

**SPECIAL CONSTRUCTION NOTES:**

- CONTRACTOR SHALL CALL "DIG-TESS" SYSTEM (1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY OR COUNTY EASEMENTS OR STREET R.O.W.
- CONTRACTOR SHALL POT HOLE ALL EXISTING UTILITIES AT CONNECTION AND INTERSECTION PRIOR TO UTILITY MATERIALS BEING DELIVERED TO SITE.
- ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
- ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO. 509 AND APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 E. 6TH STREET, AUSTIN, TEXAS.
- THIS PROJECT IS LOCATED WITH IN THE LAKE AUSTIN WATERSHED AND IS LOCATED WITHIN THE HIGHLAND LAKES WATERSHED ORDINANCE.
- NO PORTION OF THIS PROJECT IS WITHIN THE 100-YEAR FLOODPLAIN AS PER FEMA FIRM PANEL 48453C0115J AS DATED 1/22/20, FOR TRAVIS COUNTY, TEXAS.

THIS SITE IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE OR CONTRIBUTING ZONE.

**PROJECT DESCRIPTION:**

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF 18 PARKING SPACES WITH WATER QUALITY CONSIDERATION TO AN EXISTING 3.61 ACRE DEVELOPMENT.

**IC CALCULATIONS:**

PROPOSED PARKING IC: 3,457 SQ. FT.  
 EXISTING IC: 76,361 SQ. FT.  
 TOTAL IC: 79,361 (1.83 ACRES)

**PROJECT ADDRESS:**

1713 HUR INDUSTRIAL BLVD.  
 CEDAR PARK, TX 78613

**DEVELOPER/OWNER:**

CONTACT:  
 ROMAN ZRAZHEVSKIY  
 18009 RANGLAND HILL VIS  
 JONESTOWN, TX 78645  
 E: ROMAN@MIRASAFTEYCOM  
 P: (516) 232-6858

CIVIL ENGINEER / AGENT:  
 GOODE FAITH ENGINEERING  
 1620 LA JAITA DR., STE. 300  
 CEDAR PARK, TEXAS 78613

CONTACT:  
 ANTHONY H. GOODE, P.E.  
 ANTHONY@GOODEFAITHENG.COM  
 972.822.1682

**UTILITY PROVIDERS:**

ELECTRIC – PEC  
 WATER – CITY OF CEDAR PARK  
 WASTEWATER – CITY OF CEDAR PARK

**PARKING ANALYSIS:**

**GROSS FLOOR AREA:**  
 GROUND LEVEL (GROSS): "B" / BUSINESS = 5,925 SQ. FT.  
 "S-1" / STORAGE = 25,625 SQ. FT.  
 MEZZANINE: "B" / BUSINESS = 2,775 SQ. FT.  
 TOTAL GROSS AREA: = 34,000 SQ. FT.

**RE: CEDAR PARK CITY CODE SECTION 14.05.005(i)(2)**  
 WAREHOUSE (1 PER 300 SQ. FT.) 25,625 SQ. FT. / 300 = 12.8 (OR 13 PARKING SPACES)  
 OFFICE (1 PER 300 SQ. FT.) 8,200 SQ. FT. / 300 = 27.3 (OR 28 PARKING SPACES)  
 TOTAL REQUIRED PARKING = 41 TOTAL PARKING

EXISTING PARKING TOTAL = 26  
 PROPOSED PARKING = 18  
 TOTAL = 44

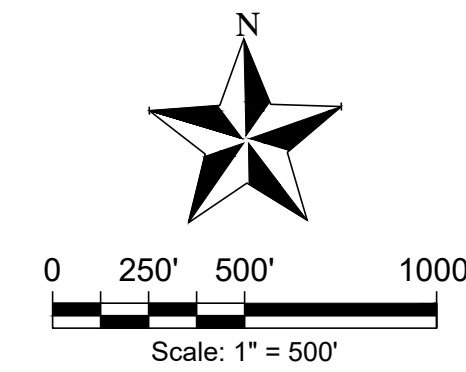
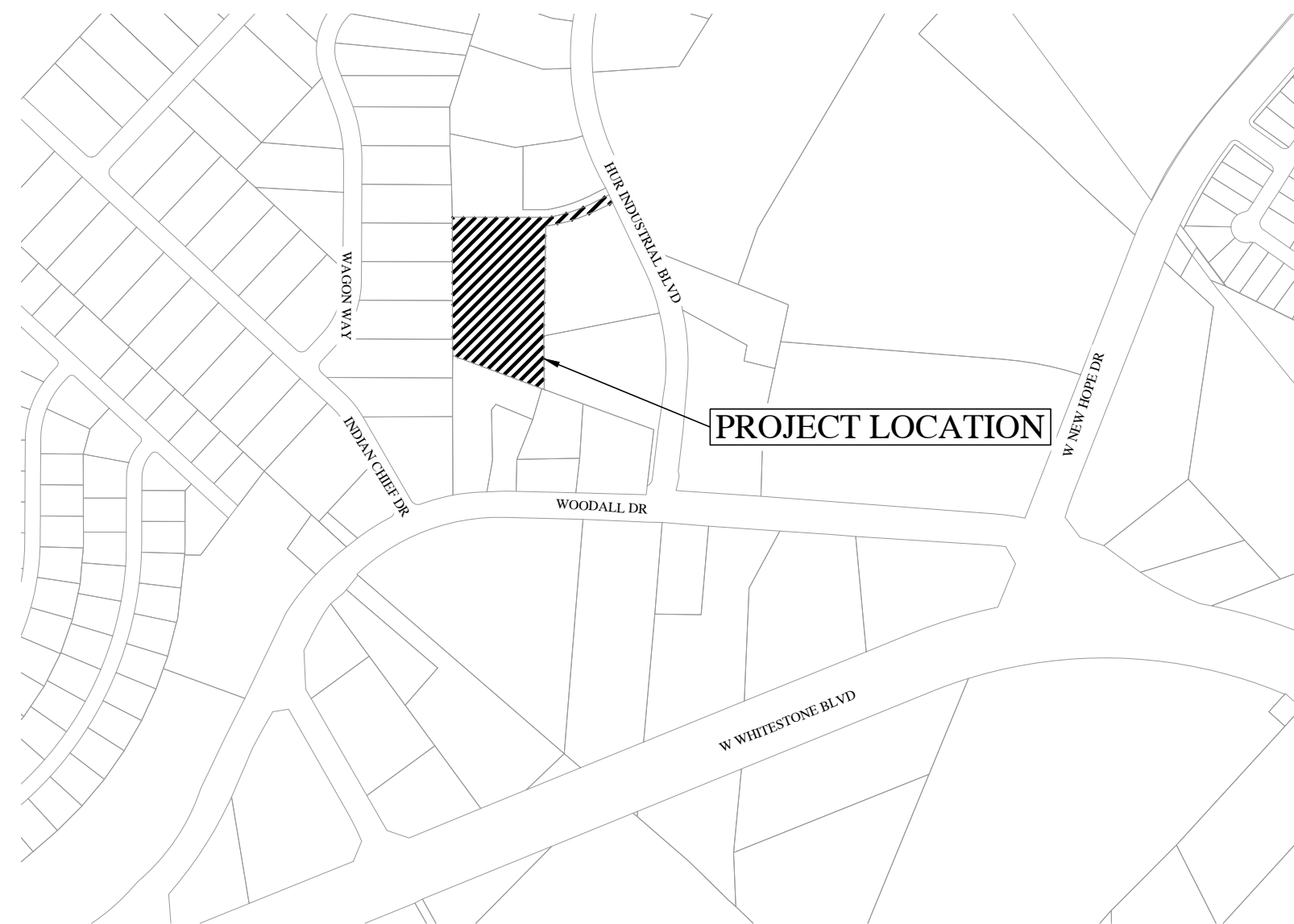
# MIRA SAFETY

## SITE DEVELOPMENT PLAN

### CEDAR PARK, TX

### NOVEMBER, 2023

TDLR RESISTRATION # TABS2024004236



SHEET NUMBER	SHEET TITLE
1	COVER
2	GENERAL NOTES
3	FINAL PLAT
4	EXISTING SITE AND DEMO PLAN
5	EROSION AND SEDIMENTATION PLAN
6	EROSION AND SEDIMENTATION NOTES
7	DRAINAGE PLAN
8	POND PLAN
9	GRADING PLAN
10	TREE PRESERVATION PLAN
11	SLOPE MAP PLAN
12	UTILITY PLAN



MIRA SAFETY  
 ADDITIONAL PARKING SITE DEVELOPMENT

COVER



Reviewed for Code Compliance  
 Signature required from all Departments

Planning \_\_\_\_\_ Date \_\_\_\_\_  
 Engineering Services \_\_\_\_\_ Date \_\_\_\_\_  
 Industrial Pretreatment \_\_\_\_\_ Date \_\_\_\_\_  
 Fire Prevention \_\_\_\_\_ Date \_\_\_\_\_  
 Landscape Planner \_\_\_\_\_ Date \_\_\_\_\_  
 Addressing \_\_\_\_\_ Date \_\_\_\_\_  
 Site Development Permit Number \_\_\_\_\_

**REVISIONS**

NO.	DESCRIPTION	APPROVAL
1.		
2.		
3.		
4.		
5.		
6.		



SUBMITTED BY:

*Anthony H. Goode* 10-30-23

ANTHONY GOODE, P.E.  
 GOODE FAITH ENGINEERING, LLC.  
 TBPE FIRM NO. F-22664  
 1620 LA JAITA DR. STE 300  
 CEDAR PARK, TX, 78613  
 (972) P: 822-1682

DATE

RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.

DRAWN BY

DWL

DATE

10/30/2023

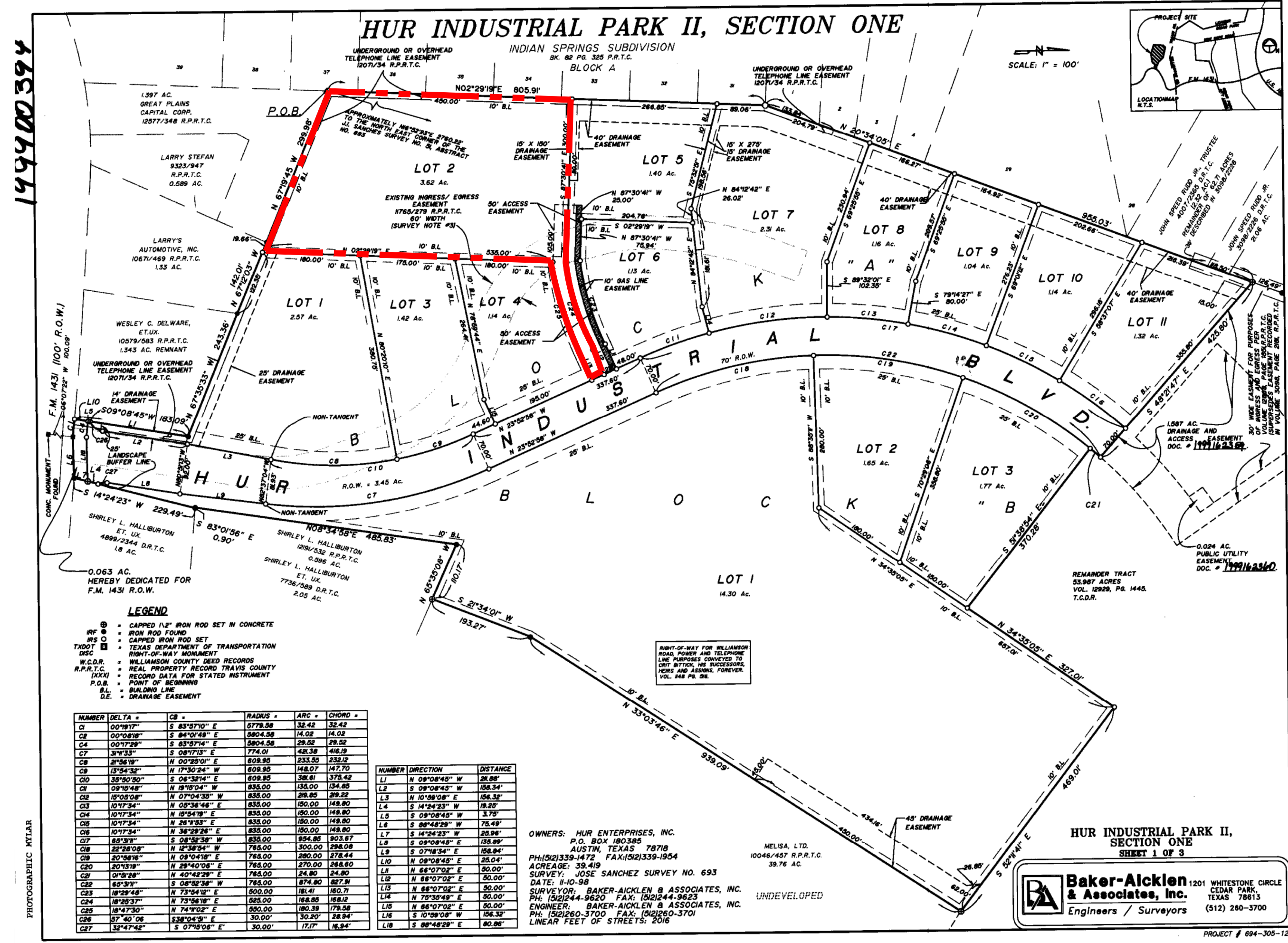
CHECKED BY

AHG

PROJECT NO.

XX-XXX.XX





### HUR INDUSTRIAL PARK II, SECTION ONE

**SURVEY NOTES:**

- THE ROADWAY ACCESS, TELEPHONE AND ELECTRIC LINE EASEMENTS DESCRIBED IN VOLUME 148 PAGE 06, DEED RECORDS OF TRAVIS CO., APPARENTLY COVERS THE ROAD AND OVERHEAD LINES SHOWN HEREON ALONG THE EAST PROPERTY LINE.
- THE BLANKET PIPELINE EASEMENT MENTIONED AS ITEM 9C IN SCHEDULE B OF THE TITLE COMMITMENT RECORDED IN VOLUME 574 PAGE 748, DEED RECORDS OF WILLIAMSON CO., TX, WAS GRANTED TO THE CEDAR PARK WATER SUPPLY CORPORATION FOR WATER DISTRIBUTION LINES AND SYSTEMS.
- THE 60-FOOT WIDENESS AND EGRESS EASEMENT DESCRIBED IN VOLUME 1766, PAGE 378, REAL PROPERTY RECORDS OF TRAVIS CO., TX, AND SHOWN HEREON HAS SEVERAL ERRORS IN IT, AND THE SURVEY THAT IT WAS GRANTED OUT OF ALSO HAS ERRORS IN IT, MAKING IT DIFFICULT TO SHOW ACCURATELY. IT IS SHOWN HEREON GRAPHICALLY ONLY.
- EVIDENCE OF UNDERGROUND STORAGE TANKS IN THIS AREA AS POINTED OUT BY PAUL JETTISON OF FORMER PROPERTIES ON 3 OCT 96 ON SITE.

