZATION SHALL BEGIN AS SOON AS PRACTICABLE OR AS DIRECTED BY THE OWNER.
11. DUST CONTROL SHALL BE IMPLEMENTED AS NECESSARY OR AS DIRECTED BY THE OWNER. DUST CONTROL MAY CONSIST OF WATERING OR OTHER METHODS APPROVED BY THE OWNER. DUST CONTROL AND ASSOCIATED WATERING OR OTHER METHOD SHALL BE SUBSIDIARY TO THE EROSION CONTROL BID ITEM IN THE UNIT PRICE SCHEDULE.
12. TRACKED DEBRIS SHALL BE SWEEPED AT THE END OF EACH WORKDAY OR AS DIRECTED BY THE OWNER.
13. ALL DISCHARGES ASSOCIATED WITH DEWATERING OPERATIONS SHALL IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES. MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO SEDIMENTATION BASINS OR FILTER SOCKS.
14. CONCRETE WASH-WATER SHALL NOT BE DISCHARGED DIRECTLY INTO A STORM SEWER SYSTEM OR RECEIVING STREAM. ALL WASH ACTIVITIES MUST BE PERFORMED WITHIN THE EXTENTS OF ESTABLISHED EROSION AND SEDIMENT CONTROL MEASURES OR DESIGNATED AREAS APPROVED BY THE OWNER.
15. SEDIMENT SHALL BE CLEARED FROM ALL STORM SEWER PIPES, CULVERTS AND APPURTENANCES WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO FINAL PROJECT ACCEPTANCE. SEDIMENT SHALL BE PROPERLY DISPOSED.
16. STAGING, STOCKPILE AND EQUIPMENT STORAGE AREAS SHALL NOT BE LOCATED WITHIN THE EXTENTS OF ANY TREE DRIPLINES.

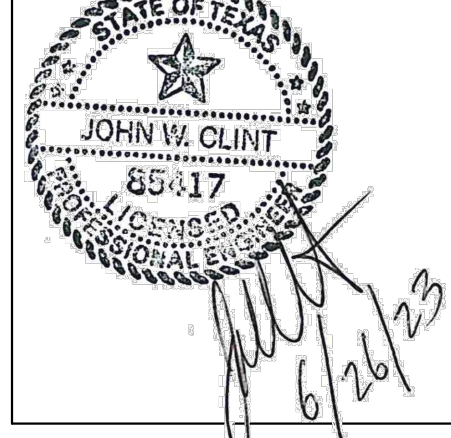
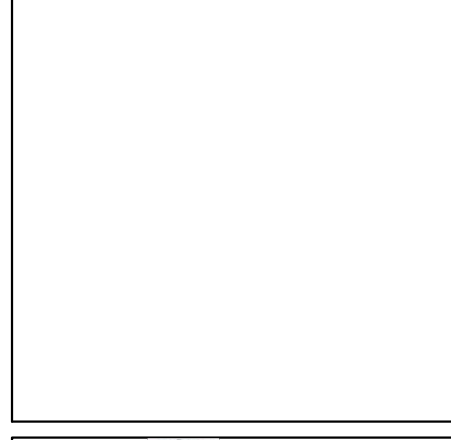
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description

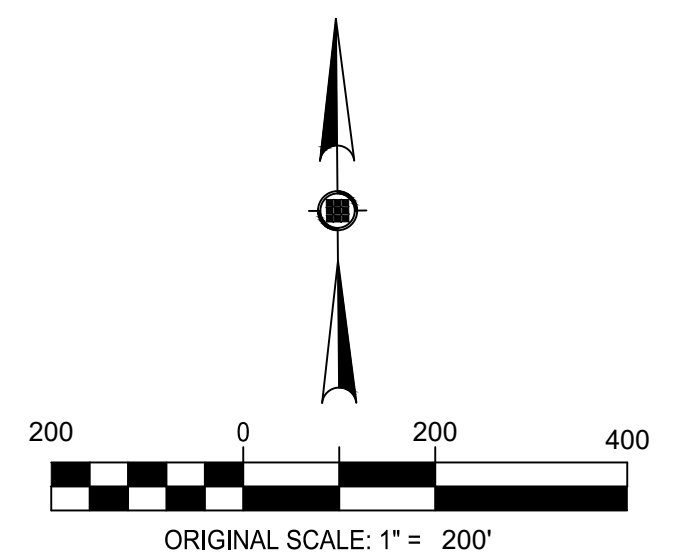


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 GENERAL NOTES

**C003**  
 Sheet Number

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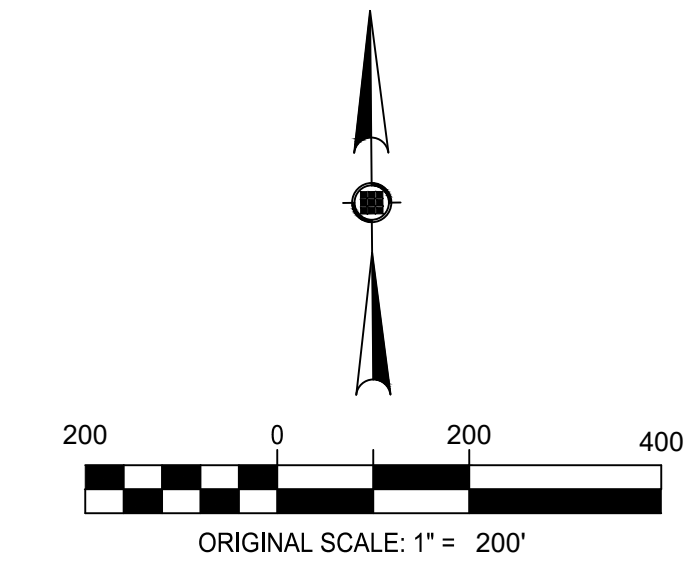
**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



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Sheet Number	C101



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**BROWNSVILLE PUB  
TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS

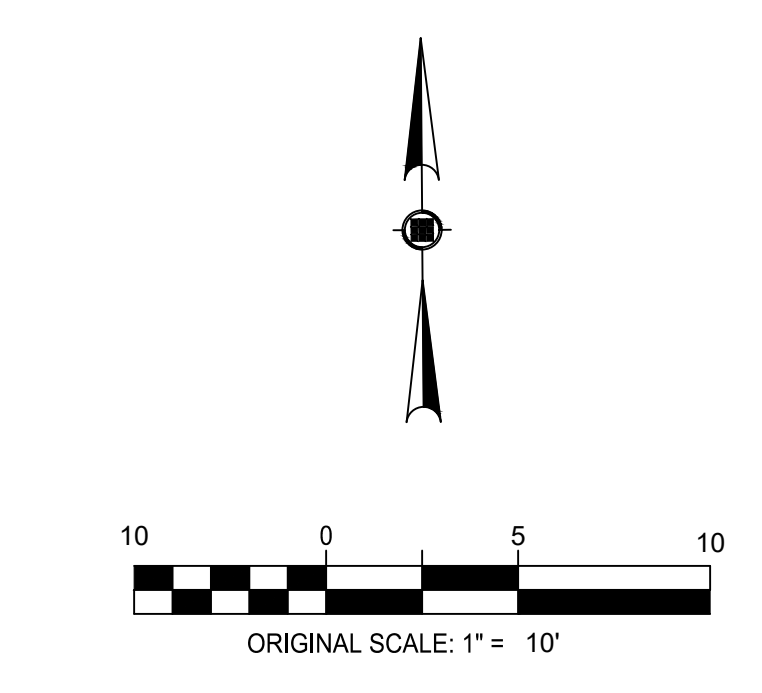
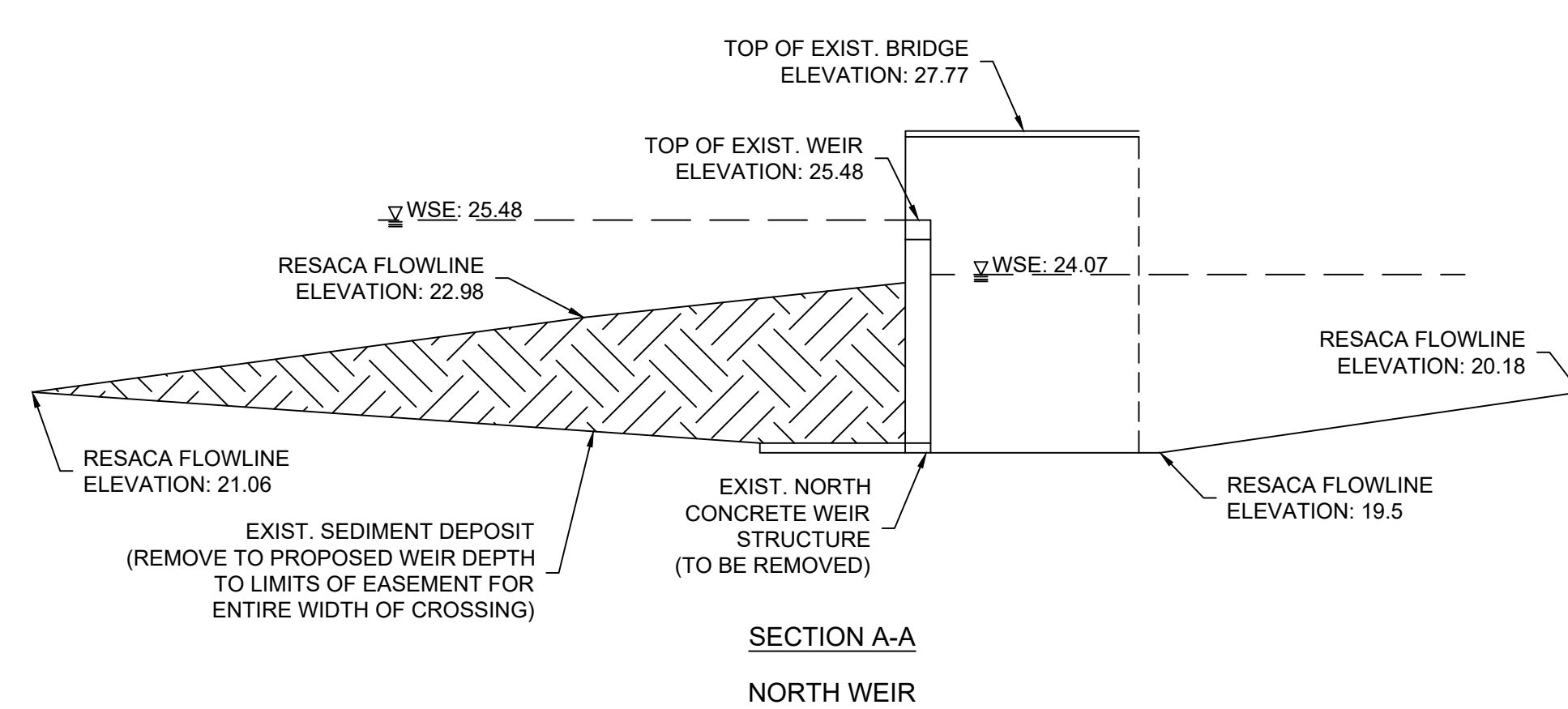
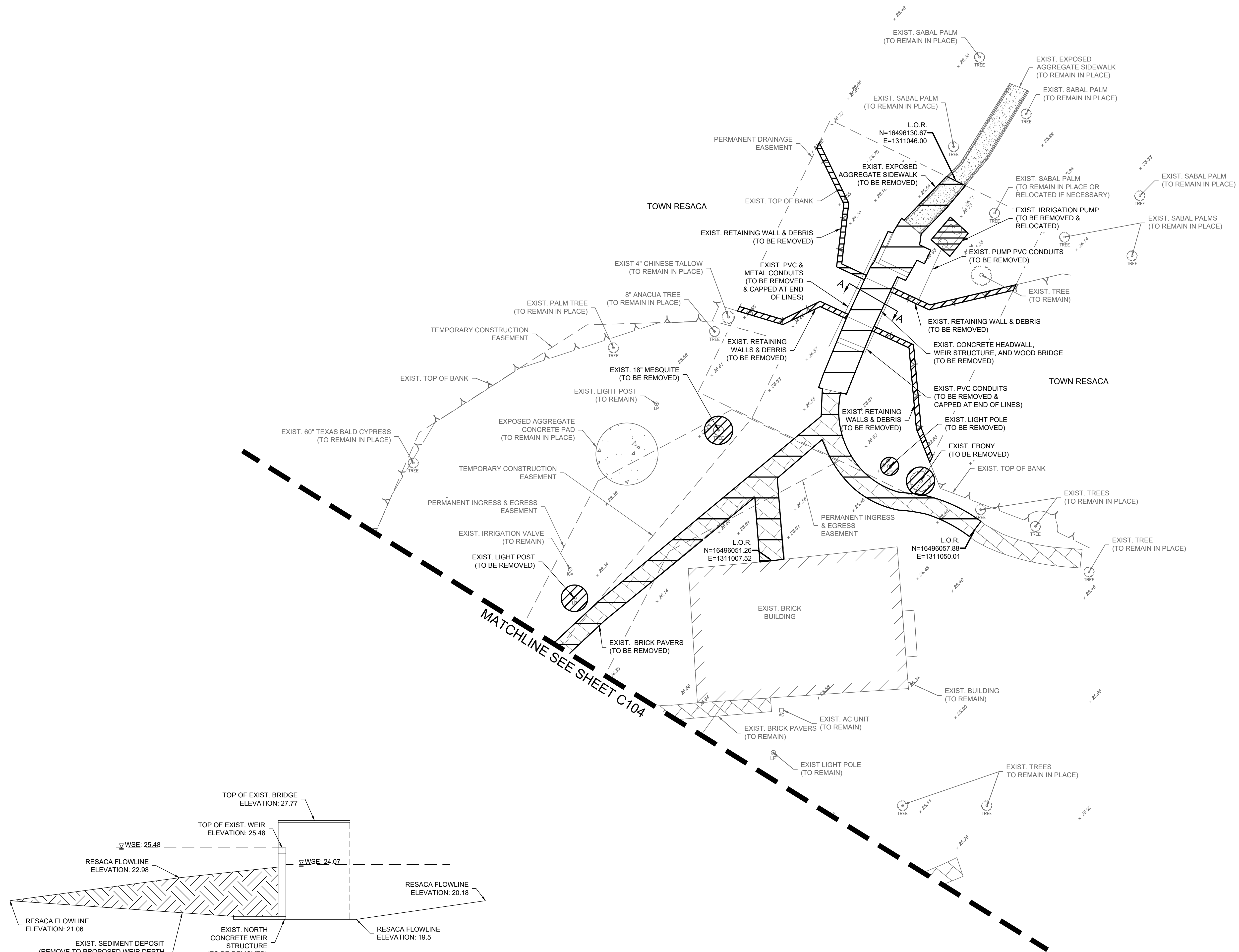


Revision No.	Date	Description

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**SURVEY CONTROL PLAN**  
**C102**  
 Sheet Number

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**LEGEND**

DEMOLITION/LIMITS OF REMOVAL AREA

L.O.R. LIMITS OF REMOVAL

**GENERAL NOTES**

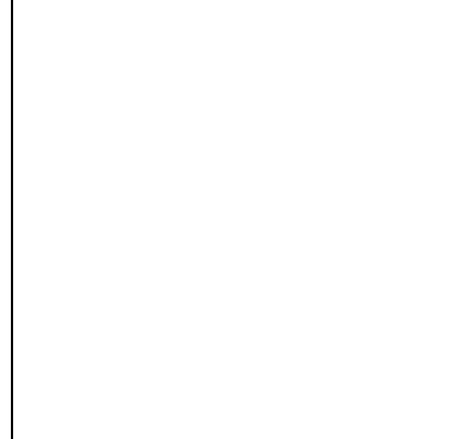
1. REMOVE ALL CONCRETE, WOOD, PIPING AND DEBRIS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

# BROWNSVILLE PUB TOWN RESACA WATERSHED PROJECT

BROWNSVILLE, TEXAS

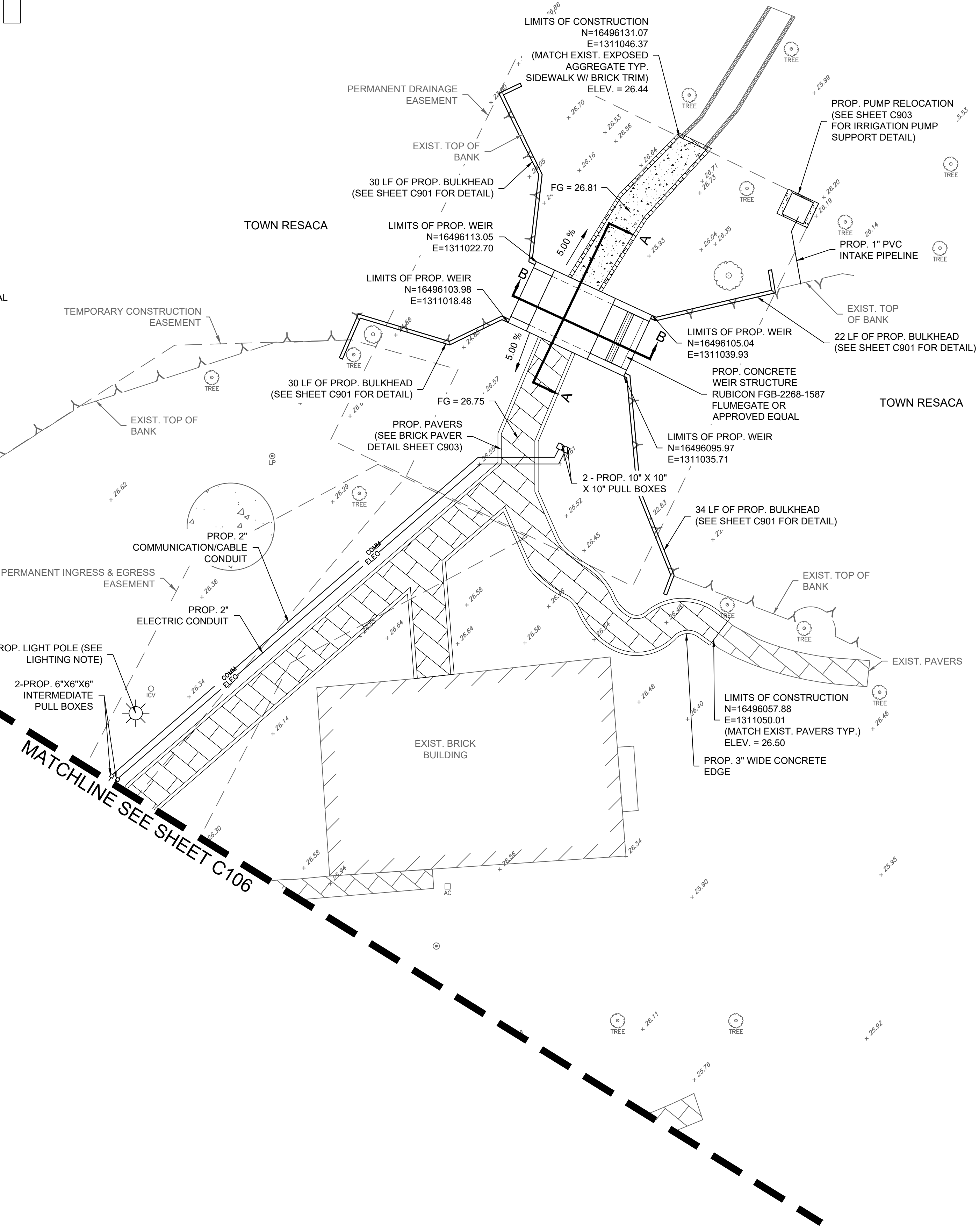
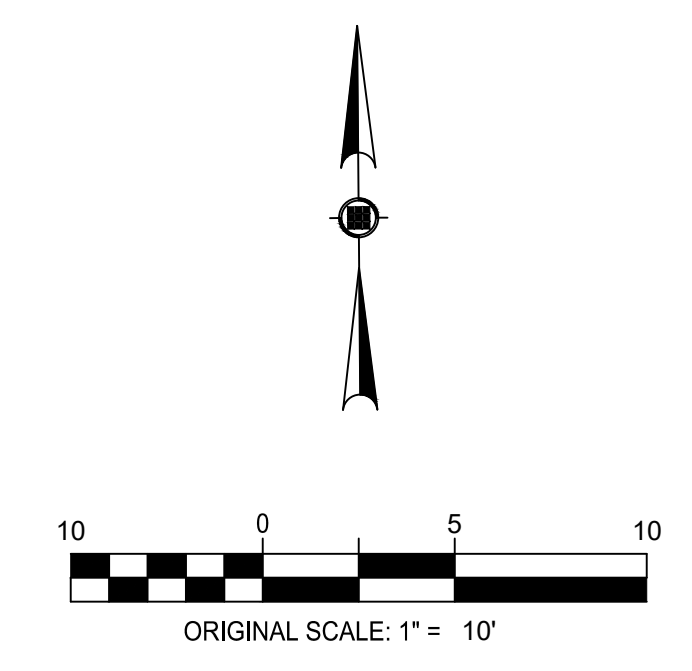
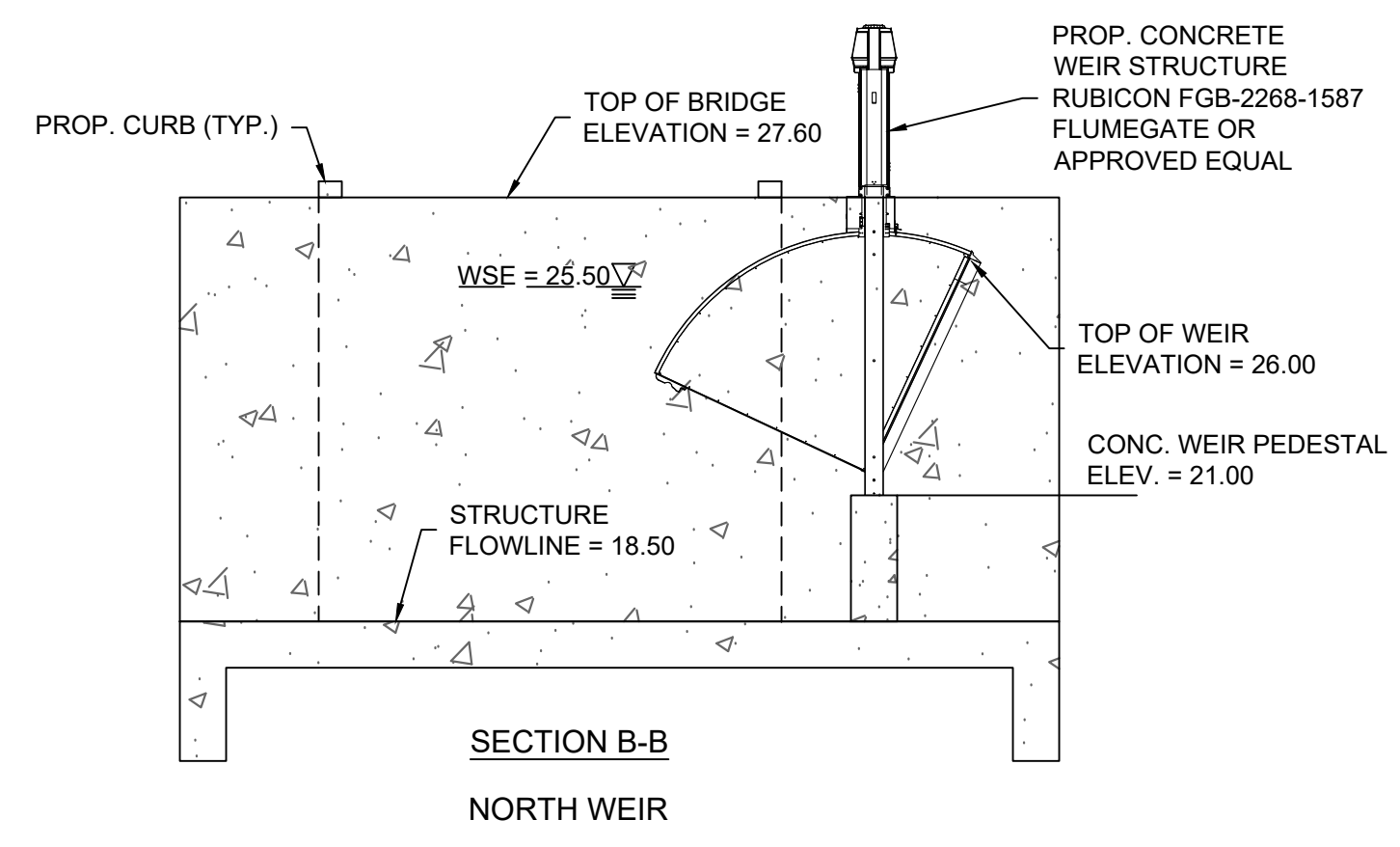
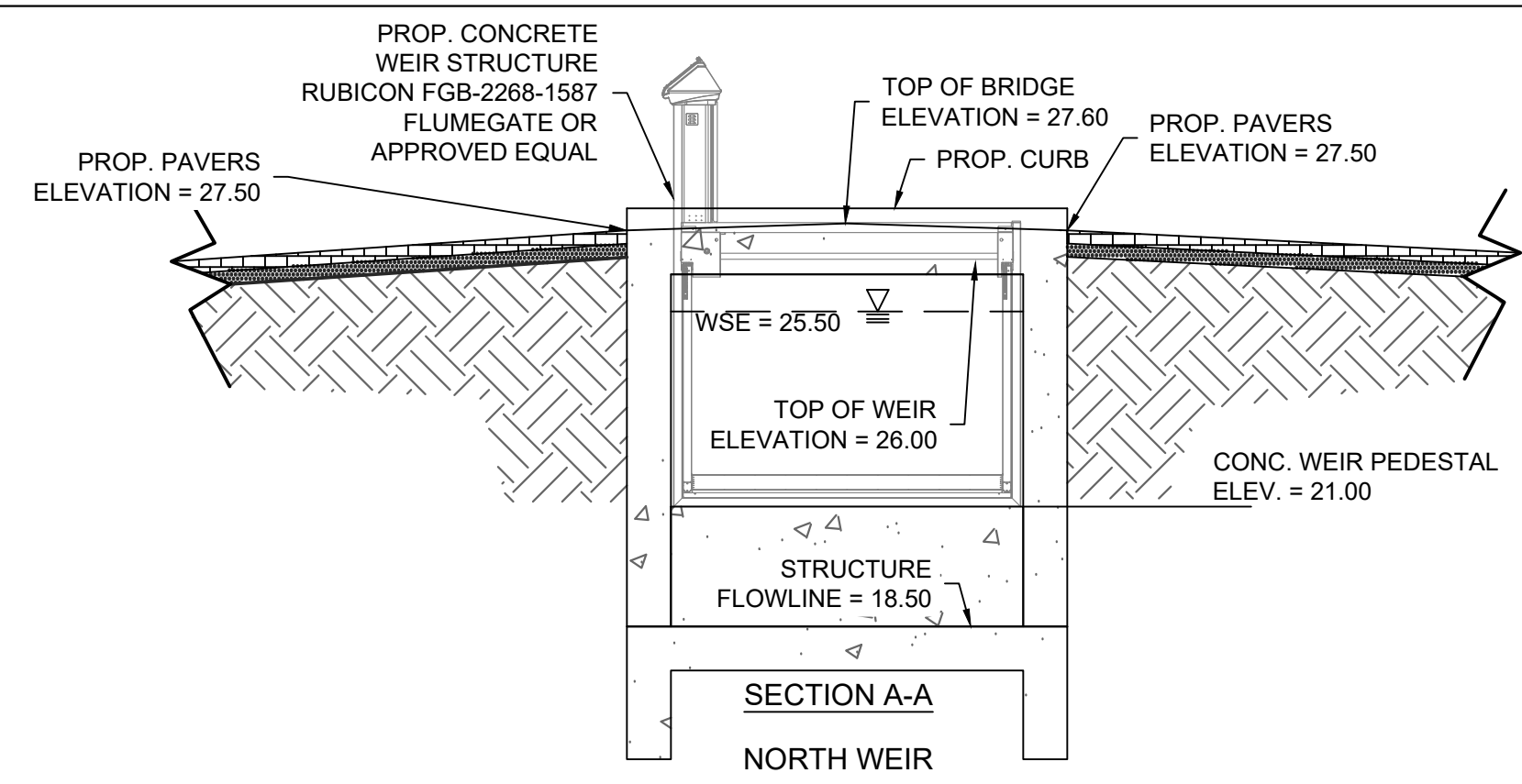


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Sheet Number	C103





**SITE CONDITION DOCUMENTATION NOTES:**

1. PRIOR TO MOBILIZATION, THE CONTRACTOR SHALL CONDUCT A FIELD SITE VISIT AND DOCUMENT ALL EXISTING CONDITIONS. A SUFFICIENT NUMBER OF DIGITAL PHOTOGRAPHS AND/OR VIDEOS SHALL BE OBTAINED PRIOR TO ANY WORK BEING COMMENCED. ALL DIGITAL DOCUMENTATION SHALL BE STORED AND MAINTAINED BY THE CONTRACTOR AND BE ORGANIZED WITH EACH DAY BEING SAVED AS A SEPARATE FOLDER. THE PHOTO/VIDEO FILE NAMES SHALL INCLUDE: LOCATION, DATE AND PHOTO/VIDEO NUMBER. THE CONTRACTOR SHALL PROVIDE FILE NAMING SAMPLE FOR ENGINEER'S APPROVAL PRIOR TO INITIAL SITE VISIT.
2. PHOTOGRAPHS SHALL SHOW EXISTING CONDITIONS OF ALL PAVEMENT SURFACES, SIDEWALKS, BUILDINGS, STRUCTURES, LANDSCAPING OR OTHER IMPROVEMENTS. DOCUMENTS SHALL SHOW THE EXISTENCE OR NON-EXISTENCE OF CONDITIONS CONCERNING TO THE CONTRACTOR OR MAY BECOME CONCERNING TO ALL PARTIES.
3. CONSTRUCTION PROGRESS PHOTO/VIDEO SHALL BE OBTAINED DURING DEMOLITION AND DURING CONSTRUCTION SHOWING ANY CHANGE IN CONDITIONS OF THE DISTURBED AREAS, ITEMS TO REMAIN IN PLACE OR OTHER ITEMS OF CONCERN. PROGRESS DOCUMENTATION SHALL BE OBTAINED ON A REGULAR SCHEDULE REQUIRED BY THE CONTRACTOR BUT NO LESS THAN ONCE PER MONTH COINCIDING WITH THE CONTRACTOR'S REQUEST FOR PAYMENT.
4. UPON REQUEST OF THE OWNER, LANDOWNER OR ENGINEER, THE CONTRACTOR SHALL PROVIDE ALL PHOTOGRAPHS AND VIDEOS OF THE PRE-CONSTRUCTION CONDITIONS AND PROGRESS DOCUMENTATION.

**WEIR SITE CONDITION NOTES:**

1. THE CONTRACTOR SHALL RETURN THE SITE TO PRE-CONSTRUCTION CONDITIONS. ALL DAMAGES SHALL BE REPAIRED ON A LIKE-FOR-LIKE BASIS, MATCHING PRE-CONSTRUCTION CONDITIONS OR BETTER, APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.
2. ALL DISTURBED GRASS AREAS SHALL BE SODDED WITH ST. AUGUSTINE GRASS AT 100-PERCENT COVERAGE. VOIDS AND UNLEVELED AREAS SHALL BACKFILLED WITH TOPSOIL APPROVED BY THE ENGINEER.
3. ALL CONDUIT AND PIPE RESACA CROSSINGS SHALL BE RECONNECTED TO PRE-CONSTRUCTION CONDITIONS OR BETTER. ALL CONDUIT AND WATER PIPE SHALL BE ANCHORED TO THE PROPOSED WEIR STRUCTURE WITH STAINLESS STEEL ANCHORING SYSTEM APPROVED BY THE ENGINEER. WATER PIPES SHALL BE RECONNECTED USING SIMILAR PIPE MATERIAL AND DIAMETERS OR AS DIRECTED BY THE ENGINEER. ALL ELECTRICAL WIRING SHALL BE RECONNECTED BY SPLICING DISCONNECTED WIRE WITH MATCHING STRAND AND SIZE. ALL WIRE SPLICES SHALL BE PROTECTED USING ADHESIVE LINED HEAT SHRINK TUBE TO CREATE A WATERPROOF CONNECTION. SPLICES SHALL BE INSTALLED WITH A MINIMUM OF 12 INCHES OF WIRE SLACK IN A WATERPROOF ELECTRIC JUNCTION BOX INSTALLED FLUSH WITH FINISH NATURAL GROUND SURFACE. SUCH RECONNECTIONS SHALL BE CONSIDERED APPROVED WHEN SERVICES ARE RETURNED TO PROPER WORKING CONDITIONS.
4. ALL SIDEWALK AND OTHER HARD SURFACE REPAIRS SHALL BE INSTALLED AS PER THE DESIGN DETAILS. THE LOCATION OF THESE REPLACEMENT IMPROVEMENTS SHALL BE SPOTTED USING SPOTTING PAINT FOR THE ENGINEER'S AND LANDOWNER'S REVIEW AND APPROVAL. ALL HARD SURFACES SHALL BE INSTALLED WITH A FINISHED GRADE OF 1-INCH ABOVE THE FINISHED GRASS SODDED GRADE. ALL HARD SURFACES SHALL BE SLOPED TO DRAIN AND NOT CAUSE PONDING ON THE FINISHED SURFACE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR, REPLACEMENT, OR OTHER CORRECTIVE MEASURES FOR DAMAGES CAUSED TO ALL ITEMS NOT IDENTIFIED AS "TO BE REMOVED" IN THE DESIGN PLANS. THE CONTRACTOR SHALL PROVIDE A PLAN OF ACTION FOR ALL CORRECTIVE MEASURES TO THE ENGINEER FOR REVIEW. NO CORRECTIVE MEASURES SHALL BE INITIATED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER. FINAL ACCEPTANCE OF ANY CORRECTIVE MEASURES SHALL BE APPROVED BY THE ENGINEER, OWNER AND LANDOWNER.

**WEIR BY-PASS CONSTRUCTION NOTES:**

1. CONTRACTOR SHALL PROVIDE A PLAN FOR THE DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED WEIRS. THE PLAN SHALL BE SUBMITTED TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL AT LEAST 30-DAYS PRIOR TO INITIATING WORK IN THE AREA. FOLLOW-UP REVIEW PERIOD(S) SHALL BE COMPLETED WITHIN 10-DAYS OF RECEIPT OF CONTRACTOR'S RESPONSES TO OWNER AND ENGINEER'S COMMENTS.
2. THE PLAN SHALL INCLUDE BOTH SKETCHES AND NARRATIVES DETAILING THE PROPOSED CONSTRUCTION METHODS NEEDED TO CONSTRUCT THE PROPOSED WEIRS. THE PLAN SHALL INCLUDE THE CONSTRUCTION SCHEDULE, METHODS, MATERIALS, WORK-AREAS AND OTHER PERTINENT INFORMATION NECESSARY FOR THE OWNER AND ENGINEER TO CLEARLY UNDERSTAND HOW THE CONTRACTOR WILL PERFORM THE WORK.
3. THE CONTRACTOR SHALL SCHEDULE WEIR DEMOLITION AND CONSTRUCTION WORK DURING MONTHS WITH LOW SEASONAL RAIN ACTIVITY.
4. NORMAL RESACA FLOW SHALL ONLY BE IMPEDED FROM ONE WEIR AT A TIME. ADDITIONAL BY-PASS PIPING MAY BE NECESSARY TO ACCOMMODATE FLOWS AT BERMED WEIR SITES, SUBSIDIARY TO OTHER CONSTRUCTION ITEMS AND AT NO ADDITIONAL COSTS TO THE OWNER.
5. ALL EQUIPMENT SHALL BE STORED IN THE DESIGNATED STORAGE AREA DURING ALL DOWN TIMES INCLUDING WEEKENDS AND OVERNIGHT.

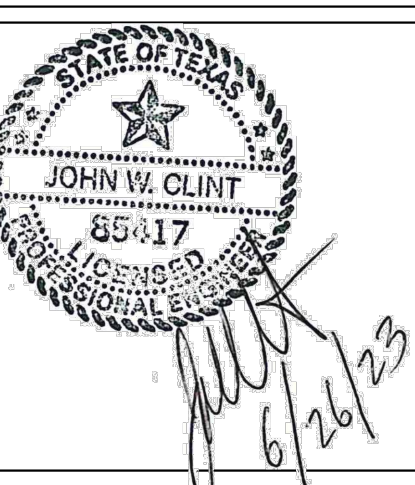
**LIGHTING NOTES:**

1. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING SOLAR SECURITY LIGHT WITH SOLAR LIGHTING INTERNATIONAL STEALTH 80-21 LED SOLAR STREET LIGHT MOUNTED ON ALUMINUM POST PART NUMBER RTA12C5AE-01 WITH TENON MOUNT ADAPTER FOR SPECIFIED SOLAR LIGHT OR APPROVED EQUAL.

**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



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Sheet Title  
**WEIR SITE PLAN**

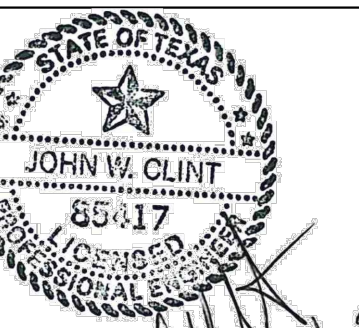
**C105**  
 Sheet Number

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Revision No.	Date	Description



Project No.: 4147.001  
 Issued: 6/26/2023  
 Drawn By: MH  
 Checked By: JWC  
 Scale: AS NOTED

Sheet Title

**C106**  
 Sheet Number

**WEIR BY-PASS CONSTRUCTION NOTES:**

1. CONTRACTOR SHALL PROVIDE A PLAN FOR THE DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED WEIRS. THE PLAN SHALL BE SUBMITTED TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL AT LEAST 30-DAYS PRIOR TO INITIATING WORK IN THE AREA. FOLLOW-UP REVIEW PERIOD(S) SHALL BE COMPLETED WITHIN 10-DAYS OF RECEIPT OF CONTRACTOR'S RESPONSES TO OWNER AND ENGINEER'S COMMENTS.
2. THE PLAN SHALL INCLUDE BOTH SKETCHES AND NARRATIVES DETAILING THE PROPOSED CONSTRUCTION METHODS NEEDED TO CONSTRUCT THE PROPOSED WEIRS. THE PLAN SHALL INCLUDE THE CONSTRUCTION SCHEDULE, METHODS, MATERIALS, WORK-AREAS AND OTHER PERTINENT INFORMATION NECESSARY FOR THE OWNER AND ENGINEER TO CLEARLY UNDERSTAND HOW THE CONTRACTOR WILL PERFORM THE WORK.
3. THE CONTRACTOR SHALL SCHEDULE WEIR DEMOLITION AND CONSTRUCTION WORK DURING MONTHS WITH LOW SEASONAL RAIN ACTIVITY.
4. NORMAL RESACA FLOW SHALL ONLY BE IMPEDED FROM ONE WEIR AT A TIME. ADDITIONAL BY-PASS PIPING MAYBE BE NECESSARY TO ACCOMMODATE FLOWS AT BERMED WEIR SITES, SUBSIDIARY TO OTHER CONSTRUCTION ITEMS AND AT NO ADDITIONAL COSTS TO THE OWNER.
5. ALL EQUIPMENT SHALL BE STORED IN THE DESIGNATED STORAGE AREA DURING ALL DOWN TIMES INCLUDING WEEKENDS AND OVERNIGHT.

**SITE CONDITION DOCUMENTATION NOTES:**

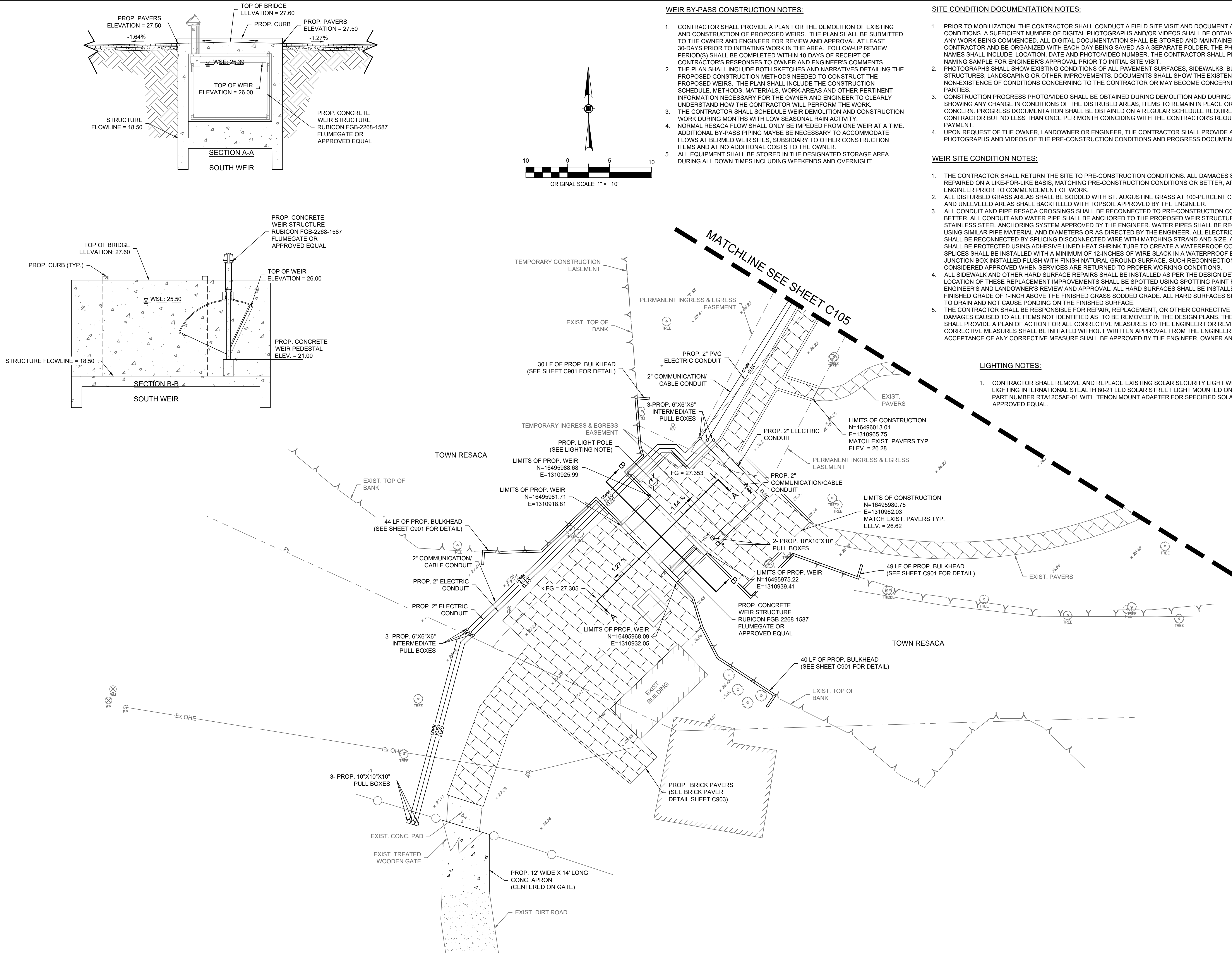
1. PRIOR TO MOBILIZATION, THE CONTRACTOR SHALL CONDUCT A FIELD SITE VISIT AND DOCUMENT ALL EXISTING CONDITIONS. A SUFFICIENT NUMBER OF DIGITAL PHOTOGRAPHS AND/OR VIDEOS SHALL BE OBTAINED PRIOR TO ANY WORK BEING COMMENCED. ALL DIGITAL DOCUMENTATION SHALL BE STORED AND MAINTAINED BY THE CONTRACTOR AND BE ORGANIZED WITH EACH DAY BEING SAVED AS A SEPARATE FOLDER. THE PHOTO/VIDEO FILE NAMES SHALL INCLUDE: LOCATION, DATE AND PHOTO/VIDEO NUMBER. THE CONTRACTOR SHALL PROVIDE FILE NAMING SAMPLE FOR ENGINEER'S APPROVAL PRIOR TO INITIAL SITE VISIT.
2. PHOTOGRAPHS SHALL SHOW EXISTING CONDITIONS OF ALL PAVEMENT SURFACES, SIDEWALKS, BUILDINGS, STRUCTURES, LANDSCAPING OR OTHER IMPROVEMENTS. DOCUMENTS SHALL SHOW THE EXISTENCE OR NON-EXISTENCE OF CONDITIONS CONCERNING TO THE CONTRACTOR OR MAY BECOME CONCERNING TO ALL PARTIES.
3. CONSTRUCTION PROGRESS PHOTO/VIDEO SHALL BE OBTAINED DURING DEMOLITION AND DURING CONSTRUCTION SHOWING ANY CHANGE IN CONDITIONS OF THE DISTURBED AREAS, ITEMS TO REMAIN IN PLACE OR OTHER ITEMS OF CONCERN. PROGRESS DOCUMENTATION SHALL BE OBTAINED ON A REGULAR SCHEDULE REQUIRED BY THE CONTRACTOR BUT NO LESS THAN ONCE PER MONTH COINCIDING WITH THE CONTRACTOR'S REQUEST FOR PAYMENT.
4. UPON REQUEST OF THE OWNER, LANDOWNER OR ENGINEER, THE CONTRACTOR SHALL PROVIDE ALL PHOTOGRAPHS AND VIDEOS OF THE PRE-CONSTRUCTION CONDITIONS AND PROGRESS DOCUMENTATION.

**WEIR SITE CONDITION NOTES:**

1. THE CONTRACTOR SHALL RETURN THE SITE TO PRE-CONSTRUCTION CONDITIONS. ALL DAMAGES SHALL BE REPAIRED ON A LIKE-FOR-LIKE BASIS, MATCHING PRE-CONSTRUCTION CONDITIONS OR BETTER, APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.
2. ALL DISTURBED GRASS AREAS SHALL BE SODDED WITH ST. AUGUSTINE GRASS AT 100-PERCENT COVERAGE. VOIDS AND UNLEVELED AREAS SHALL BACKFILLED WITH TOPSOIL APPROVED BY THE ENGINEER.
3. ALL CONDUIT AND PIPE RESACA CROSSINGS SHALL BE RECONNECTED TO PRE-CONSTRUCTION CONDITIONS OR BETTER. ALL CONDUIT AND WATER PIPE SHALL BE ANCHORED TO THE PROPOSED WEIR STRUCTURE WITH STAINLESS STEEL ANCHORING SYSTEM APPROVED BY THE ENGINEER. WATER PIPES SHALL BE RECONNECTED USING SIMILAR PIPE MATERIAL AND DIAMETERS OR AS DIRECTED BY THE ENGINEER. ALL ELECTRICAL WIRING SHALL BE RECONNECTED BY SPLICING DISCONNECTED WIRE WITH MATCHING STRAND AND SIZE. ALL WIRE SPLICES SHALL BE PROTECTED USING ADHESIVE LINED HEAT SHRINK TUBE TO CREATE A WATERPROOF CONNECTION. SPLICES SHALL BE INSTALLED WITH A MINIMUM OF 12-INCHES OF WIRE SLACK IN A WATERPROOF ELECTRIC JUNCTION BOX INSTALLED FLUSH WITH FINISH NATURAL GROUND SURFACE. SUCH RECONNECTIONS SHALL BE CONSIDERED APPROVED WHEN SERVICES ARE RETURNED TO PROPER WORKING CONDITIONS.
4. ALL SIDEWALK AND OTHER HARD SURFACE REPAIRS SHALL BE INSTALLED AS PER THE DESIGN DETAILS. THE LOCATION OF THESE REPLACEMENT IMPROVEMENTS SHALL BE SPOTTED USING SPOTTING PAINT FOR THE ENGINEER'S AND LANDOWNER'S REVIEW AND APPROVAL. ALL HARD SURFACES SHALL BE INSTALLED WITH A FINISHED GRADE OF 1-INCH ABOVE THE FINISHED GRASS SODDED GRADE. ALL HARD SURFACES SHALL BE SLOPED TO DRAIN AND NOT CAUSE PONDING ON THE FINISHED SURFACE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR, REPLACEMENT, OR OTHER CORRECTIVE MEASURES FOR DAMAGES CAUSED TO ALL ITEMS NOT IDENTIFIED AS "TO BE REMOVED" IN THE DESIGN PLANS. THE CONTRACTOR SHALL PROVIDE A PLAN OF ACTION FOR ALL CORRECTIVE MEASURES TO THE ENGINEER FOR REVIEW. NO CORRECTIVE MEASURES SHALL BE INITIATED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER. FINAL ACCEPTANCE OF ANY CORRECTIVE MEASURE SHALL BE APPROVED BY THE ENGINEER, OWNER AND LANDOWNER.

**LIGHTING NOTES:**

1. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING SOLAR SECURITY LIGHT WITH SOLAR LIGHTING INTERNATIONAL STEALTH 80-21 LED SOLAR STREET LIGHT MOUNTED ON ALUMINUM POST PART NUMBER RTA12C5AE-01 WITH TENON MOUNT ADAPTER FOR SPECIFIED SOLAR LIGHT OR APPROVED EQUAL.



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8	16495917.4270	1310877.3417
9	16495914.6793	1310885.9120
10	16495933.0628	1310892.1451
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12	16495939.3619	1310897.2562
13	16495953.4619	1310881.4659
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15	16495954.5156	1310879.6664
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18	16495955.5066	1310883.5716
19	16495953.2821	1310896.6903
20	16495959.0501	1310890.5778

Point #	Northing	Easting
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63	16495969.5464	1310975.1868
64	16495982.4755	1310963.8037
65	16495979.0333	1310960.2672
66	16495999.3132	1310946.7954
67	16496014.6224	1310955.8518
68	16496011.8897	1310964.6089
69	16496014.4336	1310965.9263
70	16496017.2479	1310957.4049
71	16496031.6472	1310965.9231
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73	16496035.9073	1310960.3132
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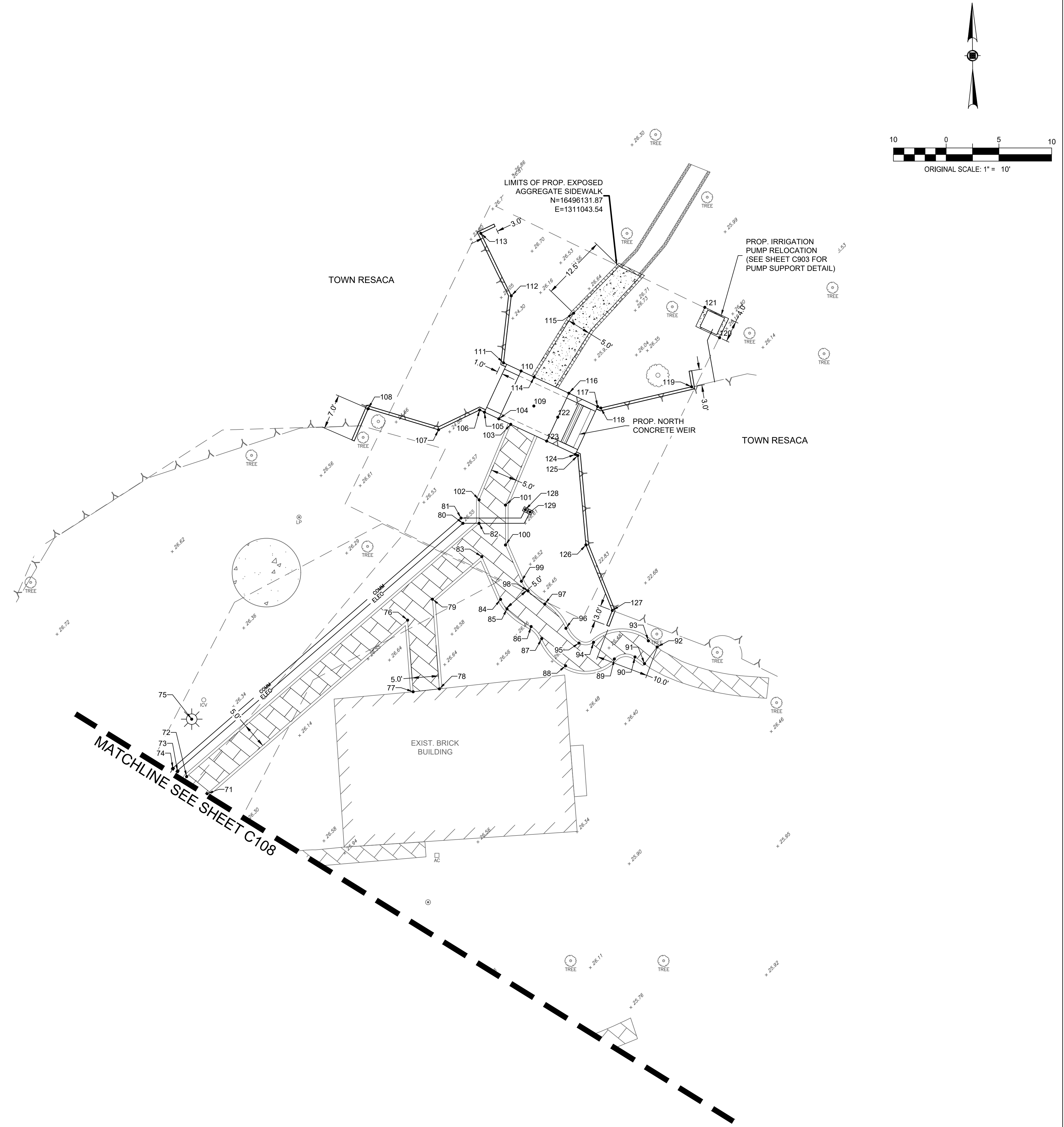
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126	16496078.8250	1311037.7094
127	16496066.3808	1311042.7098
128	16496085.4956	1311026.2292
129	16496085.0398	1311027.1193

Point #	Northing	Easting
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22	16495975.3696	1310899.9610
23	16495987.8535	1310912.8707
24	16495984.7019	1310915.9187
25	16495981.7141	1310918.8109
26	16495985.1986	1310922.3956
27	16495980.0722	1310928.5866
28	16495986.5250	1310928.0642
29	16495988.6854	1310925.9844
30	16495992.0947	1310926.5750
31	16495991.7168	1310923.0319
32	16495994.4784	1310920.3424
33	16495998.2759	1310924.2502
34	16496000.8400	1310923.5780
35	16496011.6265	1310922.6992
36	16495999.0667	1310928.3955
37	16496000.0667	1310927.9897
38	16496001.0667	1310927.5838
39	16495999.1042	1310930.6923
40	16495995.6749	1310934.4009

Point #	Northing	Easting
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82	16496082.9066	1311017.4642
83	16496076.5898	1311017.9739
84	16496068.4804	1311021.5384
85	16496066.6957	1311022.7455
86	16496063.3321	1311027.3259
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96	16496063.0044	1311033.9219
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99	16496071.9307	1311025.4835
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Point #	Northing	Easting
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49	16495977.4548	1310941.9779
50	16495975.2199	1310939.4078
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52	16495971.6523	1310935.7280
53	16495968.0848	1310932.0483
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55	16495957.2995	1310937.9234
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Point #	Northing	Easting
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115	16496122.7430	1311035.3760
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description



Project No.:	41147.001
Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
Sheet Title:	WEIR SITE DIMENSIONAL CONTROL PLAN
<b>C107</b>	
Sheet Number	

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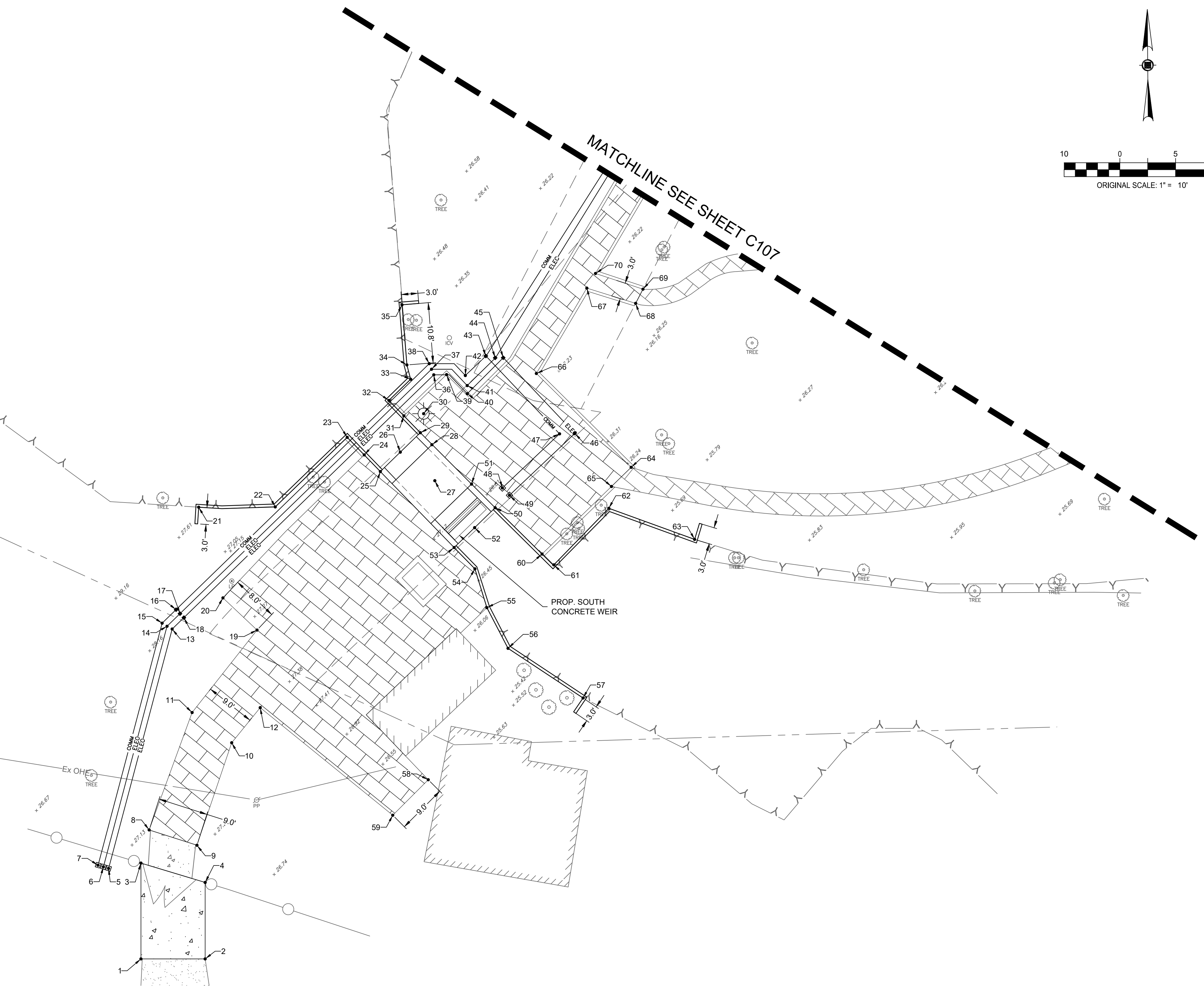
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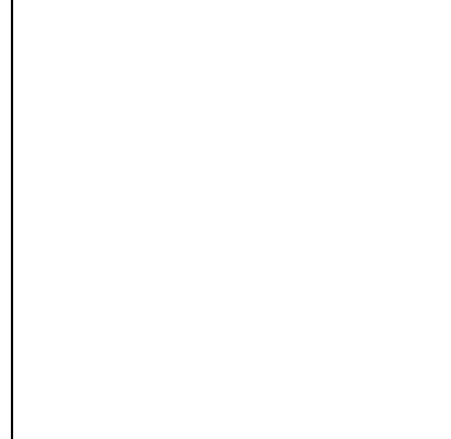
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



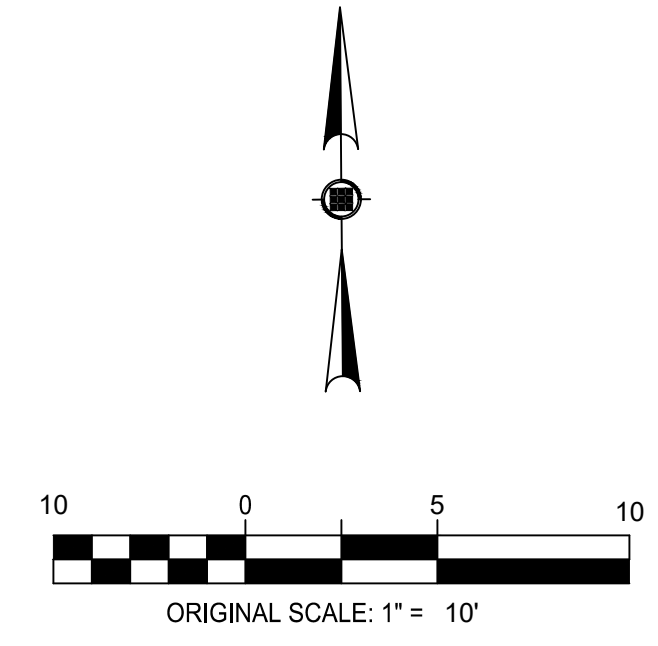
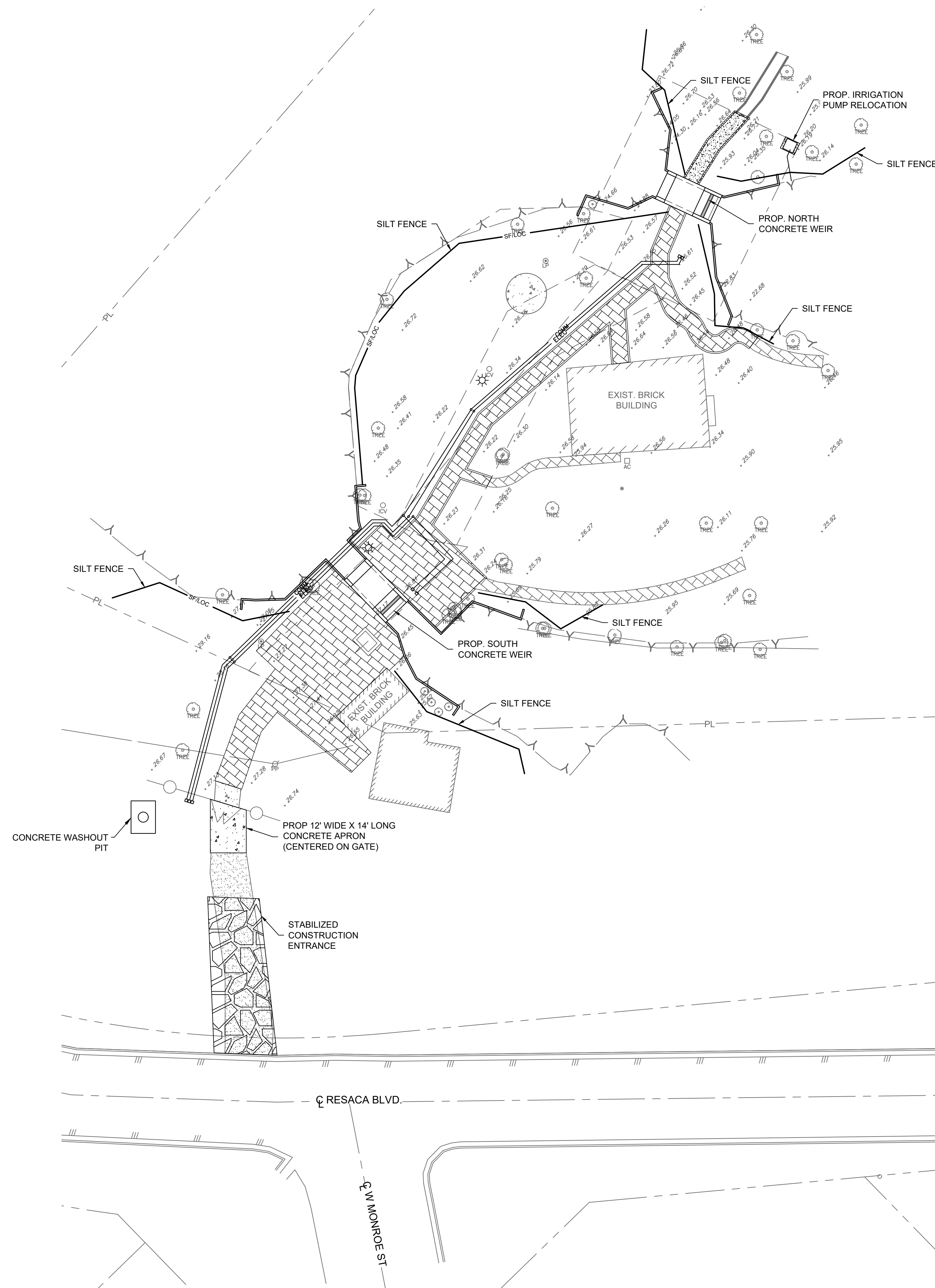
Revision No.	Date	Description



Project No.:	41147.001
Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
Sheet Title	WEIR SITE DIMENSIONAL CONTROL PLAN
<b>C108</b>	
Sheet Number	

Sep 20, 2023 - 8:14am

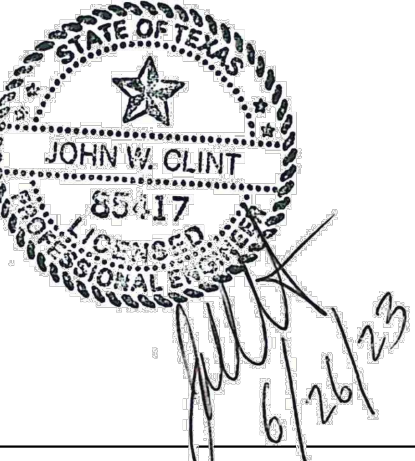
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description

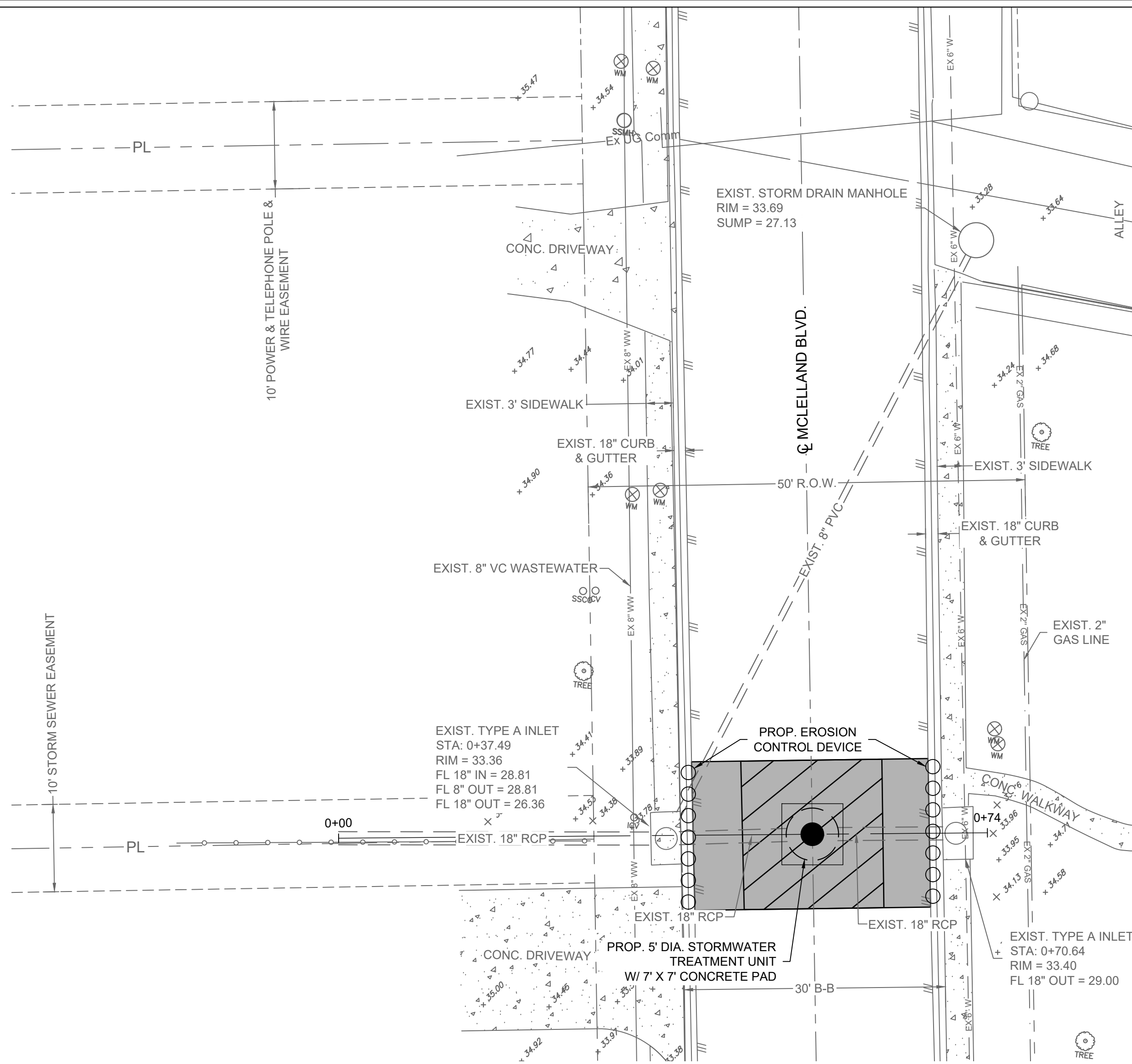


Project No.: 41147.001  
 Issued: 6/26/2023  
 Drawn By: MH  
 Checked By: JWC  
 Scale: AS NOTED  
 Sheet Title  
 PROPOSED WEIR SITE  
 EROSION & SEDIMENTATION  
 CONTROL PLAN

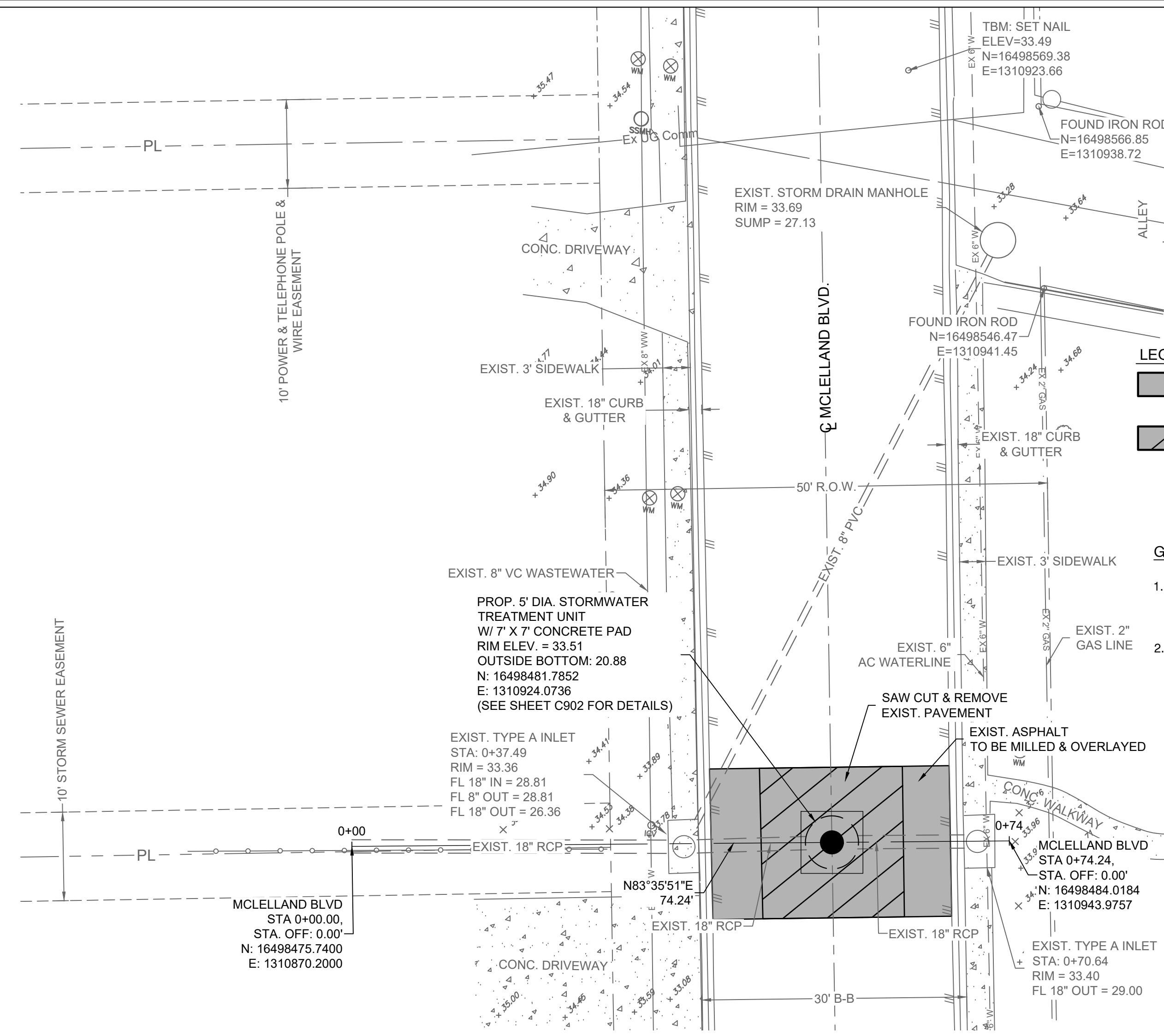
**C109**  
 Sheet Number

Sep. 20, 2023 - 8:15am

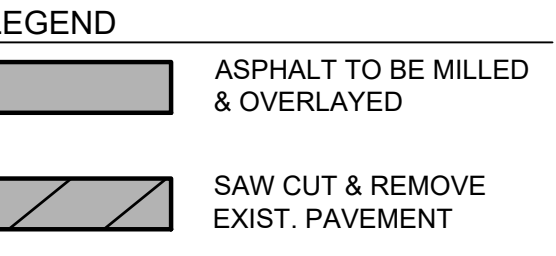
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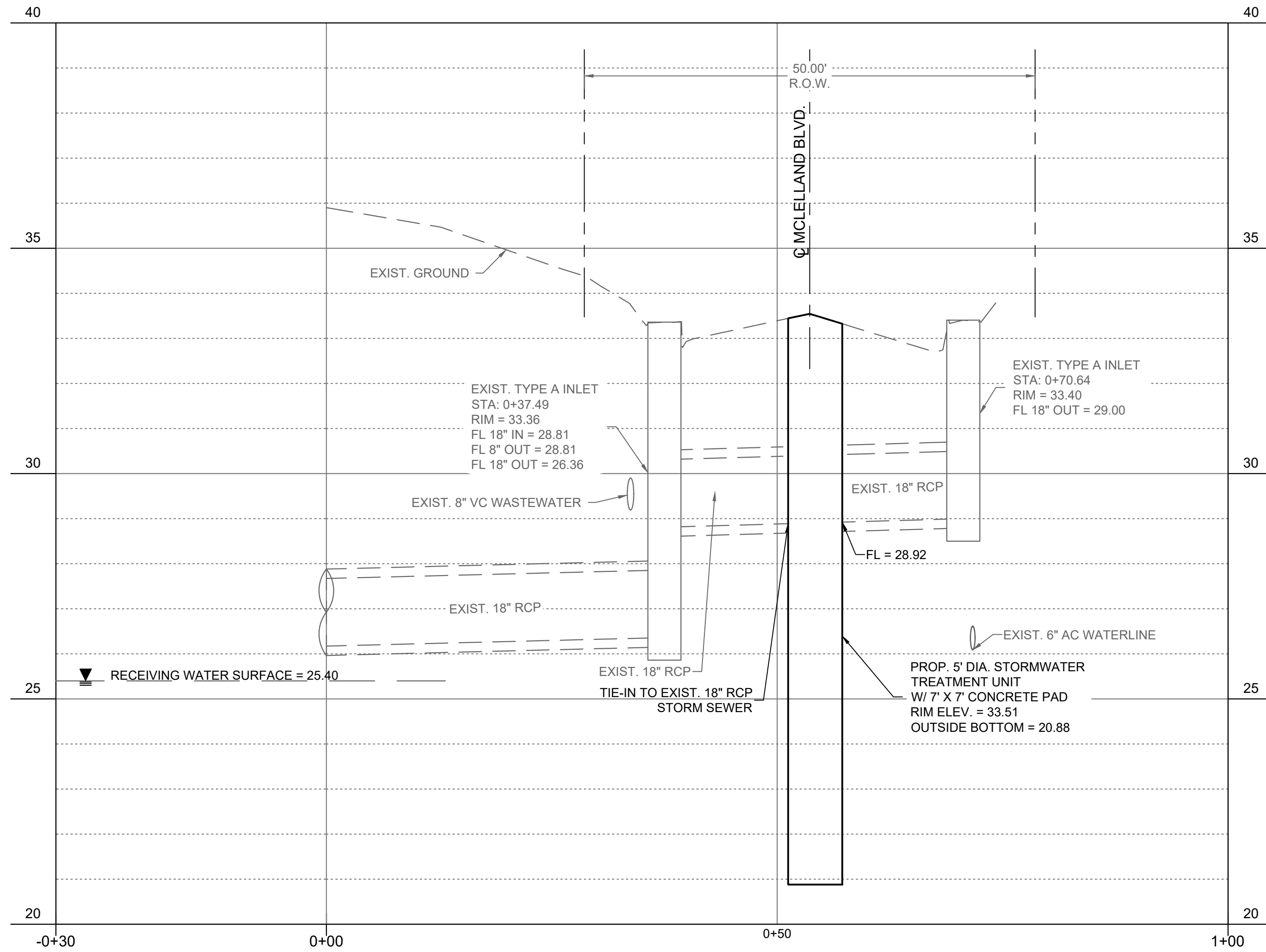
EROSION & SEDIMENTATION CONTROL PLAN



SITE PLAN



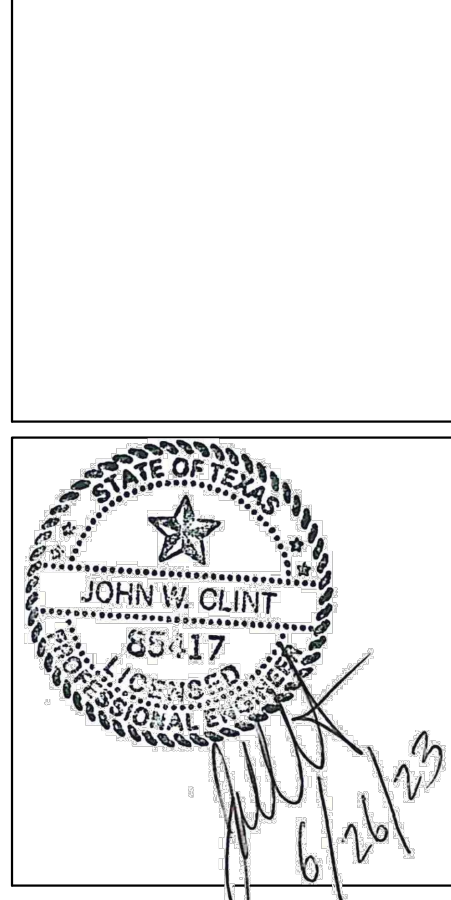
- GENERAL NOTES**
- ALL AFFECTED/DAMAGED AREAS SHALL BE REPAIRED/RESTORED TO PRE-EXISTING CONDITIONS.
  - CONTRACTOR TO INSTALL TREE PROTECTION FENCES FOR TREES LOCATED WITHIN CONSTRUCTION AREA UP TO THE OUTERMOST LIMITS OF BRANCHES (DRIPLINE) PRIOR TO COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEANING, GRUBBING OR GRADING).