**PLAT NOTES:**

- SETBACKS NOT SHOWN ON LOTS SHALL CONFORM TO THE CITY OF CEDAR PARK ZONING ORDINANCE.
- SIDEWALKS SHALL BE INSTALLED ON THE WEST SIDE OF HUR BLVD. THOSE SIDEWALKS NOT BEING A RESIDENTIAL LOT SHALL BE INSTALLED WHEN THOSE SIDEWALKS ARE CONSTRUCTED. WHERE THERE ARE DOUBLE FRONT-AGE LOTS, SIDEWALKS ON THE STREET TO WHICH ACCESS IS PROHIBITED ARE ALSO REQUIRED TO BE INSTALLED WHEN THE ADJOINING STREET IS CONSTRUCTED.
- ALL DETENTION BASINS AND THEIR APPURTENANCES FOR AND ON INDIVIDUAL LOTS SHALL BE MAINTAINED BY THE PROPERTY OWNERS.
- ALL DETENTION BASINS SHALL BE CLEANED AT LEAST EVERY TWENTY-FOUR (24) MONTHS AND INSPECTED AT LEAST EVERY TWELVE (12) MONTHS DURING THE MONTHS OF JUNE THROUGH AUGUST.
- THIS SUBDIVISION IS SUBJECT TO THE NON-POINT SOURCE POLLUTION CONTROL ORDINANCE OF CEDAR PARK CITY CODE. A NON-POINT SOURCE PERMIT AND ATTENTION OF THE ONE-YEAR STORM PERMITS OF THE SUBDIVISION ORDINANCE IS REQUIRED PRIOR TO ANY CONSTRUCTION WITHIN THIS SUBDIVISION.
- ON-SITE DETENTION IS REQUIRED TO LIMIT 100 YEAR DISCHARGES TO PRE-DEVELOPED CONDITIONS. IN ADDITION ALL CONCENTRATED DISCHARGES TO OFF-SITE LOCATIONS WHERE NO EASEMENTS EXIST OR ARE PROVIDED WILL BE RETURNED TO FLOW CONDITIONS IN EXISTENCE PRIOR TO DEVELOPMENT.
- ON-SITE DETENTION FACILITIES WILL BE PROVIDED TO REDUCE POST-DEVELOPMENT PEAK RATES OF DISCHARGE TO EXISTING PRE-DEVELOPED PEAK RATES OF DISCHARGE OF THE 2, 25, AND 100 YEAR STORM EVENTS.
- RESTRICTIVE COVENANT RECORDED IN VOL. 780, PG. 348 WILL BE RELEASED WITH FINAL PLAT.
- EACH INDIVIDUAL LOT IN THIS SUBDIVISION SHALL PROVIDE ON-SITE WATER QUALITY CONTROLS IN ACCORDANCE WITH THE NON-POINT SOURCE POLLUTION CONTROL CITY ORDINANCE OF THE CEDAR PARK CITY CODE.
- WATER QUALITY CONTROLS AND STORMWATER DETENTION WILL BE PROVIDED FOR HUR INDUSTRIAL BOULEVARD, IN PONDS CONSTRUCTED ON THE ADJACENT 100' WIDE ACCESS AND DRAINAGE EASEMENT, RECORDED IN DOCUMENT NO. 191114-01 OF THE TRAVIS COUNTY DEED RECORDS. MAINTENANCE OF PONDS WITHIN THIS EASEMENT IS PROVIDED BY THE CITY OF CEDAR PARK.
- CONSTRUCTION PLANS AND SPECIFICATIONS FOR ALL SUBDIVISION IMPROVEMENTS SHALL BE REVIEWED AND APPROVED BY THE CITY OF CEDAR PARK PRIOR TO ANY CONSTRUCTION WITHIN THE SUBDIVISION.
- ALL SUBDIVISION CONSTRUCTION INCLUDING STREETS, DRAINAGE, WATER, WASTEWATER, ETC. SHALL CONFORM TO THE CITY OF CEDAR PARK CODE OF ORDINANCES AND CONSTRUCTION STANDARDS.
- NO BUILDINGS, FENCES, LANDSCAPING, OR OTHER STRUCTURES ARE PERMITTED WITHIN DRAINAGE EASEMENTS SHOWN, EXCEPT AS APPROVED BY THE CITY OF CEDAR PARK PUBLIC WORKS DEPARTMENT.
- PROPERTY OWNER SHALL PROVIDE FOR ACCESS TO DRAINAGE EASEMENTS AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS BY CITY OF CEDAR PARK.
- ALL DRAINAGE EASEMENTS ON PRIVATE PROPERTY SHALL BE MAINTAINED BY THE PROPERTY OWNER OR HIS OR HER ASSIGNS.
- COMMUNITY IMPACT FEES FOR INDIVIDUAL LOTS ARE TO BE PAID PRIOR TO ISSUANCE OF BUILDING PERMITS.
- DEVELOPMENT FOR ALL LOTS IN THIS SUBDIVISION IS FOR OTHER THAN SINGLE-FAMILY DWELLINGS.
- A TEN (10) FOOT P.U.E. IS HEREBY DEDICATED ADJACENT TO ALL STREET R.O.W. ON ALL LOTS A FIVE (5) FOOT P.U.E. IS HEREBY DEDICATED ALONG EACH SIDE LOT LINE FROM THE FRONT PROPERTY LINE TO THE FRONT BUILDING LINE EXCEPT WHERE A SIDE LOT LINE IS ALSO THE ADJACENT LOT LINE OF AN ADJACENT LOT. IN WHICH CASE THE 5' P.U.E. IS DEDICATED ALONG THE ENTIRE LENGTH OF THE SIDE LOT LINE. A SEVEN AND ONE HALF (7.5) FOOT P.U.E. IS HEREBY DEDICATED TO ALL REAR LOT LINES.
- NO LOT IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL, CONNECTED TO THE CITY OF CEDAR PARK WATER DISTRIBUTION AND WASTEWATER COLLECTION FACILITIES.
- SITE DEVELOPMENT CONSTRUCTION PLANS FOR EACH INDIVIDUAL LOT SHALL BE REVIEWED AND APPROVED BY THE CITY OF CEDAR PARK PRIOR TO ANY CONSTRUCTION.

**WASTEWATER AND WATER SYSTEMS SHALL CONFORM TO TEXAS NATURAL RESOURCES CONSERVATION COMMISSION AND STATE BOARD OF INSURANCE REQUIREMENTS. THE OWNER UNDERSTANDS AND ACKNOWLEDGES THE PLAT VACATION OR REPLATTING MAY BE REQUIRED, AT THE OWNERS SOLE EXPENSE, IF PLANS TO DEVELOP DO NOT COMPLY WITH SUCH CODES AND REQUIREMENTS.**

**NO DRIVEWAY SHALL BE CONSTRUCTED CLOSER THAN 50 FEET OR 60% OF PARCEL FRONTAGE, WHICHEVER IS LESS, TO THE EDGE OF PAVEMENT OF AN INTERSECTING LOCAL OR COLLECTOR STREET.**

**FISCAL SURETY FOR SUBDIVISION CONSTRUCTION, IN A FORM ACCEPTABLE TO THE CITY OF CEDAR PARK, SHALL BE PROVIDED PRIOR TO PLAT APPROVAL BY THE PLANNING AND ZONING COMMISSION.**

**THE OWNER OF THIS SUBDIVISION AND HIS OR HER SUCCESSORS AND ASSIGNS ASSUMES RESPONSIBILITY FOR PLANS FOR CONSTRUCTION OF SUBDIVISION IMPROVEMENTS WHICH COMPLY WITH APPLICABLE CODES AND REQUIREMENTS OF THE CITY OF CEDAR PARK. THE OWNER UNDERSTANDS AND ACKNOWLEDGES THAT PLAT VACATION OR REPLATTING MAY BE REQUIRED, AT THE OWNERS EXPENSE, IF PLANS TO CONSTRUCT THIS SUBDIVISION DO NOT COMPLY WITH SUCH CODES AND REQUIREMENTS.**

**SITE DEVELOPMENT ON LOT 1, BLOCK A AND LOT 1, BLOCK B IS REQUIRED TO COMPLY WITH THE CORRIDOR OVERLAY ORDINANCE OF THE CITY OF CEDAR PARK.**

**PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS ON LOTS IN THIS SUBDIVISION, BUILDING PERMITS WILL BE OBTAINED FROM THE CITY OF CEDAR PARK.**

NO PORTION OF THIS TRACT LIES WITHIN THE 100-YEAR FLOOD PLAN FOR FEDERAL INSURANCE ADMINISTRATION FIRM NOS. 48453C0230 E AND 48453C0275 E.

**HUR INDUSTRIAL PARK II, SECTION ONE, SHEET 1 OF 3**

**Baker-Aicklen & Associates, Inc.**  
Engineers / Surveyors  
1201 WHITESTONE CIRCLE  
CEDAR PARK, TEXAS 78613  
(512) 280-3700

### HUR INDUSTRIAL PARK II, SECTION ONE

STATE OF TEXAS )  
COUNTY OF TRAVIS )

KNOW ALL MEN BY THESE PRESENTS )

STATE OF TEXAS )  
COUNTY OF TRAVIS )

I, DANA DEBEAUVOUR, CLERK OF TRAVIS COUNTY, TEXAS DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT OF WRITING AND ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON THE 30th DAY OF December, 1999 A.D. AT 11:51 O'CLOCK A.M. IN THE PLAT RECORDS OF SAID COUNTY AND STATE, IN PAGE-VOLUME 19990394 PAGE 01 OF 01 PLAT.

WITNESS MY HAND AND SEAL OF COUNTY OF TRAVIS COUNTY, TEXAS, AT THE CITY OF TRAVIS, TEXAS, THIS 30th DAY OF December, 1999, A.D.

Dana Debeaumont  
DANA DEBEAUVOUR, COUNTY CLERK, TRAVIS COUNTY, TEXAS

FILED FOR RECORD, THIS 30th DAY OF December, 1999, A.D. AT 11:51 O'CLOCK A.M.

Dana Debeaumont  
DANA DEBEAUVOUR, COUNTY CLERK, TRAVIS COUNTY, TEXAS

STATE OF TEXAS )  
COUNTY OF TRAVIS )

THAT I, CECEL JACKSON CHISHOLM, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF LAND SURVEYING AND HEREBY CERTIFY THAT THIS PLAT IS THE RESULT OF AN ON THE GROUND SURVEY AND THAT ALL CORNERS AND POINTS ARE MARKED AS SHOWN AND ALL EASEMENTS OF RECORD KNOWN TO ME HAVE BEEN SHOWN HEREON.

Cecil Jackson Chisholm  
CECIL JACKSON CHISHOLM, REGISTERED PROFESSIONAL LAND SURVEYOR NO. 4293 DATE 203 EAS MAIN ST. 516, 201 ROUND ROCK, TX 78664 PH. (512) 244-9620

DATE 2-23-99

THE INSTRUMENT WAS OBSOLETE BEFORE ME ON THE 5th DAY OF May, 1999, BY John Y. Hur, ON BEHALF OF SAID Coastal Banc, Inc.

John Y. Hur  
John Y. Hur, Notary Public, State of Texas  
Printed Name John Y. Hur  
My Commission Expires 12/02/21

STATE OF TEXAS )  
COUNTY OF TRAVIS )

THAT WE, COASTAL BANC, INC., A TEXAS SAVINGS BANK, AUSTIN, TRAVIS COUNTY, TEXAS, THE HOLDER OF THE PROMISSORY NOTE OF THE CERTAIN TRACT OF LAND SHOWN HEREON AND DESCRIBED IN A WARRANTY DEED OF RECORD IN VOLUME 1289, PAGE 1445 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, DO ES HERE JOIN, APPROVE AND CONSENT TO ALL DEDICATIONS AND PLAT NOTE REQUIREMENTS SHOWN HEREON, AND DOES HEREBY APPROVE THE RECORDATION OF THIS SUBDIVISION PLAT AND DEDICATION TO THE PUBLIC USE FOREVER ANY EASEMENTS AND ROADS THAT ARE SHOWN HEREON. THIS SUBDIVISION IS TO BE KNOWN AS HUR INDUSTRIAL PARK II, SECTION ONE.

John Y. Hur  
COASTAL BANC, INC.  
2700 MOPAC NORTH  
AUSTIN, TEXAS

STATE OF TEXAS )  
COUNTY OF TRAVIS )

This instrument was observed before me on the 1st day of April, 1999, by John Y. Hur, on behalf of said Coastal Banc, Inc.

John Y. Hur  
John Y. Hur, Notary Public, State of Texas  
Printed Name John Y. Hur  
My Commission Expires 12/02/21

APPROVED THIS 21st DAY OF April, 1999, A.D., BY THE PLANNING AND ZONING COMMISSION OF THE CITY OF CEDAR PARK, TEXAS, AND AUTHORIZED TO BE FILED FOR RECORD WITH THE COUNTY CLERK OF WILLIAMSON COUNTY, TEXAS.

John M. Hill  
ELDON HIGGINS, CHAIRMAN  
PLANNING AND ZONING COMMISSION  
CITY OF CEDAR PARK

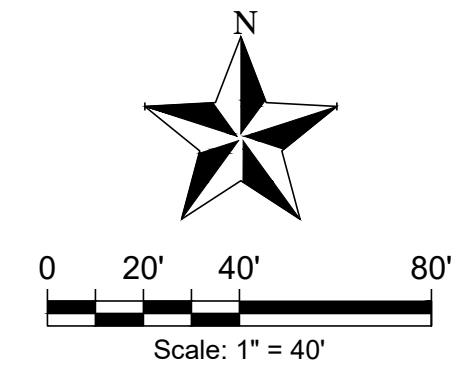
John Y. Hur  
John Y. Hur, Notary Public, State of Texas  
Printed Name John Y. Hur  
My Commission Expires 12/02/21

I, GEORGE A. DENNY, MAYOR OF THE CITY OF CEDAR PARK, TEXAS, DO HEREBY APPROVE AND AUTHORIZE THIS PLAT TO BE FILED FOR RECORD BY THE COUNTY CLERK OF TRAVIS COUNTY, TEXAS IN THE PLAT RECORDS OF SAID COUNTY.