**BROWNSVILLE PUB  
TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS

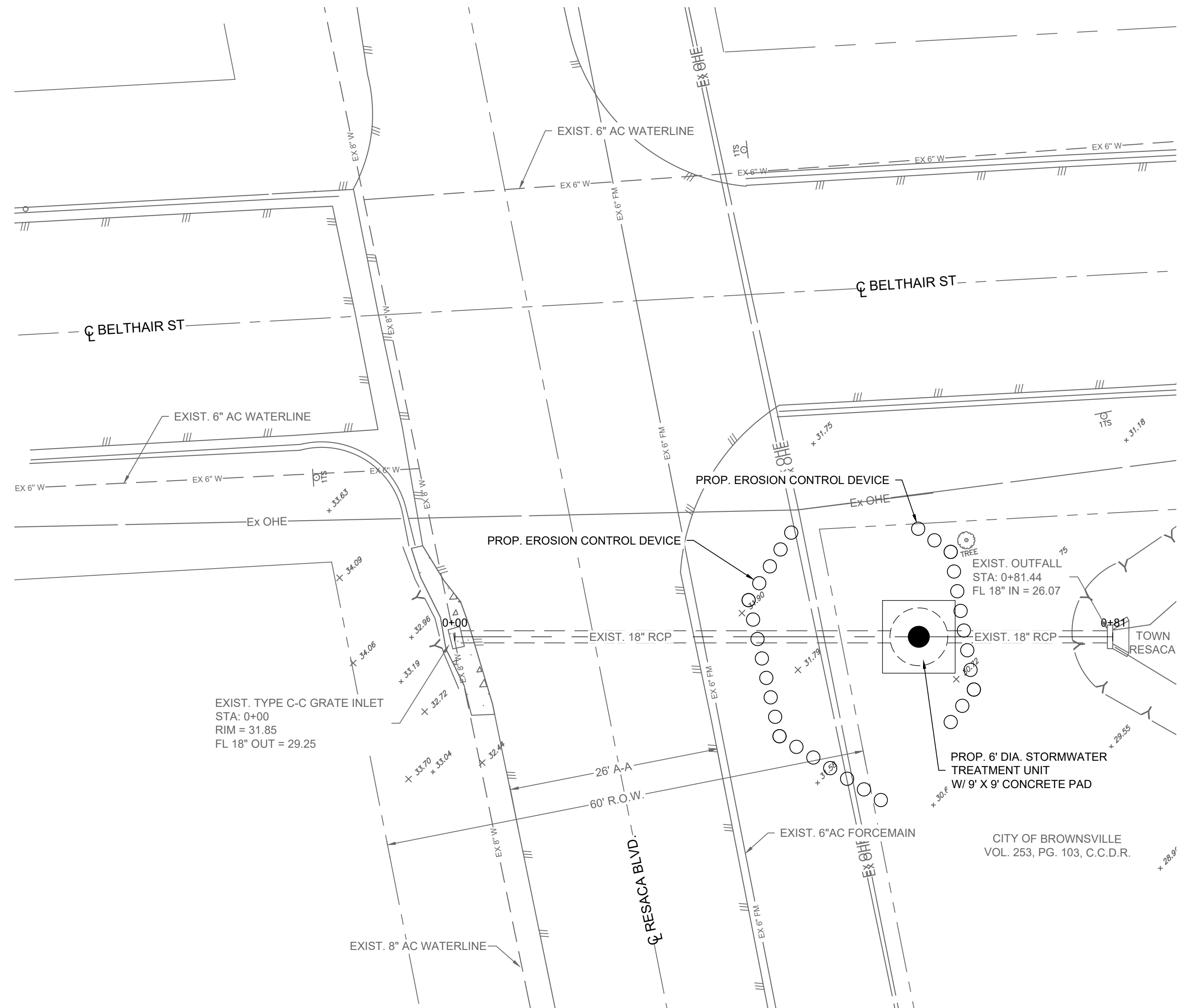


Revision No.	Date	Description

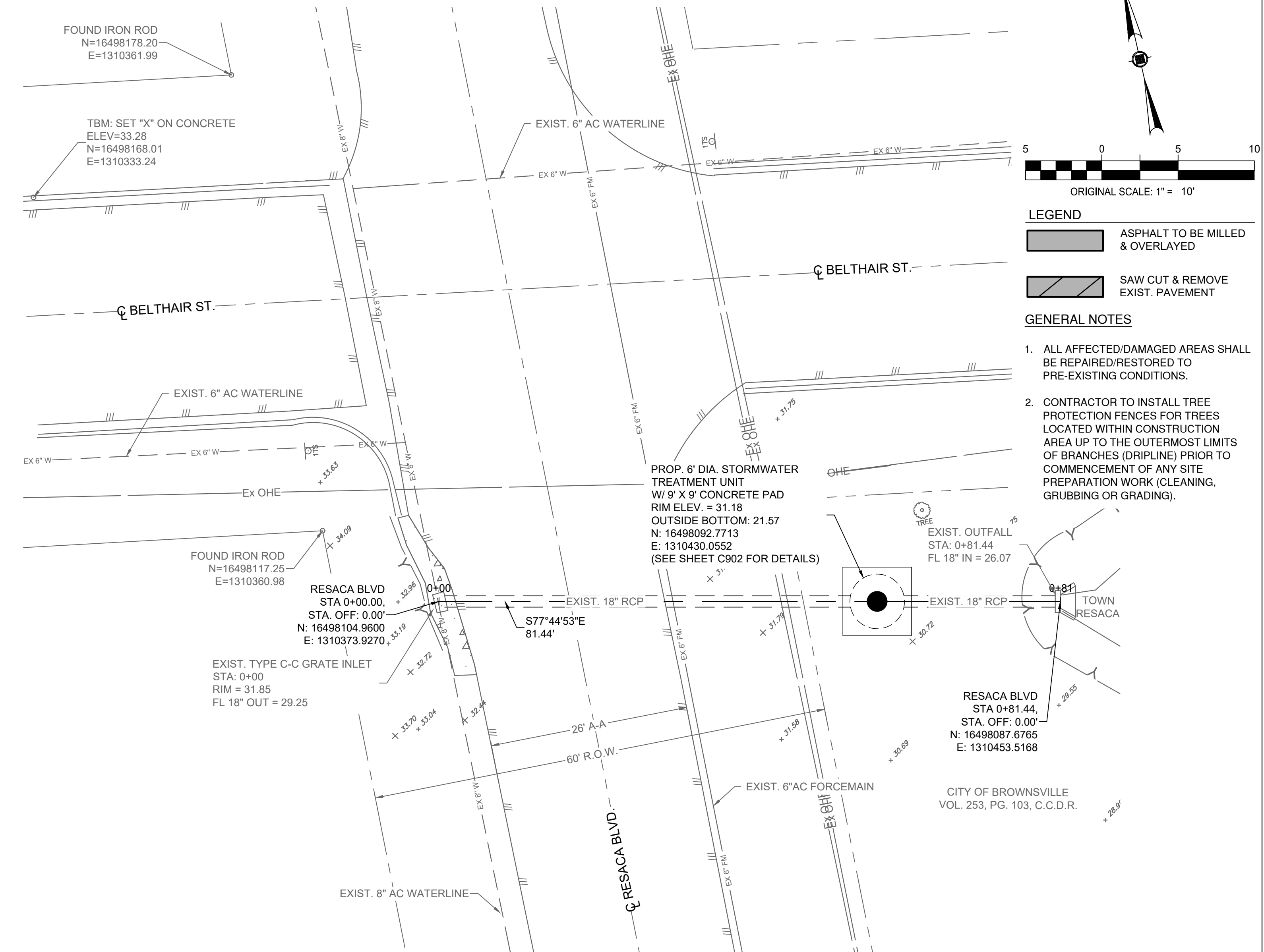


Project No.: 4147.001  
 Issued: 6/26/2023  
 Drawn By: MH  
 Checked By: JWC  
 Scale: AS NOTED  
 Sheet Title  
 MCLELLAND BLVD.  
 (SITE 1 P&P)  
**C501**  
 Sheet Number

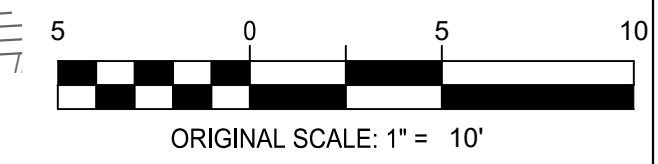
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EROSION & SEDIMENTATION CONTROL PLAN



SITE PLAN

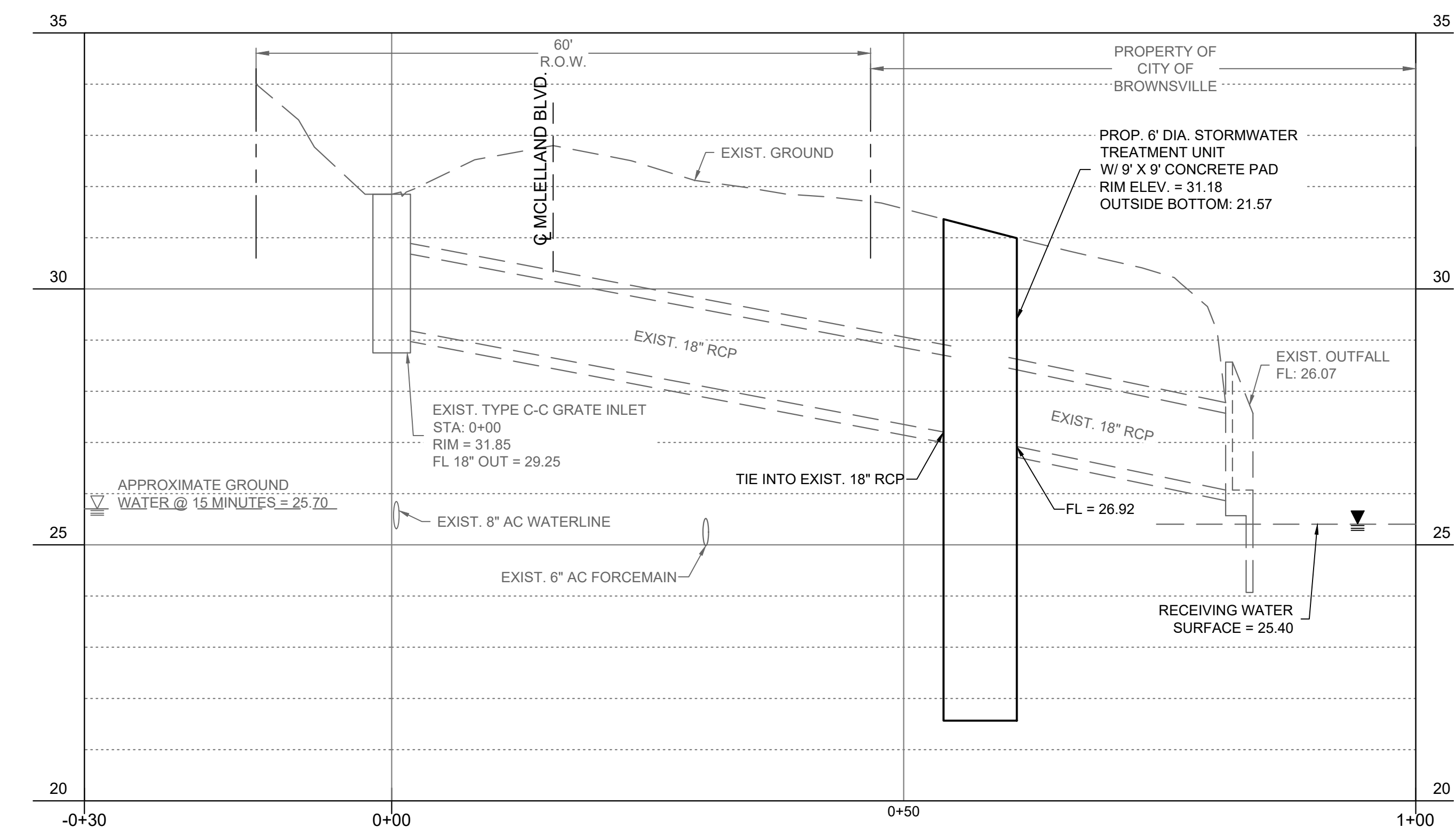


ORIGINAL SCALE: 1" = 10'

- LEGEND**
- ASPHALT TO BE MILLED & OVERLAYED
  - SAW CUT & REMOVE EXIST. PAVEMENT

**GENERAL NOTES**

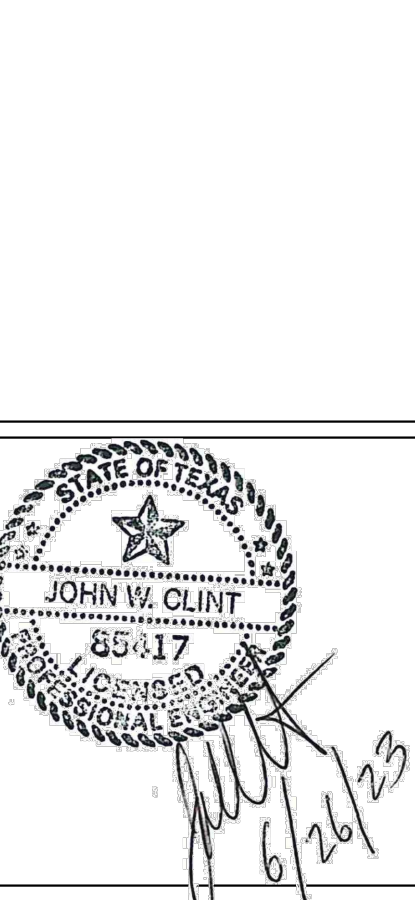
- ALL AFFECTED/DAMAGED AREAS SHALL BE REPAIRED/RESTORED TO PRE-EXISTING CONDITIONS.
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BROWNSVILLE PUB  
TOWN RESACA WATERSHED PROJECT  
BROWNSVILLE, TEXAS



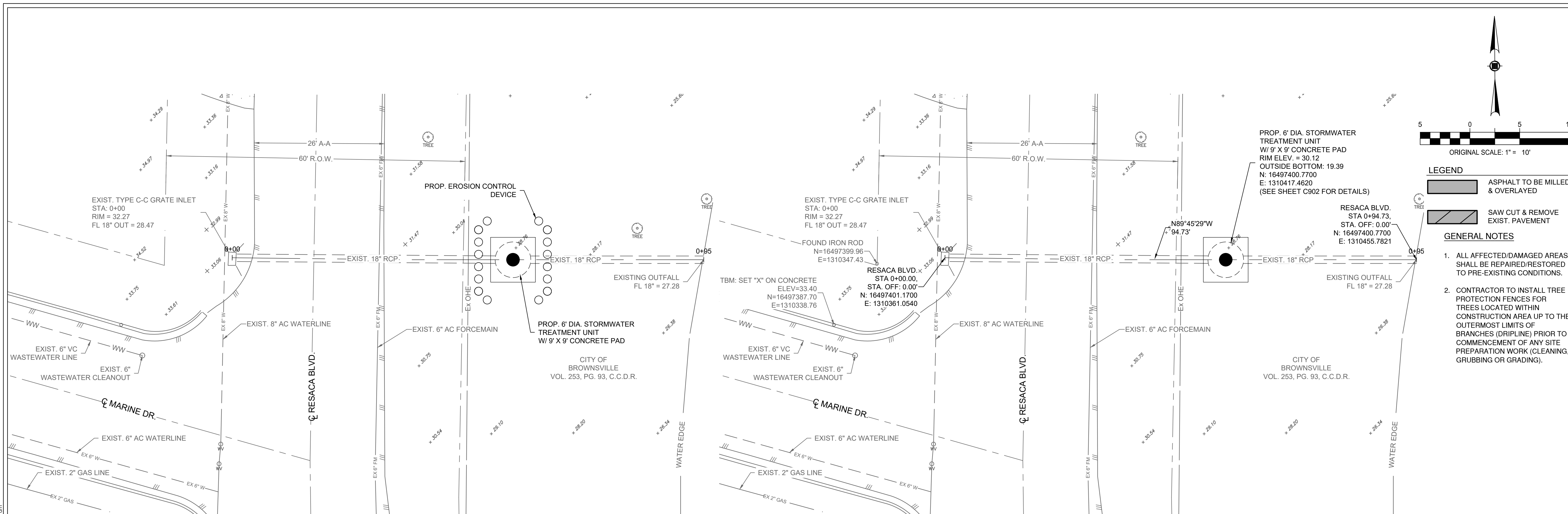
Revision No.	Date	Description



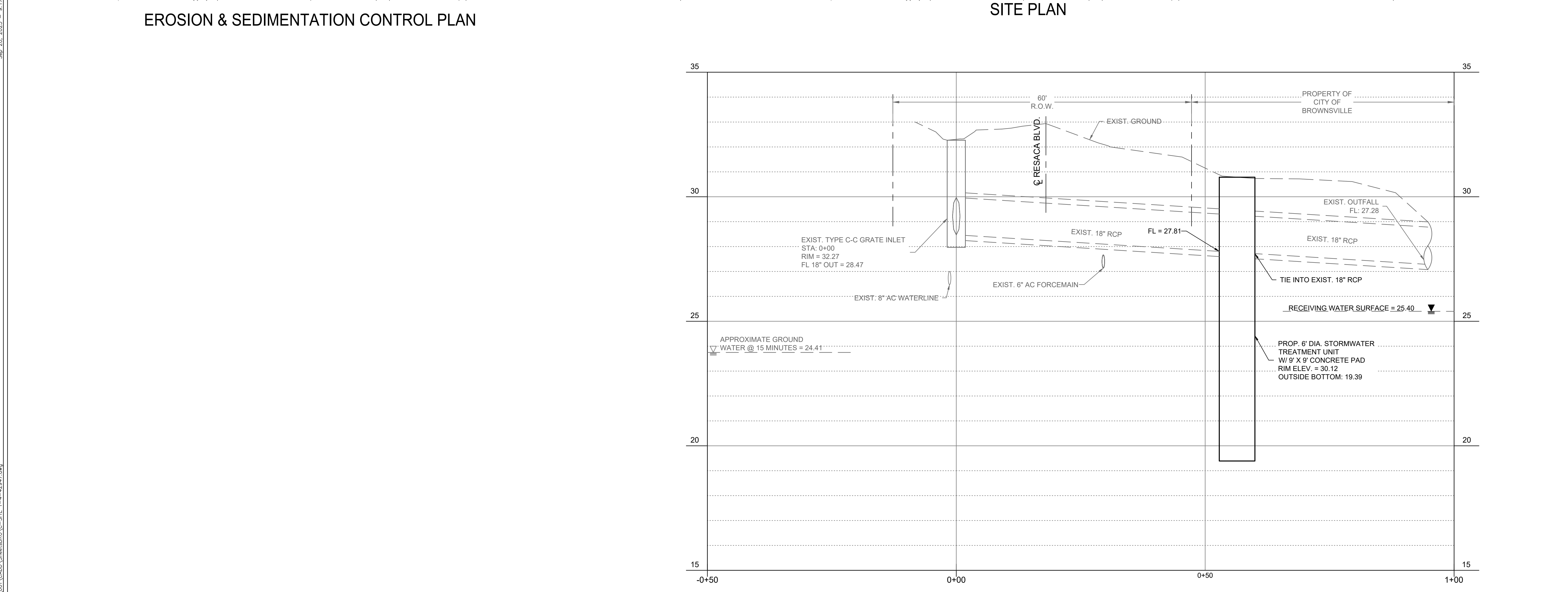
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Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
Sheet Title:	RESACA BLVD (SITE 2 P&P)

C502  
Sheet Number

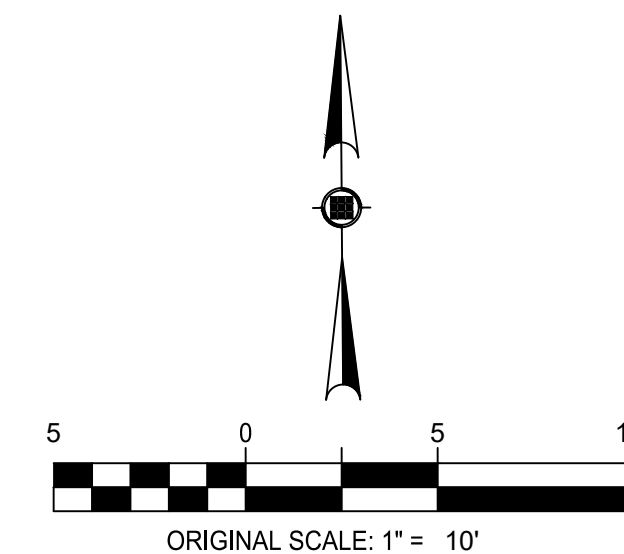
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**EROSION & SEDIMENTATION CONTROL PLAN**



**SITE PLAN**



- LEGEND**
- ASPHALT TO BE MILLED & OVERLAYED
  - SAW CUT & REMOVE EXIST. PAVEMENT
- GENERAL NOTES**
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  2. CONTRACTOR TO INSTALL TREE PROTECTION FENCES FOR TREES LOCATED WITHIN CONSTRUCTION AREA UP TO THE OUTERMOST LIMITS OF BRANCHES (DRIPLINE) PRIOR TO COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEANING, GRUBBING OR GRADING).

**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS



Revision No.	Date	Description

PROPERTY OF CITY OF BROWNSVILLE

EXIST. GROUND

EXIST. TYPE C-C GRATE INLET  
STA: 0+00  
RIM = 32.27  
FL 18" OUT = 28.47

EXIST. 18" RCP FL = 27.81

EXIST. 8" AC WATERLINE

EXIST. 6" AC FORCEMAIN

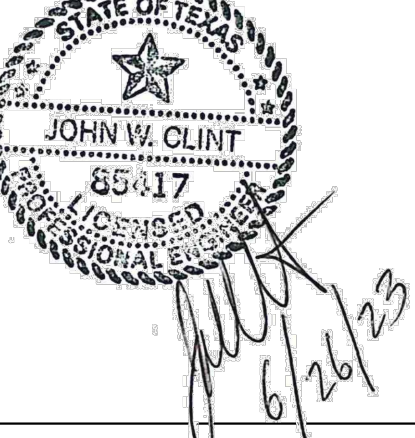
EXIST. OUTFALL FL: 27.28

EXIST. 18" RCP

TIE INTO EXIST. 18" RCP

RECEIVING WATER SURFACE = 25.40

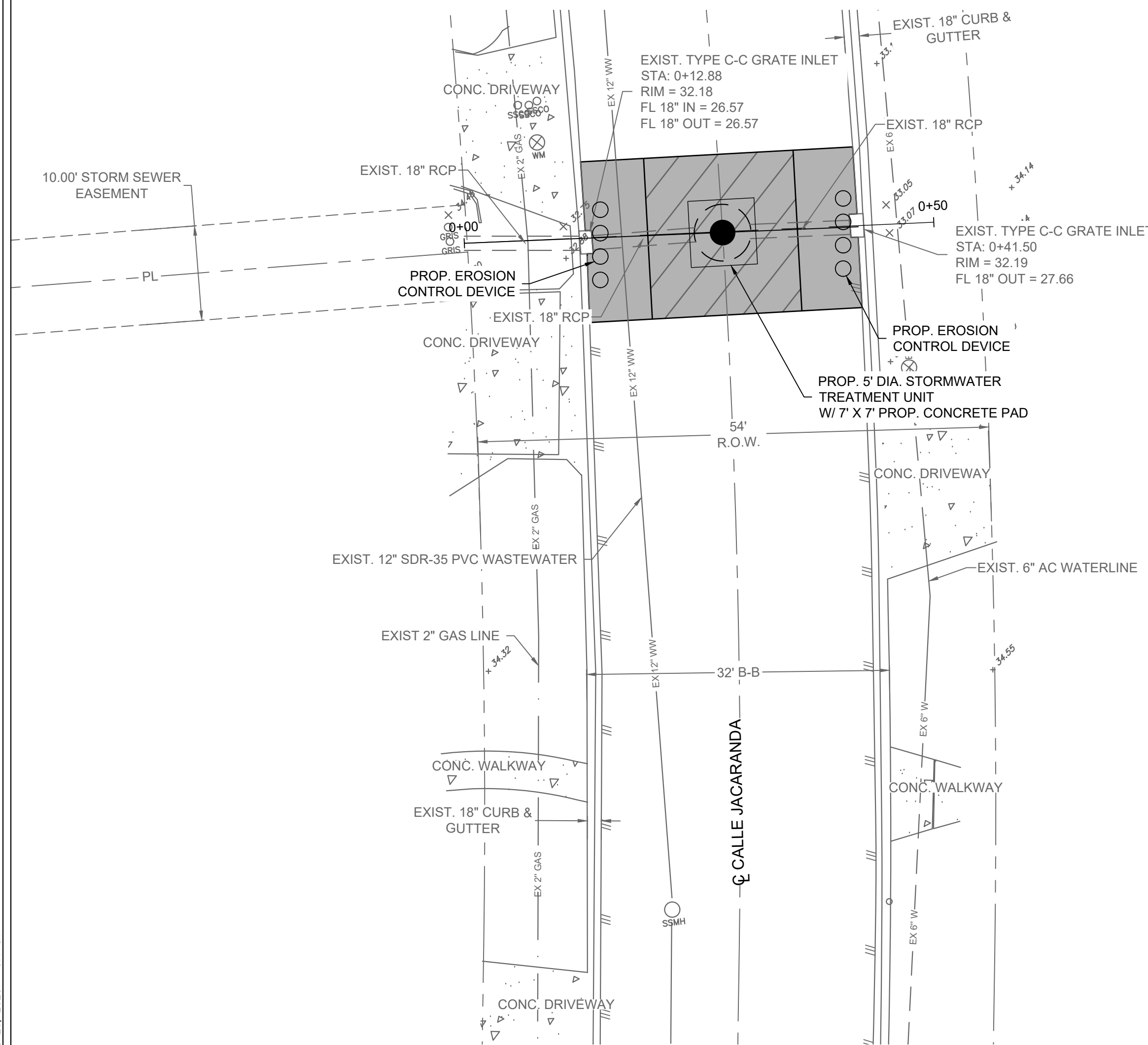
PROP. 6" DIA. STORMWATER TREATMENT UNIT  
W/ 9' X 9' CONCRETE PAD  
RIM ELEV. = 30.12  
OUTSIDE BOTTOM: 19.39



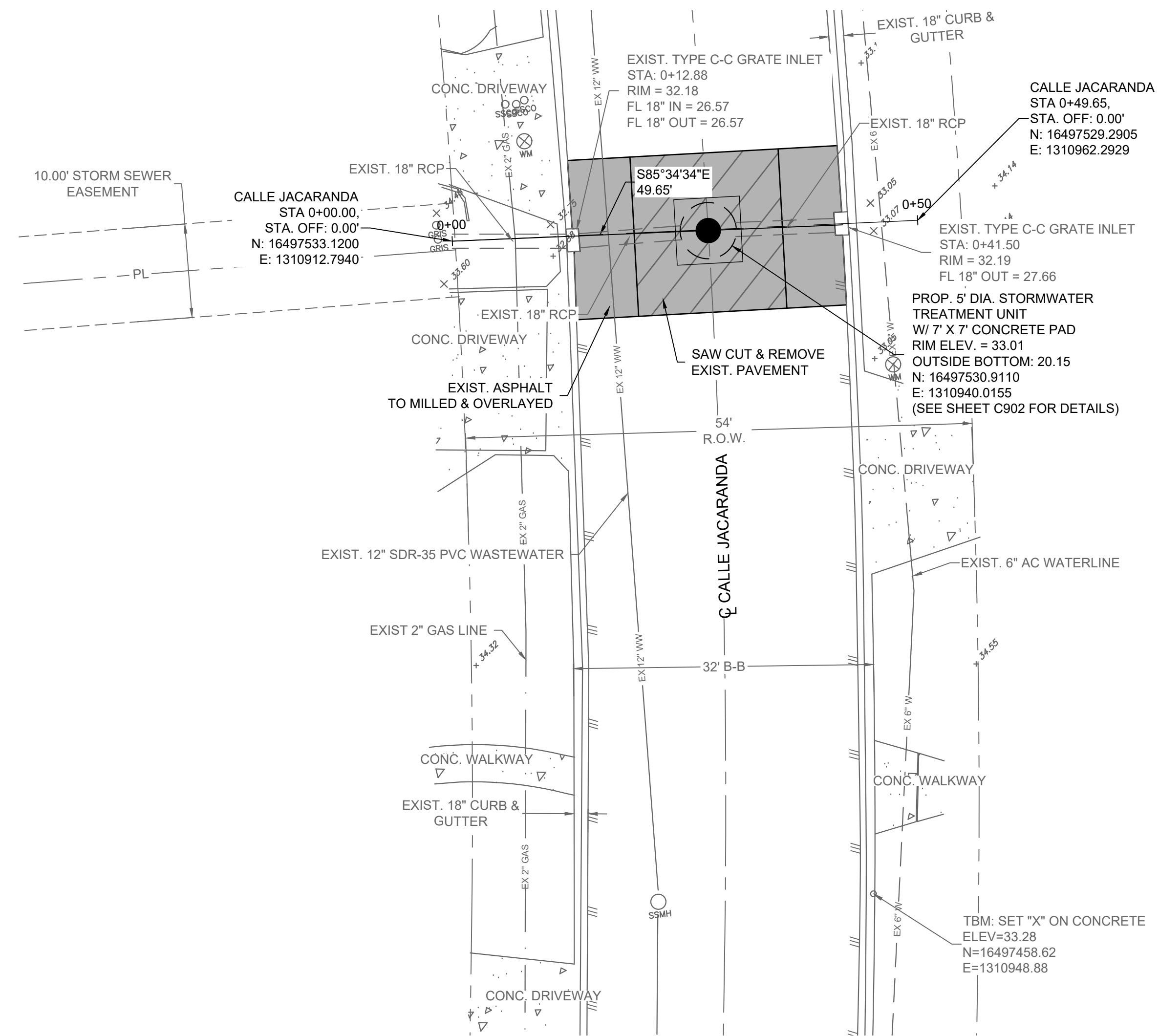
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Issued: 6/26/2023  
Drawn By: MH  
Checked By: JWC  
Scale: AS NOTED  
Sheet Title  
RESACA BLVD  
(SITE 3 P&P)  
**C503**  
Sheet Number

Sep. 20, 2023 - 8:17am

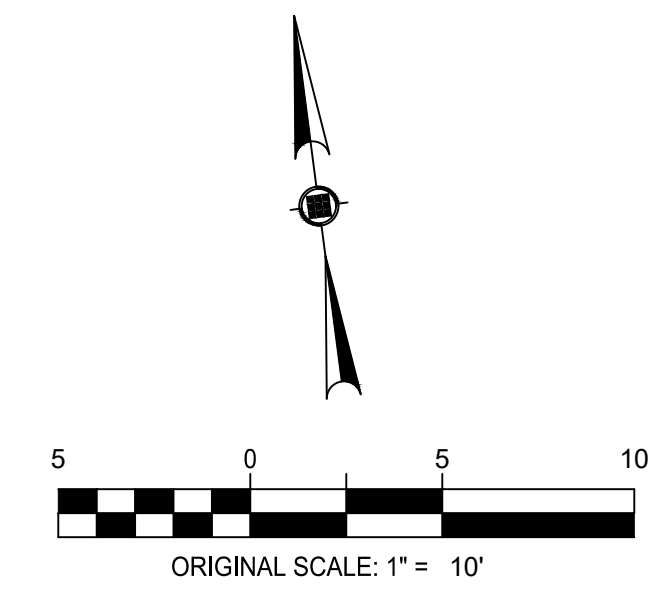
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EROSION & SEDIMENTATION CONTROL PLAN



SITE PLAN

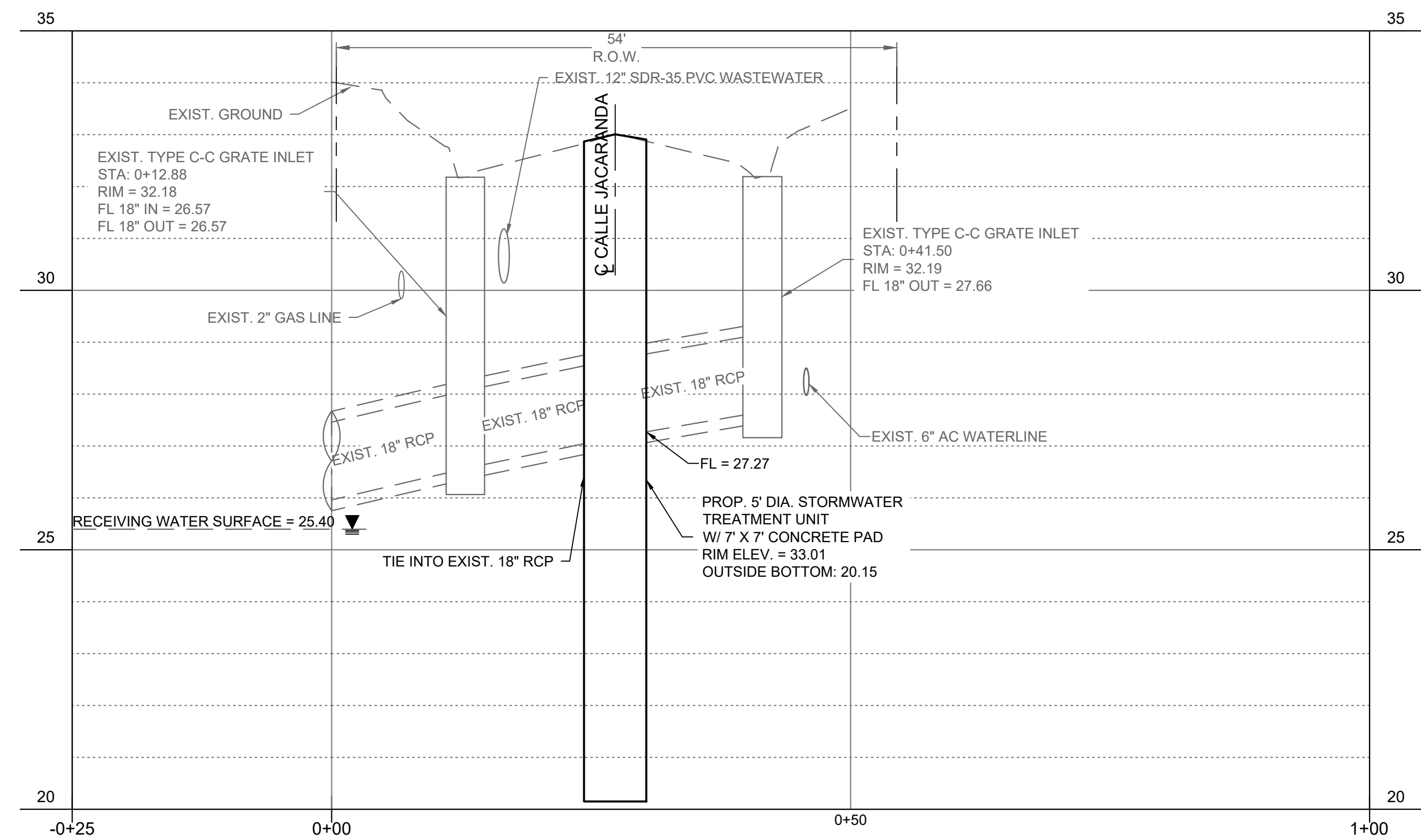


LEGEND

- ASPHALT TO BE MILLED & OVERLAYED
- SAW CUT & REMOVE EXIST. PAVEMENT

GENERAL NOTES

- ALL AFFECTED/DAMAGED AREAS SHALL BE REPAIRED/RESTORED TO PRE-EXISTING CONDITIONS.
- CONTRACTOR TO INSTALL TREE PROTECTION FENCES FOR TREES LOCATED WITHIN CONSTRUCTION AREA UP TO THE OUTERMOST LIMITS OF BRANCHES (DRIPLINE) PRIOR TO COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEANING, GRUBBING OR GRADING).



**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS



Revision No.	Date	Description



Project No.: 4147.001  
Issued: 6/26/2023  
Drawn By: MH  
Checked By: JWC  
Scale: AS NOTED

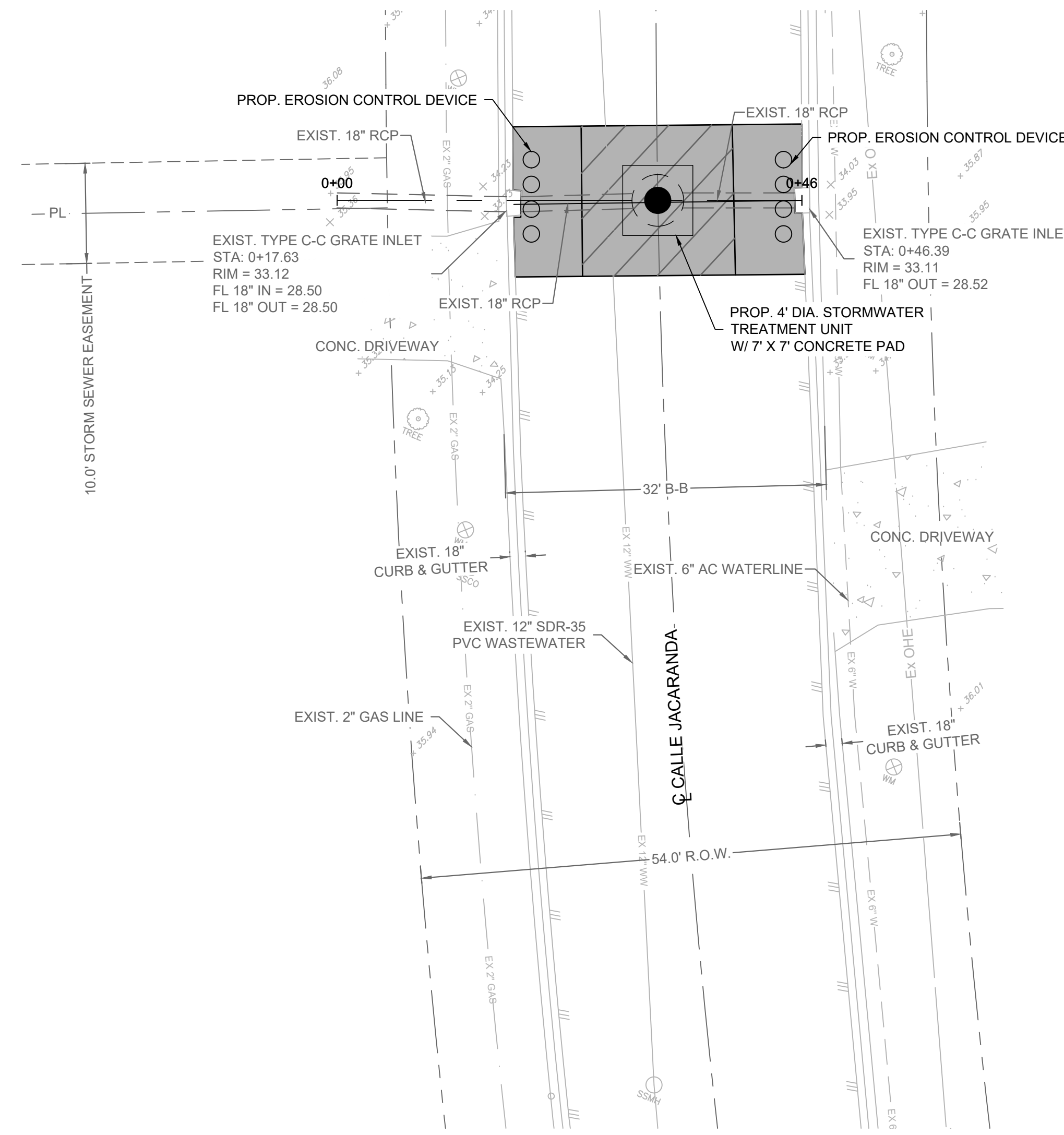
Sheet Title  
CALLE JACARANDA  
(SITE 4 P&P)

C504  
Sheet Number

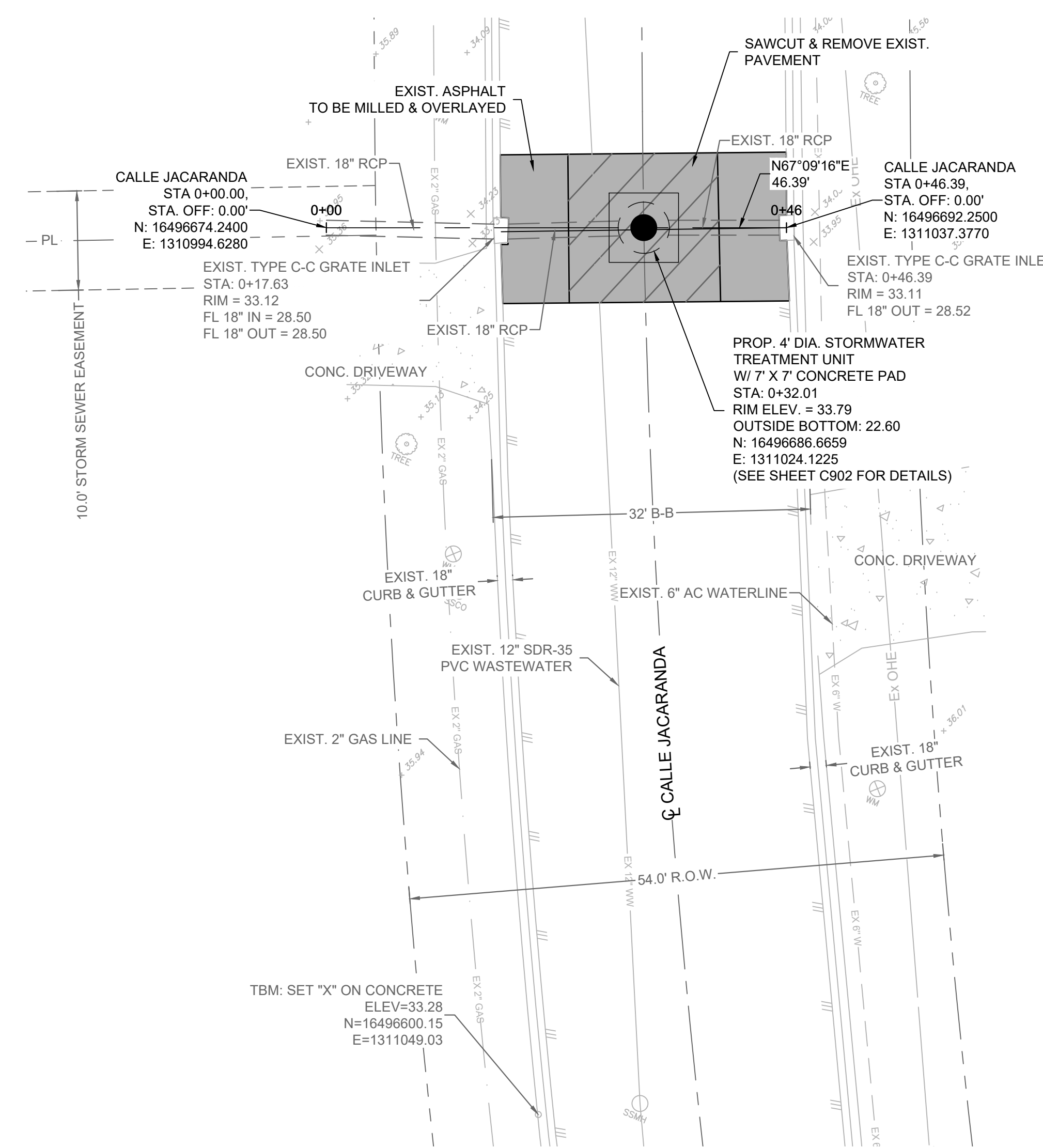


Sep. 20, 2023 - 8:15am

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**EROSION & SEDIMENTATION CONTROL PLAN**

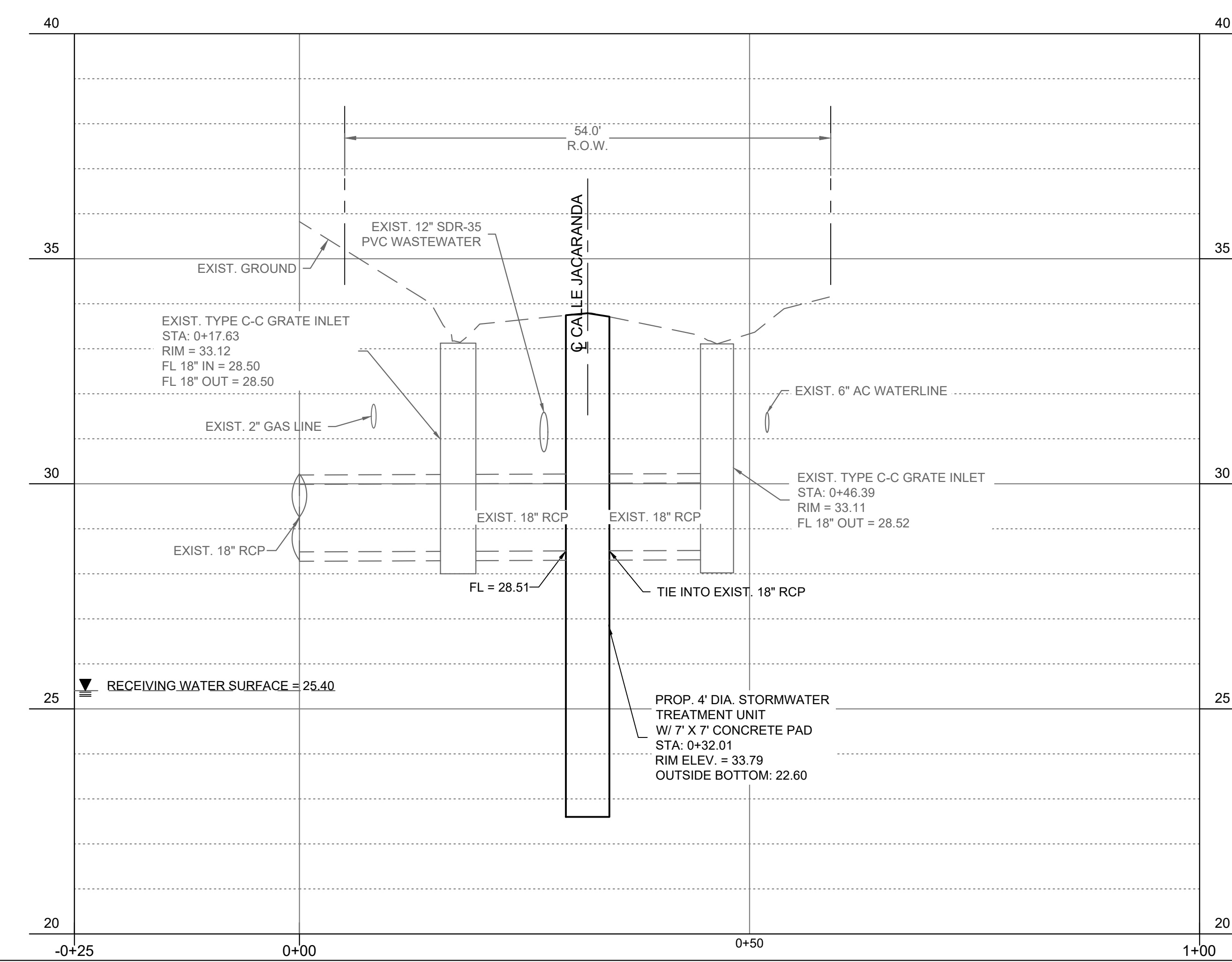


**SITE PLAN**



- LEGEND**
- ASPHALT TO BE MILLED & OVERLAYED
  - SAW CUT & REMOVE EXIST. PAVEMENT

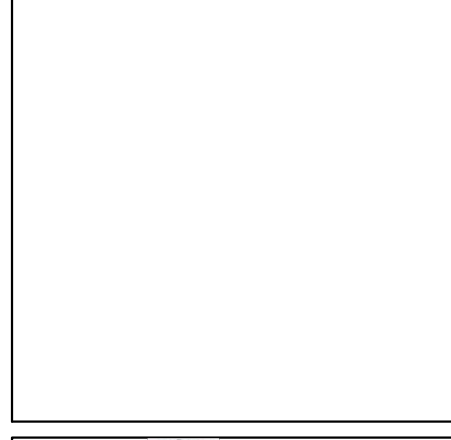
- GENERAL NOTES**
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**BROWNSVILLE PUB**  
TOWN RESACA WATERSHED PROJECT  
BROWNSVILLE, TEXAS

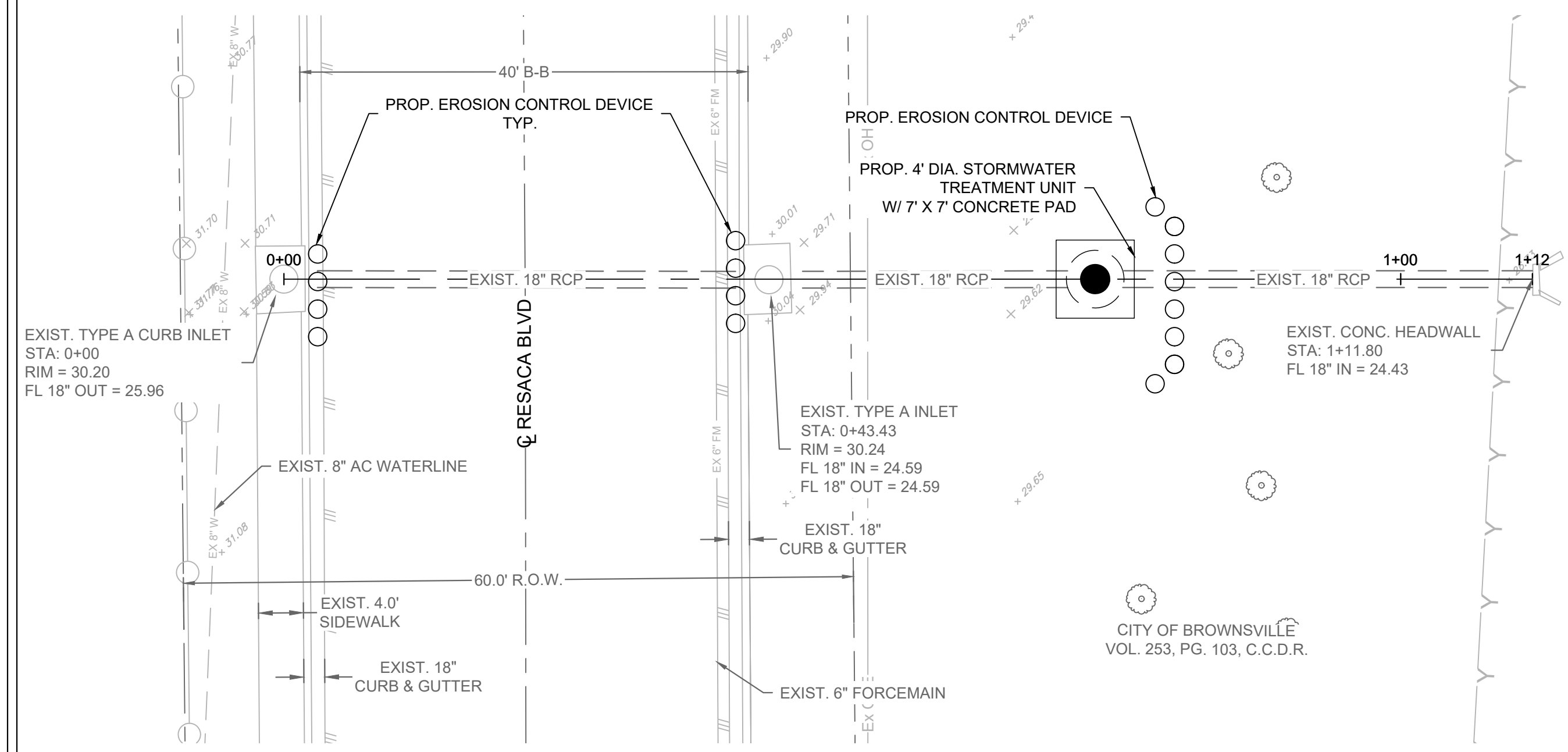


Revision No.	Date	Description

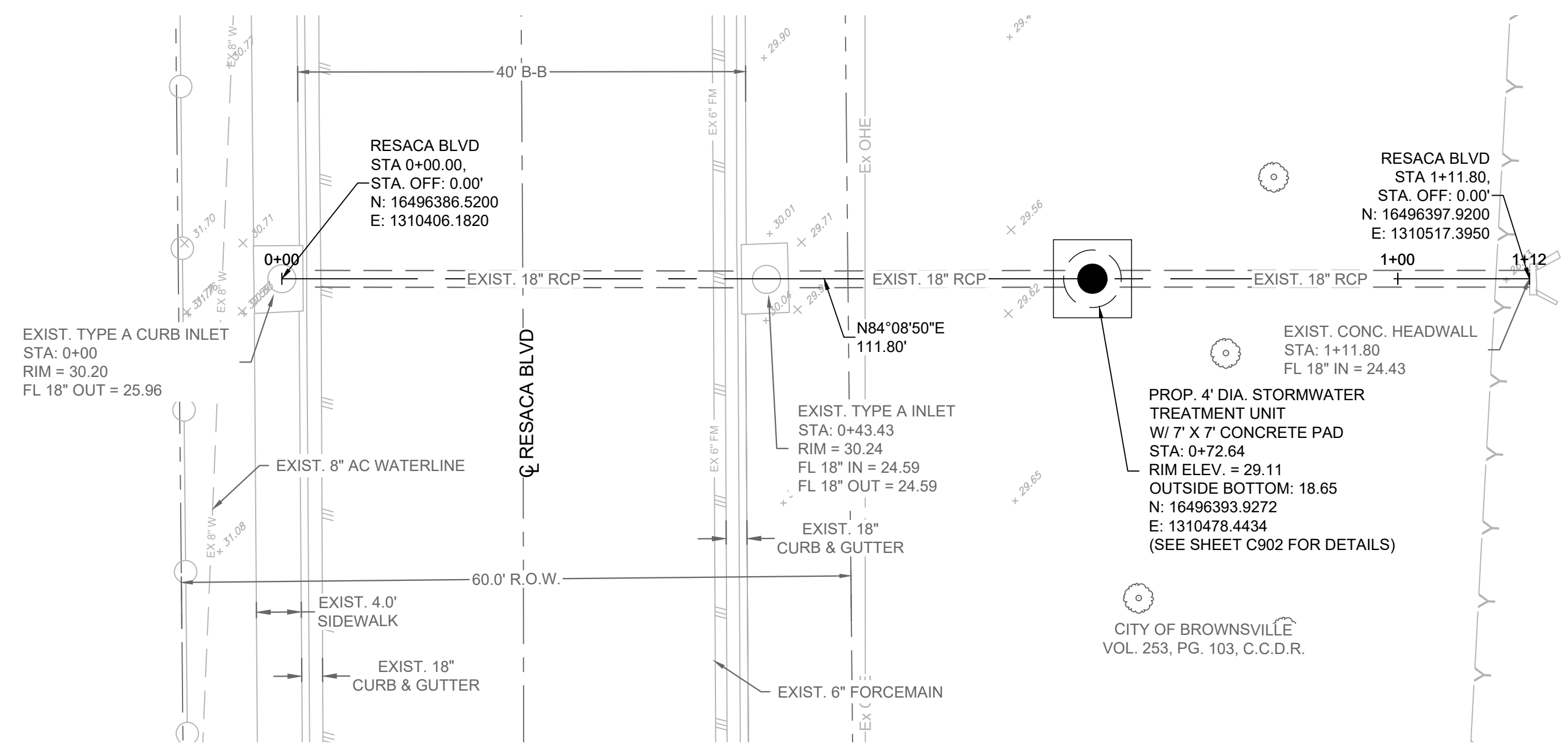


Project No.:	41147.001
Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
Sheet Title	CALLE JACARANDA (SITE 5 P&P)
Sheet Number	C505

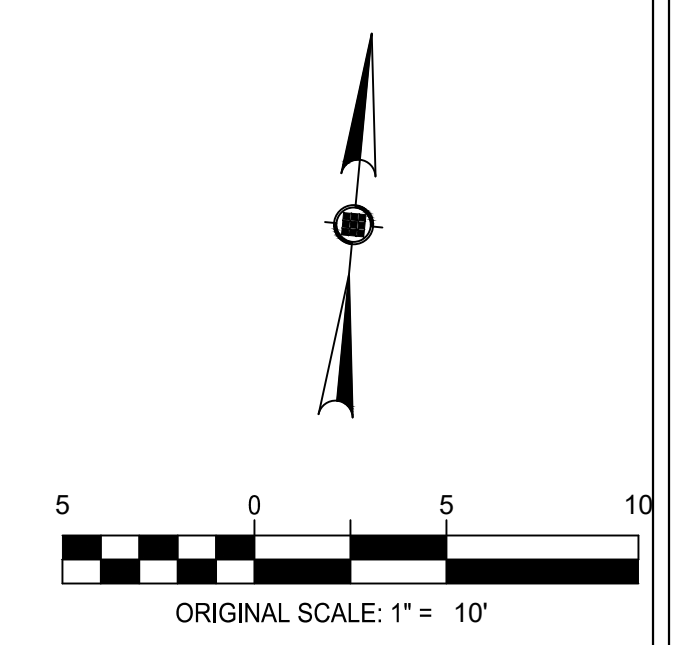
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**EROSION & SEDIMENTATION CONTROL PLAN**

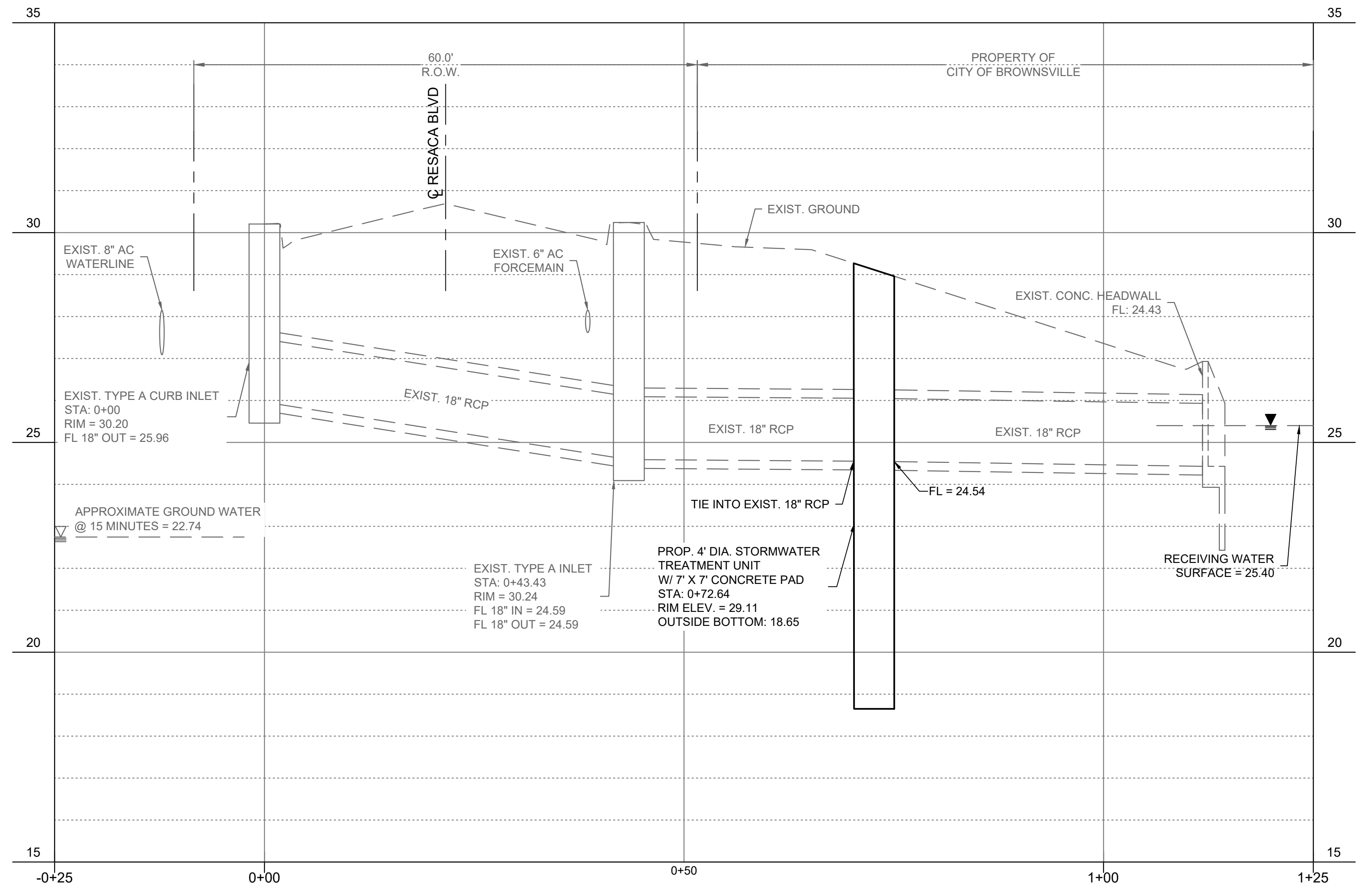


**SITE PLAN**



- LEGEND**
- ASPHALT TO BE MILLED & OVERLAYED
  - SAW CUT & REMOVE EXIST. PAVEMENT

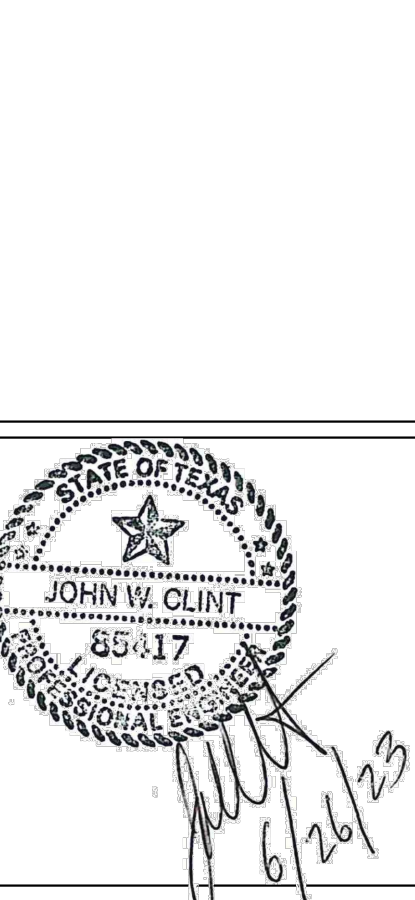
- GENERAL NOTES**
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS

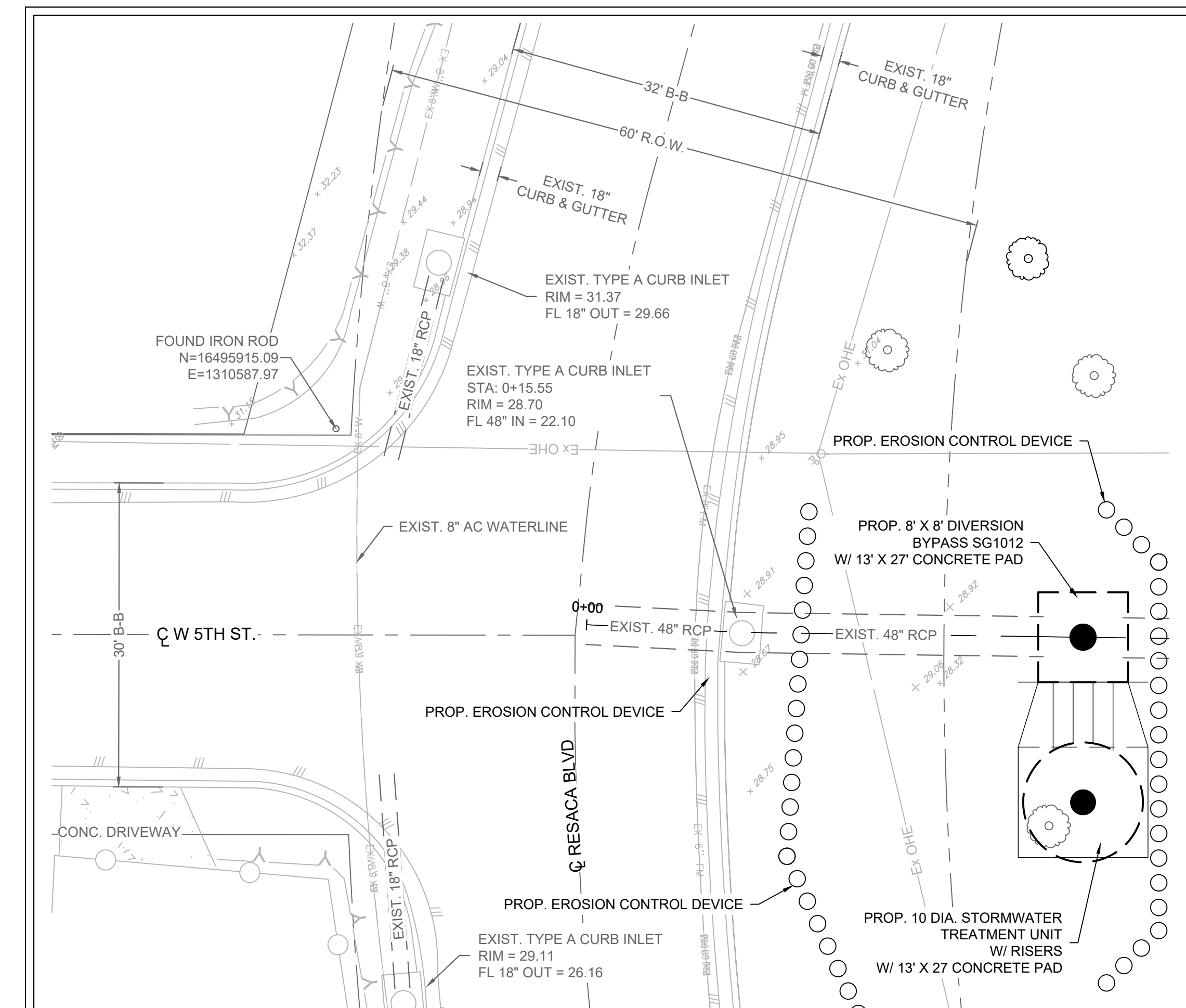


Revision No.	Date	Description

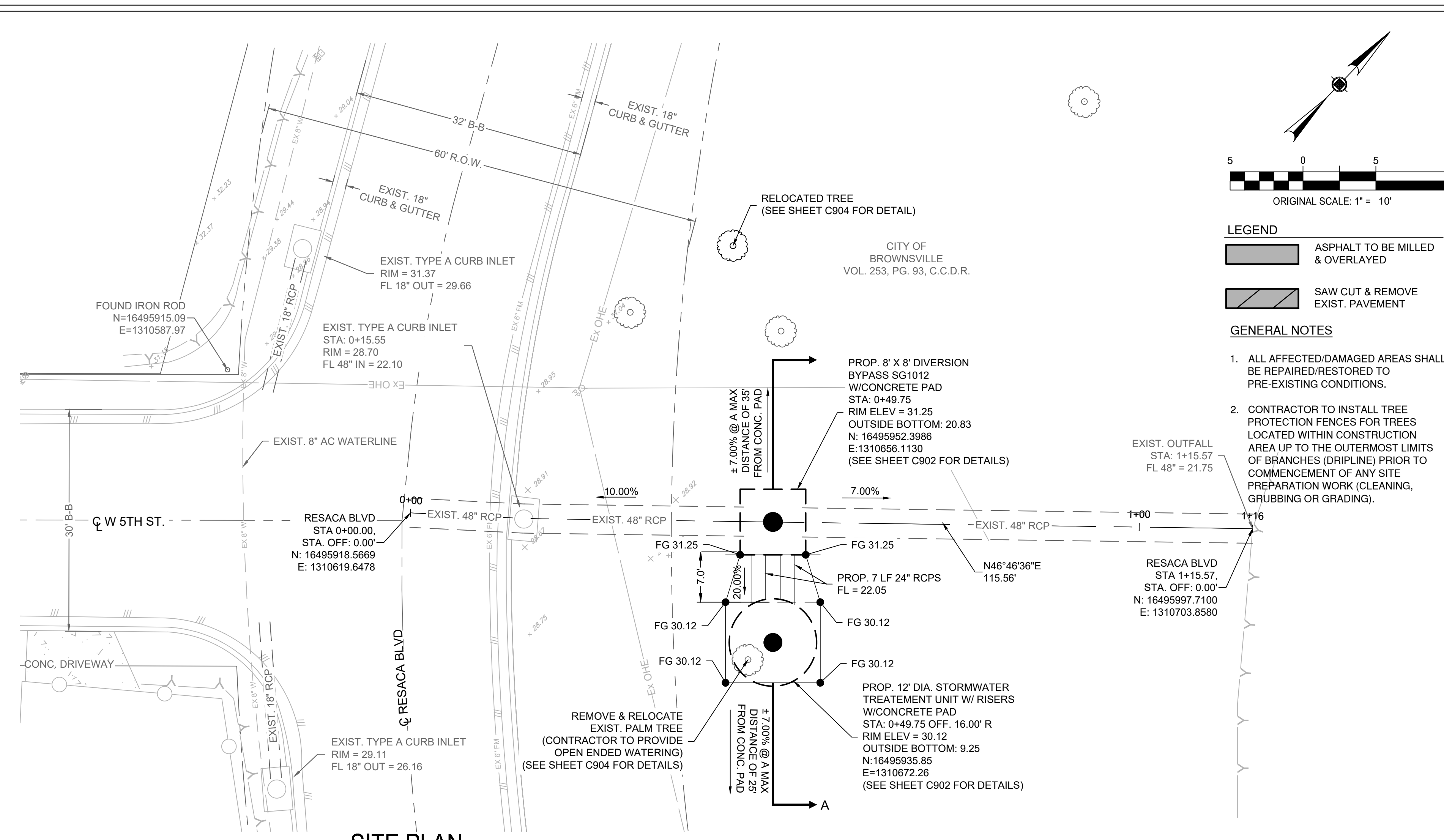


Project No.:	4147.001
Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
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Sheet Number	C506

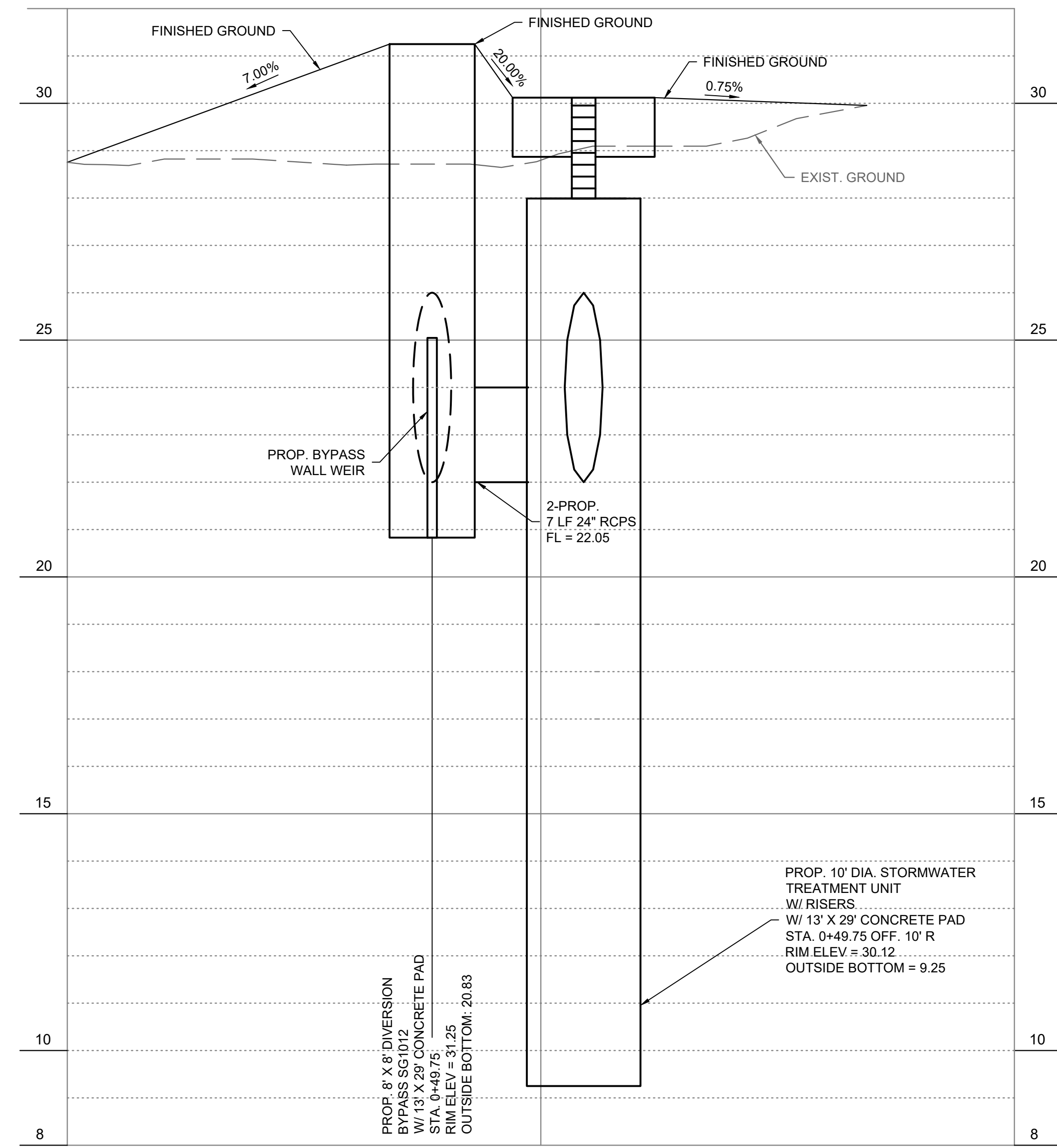




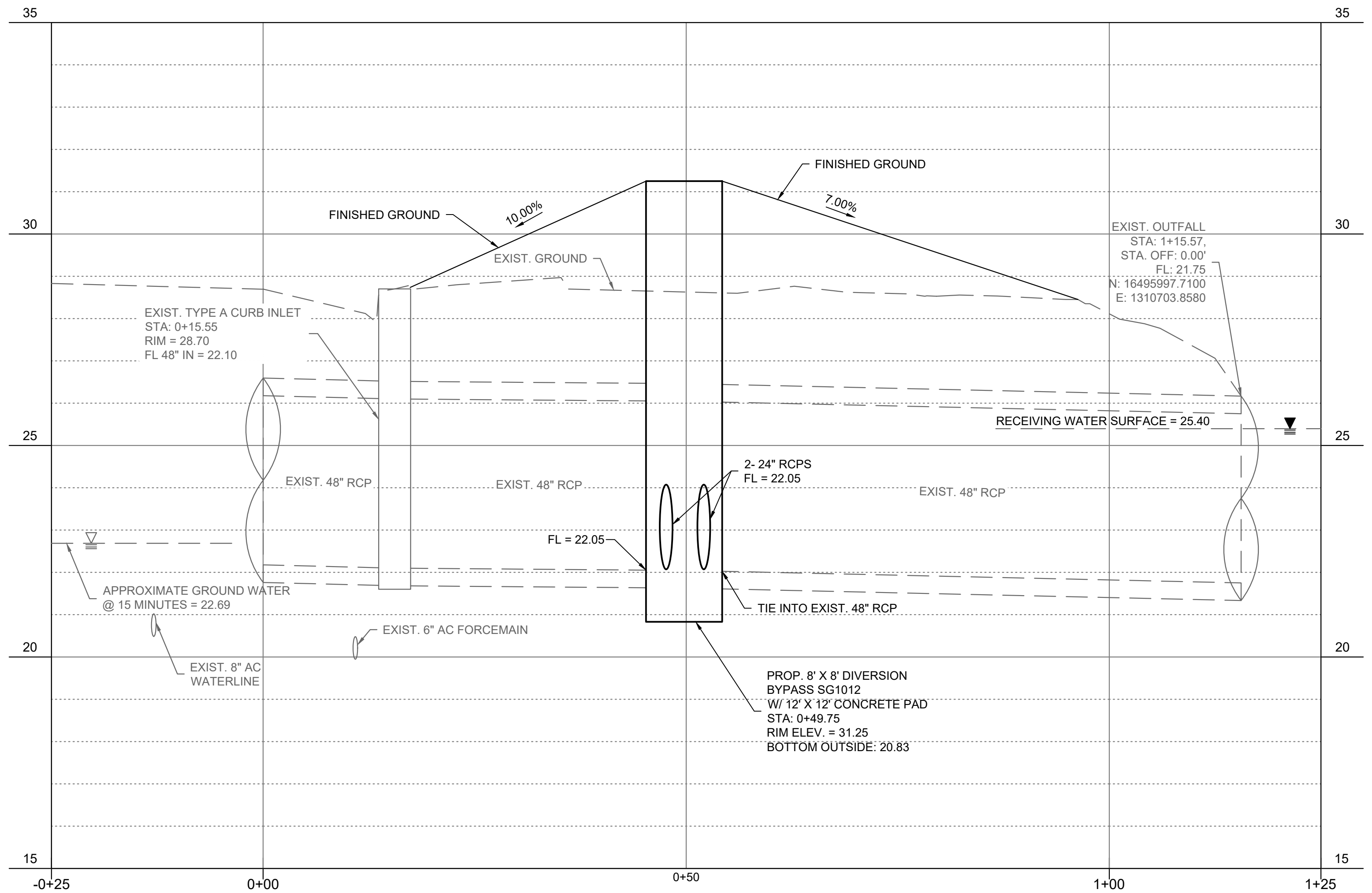
**EROSION & SEDIMENTATION CONTROL PLAN**



**SITE PLAN**



**SECTION A-A**



- LEGEND**
- ASPHALT TO BE MILLED & OVERLAYED
  - SAW CUT & REMOVE EXIST. PAVEMENT

- GENERAL NOTES**
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Sep. 20, 2023 - 9:22am  
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS

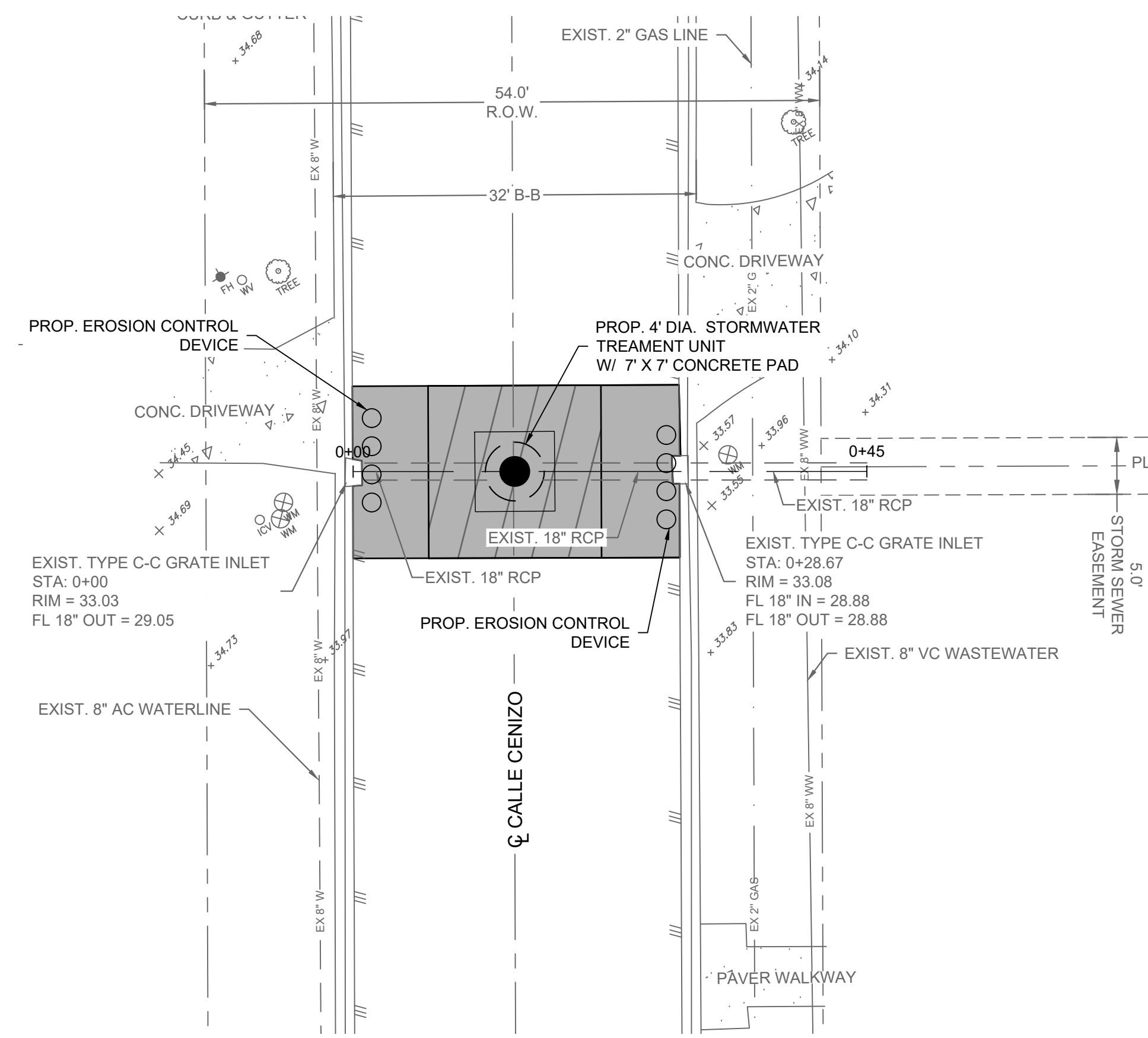


Revision No.	Date	Description

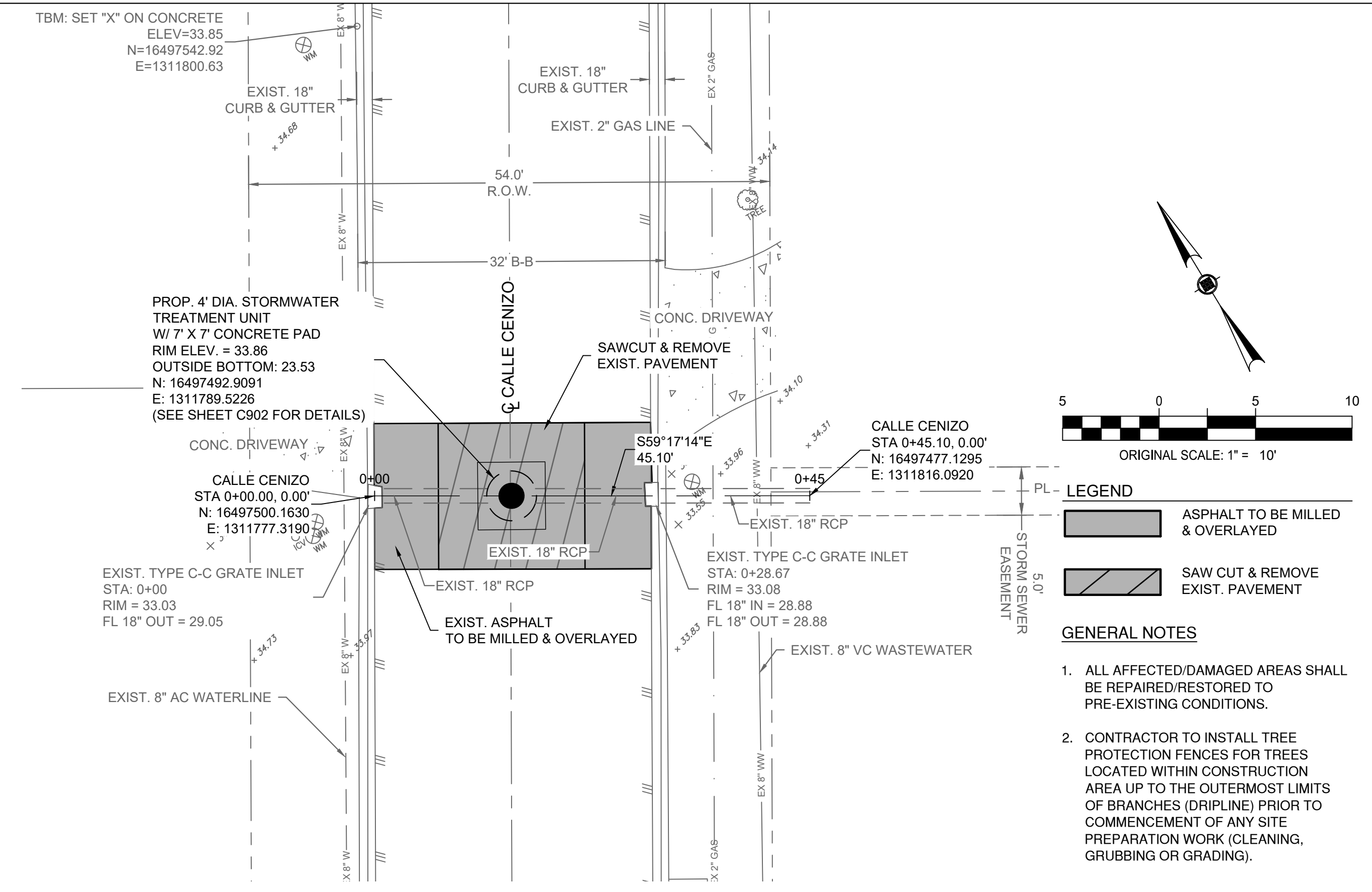


Project No.:	4147.001
Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
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Sheet Number:	C508

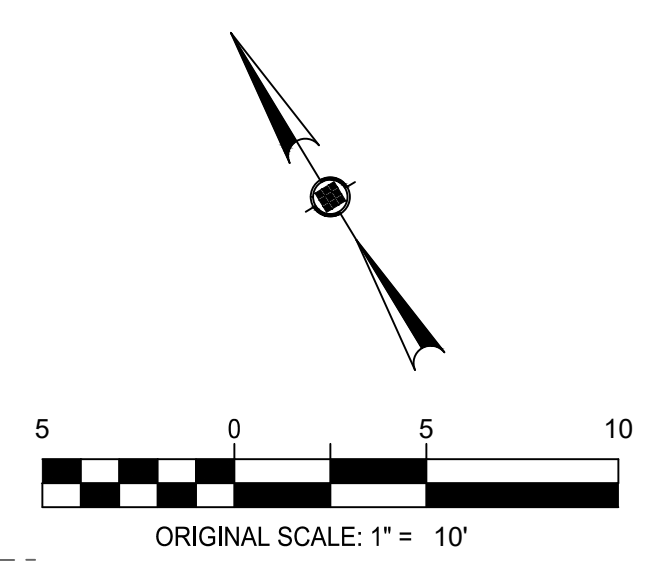
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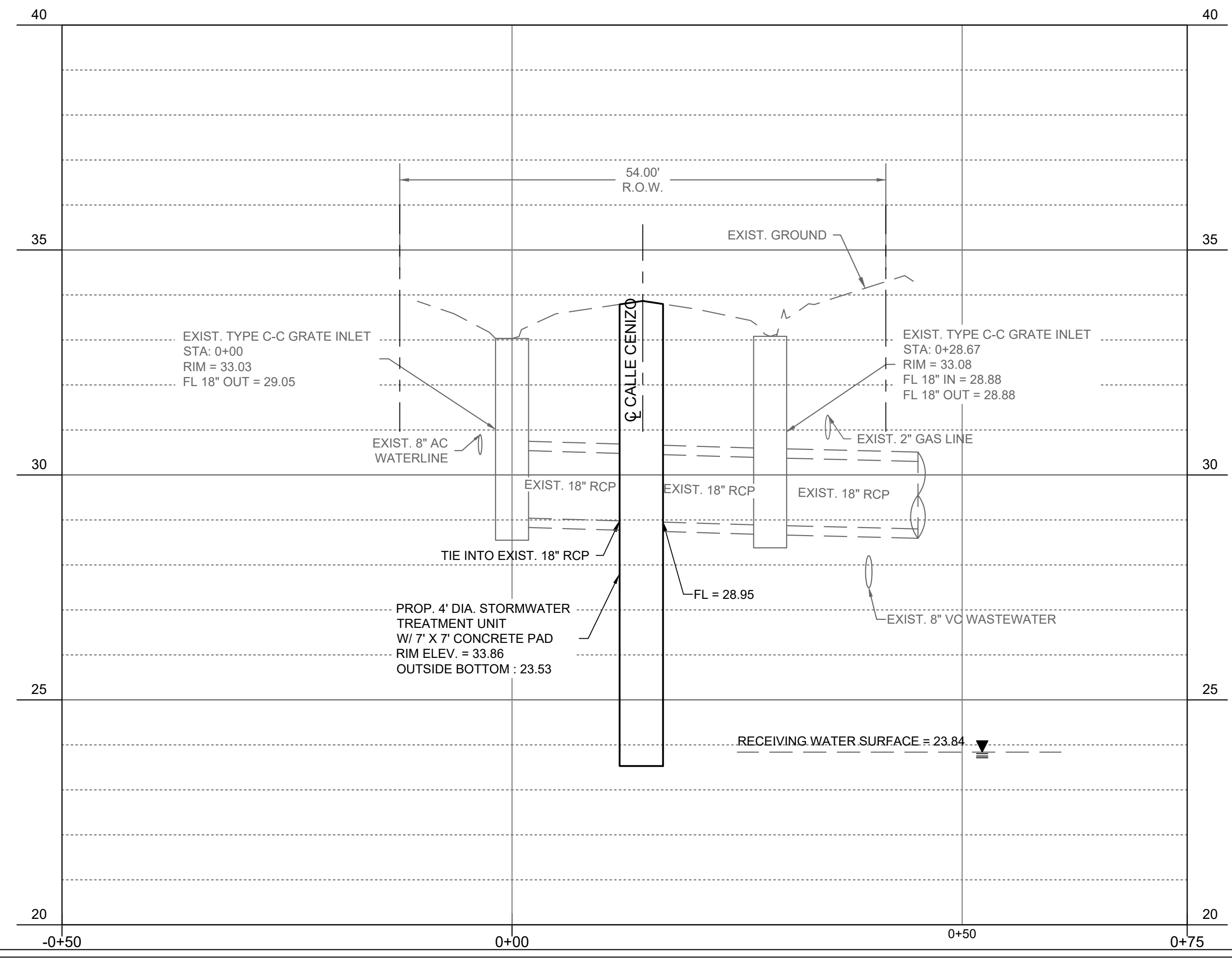
EROSION & SEDIMENTATION CONTROL PLAN



SITE PLAN



- LEGEND**
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  - SAW CUT & REMOVE EXIST. PAVEMENT
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS

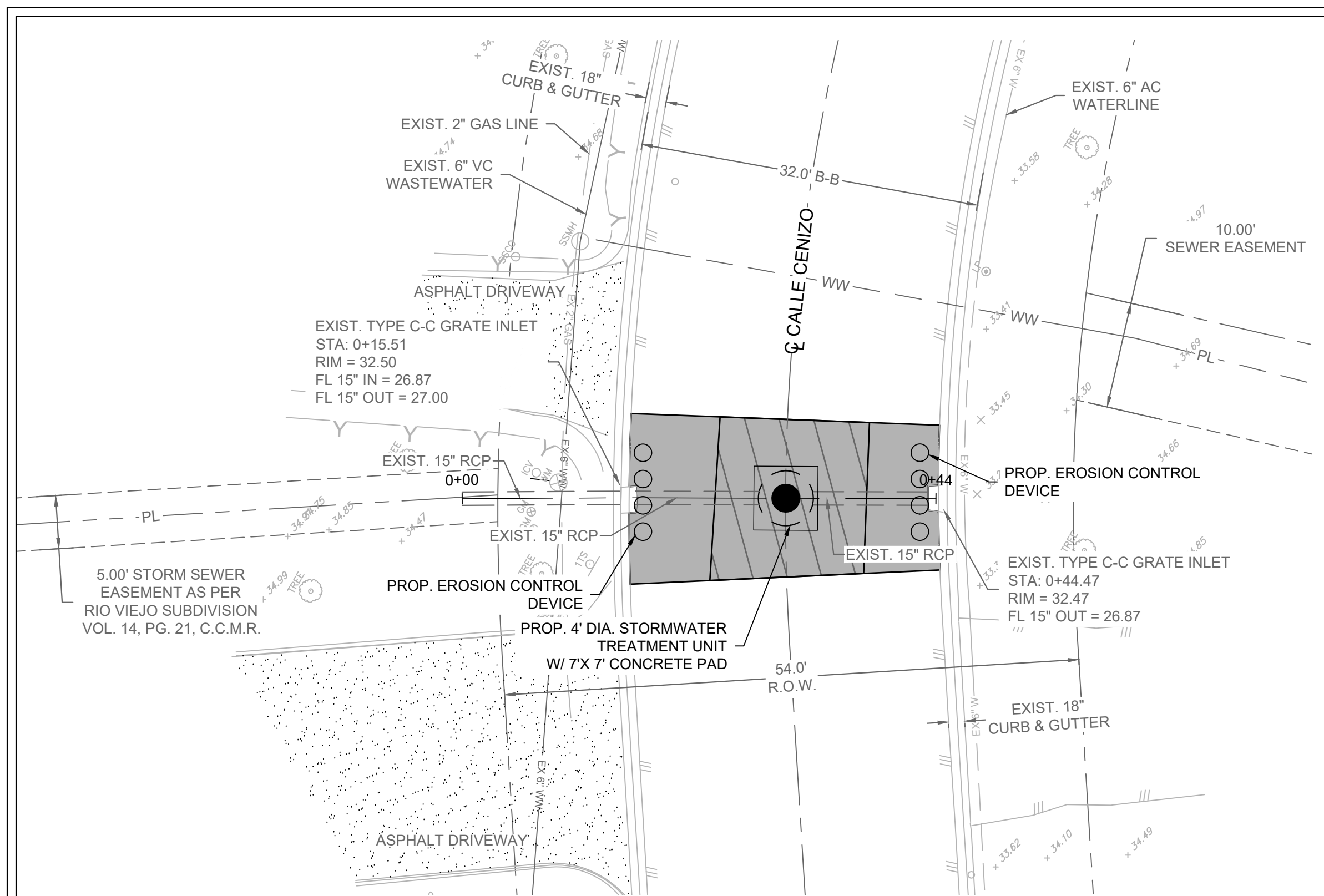


Revision No.	Date	Description

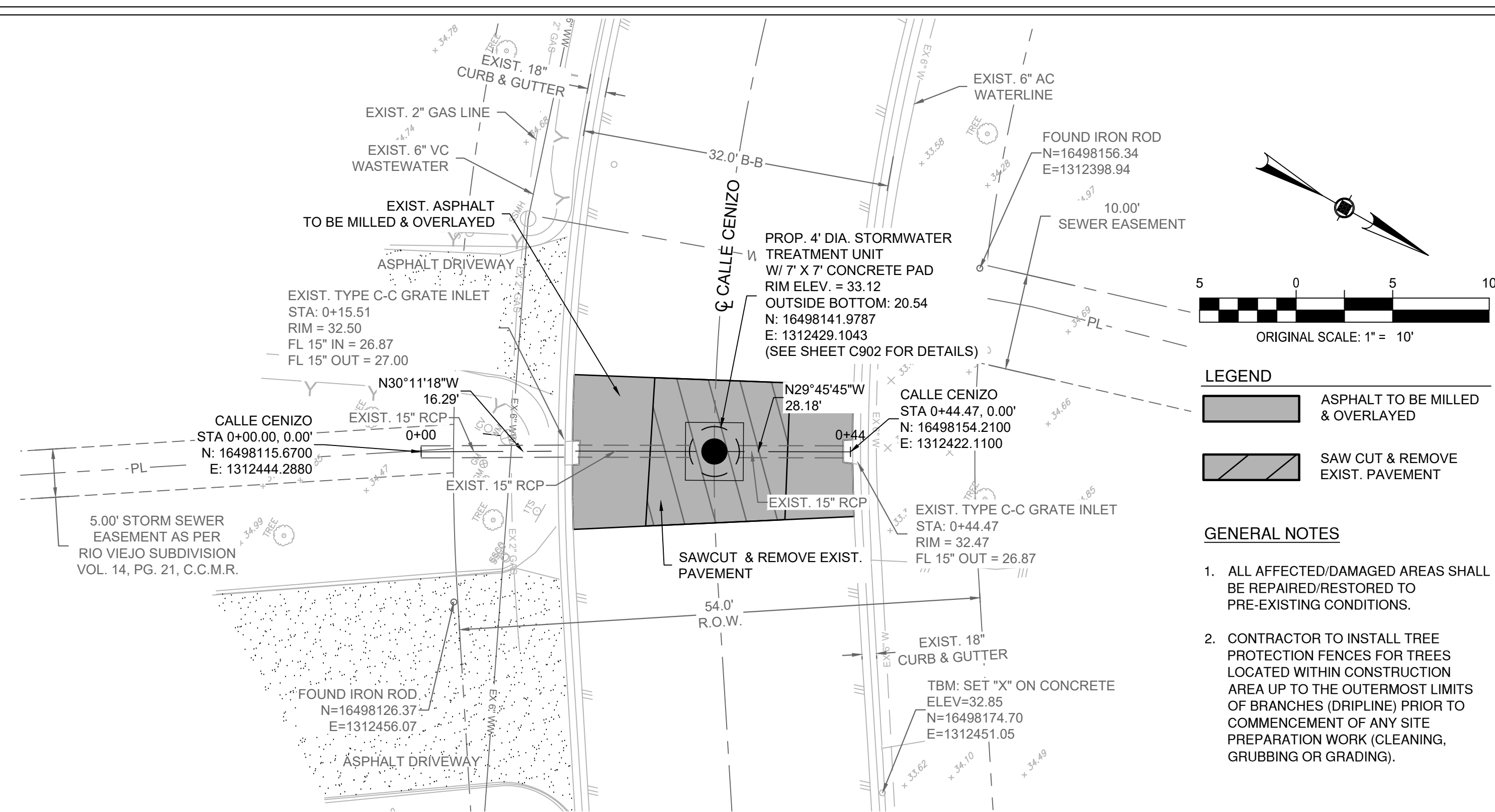


Project No.:	4147.001
Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
Sheet Title	CALLE CENIZO (SITE 9 P&P)
Sheet Number	C509

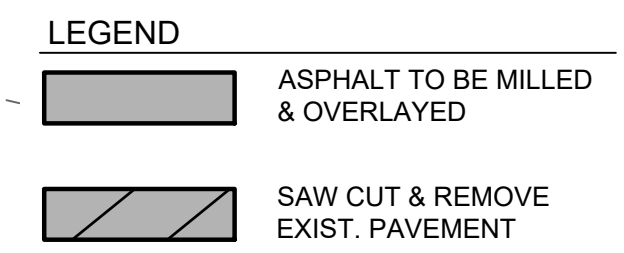
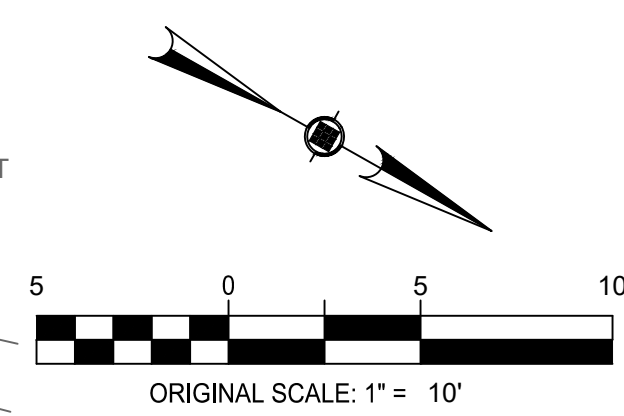
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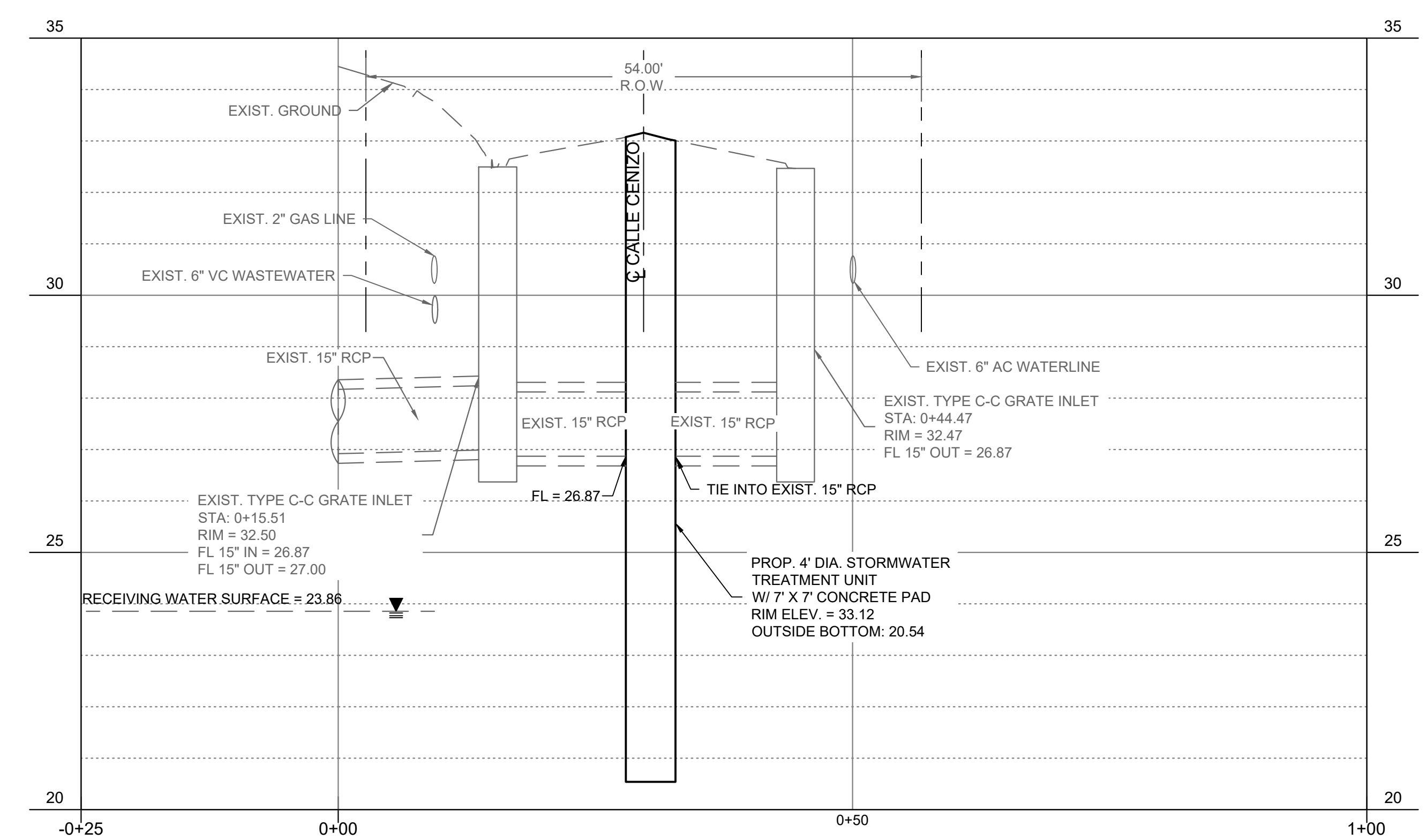
EROSION & SEDIMENTATION CONTROL PLAN



SITE PLAN



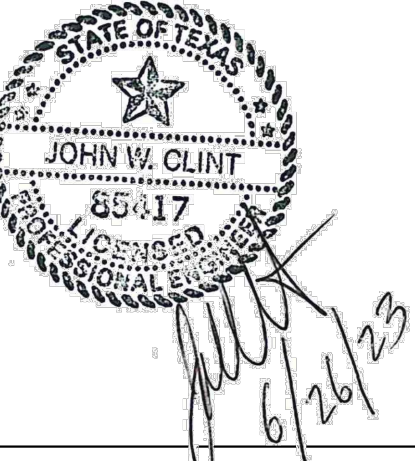
- GENERAL NOTES
- ALL AFFECTED/DAMAGED AREAS SHALL BE REPAIRED/RESTORED TO PRE-EXISTING CONDITIONS.
  - CONTRACTOR TO INSTALL TREE PROTECTION FENCES FOR TREES LOCATED WITHIN CONSTRUCTION AREA UP TO THE OUTERMOST LIMITS OF BRANCHES (DRIPLINE) PRIOR TO COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEANING, GRUBBING OR GRADING).



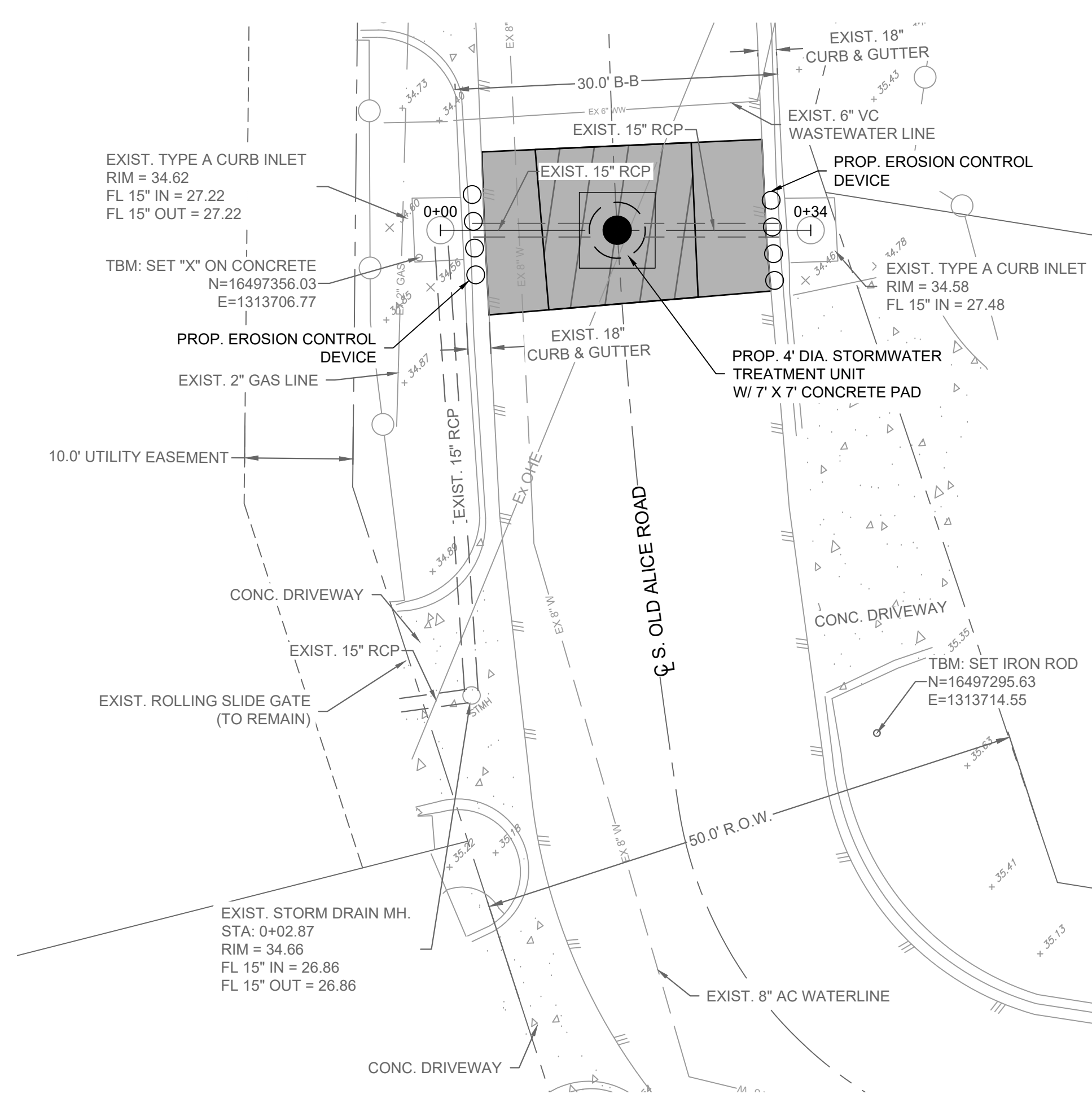
**BROWNSVILLE PUB**  
TOWN RESACA WATERSHED PROJECT  
BROWNSVILLE, TEXAS



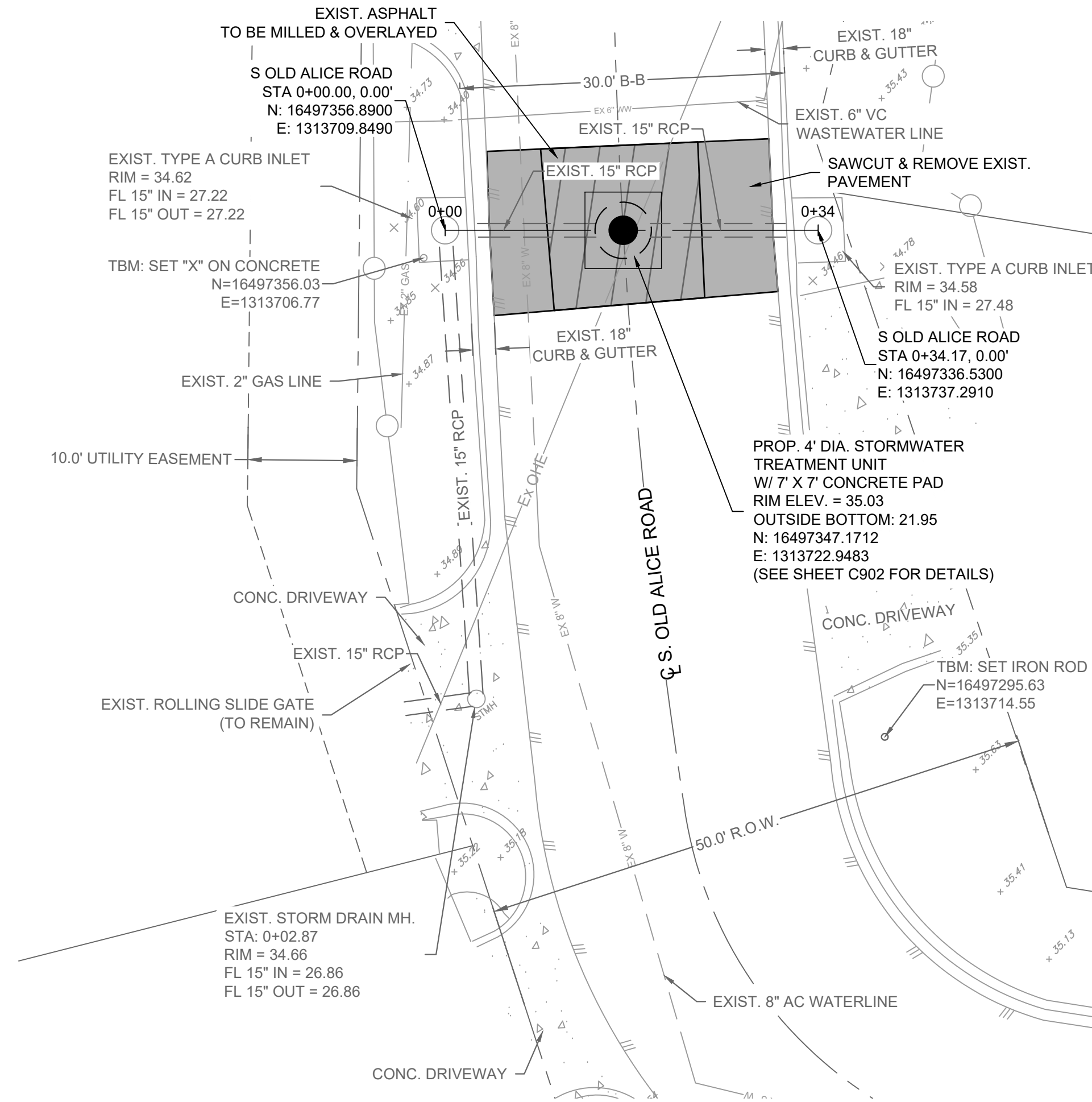
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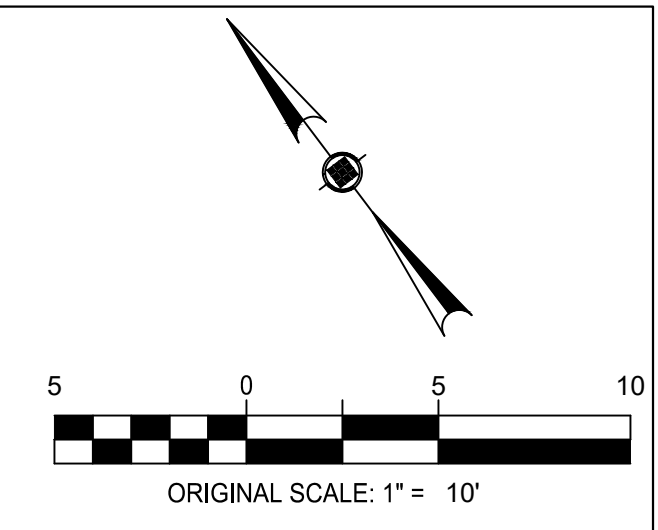
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Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
Sheet Title	CALLE CENIZO (SITE 10 P&P)
Sheet Number	C510



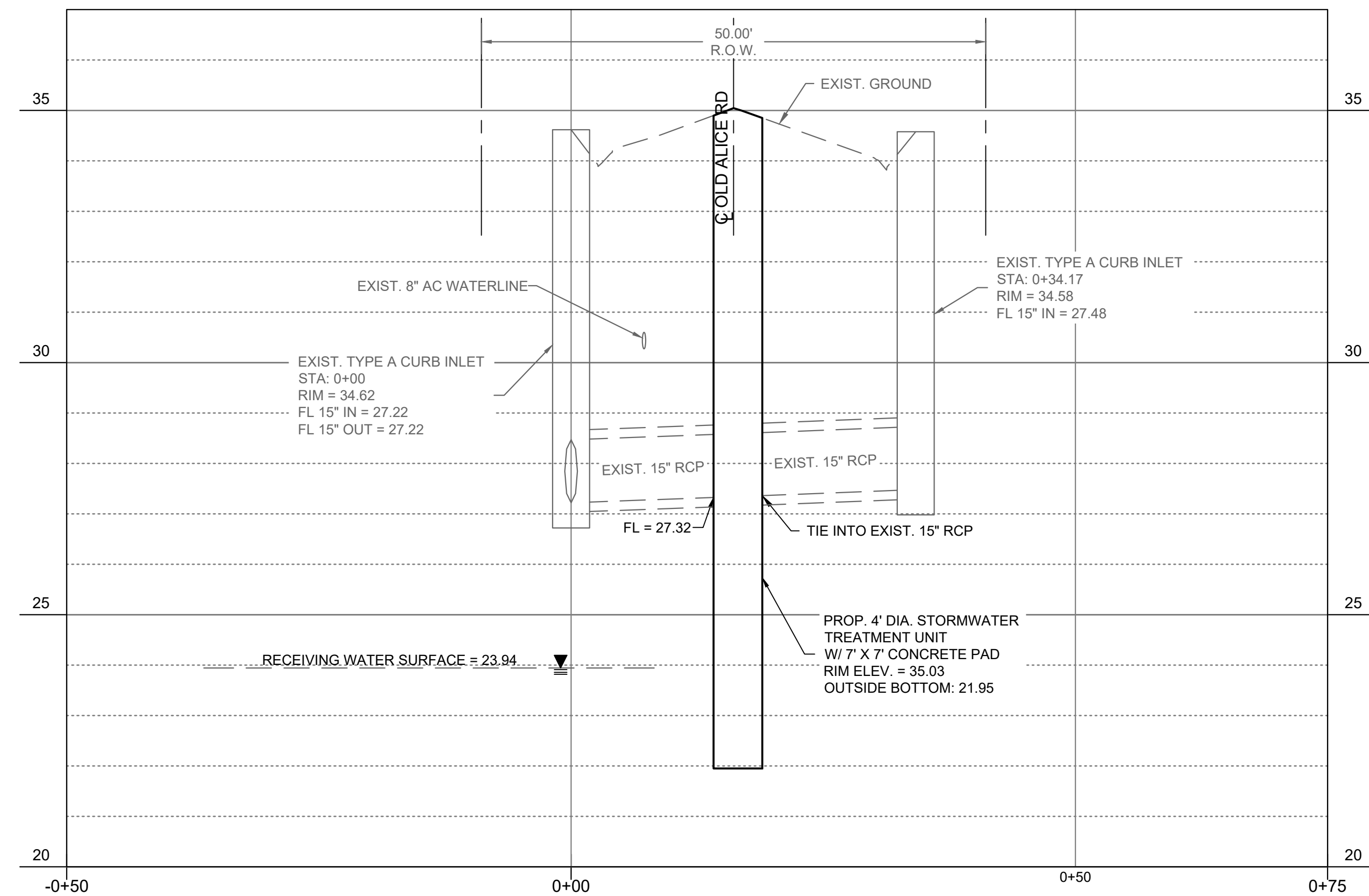
EROSION & SEDIMENTATION CONTROL PLAN



SITE PLAN



- LEGEND**
- ASPHALT TO BE MILLED & OVERLAYED
  - SAW CUT & REMOVE EXIST. PAVEMENT
- GENERAL NOTES**
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS

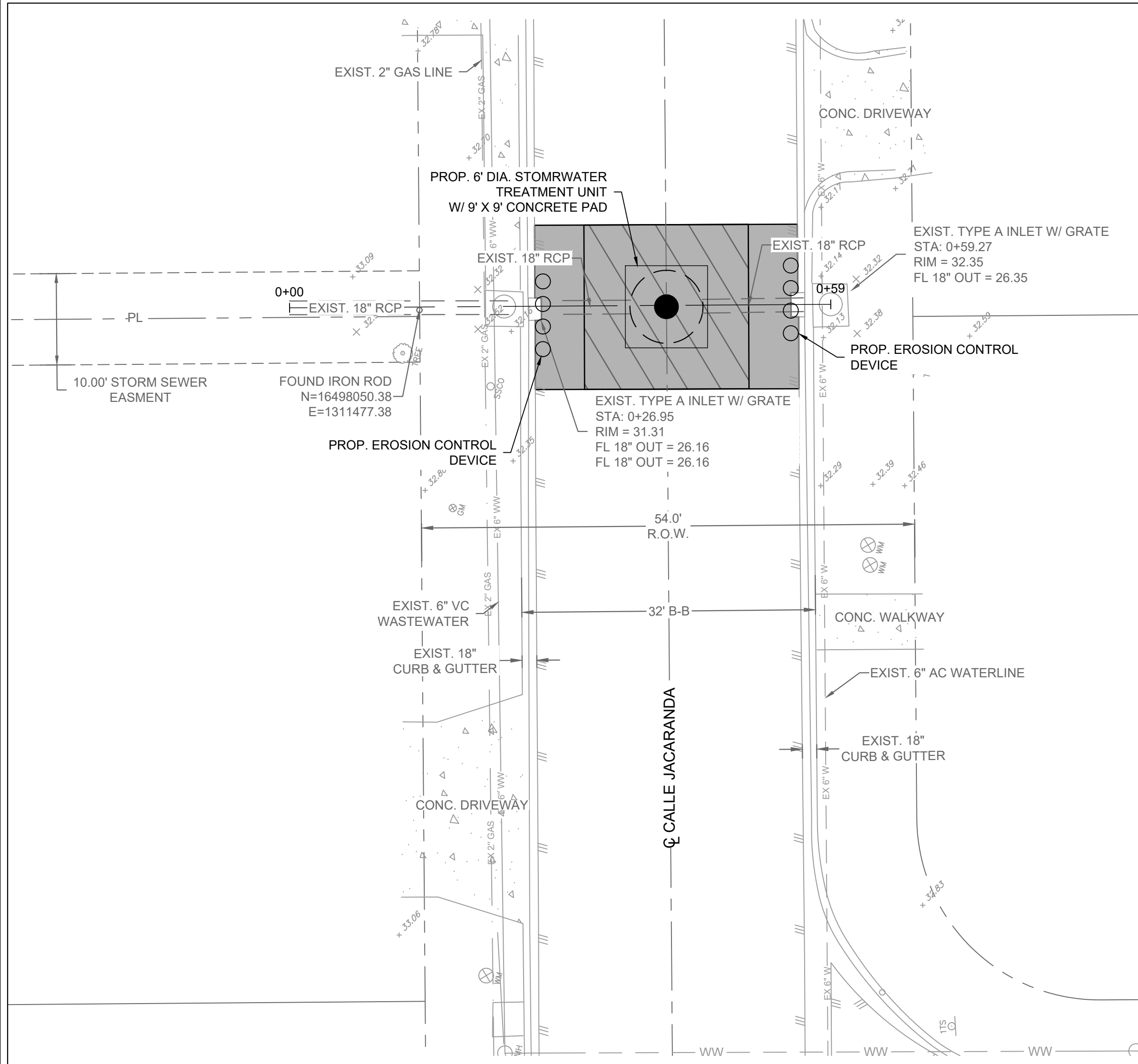


Revision No.	Date	Description

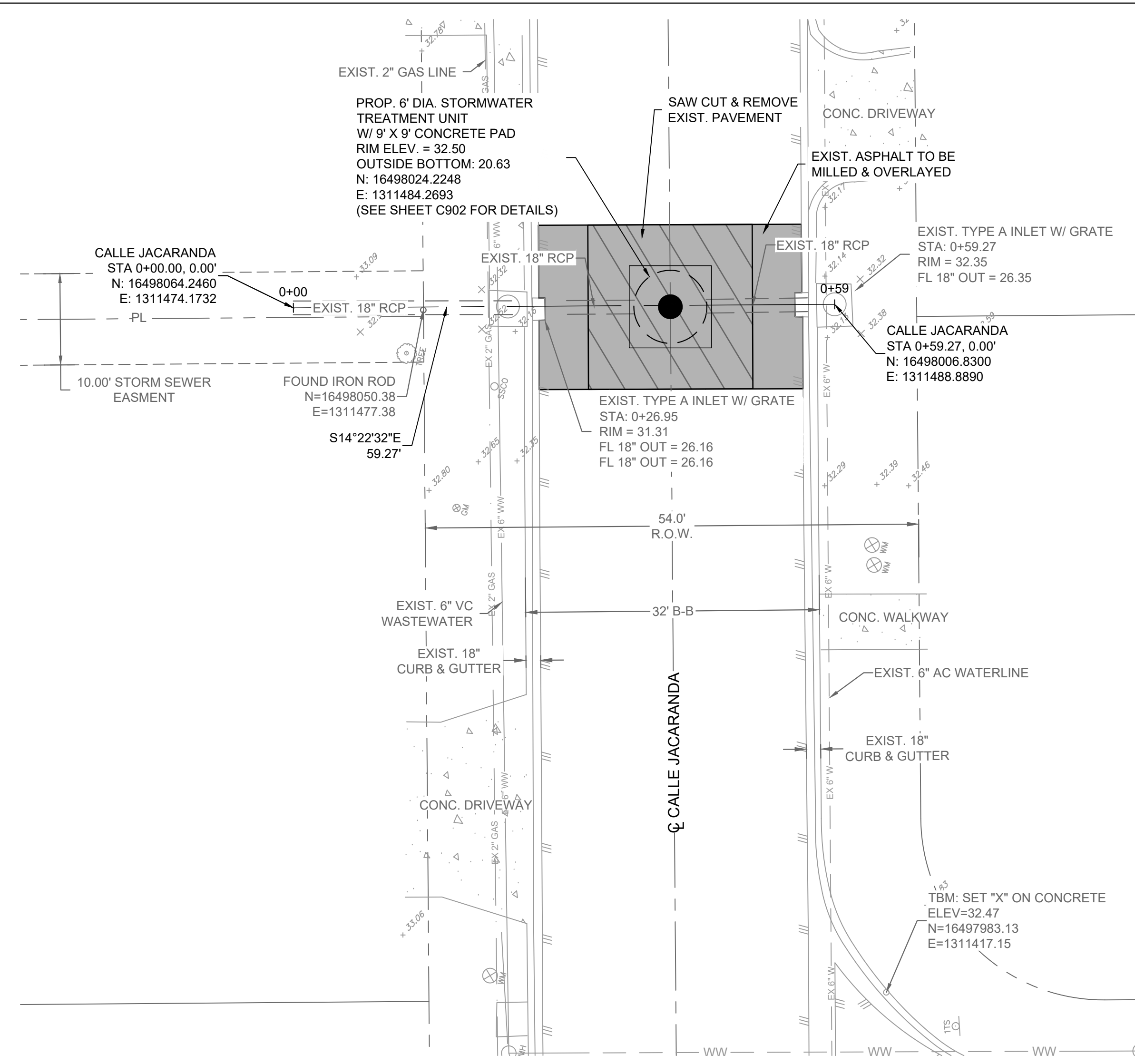


Project No.:	4147.001
Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
Sheet Title	OLD ALICE ROAD (SITE 11 P&P)
Sheet Number	C511

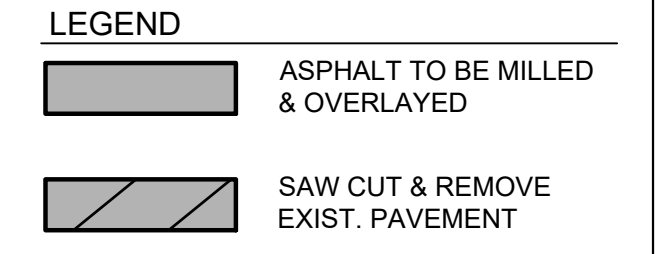
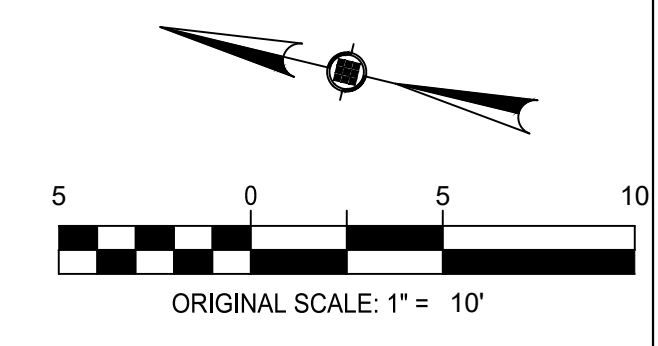
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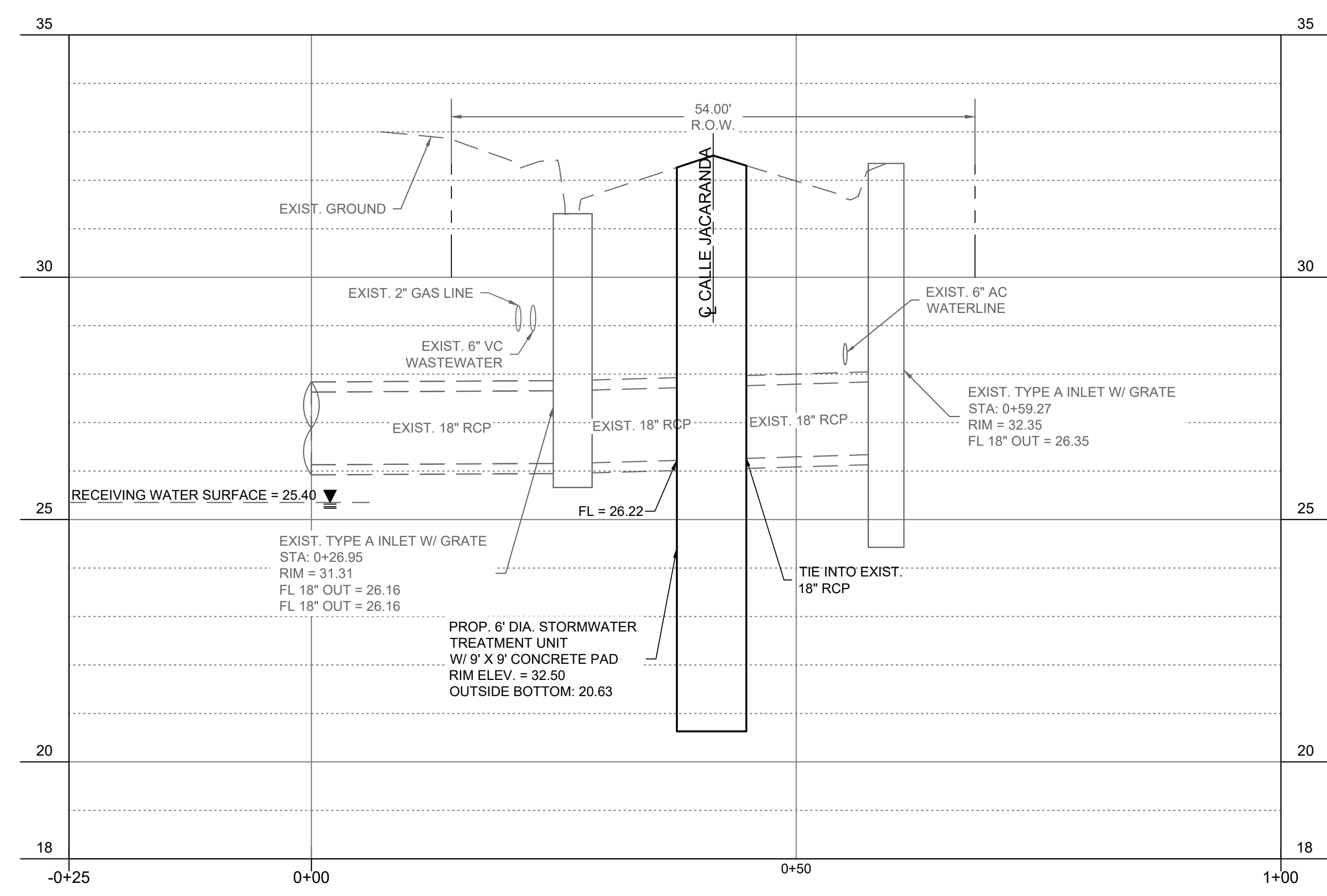
**EROSION & SEDIMENTATION CONTROL PLAN**



**SITE PLAN**



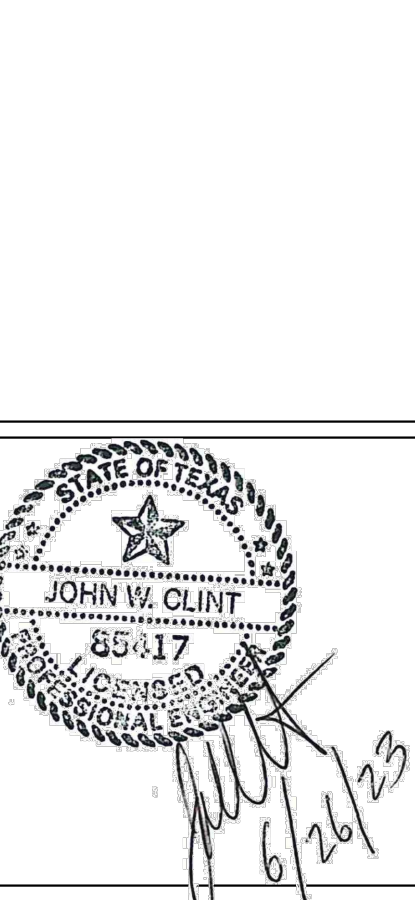
- GENERAL NOTES**
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



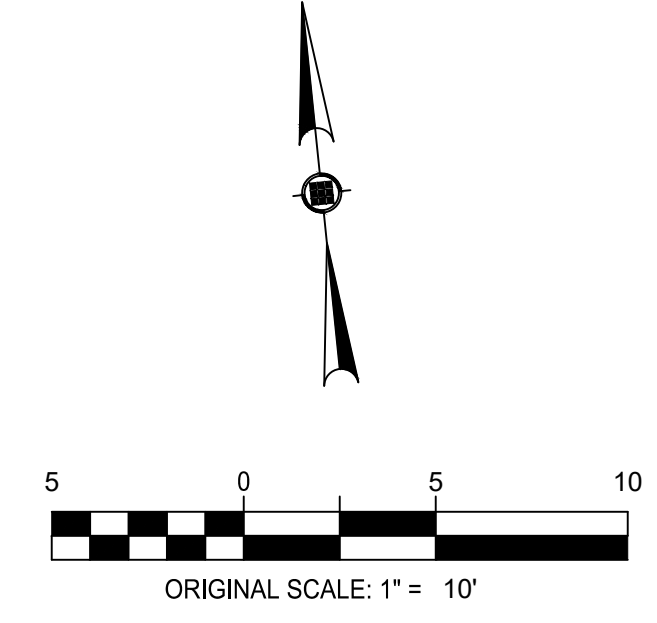
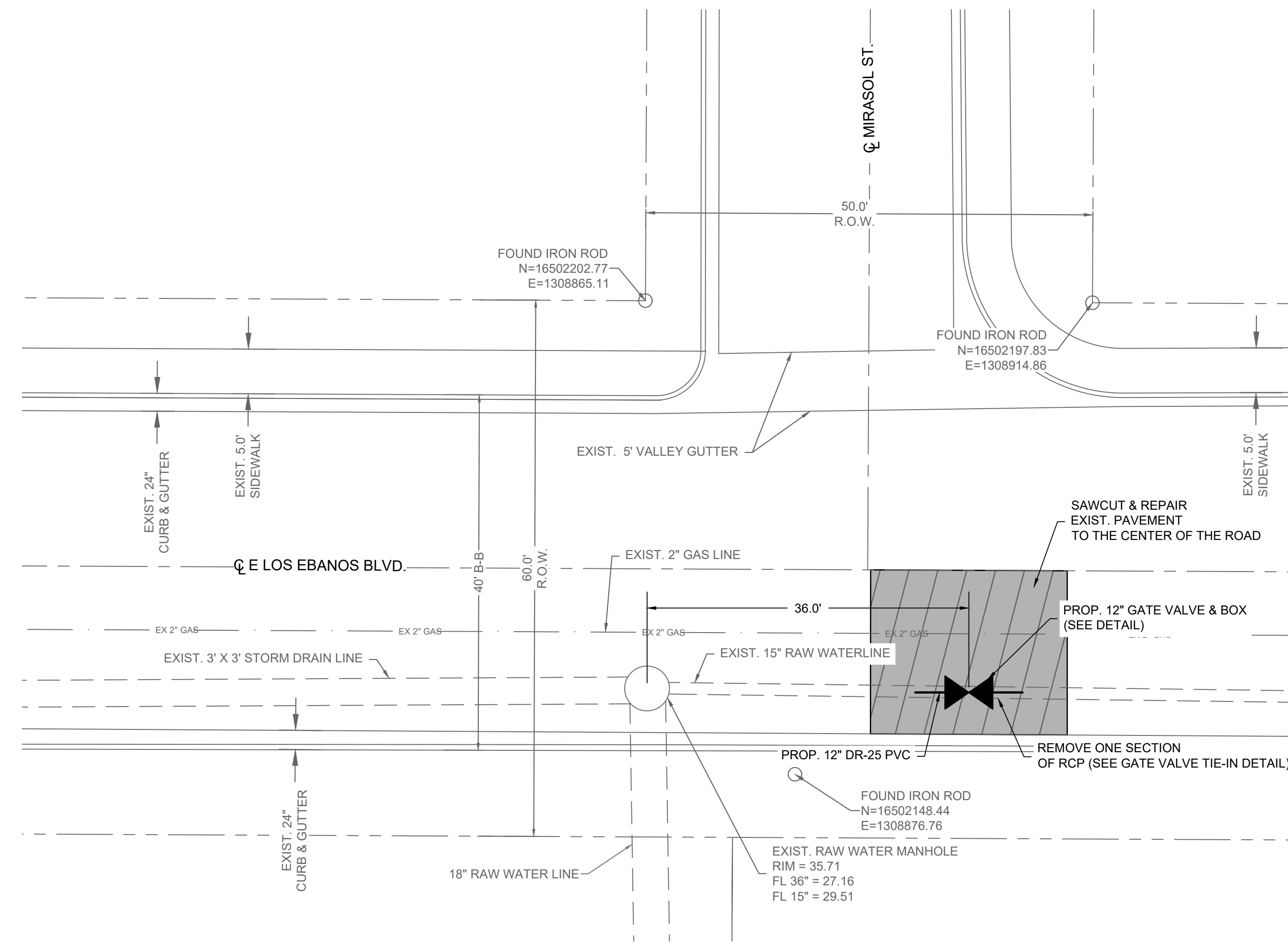
Revision No.	Date	Description



Project No.:	4147.001
Issued:	6/26/2023
Drawn By:	MH
Checked By:	JWC
Scale:	AS NOTED
Sheet Title	CALLE JACARANDA (SITE 12 P&P)
Sheet Number	C512



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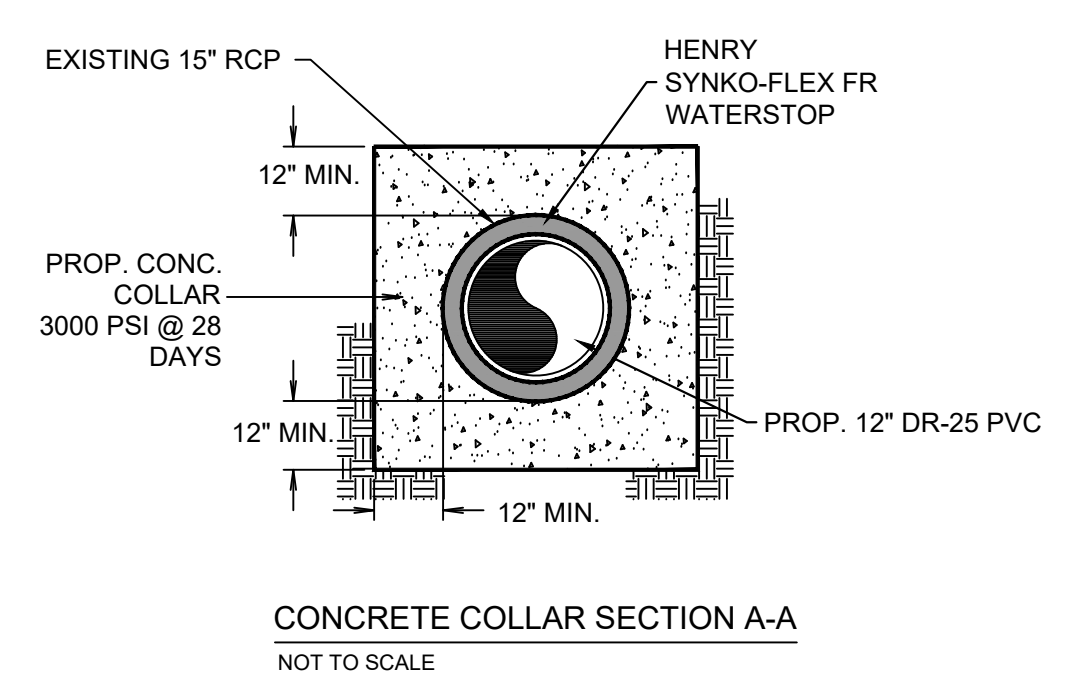
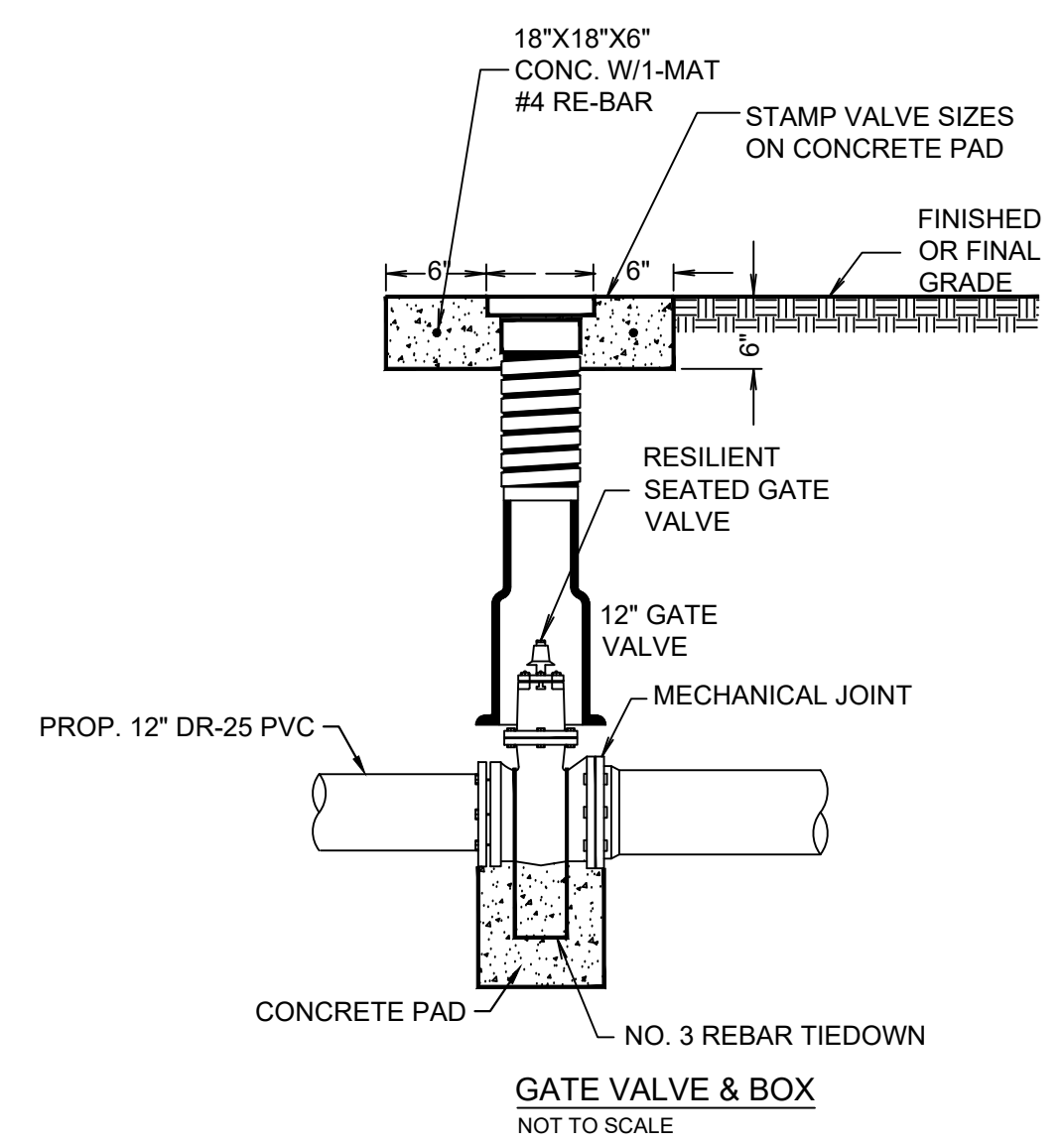
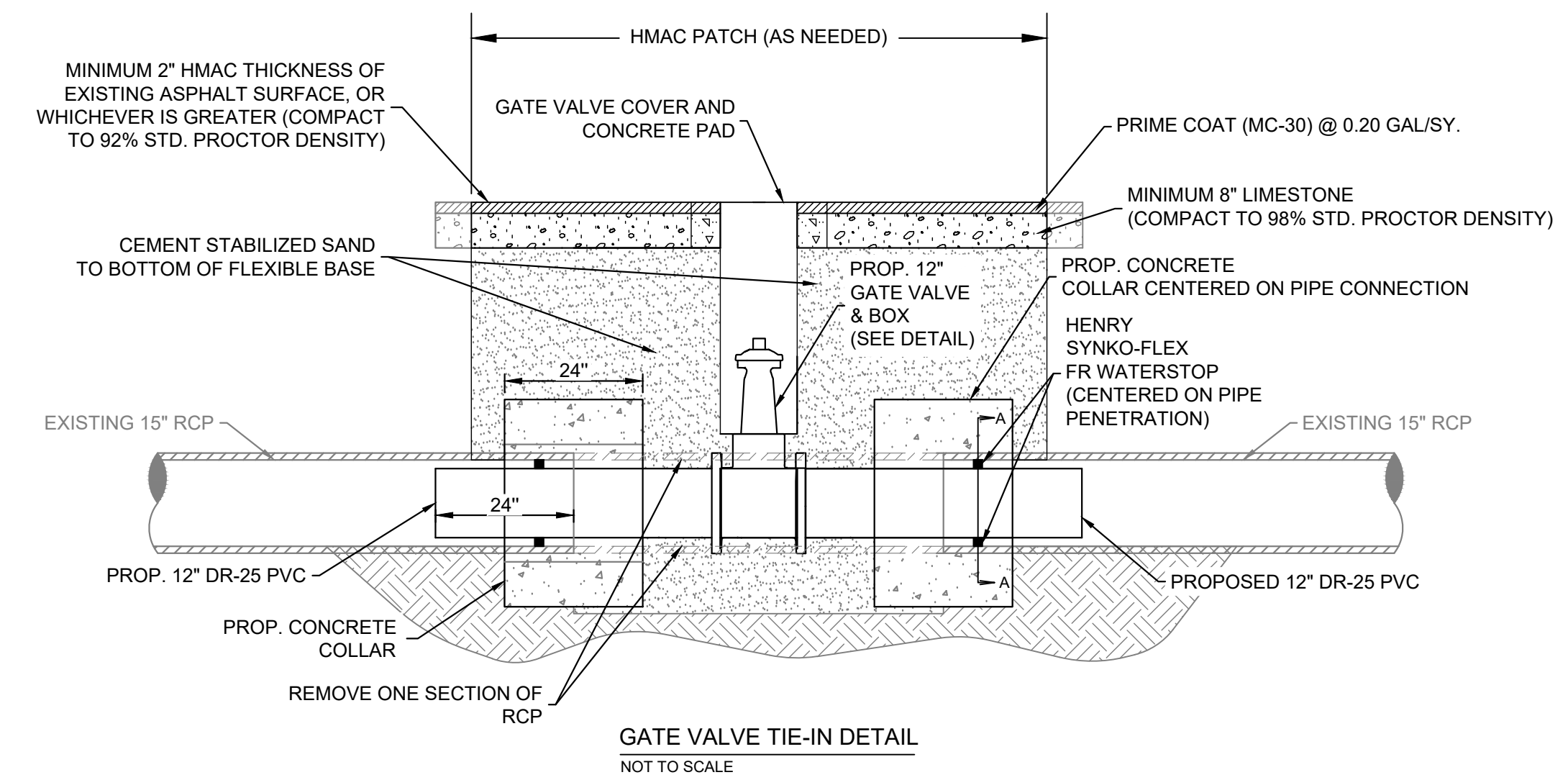


**LEGEND**

- ASPHALT TO BE MILLED & OVERLAYED
- SAW CUT & REMOVE EXIST. PAVEMENT

**GENERAL NOTES**

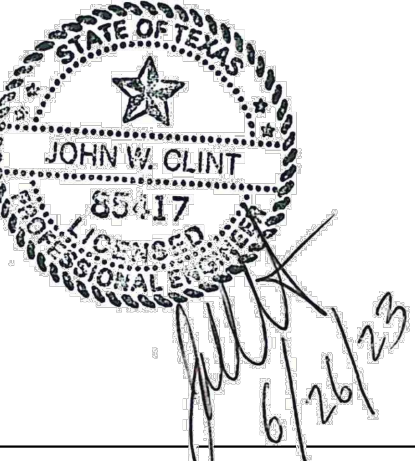
1. ALL AFFECTED/DAMAGED AREAS SHALL BE REPAIRED/RESTORED TO PRE-EXISTING CONDITIONS.
2. CONTRACTOR TO INSTALL TREE PROTECTION FENCES FOR TREES LOCATED WITHIN CONSTRUCTION AREA UP TO THE OUTERMOST LIMITS OF BRANCHES (DRIPLINE) PRIOR TO COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEANING, GRUBBING OR GRADING).



**BROWNSVILLE PUB  
TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS



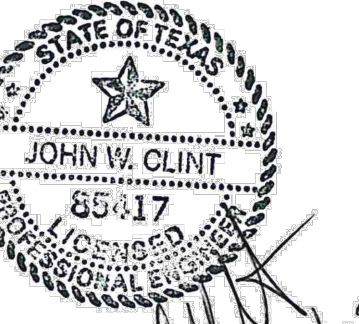
Revision No.	Date	Description



Project No.: 4147.001  
 Issued: 6/26/2023  
 Drawn By: MH  
 Checked By: JWC  
 Scale: AS NOTED  
 Sheet Title  
 GATE VALVE IMPROVEMENT  
 PLAN (SITE 13)

**C513**  
 Sheet Number

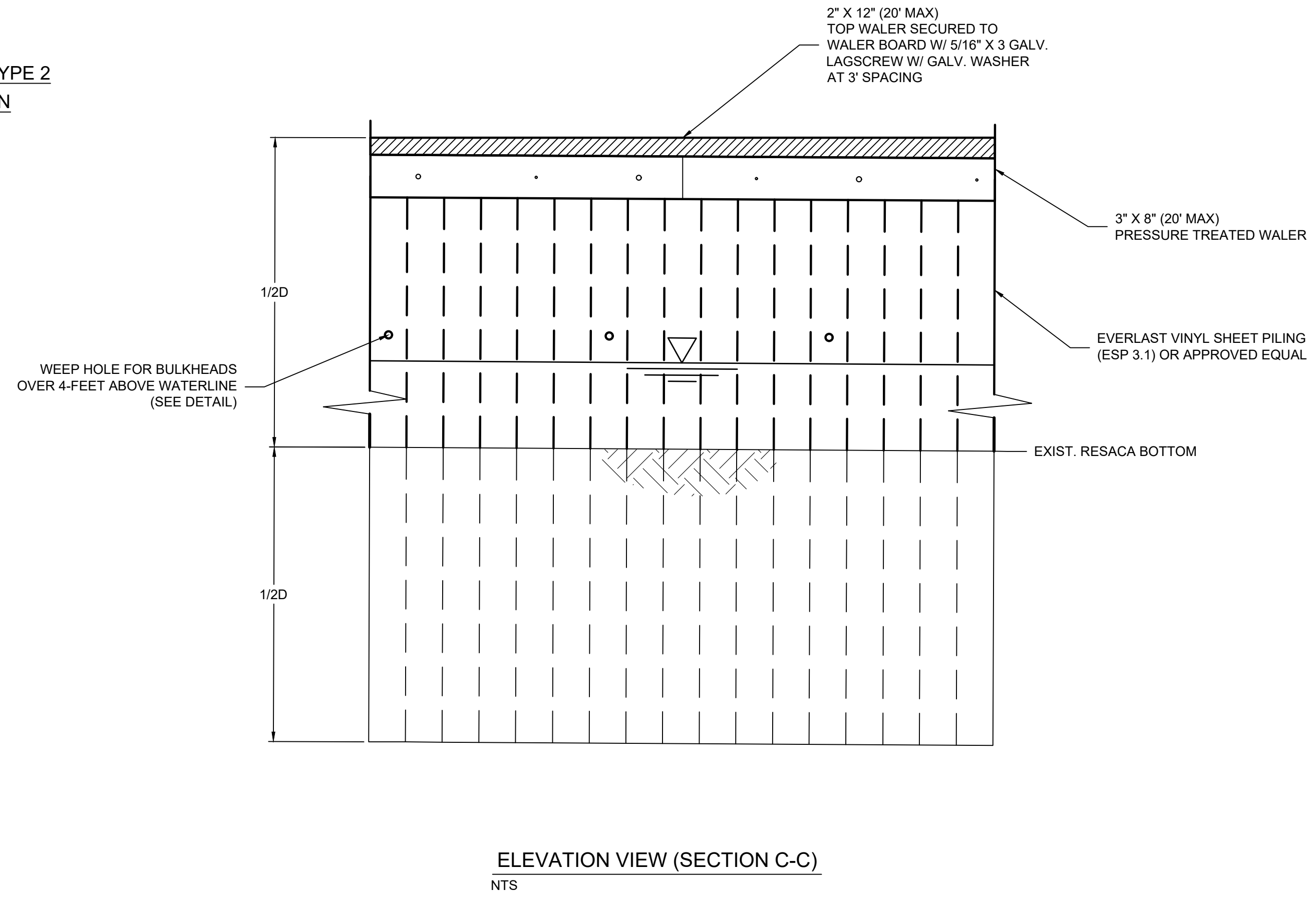
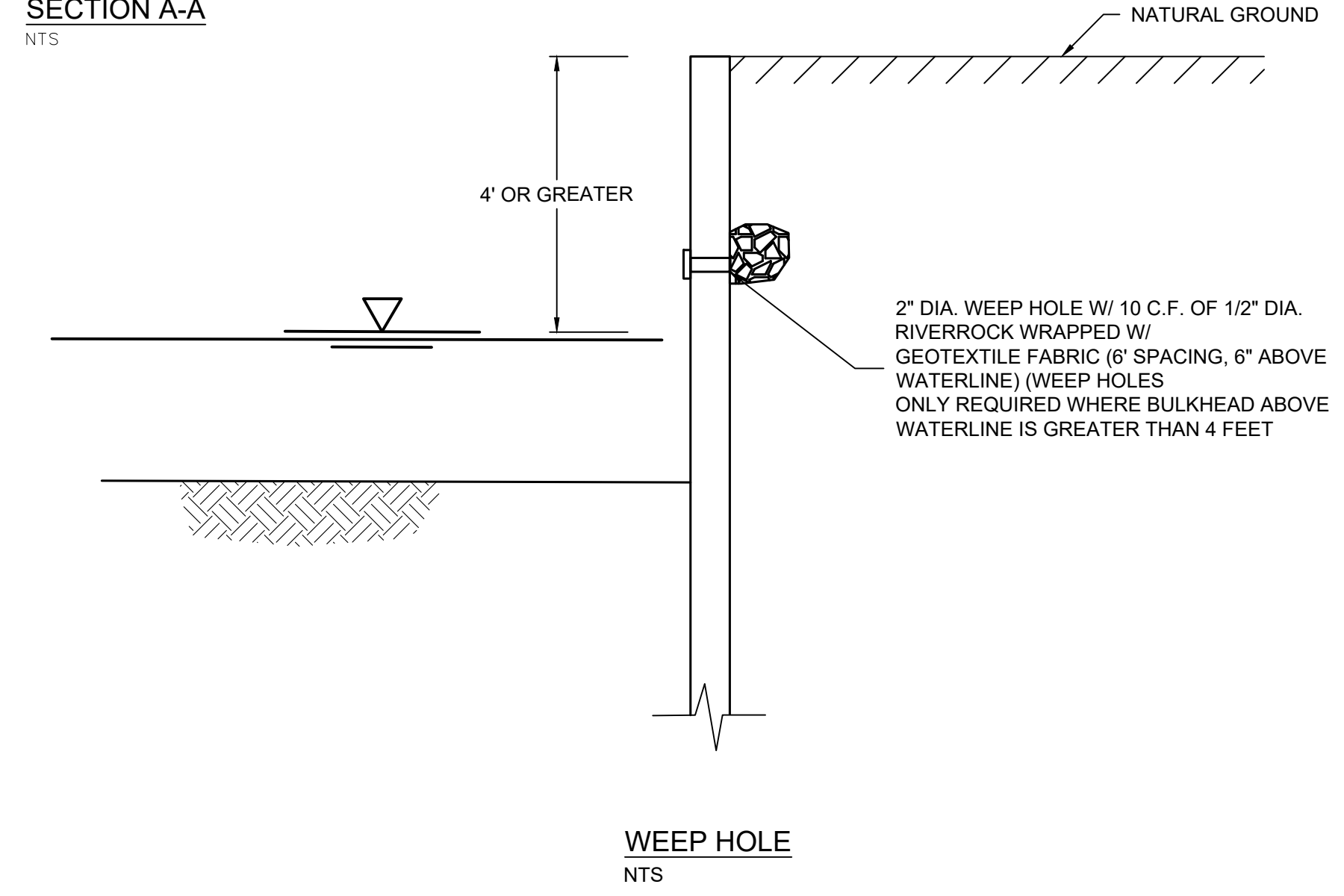
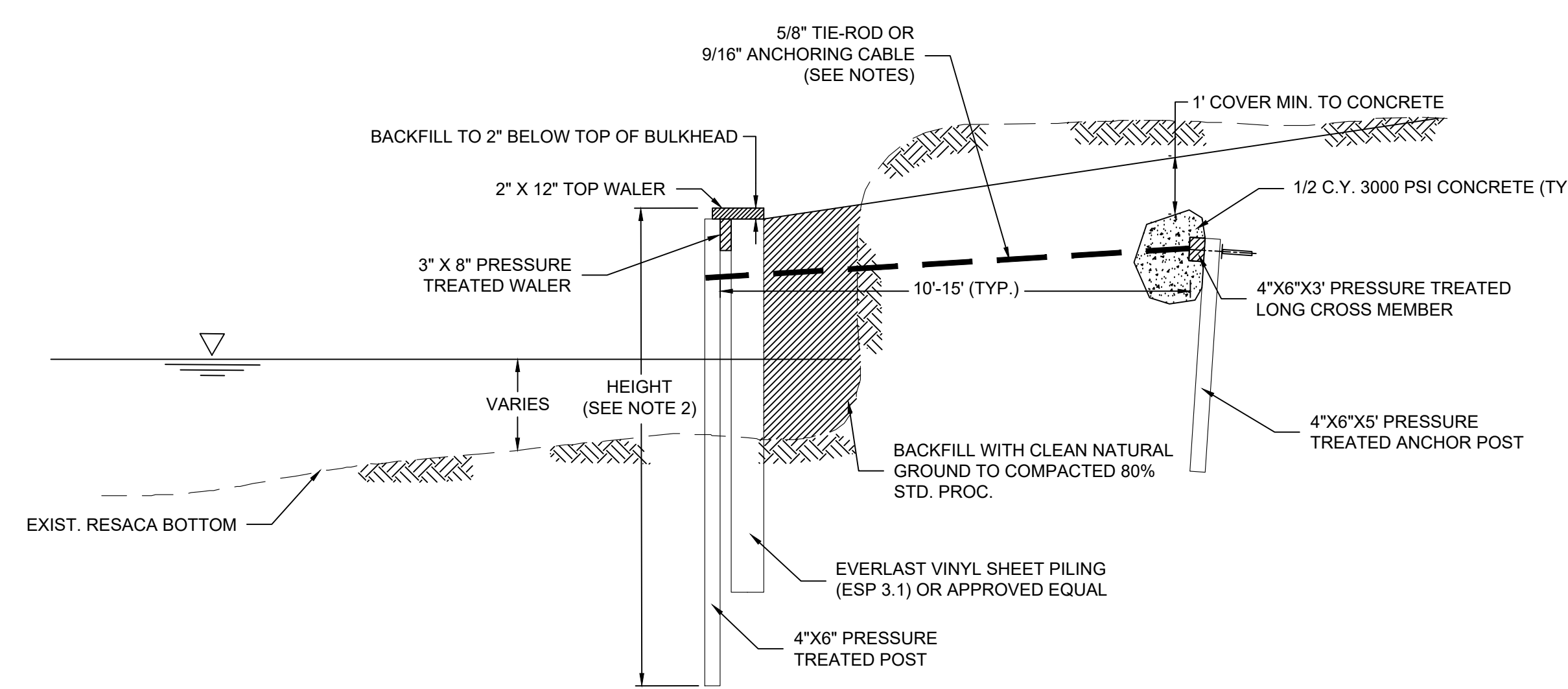
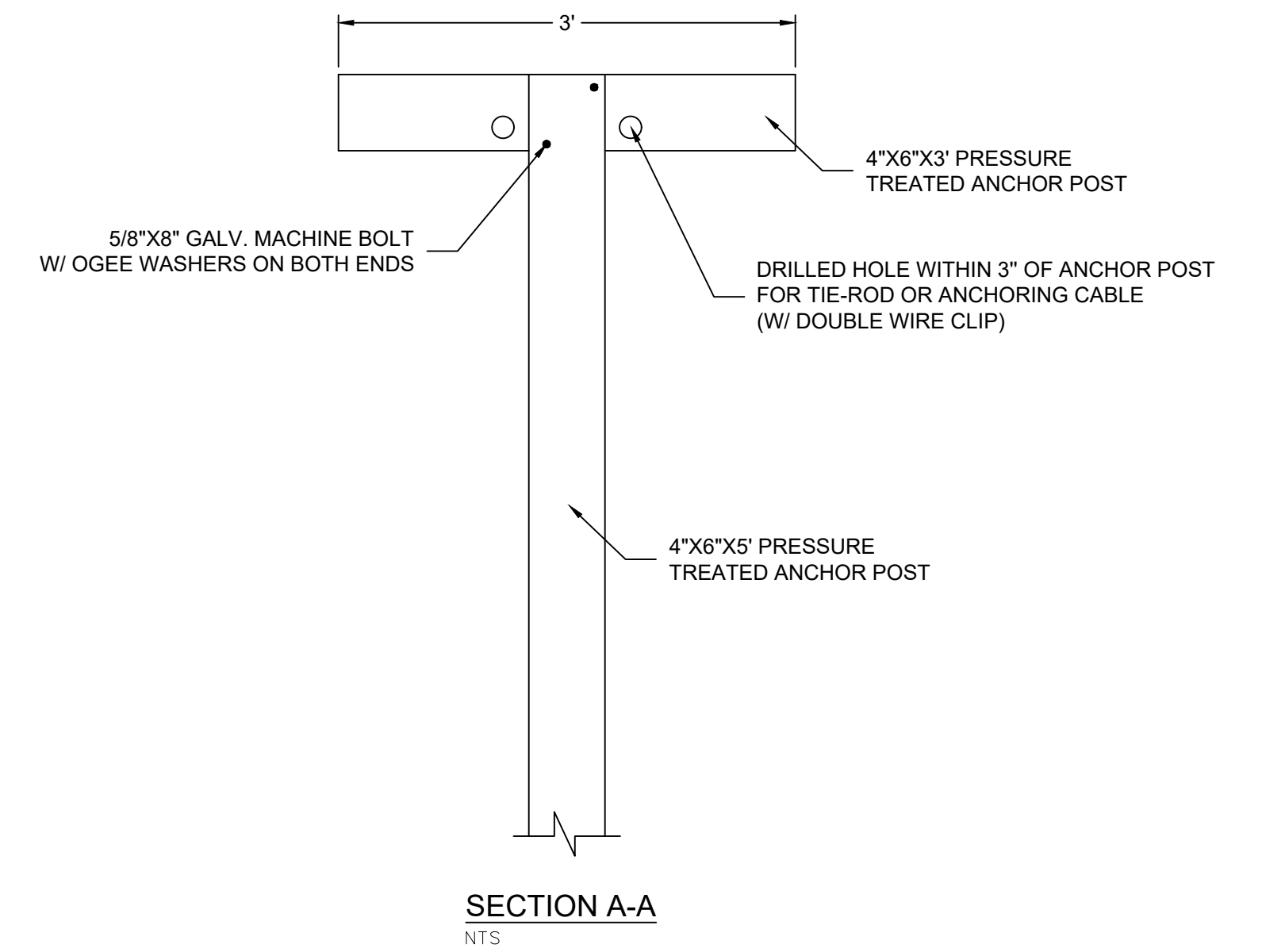
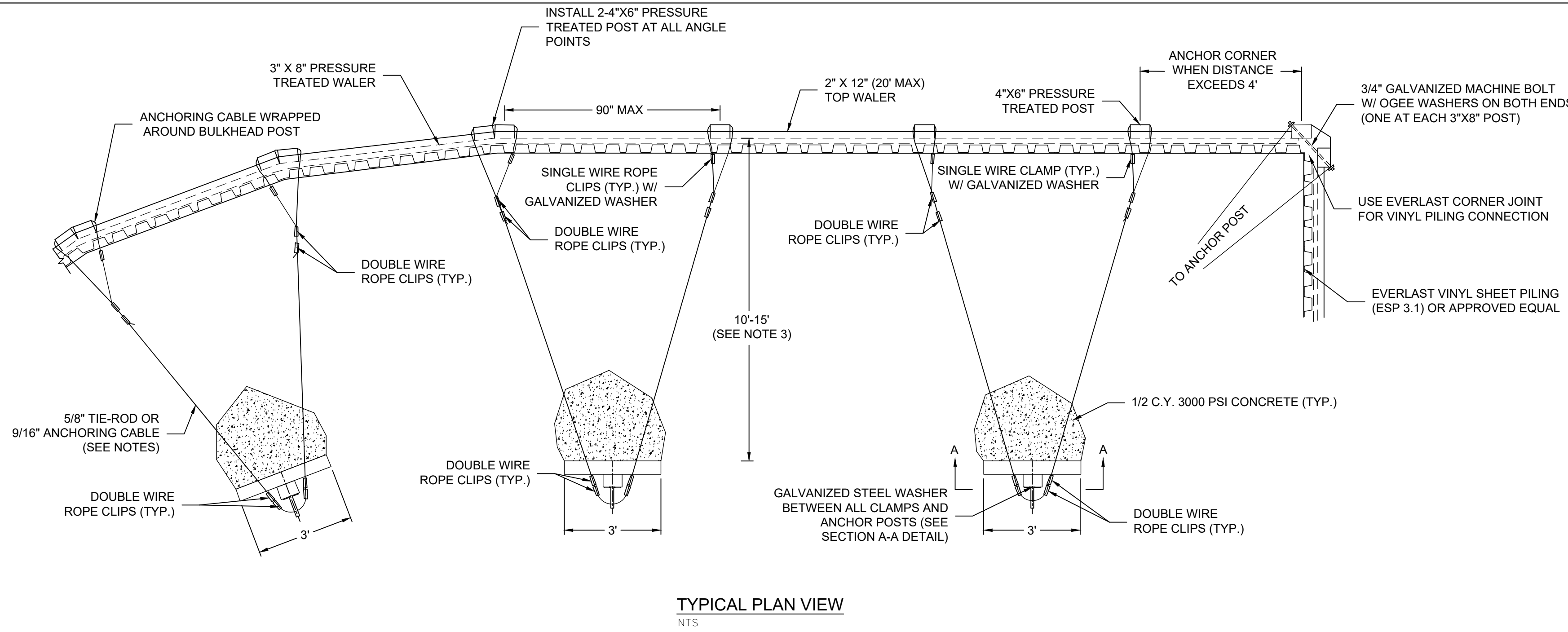
Revision No.	Date	Description



Project No.: 41147.001  
 Issued: 6/26/2023  
 Drawn By: MH  
 Checked By: JWC  
 Scale: AS NOTED

Sheet Title  
**BULKHEAD DETAIL**

**C901**  
 Sheet Number



**NOTES:**

- ALL LUMBER SHALL BE GRADE 2 OR BETTER CCA PRESSURE TREATED LUMBER AT A RATE OF 0.6 LBS OF TREATMENT PER CUBIC FOOT. LUMBER SHALL MEET OR EXCEED AWPA STANDARDS (C-2 AND C-18) FOR PRESERVATION TREATMENT AS APPLICABLE.
- BULKHEAD POSTS AND PILING SHALL BE EMBEDDED INTO EXST. UNDISTURBED NATURAL GROUND TO A DEPTH EQUAL TO OR GREATER (1/2D) THAN THE EXPOSED AND SUBMERGED COMBINED HEIGHT (1/2D) (AS SHOWN IN THE DETAIL).
- ALL ANCHORING TIE-RODS SHALL BE 5/8-INCH GALV. (ASTM A-153 WITH 20 OUNCES OF ZINC PER SQUARE FOOT) OR 304/316SS ALL-THREAD OR 9/16-INCH BITUMASTIC STEEL TRAWLING CABLE OR APPROVED EQUAL. ALL EXPOSED GALV. FASTENERS AND CABLING SHALL BE FIELD TREATED WITH BITUMASTIC COATING. ANCHORING SYSTEMS SHALL BE BETWEEN 10-FEET AND 15-FEET IN LENGTH. ENGINEER MUST APPROVE ANY CHANGES TO THESE ANCHORING LENGTHS. ALL ANCHORING SHALL BE IN A STRAIGHT LINE BETWEEN BULKHEAD POST AND DEADMAN. NO OBSTRUCTIONS SHALL INTERFERE WITH THE ANCHORING SYSTEM. A MAXIMUM OF TWO ANCHORS SHALL BE INSTALLED PER DEADMAN TEE POST.
- ANCHOR CABLING SHALL BE WRAPPED AROUND THE BULKHEAD 4" X 6" POST AND FASTENED USING DOUBLE WIRE ROPE CLIPS. A SINGLE WIRE ROPE CLIP AND WASHER SHALL BE INSTALLED ON THE SHORT END OF THE CABLE AS SHOWN ON THE DETAIL. THE SAME CABLE SHALL BE WRAPPED AROUND THE 4" X 6" DEADMAN TEE POST AND EMBEDDED A MIN. OF 6-INCHES IN ALL DIRECTIONS WITH CONCRETE (SEE DETAIL).
- TIE-RODS SHALL CONNECT TO BOTH THE BULKHEAD 4" X 6" POST AND DEADMAN TEE POST THROUGH A CENTERED DRILLED HOLE AND FASTENED USING OGEE WASHER AND NUT (COUNTERED SUNK). ALL NUTS SHALL BE ANCHORED ON TIE-ROD A MINIMUM OF 2' FROM END OF ROD. TIE-RODS SHALL BE EMBEDDED A MIN. OF 6-INCHES IN ALL DIRECTIONS WITH CONCRETE (SEE DETAIL).
- EXCAVATION FOR THE DEADMAN TEE POSTS SHALL LIMITED TO THE TOP PORTION OF THE TEE POST TO ALLOW FOR INSTALLATION OF THE ANCHORING SYSTEM. THE REMAINING SECTION OF THE TEE POST SHALL BE DRIVEN INTO NATURAL UNDISTURBED SOIL AND NOT AUGERED INTO PLACE. AFTER ALL ANCHORS ARE INSTALLED AND IN PLACE, 1/2 CY OF CONCRETE SHALL BE INSTALLED AT EACH DEADMAN TO COVER ALL ANCHORING SYSTEM WITH A MINIMUM OF 6-INCHES IN ALL DIRECTIONS. CONCRETE SHALL BE A MINIMUM 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
- THE CONTRACTOR SHALL USE CONTROL STRING LINE FOR ALIGNMENT PURPOSES FOR NO MORE THAN 100-FEET SUPPORTED AT MULTIPLE INTERVALS, IF NECESSARY. WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE, THE CONTRACT WILL SELECT AN ALIGNMENT WHICH MAY BALANCE SHORELINE TRIM VOLUME WITH BULKHEAD BACKFILL VOLUME.
- BULKHEAD BACKFILL SHALL BE CLEAN NATURAL GROUND MATERIAL COMPACTED TO 80% STD. PROCTOR (ASTM D-698). BACKFILL SHALL BE GRADED TOWARDS THE BULKHEAD AND WATER AT A MAXIMUM OF 4:1 SLOPE. AFTER FINAL GRADING, ALL DISTURBED AREAS SHALL BE SODDAS AS PER THE DESING PLANS.
- WEEP HOLES SHALL BE REQUIRED FOR WALLS GREAT THAN 4-FEET IN HEIGHT FROM THE NATURAL WATER SURFACE LEVEL.

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**GENERAL NOTES**

- THE SYSTEMS PROVIDED IN DRAWINGS AND SPECIFICATIONS WERE DESIGNED AROUND CONTECH STORMGATE, SCICLONE, CDS, AND BYPASS WATER QUALITY STRUCTURES. ANY DEVIATIONS FROM THE DRAWINGS OR SPECIFICATIONS OR ADDITIONAL PROVISIONS REQUIRED TO MEET THE CONTRACT DOCUMENTS AS A RESULT OF USING OTHER MANUFACTURER'S SYSTEMS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL ADDITIONAL COSTS THAT MAY BE BORNE UPON THE OWNER, CITY OR ENGINEER TO QUALIFY ANOTHER MANUFACTURER. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. WWW.CONTECHES.COM
- STORMGATE, SCICLONE, CDS, AND BYPASS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THE DRAWINGS. STORMGATE STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' (1524), AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- STORMGATE STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C857, ASTM C918 AND ACI-318 LOAD FACTOR DESIGN METHOD
- BYPASS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
- WEIR FRAME AND ADJUSTABLE WEIR PLATE SHALL BE FABRICATED OF ALUMINUM ALLOY ASTM B209, T-5052, T-6061. PROVIDED AND INSTALLED BY CONTECH.
- IF REQUIRED, PVC HYDRAULIC SHEAR PLATE, PROVIDED BY CONTECH, IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER.
- SCICLONE & CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
- INTERNAL COMPONENTS TO BE INSTALLED ON SITE BY CONTECH FIELD CONSULTANT. CONTRACTOR TO COORDINATE ADEQUATE LEAD TIME WITH CONTECH FOR INSTALLATION.
- ENGINEER OF RECORD RESPONSIBLE FOR CONFIRMING ELEVATION OF ADJUSTABLE WEIR PANEL AND PRECAST WALL ACCORDING TO PRODUCTS TO BE INSTALLED ON THE PRODUCT.
- ALTERNATE UNITS ARE SHOWN IN [MM].

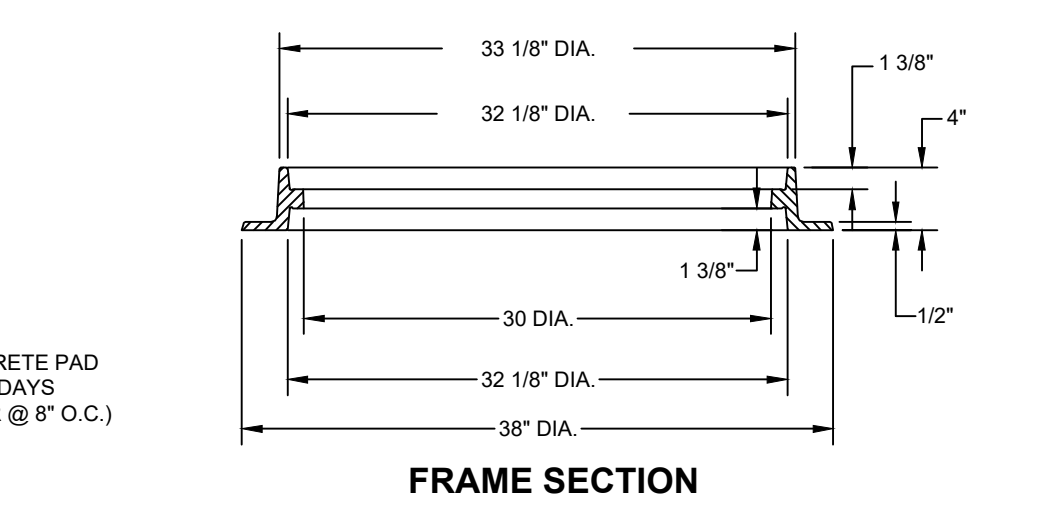
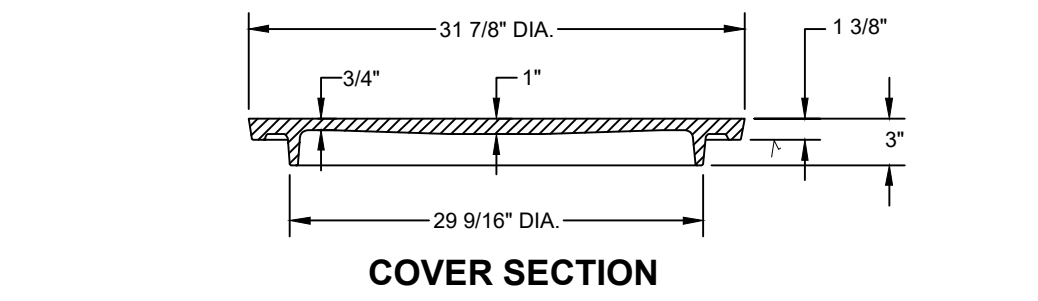
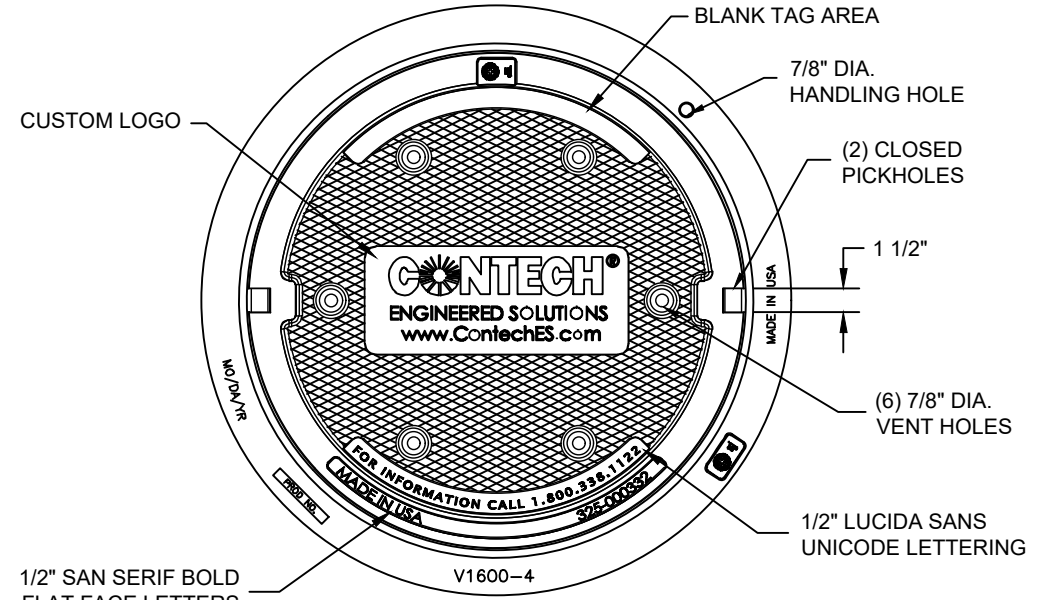
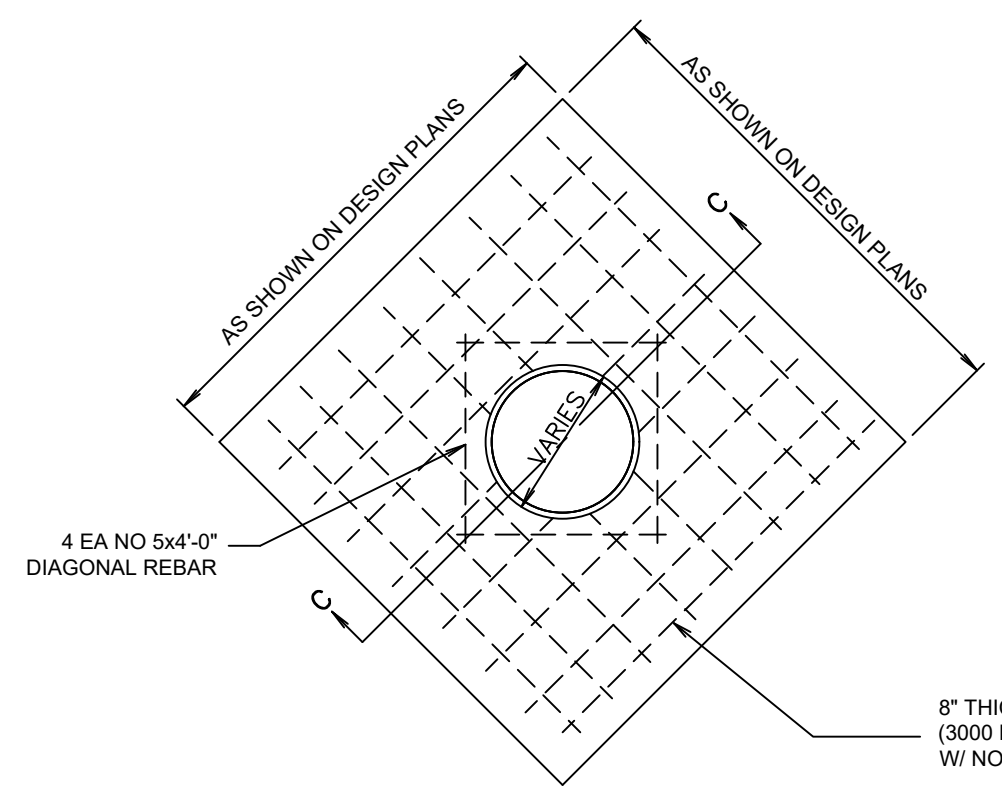
**TREATMENT UNIT INSTALLATION NOTES**

- TREATMENT UNITS SHALL BE INSTALLED ON A 12-INCH THICK ROCK FOUNDATION EXTENDING 18-INCHES OUTSIDE OF THE STRUCTURE. ROCK FOUNDATION SHALL BE 3'-4" ROUNDED RIVER ROCK OR CRUSHED LIMESTONE.
- TREATMENT UNITS SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND TO A GRADE OF ONE-FOOT ABOVE ALL CONNECTING PIPES.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE SCICLONE & CDS MANHOLE STRUCTURE.
- CONTRACTOR TO ADD BUTYL RUBBER JOINT SEALANT FOR CONCRETE APPLICATIONS BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE. ALSO, ALL BUTT JOINTS (NON-FACTORY CONNECTIONS) SHALL CONNECTED USING A CONCRETE COLLAR AS PER THE DETAIL.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO INSTALL CONCRETE GRADE RINGS/ RISERS REQUIRED BETWEEN THE FINISHED GRADE AND THE BASE OF THE MANHOLE FRAMES.
- CONTRACTOR TO ADJUST A STORMGATE WEIR TO DESIGN ELEVATION SPECIFIED IN DRAWING. DO NOT EXCEED 5.0 FT-LBS TORQUE WHEN TIGHTENING SCREWS ON WEIR FRAME. SEAL WEIR TO FRAME WITH SIKAFLEX 1A SEALANT AFTER FINAL ADJUSTMENT.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM.