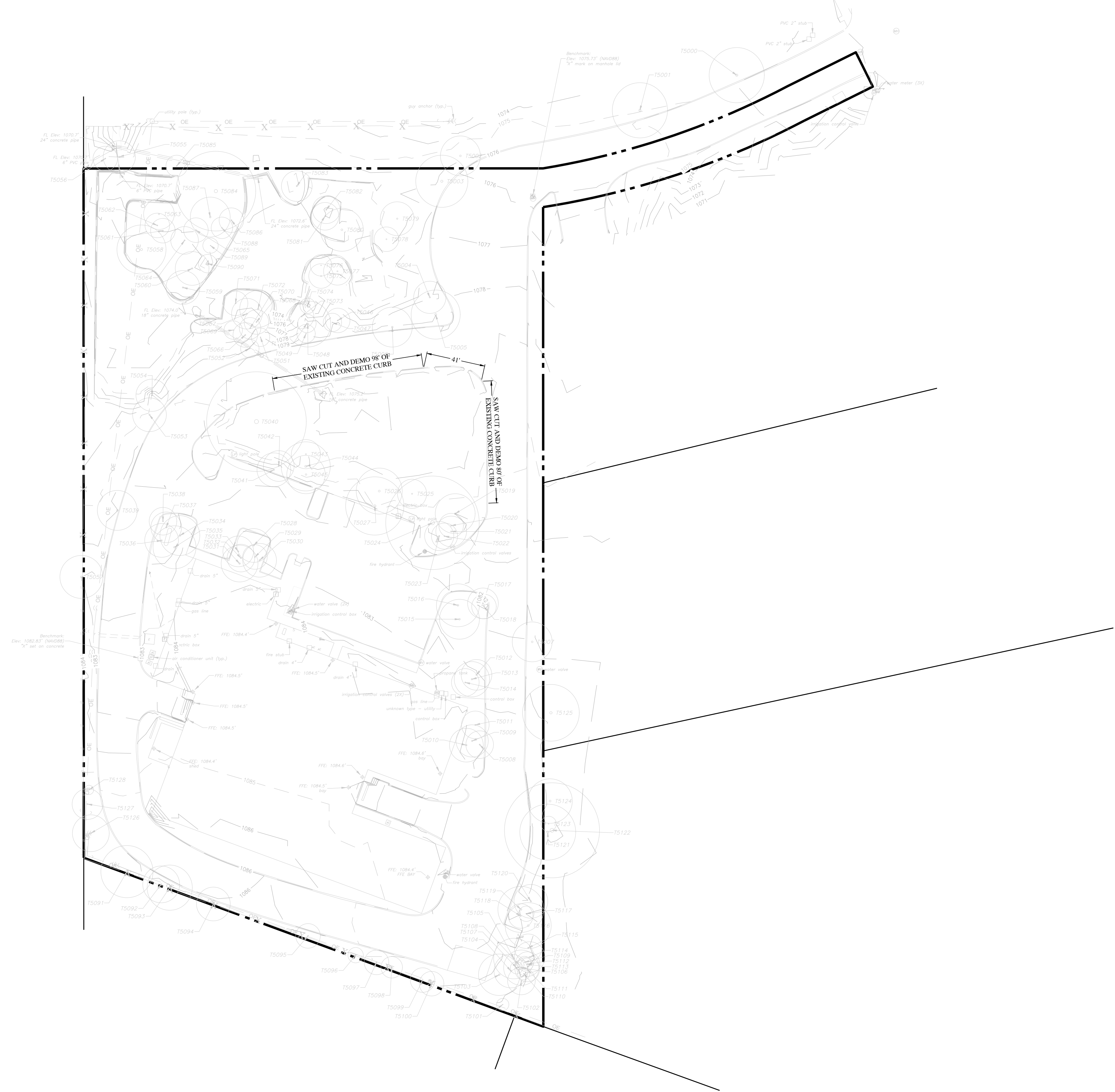
George A. Denny  
GEORGE A. DENNY, MAYOR  
CITY OF CEDAR PARK, TEXAS

HUR INDUSTRIAL PARK II, SECTION ONE, SHEET 2 OF 3

**Baker-Aicklen & Associates, Inc.**  
Engineers/Surveyors  
1201 WHITESTONE CIRCLE  
CEDAR PARK, TEXAS 78613  
(512) 280-3700



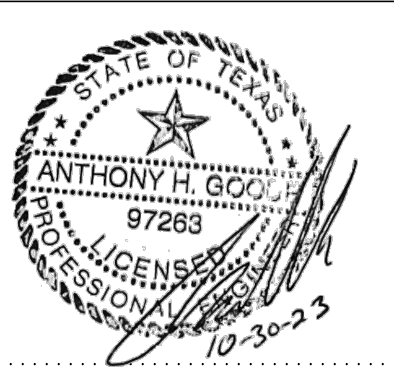
CIVIL ENGINEERING AND PLANNING  
 (972) 822-1682  
 TBPE FIRM REGISTRATION NO. F-22664

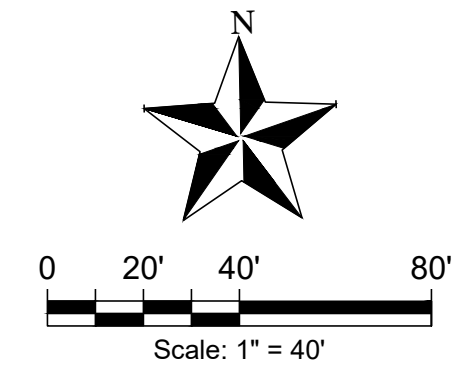


MIRA SAFETY  
 ADDITIONAL PARKING SITE DEVELOPMENT  
 EXISTING SITE AND DEMO PLAN

DATE  
 10/30/2023  
 PROJECT NO.  
 XX-XXX.XX  
 DESIGNED BY  
 DWL  
 CHECKED BY  
 AHG

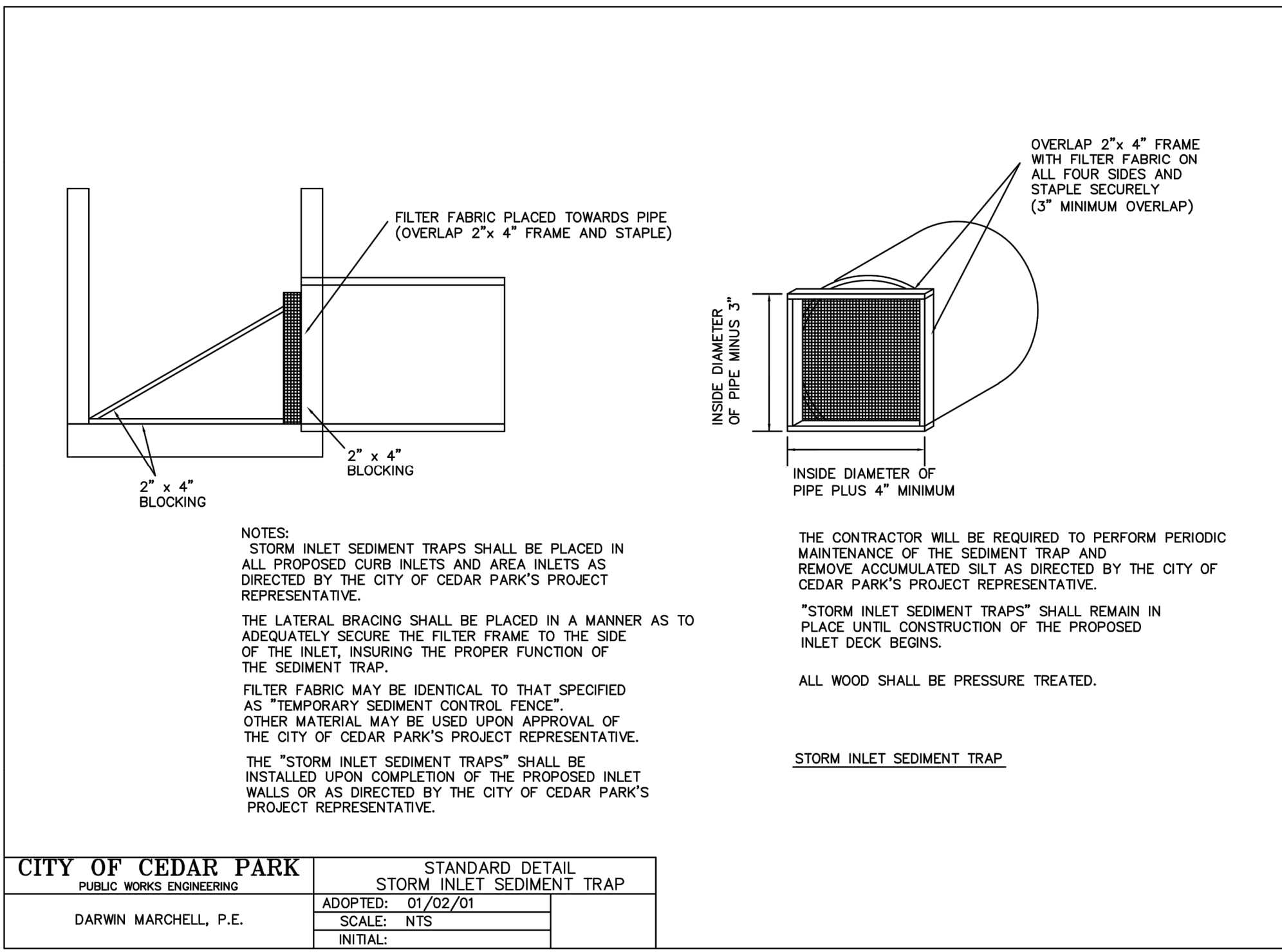
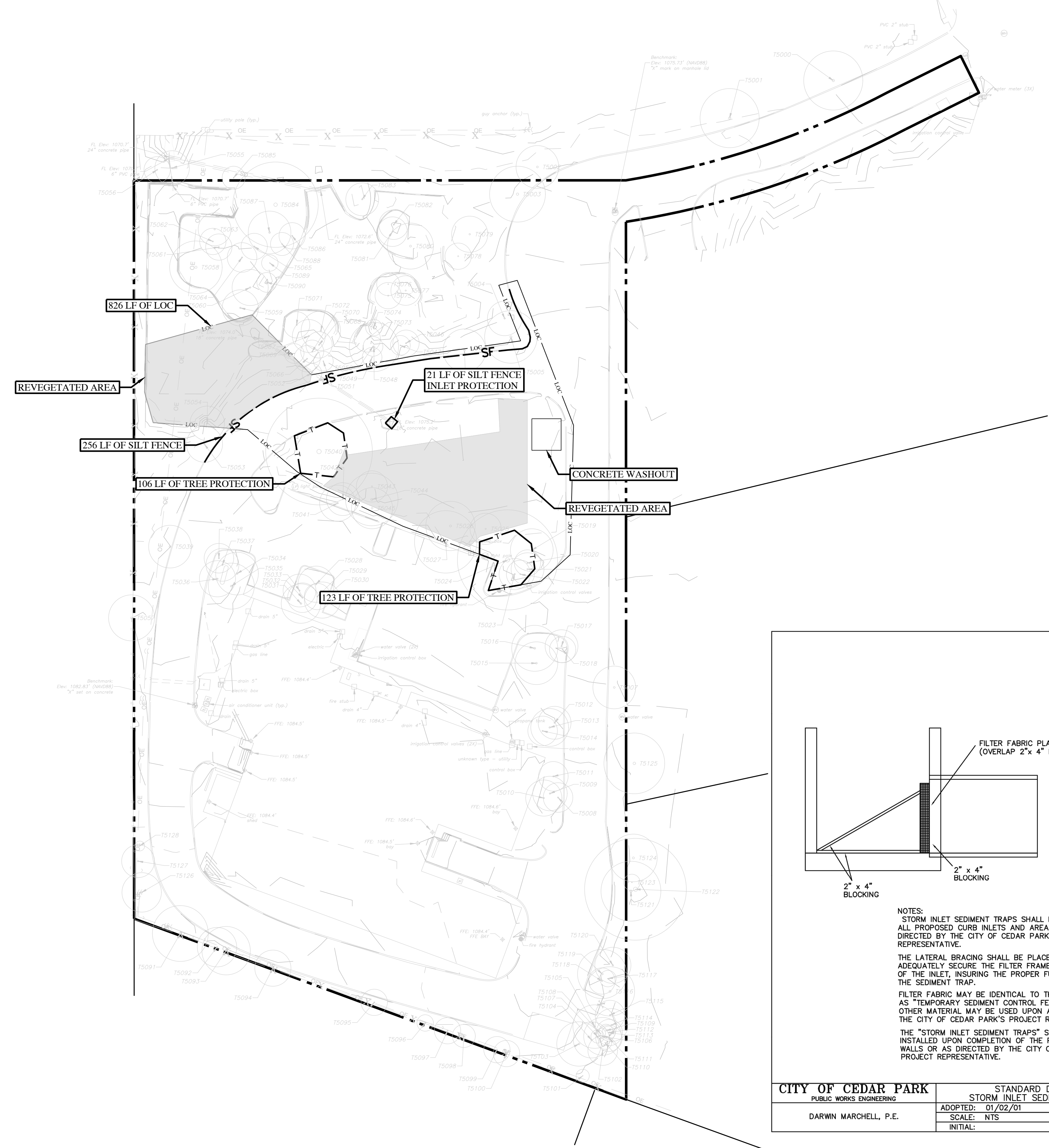
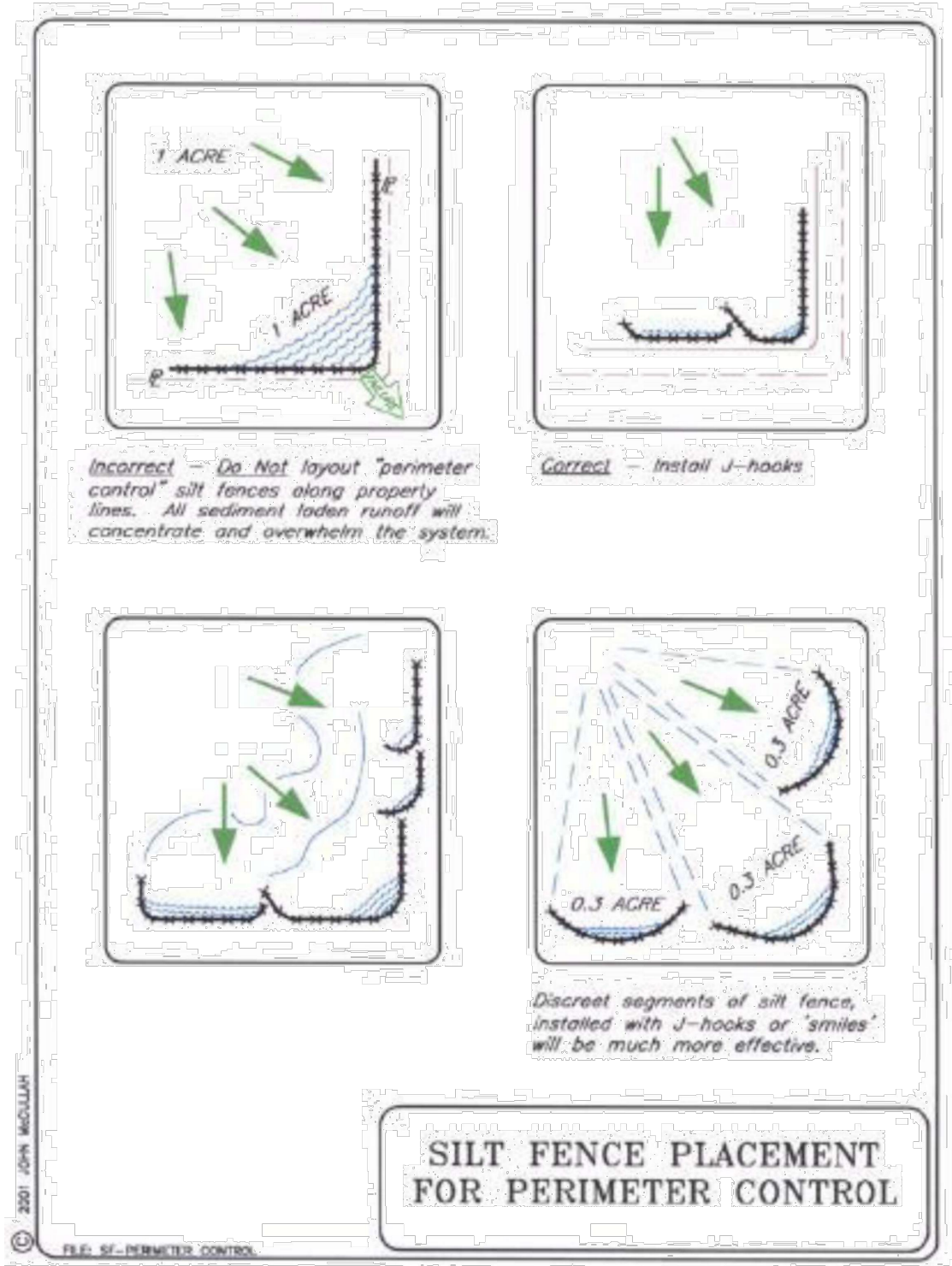
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LEGEND	
	PROPERTY LINE
	SILT FENCE
	TREE PROTECTION
	LIMITS OF CONSTRUCTION

NOTES:  
1) ALL DISTURBED AREAS SHALL BE RE-VEGETATED TO MEET THE REQUIREMENTS OF THE CITY OF CEDAR PARK'S ORDINANCES.  
2) ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY INSPECTOR AT TIME OF CONSTRUCTION.