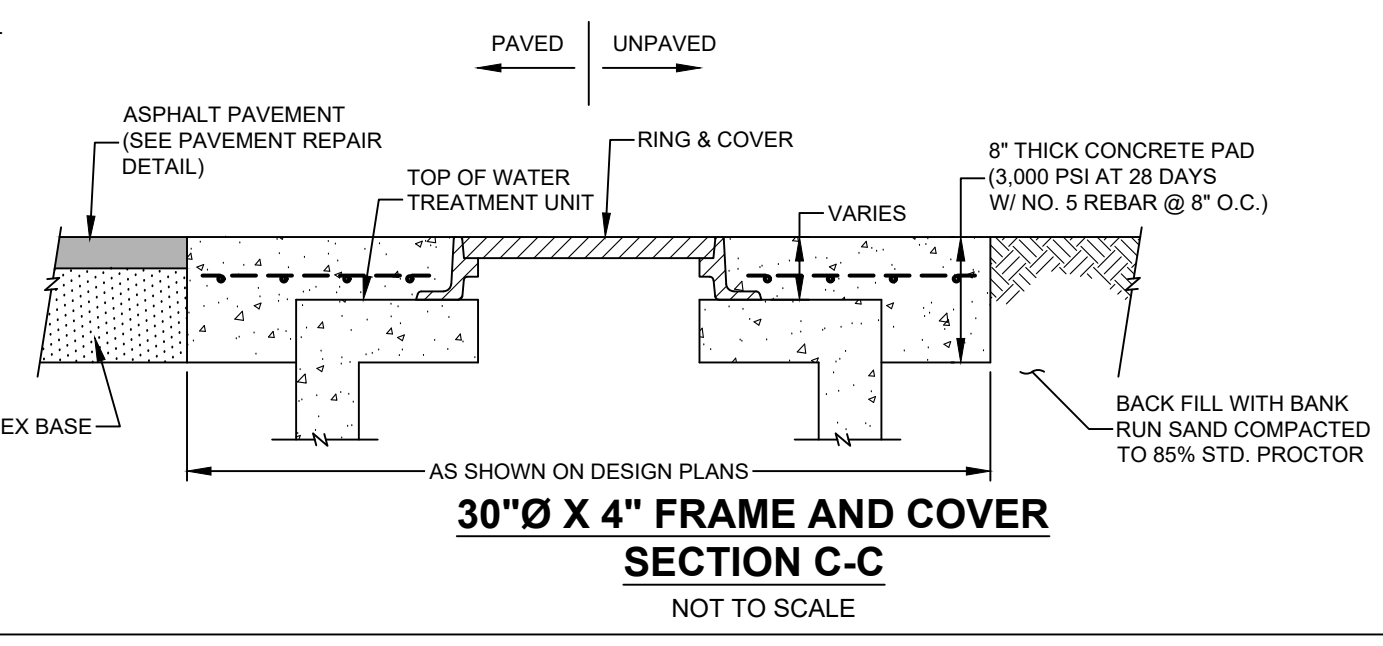
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		FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
1	SCX-05	1'-2 3/4"		7'-10 3/4"		5'-5"		6'		18		28		2.43		18.35		25		93	
2	SCX-06	6 1/4"		4'-2 1/4"		5'-5"		7'-2"		18		28		2.10		14.77		25		134	
3	SCX-06	1/4"		5'-3 3/4"		5'-5"		7'-2"		24		36		2.79		20.59		25		134	
4	SCX-05	9 1/4"		7'-5 1/4"		5'-5"		6'		18		28		2.59		22.50		25		93	
5	SCX-04	2"		5'-11 1/4"		5'-3"		4'-10"		18		28		1.56		12.52		25		60	
6	SCX-04	5 1/2"		5'-2 1/2"		5'-3"		4'-10"		18		28		1.40		9.65		25		60	
7	CDS5640	1'-3"		6'-9 3/4"		9'-11 1/2"		11'-8"		24		36		12.28		82.67		25		134	
8	CDS5678	1'-4"		6'-11"		13'-11 1/2"		11'-8"		24		36		27.55		169.71		25		134	
9	SCX-04	1'-3 4/5"		5'-1"		5'-3"		4'-10"		18		28		1.32		10.43		25		60	
10	SCX-04	6 3/4"		7'-4"		5'-3"		4'-10"		15		24		1.88		14.63		25		60	
11	SCX-04	1'-1"		7'-10"		5'-3"		4'-10"		15		24		0.50		3.92		25		60	
12	SCX-06	9 1/2"		6'-5 1/2"		5'-5"		7'-2"		18		28		5.73		44.64		25		134	

**MATERIAL LIST FOR SITES 1-6 & 9-12 PROVIDED BY CONTECH**

COUNT	DESCRIPTION	INSTALLED BY
1	PP2 PLASTIC SCX-06 INLET WEIR INSERT	CONTECH
1	PP2 PLASTIC SCX-06 OUTLET WEIR INSERT	CONTECH
2	K SCH 40 PVC DOWN PIPE	CONTRACTOR
1	4' TALL SCX-06 PP2 PLASTIC FLOATABLES BAFFLE WALL ASSEMBLY	CONTECH
2	2" x 2" x 3" INLET WEIR INTERIOR BRACKETS	CONTECH
2	2" x 2" x 3" INLET WEIR EXTERIOR BRACKETS	CONTECH
2	2" x 2" x 7" OUTLET WEIR EXTERIOR BRACKETS	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
2 P/LC	GRADE RINGS/RISERS	CONTRACTOR
2	30" X 4" FRAME AND COVER, E.J.#41600483, OR EQUIV.	CONTRACTOR



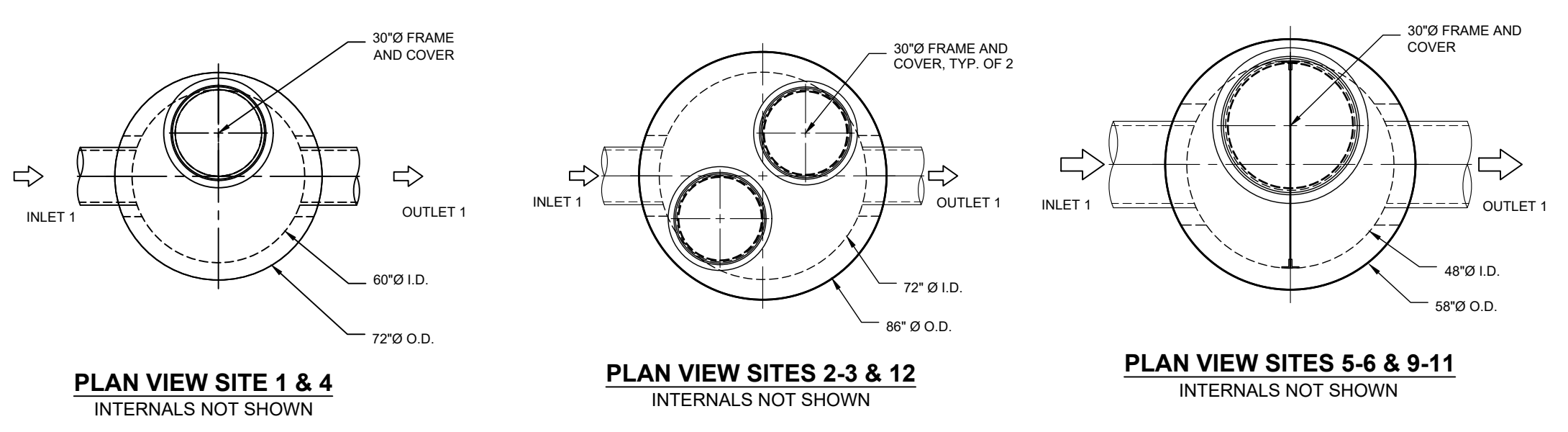
**MANHOLE CONCRETE PAD**  
NOT TO SCALE



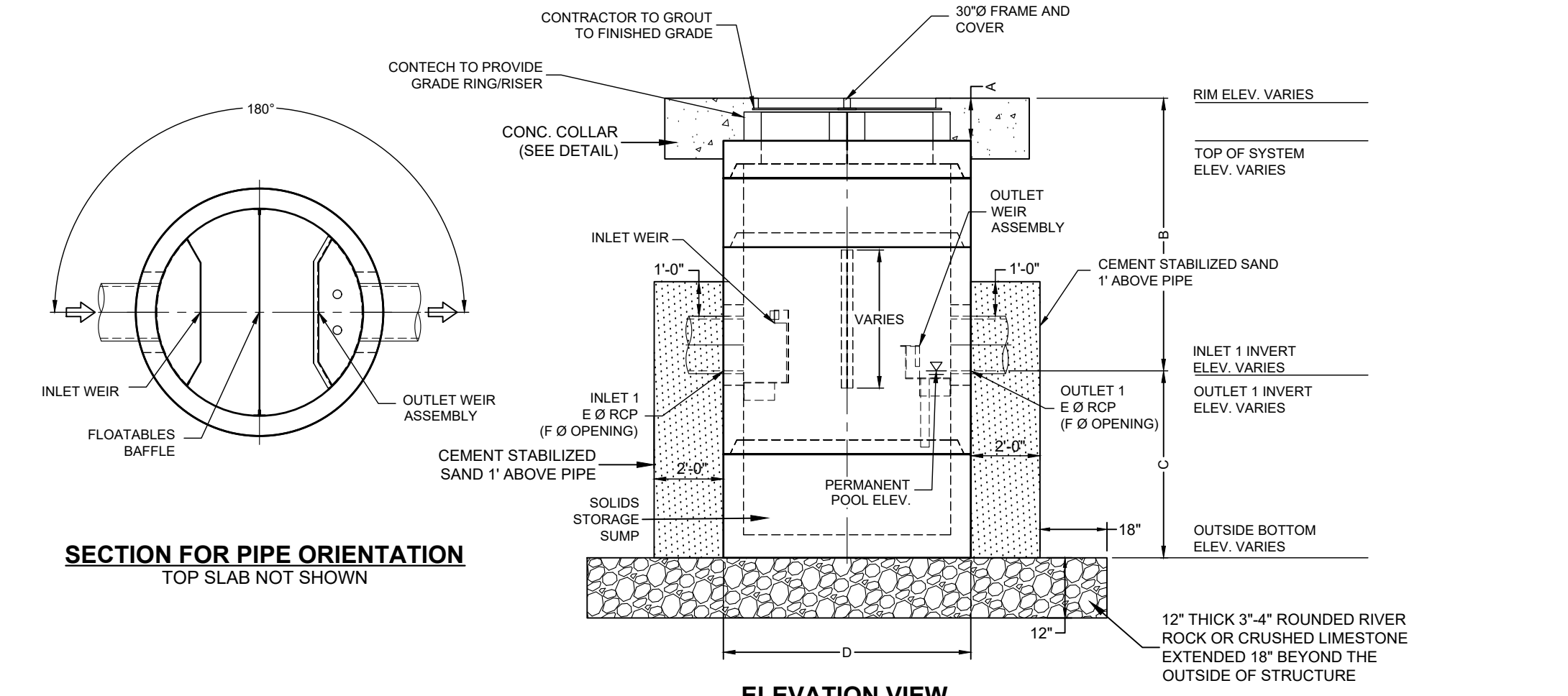
**30" X 4" FRAME AND COVER**  
SECTION C-C  
NOT TO SCALE

**SITE DESIGN DATA**

WATER QUALITY	G
FLOW RATE	H
PEAK FLOW RATE	H
RETURN PERIOD OF PEAK FLOW	I
SUMP CHAMBER CAPACITY	J



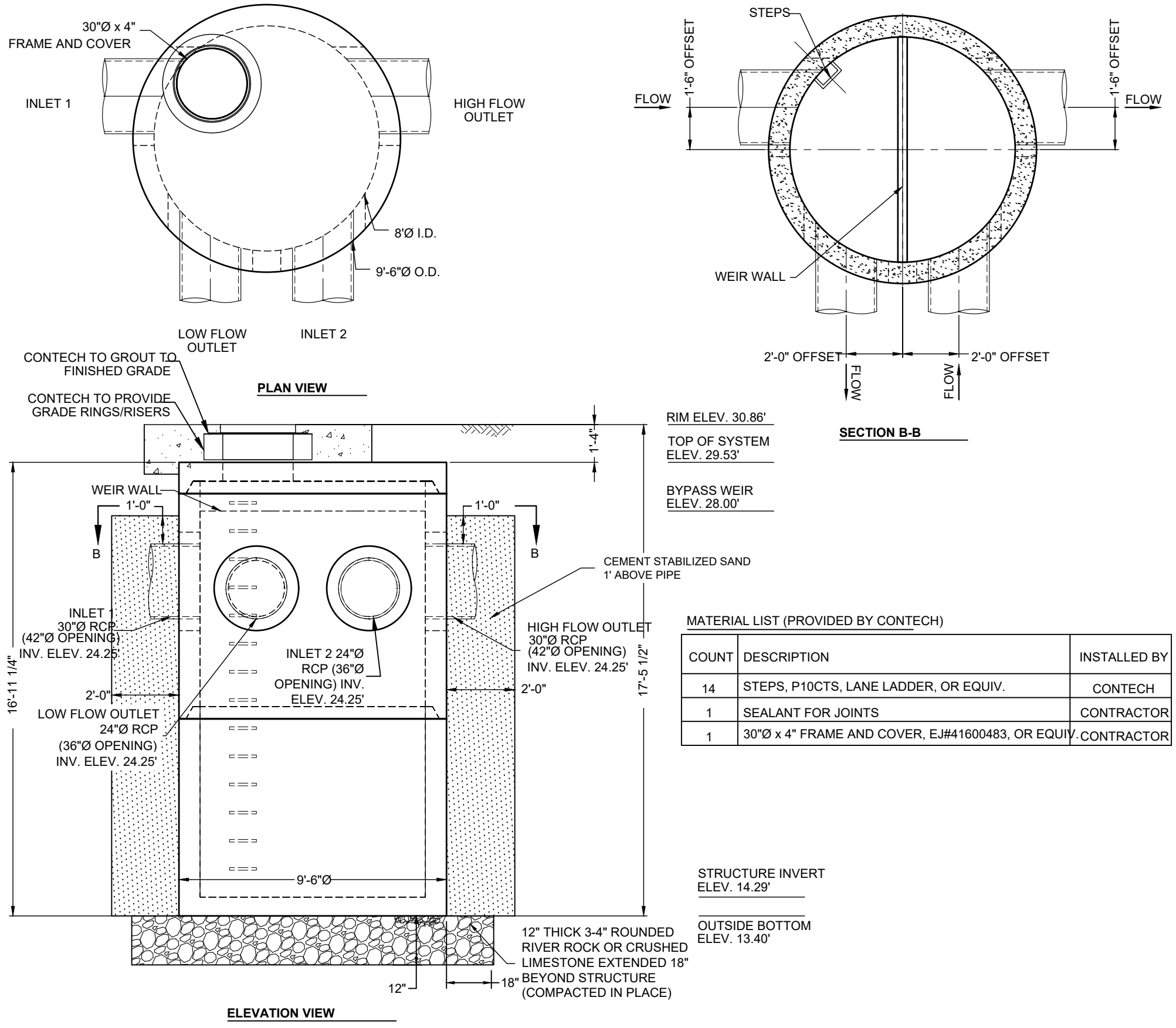
**PLAN VIEW SITE 1 & 4** INTERNALS NOT SHOWN  
**PLAN VIEW SITES 2-3 & 12** INTERNALS NOT SHOWN  
**PLAN VIEW SITES 5-6 & 9-11** INTERNALS NOT SHOWN



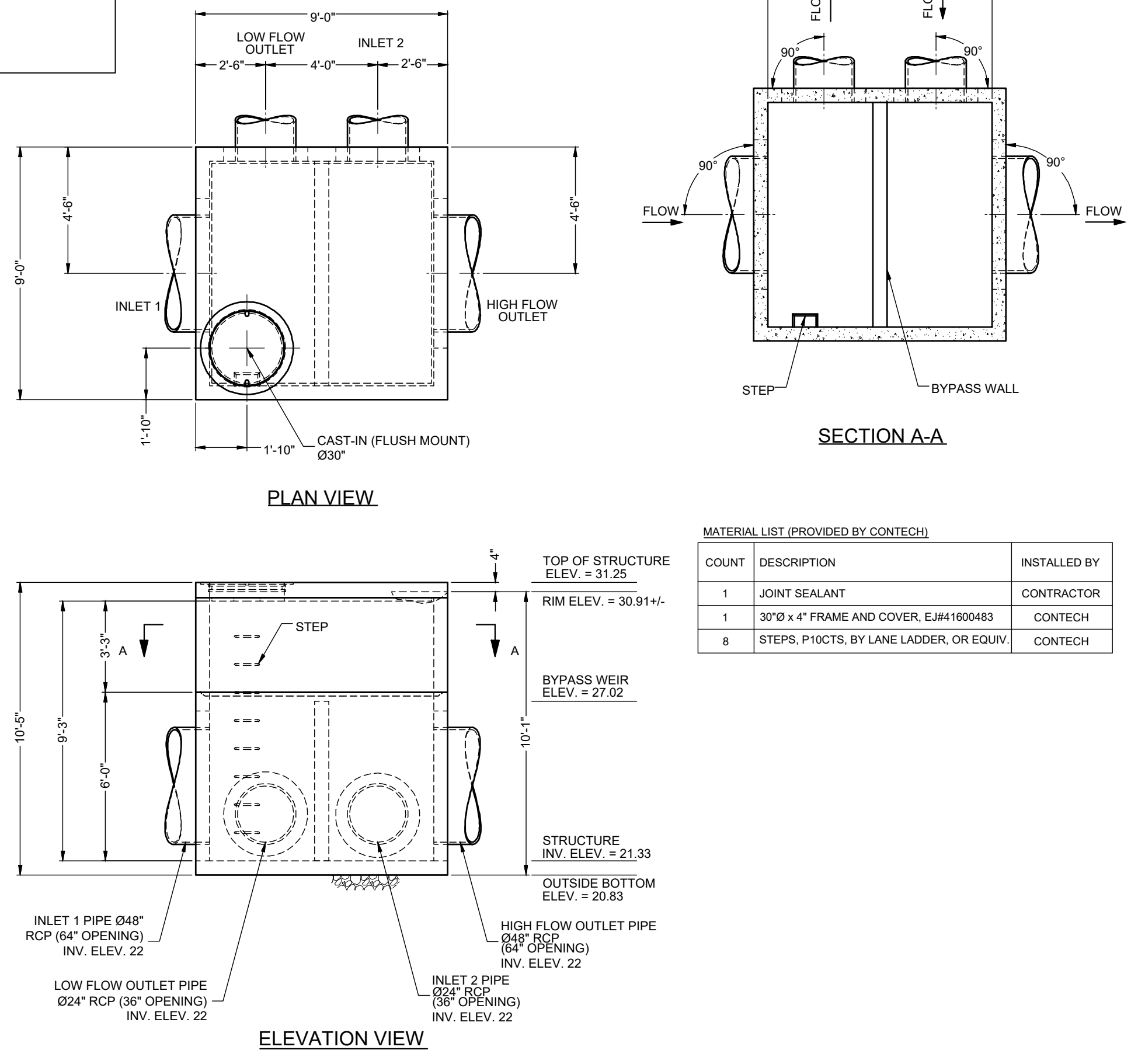
**SECTION FOR PIPE ORIENTATION**  
TOP SLAB NOT SHOWN

**ELEVATION VIEW**  
**DETAILS FOR SITES 1-6 & 9-12**

**WATER TREATMENT DETAILS**



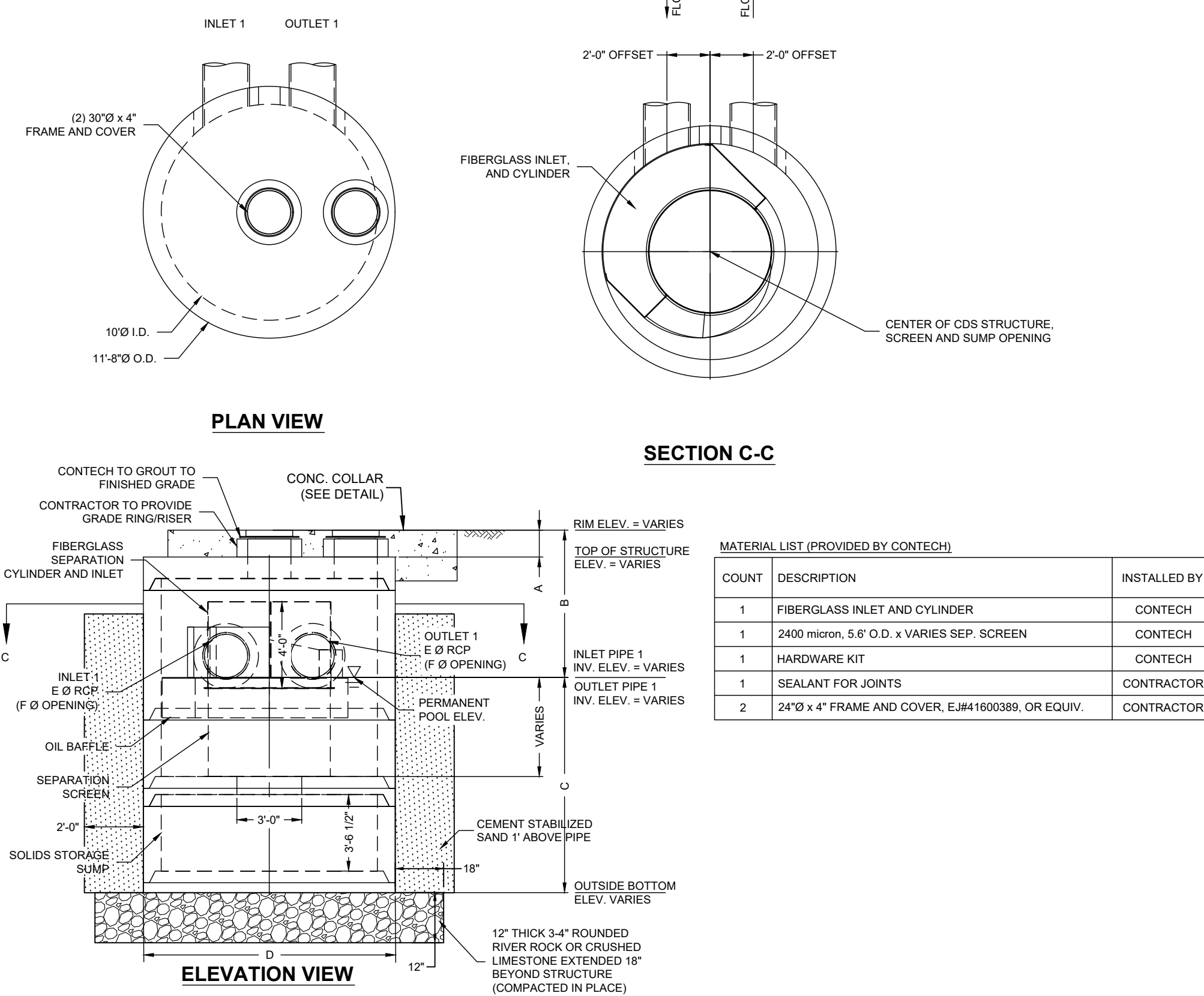
**DIVERSION BYPASS BPSGMH96**  
**SITE 7**



**DIVERSION BYPASS SG1012**  
**SITE 8**

**MATERIAL LIST (PROVIDED BY CONTECH)**

COUNT	DESCRIPTION	INSTALLED BY
1	JOINT SEALANT	CONTRACTOR
1	30" X 4" FRAME AND COVER, E.J.#41600483	CONTECH
8	STEPS, P10CTS, BY LANE LADDER, OR EQUIV.	CONTECH



**TREATMENT UNIT DETAILS FOR SITES 7 & 8**

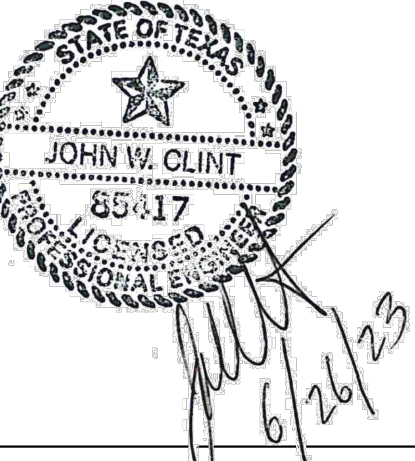
**MATERIAL LIST (PROVIDED BY CONTECH)**

COUNT	DESCRIPTION	INSTALLED BY
1	FIBERGLASS INLET AND CYLINDER	CONTECH
1	2400 micron, 5' O.D. x VARIES SEP. SCREEN	CONTECH
1	HARDWARE KIT	CONTRACTOR
1	SEALANT FOR JOINTS	CONTRACTOR
2	24" X 4" FRAME AND COVER, E.J.#41600389, OR EQUIV.	CONTRACTOR

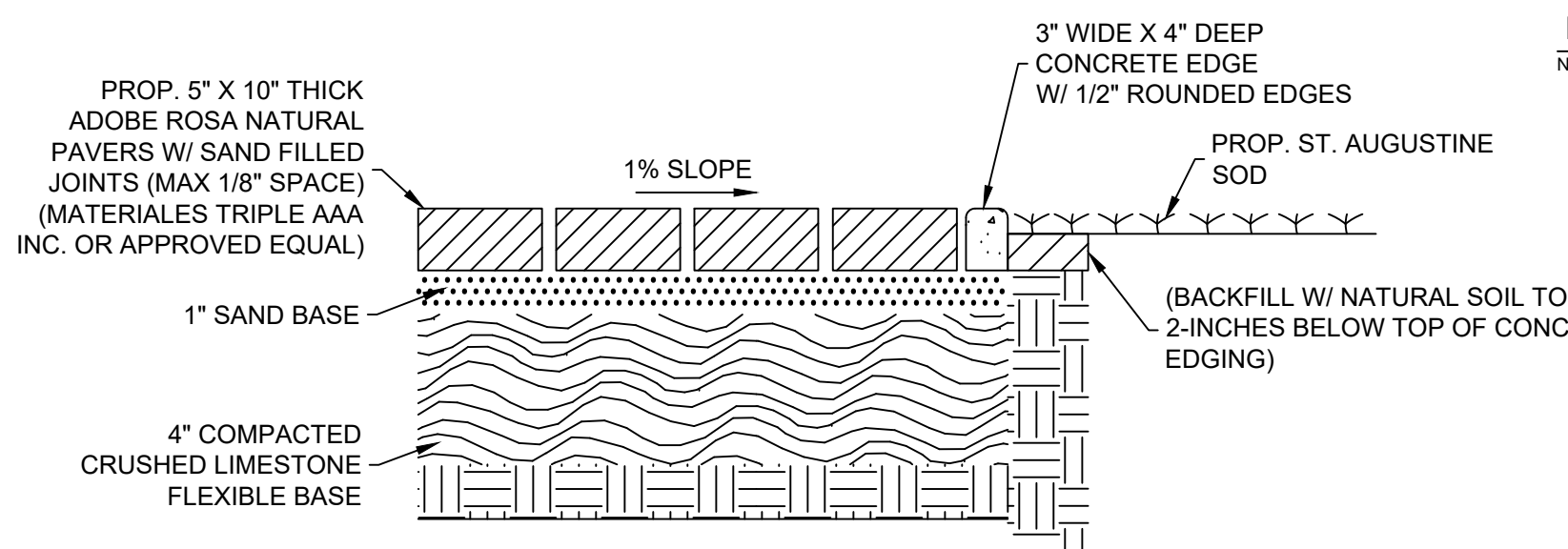
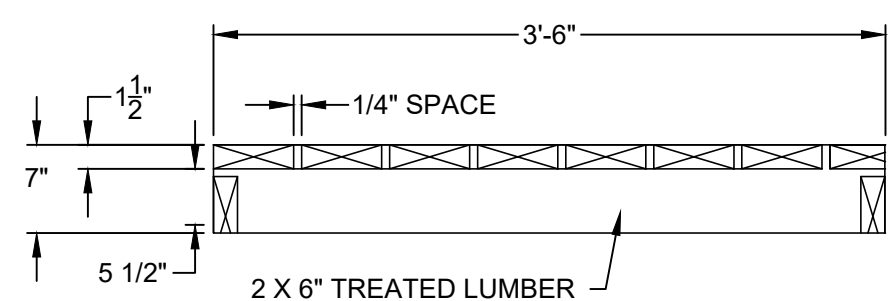
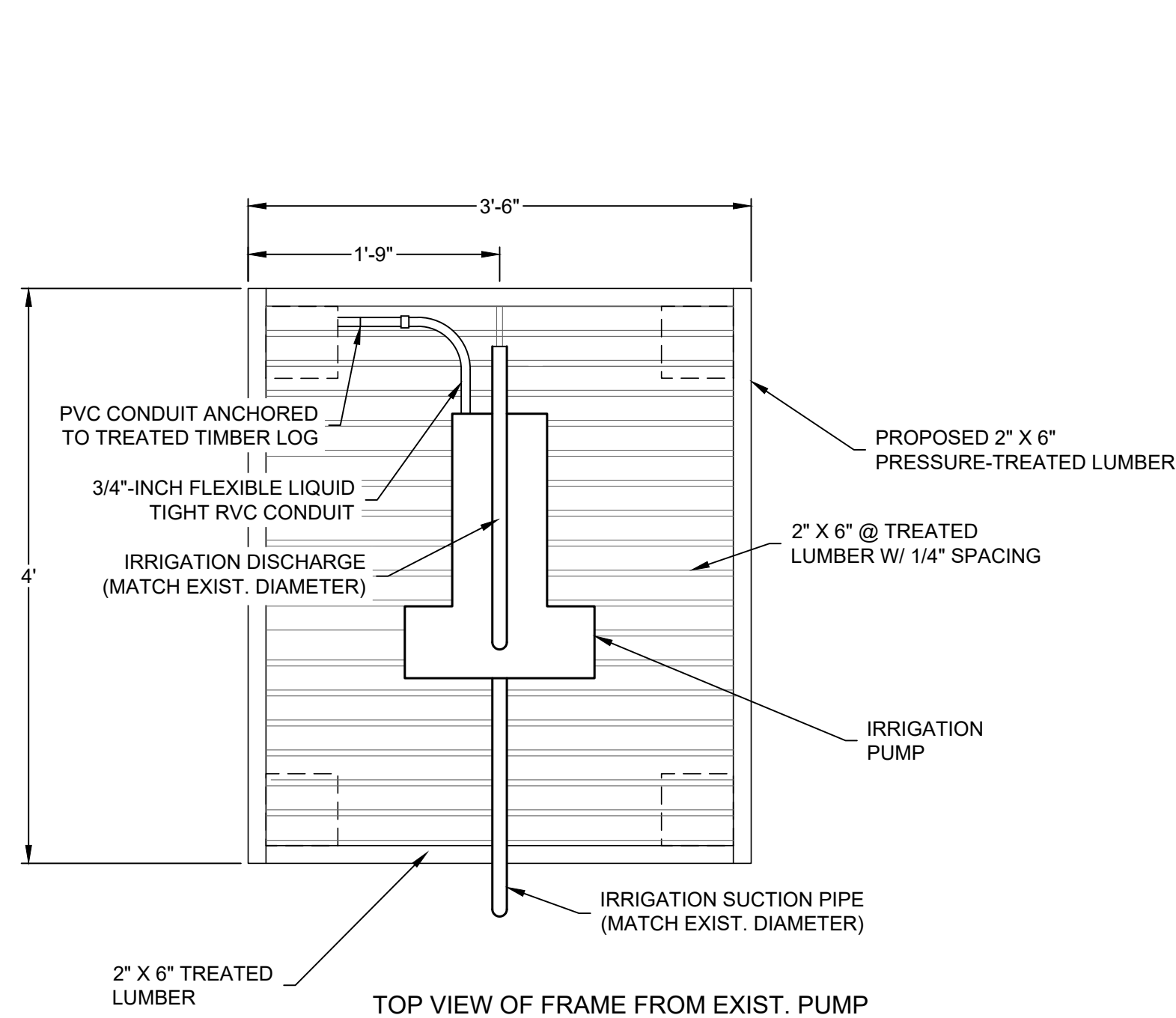
**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS



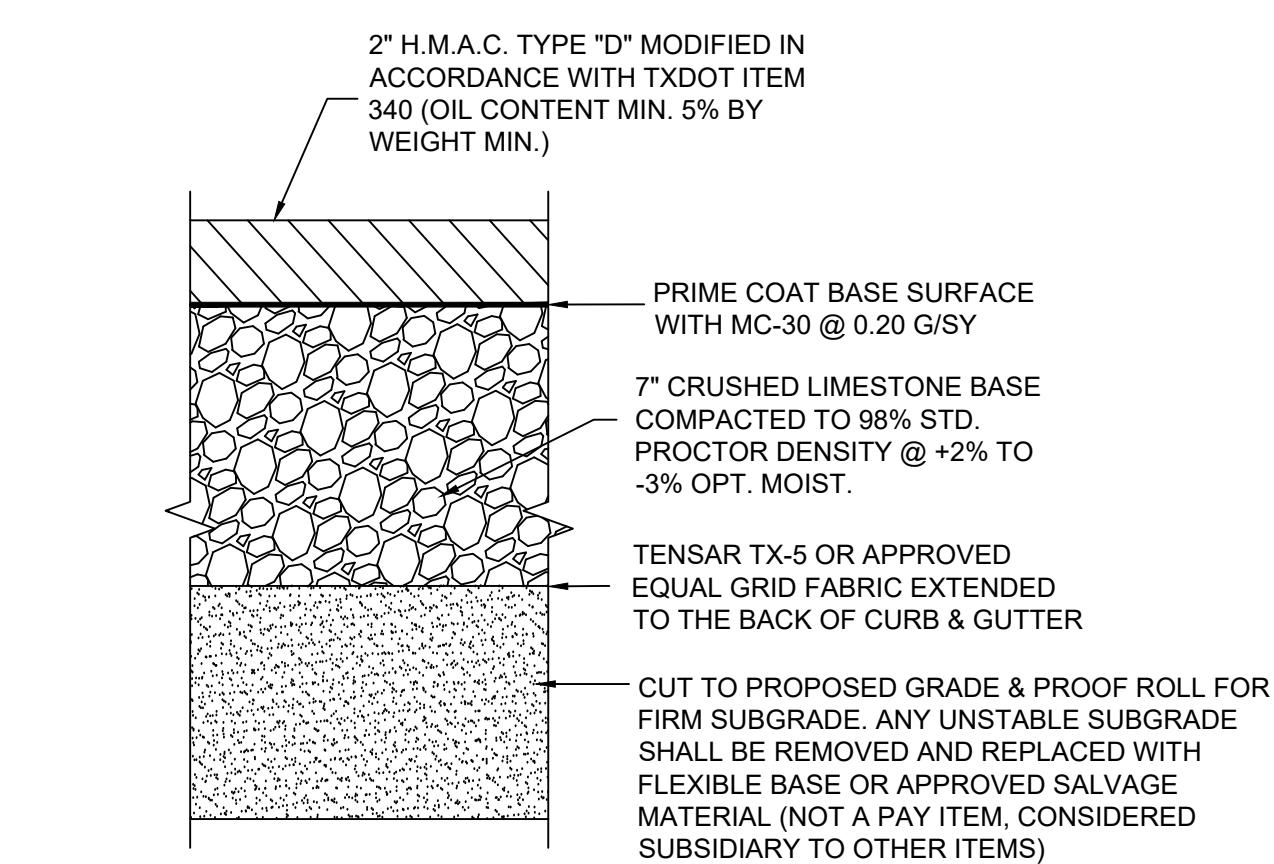
Revision No.	Date	Description



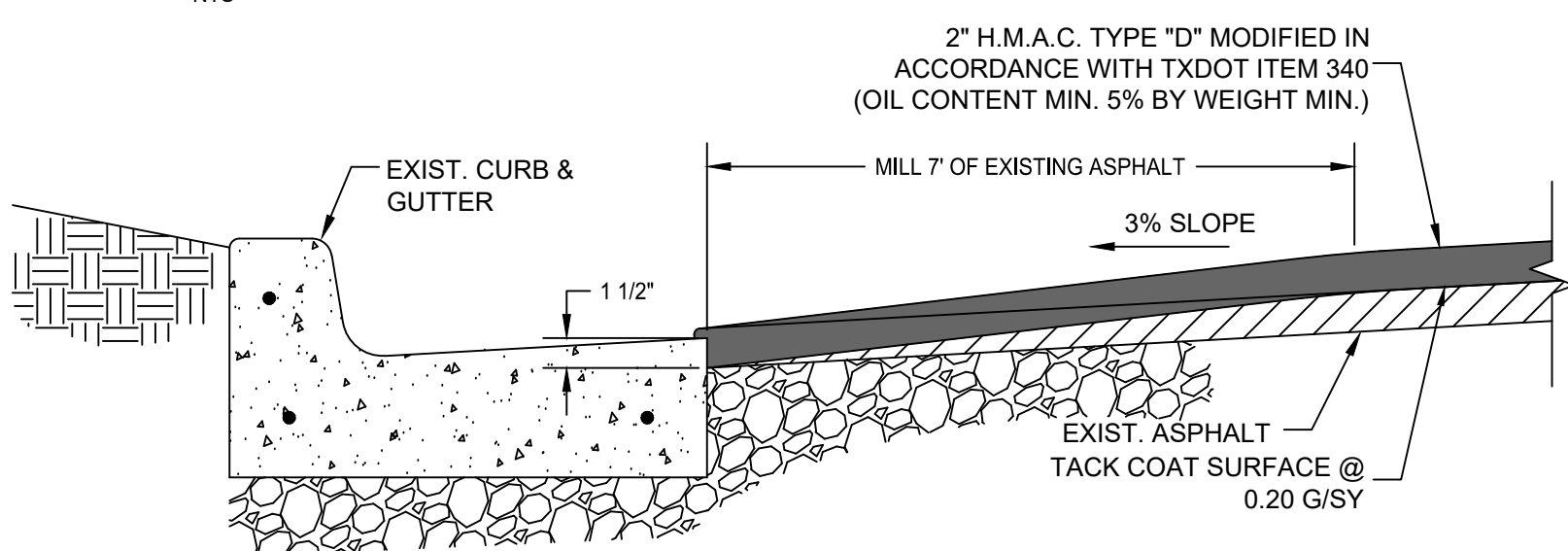
Project No.: 4147.001  
 Issued: 6/26/2023  
 Drawn By: MH  
 Checked By: JWC  
 Scale: AS NOTED  
 Sheet Title: STORM DRAIN DETAILS  
**C902**  
 Sheet Number



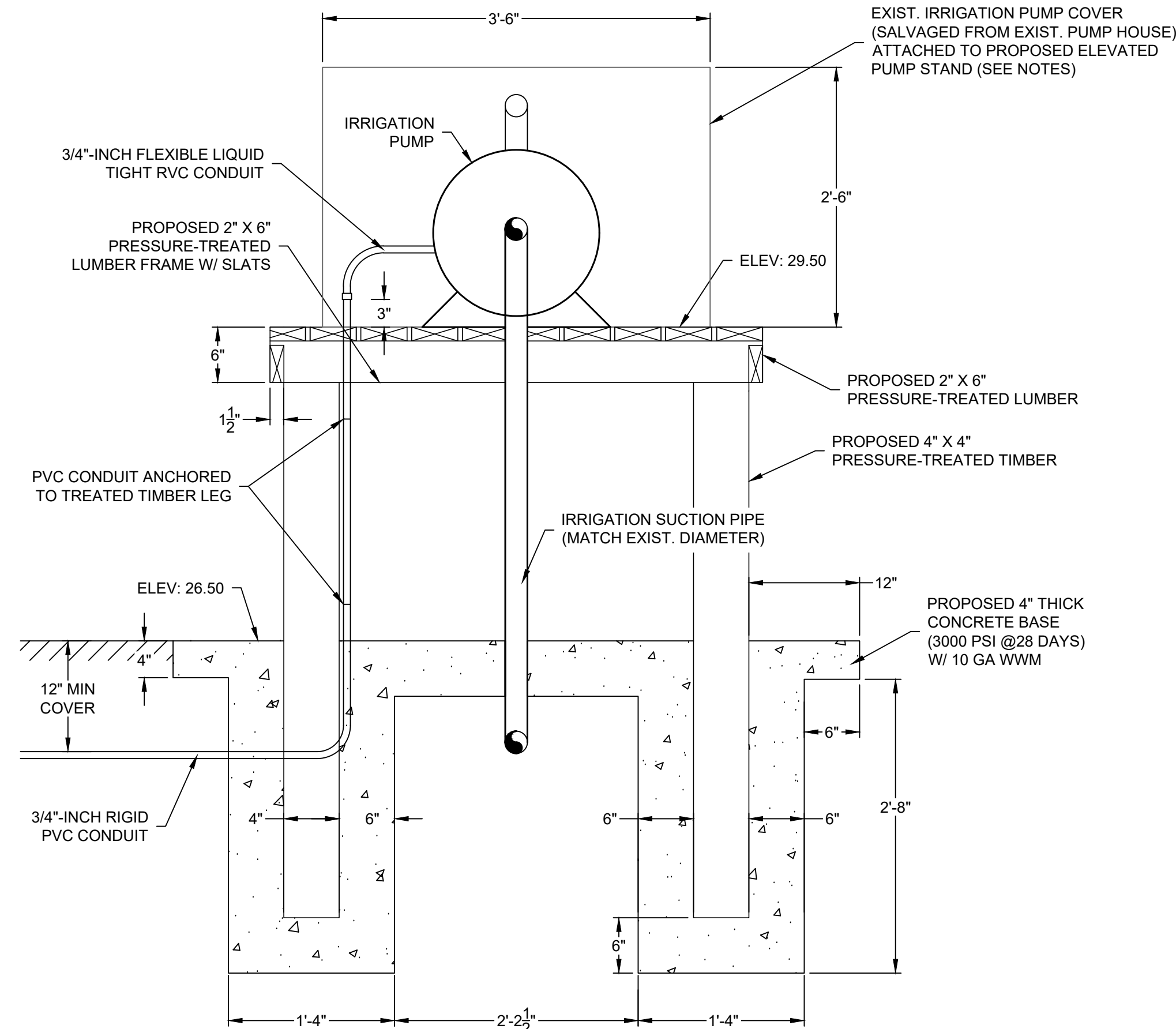
BRICK PAVER DETAIL  
NTS



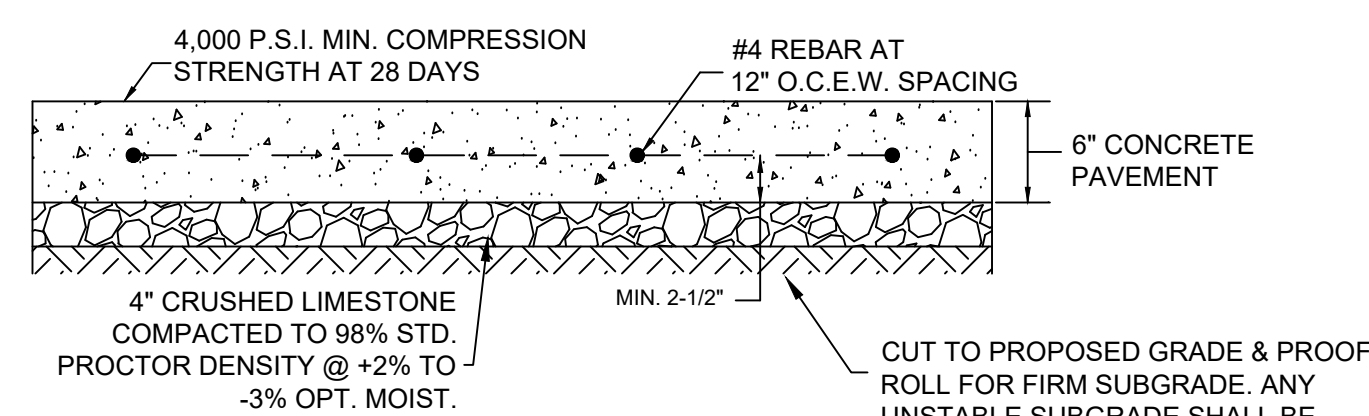
TYPICAL LIGHT DUTY RECONSTRUCTION PAVEMENT SECTION  
NTS



MILL AND OVERLAY DETAIL  
NTS



IRRIGATION PUMP DETAIL  
NTS

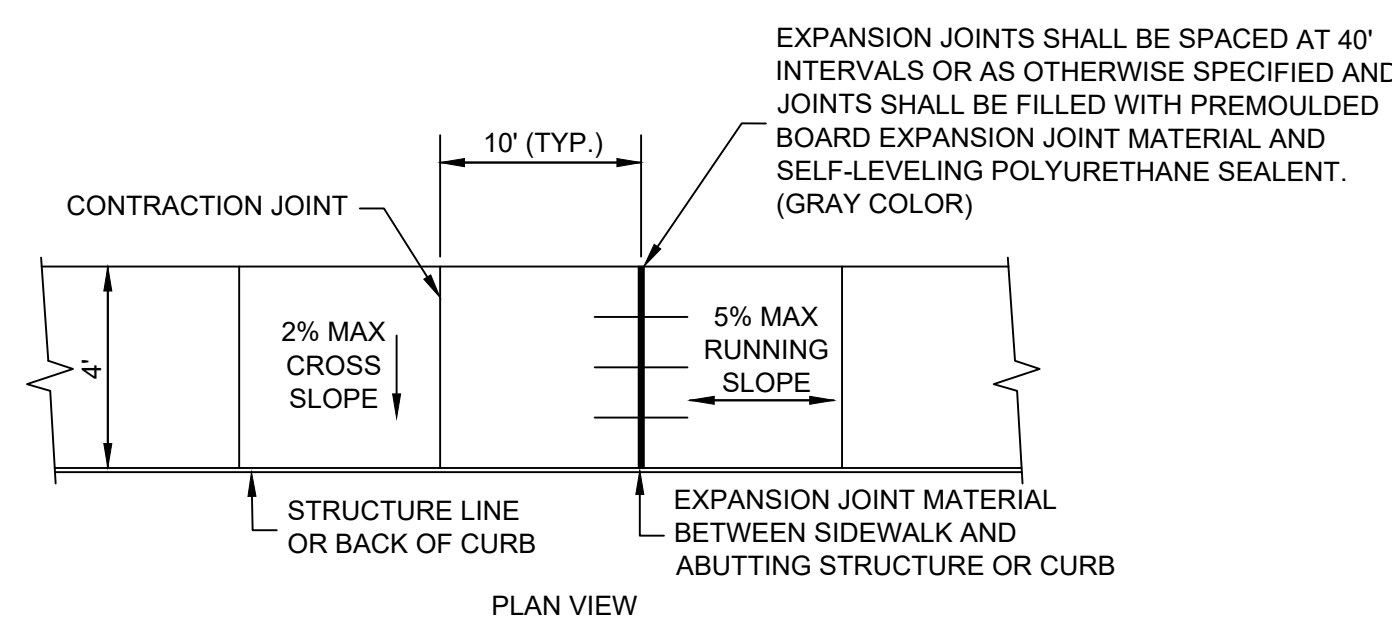


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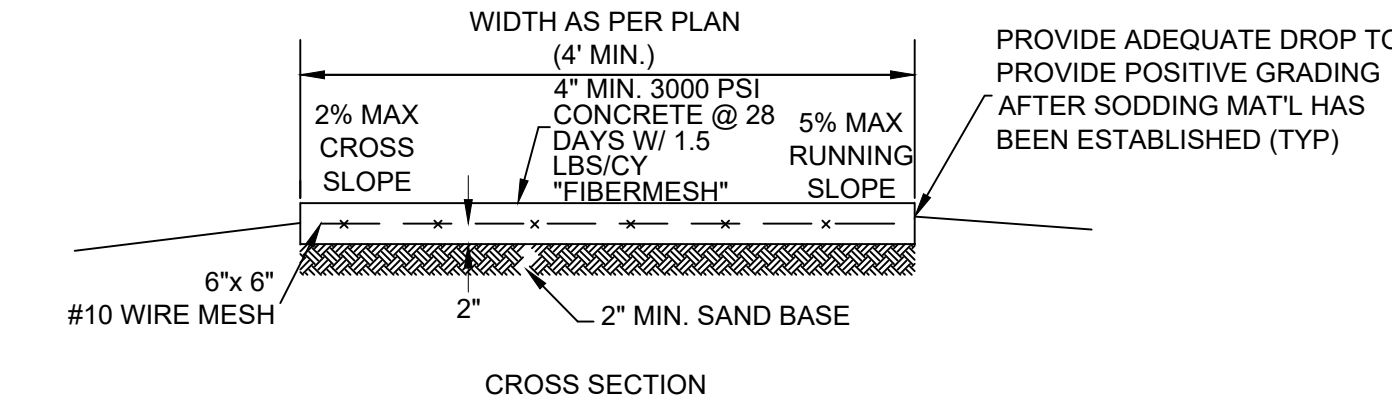
1. CONTRACTION JOINTS SHALL BE CONSTRUCTED EVERY 10' EACH DIRECTION WITH EXPANSION (CONTRACTION) JOINTS EVERY 40', EXCEPT WHERE NOTED ON ENTRANCE DETAILS.

2. DETAILS FOR PAVEMENT WIDTH AND CROSS SLOPE SHALL BE AS SHOWN ELSEWHERE IN PLANS

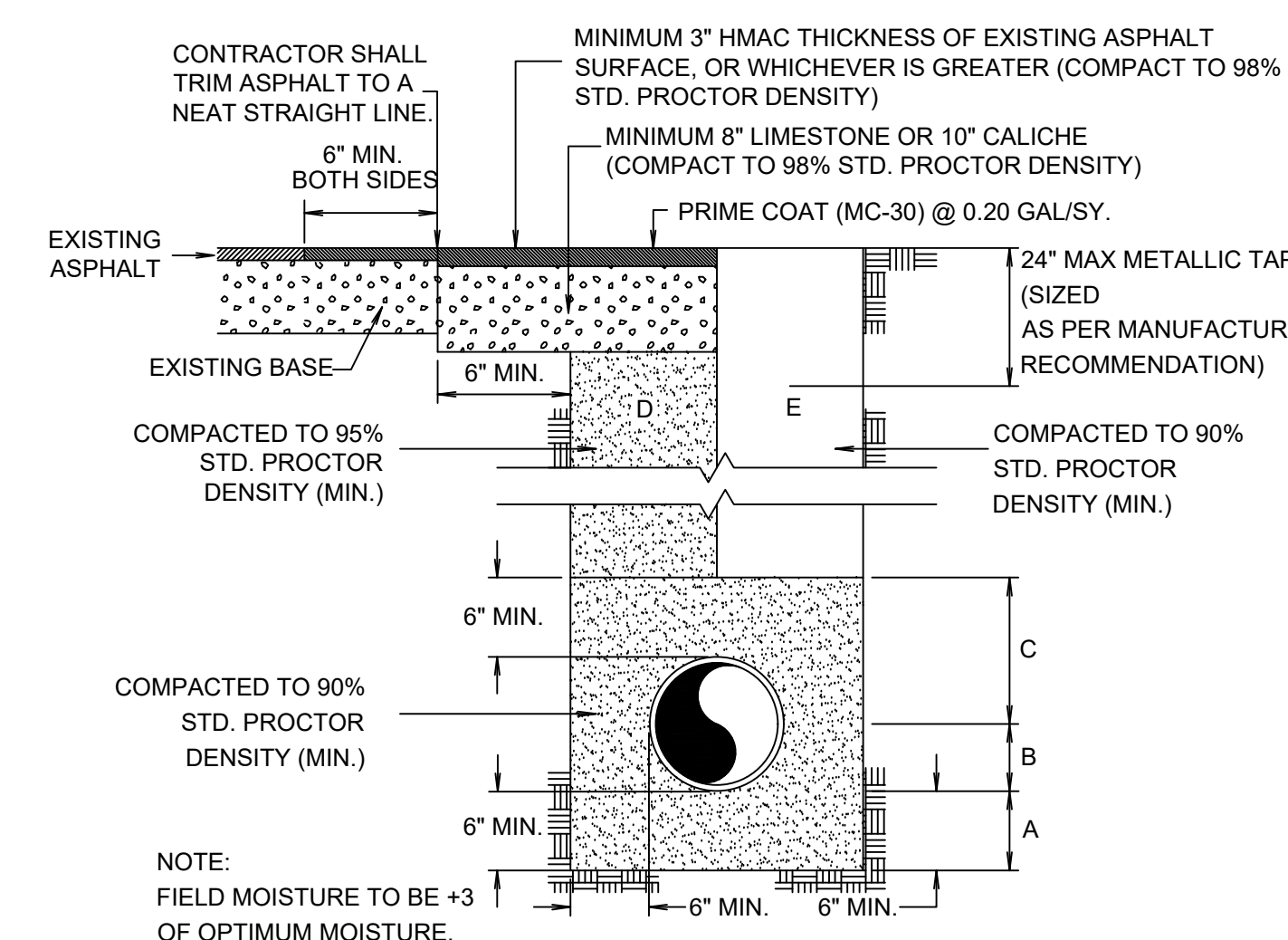
CONCRETE PAVEMENT DETAIL  
NTS



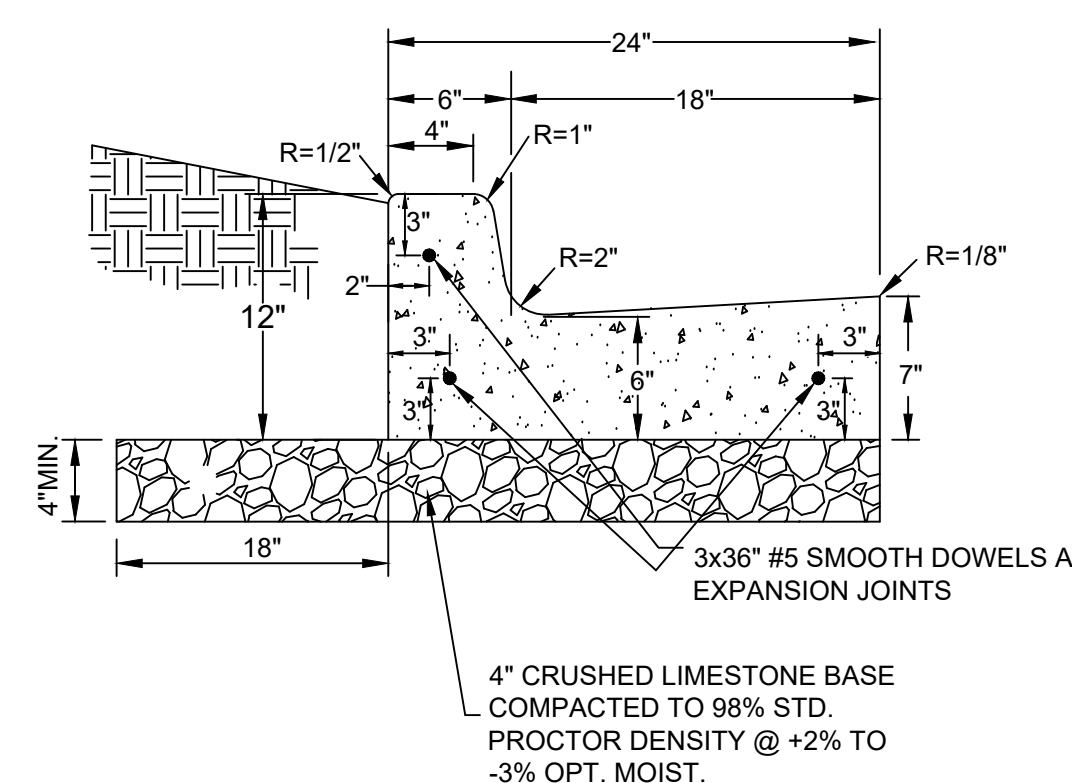
CONCRETE SIDEWALK DETAIL  
NTS



CROSS SECTION  
CONCRETE SIDEWALK DETAIL  
NTS



TYPICAL PIPE BEDDING AND TRENCH BACKFILL DETAIL  
NTS



TYPICAL CURB AND GUTTER SECTION  
NTS

IRRIGATION PUMP RELOCATION NOTES:

1. THE IRRIGATION PUMP SHALL BE RELOCATED TO THE LOCATION IDENTIFIED IN THE DESIGN PLANS. CONTRACTOR SHALL COORDINATE THIS LOCATION WITH THE LANDOWNER BEFORE INITIATING WORK.
2. ALL LUMBER SHALL BE GRADE 2 OR BETTER CCA PRESSURE TREATED LUMBER AT A RATE OF 0.6 LBS OF TREATMENT PER CUBIC FOOT. LUMBER SHALL MEET OR EXCEED AWPA STANDARDS (C-2 AND C-18) FOR PRESERVATION TREATMENT AS APPLICABLE.
3. THE CONTRACTOR SHALL SALVAGE THE IRRIGATION PUMP AND WOODEN HOUSING AND REMOVE THE REMAINING STRUCTURE. ALL OTHER NECESSARY MATERIAL REQUIRED FOR THE RELOCATION SHALL BE REPLACED ON A LIKE-FOR-LIKE BASIS. THE CONTRACTOR SHALL PROTECT ALL SALVAGED MATERIAL FROM DAMAGE DURING RELOCATION EFFORTS.
4. THE WOOD PLATFORM STRUCTURE SHALL BE CONSTRUCTED AS PER THE DESIGN DETAIL AND SHALL SALVAGE THE EXISTING IRRIGATION PUMP COVER. THE EXISTING PUMP COVER SHALL BE ATTACHED TO THE NEWLY CONSTRUCTED PLATFORM IN A MANNER APPROVED BY THE ENGINEER USING A MINIMUM OF TWO 4-INCH GALVANIZED METAL BRACKETS ON EACH SIDE OF THE PUMP COVER. BRACKETS SHALL BE INSTALL INTERNALLY SO THEY ARE NOT EXPOSED TO THE ELEMENTS.
5. THE TIME IN WHICH THE PUMP IS OUT OF SERVICE SHALL NOT EXTEND BEYOND 7-CALENDAR DAYS. IF THE RELOCATION REQUIRES LONGER THAN 7-CALENDAR DAYS, THE CONTRACTOR SHALL PROVIDE MEANS TO IRRIGATE THE LANDOWNER'S PROPERTY. ALL SUCH COSTS FOR TEMPORARY IRRIGATION SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS.
6. THE ELECTRICAL CONDUIT AND DISCHARGE LINE SHALL BE EXTENDED FROM THE EXISTING PIPING UNDERGROUND AT A MINIMUM DEPTH OF 12-INCHES OF PIPE/CONDUIT COVER AND A SEPARATION DISTANCE OF AT LEAST 6-INCHES.
7. THE ELECTRICAL SERVICE SHALL BE INSTALLED IN A 3/4-INCH PVC CONDUIT FROM THE EXISTING PUMP LOCATION TO THE PROPOSED LOCATION. RIGID NON-METALLIC PVC CONDUIT SHALL BE USED FOR ALL UNDERGROUND CONDUIT TO THE PUMP PLATFORM. PVC CONDUIT SHALL THEN TRANSITION TO A FLEXIBLE NON-METALLIC PVC LIQUID TIGHT CONDUIT AND CONNECT TO THE PUMP ELECTRICAL ACCESS PLATE. CONDUIT TRANSITIONS AND CONNECTIONS SHALL USE APPROPRIATE LIQUID TIGHT FITTINGS.
8. ALL SPLICING OF ELECTRICAL SERVICE SHALL BE INSTALLED WITH A MINIMUM OF 12-INCHES OF WIRE SLACK IN A 6 1/2-INCH DIAMETER VALVE BOX (NDS MODEL 107BC) INSTALLED FLUSH WITH FINISH NATURAL GROUND SURFACE. ALL WIRE SPLICES SHALL BE PROTECTED USING ADHESIVE LINED HEAT SHRINK TUBE TO CREATE A WATERPROOF CONNECTION. ALL WIRING SHALL MATCH EXISTING STRAND AND SIZE.
9. THE PUMP SUCTION LINE SHALL BE INSTALLED WITH A MINIMUM OF 12-INCHES OF COVER. PENETRATE THE BULKHEAD 6-INCHES (MIN.) ABOVE THE WATER SURFACE. EXTEND 12-INCHES FROM THE BULKHEAD, TURN 90-DEGREES DOWNWARD AND ENTER THE WATER BODY. THE SUCTION LINE SHALL BE INSTALLED WITH A PVC FOOT VALVE OF SIMILAR DIAMETER OF THE SUCTION LINE WITH MINIMUM SUBMERGENCE OF 24-INCHES (OR AS PER PUMP MANUFACTURER'S INSTRUCTIONS).
10. THE DISCHARGE PIPE SHALL BE INSTALLED IN THE EXISTING PUMP HOUSE HOLE AND TURN 90-DEGREES DOWNWARD TO A MINIMUM COVER DEPTH OF 12-INCHES AND THEN CONNECT TO THE EXISTING DISCHARGE LINE SERVING THE IRRIGATION SYSTEM.
11. ALL SUCTION AND DISCHARGE PIPING SHALL BE SCH40 PVC WITH SOLVENT WELDED FITTINGS.
12. CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER IN WRITING OF ANY CONFLICT BETWEEN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THE DESIGN PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL NOT PERFORM ANY WORK ON ANY ITEM UNTIL SUCH DISCREPANCIES HAVE BEEN RESOLVED.

NOTES:

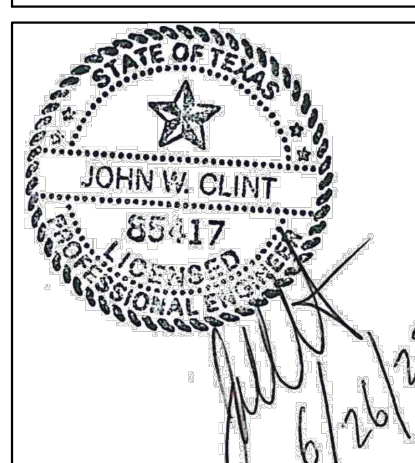
- A. BANK RUN SAND PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE (MIN. THICKNESS = 6").
  - B. BANK RUN SAND PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPE (4" LIFTS, HAND TAMPED).
  - C. BANK RUN SAND PLACED FROM SPRING LINE OF PIPE TO 6" ABOVE TOP OF PIPE (6" LIFTS, HAND TAMPED).
  - D. BANK RUN SAND, CLASS "A" (6" LIFTS, MECHANICAL COMPACTION).
  - E. EARTH BACKFILL, CLASS "B" (12" LIFTS, MECHANICAL COMPACTION).
- FOUNDATION PREPARATION (WELLPOINTS, GRAVEL OR CEMENT STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS STABLE.
- BACKFILL AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS. MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO 95% STD. PROCTOR DENSITY. THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 6". STRUCTURE BACKFILL MATERIAL SHALL BE SAND, APPROVED SITE SOIL, OR OTHER APPROVED.
- BANK RUN SAND SHALL BE CLASSIFIED AS SP, SW, OR SM BY THE USC SYSTEM (ASTM D24870).

NOTES:

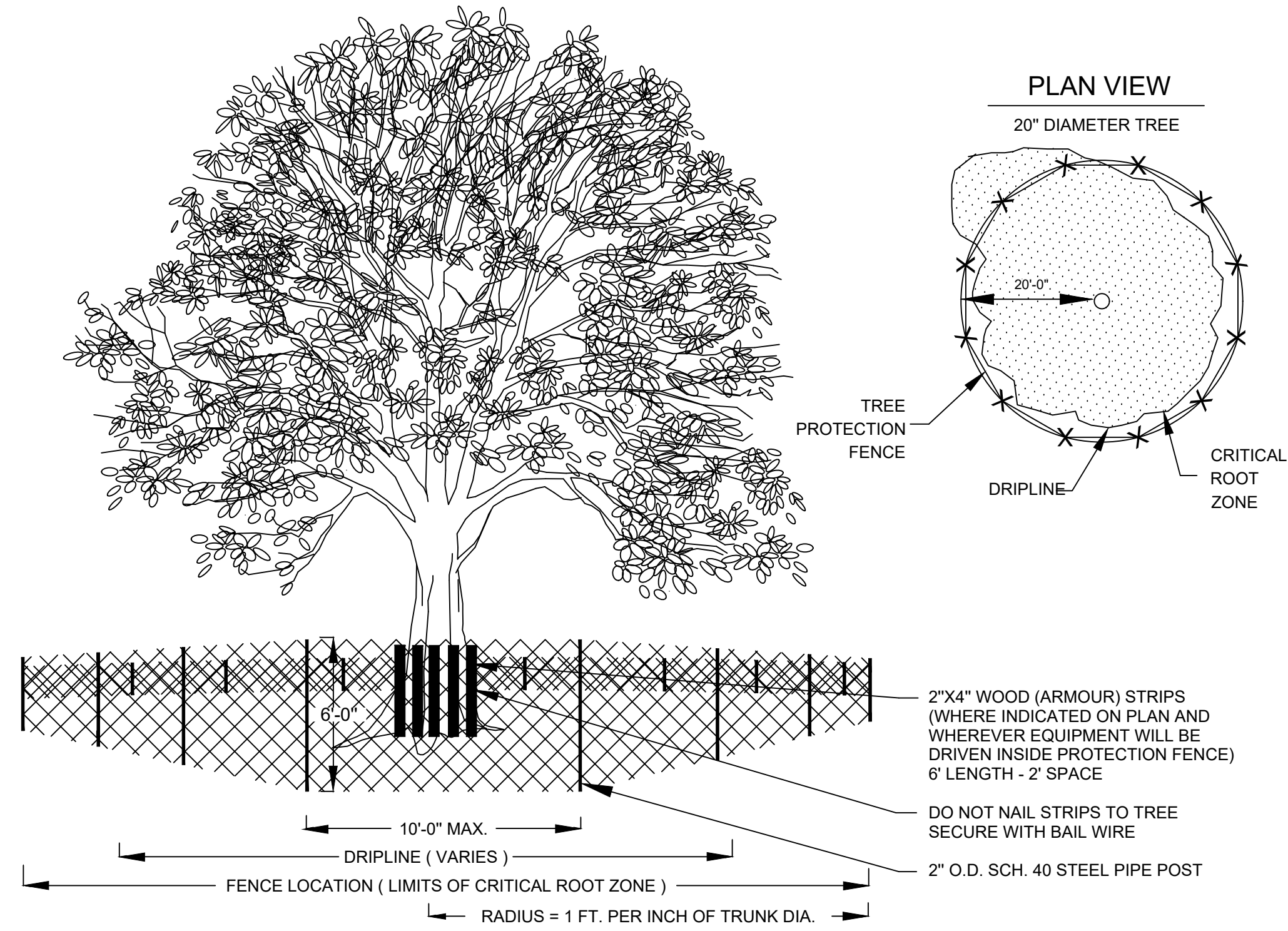
1. CONCRETE SHALL BE CLASS "A" WITH A 3,000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS WITH 1.5 LBS/CY "FIBERMESH".
2. CURBS SHALL BE BACKFILLED IMMEDIATELY AFTER REMOVAL OF FORMS TO PREVENT TILTING.
3. 1" DEEP CONTRACTION JOINTS @ 10 O.C. MAX.
4. EXPANSION JOINTS WILL BE PLACED AT CURB RETURNS, INLETS, AND END OF EACH POUR WITH INTERVALS NOT TO EXCEED 40 LF.
5. JOINTS WILL CONSIST OF BOARD EXPANSION JOINT MATERIAL AND SELF LEVELING POLYURETHANE SEALANT (GRAY COLOR) WITH 3-36" #5 SMOOTH DOWELS, ONE END GREASED AND WRAPPED.
6. CARE MUST BE TAKEN THAT THE DOWELS ARE STRAIGHT AND LAID PARALLEL WITH CURB AND NO CONCRETE "PLUGS" OR OTHER MATERIAL BE ALLOWED THROUGH THE DOWEL HOLES OR EXPANSION MATERIAL THAT WOULD PREVENT JOINT FROM OPERATING AS AN EXPANSION JOINT
7. PROOF ROLL EXIST. SUBGRADE. ANY UNSTABLE SUBGRADE SHALL BE REMOVED AND REPLACED WITH FLEXIBLE BASE OR APPROVED SALVAGE MATERIAL.



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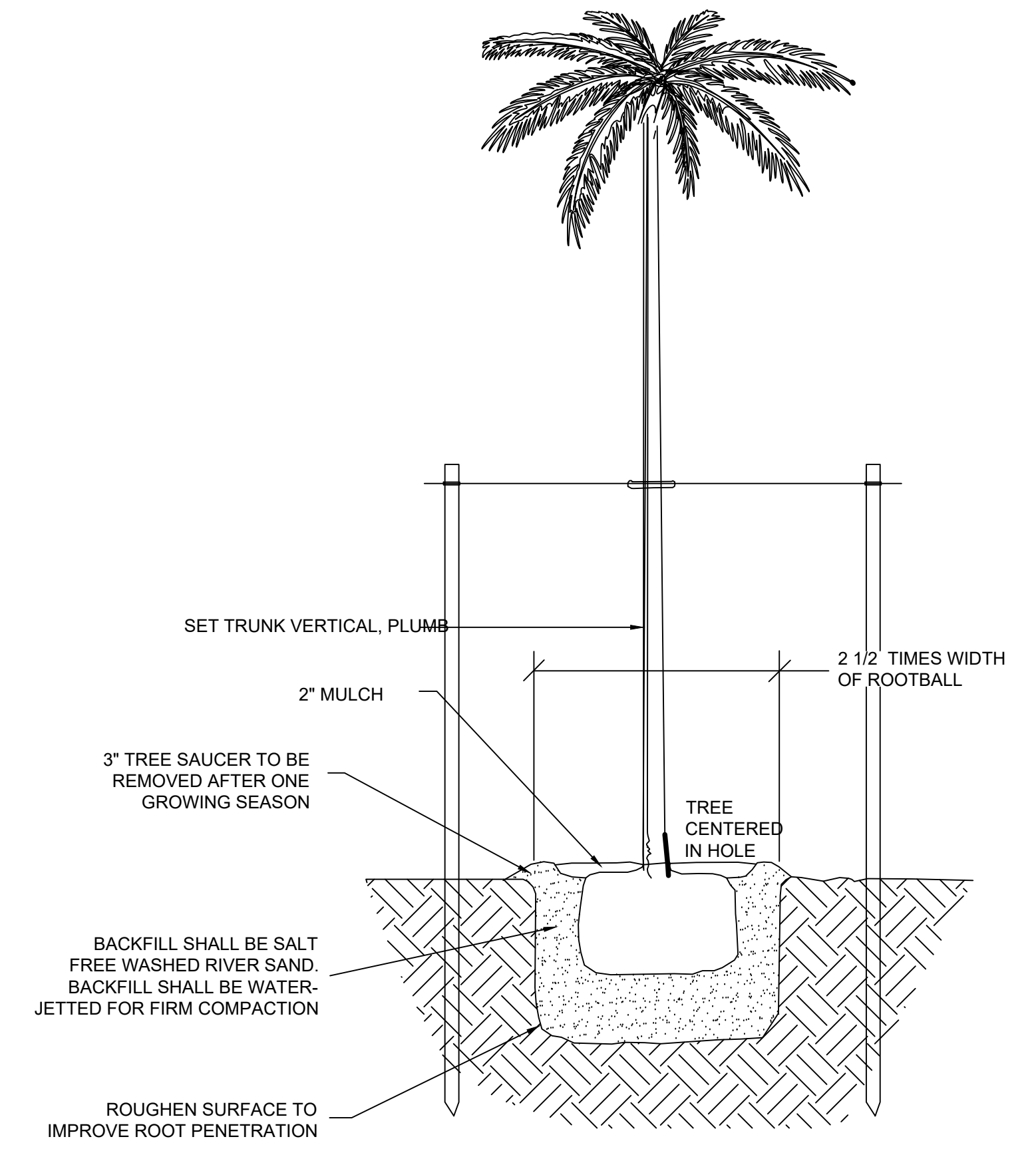


**STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION**

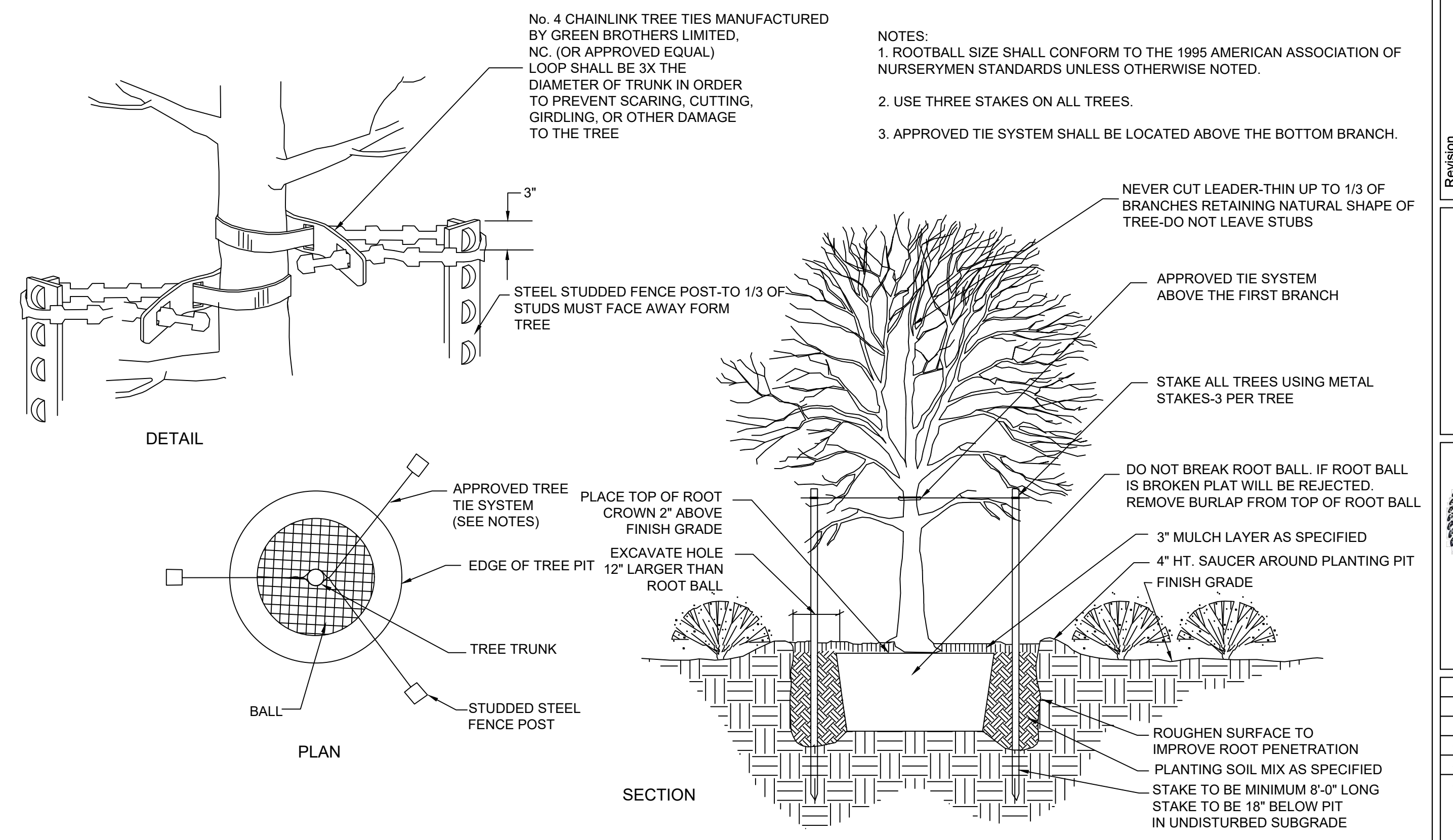
1. ALL TREES AND NATURAL AREAS SHOWN ON THIS PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
2. PROTECTIVE FENCES SHALL BE ERECTED FOR TREE PROTECTION.
3. PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING), AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
4. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIP LINES.
5. PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES, AND WILL BE LOCATED AT THE OUTERMOST LIMITS OF BRANCHES (DRIPLINE). FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:
  - A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
  - B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL) OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY ARBORIST;
  - C. WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT;
  - D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
6. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
  - A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 TO 4 FEET BEYOND THE AREA DISTURBED.
  - B. WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIP LINE, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING SO THAT THIS AREA IS GRADED SEPARATELY PRIOR TO PAVING INSTALLATION TO MINIMIZED ROOT DAMAGE);
  - C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW 6 TO 10 FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING.
  - D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE CITY ARBORIST TO DISCUSS ALTERNATIVES.
7. WHERE ANY OF THE ABOVE EXCEPTIONS RESULTS IN A FENCE BEING CLOSER THAN 4 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
8. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
9. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
10. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIPLINES OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS.
13. ALL FINISHED PRUNING MUST BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE CITY ARBORIST).
14. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NON-COMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

**TREE PROTECTION**

N.T.S.



**PALM TREE BRACING DETAIL**  
N.T.S.



**LARGE CANOPY - TREE PLANTING AND STAKING**  
N.T.S.



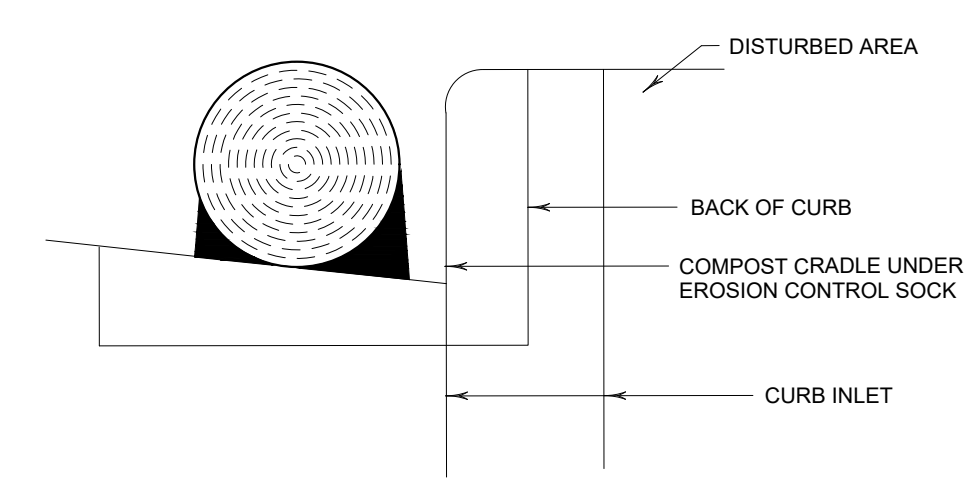
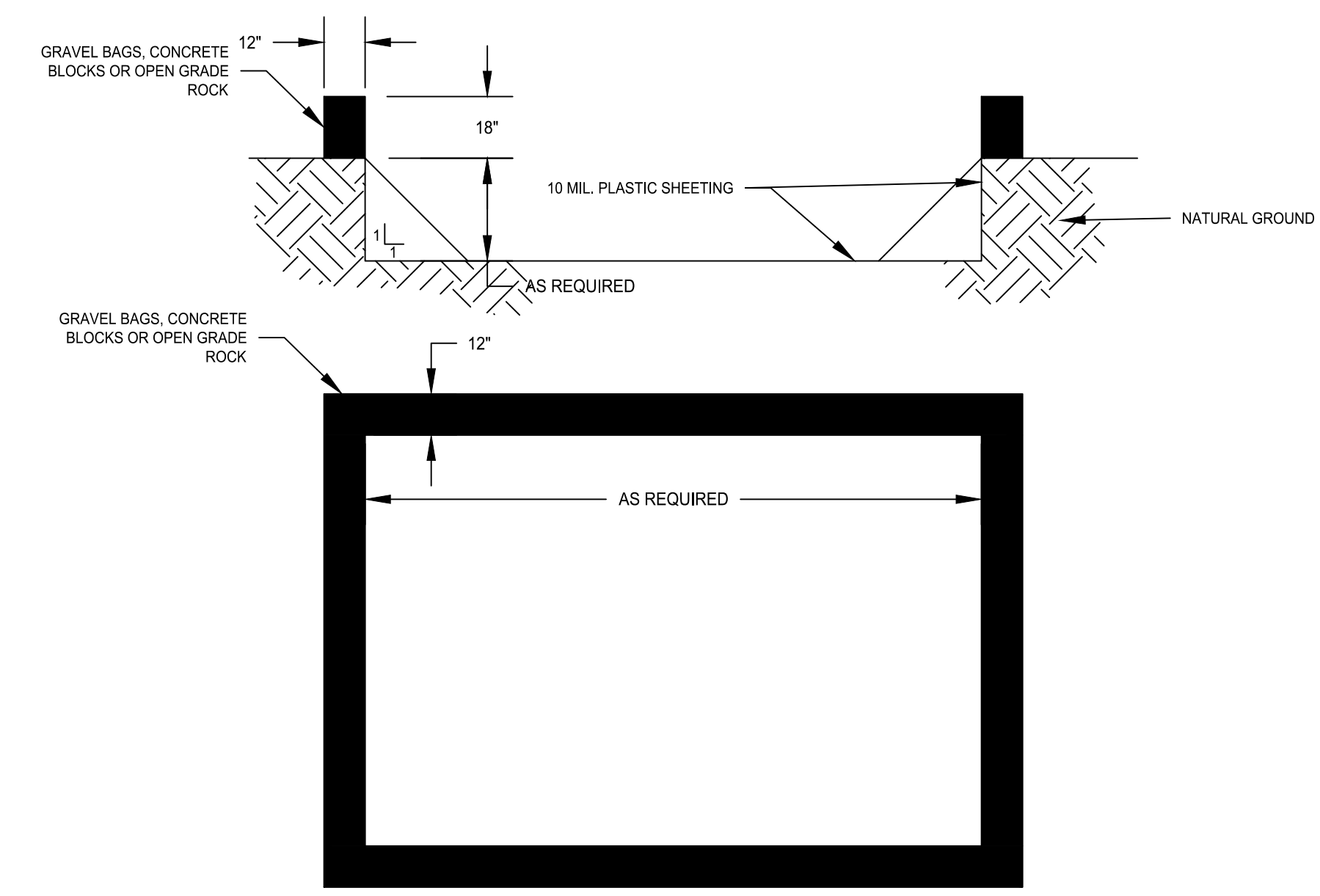
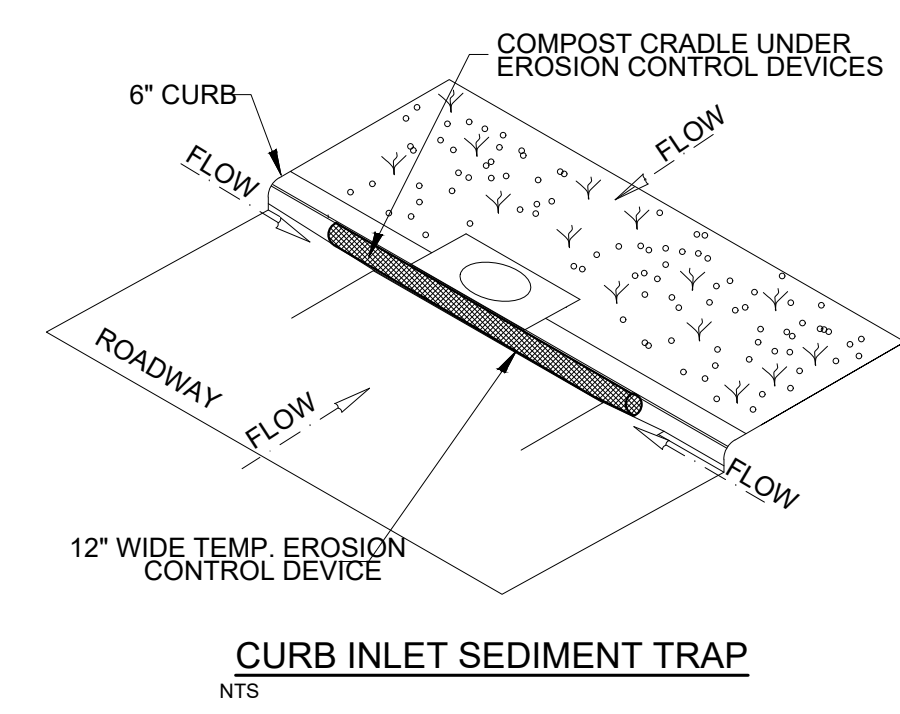
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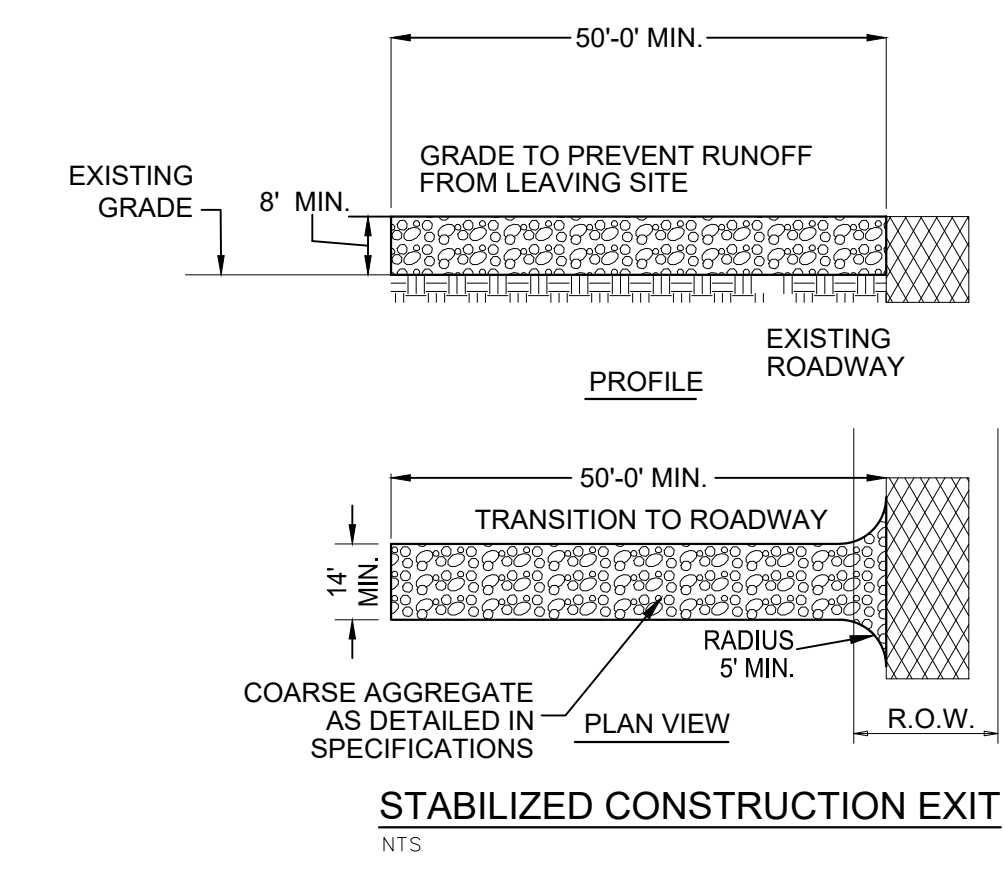
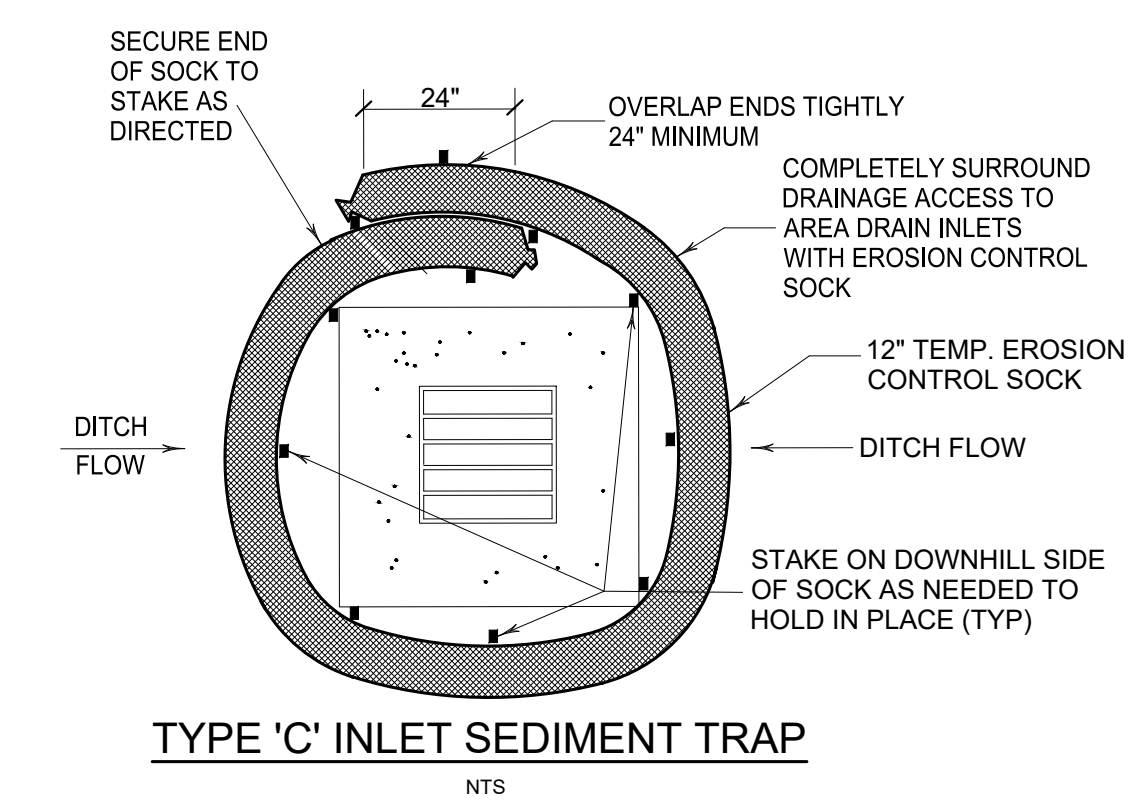
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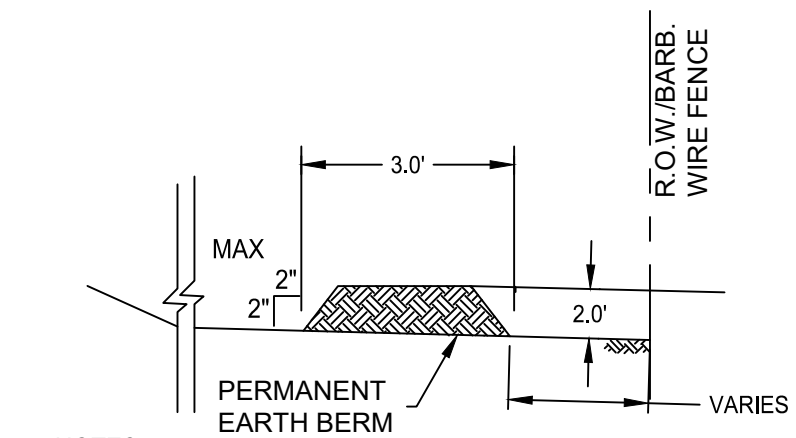
**WASHOUT PIT NOTES**

1. THE EXCAVATION FOR THE CONCRETE WASHOUT SHALL BE A MINIMUM OF 10' WIDE AND A SUFFICIENT LENGTH AND DEPTH TO ACCOMMODATE 7 GALLONS OF WASHOUT WATER AND CONCRETE PER TRUCK PER DAY AND/OR 50 GALLONS WATER AND CONCRETE PER PUMP TRUCK PER DAY.
2. IN THE EVENT THAT THE CONCRETE TRUCK WASHOUT IS CONSTRUCTED ABOVE GROUND, IT SHALL BE 10 FEET WIDE AND 10 FEET LONG WITH WITH THE SAME REQUIREMENTS FOR CONTAINMENT AS DESCRIBED IN NOTE 1.
3. THE CONTAINMENT AREA SHALL BE LINED WITH 10 MIL. PLASTIC SHEETING WITHOUT HOLES OR TEARS. WHERE THERE ARE SEAMS, THESE SHALL BE SECURED ACCORDING TO MANUFACTURERS' DIRECTIONS.
4. THE BERM CONSISTING OF GRAVEL BAGS, CONCRETE BLOCKS OR OPEN GRADED ROCK SHALL BE NO LESS THAN 18 INCHES HIGH AND NO LESS THAN 12 INCHES WIDE.
5. THE PLASTIC SHEETING SHALL BE OF SUFFICIENT SIZE SO THAT IT WILL OVER LAP THE TOP OF THE CONTAINMENT AREA AND BE WRAPPED AROUND THE GRAVEL BAGS, CONCRETE BLOCKS OR OPEN GRADED ROCK AT LEAST TWO TIMES.
6. THE GRAVEL BAGS, CONCRETE BLOCKS OR OPEN GRADED ROCK SHALL BE PLACED ABUTTING EACH OTHER TO FORM A CONTINUOUS BERM AROUND THE OUTER PERIMETER OF THE CONTAINMENT AREA.
7. THE WASHOUT MATERIAL IN THE CONTAINMENT AREA SHALL NOT EXCEED 50% OF CAPACITY AT ANY ONE TIME.
8. SOLIDS SHALL BE REMOVED FROM CONTAINMENT AREA AND DISPOSED OF PROPERLY. ANY DAMAGE TO THE PLASTIC SHEETING SHALL BE REPAIRED OR SHEETING BE REPLACED BEFORE THE NEXT USE.