CITY OF CEDAR PARK PUBLIC WORKS ENGINEERING DARWIN MARCHELL, P.E.	STANDARD DETAIL STORM INLET SEDIMENT TRAP
	ADOPTED: 01/02/01
	SCALE: NTS INITIAL:

MIRA SAFETY  
ADDITIONAL PARKING SITE DEVELOPMENT  
EROSION AND SEDIMENTATION PLAN

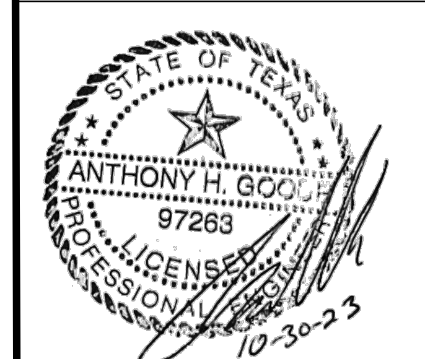
DATE  
10/30/2023

PROJECT NO.  
XX-XXX-XX

DESIGNED BY  
DWL

CHECKED BY  
AHG

NO.	DATE	APPROVAL	DESCRIPTION



ANTHONY H. GOODE  
97263  
LICENSED PROFESSIONAL ENGINEER  
10-30-23

EROSION AND SEDIMENT CONTROLS

POTENTIAL POLLUTANTS

POTENTIAL SOURCES OF STORM WATER POLLUTION FROM THE CONSTRUCTION OF THE PROJECT ARE:

- 1. DISTURBED SOILS FROM THE CONSTRUCTION SITE

INCREASED SEDIMENT LOADING IN STORM WATER CAN BE ATTRIBUTED TO: A)DIRECT RAINFALL ONTO DISTURBED SOIL AREAS, STOCKPILES, SAND, GRAVEL, AND ROCK AREA WHERE RAIN DISLODGES SOIL PARTICLES; B) EROSION OF DISTURBED SOIL AREAS; C) THE TRANSFER OF SOILS BY EQUIPMENT OR VEHICLE TIRES ONTO DISTURBED AND NON-DISTURBED AREAS WHERE THEY ARE WASHED INTO DRAINAGE DITCHES OR OTHER SIMILAR WATER CONVEYANCE FEATURE

- 2. OIL, GREASE, HYDRAULIC FLUIDS, AND FUELS FROM THE OPERATION OF EQUIPMENT ON THE SITE.

THERE IS A POTENTIAL FOR STORM WATER CONTAMINATION IN THE FORM OF OIL, GREASE, HYDRAULIC FLUID, AND FUEL FROM EQUIPMENT AND VEHICLES ON THE SITE. THESE SUBSTANCES ARE TYPICALLY RELEASED TO THE ENVIRONMENT BECAUSE OF EQUIPMENT FAILURE AND DURING MAINTENANCE OPERATIONS.

SITE LOCATION MAP

SEE CONSTRUCTION DRAWING PLAN SET PROJECT LOCATION MAP

DETAILED SITE MAP

SEE CONSTRUCTION DRAWING PLAN SET SITE MAP

RECEIVING WATERS

FOR IDENTIFICATION OF RECEIVING WATERS ON OR ADJACENT TO THE SITE REFERENCE DETAILED CONSTRUCTION DRAWING PLAN SET "EXISTING CONDITIONS PLAN".

STATE AND LOCAL PLANS

THE SWPPP IS CONSISTENT WITH REQUIREMENTS SPECIFIED IN APPLICABLE STORM WATER, WATER QUALITY, SEDIMENT, AND EROSION SITE PLANS, PERMITS OR SIMILAR ORDINANCES OF LOCAL, STATE, OR FEDERAL OFFICIALS.

THIS PROJECT IS LOCATED IN THE EDWARDS AQUIFER CONTRIBUTING ZONE.

SEQUENCE OF MAJOR ACTIVITIES

- 1. INSTALLATION OF TEMPORARY EROSION CONTROLS.
2. SITE DEMOLITION AND GRADING.
3. CONSTRUCTION OF FACILITIES.
4. SITE RESTORATION.
5. ASPHALT REPAIR, SEEDING, RE-VEGATATION, AND SOIL SURFACE PROTECTION.
6. REMOVAL OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS.

TEMPORARY AND PERMANENT EROSION CONTROLS

TEMPORARY EROSION AND SEDIMENT CONTROLS WILL CONSIST OF SILT FENCE AND ROCK BERMS ON THE DOWN-GRADIENT PERIMETER OF THE SITE, PRESERVATION OF NATURAL VEGETATION WHERE AVAILABLE AND RECURRING CLEAN UP OF MUD/SOIL TRACKED ONTO ROADWAY.

PERMANENT CONTROLS MAY CONSIST OF ROCK BERMS, SWALES, AND RE-VEGATATION. PERMANENT WARM SEASON VEGETATION WILL SERVE AS FINAL STABILIZATION AND WILL REDUCE SURFACE EROSION ON AREAS NOT COVERED BY ASPHALT, CONCRETE.

FOR SPECIFIC LOCATION AND SELECTION OF TEMPORARY AND PERMANENT CONTROLS REFER TO EROSION AND SEDIMENTATION CONTROL PLAN WITHIN CONSTRUCTION DRAWING PLAN SET.

TEMPORARY STABILIZATION

STABILIZATION MEASURES WILL BE INITIATED IN PORTIONS OF THE PROJECT SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED FOR 14 DAYS, BUT IN NO CIRCUMSTANCES MORE THAN 21 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE PROJECT SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

FINAL STABILIZATION

FINAL STABILIZATION OF SITE WILL CONSIST OF ESTABLISHMENT OF PERMANENT WARM SEASON VEGETATION ON PORTIONS OF THE SITE NOT COVERED BY CONCRETE, OR ASPHALT. ESTABLISHMENT OF PERMANENT VEGETATION SUITABLE FOR TPDES GENERAL PERMIT COMPLIANCE MUST MEASURE 70% AERIAL COVERAGE (COMPARED TO BACKGROUND NATIVE VEGETATION AERIAL COVERAGE PERCENTAGE) WITH NO LARGE BARE AREAS. CONTRACTORS MUST MEET VEGETATIVE REQUIREMENT IDENTIFIED BY THE ENGINEER WITHIN THE CONTRACT SPECIFICATION, OR THE HIGHEST REQUIREMENT.

SPOIL/FILL MANAGEMENT

ALL SOIL STOCKPILE, EXCAVATION SPOIL MATERIAL, AND ON-SITE SPOIL DISPOSAL AREAS SHALL BE MANAGED BY THE CONTRACTOR IN A MANNER THAT WILL MINIMIZE OR ATTEMPT TO ELIMINATE THE AMOUNT OF SEDIMENT THAT MAY ENTER RECEIVING WATERS AND SHALL NOT BE LOCATED IN ANY WETLAND, FLOODPLAIN, STREAMBED, DITCH, OR OTHER SIMILAR WATER FEATURE OR CONVEYANCE.

OFF-SITE VEHICLE TRACKING

OFF-SITE VEHICLE TRACKING OF SOIL BY VEHICLES AND EQUIPMENT SHALL BE MINIMIZED AND CONTROLLED BY THE CONTRACTOR. SOIL SHALL BE REMOVED FROM SITE ROADWAYS, ENTRANCE, AND ACCESS ROADS AS NECESSARY TO PREVENT SEDIMENT FROM ENTERING RECEIVING WATERS.

DUST CONTROL

DUST WILL BE CONTROLLED BY PERIODIC WETTING WITH WATER TRUCKS DURING DRY PERIODS.

DEWATERING AND NON-STORMWATER DISCHARGES

ANY NON-STORMWATER DISCHARGES FROM THE CONSTRUCTION SITE WILL BE CONTROLLED AND MANAGED BY THE CONTRACTOR IN COMPLIANCE WITH ALL TCEQ AND LOCAL WATER QUALITY DISCHARGE REQUIREMENTS, INCLUDING BUT NOT LIMITED TO 30 TAC 307, SURFACE WATER QUALITY STANDARDS FOR THE STATE OF TEXAS.

THE FOLLOWING NON-STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES ARE ACCEPTABLE:

- 1. DISCHARGES FROM FIRE FIGHTING ACTIVITIES
2. FIRE HYDRANT FLUSHINGS.
3. VEHICLE, EXTERNAL BUILDING, AND PAVEMENT WASH WATER WHERE DETERGENTS AND SOAPS ARE NOT USED AND WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS SPILLED MATERIALS HAVE BEEN REMOVED; AND IF LOCAL STATE, OR FEDERAL REGULATIONS ARE APPLICABLE, THE MATERIALS ARE REMOVED ACCORDING TO THOSE REGULATIONS), AND WHERE THE PURPOSE IS TO REMOVE MUD, DIRT, AND DUST.
4. WATER USED TO CONTROL DUST.
5. POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS.
6. AIR CONDITIONING CONDENSATE.
7. UNCONTAMINATED GROUND WATER OR SPRING WATER, INCLUDING FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH INDUSTRIAL MATERIALS SUCH AS SOLVENTS OR OTHER POLLUTANTS.

NON-STORM WATER DISCHARGES WILL, AT A MINIMUM, FLOW THROUGH A SILT FENCE, OR OTHER SUITABLE STRUCTURAL CONTROLS, AND NATURAL VEGETATION (IF AVAILABLE) PRIOR TO LEAVING THE SITE, AS NECESSARY TO MEET COMPLIANCE REQUIREMENTS WITH ALL STATE AND LOCAL WATER QUALITY DISCHARGE REQUIREMENTS, INCLUDING BUT NOT LIMITED TO 30 TAC 307 OR 26 TWC 121, SURFACE WATER QUALITY STANDARDS AND WATER QUALITY CONTROL FRO THE STATE OF TEXAS RESPECTIVELY.

INSPECTION AND MAINTENANCE PROCEDURES

THE FOLLOWING PROCEDURES WILL BE USED TO INSPECT AND MAINTAIN EROSION AND SEDIMENT CONTROLS ON THE CONSTRUCTION SITE.

INSPECTION

ALL CONTROLS WILL BE INSPECTED BY THE CONTRACTOR AT LEASAT ONCE PER WEEK ON A SPECIFIC DAY OF THE WEEK SELECTED BY THE CONTRACTOR AT BEGINNING OF PROJECT. (I.E. EACH MONDAY).

AN INSPECTION AND MAINTENANCE REPORT (SEE COPY OF 1 IN SWPPP) WILL BE PERFORMED AND DOCUMENTED DURING EACH WEEKLY INSPECTION. EACH INSPECTION REPORT WILL NOTE ANY EROSION AND SEDIMENTATION CONTROL ITEMS IN NEED OF REPAIR SUCH ASS: DETACHED SILT FENCE/ROCK BERMS, AND SEDIMENT BUILD UP DEPTH CAPTURED BY CONTROLS, ETCETERA.

WHERE A REPORT DOES NOT IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE NOR ANY ITEMS REQUIRING MAINTENANCE, THE REPORT MUST CONTAIN A CERTIFICATION BY THE CONTRACTORS' CERTIFYING EXECUTIVE OFFICER THAT THIS FACILITY OR SITE IS IN COMPLIANCE WITH THE SWPPP AND THE TPDES GENERAL PERMIT (SEE RECORDS SECTION ABOVE). IF THE INSPECTION REPORTS IDENTIFY ITEMS OF NON-COMPLIANCE OR ITEMS THAT REQUIRE MAINTENANCE THEN NO NONE IS REQUIRED TO SIGN OR CERTIFY THE INSPECTION REPORTS.

DIVERSION DIKES, BERMS, OR SWALES WILL BE INSPECTED AND ANY BREACHES OR AREAS WHERE SEDIMENT HAS ESCAPED THE SITE WILL BE NOTED AS WELL.

REPORTS WILL BE ADDRESS CONTROLS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION AND LOCATIONS WHERE ADDITIONAL MEASURES ARE REQUIRED.

WHEN A CONTROL FAILS TO OPERATE AS DESIGNED, PROVES INADEQUATE FOR A PARTICULAR LOCATION, WHERE ADDITIONAL MEASURES ARE REQUIRED, OR A CONTROL BECOMES DAMAGED TO ESSENTIALLY CAUSE MAJOR REPAIR OR REINSTALLATION, THE CONTRACTOR WILL NOTIFY THE ENGINEER AND THE OWNER IMMEDIATELY.

SEDIMENT BASINS WILL BE INSPECTED FOR DEPTH OF SEDIMENT.