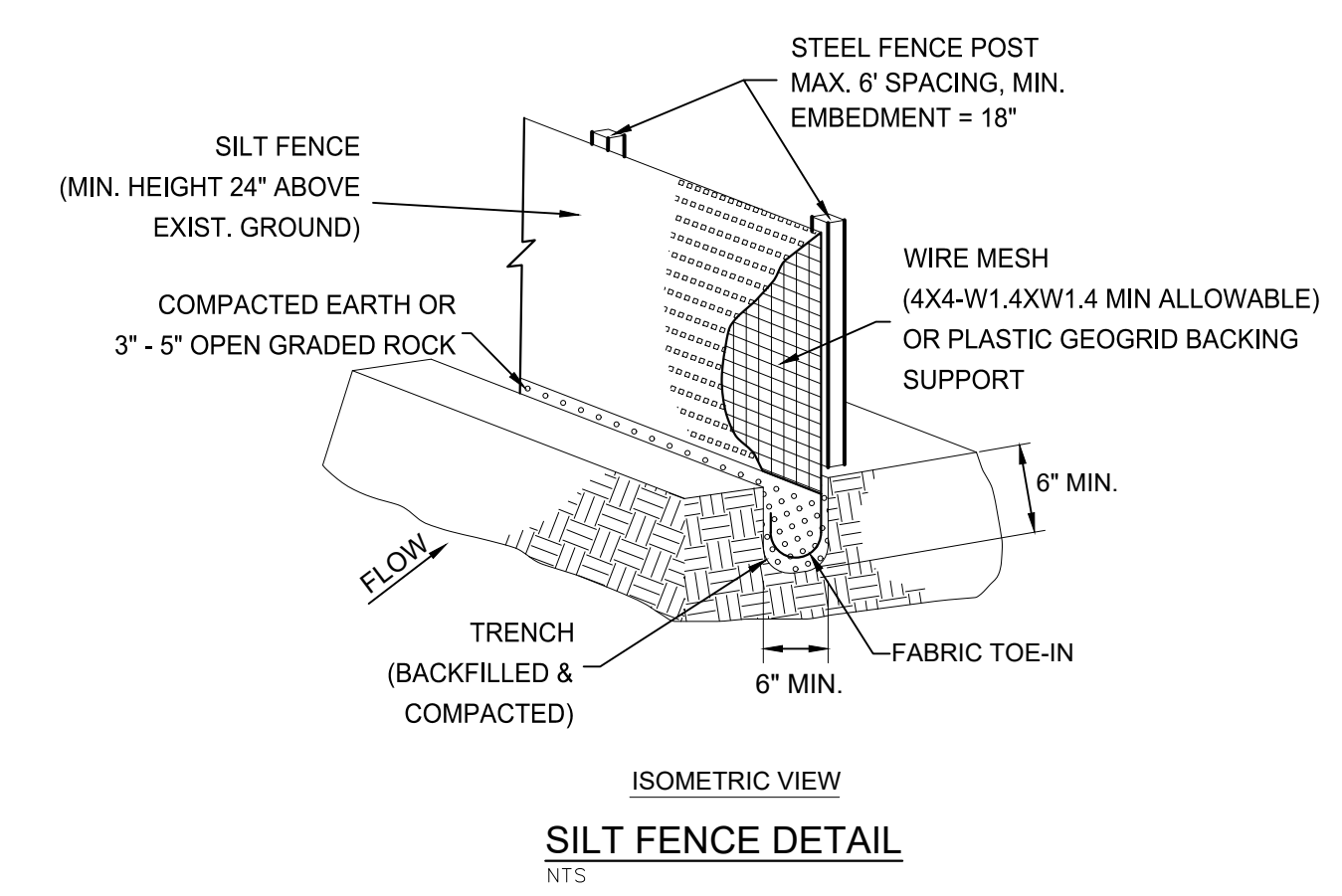


**CONSTRUCTION ENTRANCE/EXIT NOTES**

1. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. STONE SHALL BE 3 TO 5 INCH DIAMETER CRUSHED ROCK OR ACCEPTABLE CRUSHED CONCRETE. THICKNESS SHALL NOT BE LESS THAN 8 INCHES.
3. WIDTH SHALL NOT BE LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
5. STABILIZED AREA MAY BE WIDENED OR LENGTHENED TO ACCOMMODATE A TRUCK WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE TRUCK WASHING AREA.
6. STABILIZED CONSTRUCTION EXIT MUST BE PROPERLY GRADED OR INCORPORATE DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE AND SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE A CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED SURFACES, MUST BE REMOVED IMMEDIATELY.
8. STABILIZED CONSTRUCTION EXIT SHALL BE USED FOR SUBGRADE OF THE PROPOSED ACCESS DRIVE. CONTRACTOR TO LEVEL STABILIZED ROCK AND PLACE CRUSHED LIMESTONE AS PER DETAIL.



- NOTES:**
1. CONTRACTOR WILL CLEAN UP IMMEDIATELY ANY MATERIAL TRACKED ON TO PUBLIC STREETS AS A RESULT OF CONSTRUCTION.
  2. BERM TO BE KEPT PERMANENTLY.



**SILT FENCE NOTES:**

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED WITH A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 18".
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE, AS NECESSARY, TO PREVENT FLOW UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO BACKING SUPPORT, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. FABRIC SHALL OVERLAP AT ABUTTING ENDS A MINIMUM OF 3 FEET AND SHALL BE JOINED SUCH THAT NO BYPASS OR LEAKAGE OCCURS.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. ALL INLETS SHALL BE ENIRCLED WITH SILT FENCE OR EROSION CONTROL LOGS.
9. IF EROSION CONTROL DEVICES INTERFERE WITH CONSTRUCTION, THEY MAY BE TEMPORARILY REMOVED UNTIL THAT PORTION OF WORK IS COMPLETE. EROSION CONTROL DEVICES MUST BE IN PLACE AT ALL OTHER TIMES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUBMITTAL OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) THAT SUPPLEMENTS THE INFORMATION PROVIDED IN THE DESIGN PLANS. THE SWPPP INFORMATION PROVIDED IN THE DESIGN PLANS DOES NOT MEET THE REQUIREMENTS SET FORTH IN THE TCEQ GENERAL PERMIT. THIS INFORMATION AND DETAILS ARE ONLY FOR INFORMATIONAL PURPOSES ONLY. (REFER TO SPECIFICATION 02370 - TPDDES REQUIREMENTS).

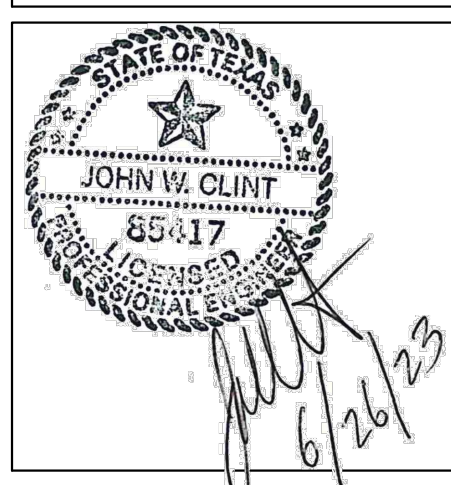
**GENERAL NOTES**

1. LENGTHS OF EROSION CONTROL SOCKS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED FOR THE PURPOSE INTENDED. MAXIMUM LENGTH OF SOCKS SHALL BE 30' FOR 12" DIAMETER SOCKS.
2. UNLESS OTHERWISE DIRECTED, USE BIODEGRADABLE OR PHOTODEGRADABLE CONTAINMENT MESH ONLY WHERE SOCK WILL REMAIN IN PLACE AS PART OF A VEGETATIVE SYSTEM. FOR TEMPORARY INSTALLATIONS, USE RECYCLABLE CONTAINMENT MESH.
3. STUFF SOCKS WITH SUFFICIENT FILTER MATERIAL TO ACHIEVE DENSITY THAT WILL HOLD SHAPE WITHOUT EXCESSIVE DEFORMATION.
4. STAKES SHALL BE 2" X 2" WOOD 4' LONG, EMBEDDED SUCH THAT 2" PROTRUDES ABOVE SOCK.
5. COMPOST CRADLE MATERIAL IS INCIDENTAL AND WILL NOT BE PAID FOR SEPARATELY.
6. A SEDIMENT TRAP MAY BE USED TO PRECIPITATE SEDIMENT OUT OF RUNOFF DRAINING FROM AN UNSTABILIZED AREA.
7. TRAPS: THE DRAINAGE AREA FOR A SEDIMENT TRAP SHOULD NOT EXCEED 5 ACRES. THE TRAP CAPACITY SHOULD BE 1800 CF/ACRE (0.5" OVER THE DRAINAGE AREA).
8. SEDIMENT TRAPS SHOULD BE PLACED IN THE FOLLOWING LOCATIONS:
  1. IMMEDIATELY PRECEDING DRAIN INLETS.
  2. JUST BEFORE THE DRAINAGE ENTERS A WATER COURSE.
  3. JUST BEFORE THE DRAINAGE LEAVES THE RIGHT OF WAY.
  4. JUST BEFORE THE DRAINAGE LEAVES THE CONSTRUCTION LIMITS WHERE DRAINAGE FLOWS AWAY FROM THE PROJECT.
9. THE TRAP SHOULD BE CLEANED WHEN THE CAPACITY HAS BEEN REDUCED BY 1/2 CAPACITY OR THE SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1', WHICHEVER IS LESS. CLEANING AND REMOVAL OF ACCUMULATED SEDIMENT DEPOSITS IS INCIDENTAL AND WILL NOT BE PAID FOR SEPARATELY.

**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS



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**C905**  
Sheet Number

GENERAL

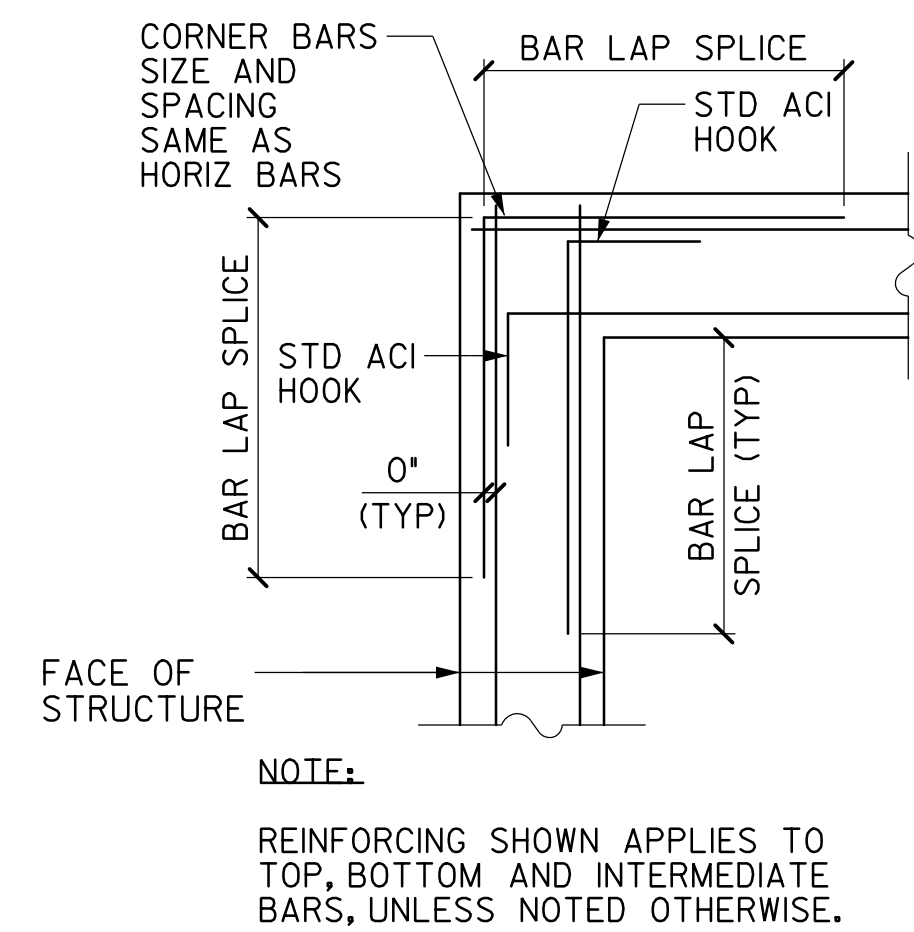
- ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, AND THE 2014 TxDOT STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STORM WATER CONTROL, EROSION CONTROL, PUMPING AND DEWATERING NECESSARY FOR THE CONSTRUCTION OF THIS PROJECT. THIS WORK SHALL BE CONSIDERED INCIDENTAL, AND NOT A SEPARATE PAY ITEM.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER OF ANY POTENTIAL CONFLICTS. EXCAVATED AREAS SHALL BE BACKFILLED AS DESCRIBED IN THE GEOTECHNICAL REPORT.
- ANY STRUCTURAL EXCAVATION AND BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE STRUCTURE AND NOT A SEPARATE PAY ITEM.
- COMPLETE SHOP DRAWINGS FOR THE STRUCTURAL WORK SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF CONSTRUCTION. A PERIOD OF AT LEAST 10 WORKING DAYS SHALL BE PROVIDED FOR THIS REVIEW. REVIEW OF SHOP DRAWINGS BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR CORRECT FABRICATION AND CONSTRUCTION OF THE WORK.
- ANY DEVIATION FROM, ADDITION TO, SUBSTITUTION FOR, OR MODIFICATION TO THE STRUCTURE OR ANY PART OF THE STRUCTURE SHOWN ON THESE DRAWINGS SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS THAT ARE SUBMITTED FOR REVIEW DO NOT CONSTITUTE 'IN-WRITING' UNLESS IT IS CLEARLY NOTED THAT SPECIFIC CHANGES ARE BEING SUGGESTED.
- THE CONTRACTOR SHALL REFER TO THE CIVIL DRAWINGS FOR ELEVATIONS NOT SHOWN AND FOR EXACT LOCATIONS AND DIMENSIONS. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL PLANS AND SECTIONS WITH THE CIVIL PLANS AND SECTIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMPLETION OF THE SHOP DRAWINGS.
- THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE ACTUAL CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH THE WORK.
- THE STRUCTURAL DRAWINGS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS.
- THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHODS OF CONSTRUCTION UNLESS SO STATED OR NOTED. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE WORKERS AND OTHER PERSONS DURING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING OF ALL STRUCTURAL WORK AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS IN THE STRUCTURE.
- IF THERE ARE ANY INCONSISTENCIES OR DISCREPANCIES WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE GREATER QUANTITY OF ITEMS SHOWN, AND THE MOST COSTLY PRODUCT OR INSTALLATION METHOD SHALL BE PROVIDED, UNLESS INSTRUCTED OTHERWISE BY THE ARCHITECT/ENGINEER. IT SHALL BE DEEMED THAT THE CONTRACTOR BID AND INTENDS TO EXECUTE THE MORE STRINGENT OR HIGHER QUALITY REQUIREMENT WITHOUT ANY INCREASE TO THE CONTRACT SUM OR CONTRACT TIME.

CAST-IN-PLACE REINFORCED CONCRETE

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
- MILD STEEL REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60.
- MILD STEEL REINFORCEMENT AND ACCESSORIES SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH ACISP-66.
- PORTLAND CEMENT SHALL BE A SINGLE BRAND CONFORMING TO ASTM C-150, TYPE I, UNLESS OTHERWISE APPROVED.
- NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C-33. ALL CONCRETE SHALL USE NORMAL WEIGHT AGGREGATES, UNLESS NOTED OTHERWISE.
- ALL ADDITIVES FOR AIR ENTRAINMENT, WATER REDUCTION, AND SET CONTROL SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. THE USE OF CALCIUM CHLORIDE IS PROHIBITED.
- THE MAXIMUM NOMINAL SIZE OF COARSE AGGREGATE SHALL BE 1".
- CONCRETE SLUMPS SHALL BE AS FOLLOWS:  
SLOPING SURFACES.....3" MAX  
CONCRETE CONTAINING SUPER PLASTICIZER .....8" MAX  
ALL OTHER CONCRETE.....4" MAX
- MILD STEEL REINFORCEMENT SHALL BE PLACED AND SECURED IN ACCORDANCE WITH CRSI RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS.
- THE TESTING LABORATORY SHALL BE NOTIFIED AFTER THE MILD STEEL REINFORCEMENT AND EMBEDS ARE POSITIONED PRIOR TO EACH CONCRETE PLACEMENT. NO CONCRETE SHALL BE PLACED UNTIL THESE ITEMS ARE CHECKED AND APPROVED BY THE TESTING LABORATORY.
- CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE AS FOLLOWS (UNLESS NOTED OTHERWISE ON THE DRAWINGS).  
a. TOP SLAB ..... 1/2" FOR #5 AND SMALLER BARS  
2" FOR #6 AND LARGER BARS  
b. BASE SLAB ..... 2" TOP  
3" BOTTOM  
c. WALLS ..... 2" SIDES AND BOTTOM
- WATERSTOPS SHALL BE PROVIDED AT ALL CONSTRUCTION JOINTS. ALL WATERSTOPS AT WALL AND SLAB JOINTS SHALL BE PVC TYPE 741 AS MANUFACTURED BY GREENSTREAK OR APPROVED EQUAL. ALL WATERSTOPS AT PIPE PENETRATIONS SHALL BE TYPE SF302 BY SYNKO-FLEX OR APPROVED EQUAL. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- CONCRETE SHALL CONFORM TO TxDOT CLASS S AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI, MINIMUM.
- IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, BLOCKOUTS, OR PIPES, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR.

EARTHWORK AND FOUNDATIONS

- THE FOUNDATION DESIGN IS IN ACCORDANCE WITH A SUBGRADE INVESTIGATION AND TERRACON PROJECT NO. 88225178 DATED 12-21-2022.
- A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE RETAINED BY THE OWNER TO OBSERVE ALL GRADING OPERATIONS AND THE REQUIRED TESTING. THESE TESTS AND OBSERVATIONS SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING:  
\*IDENTIFICATION OF BEARING MATERIAL.  
\*VERIFICATION OF ADEQUATE PENETRATION OF THE FOUNDATION EXCAVATION INTO THE BEARING LAYER.  
\*VERIFICATION THAT THE BASE AND SIDES OF THE EXCAVATION ARE CLEAN OF LOOSE CUTTINGS.  
\*DETERMINATION OF WHETHER THE AMOUNT OF SEEPAGE ENCOUNTERED IS SUFFICIENT TO REQUIRE THE USE OF EXCAVATION DEWATERING METHODS.
- THE PREPARATION OF AREAS TO RECEIVE THE BOTTOM SLAB SHALL INCLUDE:  
\* STRIPPING OF VEGETATION, ROOTS, OLD CONSTRUCTION DEBRIS, AND OTHER ORGANIC MATERIAL.  
\*IT IS ANTICIPATED THAT GROUND WATER WILL BE ENCOUNTERED AND DRYING MEASURES WILL BE NECESSARY.  
\*PROOFROLLING ANY EXPOSED SUBGRADE IN THE PRESENCE OF THE GEOTECH'S REPRESENTATIVE.  
\*OVEREXCAVATION OF ANY SOFT AREAS AND REPLACEMENT WITH SELECT FILL PLACED ACCORDING TO THE GEOTECH REPORT.
- IF POSSIBLE, ALL CONCRETE FOR FOUNDATIONS SHALL BE PLACED ON THE SAME DAY THE EXCAVATION IS MADE. EACH FOUNDATION EXCAVATION SHOULD BE CLEAN, DRY, AND FREE OF ANY LOOSE SOIL OR UNCOMPACTED FILL. ALL SATISFACTORY FOUNDATION EXCAVATIONS SHALL BE ADEQUATELY PROTECTED AGAINST DETRIMENTAL CHANGES IN CONDITIONS SUCH AS FREEZING, DISTURBANCE, DRYING OR SATURATION. THE EXPOSED FOUNDATION SOILS SHALL NOT BE ALLOWED TO BECOME EXCESSIVELY DRY OR WET BEFORE PLACEMENT OF CONCRETE. THE MOISTURE CONTENT AND CONDITION OF THE SOILS SHOULD BE MAINTAINED IN A DAMP, BUT NOT WET, CONDITION BOTH DURING AND AFTER CONSTRUCTION. IF CONCRETE CANNOT BE PLACED WITHIN 24hrs OF OPEN EXCAVATION, THE EXCAVATION SHALL BE OVER EXCAVATED 4" AND A 4" MUD SLAB INSTALLED. PONDING OF WATER IN THE EXCAVATION IS PROHIBITED.
- CARE SHALL BE TAKEN DURING GRADING OPERATIONS TO AVOID DAMAGE TO FOOTINGS AND OTHER SUBSTRUCTURES.
- COMPACTION WITHIN FIVE FEET OF THE WALLS SHALL BE ACHIEVED WITH HAND COMPACTION EQUIPMENT. THE CONTRACTOR SHALL RELEVEL ALL AREAS OF BACKFILL WHERE SETTLEMENT OCCURS. CARE SHALL BE TAKEN THAT THE BACKFILL IS NOT OVERCOMPACTED. THIS WORK SHALL BE CONSIDERED INCIDENTAL, AND NOT A SEPARATE PAY ITEM.
- BACKFILLING ALONG ALL SIDES OF THE STRUCTURES SHALL PROCEED SIMULTANEOUSLY TO PREVENT UNBALANCED LATERAL PRESSURES DURING CONSTRUCTION.
- SUBGRADE SHALL BE OVER EXCAVATED A MINIMUM OF FIVE FEET BELOW THE BOTTOM OF PROPOSED FOUNDATION AND EXTENDING OUT TWO AND A HALF FEET BEYOND BOTTOM SLAB LIMITS. A LAYER OF MIRAFI60N NONWOVEN GEOTEXTILE FABRIC SHALL BE PLACED ON EXPOSED NATIVE SOIL. EXCAVATED SOIL SHALL BE REPLACED WITH PROPERLY COMPACTED STRUCTURAL FILL. STRUCTURAL FILL SHALL BE FREE OF DELETERIOUS MATERIAL WITH PARTICLE SIZES NO LARGER THAN 2 INCHES IN DIAMETER AND A PLASTICITY INDEX (PI) BETWEEN 7 AND 20. STRUCTURAL FILL SHALL BE PLACED IN LOOSE LIFTS NO THICKER THAN 6 INCHES AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AND OPTIMUM WATER CONTENT AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTM D 698). A LAYER OF TENSAR INTERAX GEOGRID OR APPROVED EQUAL SHALL BE LAYED EVERY 24" VERTICALLY TO THE EXTEND OF THE SLAB STRUCTURAL FILL. GEOGRID MAY STOP 12" BELOW BOTTOM OF SLAB.
- GRANULAR FILL MATERIAL SHALL BE EITHER CRUSHED LIMESTONE OR CRUSHED CONCRETE WITH LESS THAN 50% PASSING NO. 200 SIEVE AND MEET REQUIREMENTS OF 2014 TxDOT ITEM 247, TYPE A OR D, GRADE 1-2 OR 3.
- IF SUBGRADE CANNOT BE ADEQUATELY COMPACTED TO MINIMUM DENSITY AS DESCRIBED ABOVE, REFER GEOTECHNICAL REPORT FOR ACCEPTABLE METHODS TO DRY SUBGRADE.



BAR TABLE		
SIZE	LAP (IN)	HOOK (IN)
#3	15	6
#4	19	8
#5	24	10
#6	29	12
#7	42	14
#8	48	16
#9	54	20
#10	60	22
#11	66	24

CORNER & INTERSECTION REINFORCEMENT

01  
S001 SCALE = 3/4" = 1'-0"

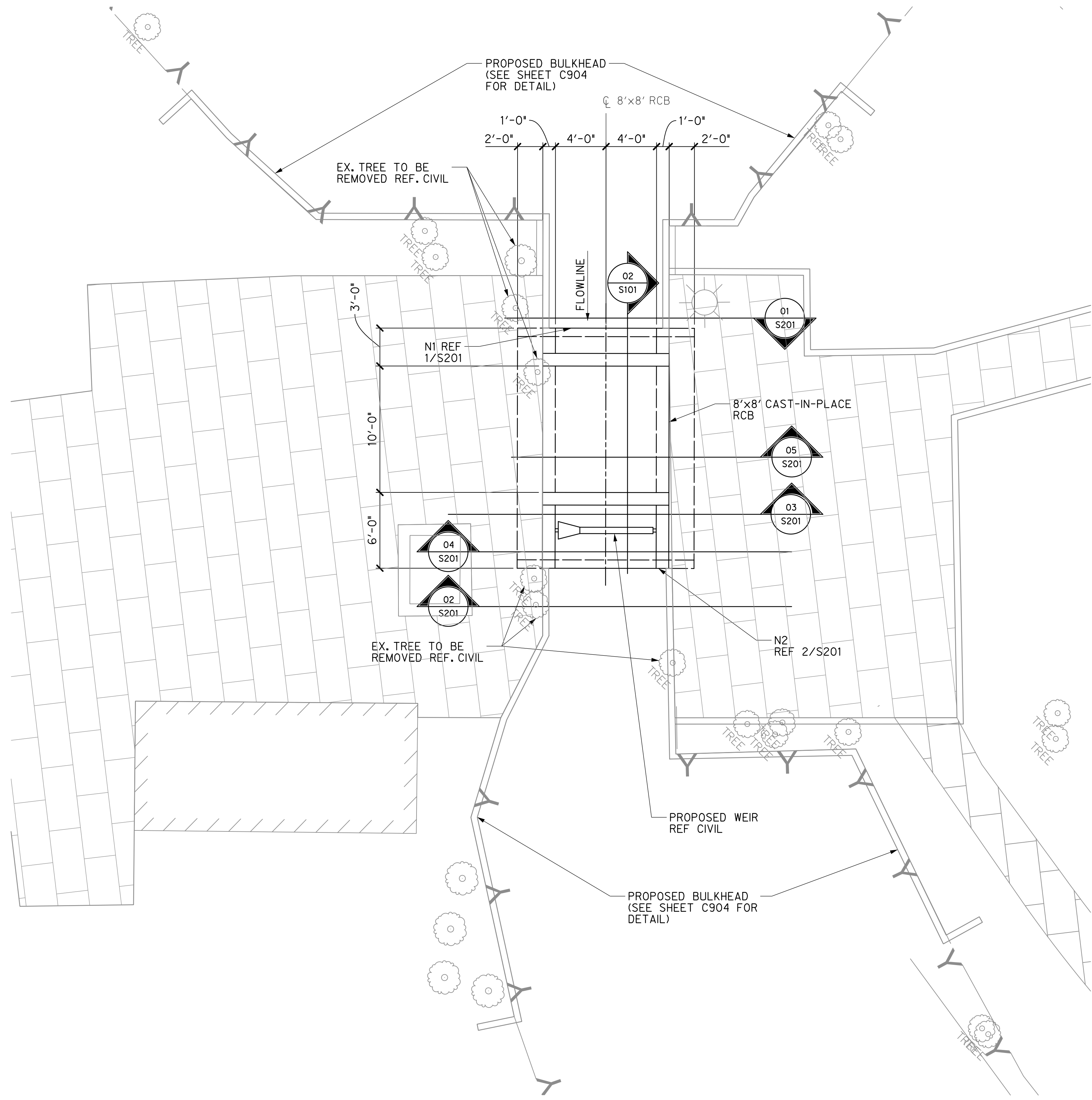
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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS

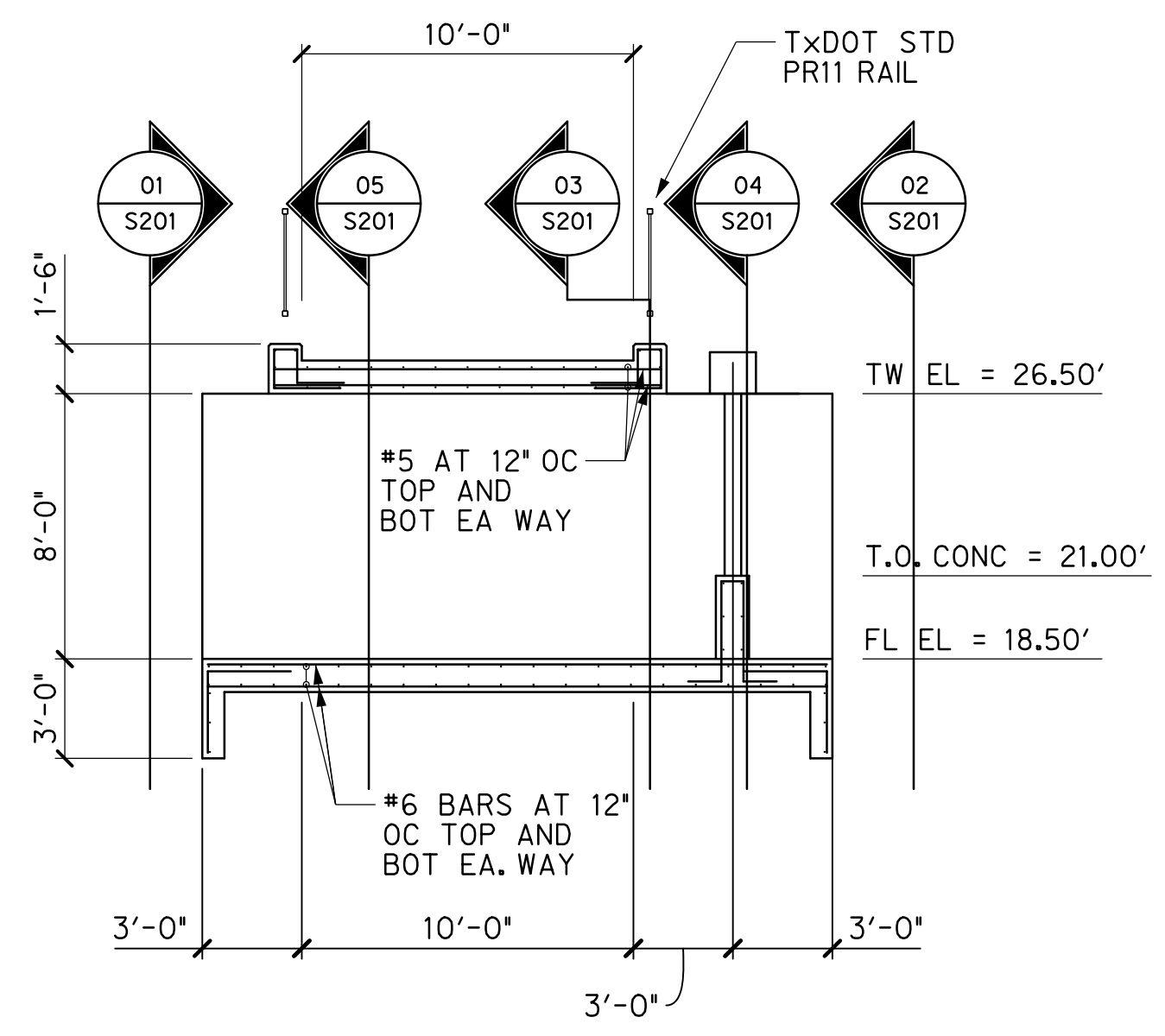
Revision No.	Date	Description

Project No.:	42947.001
Issued:	6/27/2023
Drawn By:	SG
Checked By:	JCV
Scale:	AS NOTED
Sheet Title	GENERAL NOTES
Sheet Number	S001

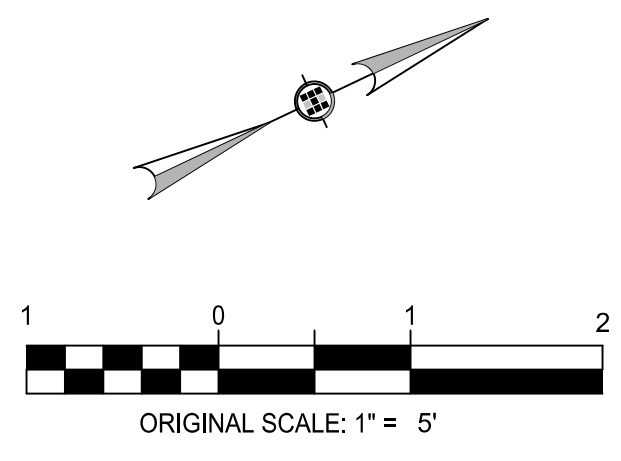
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01 NORTH WEIR SITE PLAN  
 S101 SCALE = 1" = 5'-0"



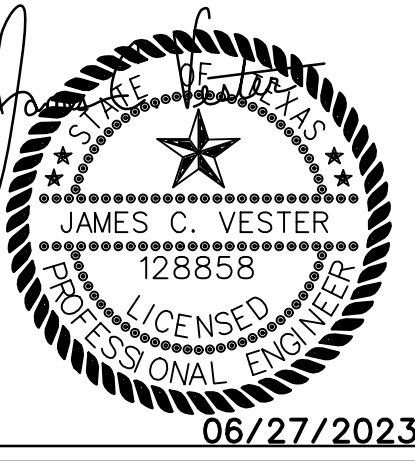
02 NORTH WEIR PROFILE  
 S101 SCALE = 1" = 5'-0"



**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



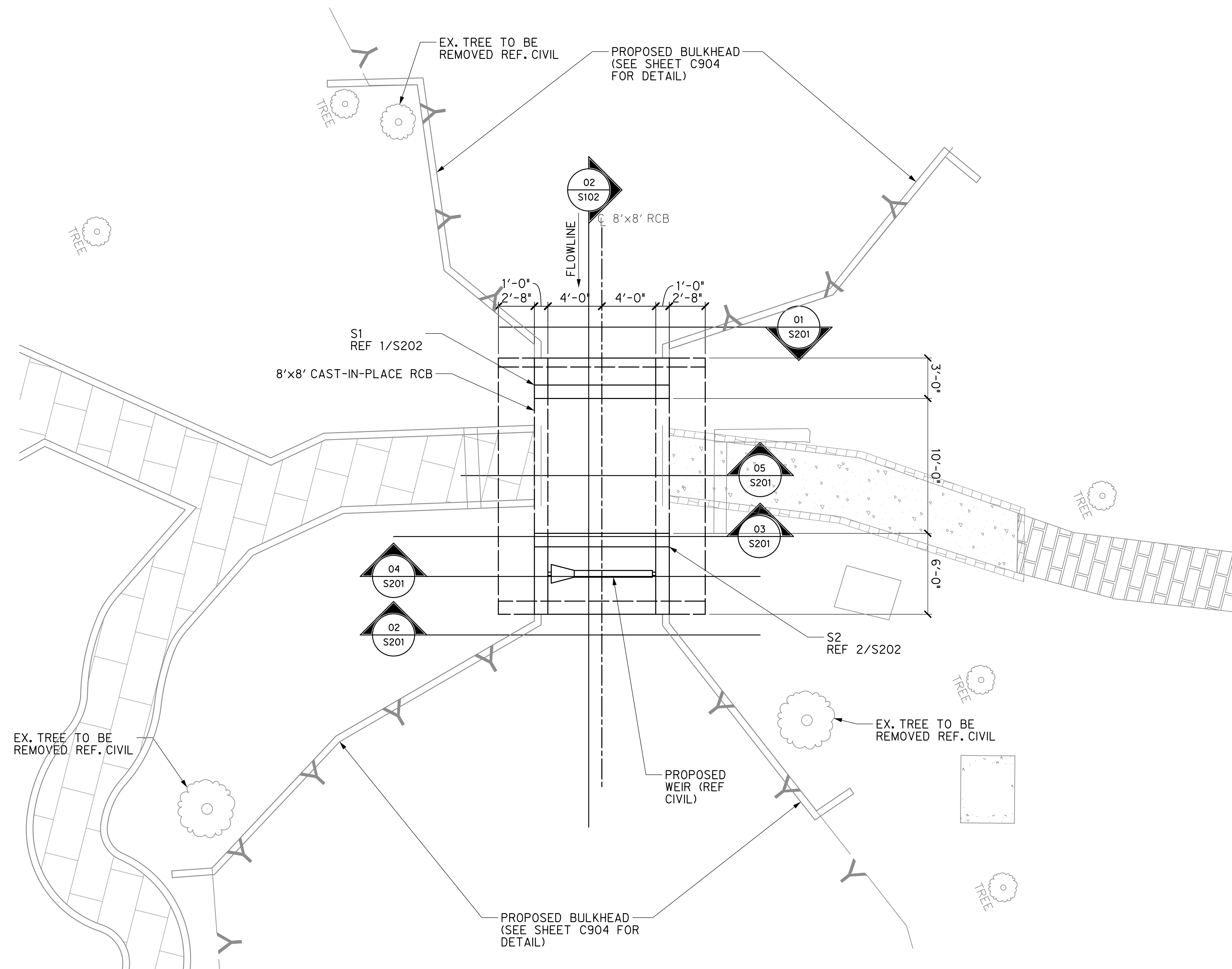
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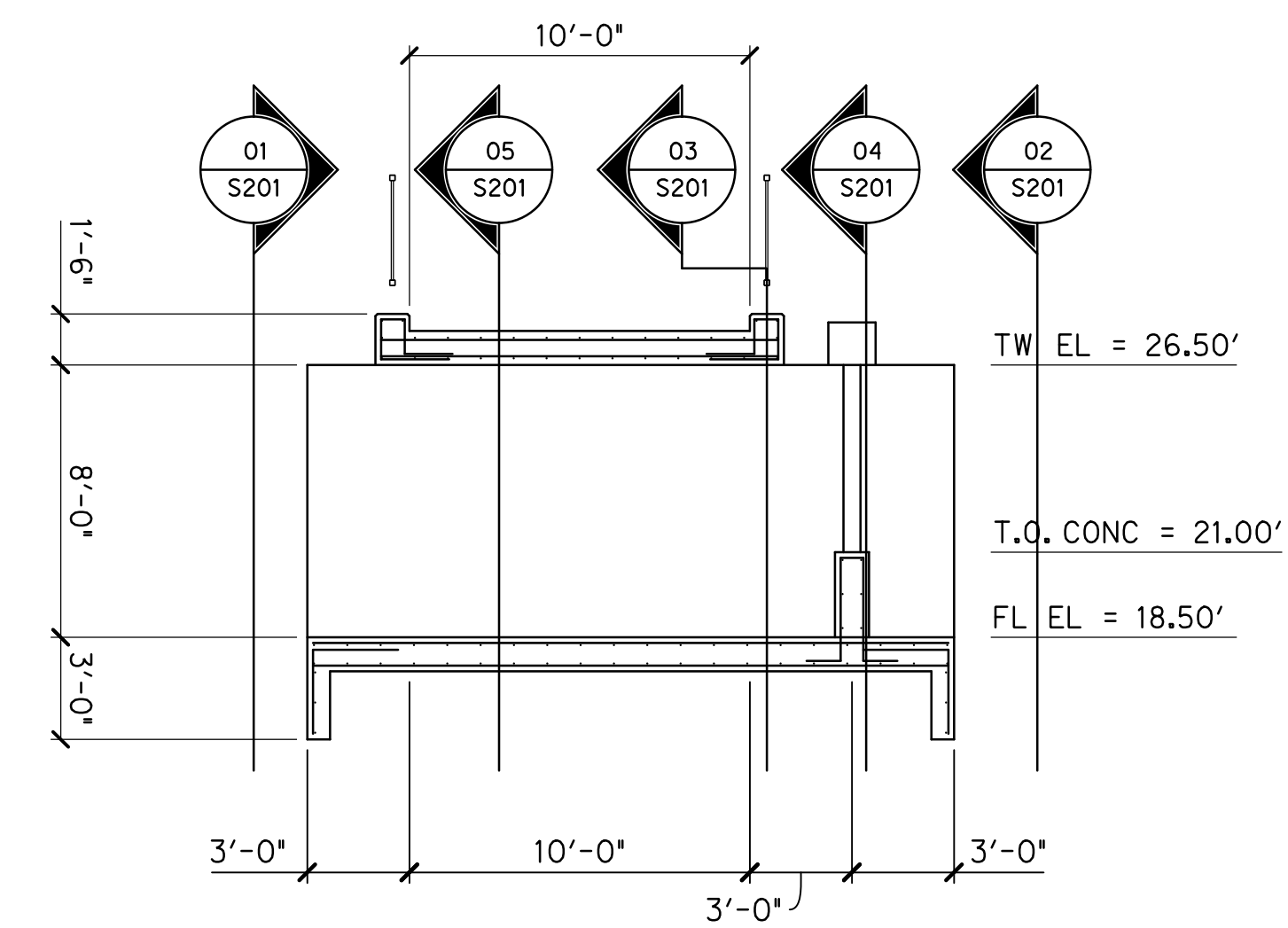
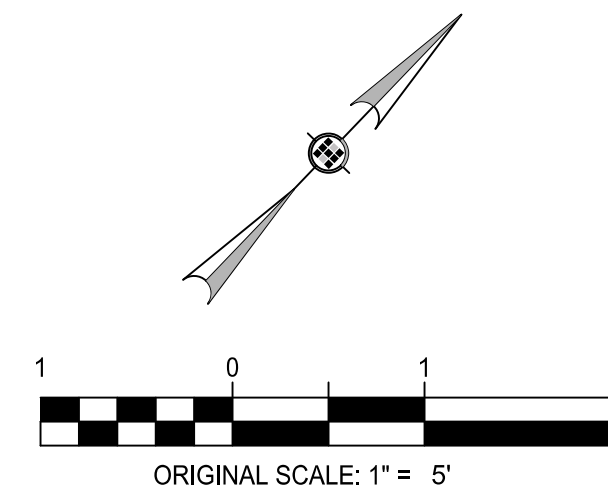
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Issued:	6/27/2023
Drawn By:	SG
Checked By:	JCV
Scale:	AS NOTED
Sheet Title	NORTH WEIR FOUNDATION PLAN
Sheet Number	S101



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01 S102 SOUTH WEIR SITE PLAN  
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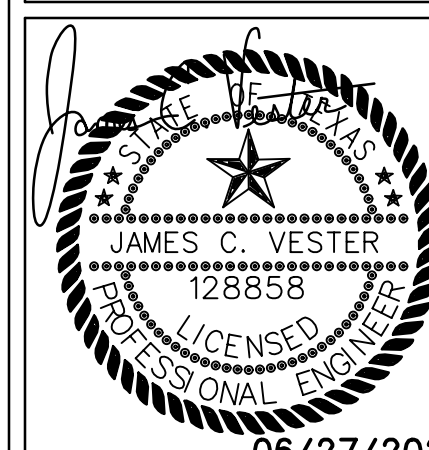


02 S102 SOUTH WEIR PROFILE  
 SCALE = 1" = 5'-0"

**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description



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Sheet Title  
 SOUTH WEIR  
 FOUNDATION PLAN

**S102**  
 Sheet Number

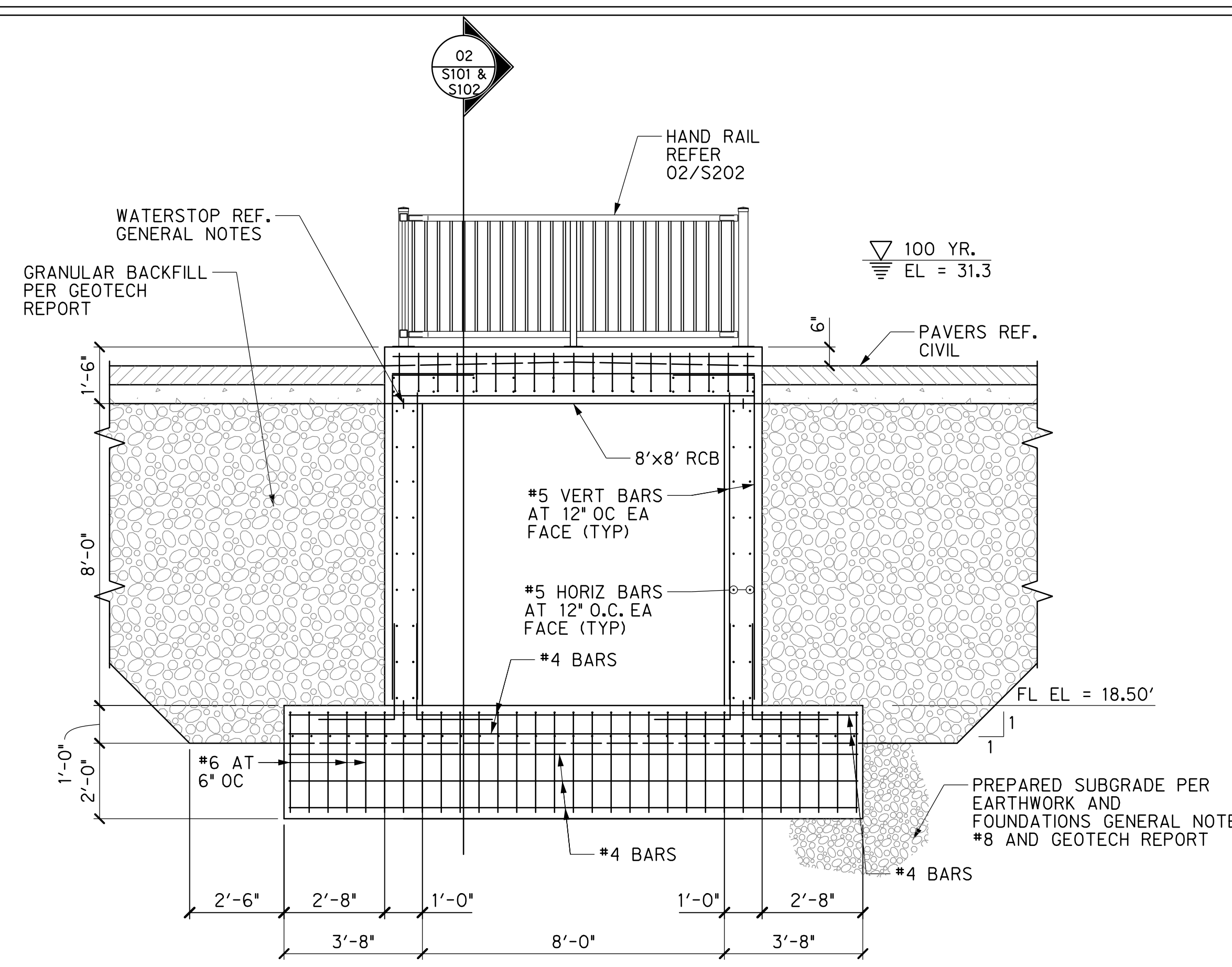


Revision No.	Date	Description

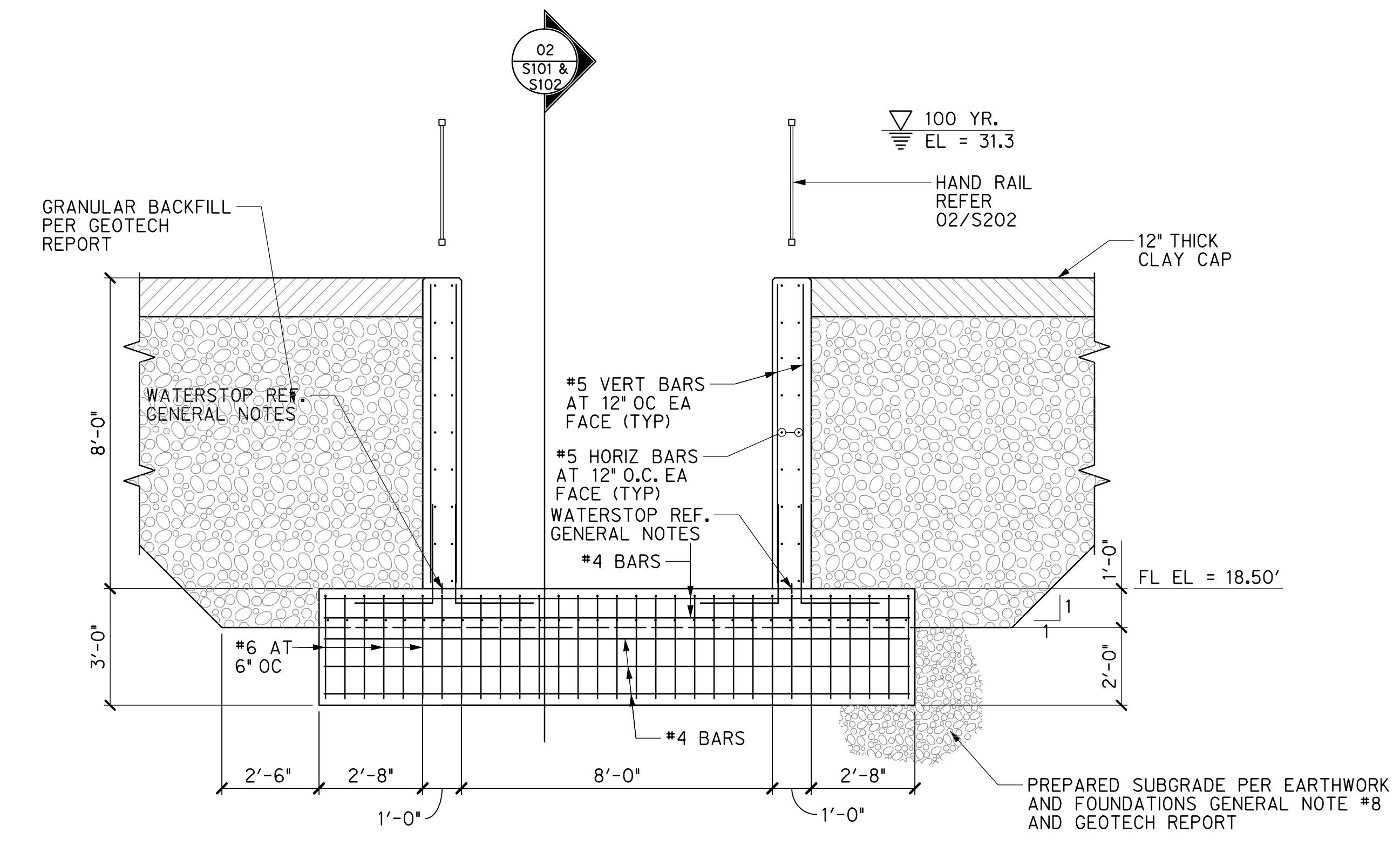


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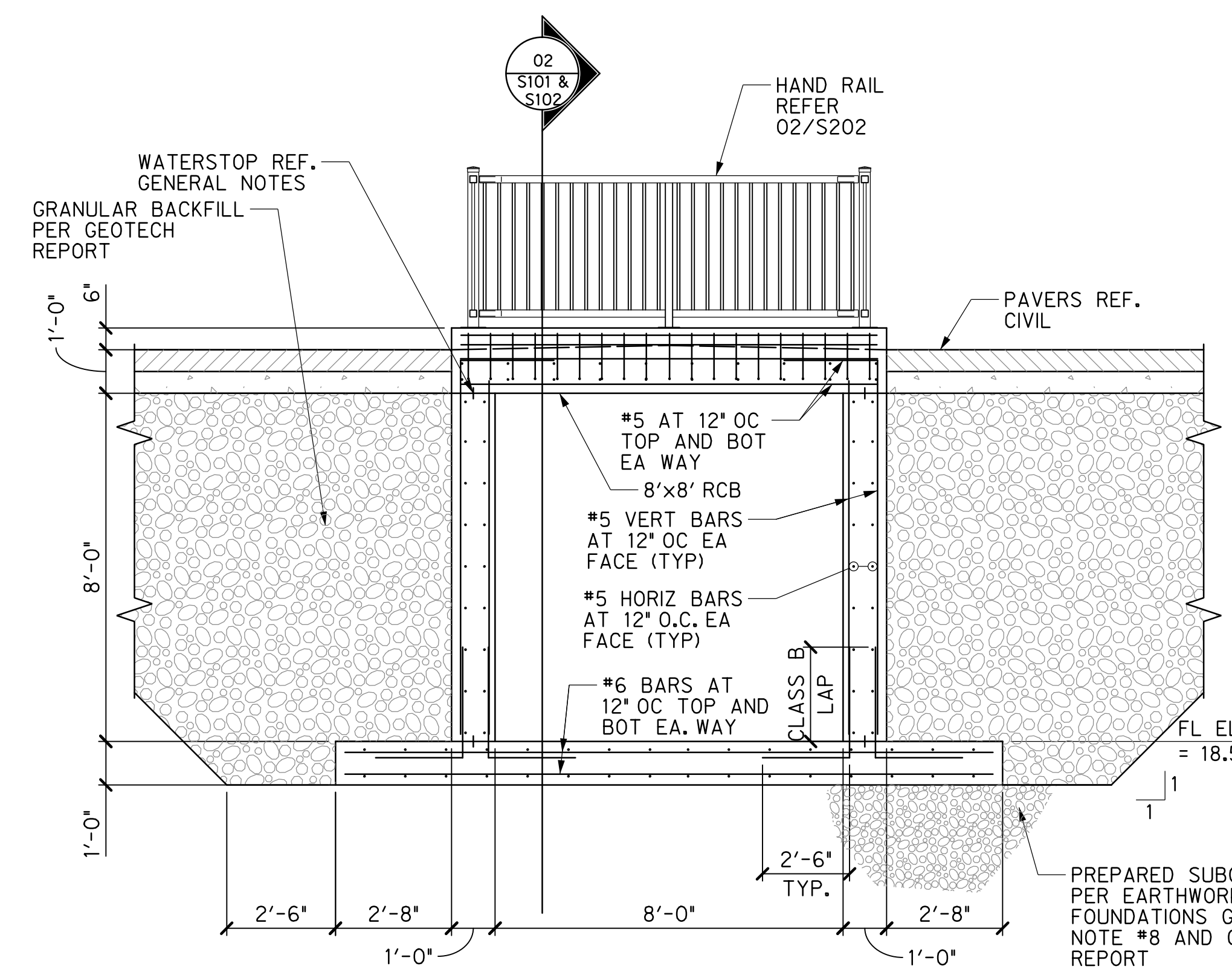
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Issued:	6/27/2023
Drawn By:	SG
Checked By:	JCV
Scale:	AS NOTED
Sheet Title	WIER DETAILS
<b>S201</b>	Sheet Number



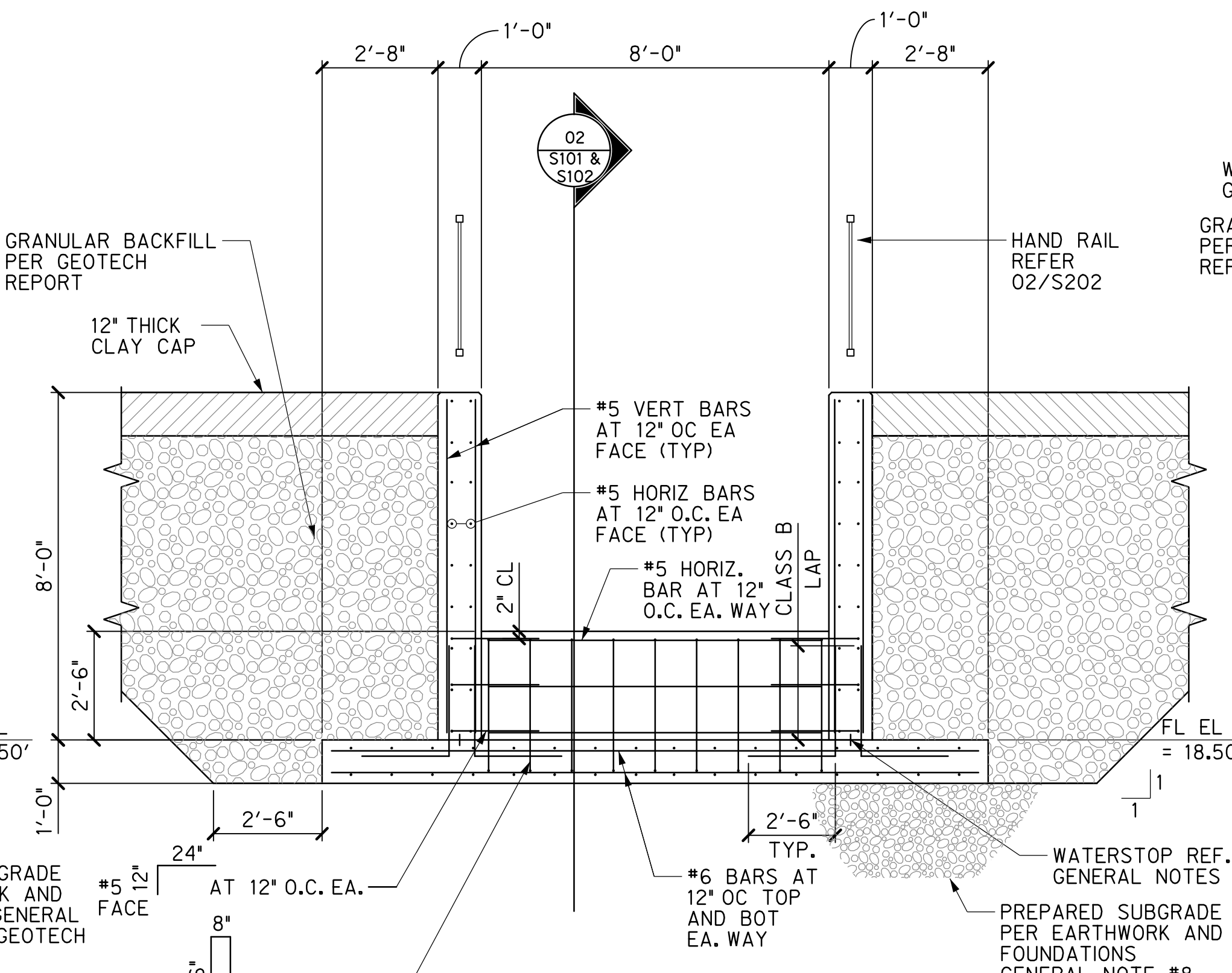
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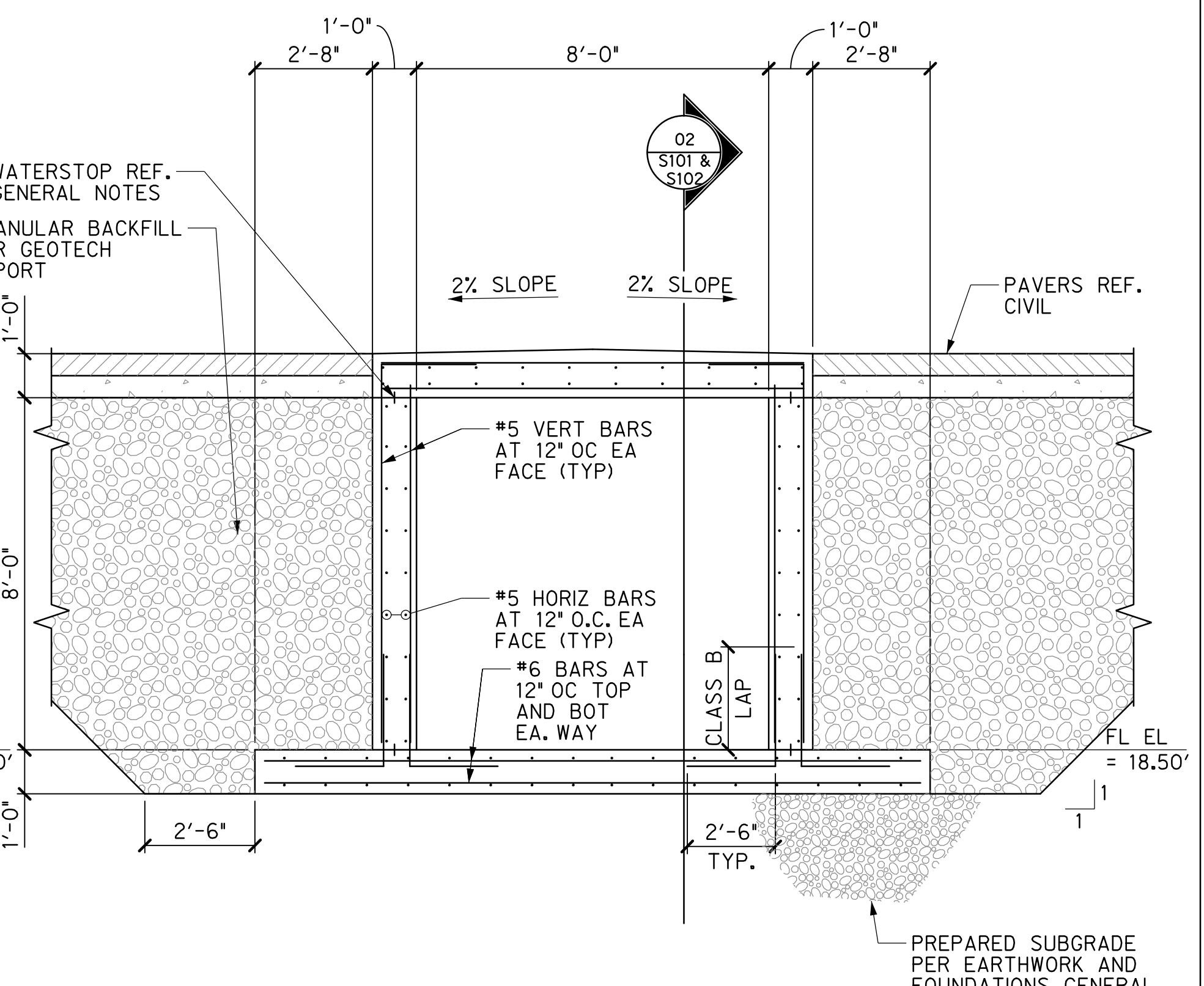
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 S201 **N2 AND S2 HEADWALL PROFILE**  
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**03**  
 S201 **SECTION AT CURB**  
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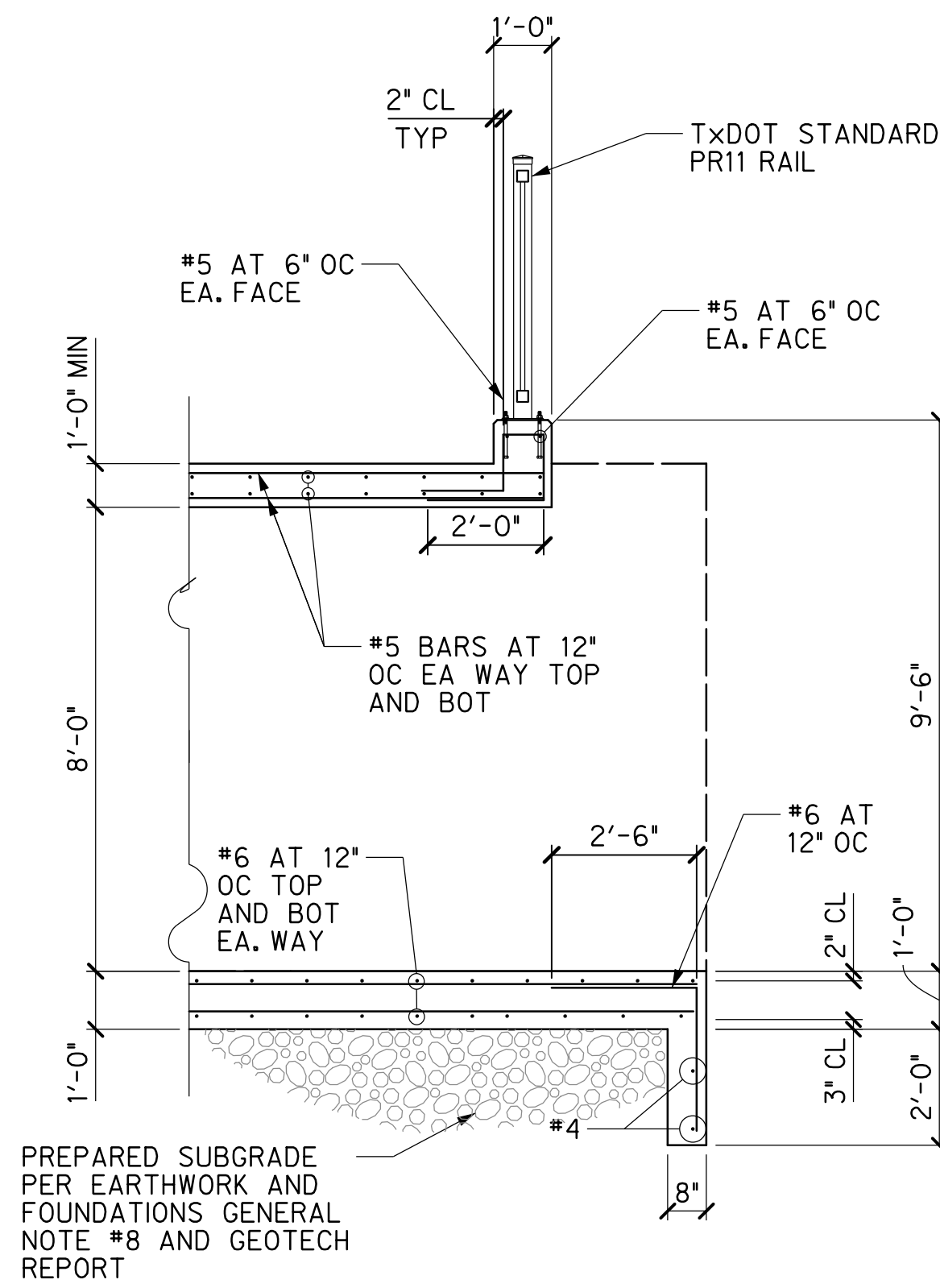


**04**  
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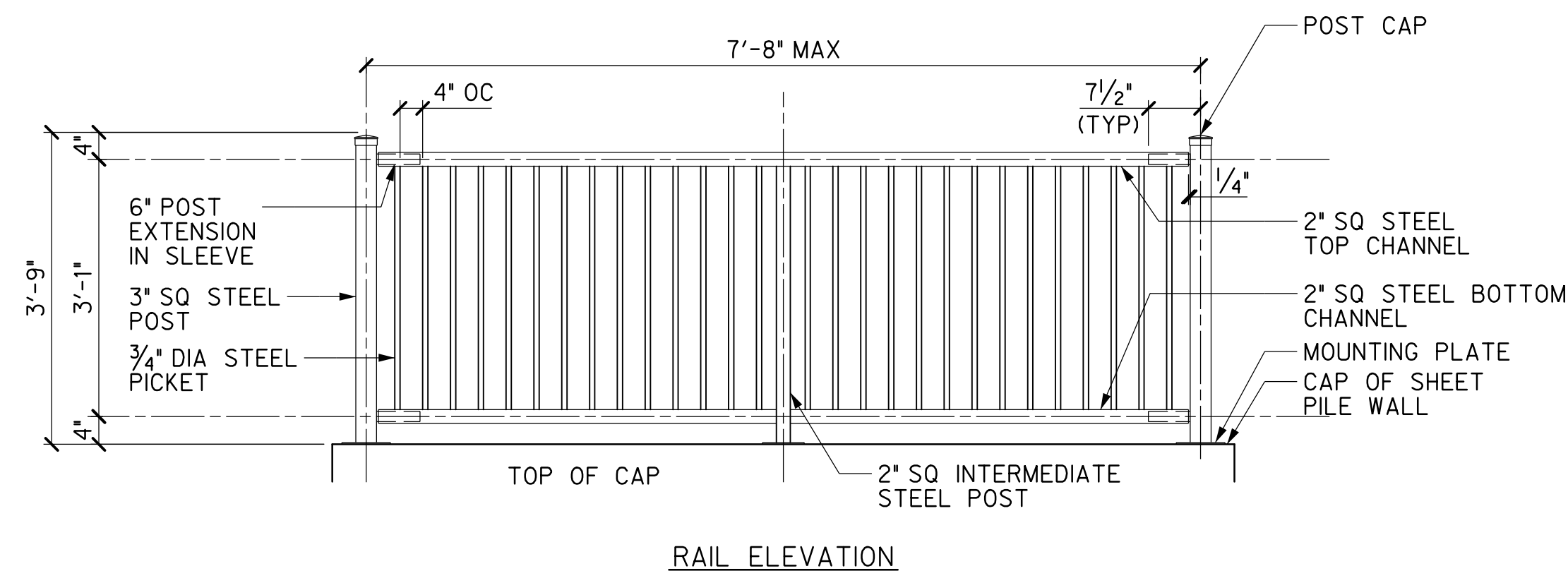


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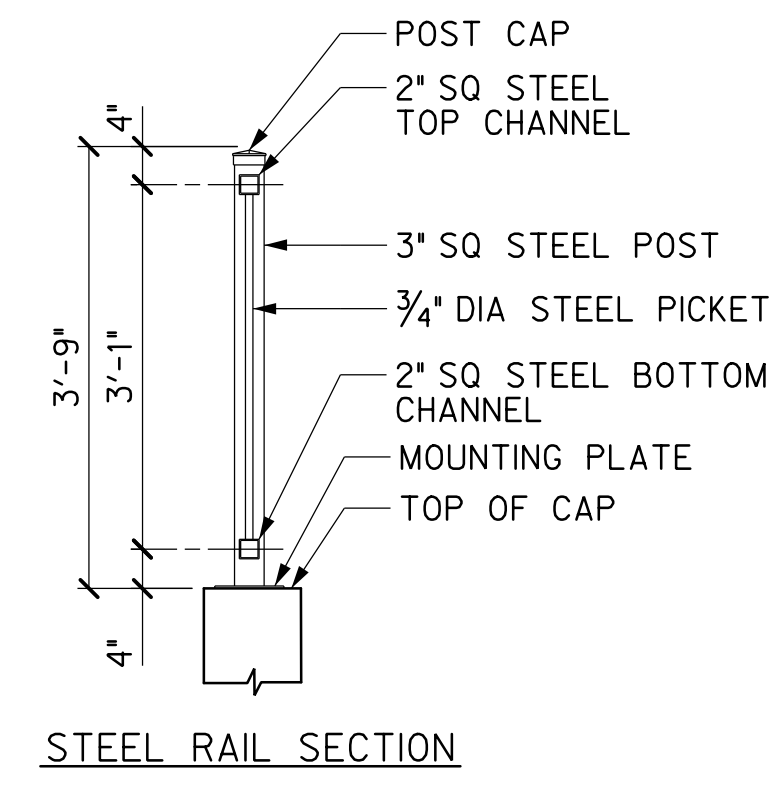
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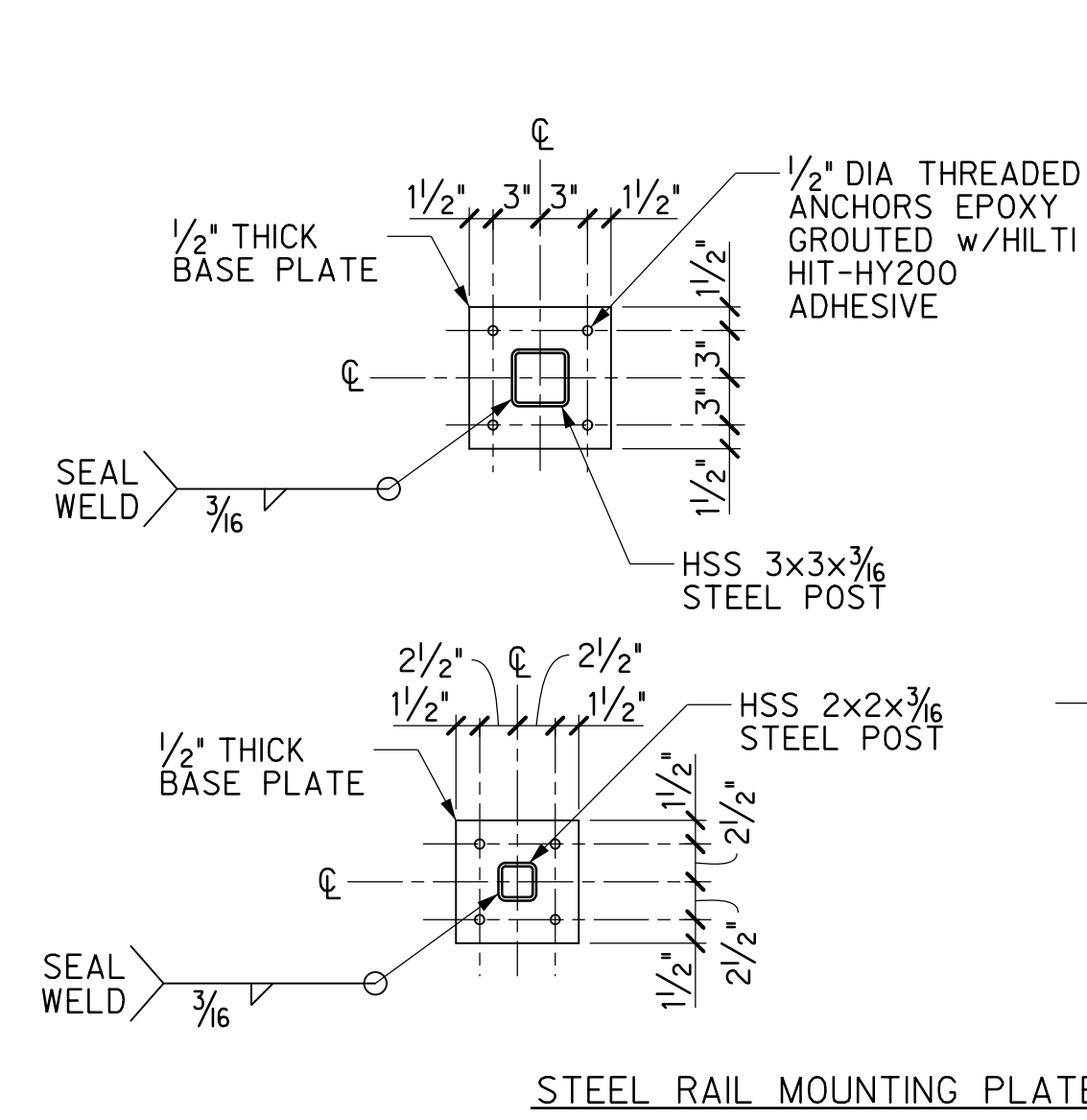
01 N1 AND S1 SECTION  
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RAIL ELEVATION

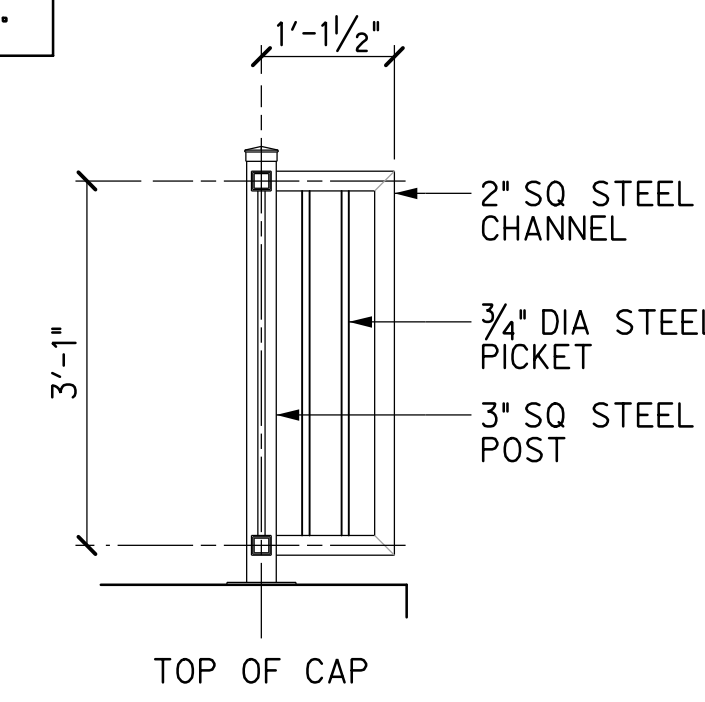


STEEL RAIL SECTION



STEEL RAIL MOUNTING PLATE

NOTE:  
CONTRACTOR SHALL GRIND ALL WELDS UNTIL SMOOTH AND FINISH WITH TOUCH-UP PAINT APPLICATION.  
ALL STEEL COMPONENTS SHALL BE POWDER COATED IN BROWN. ALL STEEL TUBING SHALL BE 1/8" THICK (11 GAUGE).



STEEL RAIL END POST ELEVATION

02 STEEL RAIL DETAILS (TYP)  
SCALE = NTS



Revision No.	Date	Description



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Sheet Title	WIER DETAILS
Sheet Number	S202

### EROSION CONTROL & STORMWATER NOTES

\*NOTE: THIS SECTION IS INTENDED TO ASSIST THE CONTRACTOR IN PREPARING STORMWATER POLLUTION PREVENTION PLANS (SW3P) THAT COMPLY WITH FEDERAL, STATE AND/OR LOCAL STORMWATER REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING AND IMPLEMENTING A STORM WATER POLLUTION PREVENTION PLAN (SW3P) IN ACCORDANCE WITH TCEQ TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) PERMIT NO. TXR150000 (PERMIT). THE FOLLOWING PLANS AND DETAILS REPRESENT TYPICAL METHODS FOR CONTROLLING EROSION DURING CONSTRUCTION AND ARE INTENDED FOR THE CONTRACTOR'S GUIDANCE IN PREPARING HIS POLLUTION PREVENTION PLAN. THE CONTRACTOR'S PLAN SHALL COMPLY WITH THE PERMIT AND FEDERAL, STATE AND LOCAL REQUIREMENTS.

- CONTRACTOR TO INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, GRADING, OR EXCAVATION). CONTRACTOR TO REMOVE EROSION/SEDIMENTATION CONTROLS AT THE COMPLETION OF PROJECT AND GRASS RESTORATION.
- PLACEMENT OF EROSION/SEDIMENTATION CONTROLS TO BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN AND STATE APPROVED SW3P. DEVIATIONS FROM THE APPROVED PLAN MUST BE SUBMITTED TO AND APPROVED BY THE CITY ENGINEER OR THEIR REPRESENTATIVE. THE CITY OF BELTON SHALL BE COPIED ON ALL CORRESPONDENCE RELATED TO SW3P INCLUDING (NOI, NOC, NOT AND WEEKLY INSPECTION REPORTS.)
- ALL DISTURBED AREAS TO BE RESTORED TO PREVIOUS CONDITION.
- PLANTED AREA TO BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A MINIMUM DEPTH OF FOUR (4) INCHES. THE IRRIGATION TO OCCUR AT 7-DAY (MINIMUM) INTERVALS DURING THE FIRST TWO MONTHS. RAINFALL OCCURRENCES OF 1/2 INCH MINIMUM OR GREATER TO POSTPONE THE WATERING SCHEDULE ONE WEEK.
- RESTORATION TO BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 12 INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 25 SQUARE FEET EXIST AFTER FIRST MOWING.
- A MINIMUM OF FOUR (4) INCHES OF TOPSOIL TO BE PLACED IN ALL AREAS DISTURBED BY CONSTRUCTION. EXISTING/REMOVED MATERIALS SHALL NOT BE USED AS FINAL TOPSOIL UNLESS APPROVED BY THE CITY. IF EXISTING MATERIAL IS NOT APPROVED, TOPSOIL SHALL BE IMPORTED FROM OFFSITE FROM SOURCE APPROVED BY THE CITY.
- CONTRACTOR TO HYDROMULCH OR SOD (AS SHOWN ON PLANS) ALL EXPOSED CUTS AND FILLS UPON COMPLETION OF CONSTRUCTION.
- EROSION AND SEDIMENTATION CONTROLS TO BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILDUP WITHIN TREE DRIPLINE.
- TO AVOID SOIL COMPACTION, CONTRACTOR SHALL NOT ALLOW VEHICULAR TRAFFIC, PARKING, OR STORAGE OF EQUIPMENT OR MATERIALS IN THE TREE DRIPLINE AREAS.
- WHERE A FENCE IS CLOSER THAN FOUR (4) FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF EIGHT (8) FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE FENCING.
- TREES TO BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
- ANY ROOT EXPOSED BY CONSTRUCTION ACTIVITY TO BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOPSOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
- CONTRACTOR TO PRUNE VEGETATION TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.). PRUNING INCLUDES DISINFECTING ALL PRUNING EQUIPMENT BETWEEN BUSHES AND TREES. BLEACH, OR AN APPROVED EQUIVALENT, SHALL BE USED TO DISINFECT EQUIPMENT.
- CONTRACTOR IS TO INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY RAINFALL EXCEEDING 1/2 INCH TO VERIFY THAT THEY HAVE NOT BEEN SIGNIFICANTLY DISTURBED. ANY ACCUMULATED SEDIMENT AFTER A SIGNIFICANT RAINFALL TO BE REMOVED AND PLACED IN THE OWNERS DESIGNATED SPOIL DISPOSAL SITE. THE CONTRACTOR TO CONDUCT PERIODIC INSPECTIONS OF ALL EROSION/SEDIMENTATION CONTROLS AND TO MAKE ANY REPAIRS OR MODIFICATIONS OF ALL EROSION/SEDIMENTATION CONTROLS AND TO MAKE ANY REPAIRS OR MODIFICATIONS NECESSARY TO ASSURE CONTINUED EFFECTIVE OPERATION OF EACH DEVICE.
- WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT IMMEDIATELY ADJACENT TO A PROTECTED TREE, ERECT THE FENCE APPROXIMATELY TWO TO FOUR FEET (2'-4') BEHIND THE AREA IN QUESTION.
- NO ABOVE AND/OR BELOW GROUND TEMPORARY FUEL STORAGE FACILITIES TO BE STORED ON THE PROJECT SITE.
- IF EROSION AND SEDIMENTATION CONTROL SYSTEMS ARE EXISTING FROM PRIOR CONTRACTS, CITY ENGINEER AND THE CONTRACTOR TO EXAMINE THE EXISTING EROSION AND SEDIMENTATION CONTROL SYSTEMS FOR DAMAGE PRIOR TO CONSTRUCTION. ANY DAMAGE TO PREEXISTING EROSION AND SEDIMENTATION CONTROLS NOTED TO BE REPAIRED AT CONTRACTOR'S EXPENSE.
- INTENTIONAL RELEASE OF VEHICLE OR EQUIPMENT FLUIDS ONTO THE GROUND IS PROHIBITED. CONTAMINATED SOIL RESULTING FROM ACCIDENTAL SPILL TO BE REMOVED AND DISPOSED OF PROPERLY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- ALL (SW3P) PLANS AND EROSION CONTROL MEASURES MUST BE INSPECTED AND APPROVED BY A CITY CONSTRUCTION INSPECTOR PRIOR TO COMMENCING ANY OTHER CONSTRUCTION ACTIVITIES.
- IN THE EVENT OF A CONFLICT BETWEEN THE SPECIFIED REQUIREMENTS AND STORMWATER POLLUTION CONTROL LAWS, RULES, REGULATIONS OR OTHER LOCAL, STATE OR FEDERAL AGENCIES, THE MORE RESTRICTIVE LAWS, RULES OR STANDARDS SHALL APPLY.
- UPON COMPLETION OF CONSTRUCTION AND ACHIEVEMENT OF FINAL STABILIZATION, PROPERLY REMOVE THE TEMPORARY POLLUTANT CONTROL STRUCTURES AND COMPLETE THE AREA AS REQUIRED.
- THE TCEQ GENERAL PERMIT SHALL BE POSTED AT THE JOB SITE WITH ALL OTHER REQUIRED DOCUMENTS. THE SW3P SHALL ALSO BE AVAILABLE ON THE JOB SITE.
- LAYDOWN AREAS FOR EQUIPMENT, SPOILS AND MATERIALS TO BE COORDINATED WITH THE CITY DURING PRE-CONSTRUCTION MEETING.
- STORAGE OR STAGING OF MATERIALS IS NOT PERMITTED IN THE FLOODPLAIN.

### CONSTRUCTION LAYOUT/DIMENSION CONTROL NOTES

- PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL BE PROVIDED DIGITAL BASE AND DESIGN FILES FOR THE PROJECT FROM HALFF ASSOCIATES FOR LAYOUT PURPOSES.
- ALL INFORMATION FURNISHED REGARDING THE PROJECT SITE(S) IS FROM SOURCES DEEMED RELIABLE. HOWEVER, HALFF ASSOCIATES HAS NOT MADE AN INDEPENDENT AS-BUILT DESIGN SURVEY OR INVESTIGATION OF THESE SOURCES AND NO WARRANTY OR REPRESENTATION IS MADE BY HALFF ASSOCIATES AS TO THE ACCURACY THEREOF AND SAME IS SUBMITTED SUBJECT TO ERRORS, OMISSIONS, CONSTRUCTION CHANGES, OR OTHER CONDITIONS.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EMPLOY AN INDEPENDENT REGISTERED PROFESSIONAL LAND SURVEYOR TO SET CONTROL DIMENSIONS AND ELEVATIONS FOR THE ENTIRE PROJECT. THE SURVEYOR SHALL REVIEW THE PLANS THOROUGHLY AND POINT OUT ANY KNOWN OR DISCOVERED DISCREPANCIES TO THE DESIGN CONSULTANT. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE SURVEYOR SHALL RUN A TRAVERSE LOOP ON THE SITE. THE SURVEYOR SHALL VERIFY AND CONFIRM IN WRITING TO THE CONTRACTOR THAT THE BENCH MARKS ARE CORRECT WITH REGARD TO THE DIFFERENCE IN THEIR ELEVATIONS AND WITH REGARD TO THE ELEVATIONS OF AT LEAST FOUR (4) CHECKPOINTS EVENLY DISTRIBUTED ON THE SITE FOR WHICH ELEVATIONS ARE GIVEN. CHECKPOINTS MAY BE ANY MANMADE OR NATURAL FEATURE THAT CAN BE READILY IDENTIFIED AND MEASURED.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING PERMANENT AND TEMPORARY BENCHMARKS, MONUMENTS AND CONTROL POINTS FOR THE DURATION OF THE PROJECT.
- COORDINATE POINTS/STATIONING SHALL BE USED TO LOCATE ITEMS TO BE CONSTRUCTED. ALL COORDINATE POINTS SHALL BE STAKED IN THE FIELD AND VERIFIED BY THE CONTRACTOR.
- USE DIMENSIONAL INFORMATION PROVIDED ON THE PLANS. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS SHALL PREVAIL.
- THE PLANS FOR THIS PROJECT SHOW APPROXIMATE ELEVATIONS, SLOPES AND DIMENSIONS THAT ARE INTENDED FOR ACTUAL PLACEMENT. THERE MAY BE SOME INSTANCES WHERE EXISTING CONDITIONS MAKE IT IMPRACTICAL TO ACHIEVE THE IDEAL. IN THOSE INSTANCES, THE DESIGN CONSULTANT / OWNER WILL ASSIST THE CONTRACTOR IN MAKING PROPER FIELD CHANGES TO ACCOMMODATE SUCH CONDITIONS.

### GRADING AND EARTHWORK NOTES

- CONTRACTOR SHALL HAUL OFF AND LEGALLY DISPOSE ALL WASTE, DEBRIS AND TRASH AS NECESSARY DURING EXCAVATION. IMPORT APPROVED FILL MATERIAL AS NECESSARY TO COMPLETE THE WORK. NO SEPARATE PAYMENTS WILL BE MADE FOR THESE ITEMS UNLESS OTHERWISE QUANTIFIED OR NOTED. ALL COSTS TO BE INCLUDED IN BASE BID.
- BASE BID SHALL INCLUDE ALL EARTHWORK NECESSARY TO ESTABLISH THE FINISHED GRADES SHOWN ON THE PLANS. NO SEPARATE PAYMENT WILL BE MADE UNLESS OTHERWISE QUANTIFIED OR NOTED.
- CROSS-SLOPES OF EARTHEN BERMS AND SLOPES SHALL NOT EXCEED A GRADIENT OF 3:1 (33%) UNLESS OTHERWISE NOTED IN THE PLANS.
- ADJUST ALL PROPOSED AND EXISTING SANITARY AND STORM SEWER MANHOLES, WATER VALVES, METER BOXES AND PULL BOXES TO FINISH GRADE.
- CONTRACTOR TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING AND DISPOSAL.
- CONTRACTOR TO CONTROL DUST CAUSED BY THE WORK AND COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES (NO SEPARATE PAY).
- EXISTING TOPOGRAPHIC INFORMATION AND CONDITIONS PROVIDED BY ON THE GROUND SURVEY. IMPROVEMENTS MAY REQUIRE VERTICAL AND/OR HORIZONTAL ADJUSTMENT DURING CONSTRUCTION TO ACCOMMODATE ACTUAL FIELD CONDITIONS. ALL CHANGES SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND OWNER PRIOR TO COMMENCING WITH CONSTRUCTION OF SUCH ADJUSTMENTS.

### UTILITY NOTES

- THE CONTRACTOR SHALL NOT ASSUME EXISTING UTILITIES ARE PRECISELY LOCATED. EXISTING UTILITIES ARE SHOWN TO HELP MAKE THE CONTRACTOR AWARE OF THEIR EXISTENCE. THIS MEASURE IS TAKEN TO HELP PROTECT THE INVESTMENTS AND SERVICES OF THE OWNERS OF THE UTILITIES AND THEIR CUSTOMERS. CONTRACTOR SHALL CALL '811' FOR HELP IN LOCATING UTILITIES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND VERIFY THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR SHALL ASCERTAIN WHETHER ANY ADDITIONAL UTILITIES OR FACILITIES, OTHER THAN THOSE SHOWN ON THE PLANS, MAY BE PRESENT ON THE SITE OF THE WORK.
- PRIOR TO PROCEEDING WITH CONSTRUCTION, THE CONTRACTOR SHALL ALERT THE OWNER AND DESIGN ENGINEER OF ANY UTILITY CONFLICTS DISCOVERED IN THE FIELD AT LEAST FOURTEEN (14) CALENDAR DAYS PRIOR TO BEGINNING WORK IN THAT LOCATION.
- PRIOR TO PROCEEDING WITH CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE AFFECTED PARTS OF THE UTILITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PRESERVE AND PROTECT ALL UTILITIES.
- THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE UTILITY OWNER AND MAKE RESTITUTION FOR ANY UTILITY THAT IS DAMAGED BY THE CONTRACTOR IN THE COURSE OF THE WORK, AND REPAIR EQUAL OR EXCEED THE EXISTING QUALITY OF THE IMPACTED UTILITY.
- THE CONTRACTOR SHALL CONTACT THE OWNER TO LOCATE EXISTING IRRIGATION PIPE AND COMMUNICATION LINES THAT MAY EXISTING WITHIN THE SITE OF THE WORK.
- ALL CONSTRUCTION OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT BROWNSVILLE UNIFIED TECHNICAL SPECIFICATIONS FOR WATER, SEWER, STREETS AND DRAINAGE.
- ALL WORK SHOWN ON PLANS SHOULD BE BID. IF THERE IS NO BID ITEM, THE PRICE TO COMPLETE THE WORK SHALL BE ACCOUNTED FOR IN RELATED BID ITEM.
- CONTRACTOR TO EXERCISE CAUTION DURING CONSTRUCTION NEAR AND AROUND GAS LINES AND POWER LINES.
- VALVE, MANHOLE OR IRRIGATION ADJUSTMENT SHALL BE SUBSIDIARY TO THE ITEM THAT CAUSED THE ADJUSTMENT.

### GENERAL NOTES

- ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARRED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARRED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.
- APPROVED EROSION CONTROL MEASURE MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARRED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.
- ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN EVENT.
- LIMITS OF CONSTRUCTION** INDICATED ON THESE PLANS IS THE MAXIMUM AREA OF ALLOWABLE DISTURBANCE DURING CONSTRUCTION. WORK OUTSIDE THE LIMITS OF CONSTRUCTION MUST BE APPROVED BY THE CITY OF BROWNSVILLE PRIOR TO COMMENCING WORK.
- ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE. INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 E. 6TH STREET, AUSTIN, TEXAS.
- CONTRACTOR SHALL TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE INCURRED TO EXISTING FACILITIES AS A RESULT OF CONSTRUCTION OPERATIONS TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR, AT NO ADDITIONAL COST TO OWNER.
- WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. CLEAN-UP SHALL BE TO THE SATISFACTION OF THE ENGINEER.

### TREE MITIGATION NOTES

- SAVED OR PROTECTED TREES DAMAGED OR REMOVED BY CONSTRUCTION ACTIVITIES WILL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- REPLACEMENT TREES WILL BE 3" CALIPER MINIMUM AND TYPE EQUAL TO THAT REMOVED OR APPROVED ALTERNATIVE BY OWNER AND/OR LANDSCAPE ARCHITECT.
- REPLACEMENT TREES WILL BE REPLACED AT A RATE OF ONE (1) CALIPER INCH OF TREE REMOVED EQUALS ONE (1) CALIPER INCH OF TREE PLANTED (EX-ONE (1) 9" CALIPER INCH TREE REMOVED EQUALS THREE (3) 3" CALIPER REPLACEMENT TREES PLANTED.)
- REPLACEMENT TREES SHALL BE PLANTED WITHIN 50 FEET FROM WHERE THE EXISTING TREE WAS REMOVED. WHERE SITE CONDITIONS CANNOT ACCOMMODATE REPLACEMENT TREES, CONTRACTOR SHALL CONSULT WITH OWNER AND/OR LANDSCAPE ARCHITECT FOR ALTERNATIVE PLANTING LOCATION(S).
- THE CONTRACTOR SHALL PROVIDE PERMANENT IRRIGATION FOR ALL MITIGATION TREES.
- REPLACEMENT TREES WILL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM TIME OF PROJECT COMPLETION AND FINAL INSPECTION BY OWNER AND/OR LANDSCAPE ARCHITECT.

### CONSTRUCTION INSPECTION, SUBMITTALS AND TESTING

- THE CITY OF BROWNSVILLE CAPITAL PROJECTS DEPARTMENT WILL PROVIDE THE DAILY ON-SITE CONSTRUCTION REPRESENTATION FOR THIS PROJECT.
- ALL SITE WORK IS TO BE DONE IN CONFORMANCE WITH THE CITY OF BROWNSVILLE STANDARD SPECIFICATIONS UNLESS OTHER SPECIFICATIONS PROVIDED.
- PRE-CONSTRUCTION CONFERENCE:** PRIOR TO BEGINNING WORK ON THE PROJECT AND SOON AFTER THE AWARD OF THE CONTRACT, A CONFERENCE WILL BE HELD AMONG THE REPRESENTATIVES OF THE OWNER, THE DESIGN CONSULTANTS, THE CONTRACTOR AND ANY SUBCONTRACTOR THAT WILL BE INVOLVED IN THE WORK. AT THAT TIME, THE CONTRACTOR SHALL SUBMIT A TENTATIVE CONSTRUCTION SCHEDULE. THIS CONFERENCE WILL MORE COMPLETELY ESTABLISH THE SEQUENCE OF WORK TO BE FOLLOWED AND ESTABLISH THE ESTIMATED PROGRESS SCHEDULE FOR COMPLETION OF THE VARIOUS TASKS.
- CONSTRUCTION PROGRESS MEETING DATES, TIMES, LOCATIONS AND FREQUENCY WILL BE ESTABLISHED AT THE PRE-CONSTRUCTION MEETING AS AGREED UPON BY ALL PARTIES INVOLVED.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLAN (TCP) AS REQUIRED AND AS PART OF THE GENERAL CONDITIONS OF THE CONTRACT TO COMPLETE THE WORK. TCP SHALL BE SIGNED AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. A PLAN FOR APPROVAL BY OWNER IS REQUIRED FOR ANY ROAD CLOSURES PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR AND THE ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. ACCURATE RECORD DRAWINGS WILL BE PROVIDED TO THE CITY OF BROWNSVILLE, ALONG WITH A LETTER OF CERTIFICATION FROM A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS, STATING THAT SAID PROJECT HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THESE PLANS, PRIOR TO THE OWNER BEING ISSUED A CERTIFICATION OF COMPLETION AND FINAL ACCEPTANCE. THESE RECORD DRAWINGS SHALL MEET WITH THE SATISFACTION OF THE DEVELOPMENT SERVICES DEPARTMENT PRIOR TO FINAL ACCEPTANCE.
- SUBMITTALS:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING THE DESIGN CONSULTANT SUBMITTALS AND SAMPLES OF PRODUCTS AS SPECIFIED OF ALL MATERIALS TO BE USED ON THE PROJECT. SUBMITTALS SHALL BE PROVIDED ON AN OFFICIAL LETTER HEAD/TRANSMITTAL FROM THE GENERAL CONTRACTOR AND NUMBERED IN PDF DIGITAL FORMAT AND EMAILED TO PRIME DESIGN CONSULTANT. PRODUCT MANUFACTURER, TECHNICAL DATA IF DIFFERENT FROM SOURCE; CONTENT OF PRODUCT; AMOUNT OF EACH INGREDIENT IN THE PRODUCT, AND MANUFACTURER'S DIRECTIONS AS TO USE AND APPLICATION OF THE PRODUCT, IF APPLICABLE, SHALL BE PROVIDED. PAINT/FINISHING PRODUCT SAMPLE, ROCK SAMPLE, ETC. SHALL BE TRACKED SAME AS MATERIAL SUBMITTALS. ANY COSTS ASSOCIATED WITH OBTAINING SAMPLES OR SUBMITTALS ARISING FROM THE RESPONSIBILITY OF THE CONTRACTOR. THESE COSTS SHALL BE CONSIDERED AS INCIDENTAL AND THE CONTRACTOR WILL NOT BE ENTITLED TO ANY ADDITIONAL COMPENSATION.
- TESTING:** THE OWNER, THE CITY OF BROWNSVILLE, WILL PAY ALL THE CHARGES OF TESTING LABORATORIES FOR SERVICES IN CONNECTION WITH IN PLACE FIELD DENSITIES, CONCRETE CYLINDERS TESTING, AND ANY IN PLACE TEST REQUIRED FOR QUALITY ASSURANCE. RETESTING AFTER FAILURE OF IN PLACE TESTS SHALL BE AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PAY FOR ALL CHARGES OF TESTING LABORATORIES FOR SERVICES IN CONNECTION WITH INITIAL TESTS MADE ON ALL IMPORTED MATERIALS TO THE PROJECT SITES INCLUDING BUT NOT LIMITED TO EMBEDMENT MATERIALS, FILL MATERIAL, BACKFILL MATERIAL, SELECT MATERIAL, CRUSHED LIMESTONE BASE, SUBBASE, CONCRETE, STEEL, WOOD FORMS, AGGREGATE, WATER, CEMENT, CURING, COMPOUND, SEALANTS, ETC. THE TESTS FOR WHICH THE CONTRACTOR WILL TYPICALLY BE RESPONSIBLE ARE ATTERBERG LIMITS, SIEVE ANALYSIS, PLASTICITY INDICES, MIX DESIGN, CALIFORNIA BEARING RATIOS, PROCTOR'S (MOISTURE) CURVES) AND ALL TESTS REQUIRED BY THE CITY OF BROWNSVILLE SPECIFICATIONS THAT PROVE THE MATERIAL BROUGHT TO THE PROJECT SITES MEETS OR EXCEEDS THE SPECIFICATIONS AND CONTRACT DOCUMENTS.

**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



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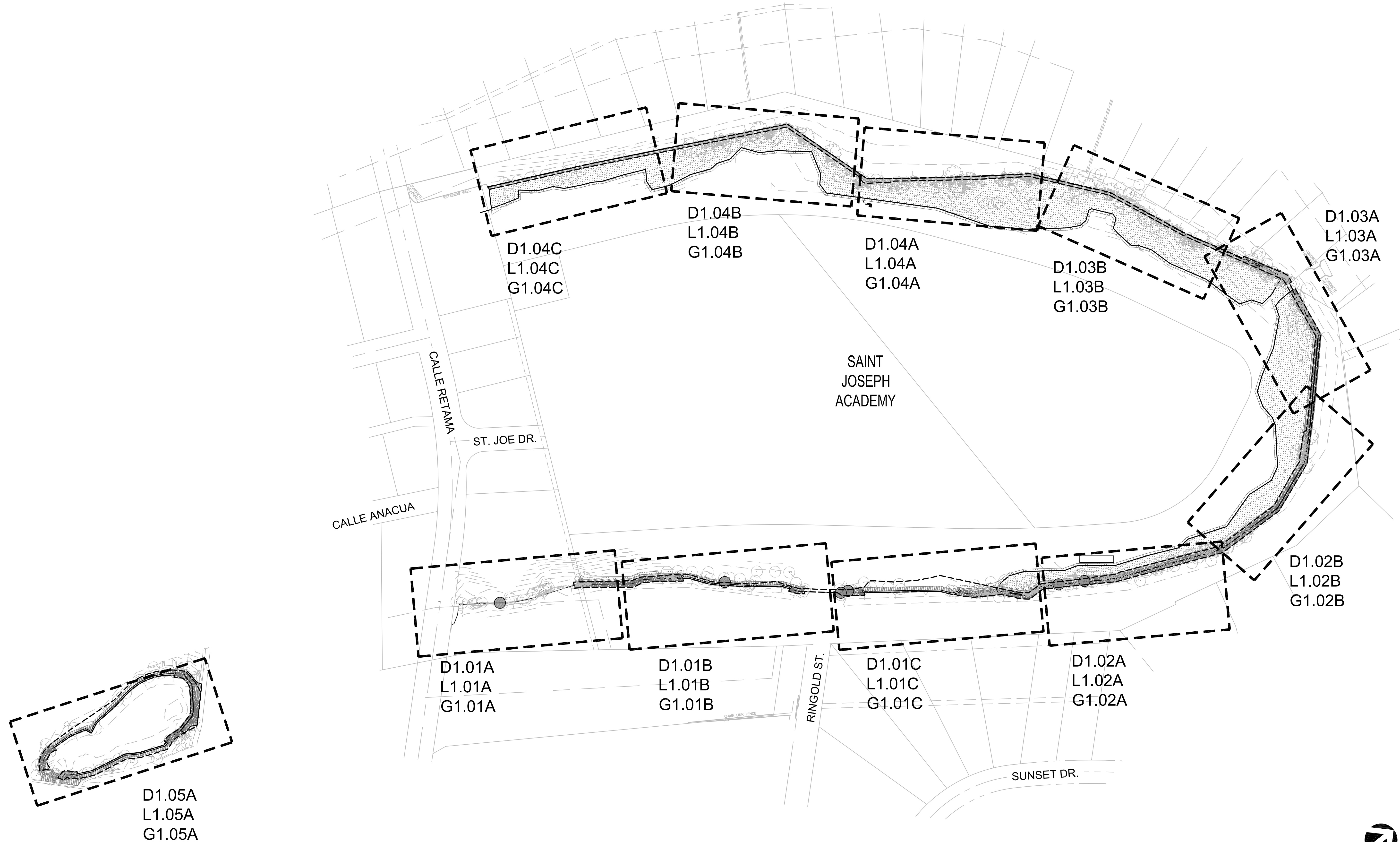


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Issued:	6/05/2023
Drawn By:	MS
Checked By:	MZ
Scale:	AS NOTED
Sheet Title	GENERAL NOTES

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Sheet Number

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**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



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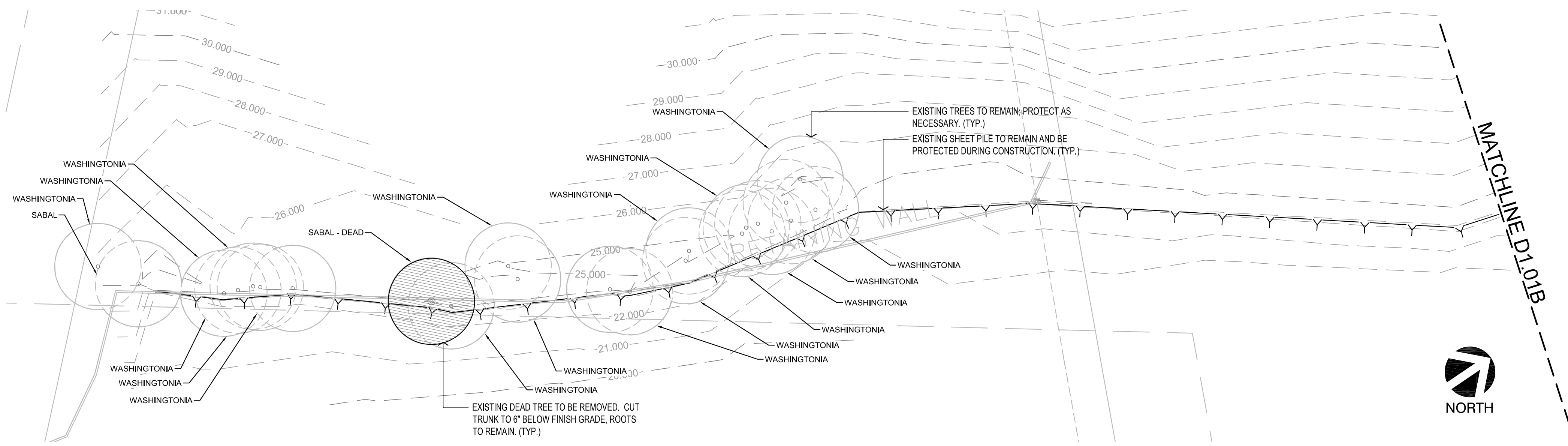


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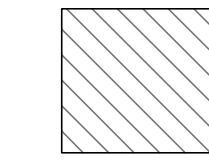
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**OVERALL PLAN**  
 O1.00  
 Sheet Number

D1.01A



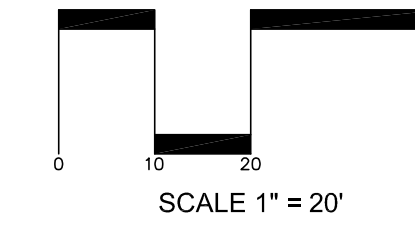
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VEGETATION REMOVAL. REMOVE ALL BRAZILIAN PEPPER PLANTS AND NON-NATIVE PLANT MATERIAL IN THE AREAS AS SHOWN ON THE PLANS. ALL BRAZILIAN PEPPER PLANTS ARE TO BE REMOVED TO 6" BELOW FINAL GRADE AND REMOVED ENTIRELY FROM THE SITE. PRIOR TO REMOVAL, BRAZILIAN PEPPER PLANTS SHALL TO BE TREATED WITH TWO APPLICATIONS OF RENOVATE OR NAVITROL OR LANDSCAPE ARCHITECT'S APPROVED EQUAL (ACTIVE INGREDIENT TRICLOPYR). HERBICIDE SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS BY A CERTIFIED PESTICIDE APPLICATOR. PRIOR TO THE INITIAL HERBICIDE APPLICATION, THE CONTRACTOR SHALL PROVIDE THE TDA CERTIFICATION OF THE PESTICIDE APPLICATOR AND THE PROPOSED TREATMENT SCHEDULE.

LAND SIDE  
WATER SIDE

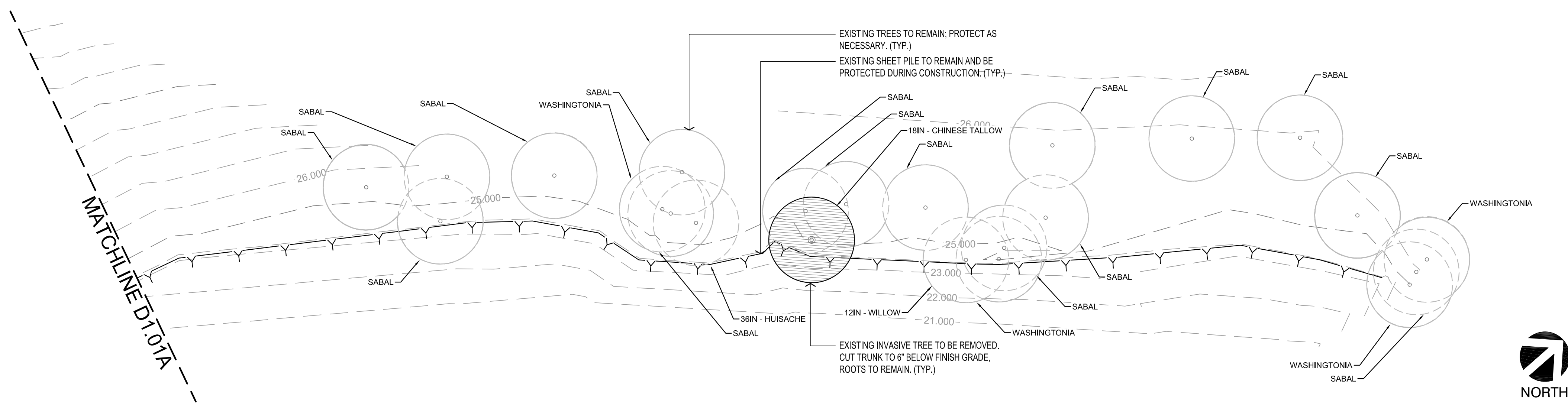
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NORTH

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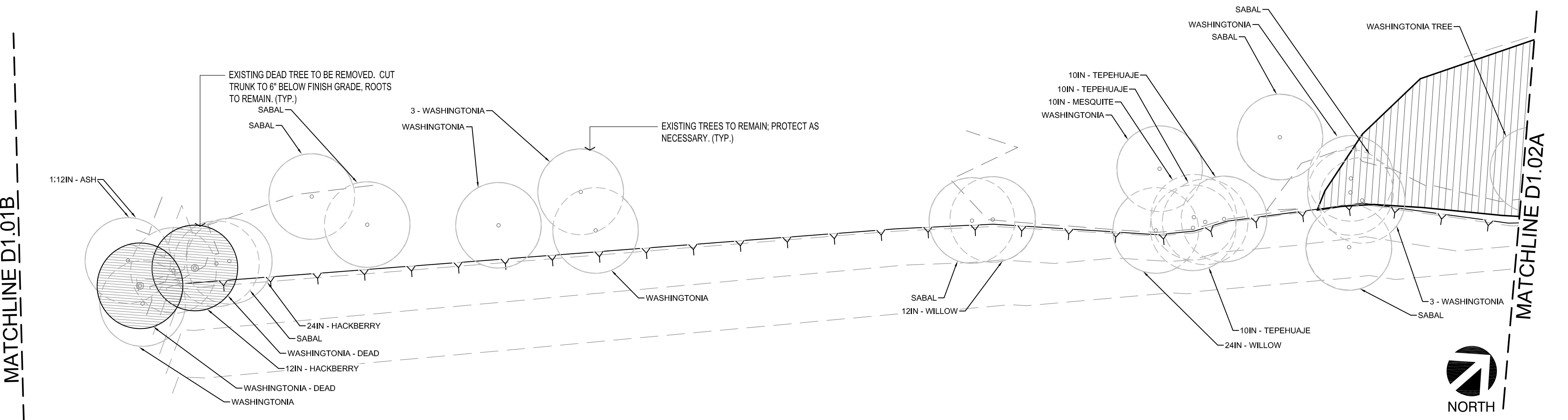
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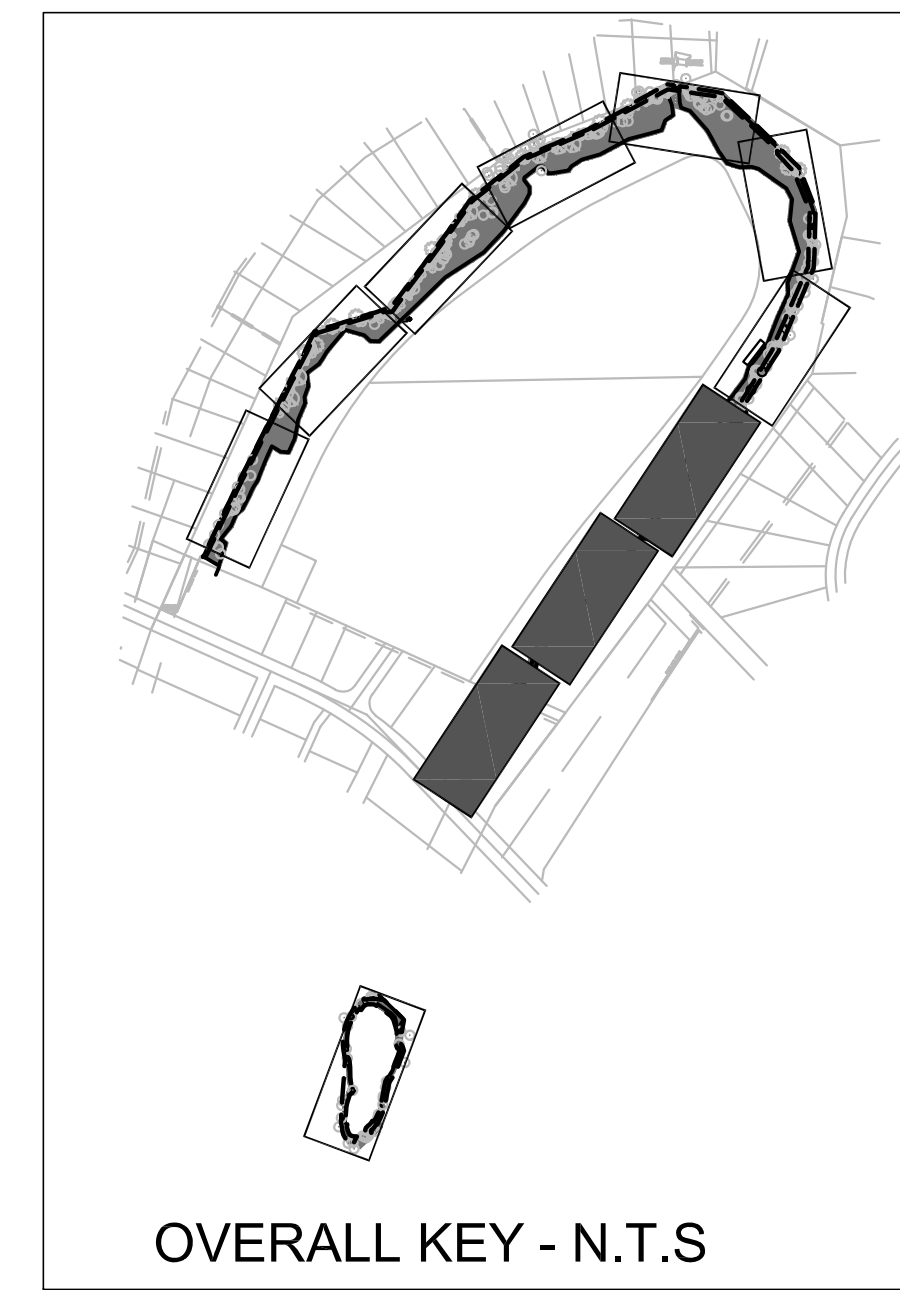
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D1.01C



NORTH

MATCHLINE D1.02A



OVERALL KEY - N.T.S

BROWNSVILLE PUB  
TOWN RESACA WATERSHED PROJECT  
BROWNSVILLE, TEXAS



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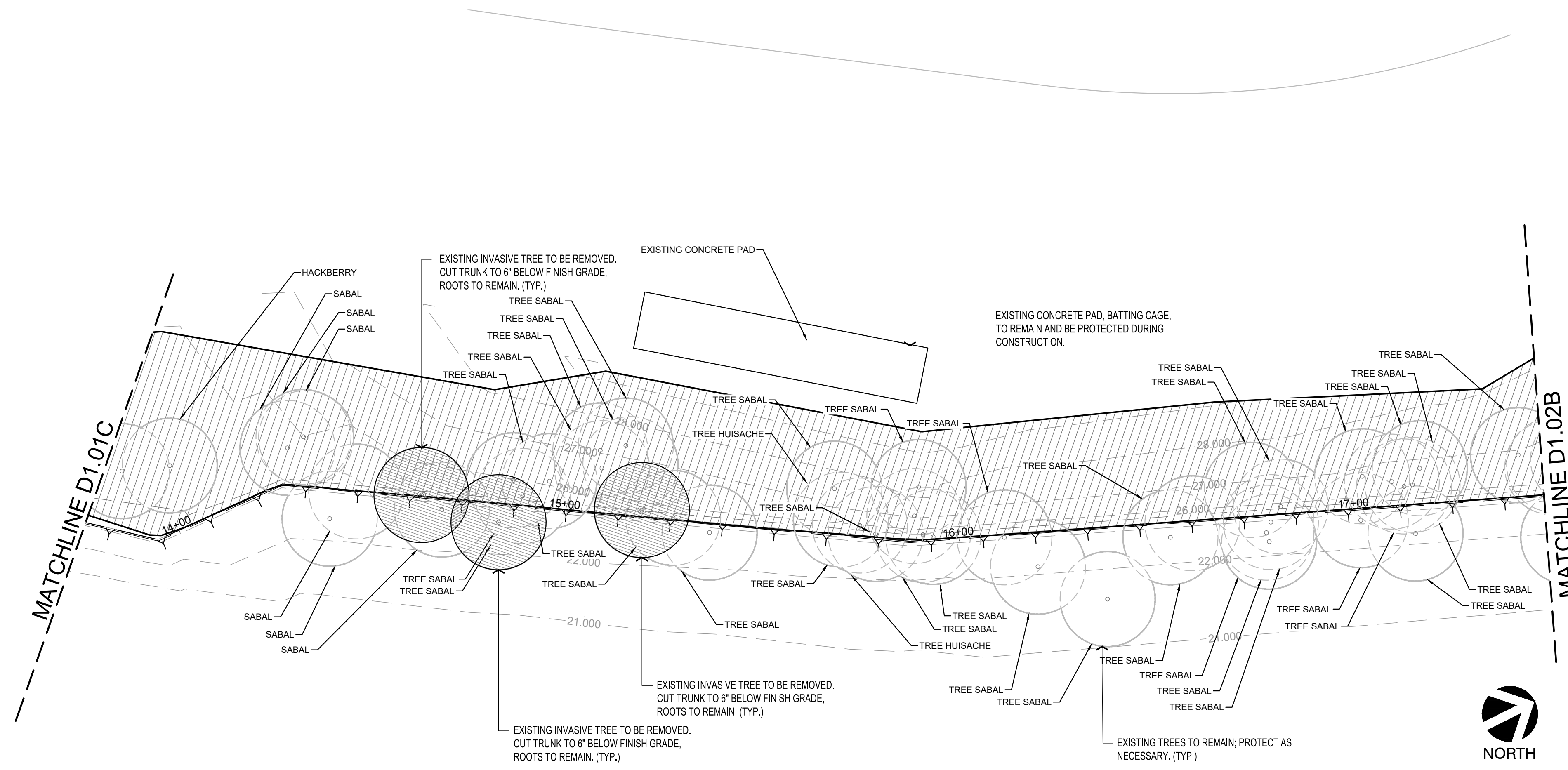


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D1.02A



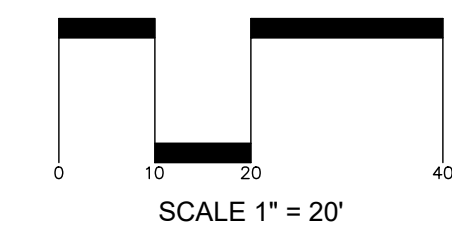
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VEGETATION REMOVAL. REMOVE ALL BRAZILIAN PEPPER PLANTS AND NON-NATIVE PLANT MATERIAL IN THE AREAS AS SHOWN ON THE PLANS. ALL BRAZILIAN PEPPER PLANTS ARE TO BE REMOVED TO 6" BELOW FINAL GRADE AND REMOVED ENTIRELY FROM THE SITE. PRIOR TO REMOVAL, BRAZILIAN PEPPER PLANTS SHALL TO BE TREATED WITH TWO APPLICATIONS OF RENOVATE OR NAVITROL OR LANDSCAPE ARCHITECT'S APPROVED EQUAL (ACTIVE INGREDIENT TRICLOPYR). HERBICIDE SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS BY A CERTIFIED PESTICIDE APPLICATOR. PRIOR TO THE INITIAL HERBICIDE APPLICATION, THE CONTRACTOR SHALL PROVIDE THE TDA CERTIFICATION OF THE PESTICIDE APPLICATOR AND THE PROPOSED TREATMENT SCHEDULE.

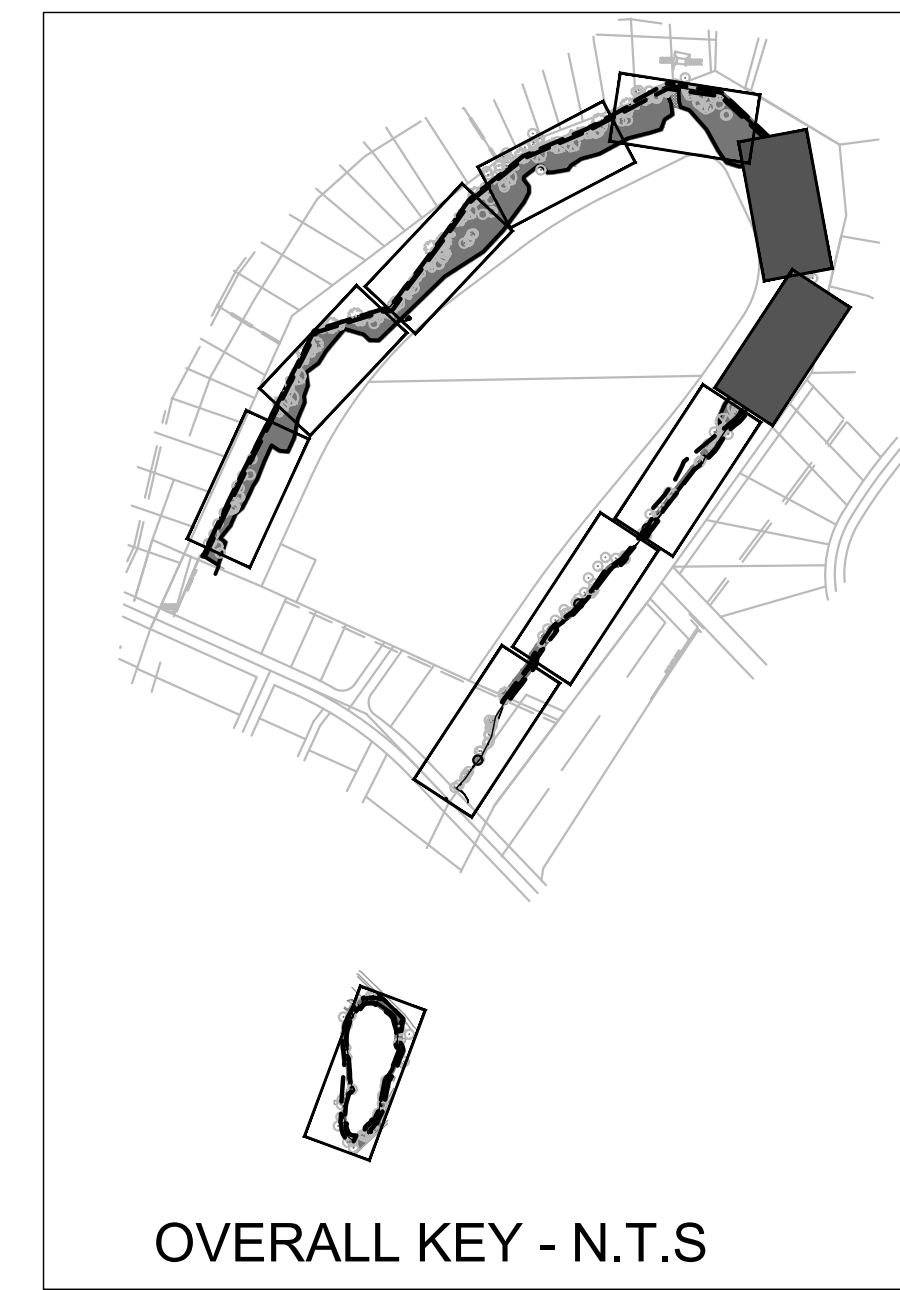
LAND SIDE

WATER SIDE

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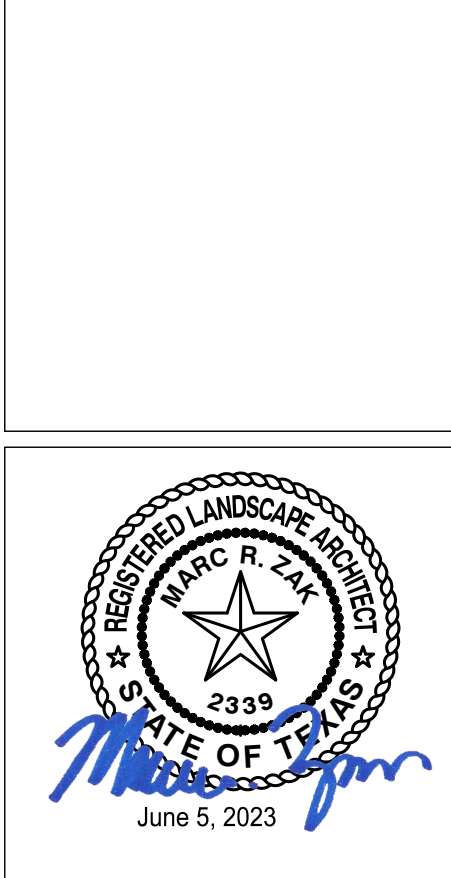
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 BROWNSVILLE, TEXAS



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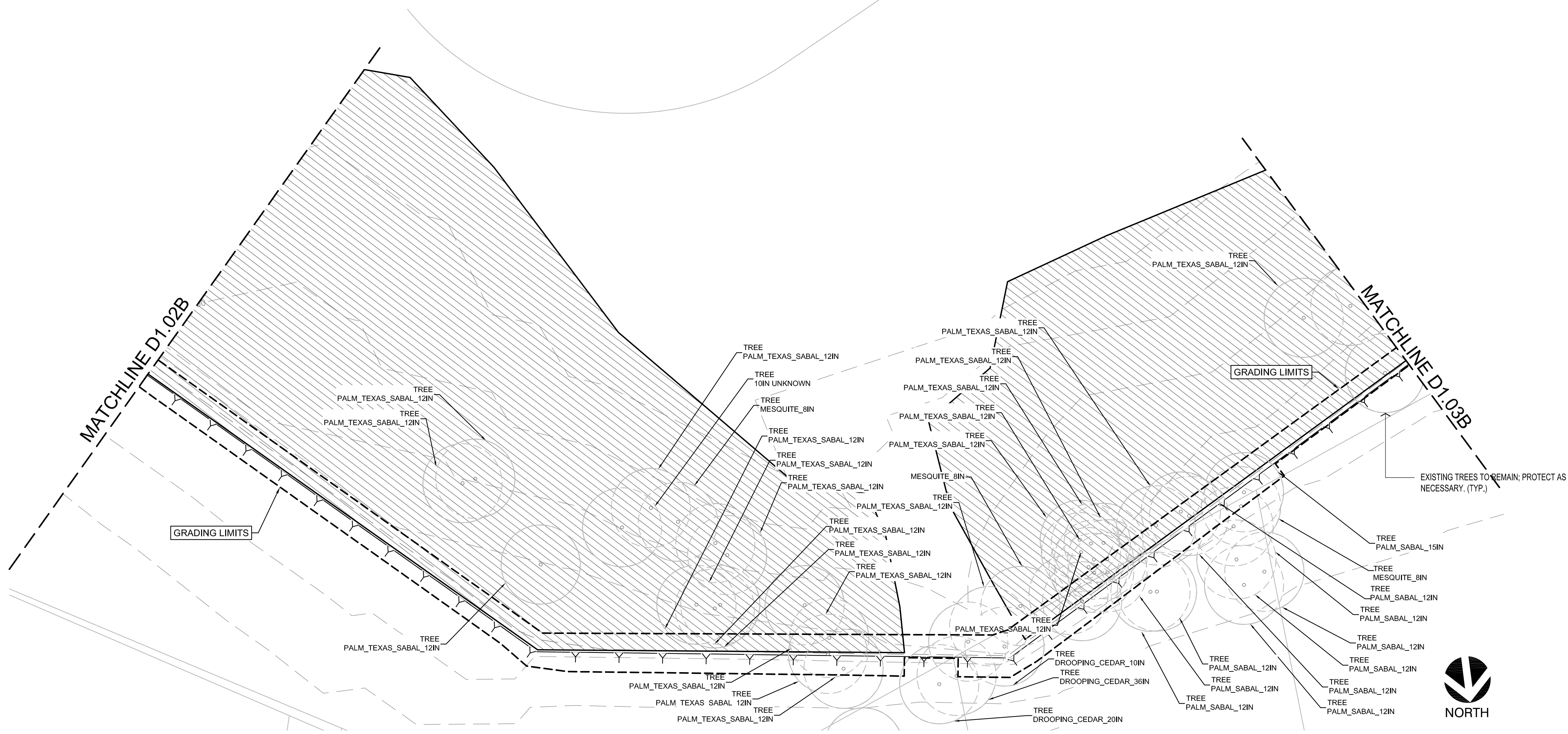
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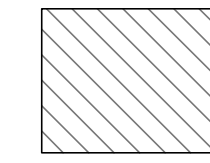
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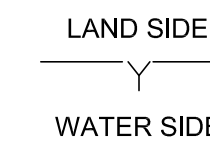
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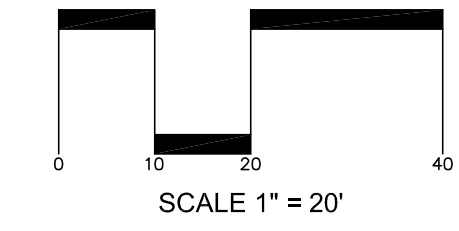
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VEGETATION REMOVAL. REMOVE ALL BRAZILIAN PEPPER PLANTS AND NON-NATIVE PLANT MATERIAL IN THE AREAS AS SHOWN ON THE PLANS. ALL BRAZILIAN PEPPER PLANTS ARE TO BE REMOVED TO 6" BELOW FINAL GRADE AND REMOVED ENTIRELY FROM THE SITE. PRIOR TO REMOVAL, BRAZILIAN PEPPER PLANTS SHALL TO BE TREATED WITH TWO APPLICATIONS OF RENOVATE OR NAVITROL OR LANDSCAPE ARCHITECT'S APPROVED EQUAL (ACTIVE INGREDIENT TRICLOPYR). HERBICIDE SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS BY A CERTIFIED PESTICIDE APPLICATOR. PRIOR TO THE INITIAL HERBICIDE APPLICATION, THE CONTRACTOR SHALL PROVIDE THE TDA CERTIFICATION OF THE PESTICIDE APPLICATOR AND THE PROPOSED TREATMENT SCHEDULE.

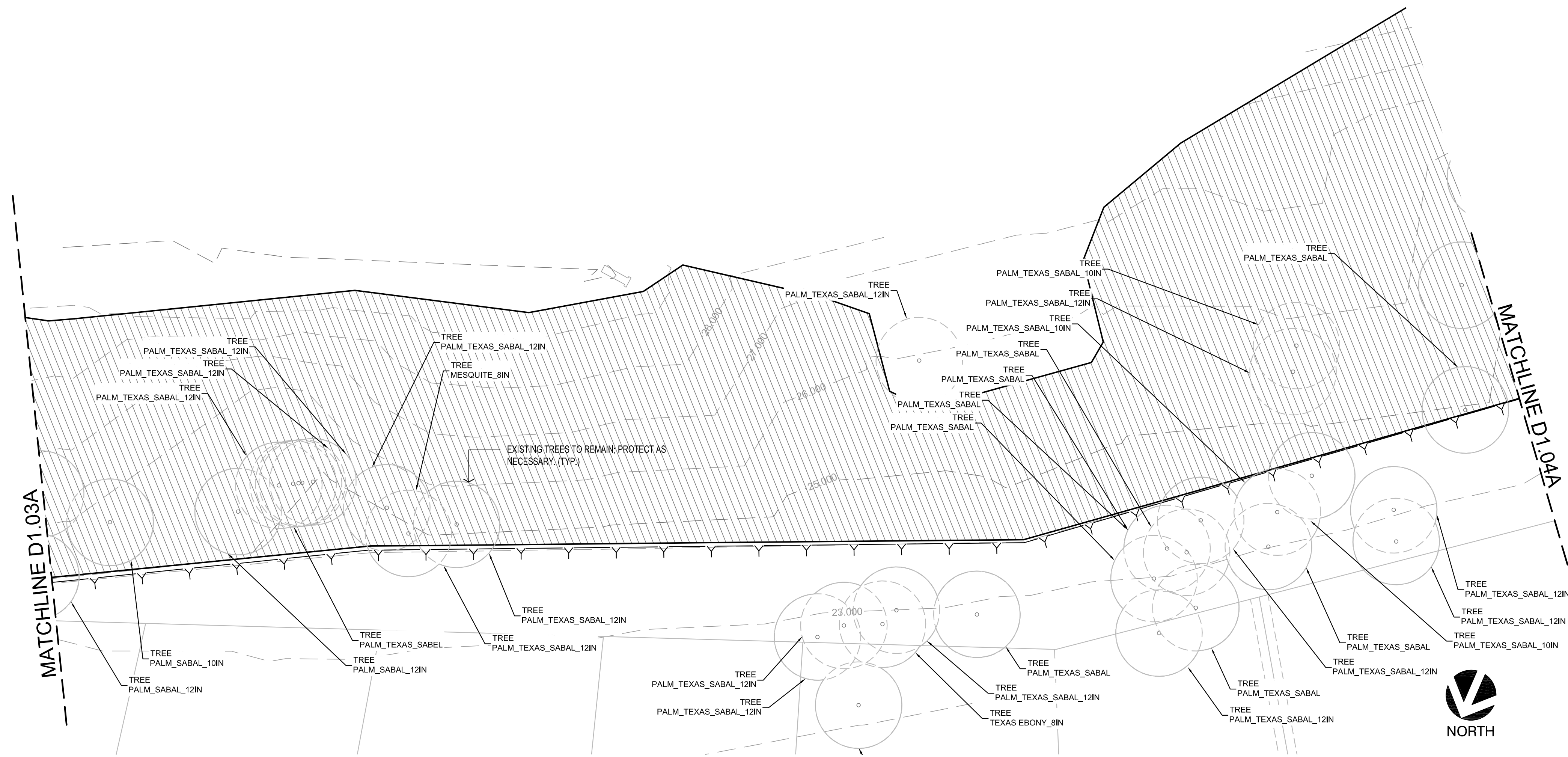


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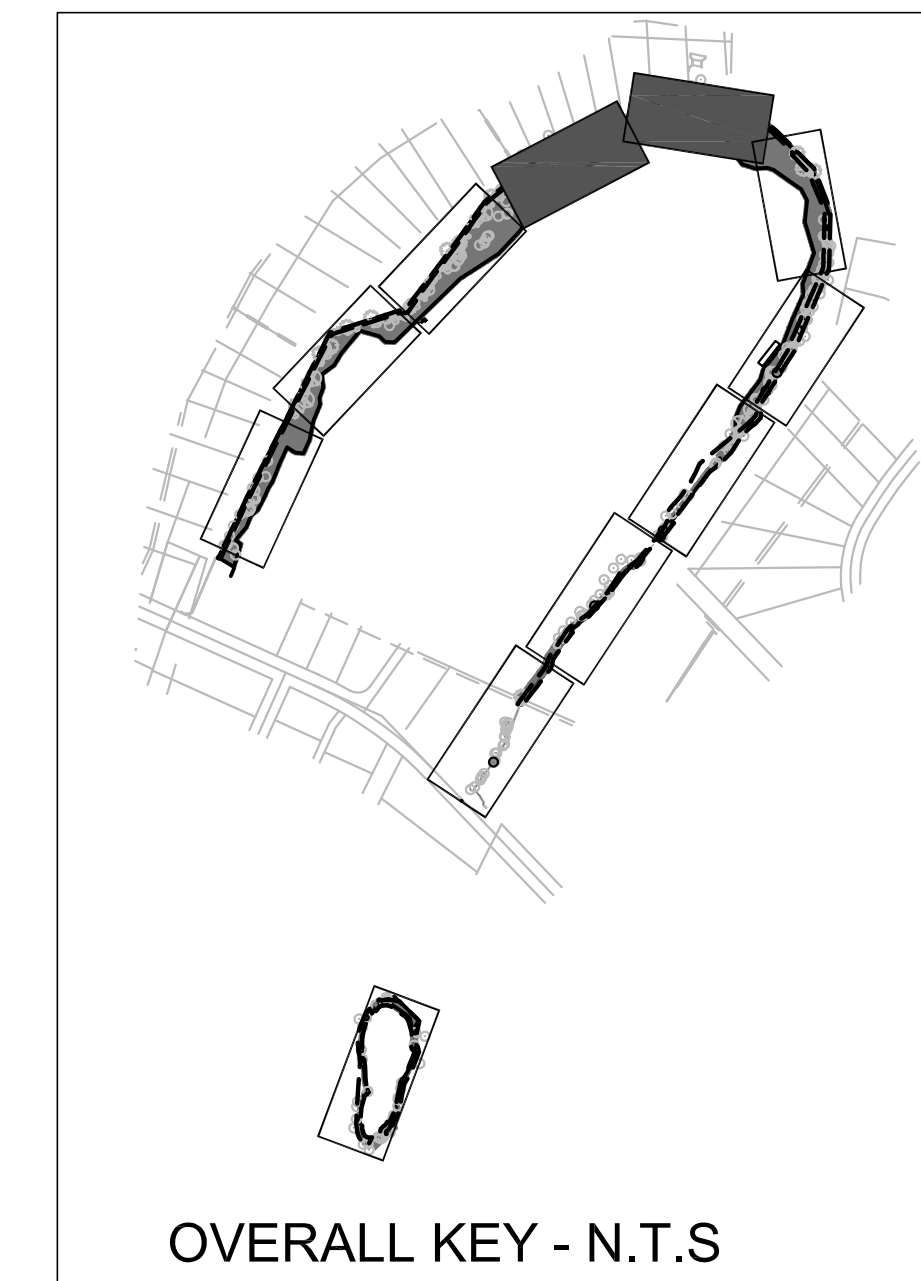


NORTH

D1.03B



NORTH



**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



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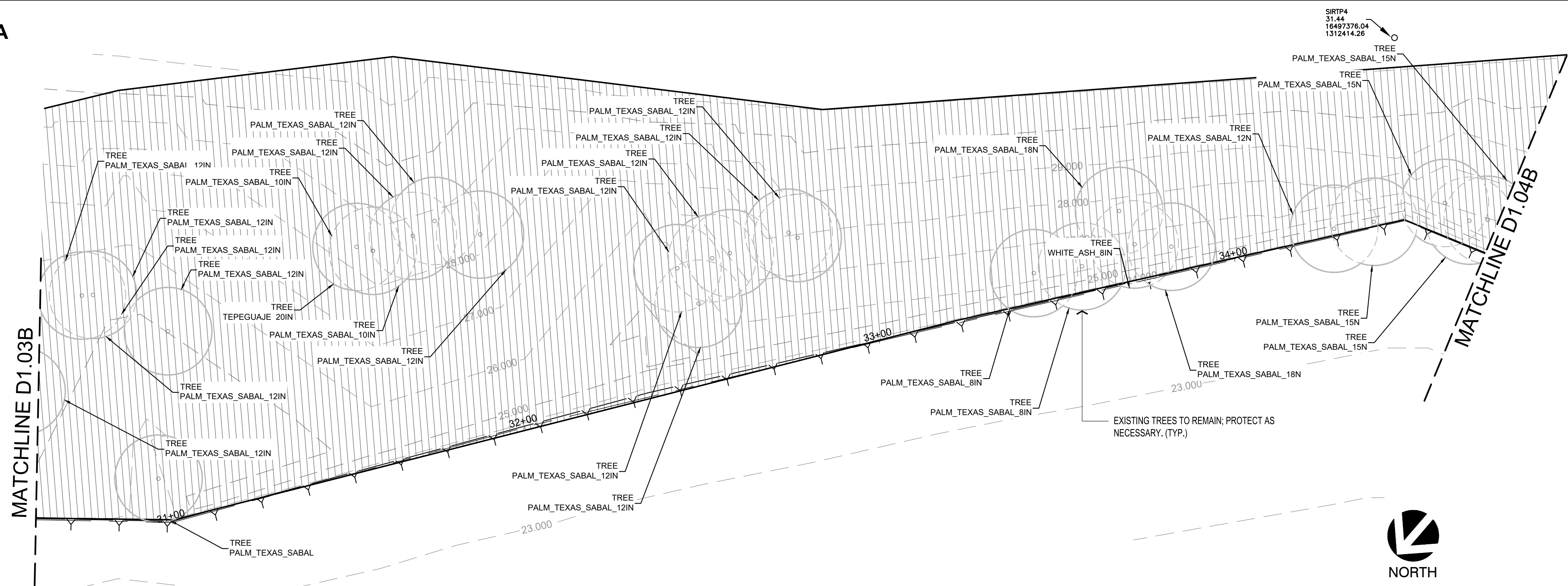
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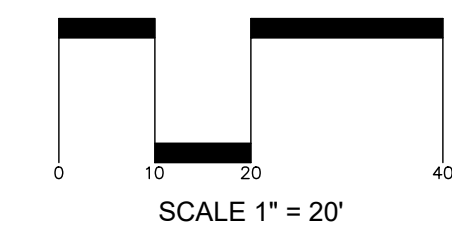


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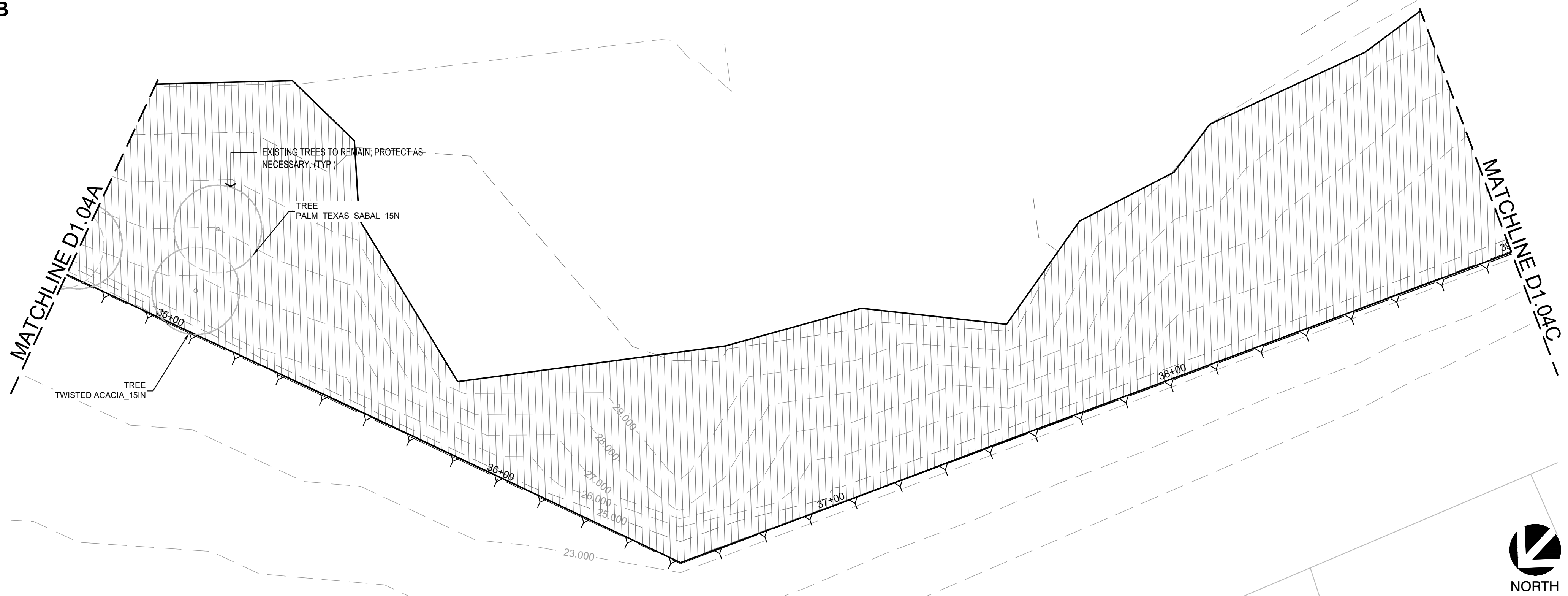
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LAND SIDE  
WATER SIDE

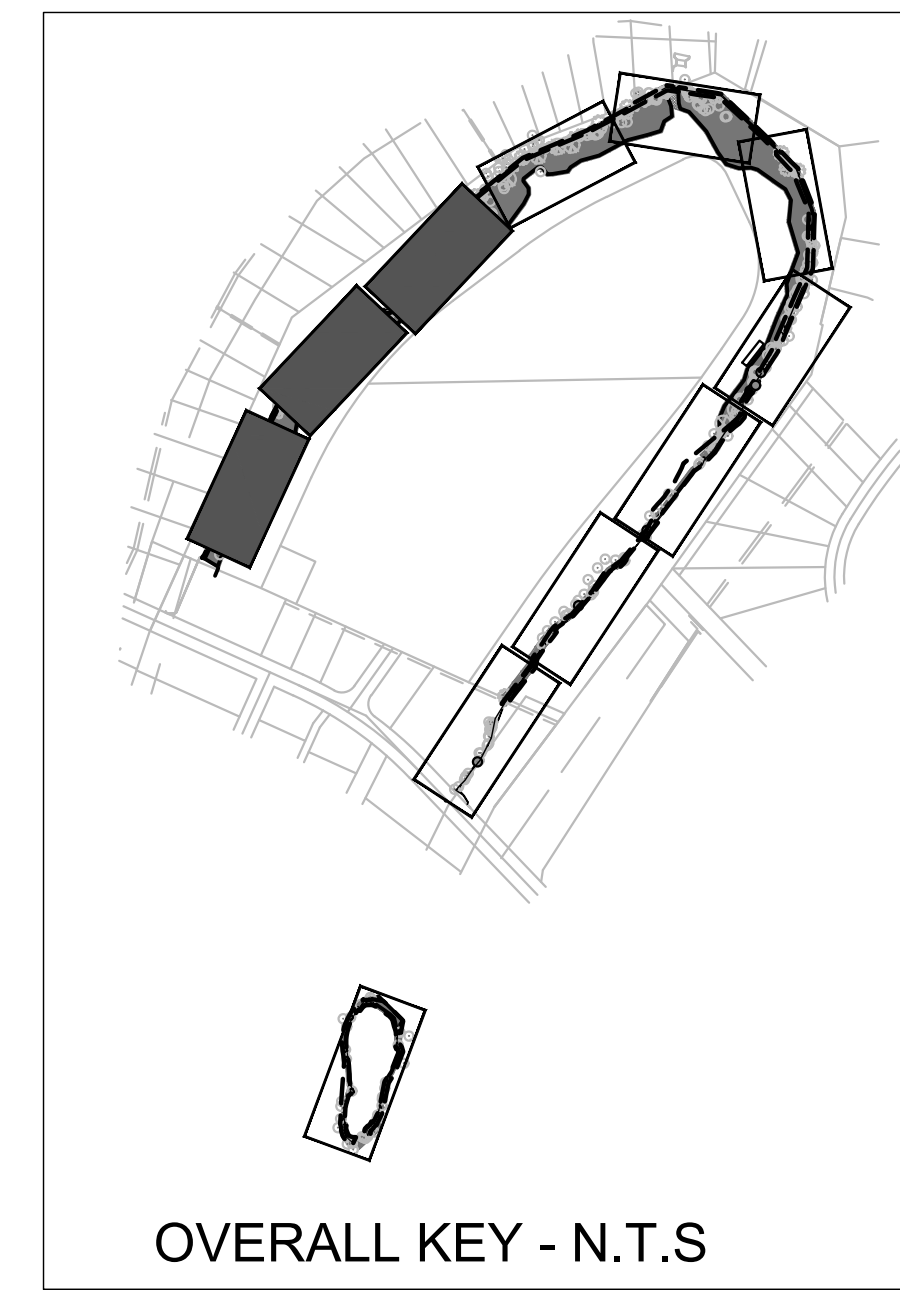
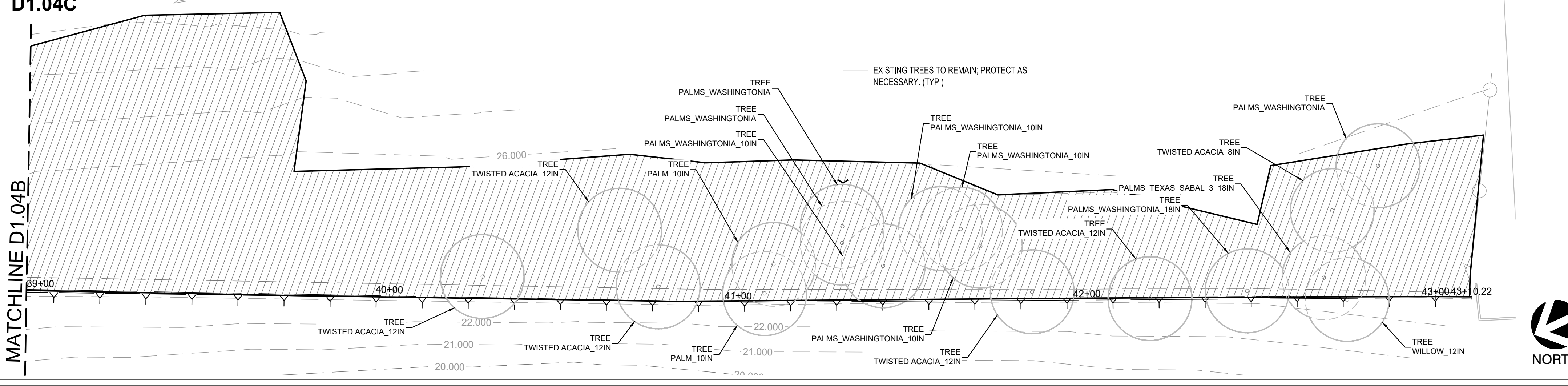
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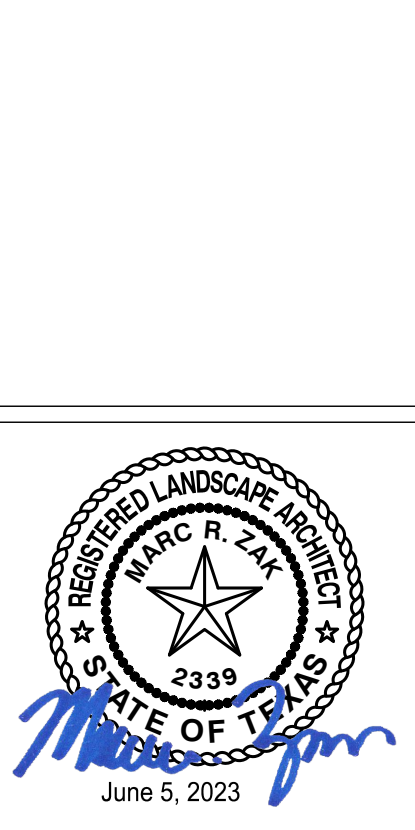
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**BROWNSVILLE PUB**  
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BROWNSVILLE, TEXAS



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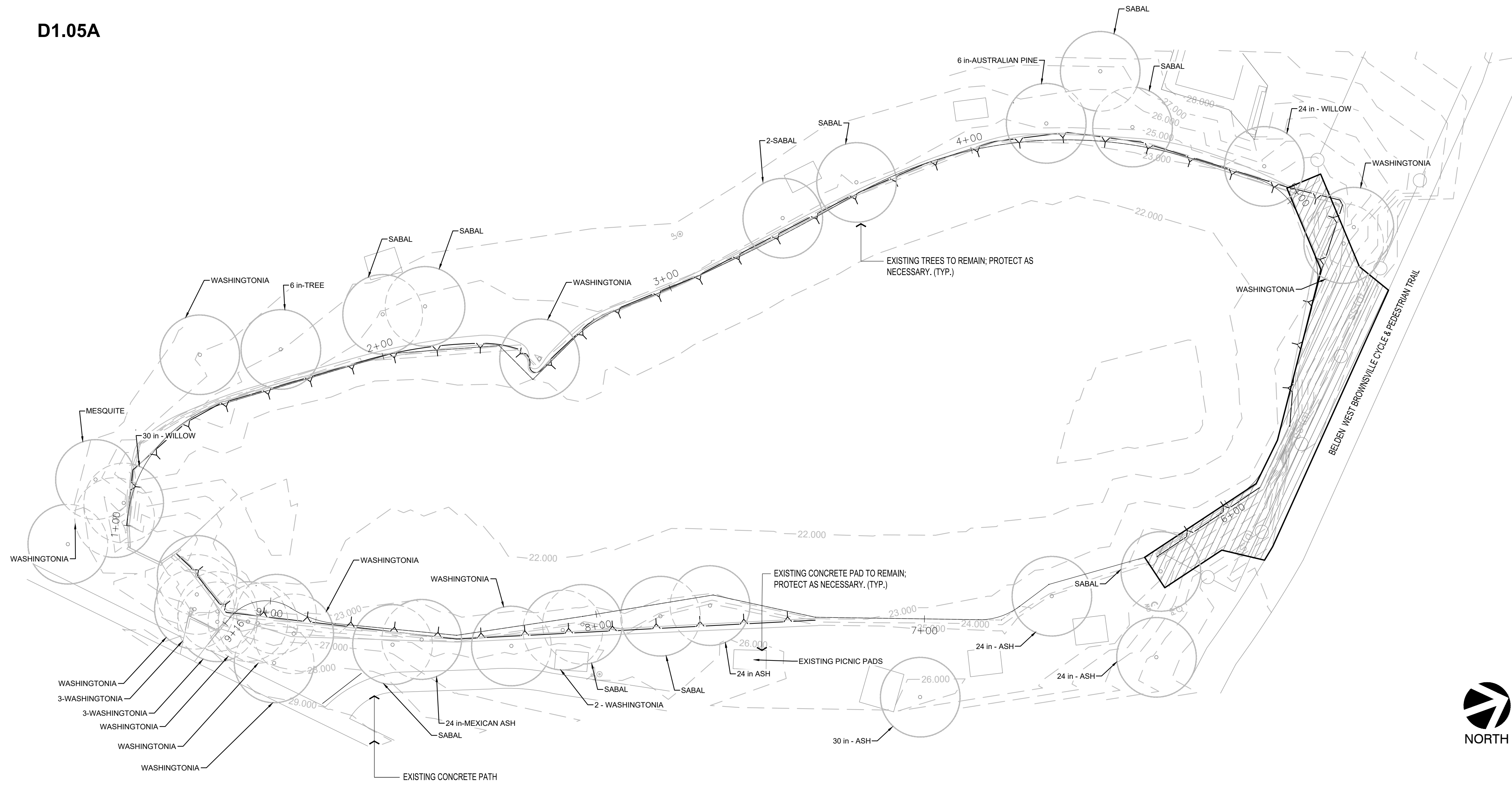
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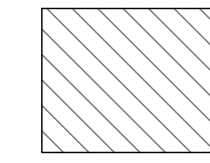
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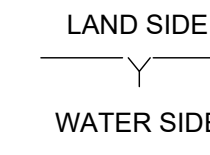
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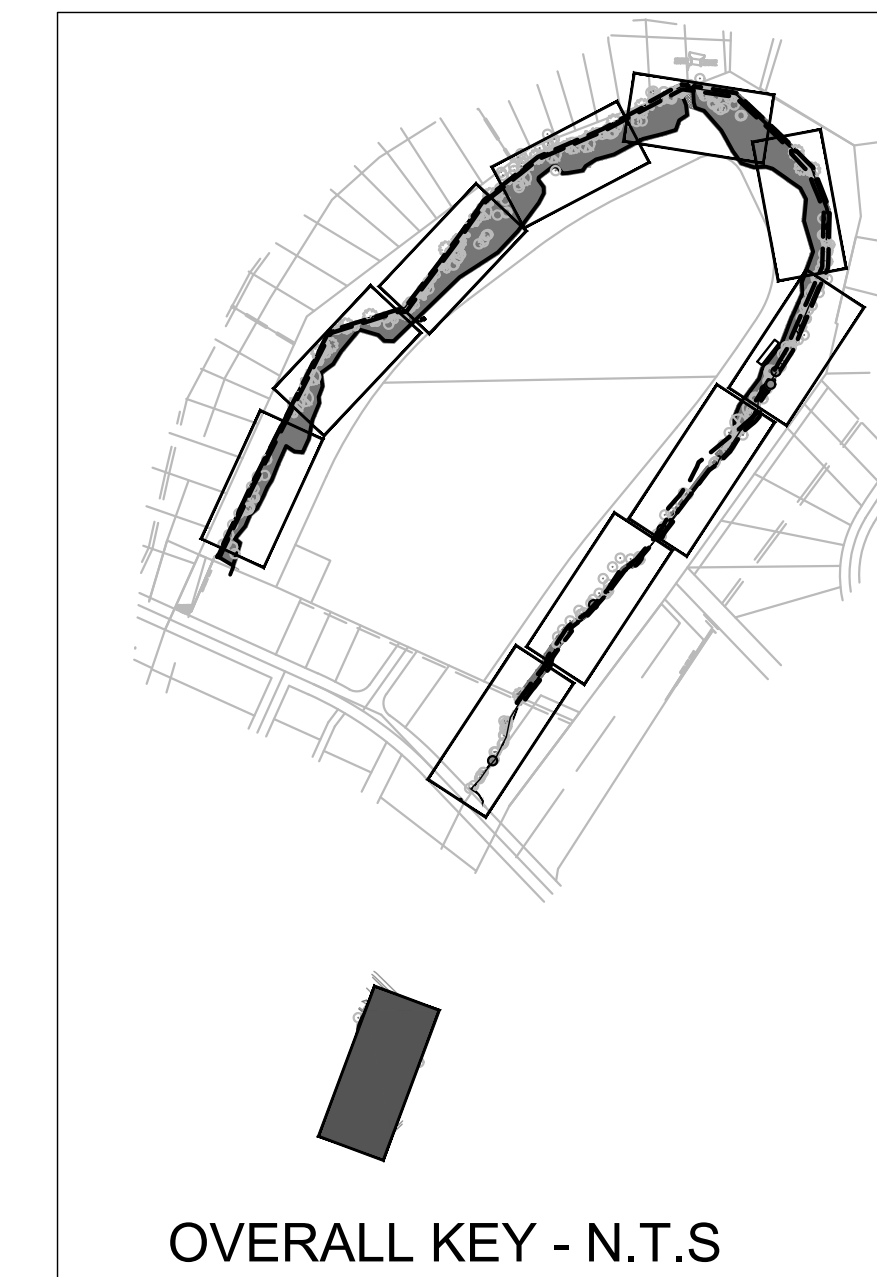
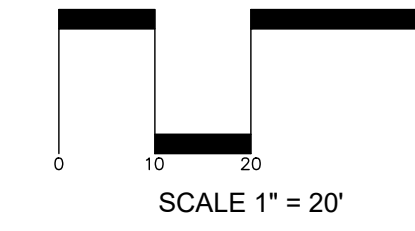
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VEGETATION REMOVAL. REMOVE ALL BRAZILIAN PEPPER PLANTS AND NON-NATIVE PLANT MATERIAL IN THE AREAS AS SHOWN ON THE PLANS. ALL BRAZILIAN PEPPER PLANTS ARE TO BE REMOVED TO 6" BELOW FINAL GRADE AND REMOVED ENTIRELY FROM THE SITE. PRIOR TO REMOVAL, BRAZILIAN PEPPER PLANTS SHALL TO BE TREATED WITH TWO APPLICATIONS OF RENOVATE OR NAVITROL OR LANDSCAPE ARCHITECT'S APPROVED EQUAL (ACTIVE INGREDIENT TRICLOPYR). HERBICIDE SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS BY A CERTIFIED PESTICIDE APPLICATOR. PRIOR TO THE INITIAL HERBICIDE APPLICATION, THE CONTRACTOR SHALL PROVIDE THE TDA CERTIFICATION OF THE PESTICIDE APPLICATOR AND THE PROPOSED TREATMENT SCHEDULE.



EXISTING WATER LINE.



**BROWNSVILLE PUB**  
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 BROWNSVILLE, TEXAS



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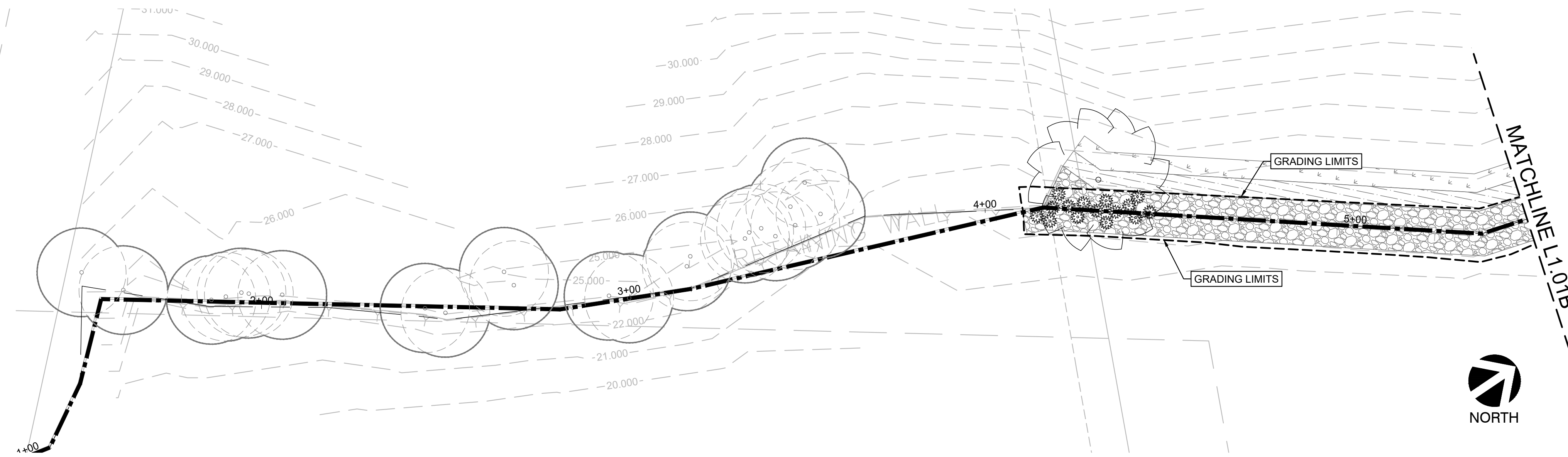
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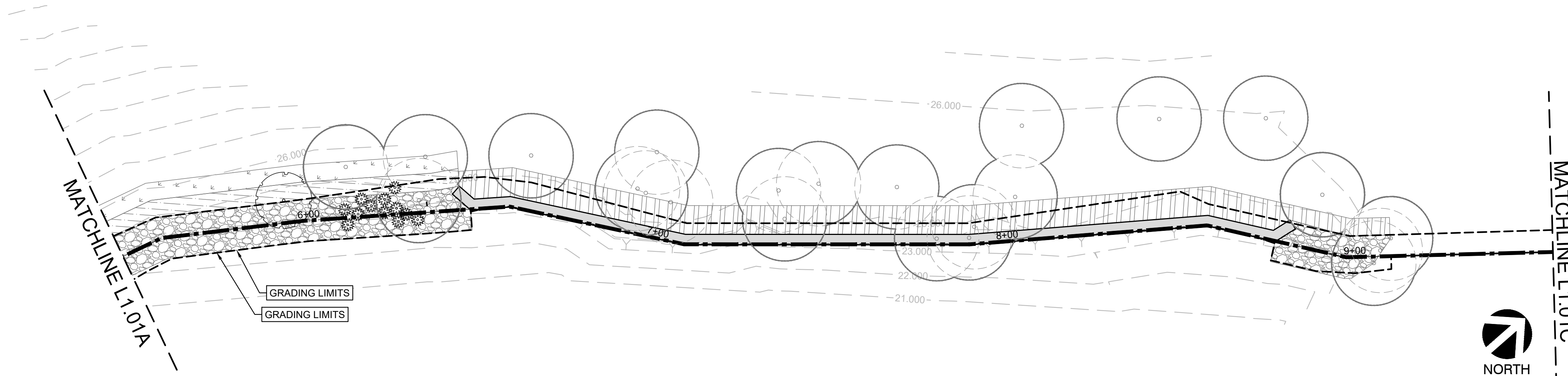
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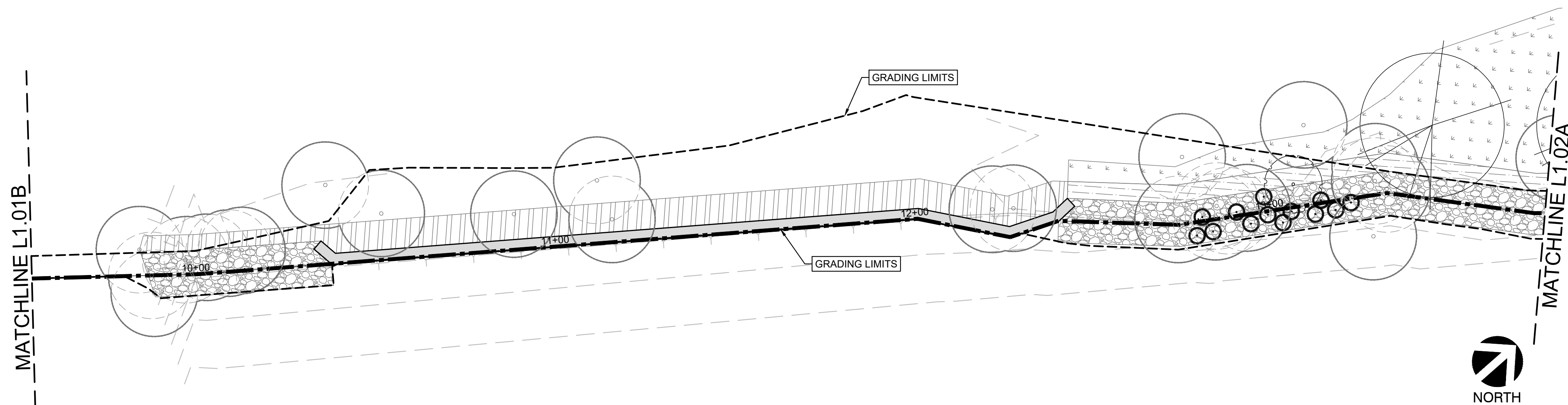
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L1.01B

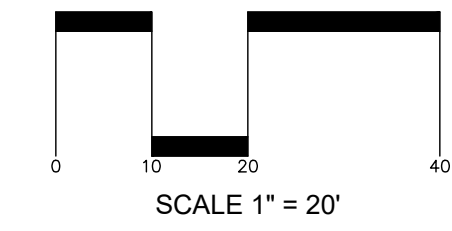


L1.01C



**LEGEND**

- LAND SIDE
- WATER SIDE
- BANK LINE (BL), EDGE OF WATER AND ALIGNMENT FOR BANK TREATMENTS.
- GRADING LIMITS. PALM TREES WITHIN THE LIMITS OF GRADING AND WHERE THE PROPOSED FINISH GRADES ARE MORE THAN 9" BELOW EXISTING GRADES, THE CONTRACTOR IS TO REMOVE THE PALM. PROTECT ROOT BALL WITH BURLAP AND STORE ON SITE. SUCH PALM TREES ARE TO BE REPLANTED AFTER SITE GRADING HAS BEEN COMPLETED. PALMS ARE TO BE PROTECTED AND WATERED ON SITE. THE CONTRACTOR IS TO REPLACE ANY AND ALL PALMS THAT DIE DURING CONSTRUCTION.
- SOD, ST. AUGUSTINE SOD, INSTALL SOLID COVERAGE IN AREAS AS SHOWN AND ALL DISTURBED AREAS BEHIND SHEET PILE. PROVIDE MINIMUM 4" OF TOPSOIL WITH 1/2" OF COMPOST COMPACTED FIRM.
- SHEET PILE EDGE TREATMENT, 12" WIDE CAP, REF. TO CIVIL BULKHEAD DETAIL SHEET.
- BANK TREATMENT B - NATIVE
  - NATIVE GRASS SEED MIX, RIPARIAN RECOVERY MIX AS PROVIDED BY NATIVE AMERICAN SEED IN AREAS AS SHOWN ON THE PLANS AND ALL CONTRACTOR DISTURBED AREAS BEHIND THE FLEXIBLE RIPRAP.
  - PLANTING RATE TO BE 36 LBS PURE LIVE SEED (PLS) PER ACRE. USE NATIVE TOPSOIL COMPACTED FIRM. IF PLANTING OCCURS BETWEEN SEPTEMBER AND FEBRUARY, PROVIDE A NURSE CROP OF CEREAL RYE GRAIN (*SECALE CEREALE*) AT 25 LBS PER ACRE.
- SOD, COMMON BERMUDA GRASS SOD. PROVIDE A MINIMUM OF 4" OF SANDY LOAM TOPSOIL IN ALL AREAS TO RECEIVE SOD, PREPARE A FIRM, CLEAN SEEDBED AND ROLL OR PACK THE SOIL SO FOOTPRINTS SINK NO MORE THAN 1/2" DEEP. INSTALL SOLID COVERAGE IN AREAS AS SHOWN ON THE PLANS, WITH RIPARIAN RECOVERY MIX AS PROVIDED BY NATIVE AMERICAN SEED. BROADCAST ON TOP OF THE SOD AT A RATE OF 18 LBS PLS PER ACRE. ALL SOD SHALL BE ROLLED AFTER INSTALLATION AND IMMEDIATELY IRRIGATED. SOD SHALL BE INSTALLED THE SAME DAY IT IS DELIVERED ONSITE AND SHALL BE INSTALLED ONSITE NO MORE THAN THREE (3) DAYS AFTER IT IS CUT.
- FLEXIBLE RIPRAP, REF. TO DETAIL 2/SD 1.01.

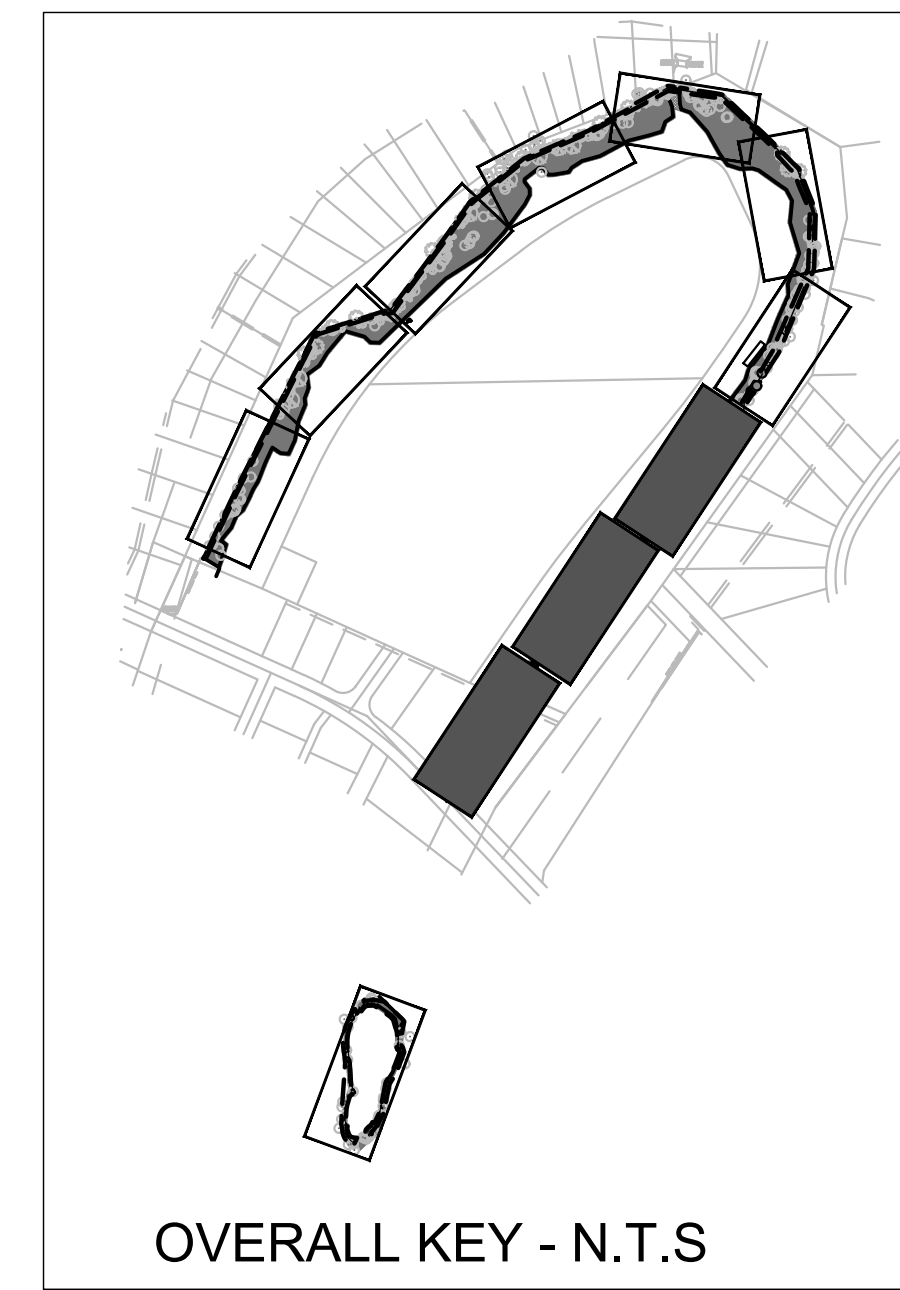


**NOTES**

1. BANK RESTORATION IMPROVEMENTS BEGIN AT STATION 4+10 AND END AT STATION 43+10.
2. BANK TREATMENT A LIMITS: STATION 6+45 - 8+80 STATION 10+35 - 12+40
3. BANK TREATMENT B LIMITS: STATION 4+10 - 6+45 STATION 8+80 - 9+10 STATION 9+85 - 10+35 STATION 12+40 - 24+70 STATION 24+85 - 26+05
4. BANK TREATMENT GRADING AND LANDSCAPE ONLY LIMITS: STATION 26+05 - 43+10
5. AFTER SITE HAS BEEN PREPARED WITH INVASIVE PLANT REMOVAL, CONTRACTOR IS TO STAKE THE BANK TREATMENTS IN THE FIELD FOR REVIEW AND APPROVAL WITH THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION OF THE BANK TREATMENTS. MINOR ADJUSTMENTS TO THE BANK TREATMENT LIMITS, WITHIN 25' OF THE LIMITS PROVIDED, MAY BE MADE IN THE FIELD WITHOUT ADDITIONAL COST TO THE OWNER.
6. REFER TO SHEET L 1.05 FOR PLANT SCHEDULE.
7. PALM TREES WITHIN THE LIMITS OF GRADING AND WHERE THE PROPOSED FINISH GRADES ARE MORE THAN 9" BELOW EXISTING GRADES, THE CONTRACTOR IS TO REMOVE THE PALM, PROTECT ROOT BALL WITH BURLAP AND STORE ON SITE. SUCH PALM TREES ARE TO BE REPLANTED AFTER SITE GRADING HAS BEEN COMPLETED. PALMS ARE TO BE PROTECTED AND WATERED ON SITE. THE CONTRACTOR IS TO REPLACE ANY AND ALL PALMS THAT DIE DURING CONSTRUCTION.