QUALIFICATIONS OF THE INSPECTOR

THE CONTRACTOR WILL SELECT, AND TRAIN AS NECESSARY, DESIGNATED PERSONNEL RESPONSIBLE FOR THE INSPECTION, REPAIR, SEDIMENT REMOVAL, AND ANY OTHER RELATED MAINTENANCE REQUIRED FOR KEEPING EROSION AND SEDIMENT CONTROLS IN GOOD WORKING ORDER. THE INSPECTION PERSONNEL MUST BE FAMILIAR WITH SWPPP. THE CONTRACTOR SHALL COMPLY WITH THE INSPECTION REQUIREMENTS SPECIFIED IN THE TPDES PERMIT IN SECTION VI

EROSION CONTROL NOTES

- 1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. THE CITY OF CEDAR PARK ESC PLAN SHALL BE CONSULTED AND USED AS THE BASIS FOR A TPDES REQUIRED SWPPP. IF A SWPPP IS REQUIRED, IT SHALL BE AVAILABLE FOR REVIEW BY THE CITY OF CEDAR PARK ENVIRONMENTAL INSPECTOR AT ALL TIMES DURING CONSTRUCTION, INCLUDING AT THE PRE-CONSTRUCTION MEETING. THE CHECKLIST BELOW CONTAINS THE BASIC ELEMENTS THAT SHALL BE REVIEWED FOR PERMIT APPROVAL BY CITY OF CEDAR PARK ENVIRONMENTAL PLAN REVIEWERS AS WELL AS CITY OF CEDAR PARK ENVIRONMENTAL INSPECTORS.
3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
4. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND CITY INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK.
5. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST OR CITY INSPECTOR AS APPROPRIATE. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE CITY OR ENGINEER INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
6. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
7. PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A CITY OF LEANDER INSPECTOR FOR FURTHER INVESTIGATION.
9. TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.
A. ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL (SEE STANDARD SPECIFICATION ITEM NO. 6015.3(A)) DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES. THE TOPSOIL SHALL BE COMPOSED OF 4 PARTS OF SOIL MIXED WITH 1 PART COMPOST, BY VOLUME. THE COMPOST SHALL MEET THE DEFINITION OF COMPOST AS DEFINED BY TxDOT SPECIFICATION ITEM 161. THE SOIL SHALL BE LOCALLY AVAILABLE NATIVE SOIL THAT MEETS THE FOLLOWING SPECIFICATIONS:
- SHALL BE FREE OF TRASH, WEEDS, DELETERIOUS MATERIALS, ROCKS, AND DEBRIS.
- 100% SHALL PASS THROUGH A 1.5-INCH (38-MM) SCREEN.
- SOIL TO BE A LOAMY MATERIAL THAT MEETS THE REQUIREMENTS OF THE TABLE BELOW IN ACCORDANCE WITH THE USDA TEXTURAL TRIANGLE. SOIL KNOWN LOCALLY AS "RED DEATH" IS NOT AN ALLOWABLE SOIL. TEXTURAL COMPOSITION SHALL MEET THE FOLLOWING CRITERIA:

Table with 3 columns: TEXTURAL CLASS, MINIMUM, MAXIMUM. Rows: CLAY (5%, 50%), SILT (10%, 50%), SAND (15%, 67%).

- AN OWNER/ENGINEER MAY PROPOSE USE OF ONSITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE SOIL TEXTURE CLASS REQUIRED ABOVE BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A QUALIFIED PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY INDICATING THE ONSITE TOPSOIL WILL PROVIDE AN EQUIVALENT GROWTH MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.
- SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ONSITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATERIAL.
TOPSOIL SALVAGED FROM THE EXISTING SITE MAY OFTEN BE USED, BUT IT SHOULD MEET THE SAME STANDARDS AS SET FORTH IN THESE STANDARDS.

THE VEGETATIVE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

TEMPORARY VEGETATIVE STABILIZATION:

- 1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH COOL SEASON COVER CROPS (WHEAT AT 0.5 POUNDS PER 1000 SF, OATS AT 0.5 POUNDS PER 1000 SF, CEREAL RYE GRAIN AT 0.5 POUNDS PER 1000 SF) WITH A TOTAL RATE OF 1.5 POUNDS PER 1000 SF. COOL SEASON COVER CROPS ARE NOT PERMANENT EROSION CONTROL.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH BUFFALO AT A RATE OF 1 POUNDS PER 1000 SF.
A. FERTILIZER SHALL BE WATER SOLUBLE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF 1/2 POUND PER 1000 SF.
B. HYDROMULCH SHALL COMPLY WITH TABLE 1, BELOW.
C. TEMPORARY EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1.5 INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.
D. WHEN REQUIRED, NATIVE GRASS SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL.

TABLE 1: HYDROMULCHING FOR TEMPORARY VEGETATIVE STABILIZATION

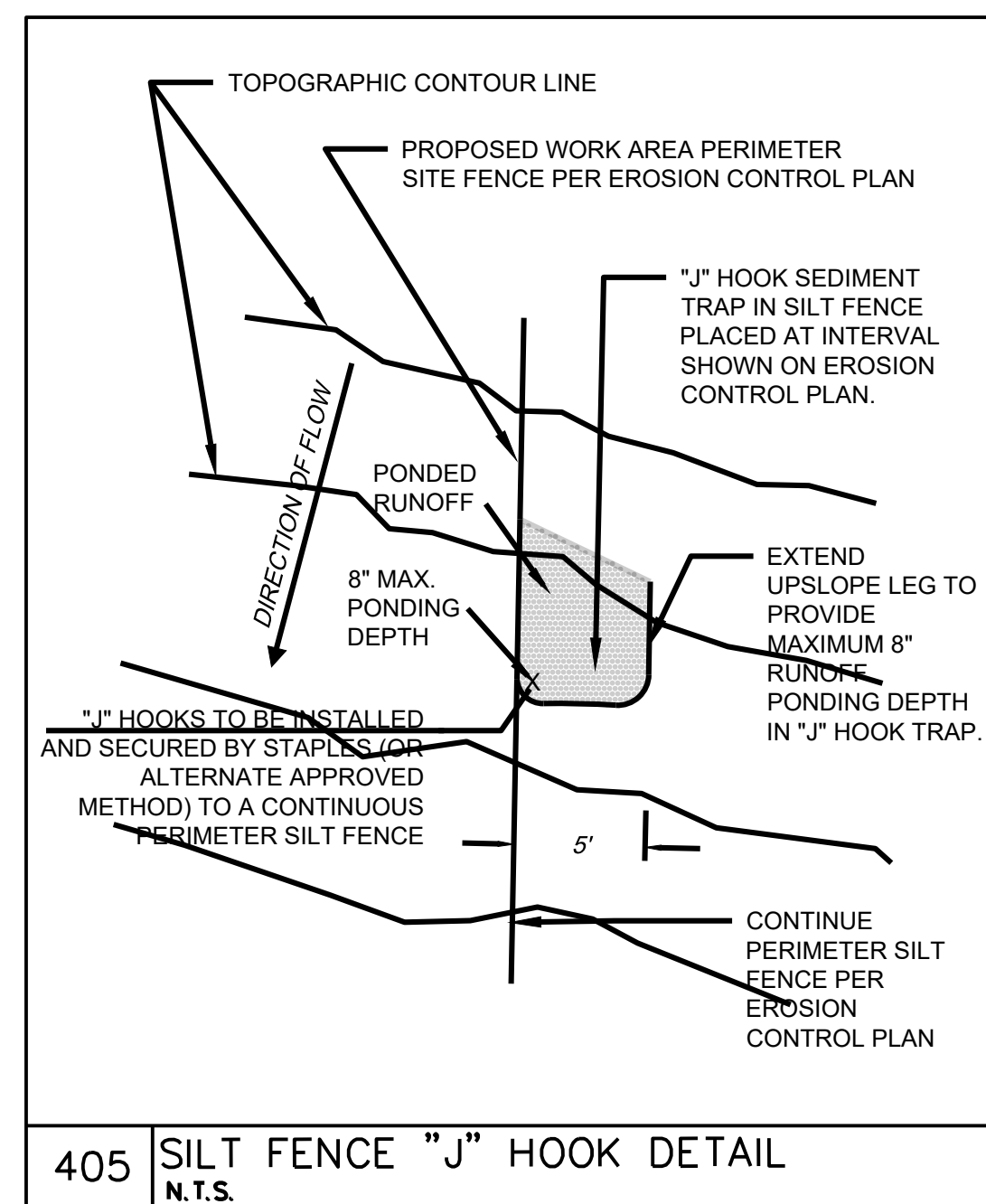
Table with 5 columns: MATERIAL, DESCRIPTION, LONGEVITY, TYPICAL APPLICATIONS, LONGEVITY. Row: 100% OR ANY BLEND OF WOOD, CELLULOSE, STRAW, AND/OR COTTON PLANT MATERIAL (EXCEPT NO MULCH SHALL EXCEED 30% PAPER)

PERMANENT VEGETATIVE STABILIZATION:

- 1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING IS CONSIDERED TO BE TEMPORARY STABILIZATION ONLY. IF COOL SEASON COVER CROPS EXIST WHERE PERMANENT VEGETATIVE STABILIZATION IS DESIRED, THE GRASSES SHALL BE MOWED TO A HEIGHT OF LESS THAN ONE-HALF (1/2) INCH AND THE AREA SHALL BE RE-SEEDING IN ACCORDANCE WITH 2. BELOW.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH BUFFALO AT A RATE OF 1 POUND PER 1000 SF WITH A PURITY OF 95% WITH 85% GERMINATION. BUFFALO GRASS IS A WARM SEASON GRASS AND IS CONSIDERED PERMANENT EROSION CONTROL.
A. FERTILIZER SHALL BE A WATER SOLUBLE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF 1/2 POUND PER 1000 SF.
B. HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.
C. THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX INCHES. THE IRRIGATION SHALL OCCUR AT DAILY INTERVALS (MINIMUM) DURING THE FIRST TWO MONTHS. RAINFALL OCCURRENCES OF 1/2 INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.
D. PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1.5 INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.

Table with 5 columns: BONDED FIBER MATRIX (BFM), FIBER REINFORCED MATRIX (FRM), DESCRIPTION, LONGEVITY, TYPICAL APPLICATIONS, APPLICATION RATES.

- 11. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE CITY INSPECTOR AT LEAST 48 HOURS PRIOR WITH THE LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL.

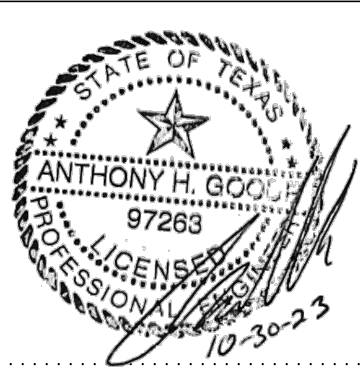


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MIRA SAFETY ADDITIONAL PARKING SITE DEVELOPMENT EROSION AND SEDIMENTATION NOTES

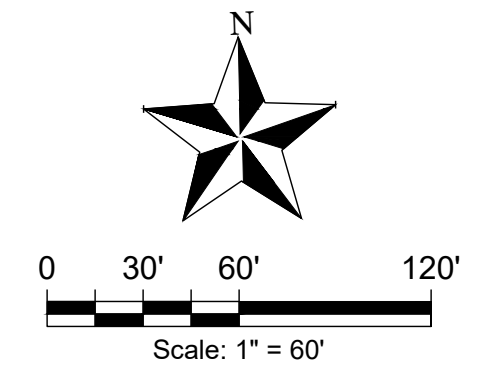
DATE 10/30/2023 PROJECT NO. XX-XXX.XX DESIGNED BY DWL CHECKED BY AHG

REVISIONS table with columns for ENGINEERED, APPROVAL, DATE, DESCRIPTION.





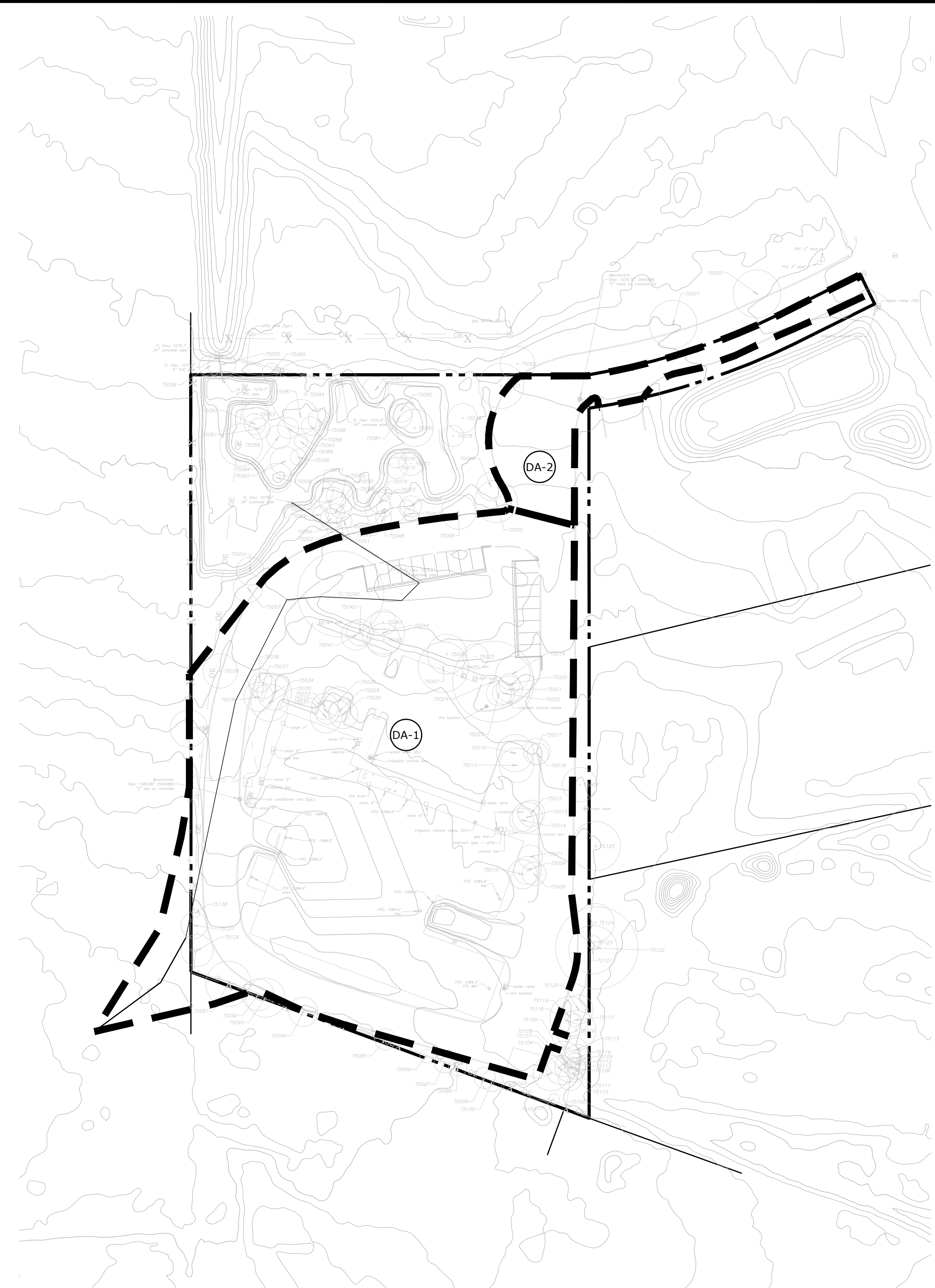
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LEGEND	
---	PROPERTY LINE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	EXISTING DRAINAGE AREA
---	PROPOSED DRAINAGE AREA
○	DRAINAGE AREA LABEL