**PLANT LEGEND**

- TREES**
  - Diospyros texana / Texas Persimmon
  - Ehretia anacua / Anacua
  - Taxodium distichum / Bald Cypress
- SHRUBS**
  - Baccharis salicifolia / Mulefat
  - Cephalanthus occidentalis / Buttonbush
  - Equisetum hyemale / Horsetail
  - Justicia americana / Water Willow
  - Malpighia glabra / Barbados Cherry
  - Malvaviscus arboreus / Giant Turk's Cap
  - Scirpus californicus / California Bulrush



**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description



Project No.:	42947.001
Issued:	6/05/2023
Drawn By:	MS
Checked By:	MZ
Scale:	AS NOTED
Sheet Title	SITE PLAN

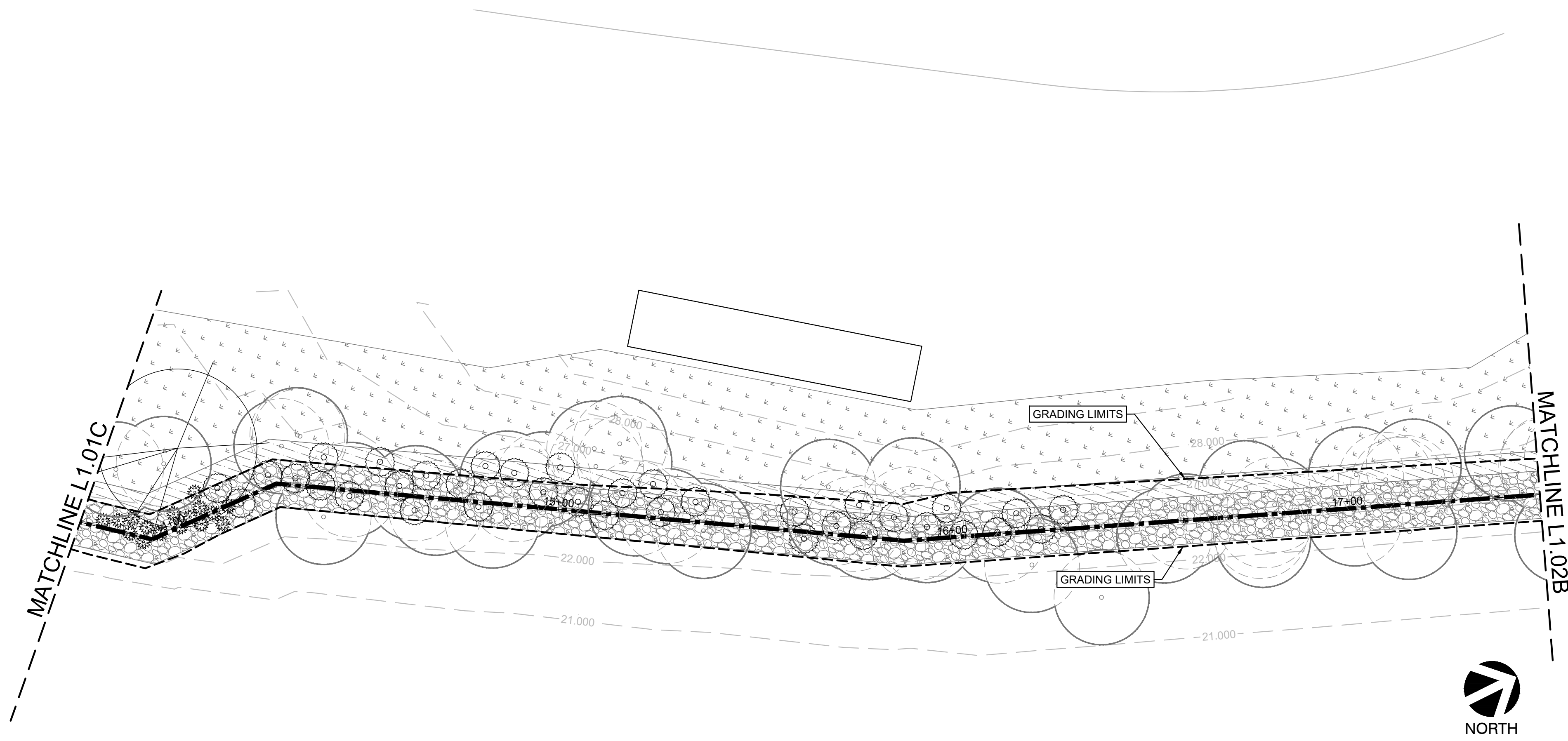
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L1.02A

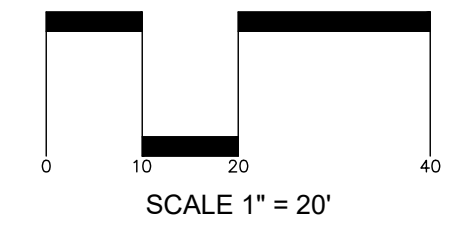
PLANT LEGEND

TREES	BOTANICAL / COMMON NAME
	Diospyros texana / Texas Persimmon
	Ehretia anacua / Anacua
	Taxodium distichum / Bald Cypress
SHRUBS	BOTANICAL / COMMON NAME
	Baccharis salicifolia / Mulefat
	Cephalanthus occidentalis / Buttonbush
	Equisetum hyemale / Horsetail
	Justicia americana / Water Willow
	Malpighia glabra / Barbados Cherry
	Malvastrum arboreum / Giant Turk's Cap
	Scirpus californicus / California Bulrush



LEGEND

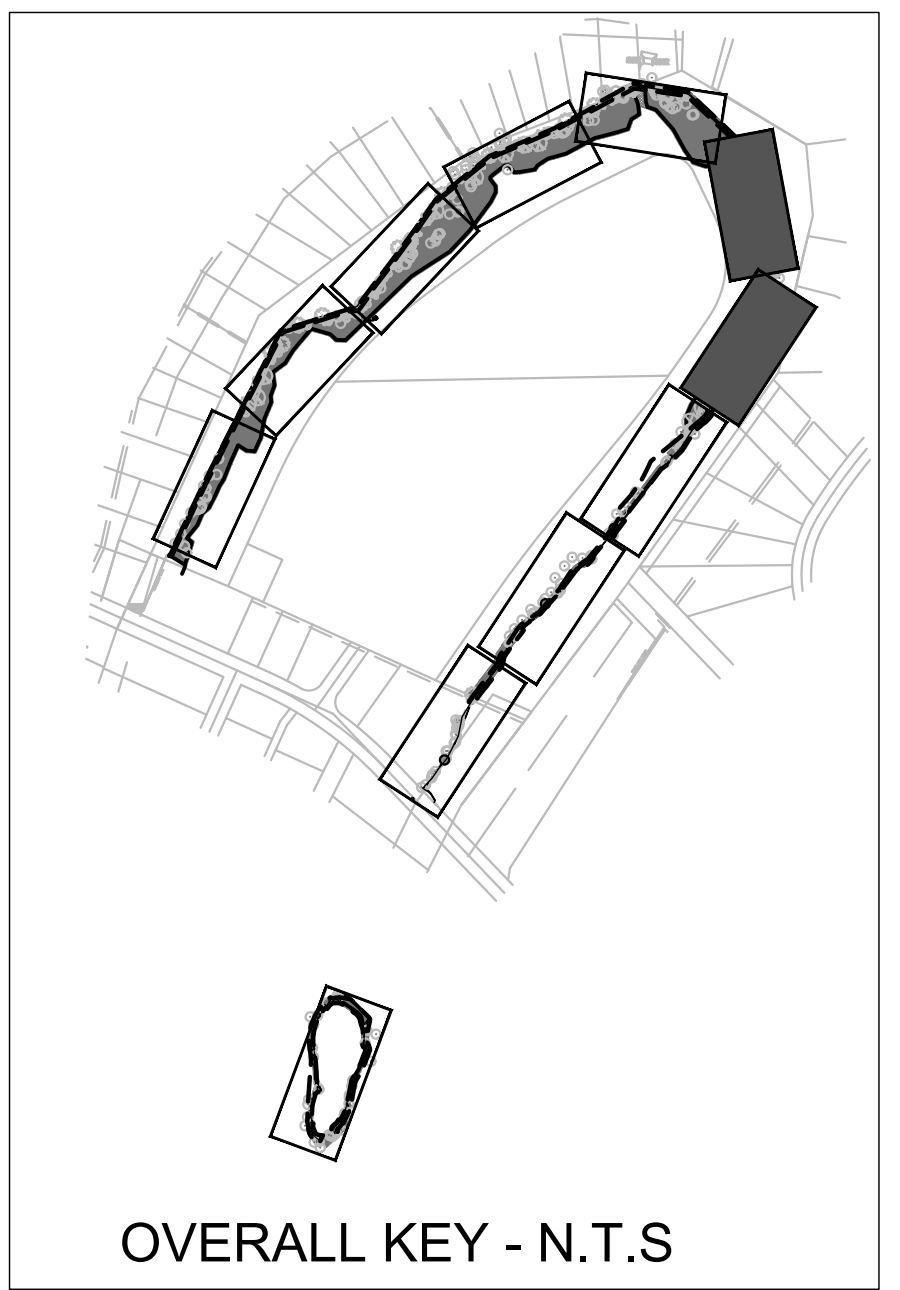
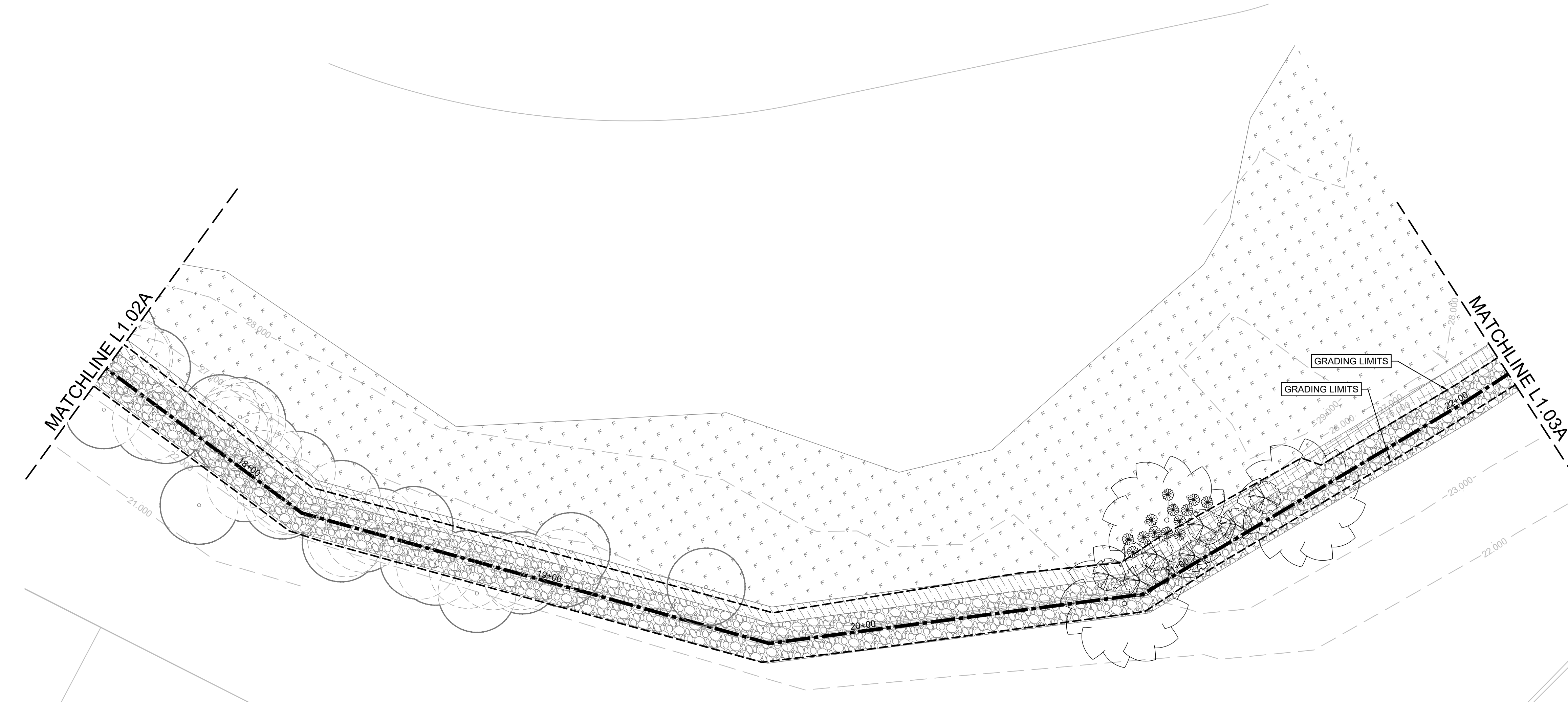
- LAND SIDE
- WATER SIDE
- BANK LINE (BL), EDGE OF WATER AND ALIGNMENT FOR BANK TREATMENTS.
- GRADING LIMITS. PALM TREES WITHIN THE LIMITS OF GRADING AND WHERE THE PROPOSED FINISH GRADES ARE MORE THAN 9" BELOW EXISTING GRADES, THE CONTRACTOR IS TO REMOVE THE PALM, PROTECT ROOT BALL WITH BURLAP AND STORE ON SITE. SUCH PALM TREES ARE TO BE REPLANTED AFTER SITE GRADING HAS BEEN COMPLETED. PALMS ARE TO BE PROTECTED AND WATERED ON SITE. THE CONTRACTOR IS TO REPLACE ANY AND ALL PALMS THAT DIE DURING CONSTRUCTION.
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- FLEXIBLE RIPRAP, REF. TO DETAIL 2/SD 1.01.



NOTES

1. BANK RESTORATION IMPROVEMENTS BEGIN AT STATION 4+10 AND END AT STATION 43+10.
2. BANK TREATMENT A LIMITS:  
STATION 6+45 - 8+80  
STATION 10+35 - 12+40
3. BANK TREATMENT B LIMITS:  
STATION 4+10 - 6+45  
STATION 8+80 - 9+10  
STATION 9+85 - 10+35  
STATION 12+40 - 24+70  
STATION 24+85 - 26+05
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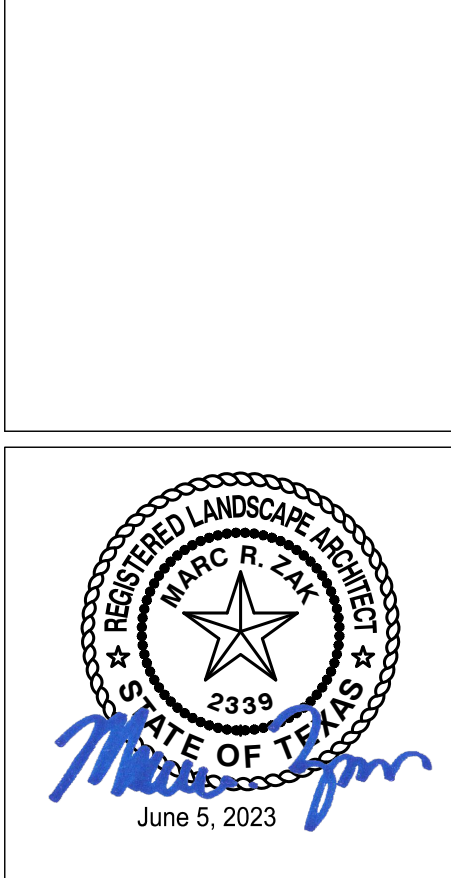
L1.02B



**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description

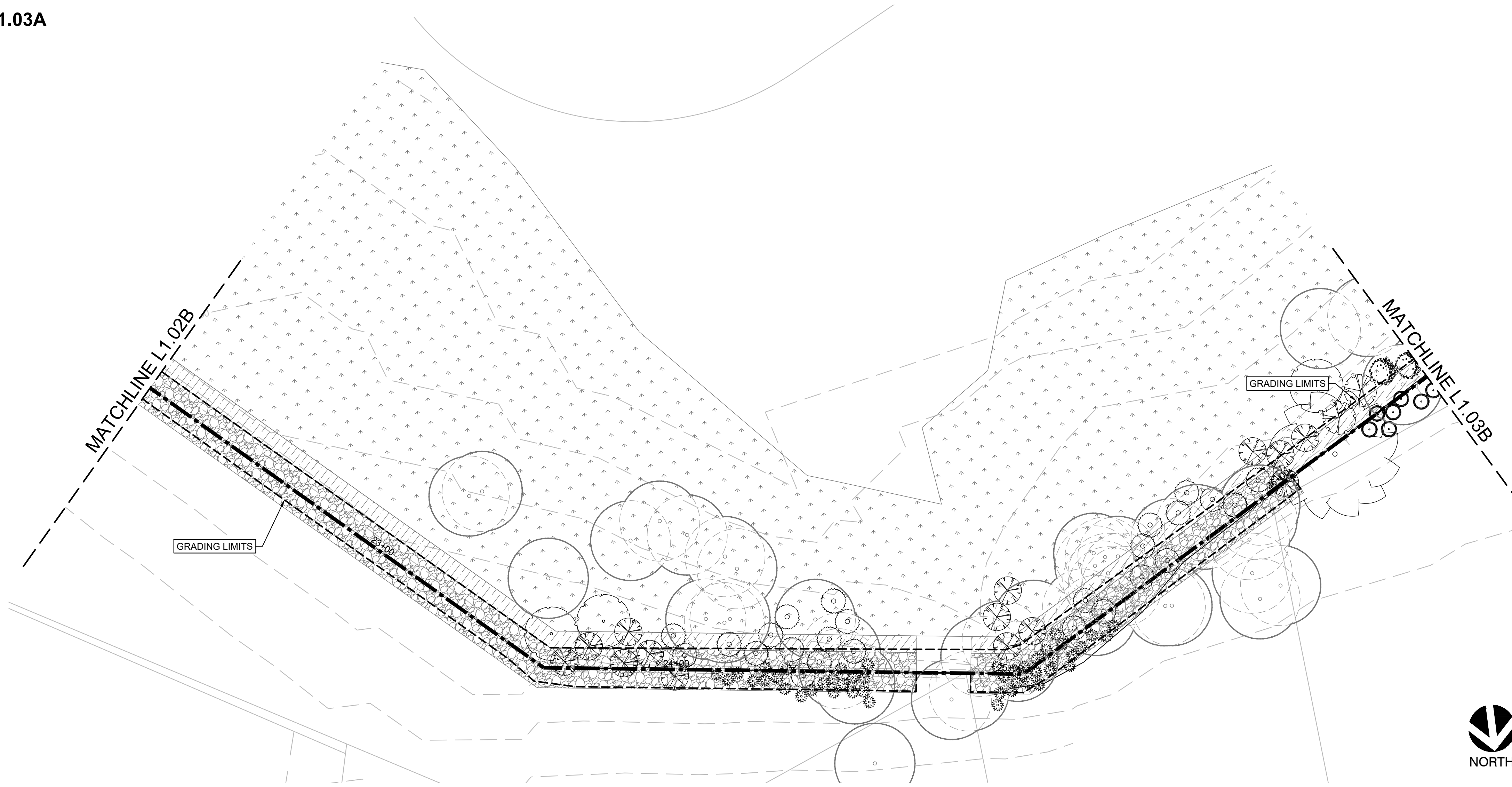


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Issued:	6/05/2023
Drawn By:	MS
Checked By:	MZ
Scale:	AS NOTED
Sheet Title	

SITE PLAN

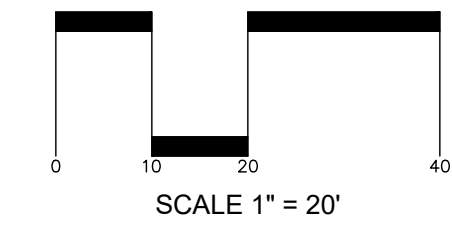
L1.02  
Sheet Number

L1.03A



**LEGEND**

- LAND SIDE
- WATER SIDE
- BANK LINE (BL), EDGE OF WATER AND ALIGNMENT FOR BANK TREATMENTS.
- GRADING LIMITS. PALM TREES WITHIN THE LIMITS OF GRADING AND WHERE THE PROPOSED FINISH GRADES ARE MORE THAN 9" BELOW EXISTING GRADES, THE CONTRACTOR IS TO REMOVE THE PALM, PROTECT ROOT BALL WITH BURLAP AND STORE ON SITE. SUCH PALM TREES ARE TO BE REPLANTED AFTER SITE GRADING HAS BEEN COMPLETED. PALMS ARE TO BE PROTECTED AND WATERED ON SITE. THE CONTRACTOR IS TO REPLACE ANY AND ALL PALMS THAT DIE DURING CONSTRUCTION.
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- BANK TREATMENT B - NATIVE
  - NATIVE GRASS SEED MIX, RIPARIAN RECOVERY MIX AS PROVIDED BY NATIVE AMERICAN SEED IN AREAS AS SHOWN ON THE PLANS AND ALL CONTRACTOR DISTURBED AREAS BEHIND THE FLEXIBLE RIPRAP. PLANTING RATE TO BE 36 LBS PURE LIVE SEED (PLS) PER ACRE. USE NATIVE TOPSOIL COMPACTED FIRM. IF PLANTING OCCURS BETWEEN SEPTEMBER AND FEBRUARY, PROVIDE A NURSE CROP OF CEREAL RYE GRAIN (*SECALE CEREALE*) AT 25 LBS PER ACRE.
  - SOD, COMMON BERMUDA GRASS SOD. PROVIDE A MINIMUM OF 4" OF SANDY LOAM TOPSOIL IN ALL AREAS TO RECEIVE SOD, PREPARE A FIRM, CLEAN SEEDBED AND ROLL OR PACK THE SOIL SO FOOTPRINTS SINK NO MORE THAN 1/2" DEEP. INSTALL SOLID COVERAGE IN AREAS AS SHOWN ON THE PLANS, WITH RIPARIAN RECOVERY MIX AS PROVIDED BY NATIVE AMERICAN SEED. BROADCAST ON TOP OF THE SOD AT A RATE OF 18 LBS PLS PER ACRE. ALL SOD SHALL BE ROLLED AFTER INSTALLATION AND IMMEDIATELY IRRIGATED. SOD SHALL BE INSTALLED THE SAME DAY IT IS DELIVERED ON SITE AND SHALL BE INSTALLED ON SITE NO MORE THAN THREE (3) DAYS AFTER IT IS CUT.
- FLEXIBLE RIPRAP, REF. TO DETAIL 2/SD 1.01.

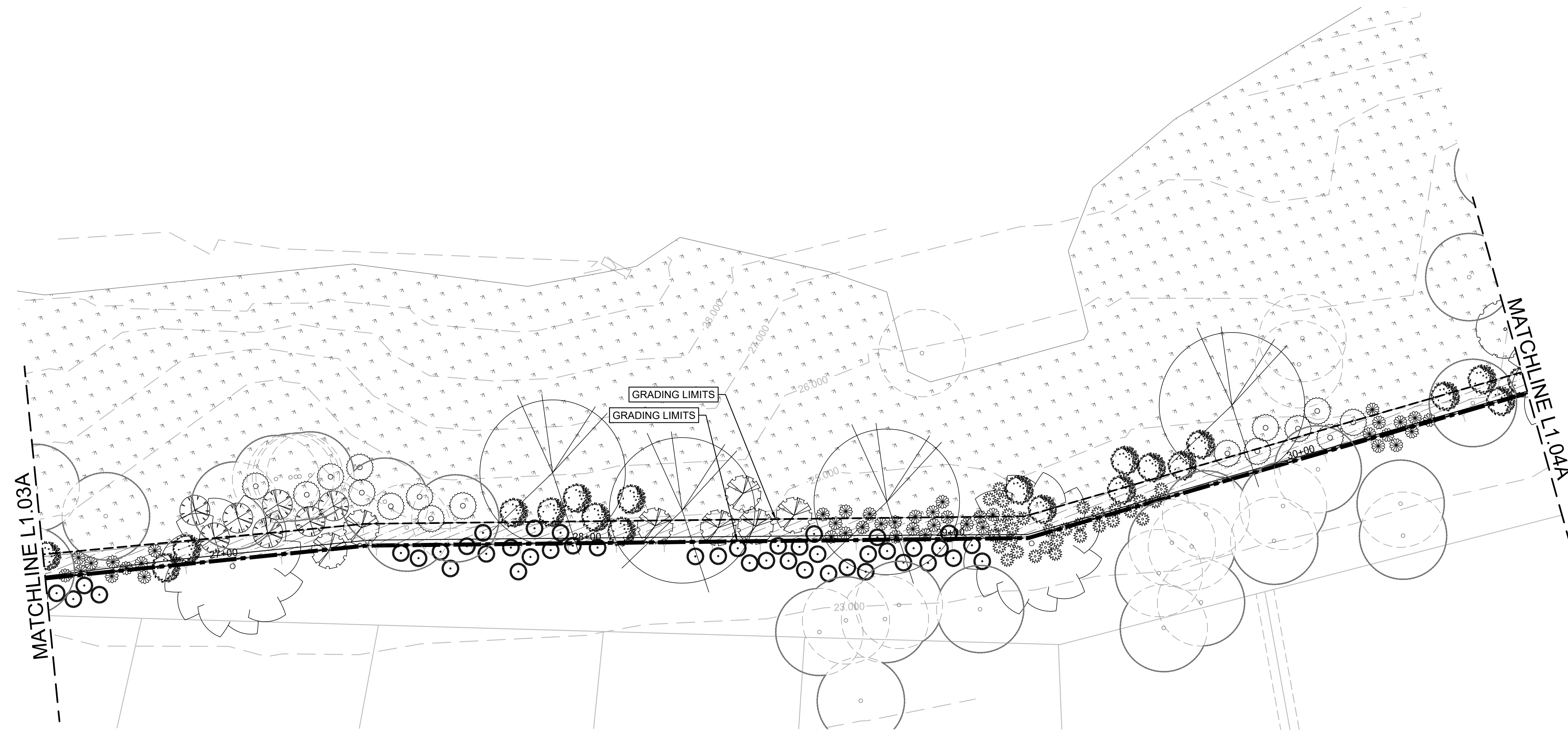


**NOTES**

1. BANK RESTORATION IMPROVEMENTS BEGIN AT STATION 4+10 AND END AT STATION 43+10.
2. BANK TREATMENT A LIMITS: STATION 6+45 - 8+80 STATION 10+35 - 12+40
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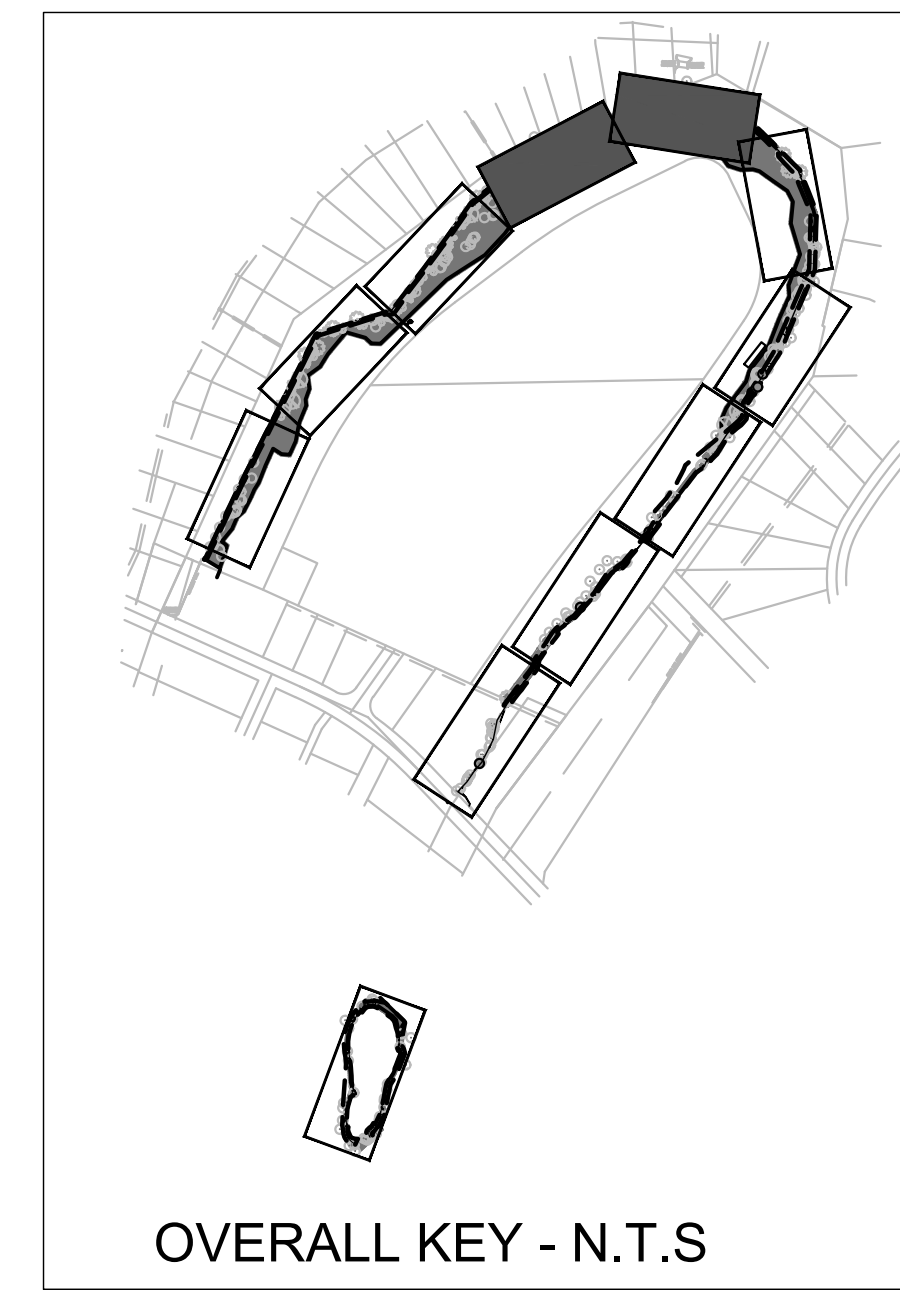


L1.03B



**PLANT LEGEND**

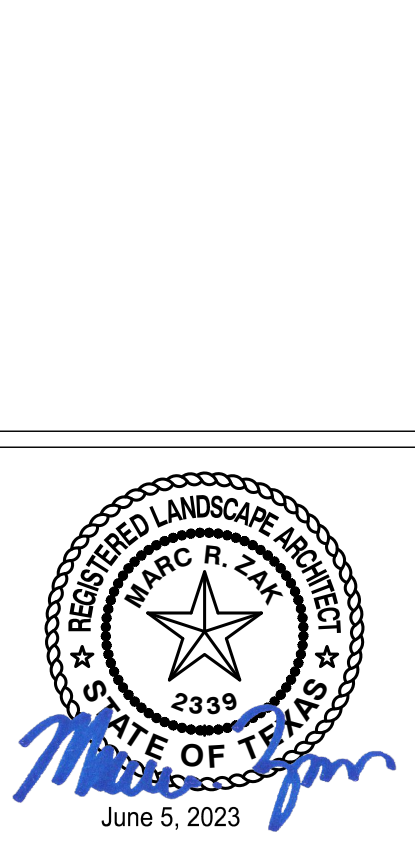
- | TREES  | BOTANICAL / COMMON NAME                          |
|--------|--------------------------------------------------|
|        | <i>Diospyros texana</i> / Texas Persimmon        |
|        | <i>Ehretia anacua</i> / Anacua                   |
|        | <i>Taxodium distichum</i> / Bald Cypress         |
| SHRUBS | BOTANICAL / COMMON NAME                          |
|        | <i>Baccharis salicifolia</i> / Mulefat           |
|        | <i>Cephalanthus occidentalis</i> / Buttonbush    |
|        | <i>Equisetum hyemale</i> / Horsetail             |
|        | <i>Justicia americana</i> / Water Willow         |
|        | <i>Malpighia glabra</i> / Barbados Cherry        |
|        | <i>Malvaviscus arboreus</i> / Giant Turk's Cap   |
|        | <i>Scirpus californicus</i> / California Bulrush |



**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description



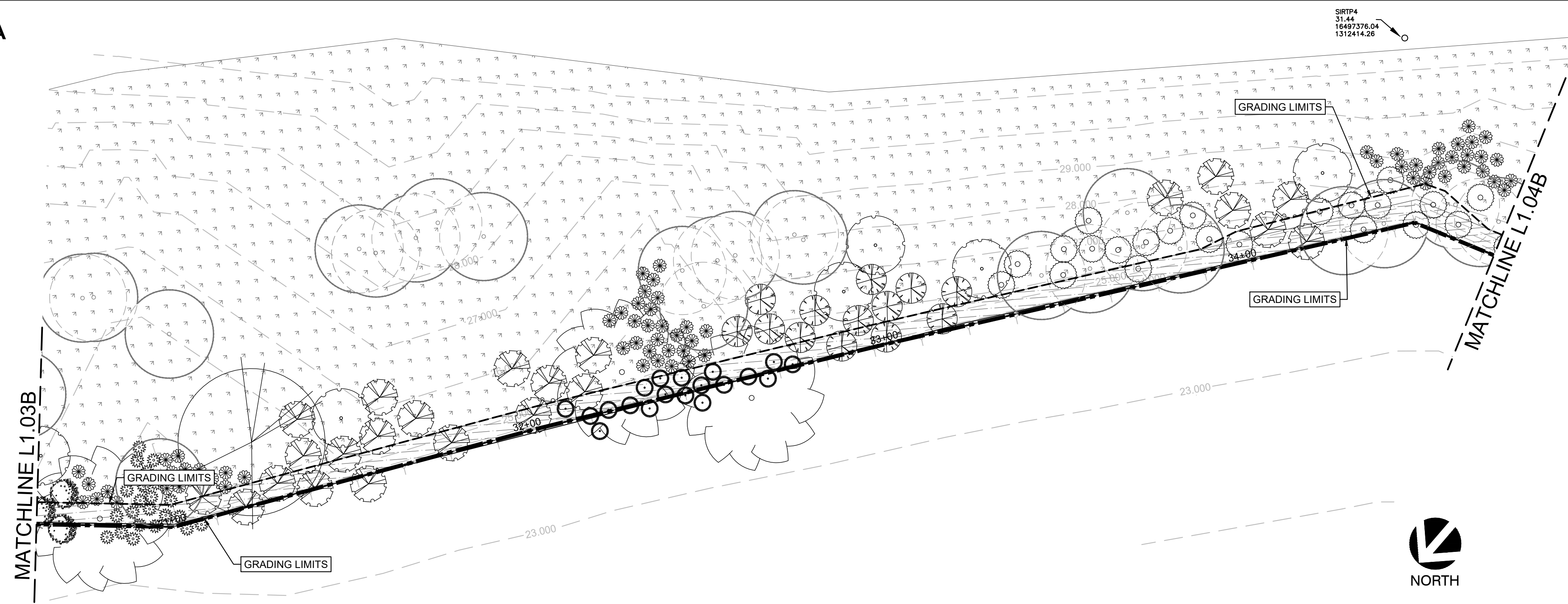
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Issued:	6/05/2023
Drawn By:	MS
Checked By:	MZ
Scale:	AS NOTED
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**SITE PLAN**

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 Sheet Number

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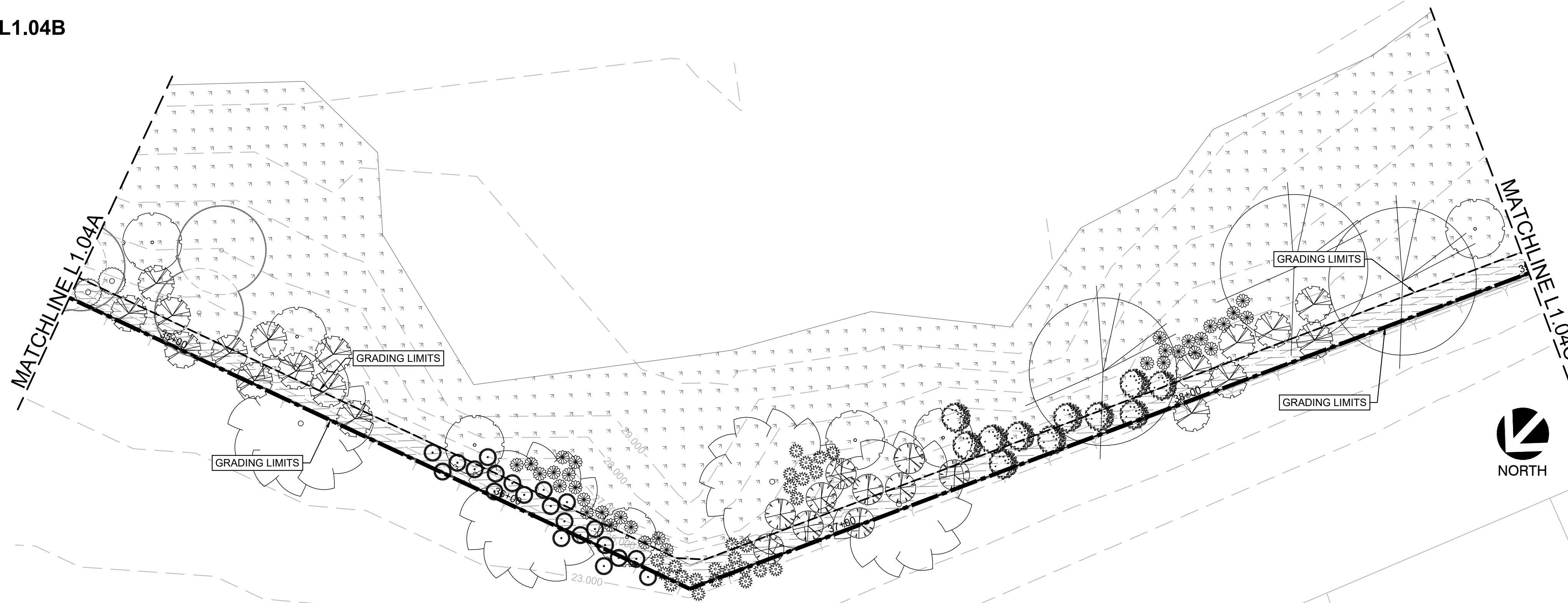
L1.04A



**LEGEND**

- LAND SIDE
- WATER SIDE
- BANK LINE (BL), EDGE OF WATER AND ALIGNMENT FOR BANK TREATMENTS.
- GRADING LIMITS. PALM TREES WITHIN THE LIMITS OF GRADING AND WHERE THE PROPOSED FINISH GRADES ARE MORE THAN 9" BELOW EXISTING GRADES, THE CONTRACTOR IS TO REMOVE THE PALM. PROTECT ROOT BALL WITH BURLAP AND STORE ON SITE. SUCH PALM TREES ARE TO BE REPLANTED AFTER SITE GRADING HAS BEEN COMPLETED. PALMS ARE TO BE PROTECTED AND WATERED ON SITE. THE CONTRACTOR IS TO REPLACE ANY AND ALL PALMS THAT DIE DURING CONSTRUCTION.
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- BANK TREATMENT B - NATIVE
  - NATIVE GRASS SEED MIX, RIPARIAN RECOVERY MIX AS PROVIDED BY NATIVE AMERICAN SEED IN AREAS AS SHOWN ON THE PLANS AND ALL CONTRACTOR DISTURBED AREAS BEHIND THE FLEXIBLE RIPRAP AND CONSTRUCTION OF THE BANK TREATMENTS. MINOR ADJUSTMENTS TO THE BANK TREATMENT LIMITS, WITHIN 25' OF THE LIMITS PROVIDED, MAY BE MADE IN THE FIELD WITHOUT ADDITIONAL COST TO THE OWNER.
  - PLANTING RATE TO BE 36 LBS PURE LIVE SEED (PLS) PER ACRE. USE NATIVE TOPSOIL COMPACTED FIRM. IF PLANTING OCCURS BETWEEN SEPTEMBER AND FEBRUARY, PROVIDE A NURSE CROP OF CEREAL RYE GRAIN (*SECALE CEREALE*) AT 25 LBS PER ACRE.
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- FLEXIBLE RIPRAP, REF. TO DETAIL 2/SD 1.01.

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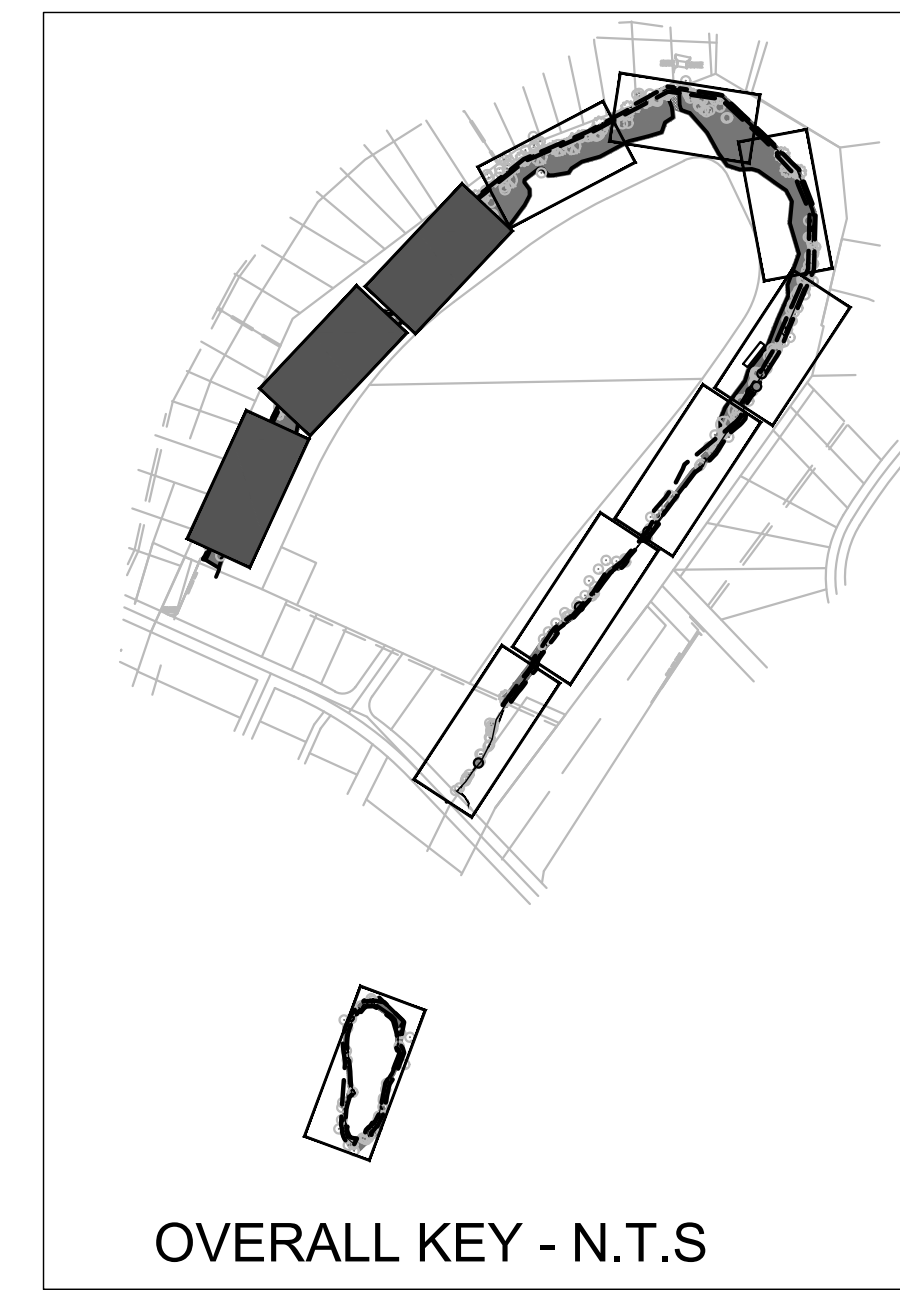
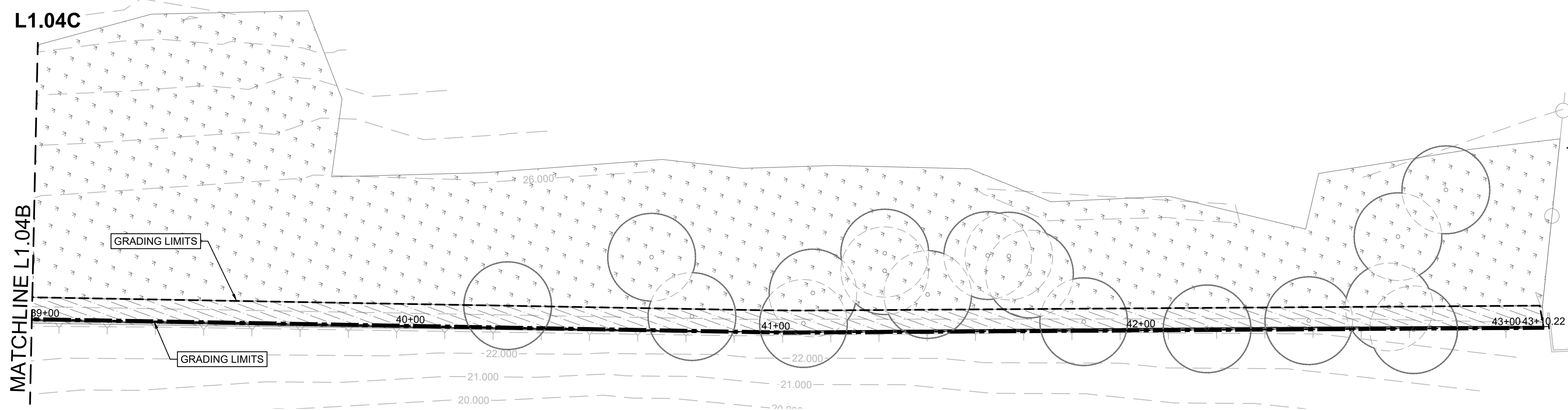
**NOTES**

1. BANK RESTORATION IMPROVEMENTS BEGIN AT STATION 4+10 AND END AT STATION 43+10.
2. BANK TREATMENT A LIMITS: STATION 6+45 - 8+80 STATION 10+35 - 12+40
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**PLANT LEGEND**

- TREES**
  - BOTANICAL / COMMON NAME: Diospyros texana / Texas Persimmon
  - BOTANICAL / COMMON NAME: Ehretia anacua / Anacua
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  - BOTANICAL / COMMON NAME: Baccharis salicifolia / Mulefat
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  - BOTANICAL / COMMON NAME: Malpighia glabra / Barbados Cherry
  - BOTANICAL / COMMON NAME: Malvaviscus arboreus / Giant Turk's Cap
  - BOTANICAL / COMMON NAME: Scirpus californicus / California Bulrush

L1.04C



OVERALL KEY - N.T.S

**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description



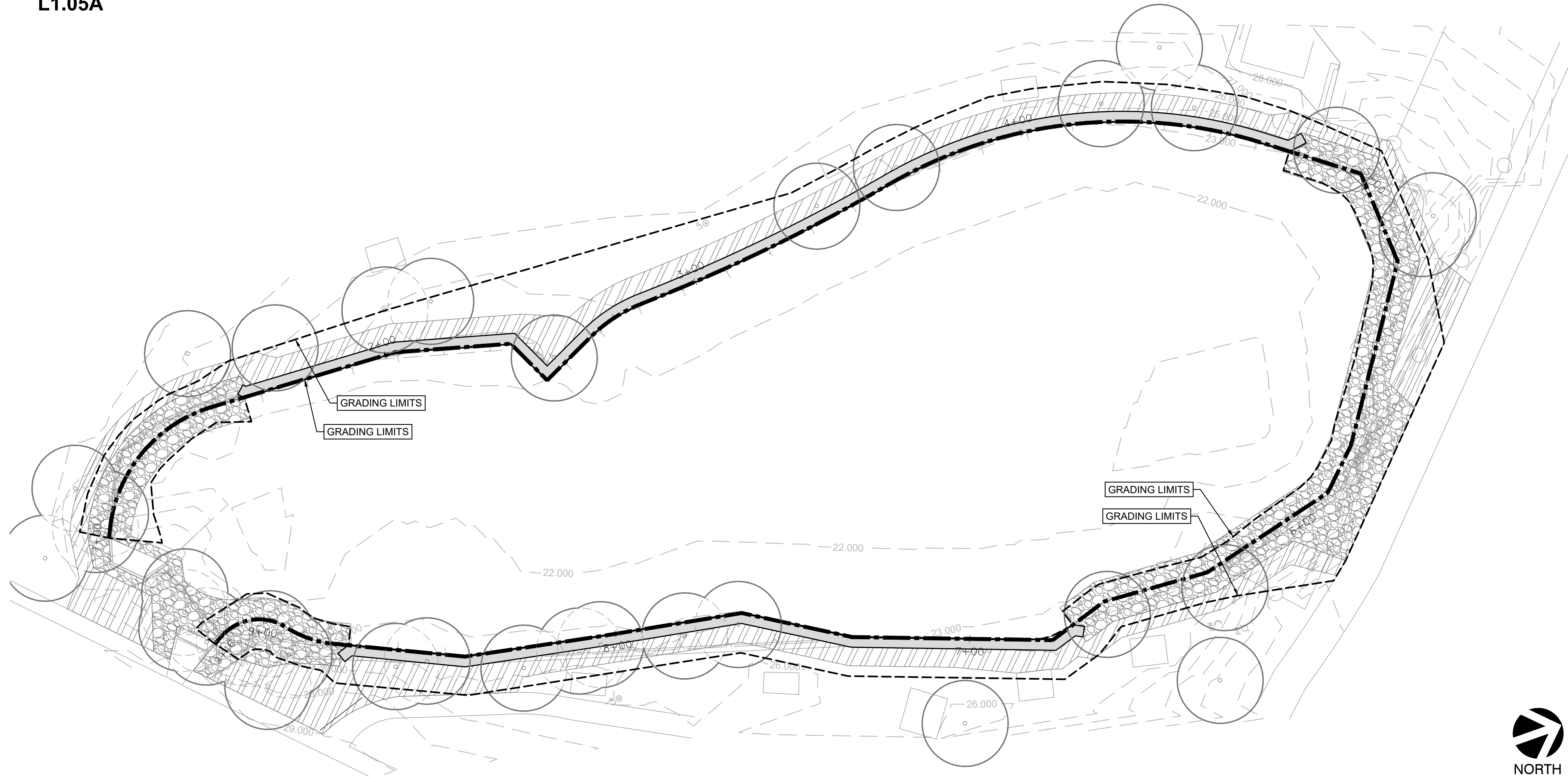
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Checked By:	MZ
Scale:	AS NOTED

SITE PLAN

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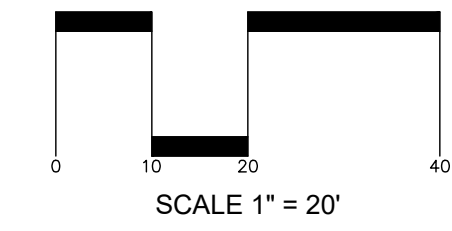
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L1.05A



**LEGEND**

- LAND SIDE
- WATER SIDE
- EXISTING EDGE OF WATER.
- BANK LINE (BL), EDGE OF WATER AND ALIGNMENT FOR BANK TREATMENTS.
- GRADING LIMITS. PALM TREES WITHIN THE LIMITS OF GRADING AND WHERE THE PROPOSED FINISH GRADES ARE MORE THAN 9" BELOW EXISTING GRADES, THE CONTRACTOR IS TO REMOVE THE PALM, PROTECT ROOT BALL WITH BURLAP AND STORE ON SITE. SUCH PALM TREES ARE TO BE REPLANTED AFTER SITE GRADING HAS BEEN COMPLETED. PALMS ARE TO BE PROTECTED AND WATERED ON SITE. THE CONTRACTOR IS TO REPLACE ANY AND ALL PALMS THAT DIE DURING CONSTRUCTION.
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**NOTES**

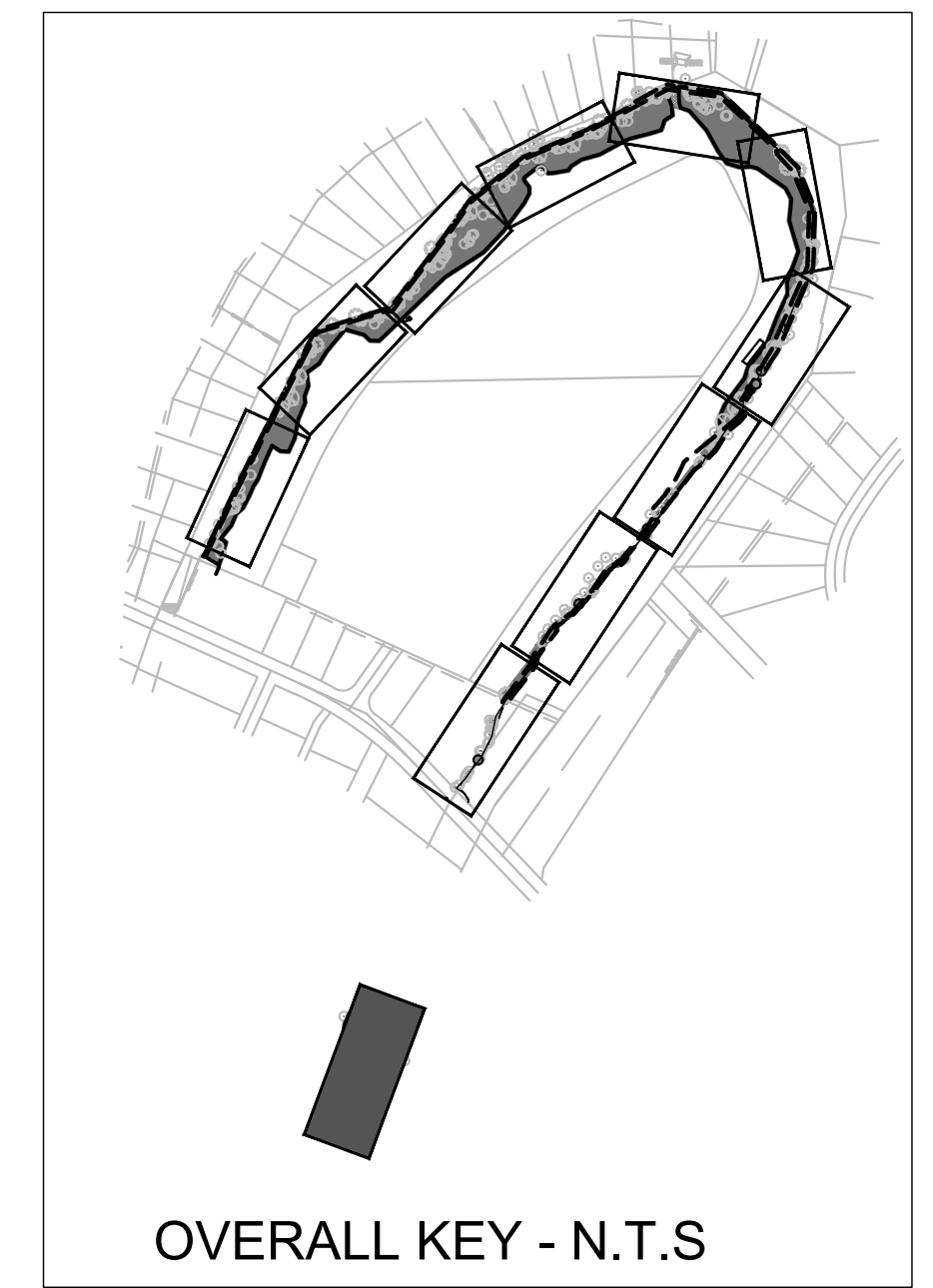
1. BANK RESTORATION IMPROVEMENTS BEGIN AT STATION 4+10 AND END AT STATION 43+10.
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STATION 10+35 - 12+40
3. BANK TREATMENT B LIMITS;  
STATION 4+10 - 6+45  
STATION 8+80 - 9+10  
STATION 9+85 - 10+35  
STATION 12+40 - 24+70  
STATION 24+85 - 26+05
4. BANK TREATMENT GRADING AND LANDSCAPE ONLY LIMITS: STATION 26+05 - 43+10
5. AFTER SITE HAS BEEN PREPARED WITH INVASIVE PLANT REMOVAL, CONTRACTOR IS TO STAKE THE BANK TREATMENTS IN THE FIELD FOR REVIEW AND APPROVAL WITH THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION OF THE BANK TREATMENTS. MINOR ADJUSTMENTS TO THE BANK TREATMENT LIMITS, WITHIN 25' OF THE LIMITS PROVIDED, MAY BE MADE IN THE FIELD WITHOUT ADDITIONAL COST TO THE OWNER.
6. REFER TO SHEET L 1.05 FOR PLANT SCHEDULE.
7. PALM TREES WITHIN THE LIMITS OF GRADING AND WHERE THE PROPOSED FINISH GRADES ARE MORE THAN 9" BELOW EXISTING GRADES, THE CONTRACTOR IS TO REMOVE THE PALM, PROTECT ROOT BALL WITH BURLAP AND STORE ON SITE. SUCH PALM TREES ARE TO BE REPLANTED AFTER SITE GRADING HAS BEEN COMPLETED. PALMS ARE TO BE PROTECTED AND WATERED ON SITE. THE CONTRACTOR IS TO REPLACE ANY AND ALL PALMS THAT DIE DURING CONSTRUCTION.

**PLANT SCHEDULE**

TREES	QTY	BOTANICAL / COMMON NAME	CONT	REMARKS
	18	Diospyros texana / Texas Persimmon	3" cal.	
	10	Ehretia anacua / Anacua	3" cal.	
	14	Taxodium distichum / Bald Cypress	3" cal.	
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT	REMARKS
	34	Baccharis salicifolia / Mulefat	5 gal.	
	57	Cephalanthus occidentalis / Buttonbush	5 gal.	
	166	Equisetum hyemale / Horsetail	5 gal.	
	154	Justicia americana / Water Willow	5 gal.	
	44	Malpighia glabra / Barbados Cherry	10 gal.	
	101	Malvastrum arboreus / Giant Turk's Cap	5 gal.	
	103	Scirpus californicus / California Bulrush	5 gal.	

**PLANT LEGEND**

- TREES
  - Diospyros texana / Texas Persimmon
  - Ehretia anacua / Anacua
  - Taxodium distichum / Bald Cypress
- SHRUBS
  - Baccharis salicifolia / Mulefat
  - Cephalanthus occidentalis / Buttonbush
  - Equisetum hyemale / Horsetail
  - Justicia americana / Water Willow
  - Malpighia glabra / Barbados Cherry
  - Malvastrum arboreus / Giant Turk's Cap
  - Scirpus californicus / California Bulrush



**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description

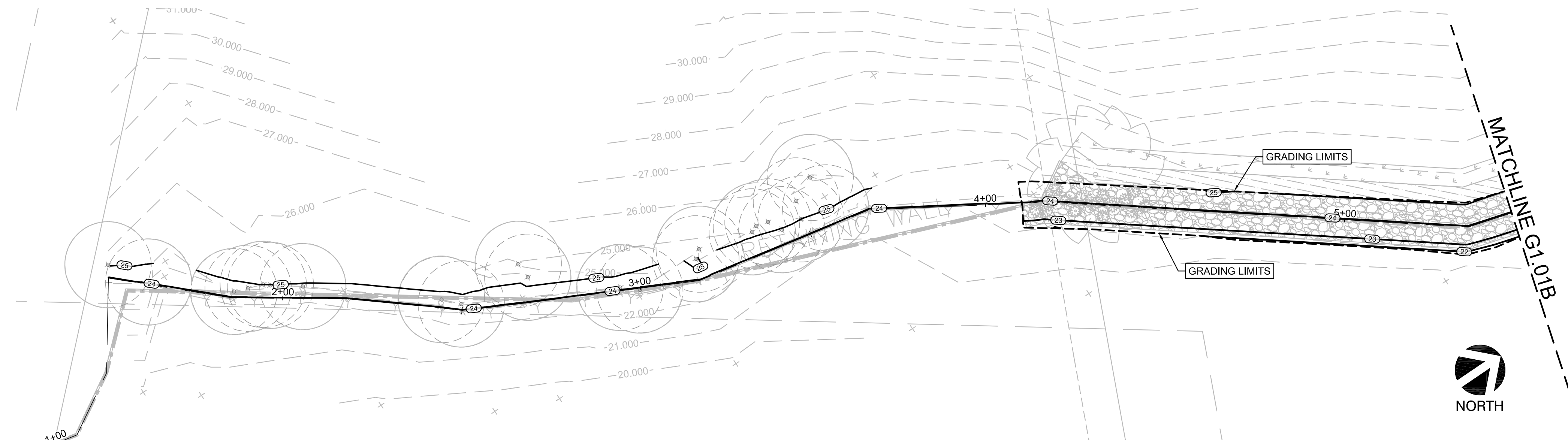


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Issued:	6/05/2023
Drawn By:	MS
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L1.05  
Sheet Number

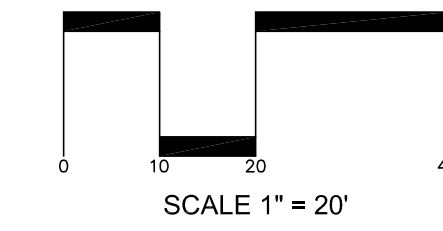
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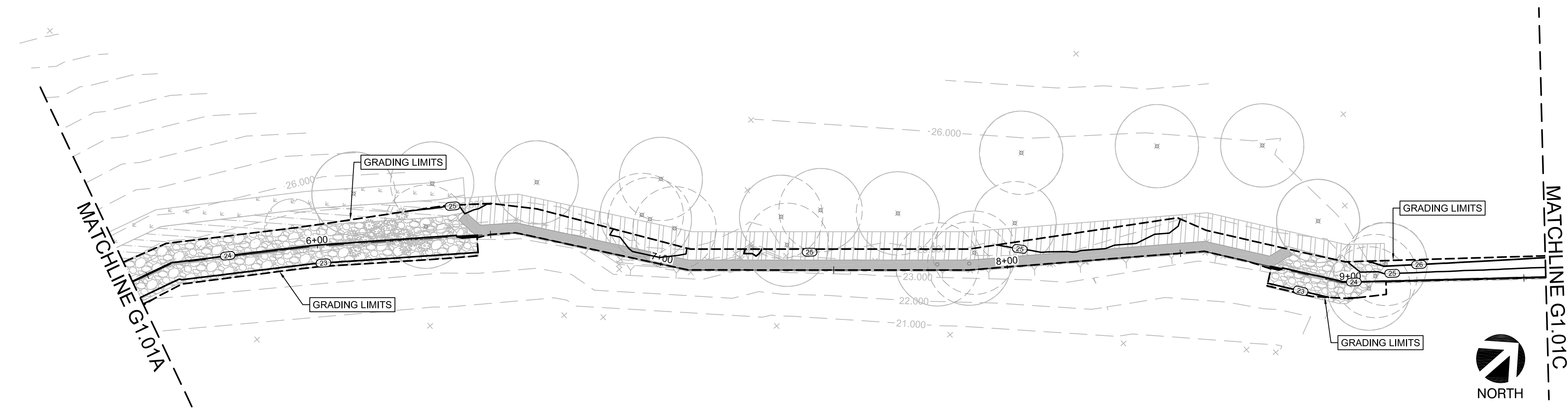


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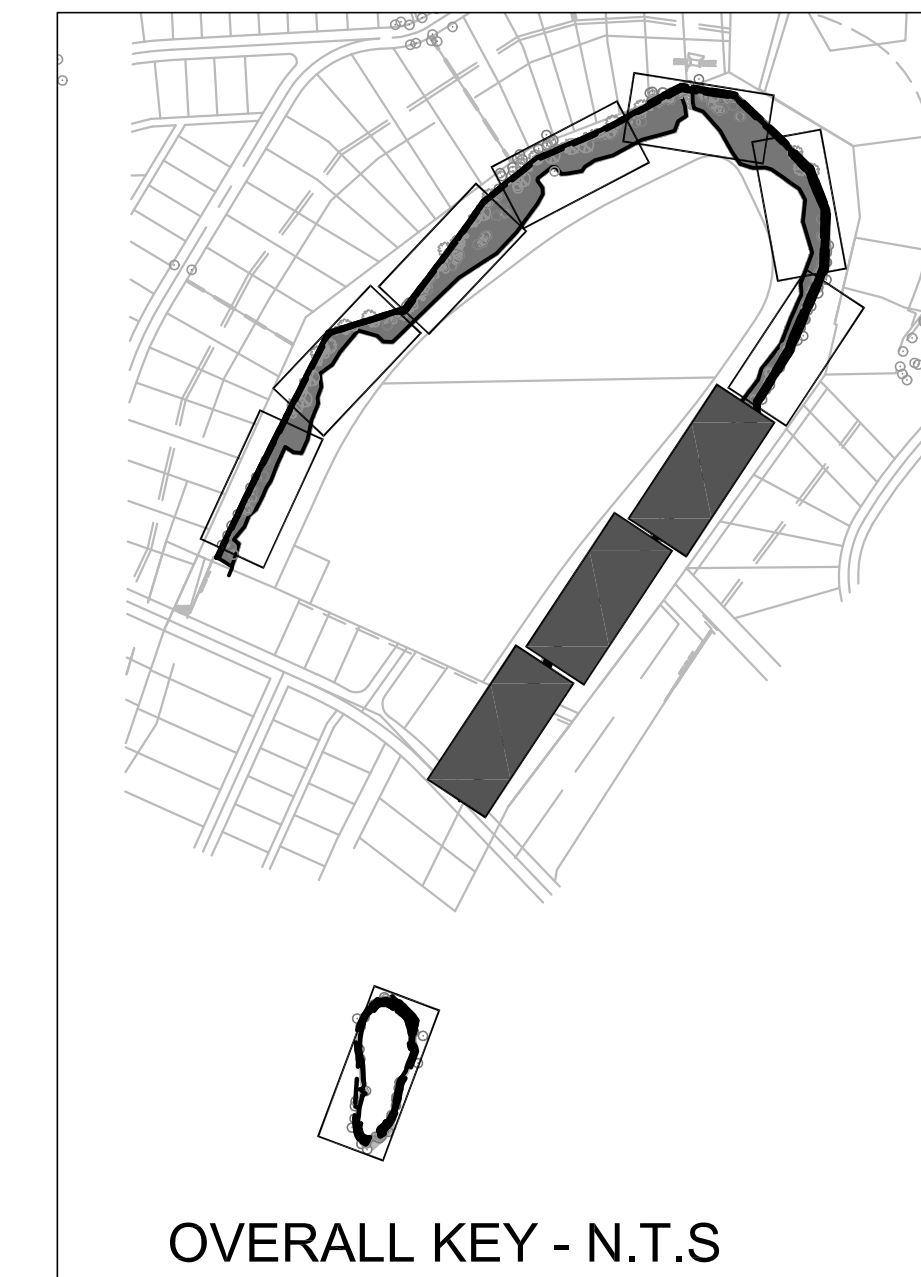
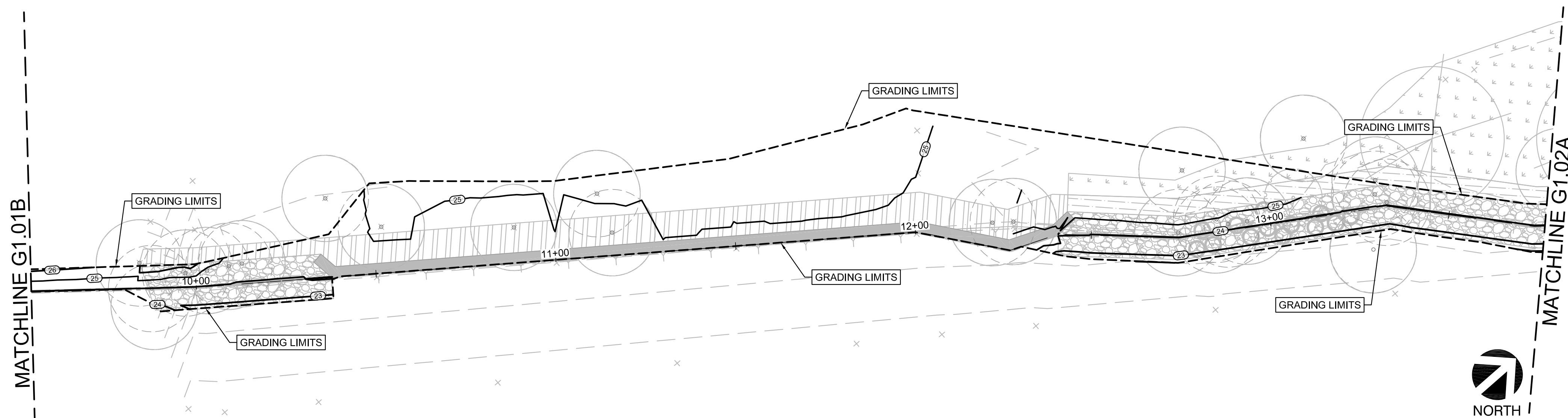
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G1.01B



G1.01C



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 BROWNSVILLE, TEXAS



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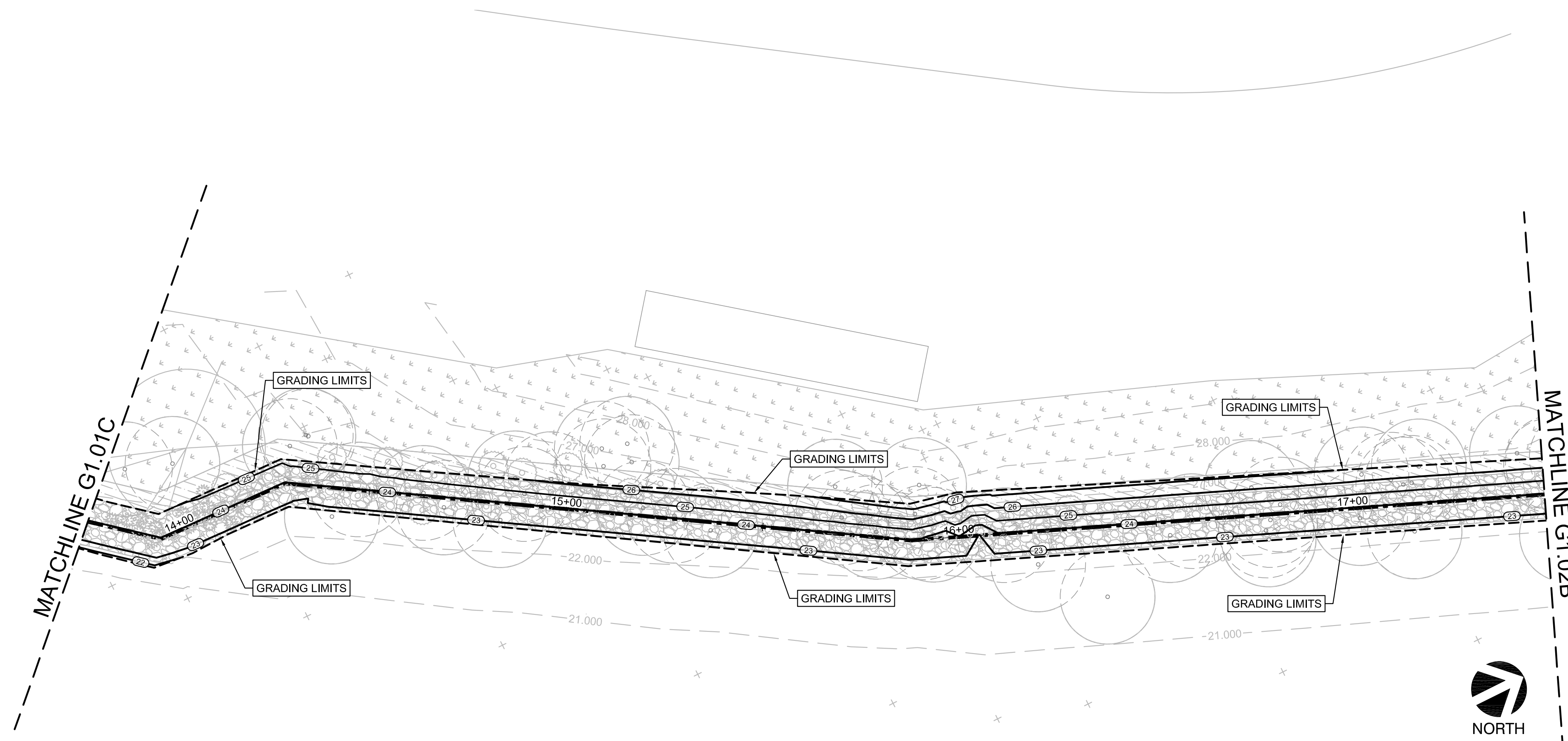
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G1.01  
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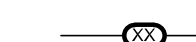

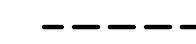
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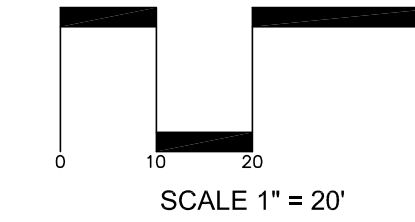


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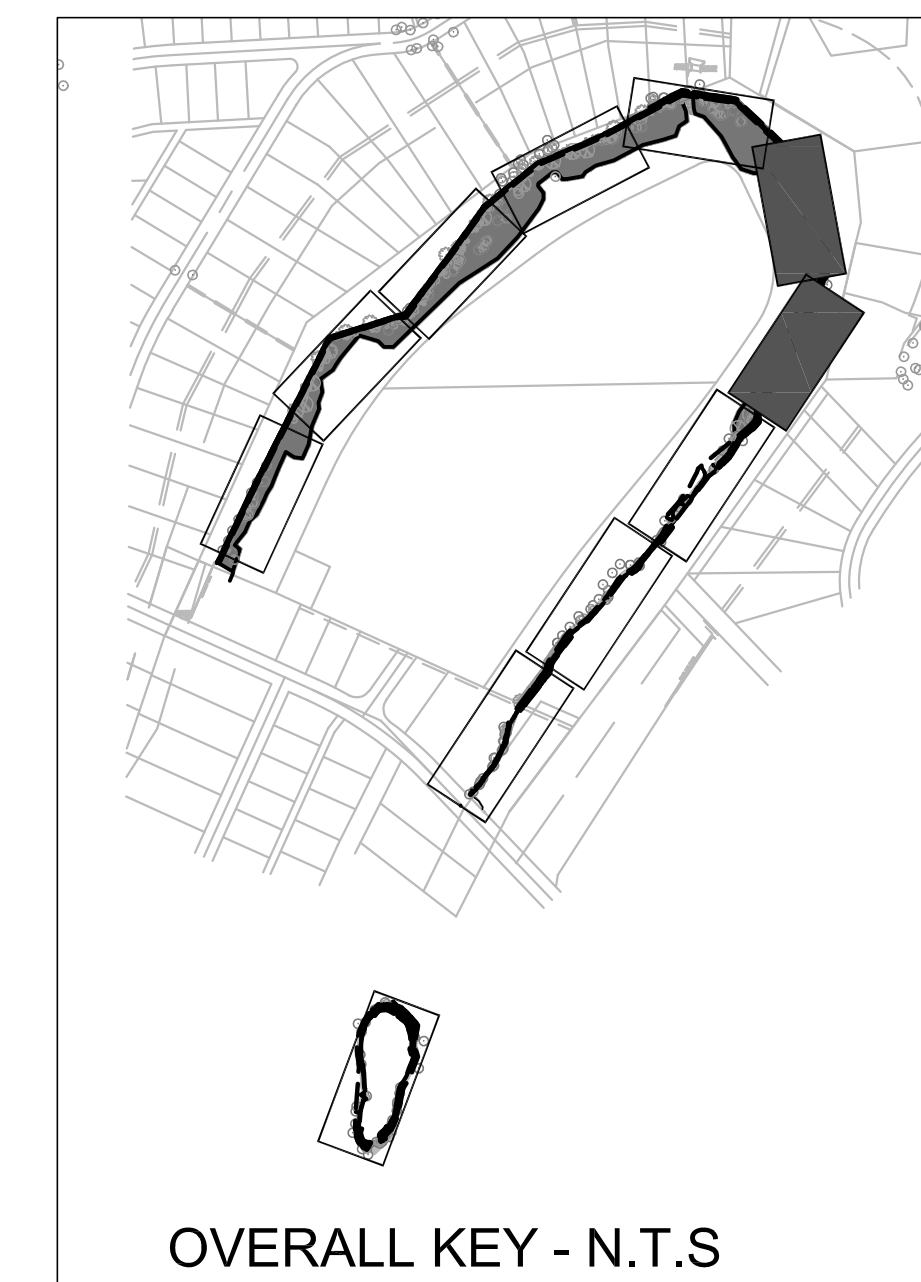
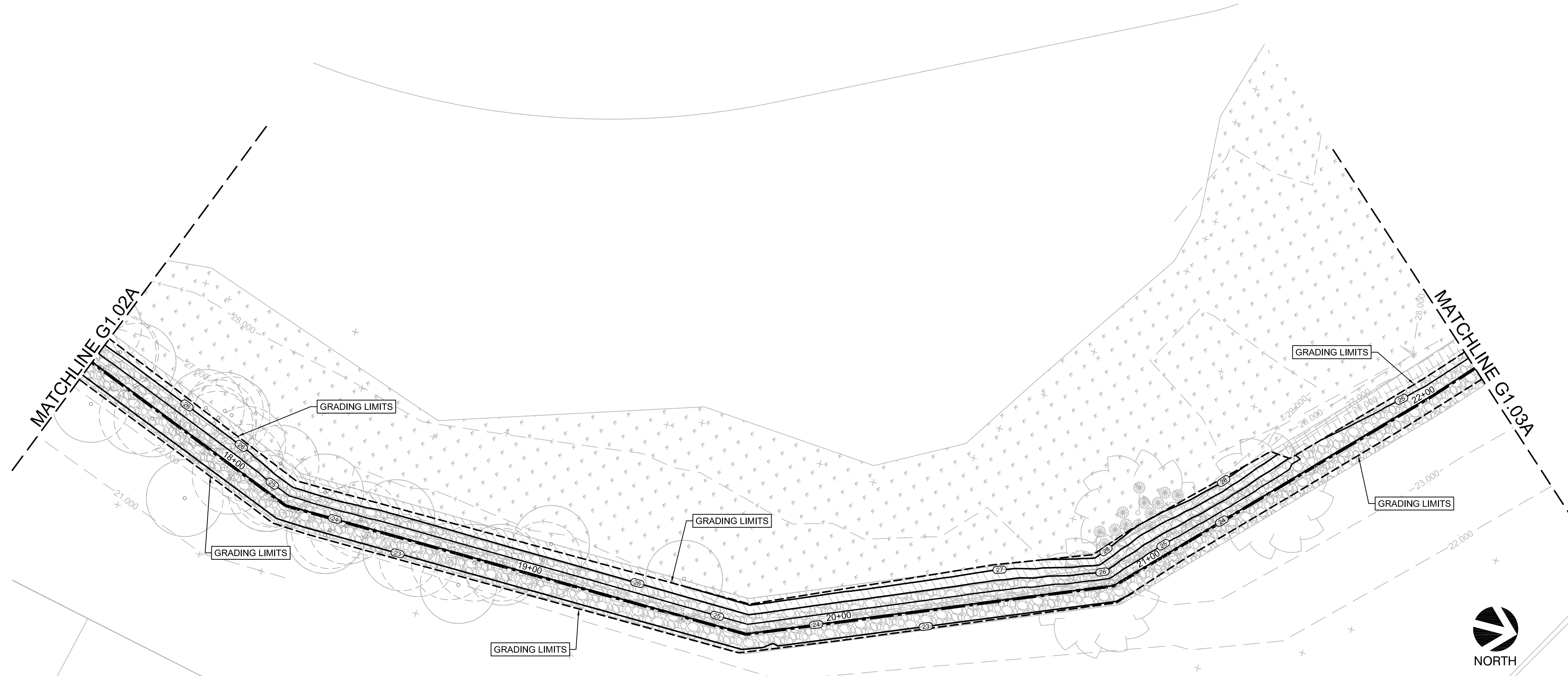


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-  EXISTING CONTOUR
-  GRADING LIMITS. PALMS TREES WITHIN THE LIMITS OF GRADING AND WHERE THE PROPOSED FINISH GRADES ARE MORE THAN 9' BELOW EXISTING GRADES, THE CONTRACTOR IS TO REMOVE THE PALM, PROTECT ROOT BALL WITH BURLAP AND STORE ON SITE. SUCH PALM TREES ARE TO BE REPLANTED AFTER SITE GRADING HAS BEEN COMPLETED. PALMS ARE TO BE PROTECTED AND WATERED ON SITE. THE CONTRACTOR IS TO REPLACE ANY AND ALL PALMS THE DIE DURING CONSTRUCTION.