EXISTING DRAINAGE AREA

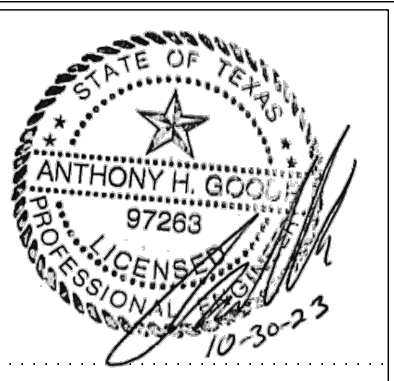


PROPOSED DRAINAGE AREA

MIRA SAFETY  
 ADDITIONAL PARKING SITE DEVELOPMENT  
 DRAINAGE PLAN

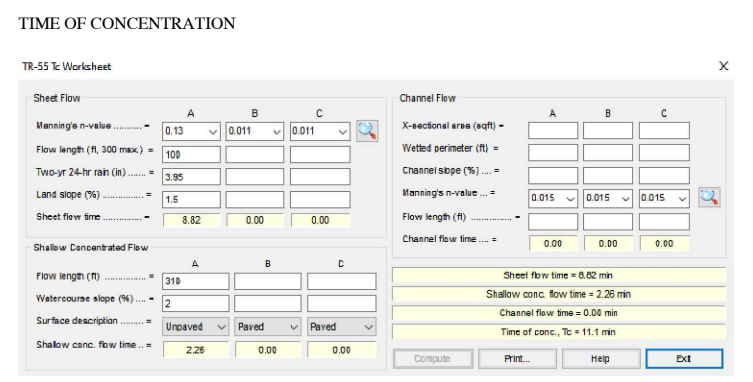
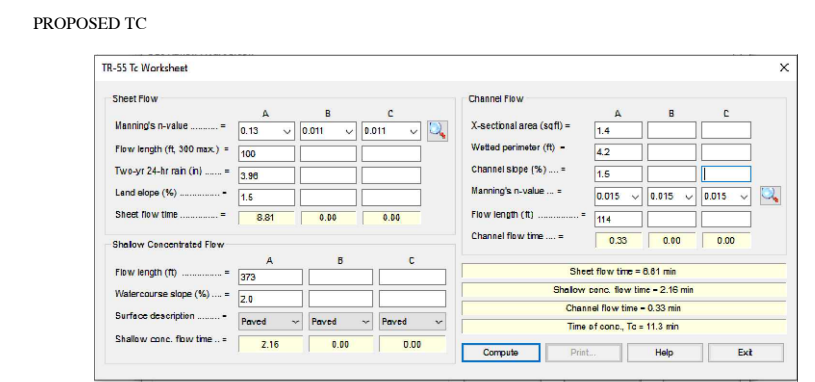
DATE  
10/30/2023  
 PROJECT NO.  
XX-XXX-XX  
 DESIGNED BY  
DWL  
 CHECKED BY  
AHG

NO.	REVISIONS	ENGINEERED	APPROVAL	DATE



DRAINAGE CALCULATIONS (EXISTING)										
DESIGN POINT	DRAINAGE AREA	ACRES	Tc (MIN)	Lag Time	Curve Number	Impervious Cover (%)	Q (2YR) (CFS)	Q (10YR) (CFS)	Q (25YR) (CFS)	Q (100YR) (CFS)
A	EX 1	2.52	11.1	6.7	84.0	0.0%	8.1	14.5	18.9	26.4
	EX 2	0.23	5.0	3.0	84.0	0.0%	0.9	1.6	2.1	3.0
<b>TOTAL</b>	<b>EX 1 &amp; 2</b>	<b>2.75</b>	<b>11.1</b>	<b>6.7</b>	<b>84.0</b>	<b>0.0%</b>	<b>8.7</b>	<b>15.6</b>	<b>20.4</b>	<b>28.6</b>

DRAINAGE CALCULATIONS (PROPOSED)										
DESIGN POINT	DRAINAGE AREA	ACRES	Tc (MIN)	Lag Time	Curve Number	Impervious Cover (%)	Q (2YR) (CFS)	Q (10YR) (CFS)	Q (25YR) (CFS)	Q (100YR) (CFS)
A	DA 1	2.52	11.1	6.7	84	72.7%	10.6	16.5	20.7	27.8
	Pond 1						7.6	13.0	16.7	23.0
	Pond Elevation (WSE)						1074.0	1074.2	1074.4	1074.6
<b>Total A</b>	<b>DA 2</b>	<b>0.23</b>	<b>5.0</b>	<b>3.0</b>	<b>84.00</b>	<b>100.0%</b>	<b>1.3</b>	<b>2.0</b>	<b>2.4</b>	<b>3.2</b>
							<b>8.1</b>	<b>13.8</b>	<b>17.7</b>	<b>24.4</b>





**Detention Pond Elevation-Area-Storage Table**

Elevation (ft)	Area (sf)	Storage (cf)	Cumulative Storage (cf)	Cumulative Storage (ac-ft)
0.15	1072.60	195.0	0.0	0.000000
0.15	1072.75	958.0	86.5	0.001985
0.25	1073.00	1229.0	273.4	0.008261
0.25	1073.25	1650.0	359.9	0.016523
0.25	1073.50	2140.0	473.8	0.027398
0.25	1073.75	4593.0	841.6	0.046719
0.25	1074.00	6749.0	1417.8	0.079267
0.25	1074.25	8381.0	1891.3	0.122684
0.25	1074.50	10305.0	2335.8	0.176305
0.25	1074.75	11199.0	2688.0	0.238013
0.25	1075.00	11717.0	2864.5	0.303773
0.25	1075.25	12795.0	3064.0	0.374113
0.25	1075.50	13148.1	3242.9	0.448559
0.25	1075.75	13268.5	3302.1	0.524364
0.25	1076.00	18898.0	4020.8	0.616670
0.25	1076.25	20678.0	4947.0	0.730237

**Water Quality Pond Elevation-Area-Storage Table**

Elevation delta	Depth (ft)	Contour Area (sf)	Incremental storage (cf)	Cumulative Storage (cf)	Cumulative Storage (ac-ft)
0.00	1070.75	7.0	0.0	0.0	0.0
0.25	1071.00	391.0	49.8	49.8	0.001142
0.25	1071.25	616.0	125.9	175.6	0.004032
0.25	1071.50	738.0	169.3	344.9	0.007917
0.25	1071.75	804.0	192.8	537.6	0.012342
0.25	1072.00	853.0	207.1	744.8	0.017097
0.25	1072.25	904.0	219.6	964.4	0.022139
0.25	1072.50	958.0	232.8	1197.1	0.027482
0.25	1072.75	1013.0	246.4	1443.5	0.033138
0.25	1073.00	1199.0	276.5	1720.0	0.039486
0.25	1073.25	1776.0	371.9	2091.9	0.048023
0.25	1073.50	2426.0	525.3	2617.1	0.060081
0.25	1073.75	3439.0	733.1	3350.3	0.076911
0.25	1074.00	5194.0	1079.1	4429.4	0.101684
0.25	1074.25	5650.0	1355.5	5784.9	0.132802
0.25	1074.50	5773.0	1427.9	7212.8	0.165582
0.25	1074.75	5877.0	1456.3	8669.0	0.199013
0.25	1075.00	5984.0	1482.6	10151.6	0.233049
0.25	1075.25	6083.0	1508.4	11660.0	0.267677
0.25	1075.50	6251.0	1541.8	13201.8	0.303070
0.25	1075.75	6324.0	1571.9	14773.6	0.339156

**LCRA HIGHLAND LAKES WATERSHED ORDINANCE** Updated October 25, 2023

**WATER QUALITY MANAGEMENT DESIGN TOOL - Water Quality BMP Design**

Use on an individual drainage area basis. All references to tables and figures can be found in the Highland Lakes Ordinance Water Quality Technical Manual. Cells shaded in light green are data input cells.

**STEP 1: USE THE IC & RUNOFF WORKSHEET TO INPUT DRAINAGE AREA AND IMPERVIOUS COVER**

Project		Shady Acres			
Drainage Area ID	Area	No. Acres	1	2	3
		2.55	0	0	0
<b>Impervious Cover Type</b>					
Street/Parking	ac	0.00	0.00	0.00	
Residential Lots	ac	0.00	0.00	0.00	
Buildings	ac	0.00	0.00	0.00	
Parking Lots	ac	0.00	0.00	0.00	
<b>Total IC</b>		2.08	0.00	0.00	
<b>Impervious Cover %</b>		81.6	#DIV/0!	#DIV/0!	

**STEP 2: DETERMINE STORMWATER CREDITS TO REDUCE IMPERVIOUS COVER**

Stormwater Credit Type	porous area	ac			
Porous Pavement	IC reduction	ac	0.00	0.00	0.00
Pavers	paver area	ac			
	open space	%			
Rainwater Harvesting	IC reduction	ac	0.00	0.00	0.00
	roof area to barrel	sf	1	1	1
	rain barrel volume	cf			
	barrel vol/roof area	sf	0.00	0.00	0.00
	% IC reduction	%	0	0	0
	# roofs	#	10	10	10
Roof-top Disconnection	IC reduction	ac	0.00	0.00	0.00
	roof area	sf			
	# roofs	#			
	IC reduction	%			
Soil Amendment and Conservation	IC reduction	ac	0.00	0.00	0.00
	amended area	ac			
Conservation Landscaping	IC reduction	ac	0.00	0.00	0.00
	amended area	ac			
<b>Total</b>	<b>Total IC reduction</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Effective Impervious Cover</b>		ac	<b>2.08</b>	<b>0.00</b>	<b>0.00</b>
		%	<b>81.6</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>
Natural Area Preservation Credit	nat area preserved	ac			
<b>Effective Drainage Area</b>		ac	<b>2.55</b>	<b>0.00</b>	<b>0.00</b>

**STEP 3: WATER QUALITY BMP DESIGN**

1-year, 3-hour rainfall = 1.93

Compute Runoff Volume for the 1-year storm = 1.43 #DIV/0! #DIV/0!

Compute Water Quality Volume (WQV) = 13,280 #DIV/0! #DIV/0!

Designer has the option to select a water quality basin with a secondary BMP or a stand-alone BMP

BMPs in Series utilize a water quality basin in combination with a secondary BMP. The following basins require a secondary BMP, which can be up-gradient or down-gradient of the basin.

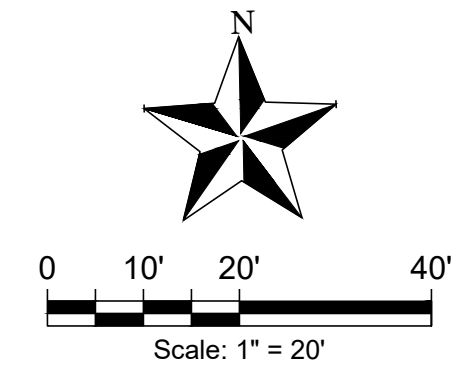
**Primary BMP (needs secondary BMP in series)**

BMP Type	Volume	cf	#DIV/0!	#DIV/0!
Extended/Batch Detention Basin	Volume	13,944	#DIV/0!	#DIV/0!
Sand Filter	Volume	13,944	#DIV/0!	#DIV/0!
Wet Pond/Stormwater Wetlands	Volume	24,567	#DIV/0!	#DIV/0!

Stand alone BMPs do not require a secondary BMP. The following are stand-alone basins and their respective volume

**Primary BMP (stand-alone BMP)**

BMP Type	Volume	cf	#DIV/0!	#DIV/0!
Bioretention Basin	Volume	13,944	#DIV/0!	#DIV/0!
Biofiltration Basin	Volume	13,944	#DIV/0!	#DIV/0!
Retention/Trifrigation Basin	Volume	20,584	#DIV/0!	#DIV/0!
Wet Pond/Stormwater Wetlands	Volume	24,567	#DIV/0!	#DIV/0!
Infiltration bench area	Area	2,258	#DIV/0!	#DIV/0!



**GOODE FAITH**  
EST. 1981  
CIVIL ENGINEERING AND PLANNING  
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TXPE FIRM REGISTRATION NO. F-22684

**MIRA SAFETY  
ADDITIONAL PARKING SITE DEVELOPMENT  
POND PLAN**

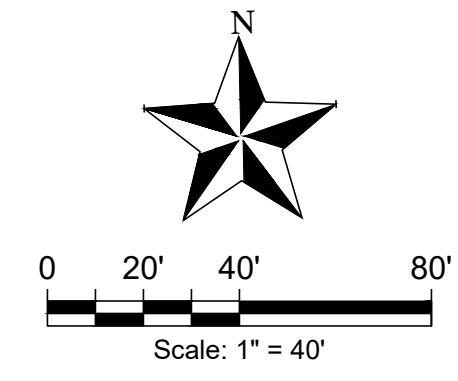
DATE: 10/30/2023  
PROJECT NO.: XX-XXX.XX  
DESIGNED BY: DWL  
CHECKED BY: AHG

**REVISIONS**

NO.	DATE	DESCRIPTION

STATE OF TEXAS  
**ANTHONY H. GOODE**  
97263  
LICENSED PROFESSIONAL ENGINEER  
10-30-23





LEGEND	
---	PROPERTY LINE
000	EXISTING MAJOR CONTOUR
000	EXISTING MINOR CONTOUR
000	PROPOSED MAJOR CONTOUR
000	PROPOSED MINOR CONTOUR
FF = 000.0	FINISHED FLOOR ELEVATION
○ 000.00	SPOT ELEVATION
→	FLOW ARROW

**MIRA SAFETY**  
**ADDITIONAL PARKING SITE DEVELOPMENT**  
**GRADING PLAN**

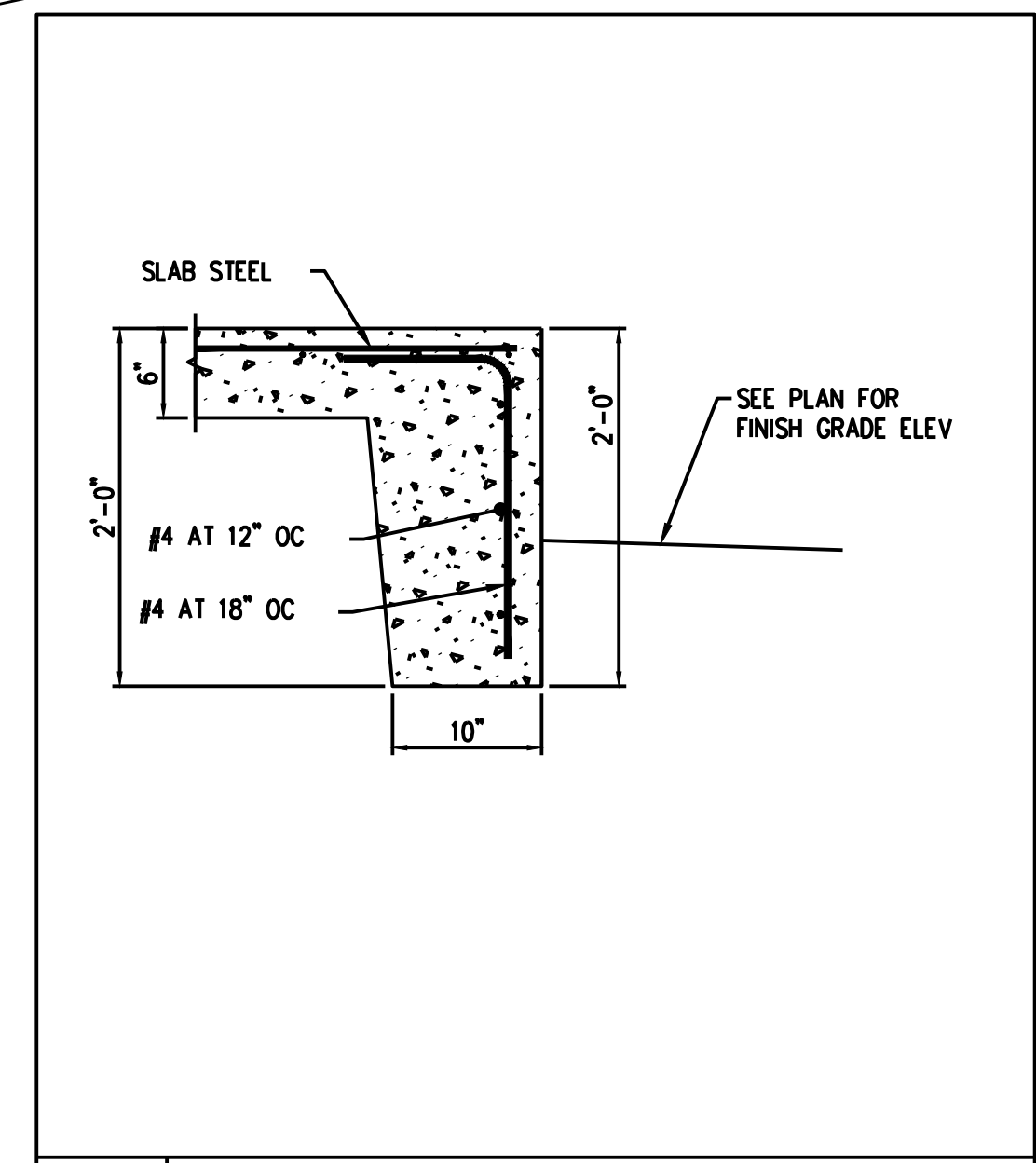
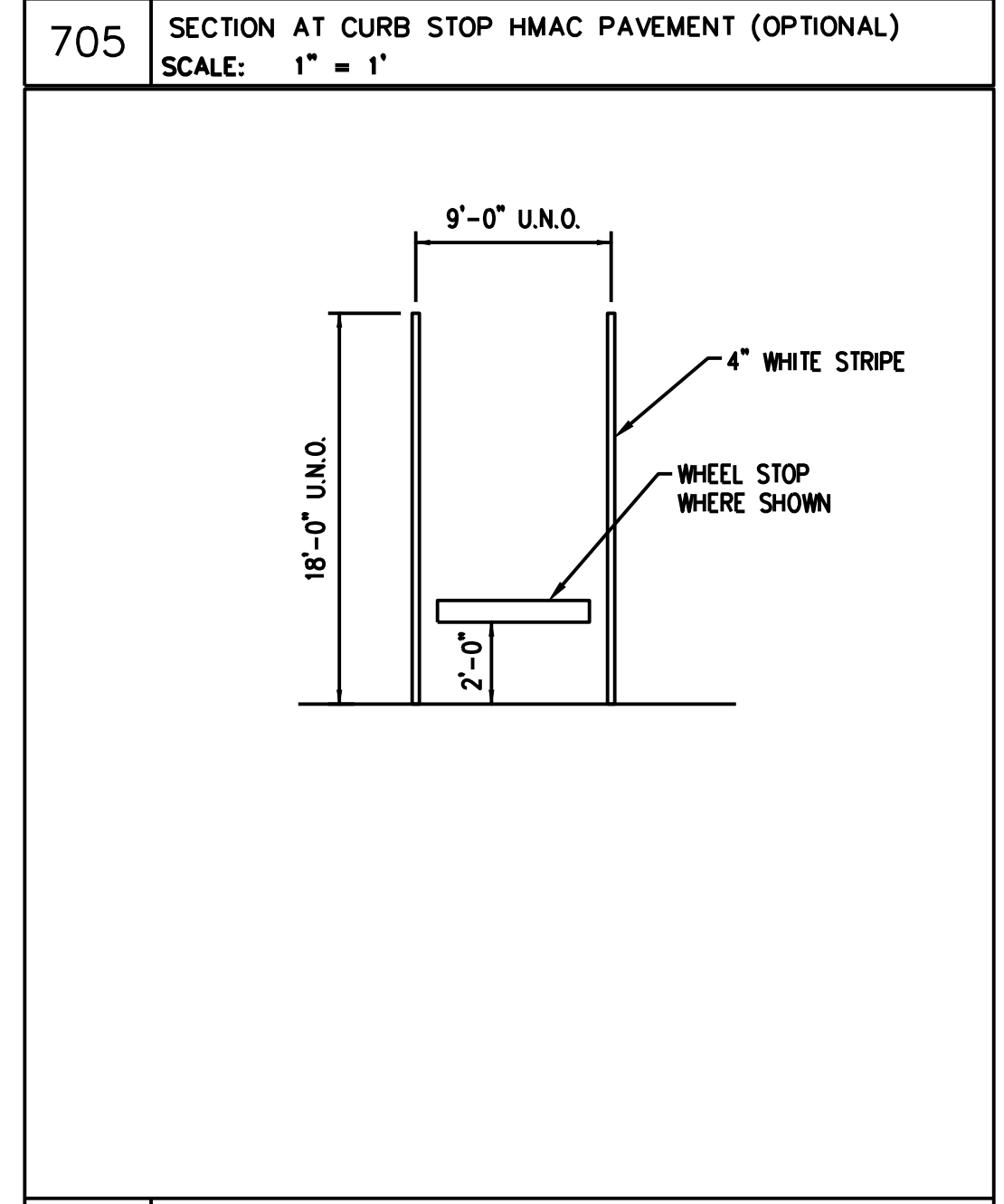
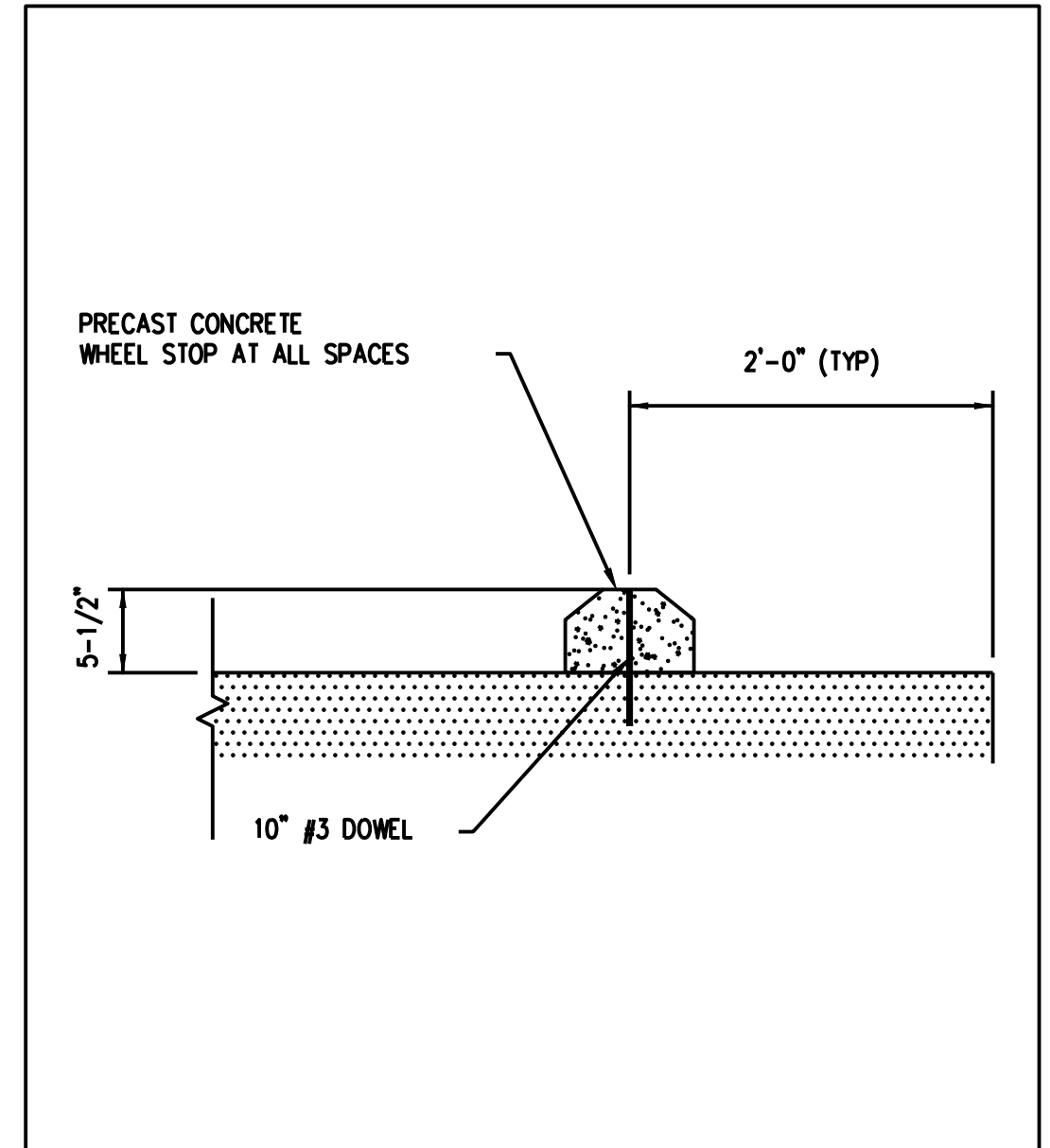
DATE  
10/30/2023

PROJECT NO.  
XX-XXX.XX

DESIGNED BY  
DWL

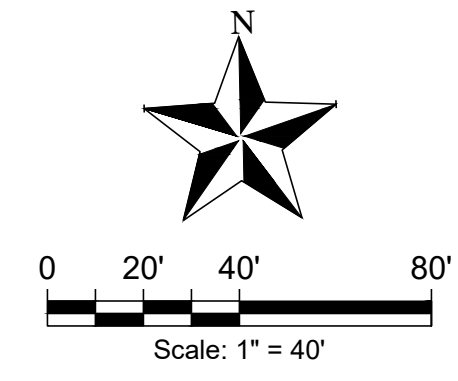
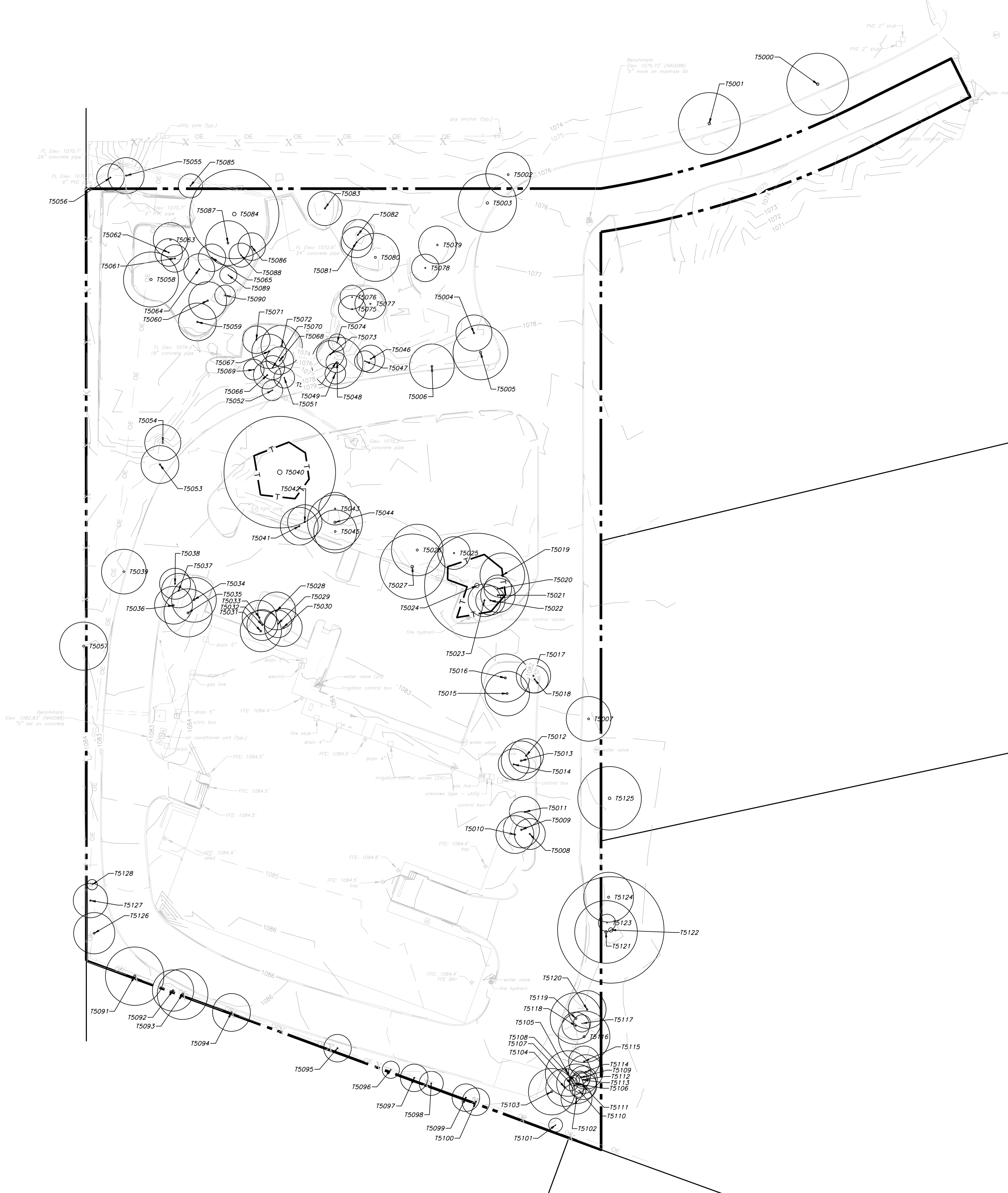
CHECKED BY  
AHG