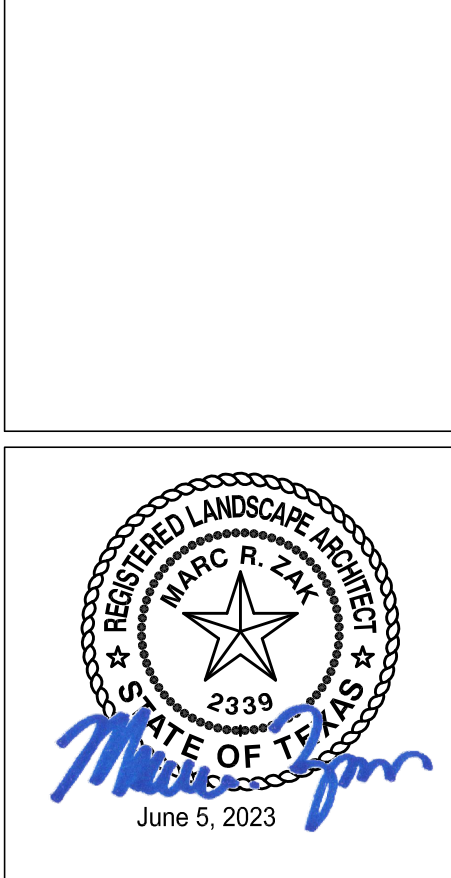
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**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



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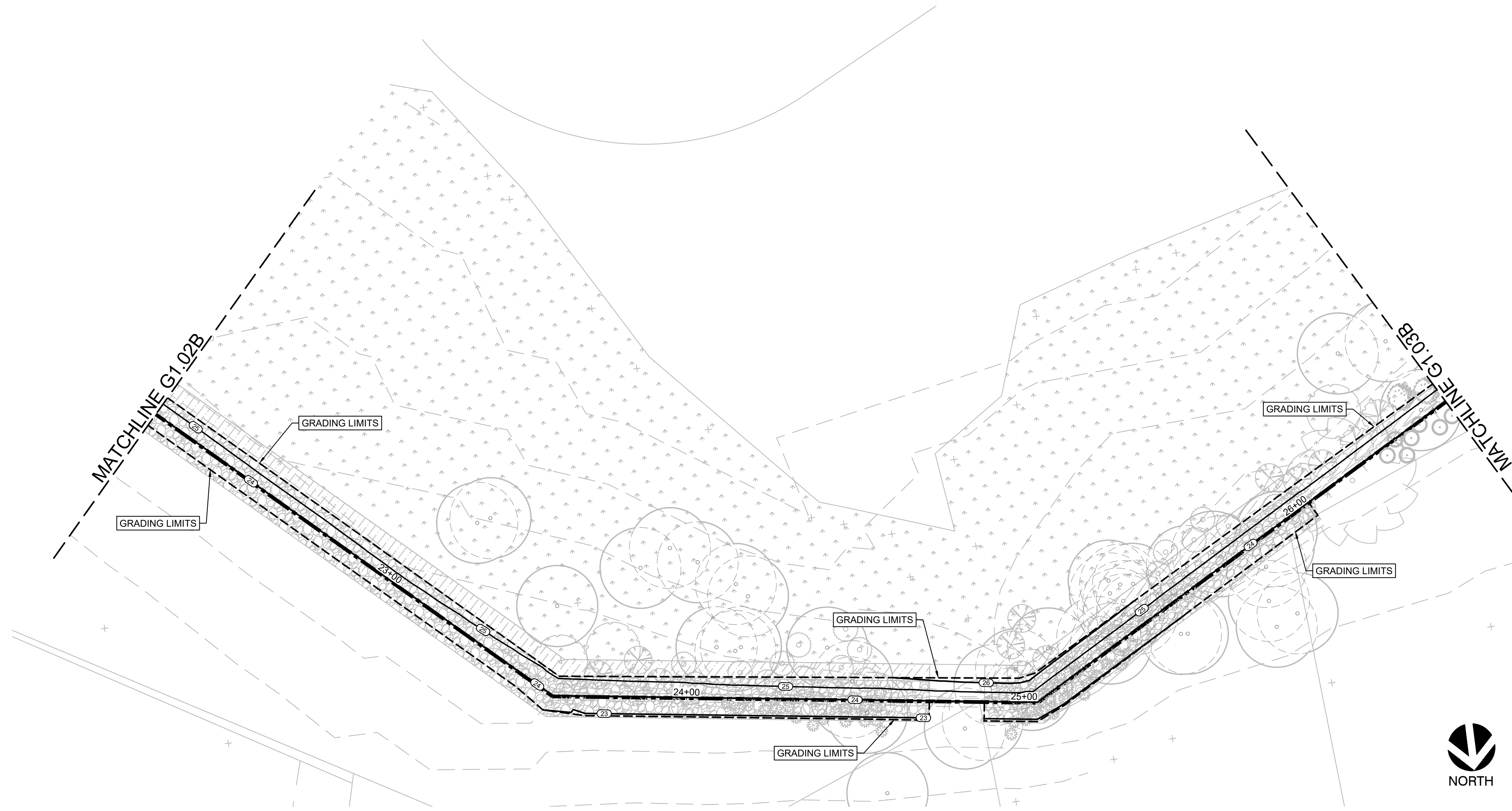
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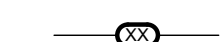

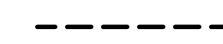
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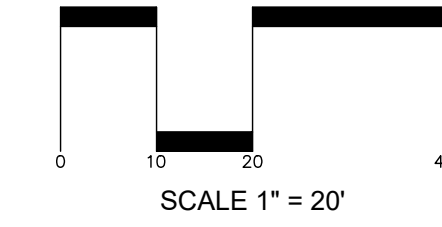
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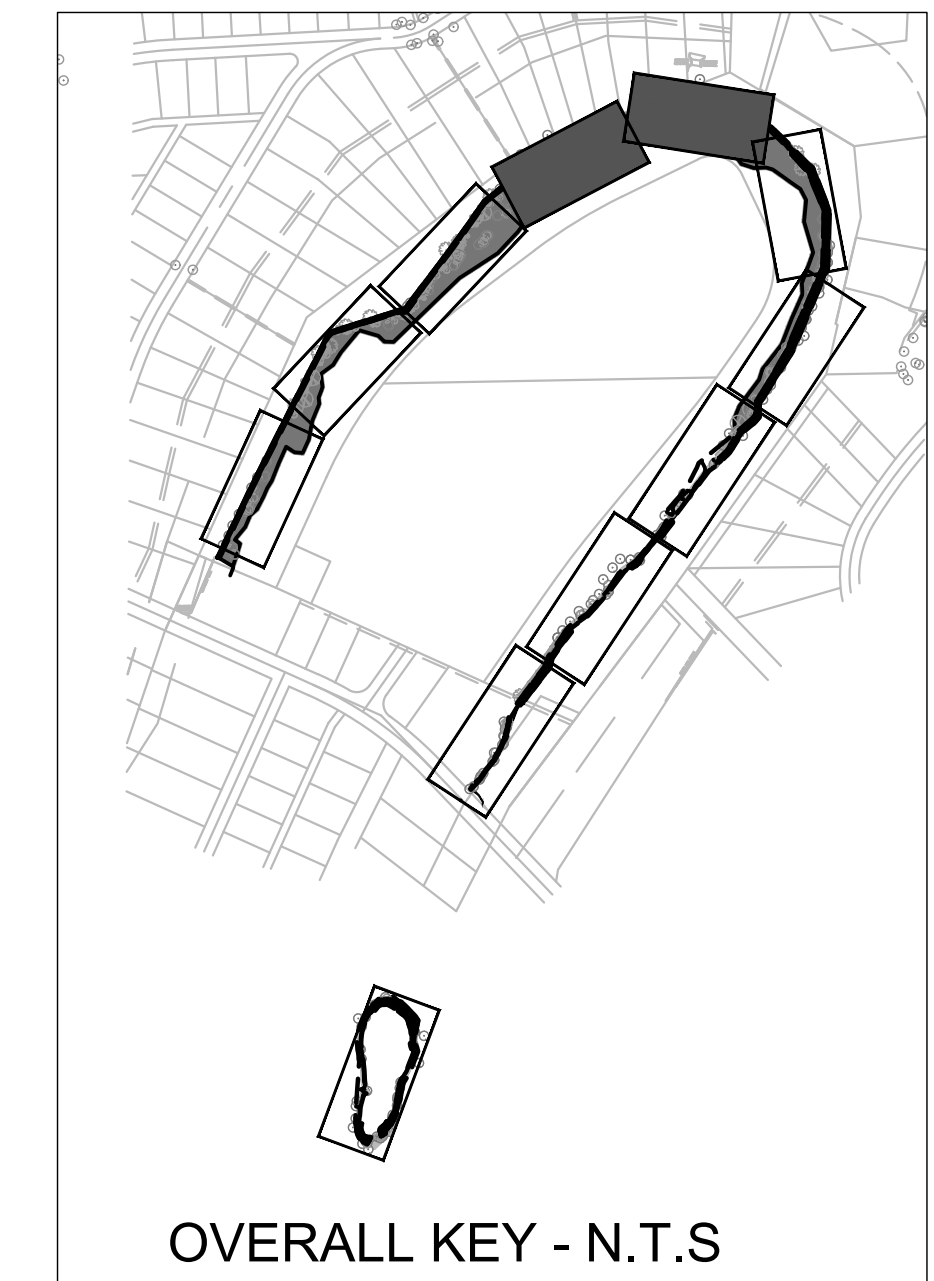
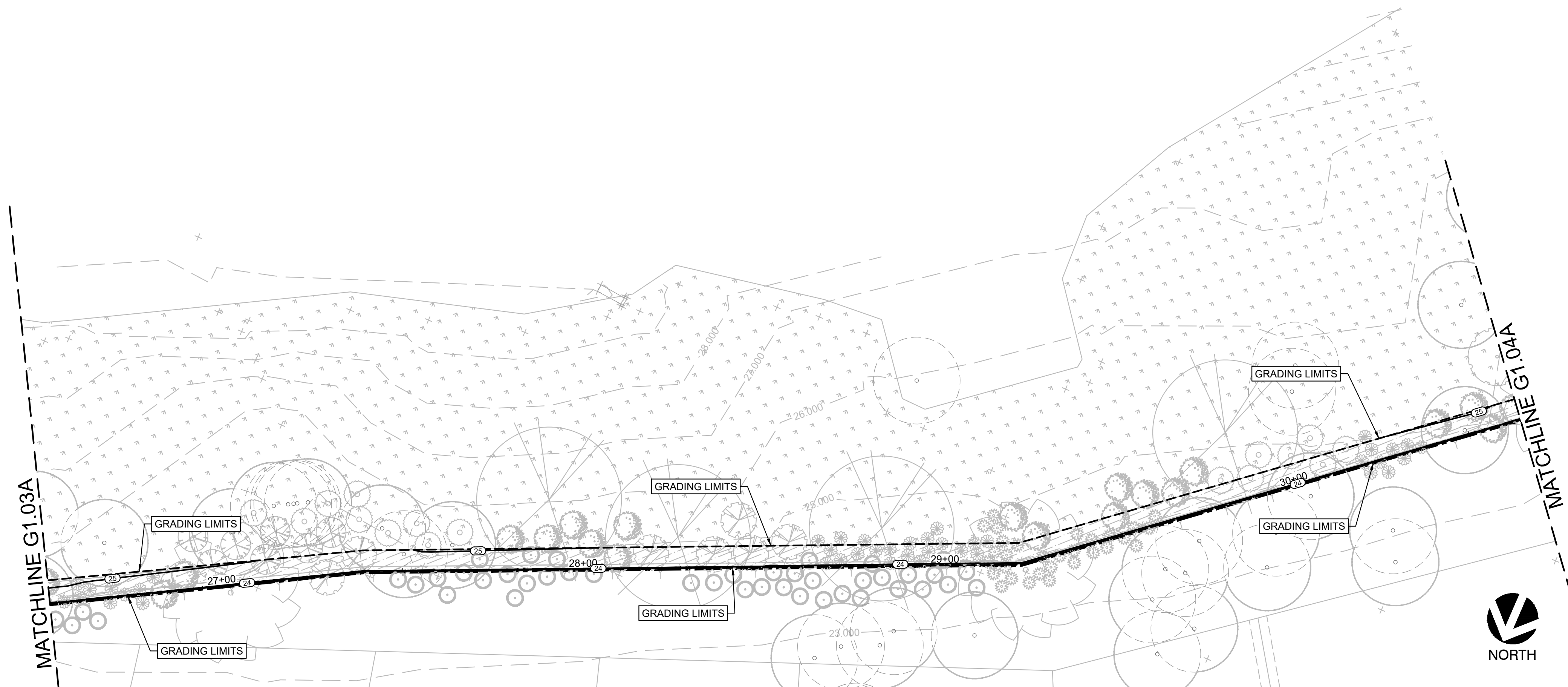


**LEGEND**

-  PROPOSED CONTOUR
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G1.03B



**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



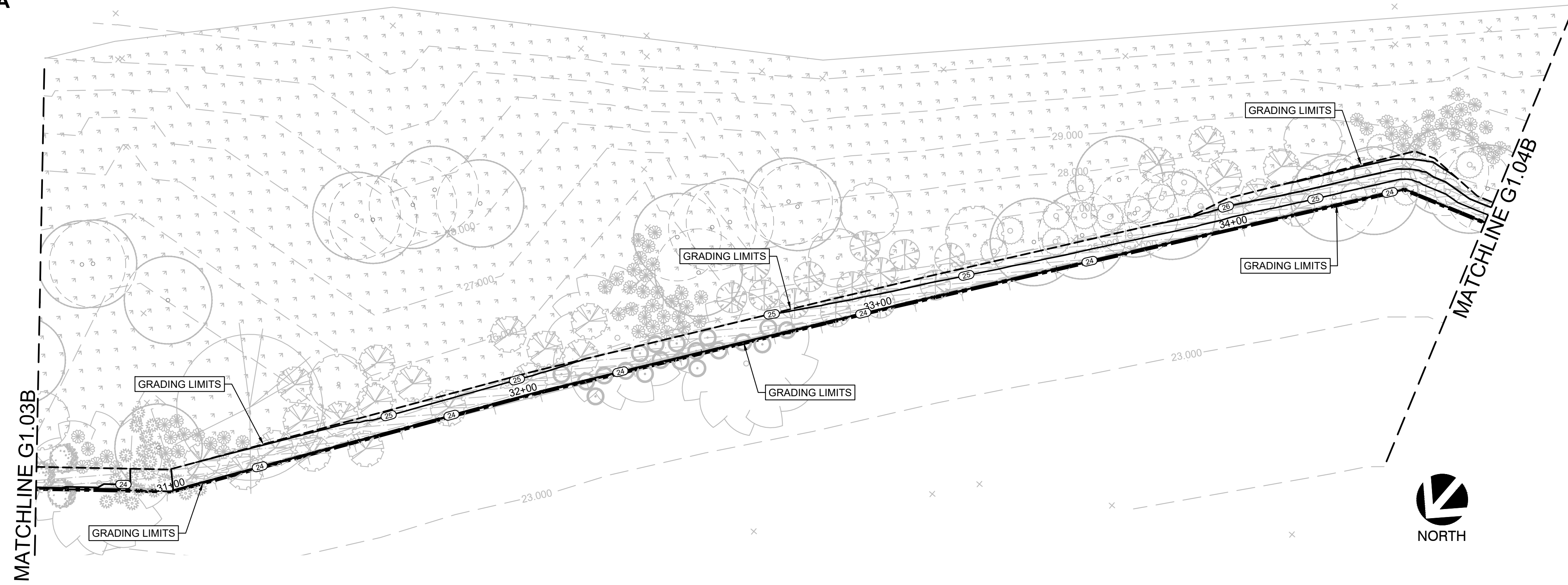
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Project No.:	42947.001
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Drawn By:	MS
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G1.03	Sheet Number

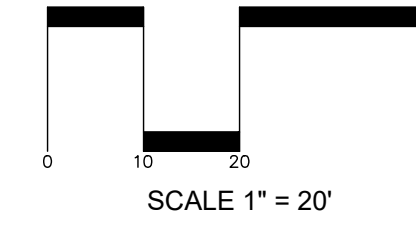
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G1.04A

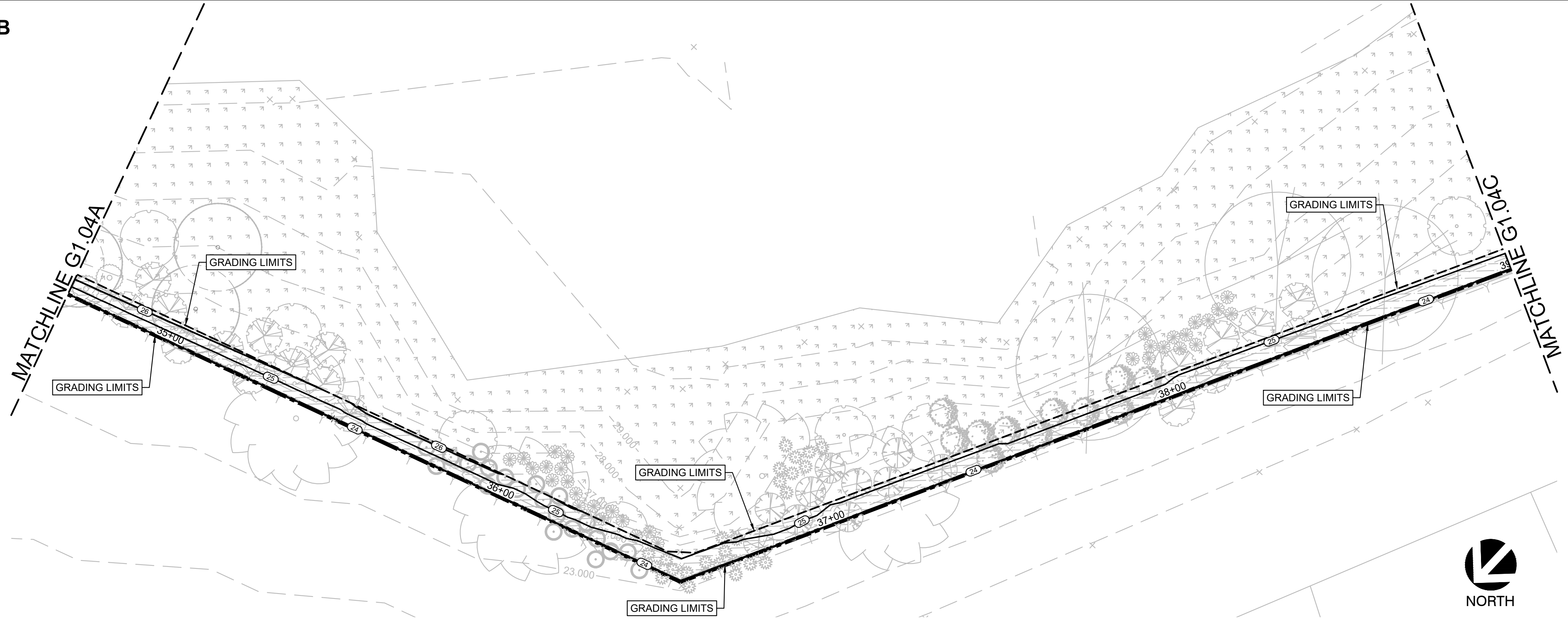


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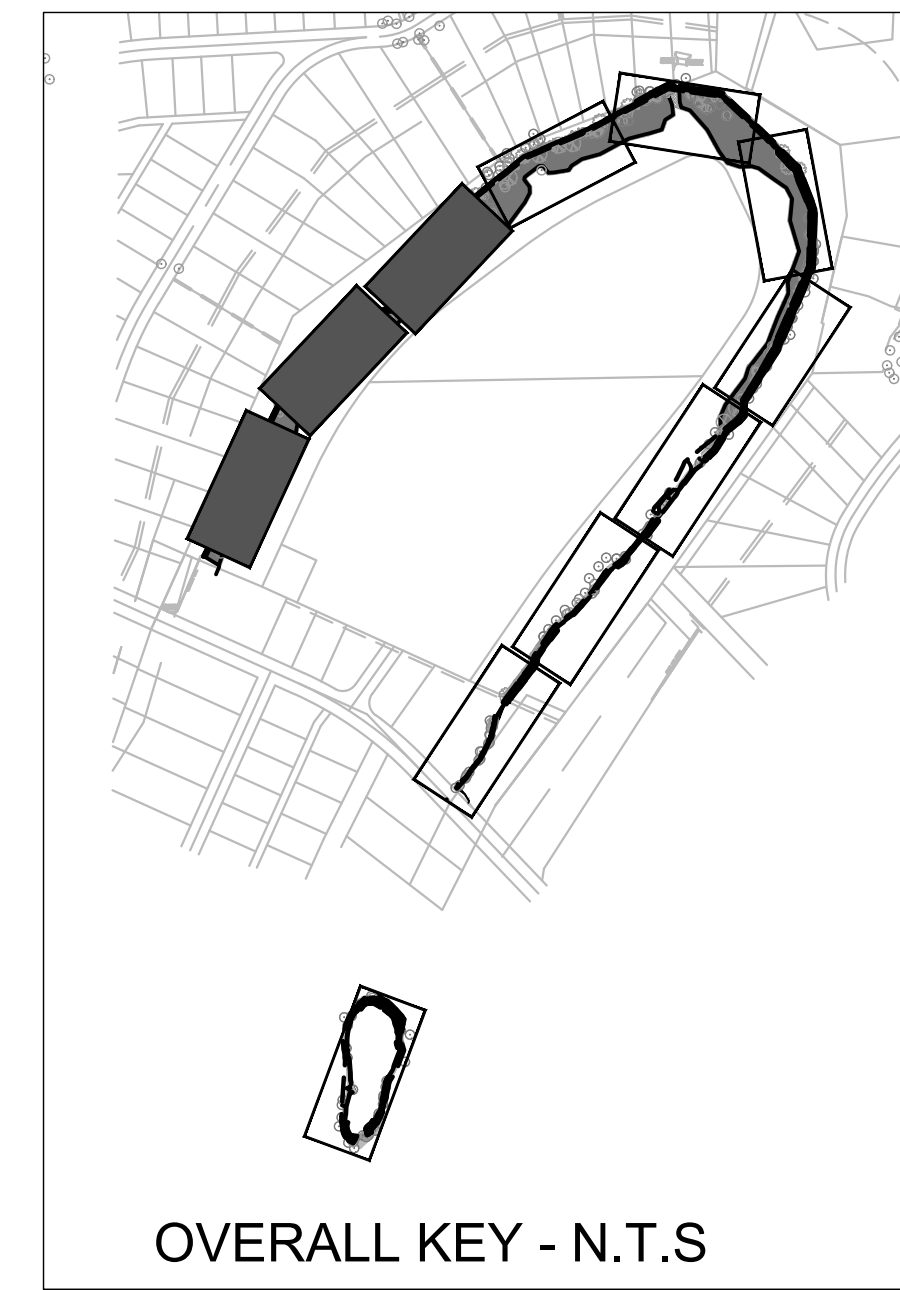
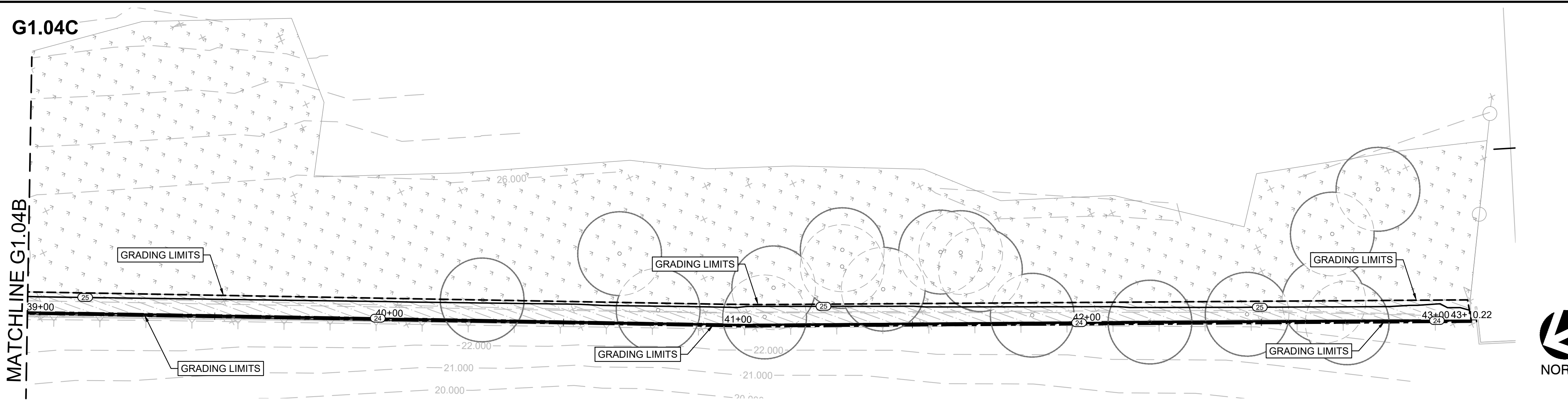
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G1.04B



G1.04C



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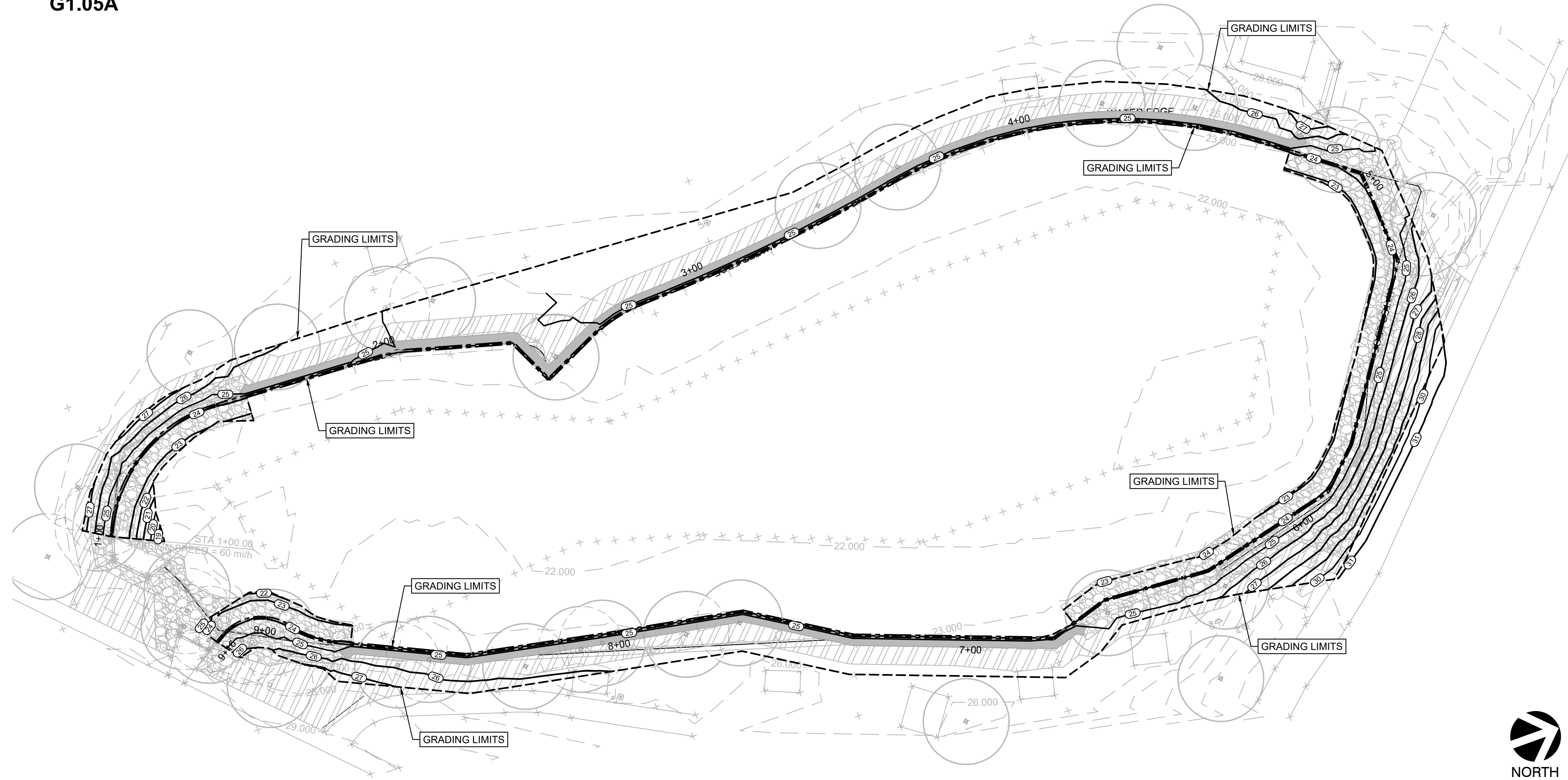
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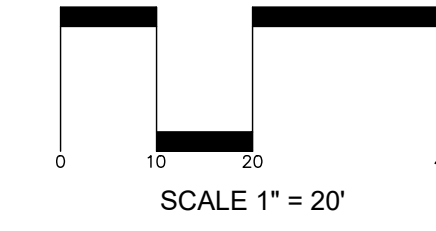
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G1.05A



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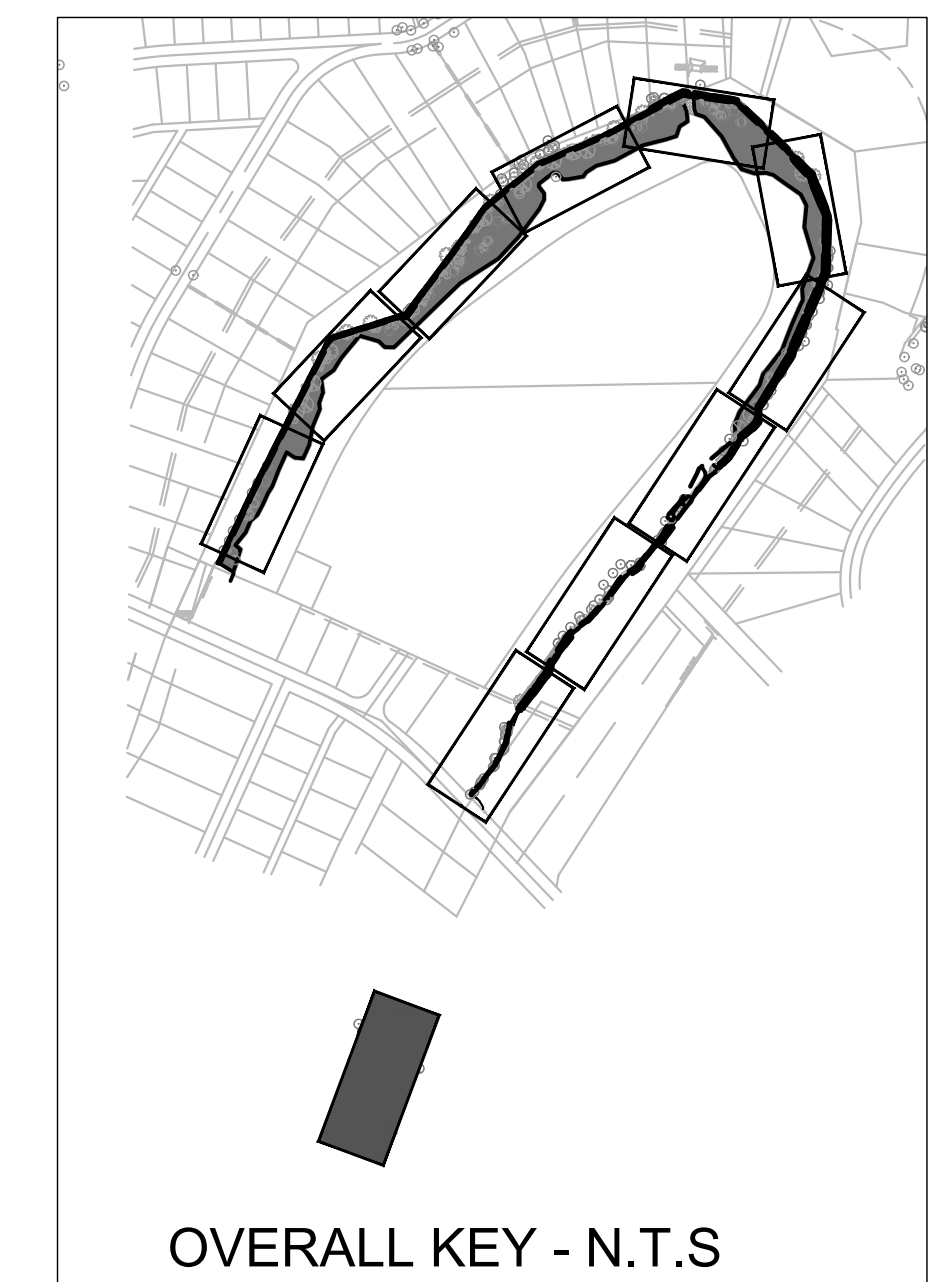
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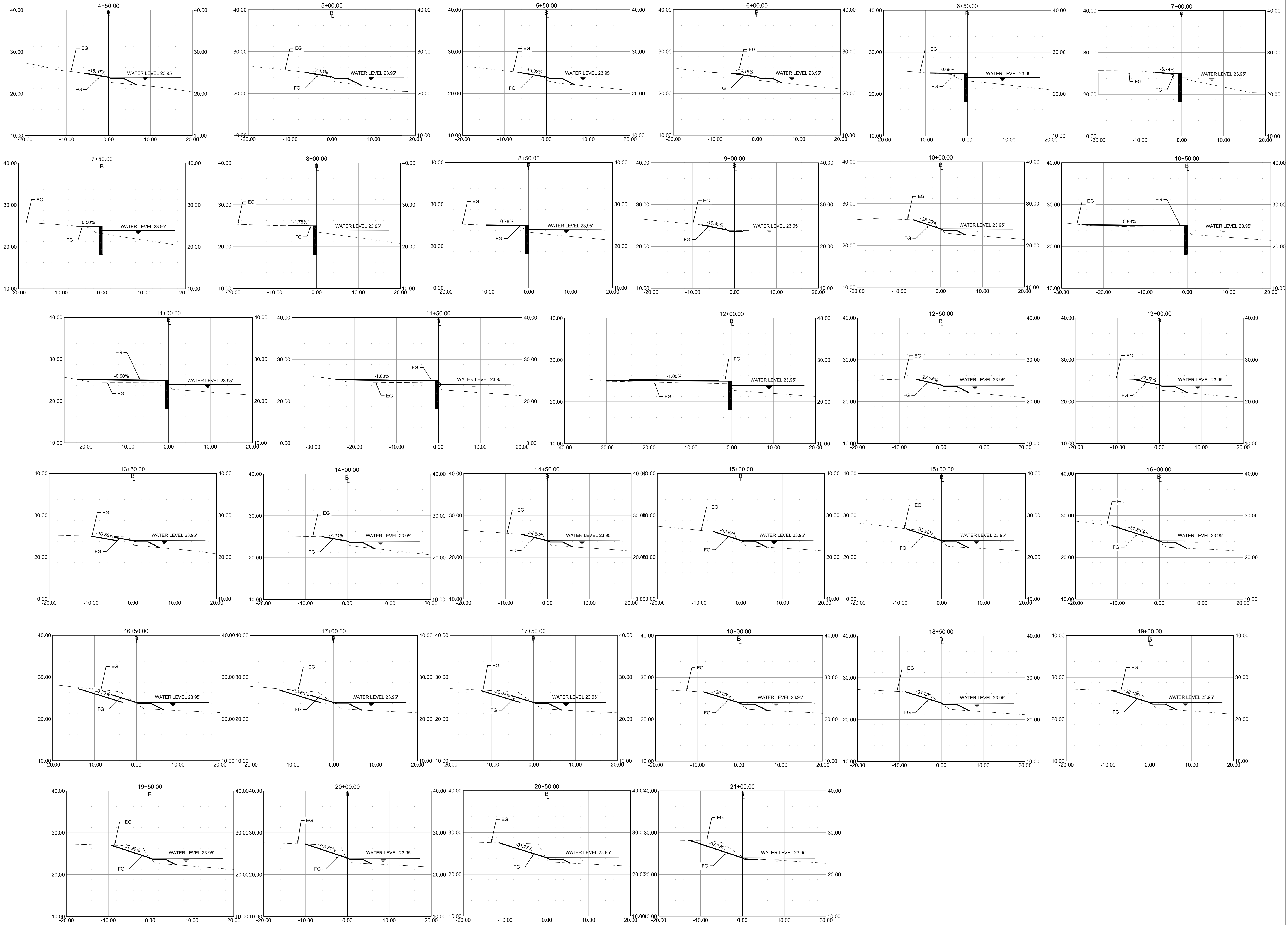
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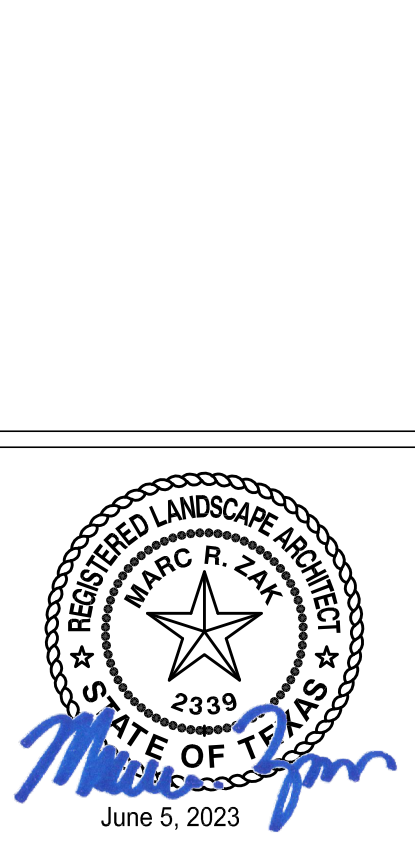
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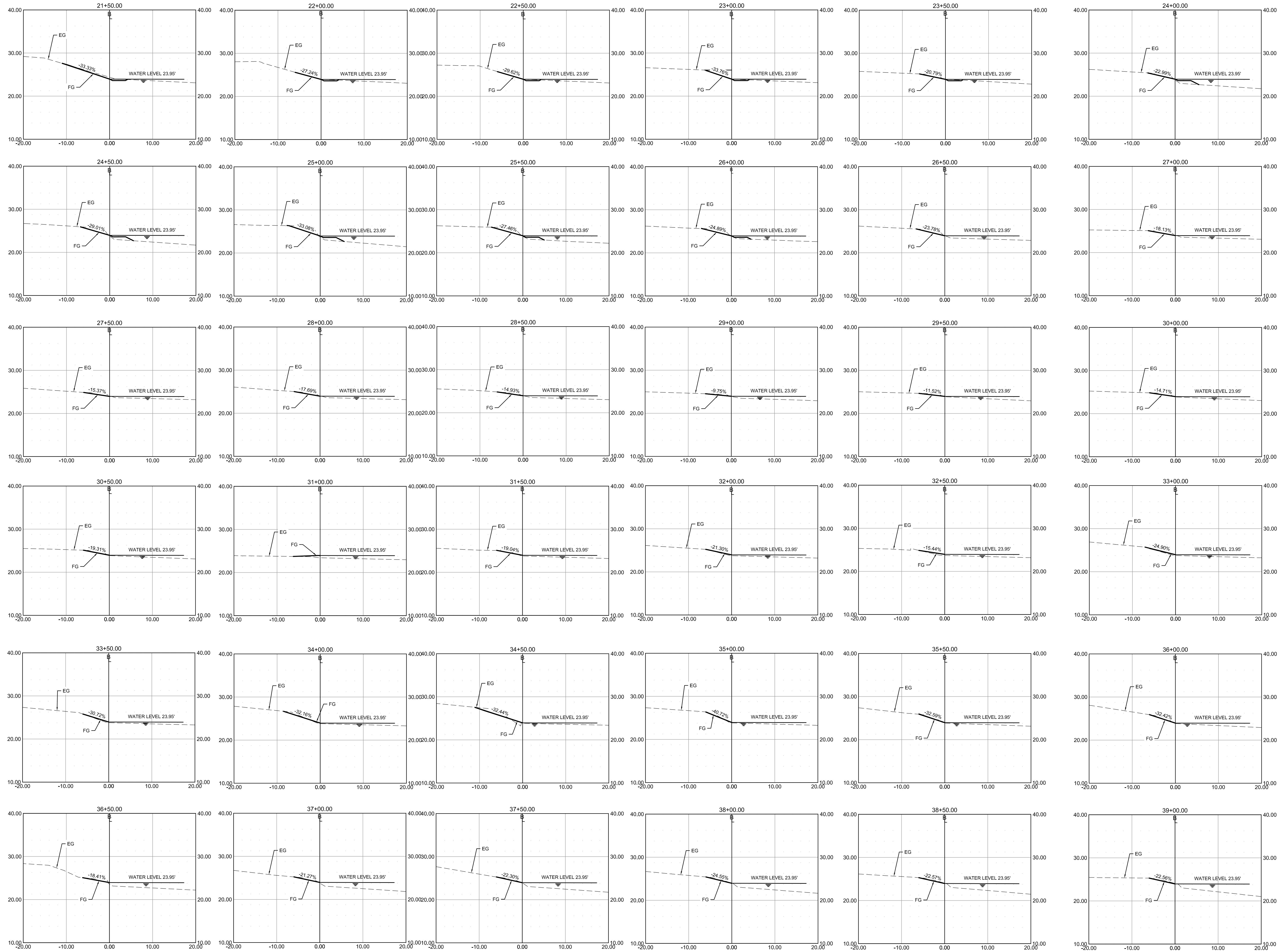


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Issued:	6/05/2023
Drawn By:	MS
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Sheet Title	<b>BANK SECTIONS MAIN RESACA</b>

**BS 1.1**  
 Sheet Number

Jun 06, 2023 - 11:43am

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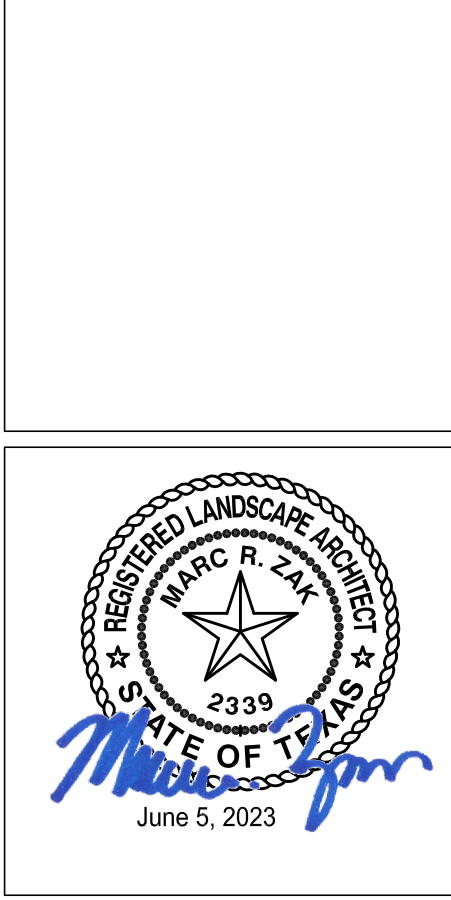
# BROWNSVILLE PUB

## TOWN RESACA WATERSHED PROJECT

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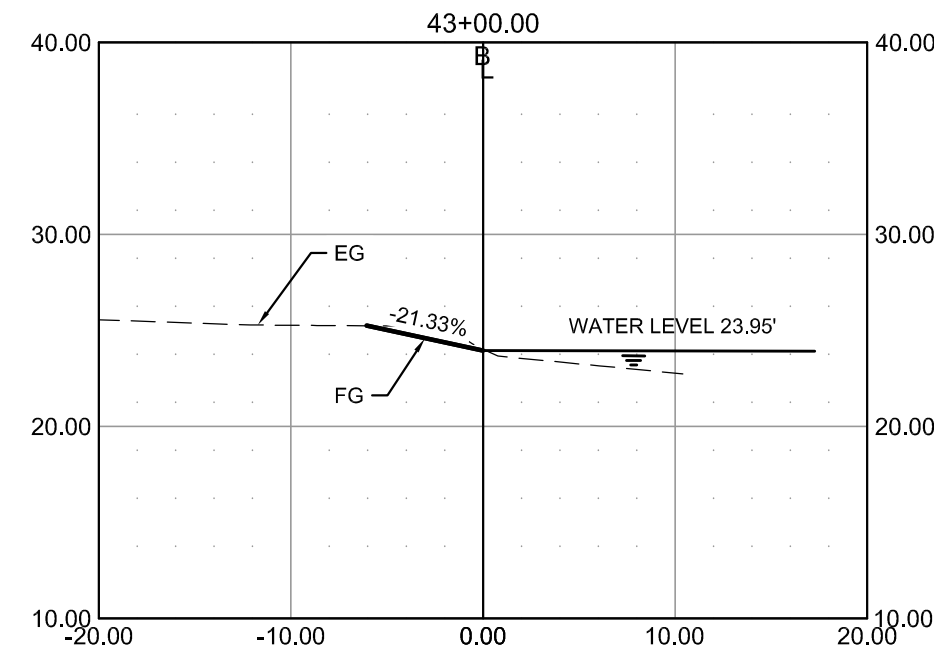
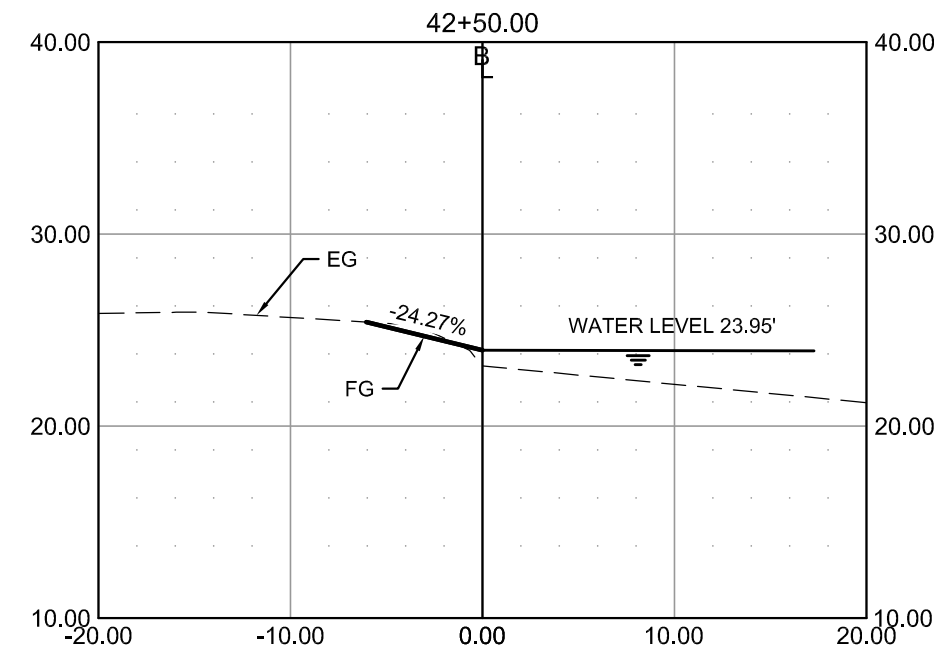
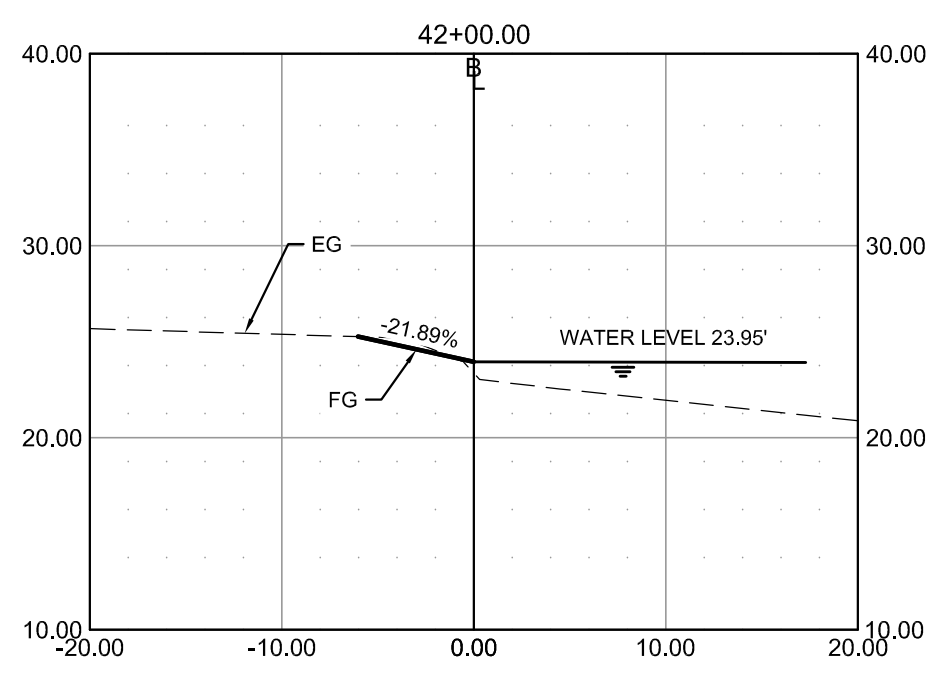
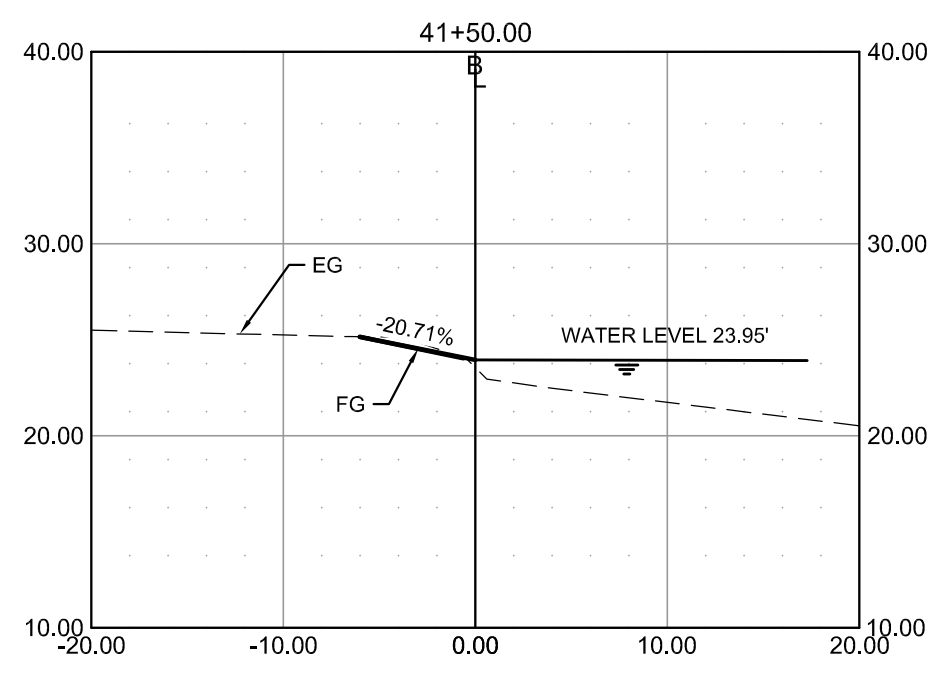
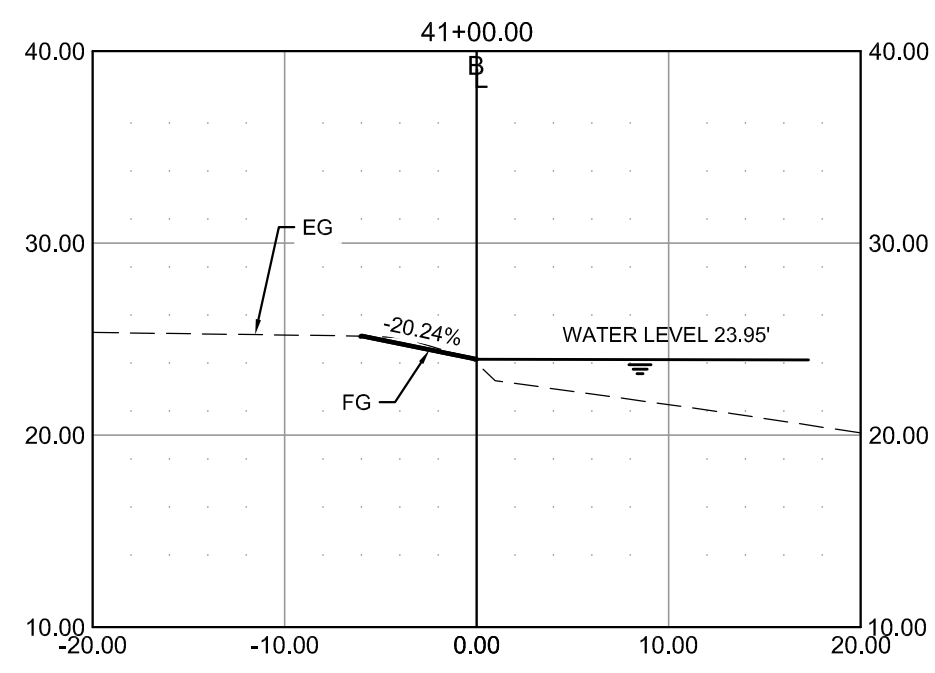
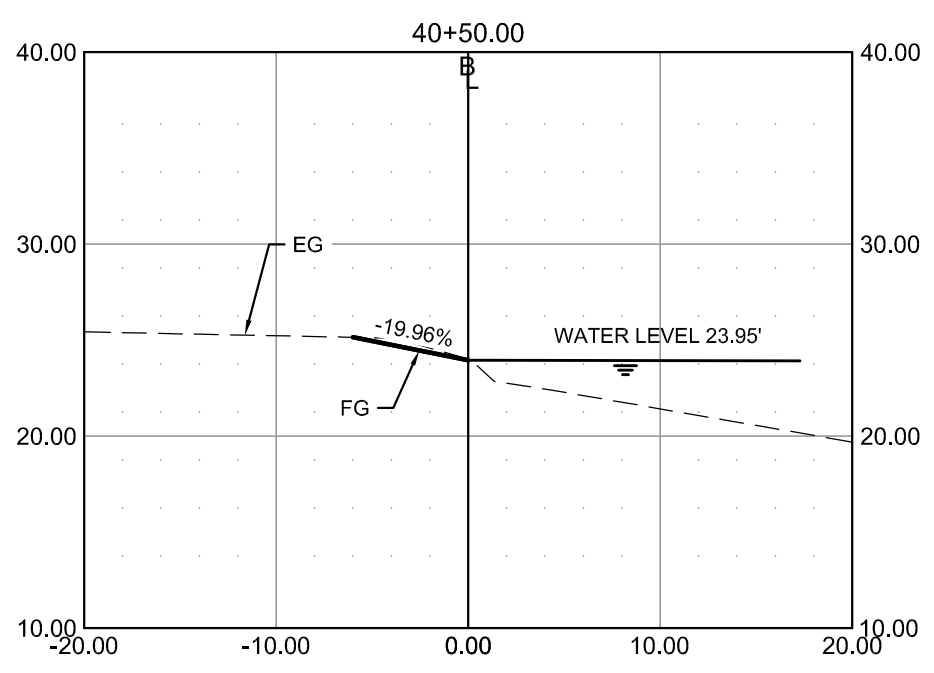
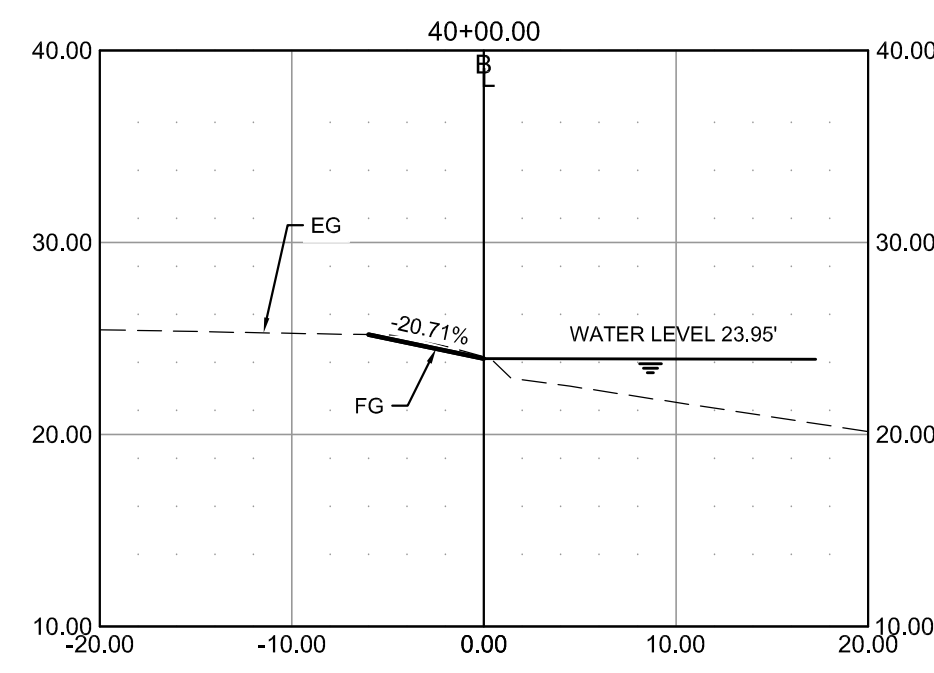
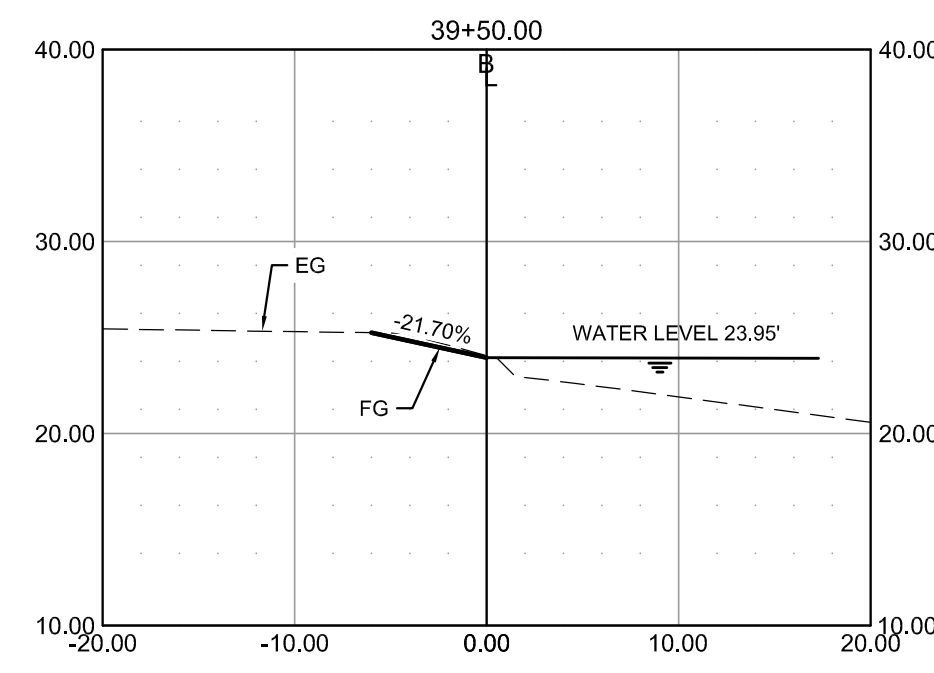


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 Issued: 6/05/2023  
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**BANK SECTIONS**  
**MAIN RESACA**

**BS 1.2**  
 Sheet Number

Jun 06, 2023 - 11:45am

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**TOWN RESACA WATERSHED PROJECT**  
 BROWNSVILLE, TEXAS



Revision No.	Date	Description



June 5, 2023

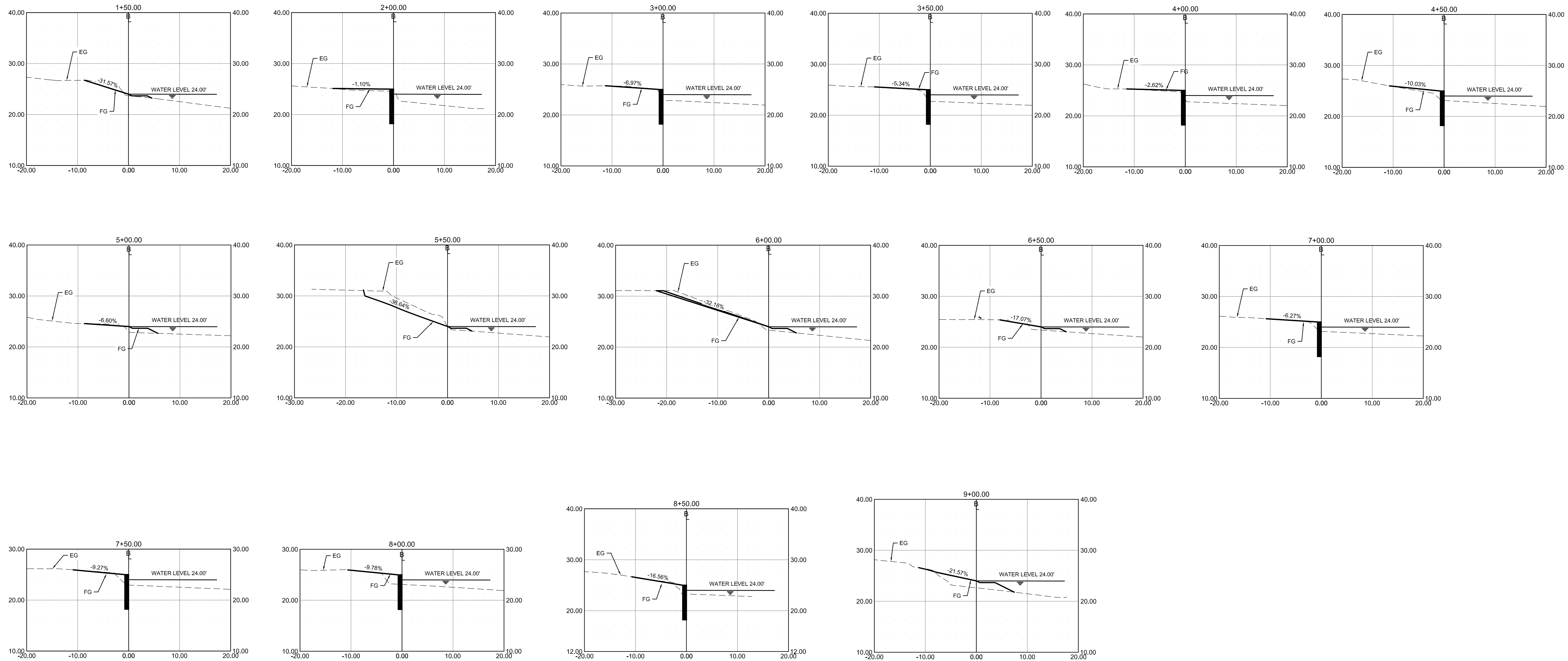
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Sheet Title  
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**MAIN RESACA**

BS 1.3  
 Sheet Number

Jun 06, 2023 - 11:45am

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**TOWN RESACA WATERSHED PROJECT**  
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 Issued: 6/05/2023  
 Drawn By: MS  
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 Scale: AS NOTED

Sheet Title  
**BANK SECTIONS**  
**PARK POND**

**BS 1.4**  
 Sheet Number

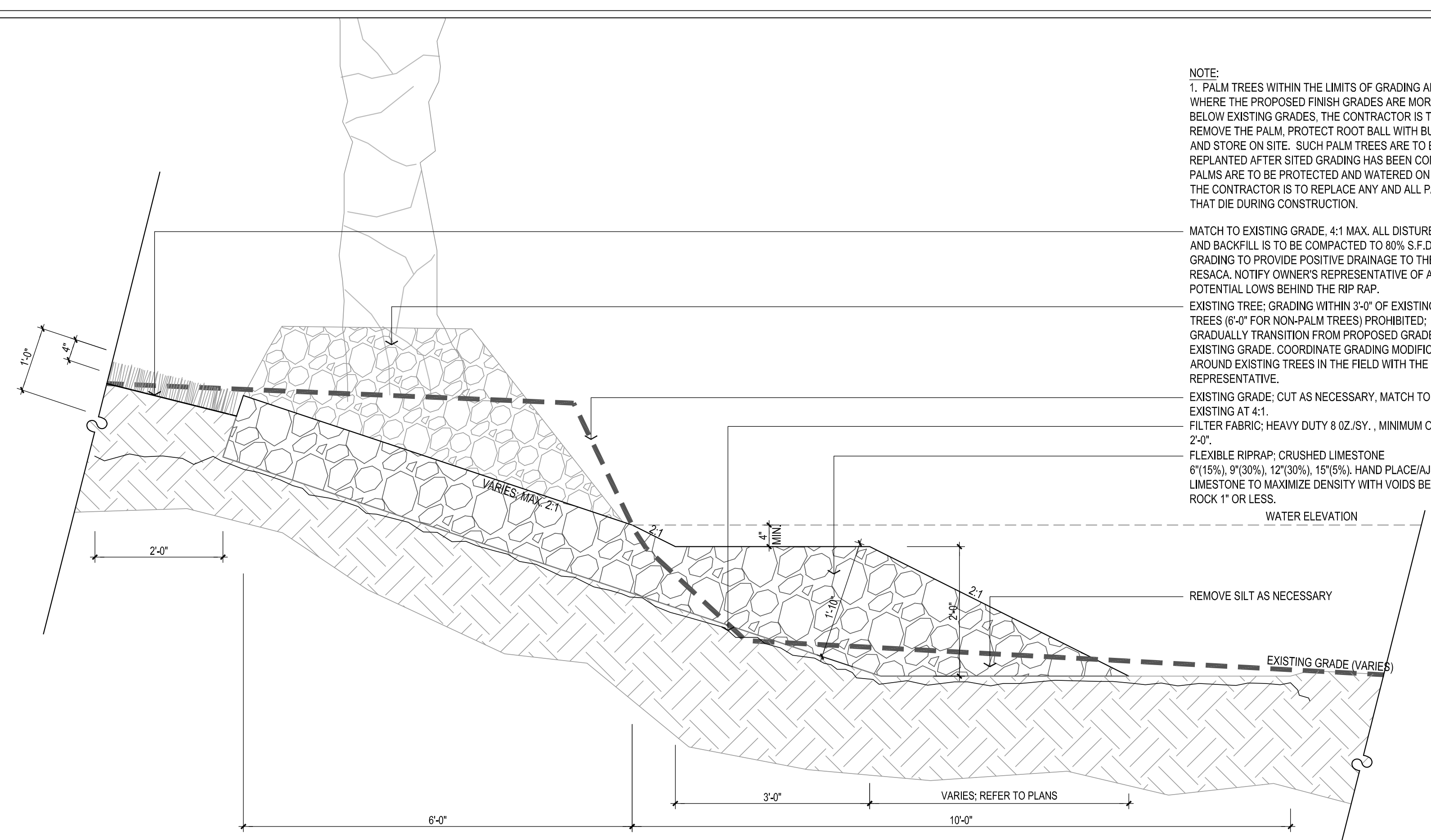


Jun 06, 2023 - 11:36am

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① SECTION—BANK TREATMENT GRADING AND LANDSCAPE  
Scale: 1/2" = 1'-0"



② SECTION—BANK TREATMENT FLEXIBLE RIP RAP  
Scale: 3/4" = 1'-0"

NOTE:  
1. PALM TREES WITHIN THE LIMITS OF GRADING AND WHERE THE PROPOSED FINISH GRADES ARE MORE THAN 9" BELOW EXISTING GRADES, THE CONTRACTOR IS TO REMOVE THE PALM, PROTECT ROOT BALL WITH BURLAP AND STORE ON SITE. SUCH PALM TREES ARE TO BE REPLANTED AFTER SITED GRADING HAS BEEN COMPLETED. PALMS ARE TO BE PROTECTED AND WATERED ON SITE. THE CONTRACTOR IS TO REPLACE ANY AND ALL PALMS THAT DIE DURING CONSTRUCTION.

MATCH TO EXISTING GRADE 4:1 MAX. ALL DISTURBED SOIL AND BACKFILL IS TO BE COMPACTED TO 80% S.F.D. GRADING TO PROVIDE POSITIVE DRAINAGE TO THE RESACA. NOTIFY OWNER'S REPRESENTATIVE OF ANY POTENTIAL LOWS BEHIND THE RIP RAP.

EXISTING TREE: GRADING WITHIN 3'-0" OF EXISTING PALM TREES (6'-0" FOR NON-PALM TREES) PROHIBITED; GRADUALLY TRANSITION FROM PROPOSED GRADES TO EXISTING GRADE. COORDINATE GRADING MODIFICATIONS AROUND EXISTING TREES IN THE FIELD WITH THE OWNER'S REPRESENTATIVE.

EXISTING GRADE: CUT AS NECESSARY, MATCH TO EXISTING AT 4:1.

FILTER FABRIC: HEAVY DUTY 8 OZ./SY., MINIMUM OVERLAP 2'-0".

FLEXIBLE RIPRAP: CRUSHED LIMESTONE 6"(15%), 9"(30%), 12"(30%), 15"(15%). HAND PLACE/ADJUST LIMESTONE TO MAXIMIZE DENSITY WITH VOIDS BETWEEN ROCK 1" OR LESS.

REMOVE SILT AS NECESSARY

EXISTING GRADE (VARIES)

WATER ELEVATION

MATCH TO EXISTING GRADE 4:1 MAX. ALL DISTURBED SOIL AND BACKFILL IS TO BE COMPACTED TO 80% S.F.D.

EXISTING GRADE: CUT BACK TO 4:1 SLOPE AS SHOWN IN THE SITE LAYOUT, AND VEGETATE AS SHOWN IN THE LANDSCAPE LAYOUTS.

WATER ELEVATION

EXISTING GRADE (VARIES)

**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS



Revision No.	Date	Description

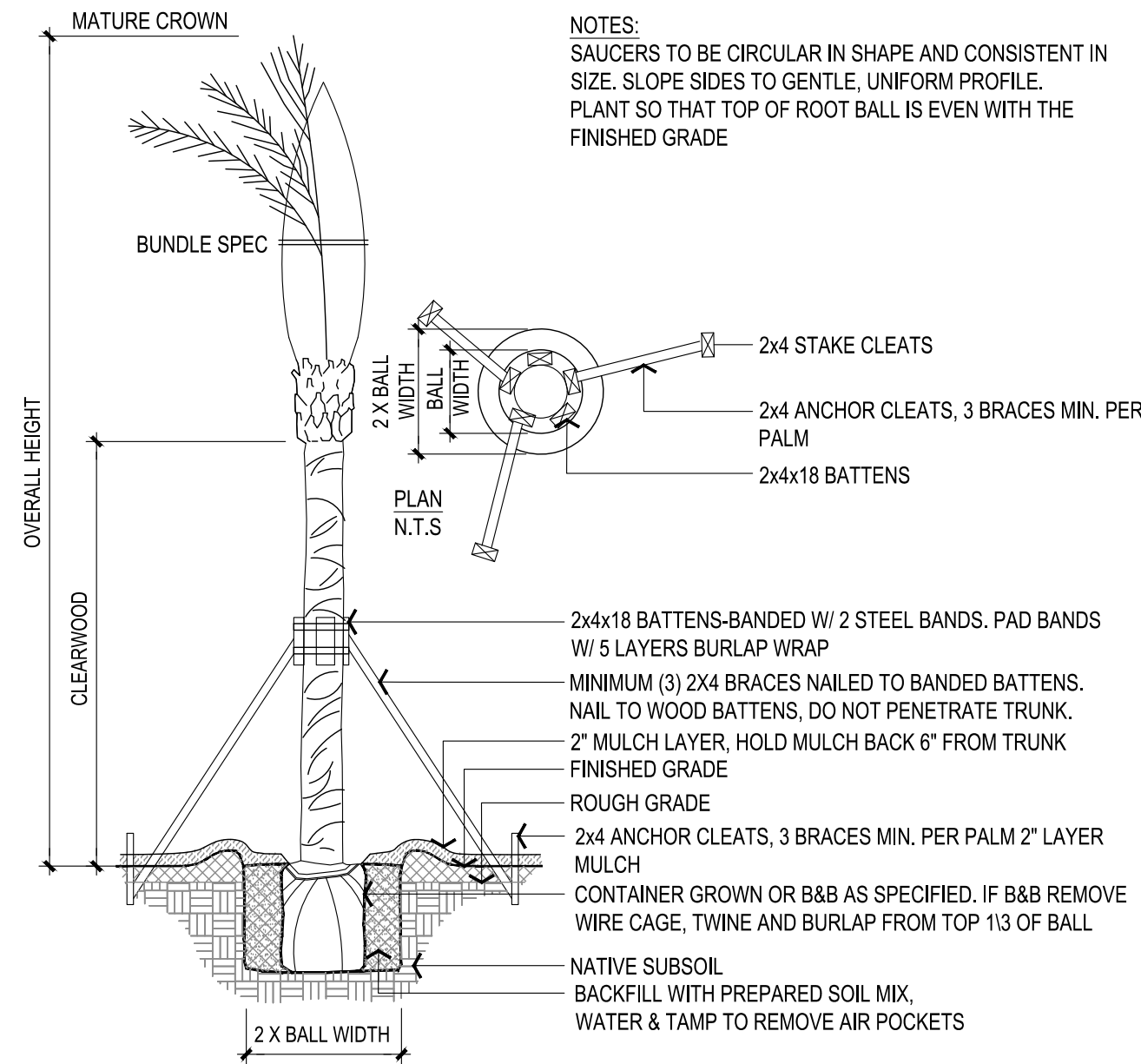


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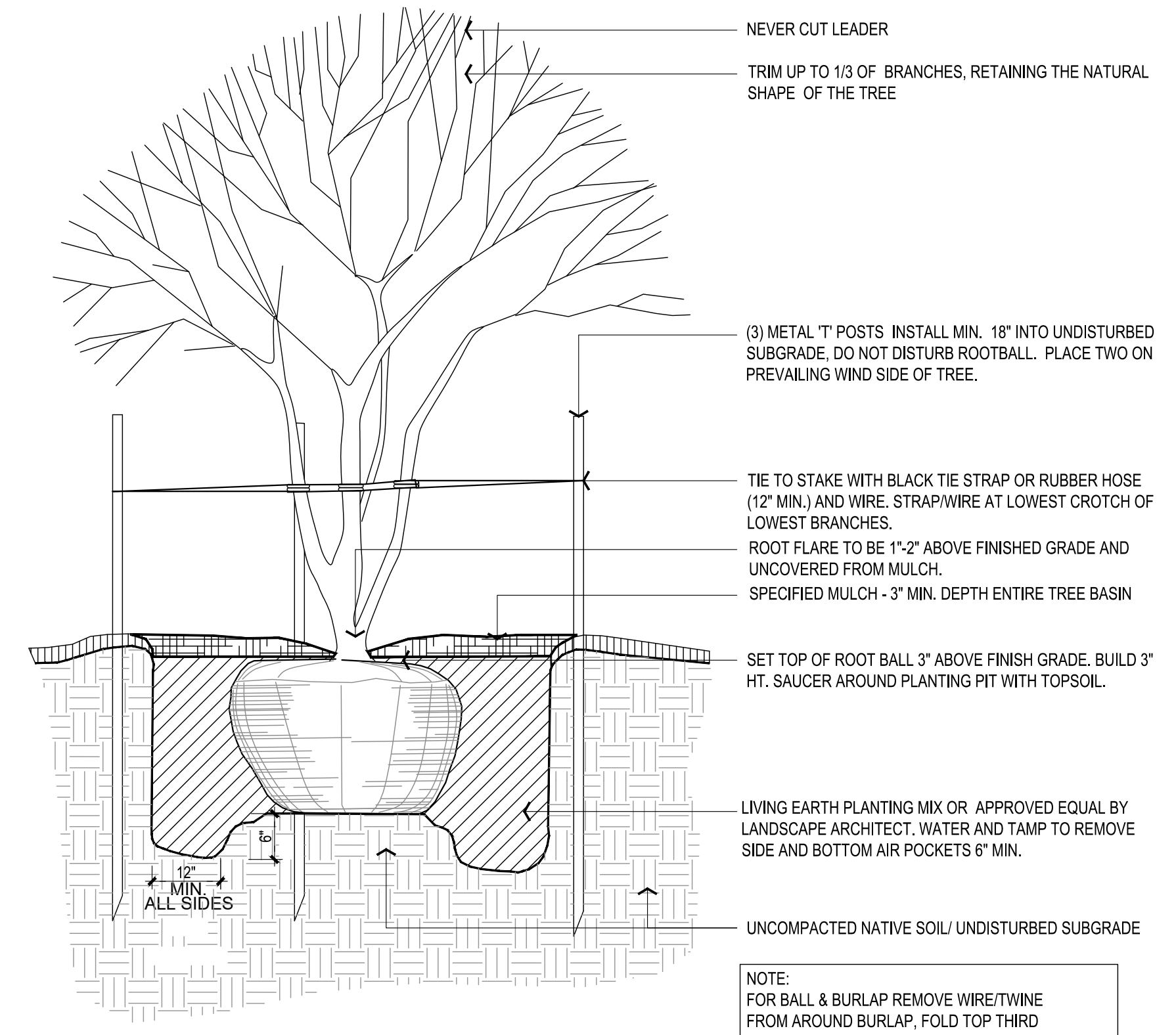
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Sheet Number

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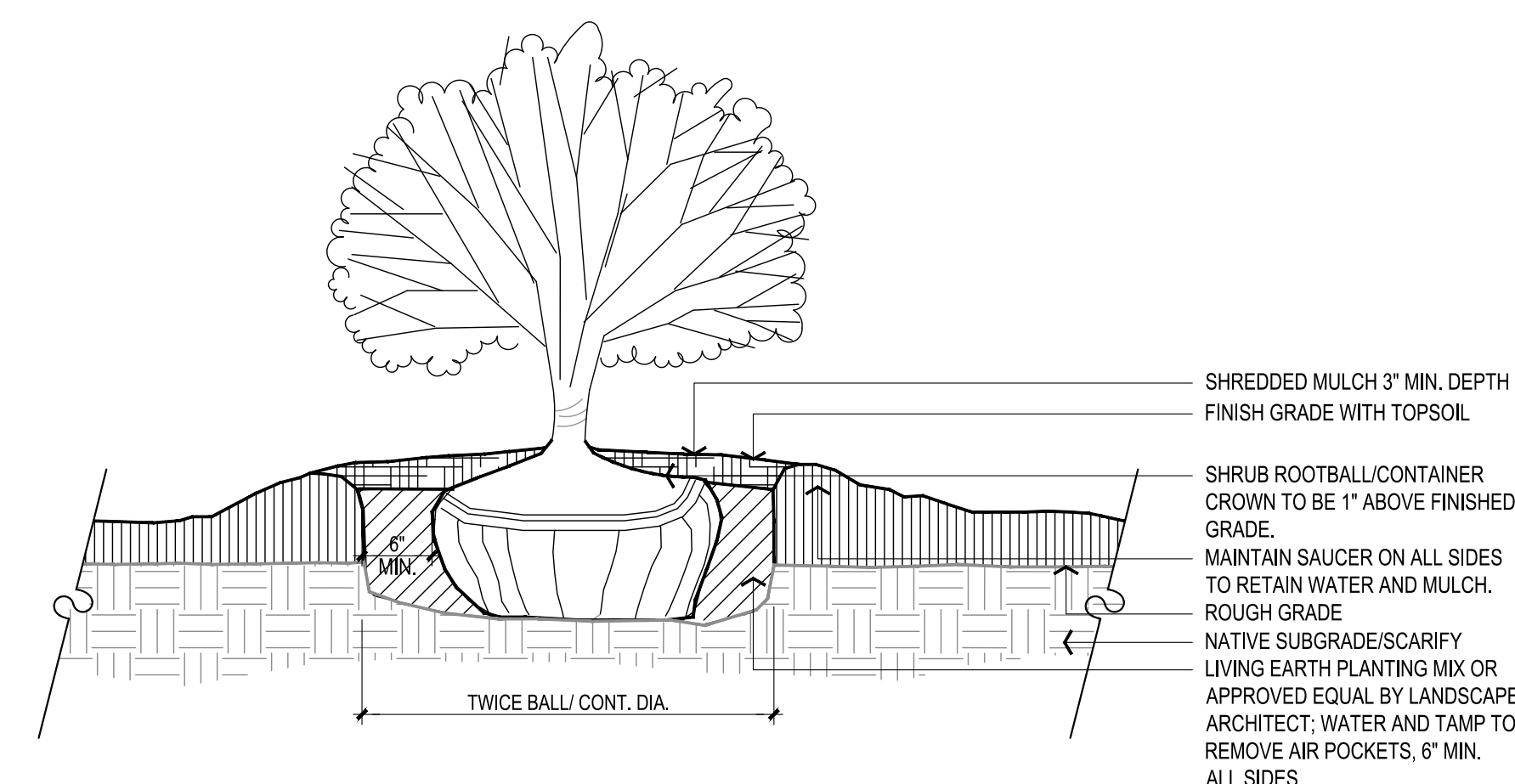
- LANDSCAPE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL LANDSCAPE MATERIAL WITH RELATED IRRIGATION, SITE WORK, AND FINAL GRADING.
- BY BIDDING, THE CONTRACTOR ACKNOWLEDGES THAT THEY HAVE SATISFIED THEMSELVES AS TO THE NATURE AND LOCATION OF THE WORK AND TO THE QUALITY OF SURFACE AND SUBSURFACE MATERIALS OR OBSTACLES INSOFAR AS THE DATA IS REASONABLY ASCERTAINABLE FROM INSPECTION OF THE SITE. ANY FAILURE BY THE CONTRACTOR TO ACQUAINT THEMSELVES WITH THE AVAILABLE INFORMATION WILL NOT RELIEVE THEM FROM RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK AS DESCRIBED.
- THE LANDSCAPE CONTRACTOR SHALL IDENTIFY AND REVIEW ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO COMMENCING WORK AND SHALL EXERCISE EXTREME CAUTION WHEN WORKING CLOSE TO UTILITIES, AND SHALL NOTIFY THE OWNER OF APPARENT CONFLICTS WITH CONSTRUCTION AND UTILITIES SO THAT ADJUSTMENTS CAN BE PLANNED PRIOR TO INSTALLATION. CONTRACTOR MUST PROTECT ALL EXISTING LANDSCAPING AND HARDSCAPE ADJACENT TO PROPOSED LANDSCAPING IN THIS CONTRACT. LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY DAMAGE AND SHALL REPLACE DAMAGED PLANT MATERIAL WITH PLANTS OF EQUAL SIZE AND QUALITY AND SHALL REPAIR ANY DAMAGE TO SIDEWALKS OR ADJACENT STRUCTURES.
- ALL INVASIVE SPECIES SHALL BE REMOVED FROM THE SITE AS SHOWN IN THE PLANS PRIOR TO COMMENCING WITH LANDSCAPE AND IRRIGATION INSTALLATION.
- IRRIGATION: ALL TREES, SHRUBS, NATIVE GRASS AREAS AND SPECIFIED TURF AREAS SHALL BE IRRIGATED WITH A TEMPORARY IRRIGATION SYSTEM. THE IRRIGATION SYSTEMS SHALL BE MAINTAINED AND OPERATION AS NECESSARY TO PROVIDE ESTABLISHMENT OF ALL LANDSCAPE MATERIAL. UPON COMPLETION OF ESTABLISHMENT AND WITH THE OWNER AND/OR OWNER'S APPROVAL, THE IRRIGATION SYSTEM SHALL BE REMOVED.
- LAYOUT AND FINAL GRADING: LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ACCURATELY LAYING OUT THE PLANT BEDS AND TURF AREAS. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND FINAL GRADING OF ALL TURF AND BED AREAS. REVIEW WITH OWNER THE EXTENT OF CLEANUP AND GRADING OF AREA PRIOR TO COMMENCING WORK. TURF AND HYDROMULCH AREAS SHALL BE RAKED SMOOTH, REMOVING AND DISPOSING OF STONES OVER 1" DIAMETER AND FINE GRADED TO FEATHER INTO NATURAL GRADE. ALL AREAS SHALL BE FINE GRADED TO ACHIEVE POSITIVE DRAINAGE WITHOUT PUDDLES OR STANDING WATER.
- TOPSOIL/TURF AREAS: ALL NEW TURF AREAS (SQUARE/ROLLED SOD) ARE REQUIRED TO HAVE A MINIMUM OF SIX INCHES (6") SOIL DEPTH FOR SPORTS FIELDS AND FOUR INCHES (4") SOIL DEPTH FOR ALL OTHER AREAS. SOIL TO BE SANDY LOAM TOPSOIL. CONTRACTOR SHALL PROVIDE SUBMITTAL FOR TOPSOIL MIX TO LANDSCAPE ARCHITECT FOR APPROVAL. ALL AREAS RECEIVING HYDROMULCH / BROADCAST SEEDING WHERE TOPSOIL IS NOT PROVIDED, SHALL BE SCARIFIED TO A DEPTH OF THREE INCHES (3") MINIMUM, RAKED AND CLUMPS OVER 1" DIAMETER BROKEN DOWN OR REMOVED PRIOR TO SEEDING OPERATIONS. TOPSOIL AND SCARIFICATION SHALL BE SUBSIDIARY TO SOD, HYDROMULCH AND BROADCAST SEEDING UNIT PRICES.
- PLANTS: ALL PLANTS SHALL BE NURSERY GROWN, GRADE 1 PLANTS MEETING AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS, TYPICAL IN SHAPE AND SIZE FOR SPECIES. PLANTS SHALL NOT BE ROOT-BOUND NOR LOOSE IN THEIR CONTAINERS. HANDLE ALL PLANTS WITH CARE IN TRANSPORTING, PLANTING AND MAINTENANCE UNTIL INSPECTION AND FINAL ACCEPTANCE. PLANTING PITS FOR 1, 3 AND 5 GALLONS SHRUBS SHALL BE AT LEAST 8" LARGER IN DIAMETER THAN THE CONTAINER SIZE. LARGER CONTAINER SIZES AND B&B PLANTS SHALL BE PLANTED IN PITS AT LEAST 18" LARGER IN DIAMETER THAN THE BALL SIZE. PLANTS SHALL BE INSTALLED TO PRESENT THEIR BEST SIDE FACING THE VIEWER. USE TOTAL QUANTITIES OF PLANTS INDICATED. OWNER'S REPRESENTATIVE SHALL HAVE FINAL APPROVAL OF PLANT MATERIAL LAYOUT. UNLESS SPECIFICALLY NOTED, INSTALL ALL MASSES PLANTING UTILIZING TRIANGULAR SPACING. NEW TREE CALIPER INCHES ARE MEASURED AT SIX INCHES (6") ABOVE SOIL LINE/BEGINNING OF ROOT FLARE.
- PLANTING BED MIX: LIVING EARTH TECHNOLOGIES MIX OR APPROVED EQUAL IS TO BE USED FOR PLANTING BACKFILL MIXTURES FOR NEW BEDS. MINIMUM BED DEPTH SHALL BE EIGHT INCHES (8").
- MULCH: FOLLOWING PLANTING, MULCH "FULLY-PREPARED" BEDS AND MULCHED WITH THREE INCHES (3") LAYER OF SHREDDED HARDWOOD MULCH AND FILL BASINS OF PIT-PLANTED SHRUBS WITH MULCH.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES NOT SHOWN TO BE RE-VEGETATED SHALL BE RE-VEGETATED BY THE CONTRACTOR. COMPENSATION FOR SUCH RE-VEGETATION SHALL BE SUBSIDIARY TO THE CONTRACTOR'S BID.
- MAINTENANCE: REGULAR MAINTENANCE IS REQUIRED OF ALL LANDSCAPE AREAS AND PLANT MATERIALS IN A VIGOROUS AND HEALTHY CONDITION, FREE FROM DISEASES, PEST WEEDS, LITTER AND CONSTRUCTION DEBRIS. THIS MAINTENANCE SHALL INCLUDE WEEDING, WATERING, FERTILIZATION, PRUNING, MOWING, EDGING, MULCHING OR OTHER NEEDED MAINTENANCE, IN ACCORDANCE WITH GENERALLY ACCEPTED HORTICULTURAL PRACTICES UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE OWNER AND THE LANDSCAPE ARCHITECT.
- WARRANTY: CONTRACTOR SHALL PROVIDE A ONE-YEAR REPLACEMENT WARRANTY FOR ALL PLANT MATERIALS. WARRANTY SHALL COVER PLANTS WHICH HAVE DIED OR PARTIALLY DIED (THEREBY RUINING THEIR NATURAL SHAPE), BUT SHALL NOT INCLUDE DAMAGE BY VANDALISM, BROWSING, HAIL, ABNORMAL FREEZES, DROUGHT OR NEGLIGENCE BY THE OWNER. THE WARRANTY IS INTENDED TO COVER CONTRACTOR NEGLIGENCE, INFESTATIONS, DISEASE AND DAMAGE OR SHOCK TO PLANTS. PLANTS REPLACED UNDER WARRANTY WILL BE WARRANTED FOR ONE YEAR FOLLOWING REPLACEMENT.
- LANDSCAPE SPECIFICATIONS: WHEN WRITTEN TECHNICAL SPECIFICATION ARE PROVIDED AND CONFLICT WITH THESE PLANS SPECIFICATIONS, THE PLANS SPECIFICATIONS SHALL PREVAIL FOR THIS PROJECT.



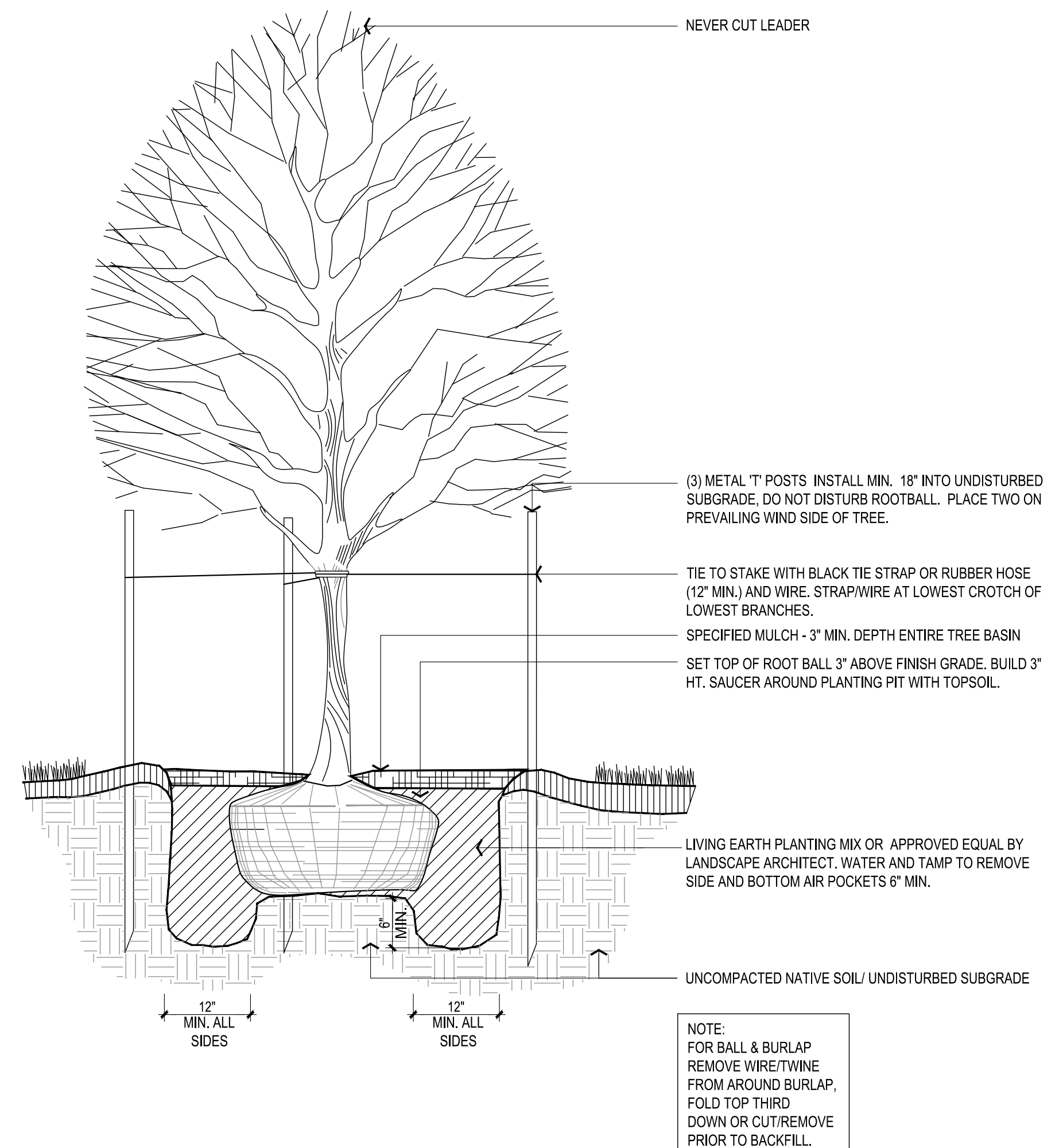
**3 PALM TREE PLANTING WITH BRACES**  
Scale: NOT TO SCALE



**1 ORNAMENTAL TREE PLANTING (TYP.)**  
Scale: NOT TO SCALE



**4 SHRUB PLANTING (TYP.)**  
Scale: NOT TO SCALE



**2 SHADE TREE PLANTING (TYP.)**  
Scale: NOT TO SCALE

**BROWNSVILLE PUB**  
**TOWN RESACA WATERSHED PROJECT**  
BROWNSVILLE, TEXAS



Revision No.	Date	Description



Project No.:	42947.001
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