NO.	REVISIONS	DATE

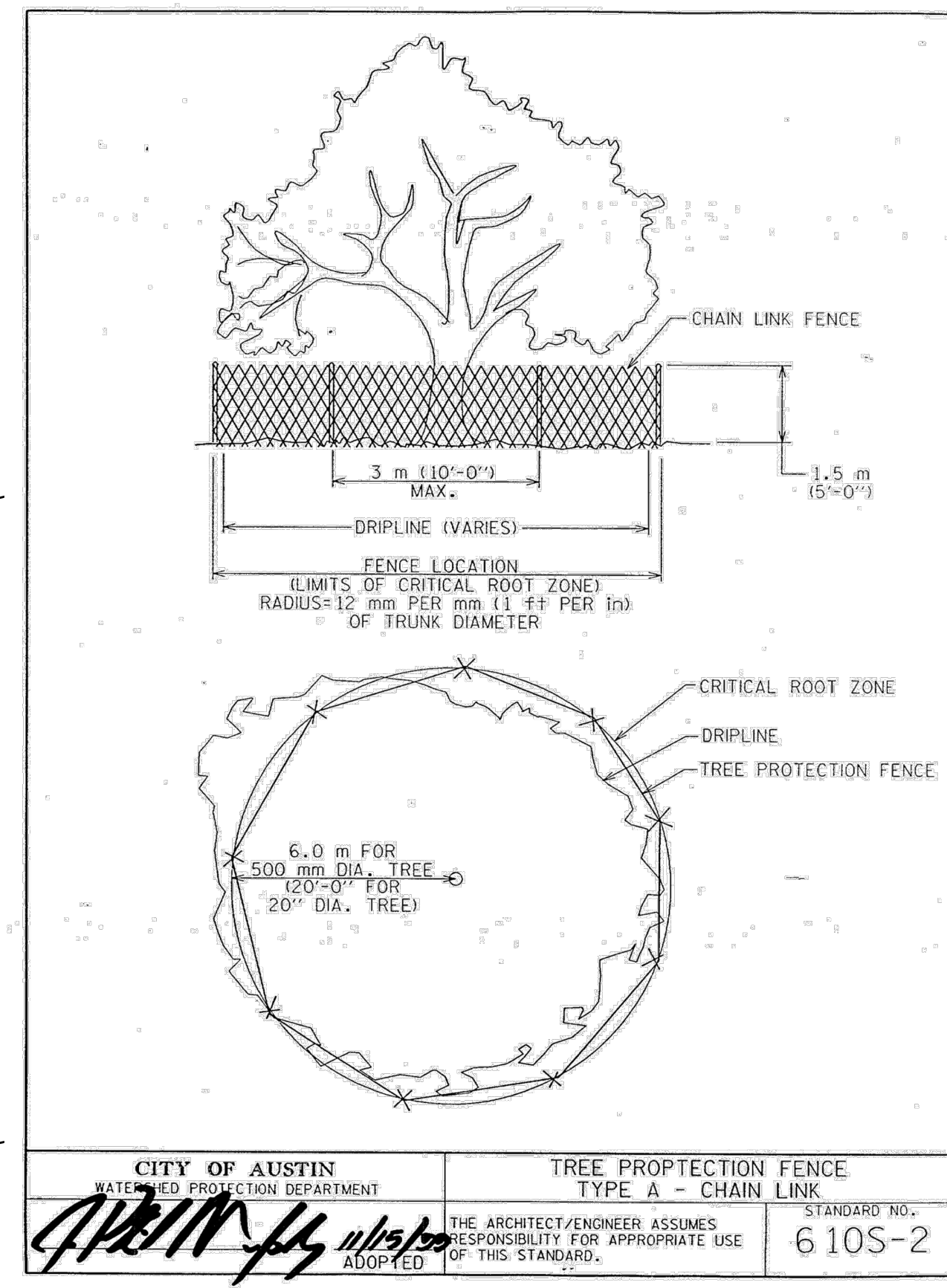


Tree Table			
Tag #	Type	Characteristics	Diameter (inches)
T5000	palm	single	18
T5001	palm	single	18
T5002	palm	single	13
T5003	palm	single	17
T5004	chinaberry	multi-trunk	8, 5
T5005	live oak	single	16
T5006	palm	single	13
T5007	palm	single	13
T5008	live oak	single	9
T5009	live oak	single	10.5
T5010	live oak	single	11
T5011	live oak	single	9
T5012	live oak	single	10
T5013	live oak	single	11.5
T5014	live oak	single	9
T5015	live oak	single	13
T5016	live oak	single	14
T5017	post oak	single	10
T5018	live oak	single	8
T5019	live oak	single	13
T5020	live oak	single	8
T5021	live oak	single	10
T5022	live oak	single	8.5
T5023	live oak	single	9.5
T5024	live oak	multi-trunk	15.5, 13, 9, 8
T5025	live oak	single	9.5
T5026	cedar elm	multi-trunk	12, 6
T5027	live oak	multi-trunk	14, 10
T5028	live oak	single	11
T5029	live oak	single	8
T5030	live oak	single	11
T5031	live oak	single	12
T5032	live oak	single	9
T5033	live oak	single	10
T5034	live oak	single	13
T5035	live oak	single	14
T5036	live oak	single	11
T5037	live oak	single	10
T5038	live oak	single	9
T5039	live oak	single	13
T5040	live oak	multi-trunk	25, 15
T5041	live oak	multi-trunk	11, 10
T5042	live oak	single	10
T5043	live oak	single	9.5
T5044	live oak	single	16
T5045	live oak	single	12.5
T5046	live oak	individual trees	8, 8, 8
T5047	cedar elm	single	6
T5048	chinaberry	multi-trunk	8, 8, 6
T5049	hackberry	single	6
T5050	live oak	single	6
T5051	live oak	single	6
T5052	live oak	individual trees	6, 6
T5053	chinaberry	multi-trunk	7.5, 7
T5054	chinaberry	multi-trunk	7.5, 3, 3
T5055	live oak	single	10.5
T5056	live oak	single	8
T5057	live oak	single	14
T5058	white oak	single	16
T5059	cedar elm	single	11
T5060	cedar elm	single	11
T5061	cedar elm	single	8
T5062	cedar elm	single	8
T5063	cedar elm	single	10
T5064	live oak	single (dead)	10

Tree Table			
Tag #	Type	Characteristics	Diameter (inches)
T5065	cedar elm	multi-trunk	5, 3, 3
T5066	live oak	single	8
T5067	live oak	individual trees	10, 8, 8
T5068	live oak	single	8
T5069	live oak	individual trees	6, 6
T5070	live oak	single	7
T5071	live oak	single	8
T5072	live oak	single	12
T5073	live oak	individual trees	8, 6, 6,
T5074	live oak	single	5
T5075	live oak	individual trees	8, 6, 6,
T5076	live oak	individual trees	7, 6
T5077	live oak	single	9
T5078	live oak	individual trees	8, 8, 3, 3
T5079	live oak	individual trees	11, 11, 9
T5080	cedar elm	multi-trunk	8, 6, 6
T5081	hackberry	single	9
T5082	cedar elm	single	9
T5083	cedar elm	individual trees	10, 5
T5084	white oak	multi-trunk	18, 16
T5085	cedar elm	single	7
T5086	cedar elm	single	8
T5087	white oak	single	13
T5088	white oak	single	7
T5089	live oak	individual trees	5, 3, 3
T5090	live oak	individual trees	6, 5, 4, 3
T5091	ash juniper	multi-trunk	8, 6, 5, 4, 3
T5092	hackberry	single	12
T5093	chinaberry	multi-trunk	11, 7.5
T5094	hackberry	single	11
T5095	ash juniper	single	8
T5096	cedar elm	individual trees	5, 5
T5097	chinaberry	individual trees	8, 7, 7, 6
T5098	chinaberry	individual trees	7, 6, 4, 2
T5099	ash juniper	single	8
T5100	chinaberry	individual trees	8, 5, 3
T5101	post oak	individual trees	4, 4
T5102	live oak	individual trees	9, 3, 3
T5103	live oak	single	13.5
T5104	live oak	individual trees	11, 6
T5105	live oak	multi-trunk	10.5, 5.5
T5106	cedar elm	single	11.5
T5107	cedar elm	single	4
T5108	cedar elm	single	3
T5109	cedar elm	single	4
T5110	cedar elm	individual trees	4, 2
T5111	live oak	single	8
T5112	live oak	individual trees	8, 6
T5113	cedar elm	single	4
T5114	live oak	single	10
T5115	live oak	single	9
T5116	live oak	single	15
T5117	cedar elm	single	5
T5118	live oak	single	8
T5119	live oak	single	15
T5120	live oak	single (dead)	11
T5121	live oak	multi-trunk	13, 10.5
T5122	live oak	multi-trunk	18, 16, 10
T5123	post oak	single	5
T5124	post oak	multi-trunk	8, 7, 6
T5125	white oak	single	18.5
T5126	white oak	multi-trunk	12, 8, 8, 7, 5, 3
T5127	white oak	single	10
T5128	white oak	single	3



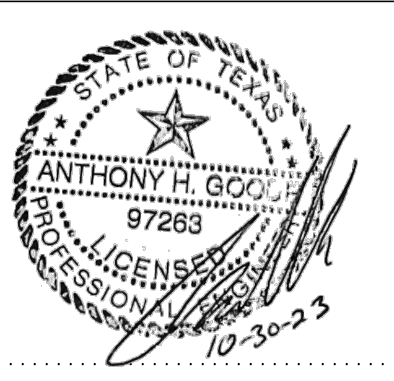
LEGEND	
---	PROPERTY LINE
○	EXISTING MAJOR CONTOUR
○	EXISTING MINOR CONTOUR
○	PROPOSED MAJOR CONTOUR
○	PROPOSED MINOR CONTOUR
→	FLOW ARROW
T-T	TREE PROTECTION

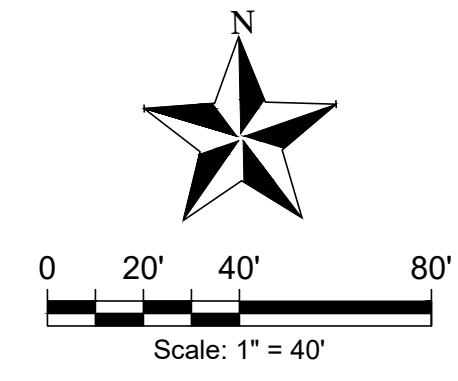


**MIRA SAFETY**  
**ADDITIONAL PARKING SITE DEVELOPMENT**  
**TREE PRESERVATION PLAN**

DATE: 10/30/2023  
 PROJECT NO.: XX-XXX.XX  
 DESIGNED BY: DWL  
 CHECKED BY: AHG

REVISIONS	APPROVAL	DATE





CIVIL ENGINEERING AND PLANNING  
 (972) 822-1682  
 TBPE FIRM REGISTRATION NO. F-22664

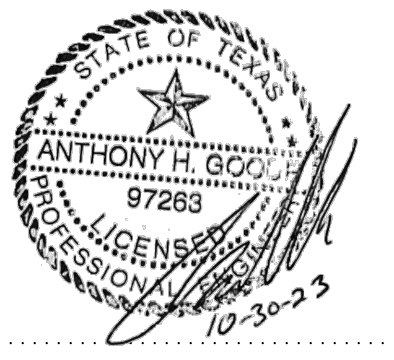
Slopes Table			
Number	Minimum Slope	Maximum Slope	Color
1	0.01%	5.00%	
2	5.00%	20.00%	
3	20.00%	10000.00%	

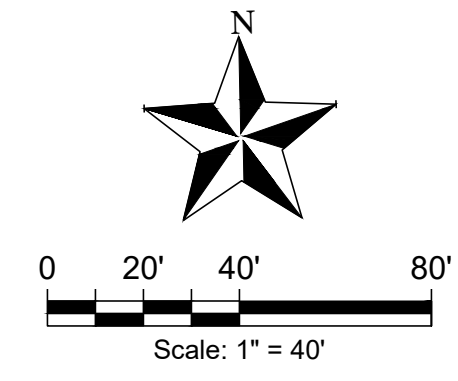


**MIRA SAFETY  
 ADDITIONAL PARKING SITE DEVELOPMENT  
 SLOPE MAP PLAN**

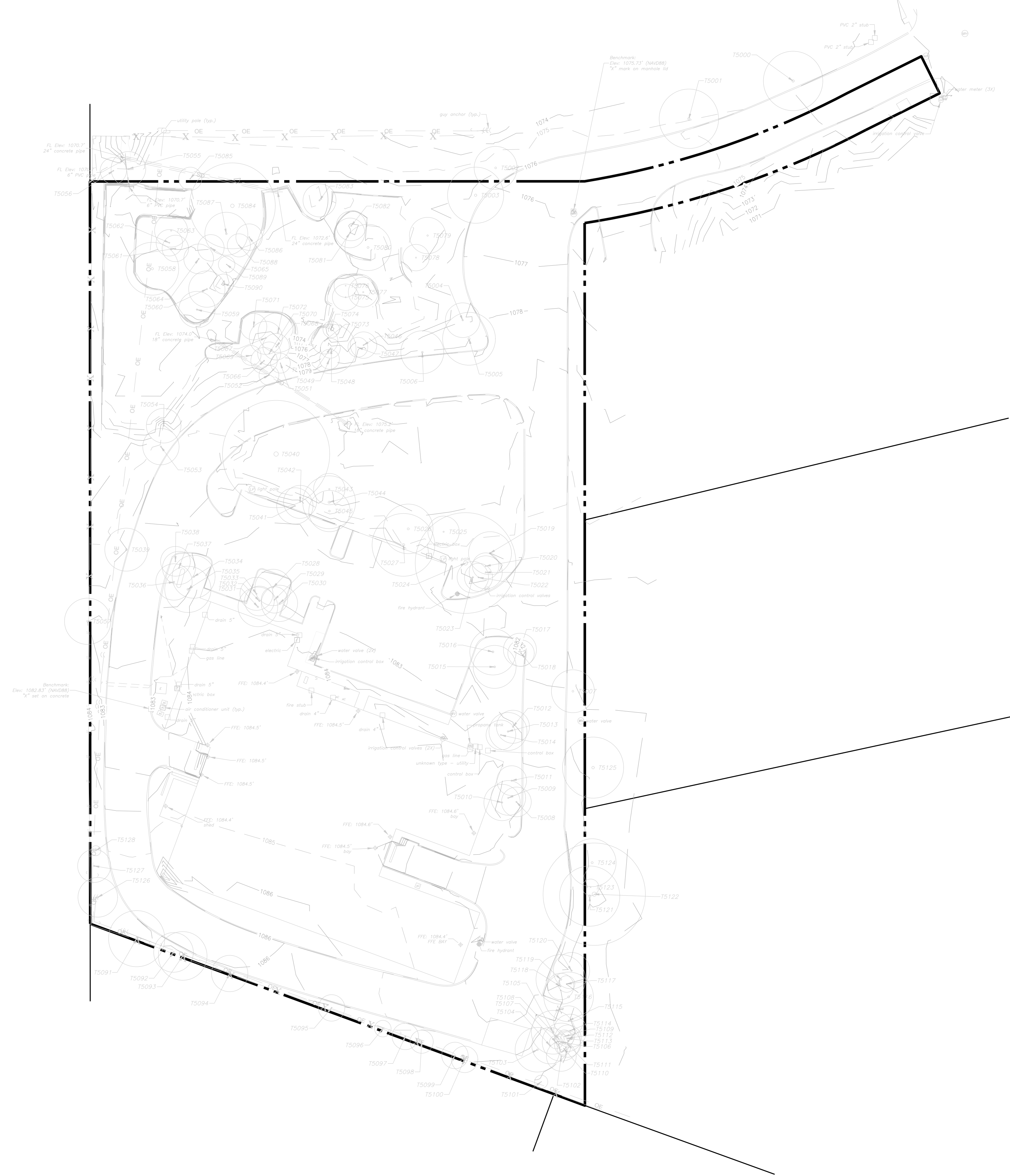
DATE  
 10/30/2023  
 PROJECT NO.  
 XX-XXX.XX  
 DESIGNED BY  
 DWL  
 CHECKED BY  
 AHG

NO.	REVISIONS DESCRIPTION	ENGINEERED	APPROVAL
		BY	DATE
1			
2			
3			
4			
5			
6			





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 TBPE FIRM REGISTRATION NO. F-22664



NOTE:  
 1) NO PROPOSED UTILITY CHANGES IN THIS PROJECT.

**MIRA SAFETY  
 ADDITIONAL PARKING SITE DEVELOPMENT  
 UTILITY PLAN**

DATE  
 10/30/2023  
 PROJECT NO.  
 XX-XXX.XX  
 DESIGNED BY  
 DWL  
 CHECKED BY  
 AHG

NO.	REVISIONS	ENGINEERED BY	APPROVAL DATE
1			
2			
3			
4			
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6			

