

CITY OF CAMERON, TEXAS WATER TREATMENT PLANT CLARIFIER REHABILITATION

REVISIONS	DATE	DESCRIPTION	SHEET
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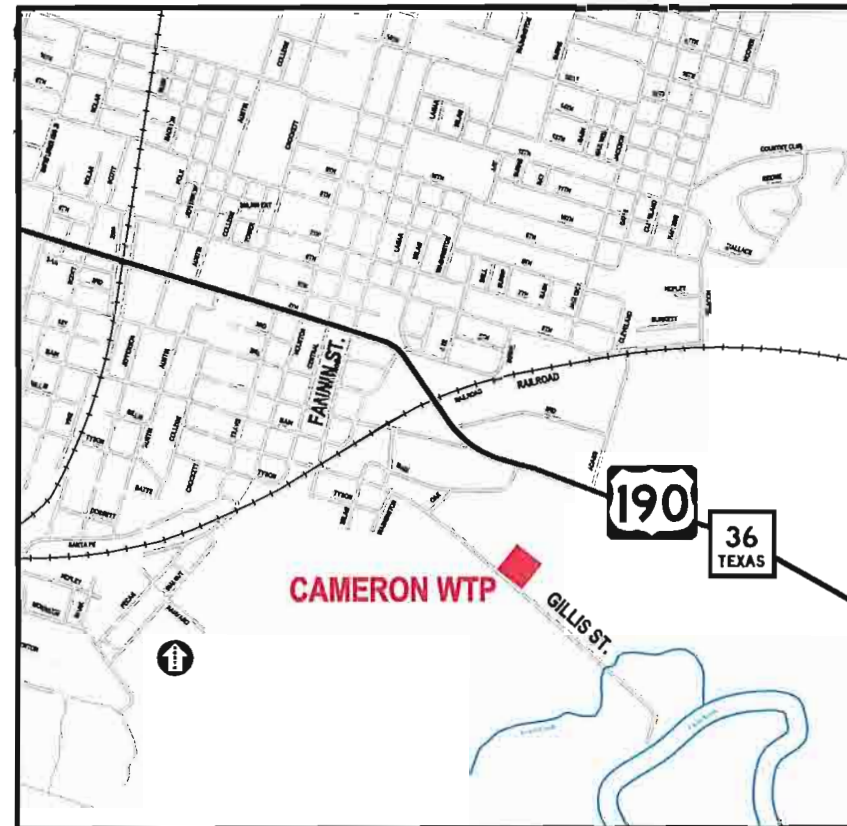
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MAYOR
CONNIE ANDERLE

MAYOR PRO-TEM
BOBBY SCHILLER

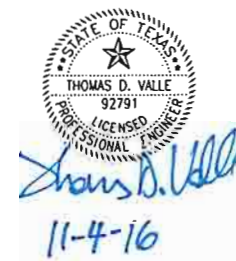
COUNCIL MEMBERS
WARD 1: MAURICE GOZA, JR.
WARD 2: BOBBY SCHILLER
WARD 3: ROBERT DAVIS, JR.
WARD 4: ROSELEE MONDRIK
WARD 5: VIRGIE HARDEMAN
AT LARGE: MELISSA WILLIAMS



VICINITY MAP

CITY MANAGER
J. RHETT PARKER

UTILITIES DIRECTOR
JERALD BRUNSON



KASBERG, PATRICK & ASSOCIATES, LP
CONSULTING ENGINEERS
TEMPLE, TEXAS 76501
KPA Firm Registration Number F-510

A. BIDDER/CONTRACTOR ELIGIBILITY

1. A PRE-BID CONFERENCE WILL BE HELD PRIOR TO THE BID OPENING FOR THIS PROJECT.
2. PRE-BID CONFERENCE WILL BE HELD AT THE CAMERON WATER TREATMENT PLANT SO BIDDERS CAN FAMILIARIZE THEMSELVES WITH THE SITE AND EXISTING CONDITIONS. IT IS RECOMMENDED THAT ALL BIDDERS ATTEND THE PRE-BID OR SCHEDULE A SEPARATE SITE VISIT.

B. GENERAL

1. ALL CONSTRUCTION FOR THIS PROJECT SHALL CONFORM TO THE REQUIREMENTS OF THE OWNERS DESIGN AND STANDARD DETAILS MANUAL UNLESS EXCEPTED BY THESE CONSTRUCTION PLANS.
2. ALL BARRICADES, SIGNS AND TRAFFIC CONTROL FOR THIS PROJECT SHALL CONFORM TO THE LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
3. THE BIDDERS FOR THIS PROJECT SHALL FAMILIARIZE THEMSELVES WITH ALL REQUIREMENTS OF WORKING IN STATE AND CITY RIGHTS-OF-WAY AND EASEMENTS. THE BIDDER SHALL FAMILIARIZE THEMSELVES WITH ALL INSURANCE REQUIREMENTS FOR SAID WORK AND SHALL INCLUDE IN THEIR BIDS, INSURANCE COSTS AND INSURANCE PREMIUMS THAT PROVIDE FOR THE STATE OF TEXAS, THE OWNER AND THE ENGINEER AS ADDITIONAL INSURED UNDER THE CONTRACTOR'S POLICIES.
4. LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS WAS COMPILED FROM RECORD INFORMATION. NO WARRANTY IS IMPLIED AS TO THE ACTUAL LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL CALL THE OWNER IF THERE ARE ANY CONFLICTS BETWEEN PROPOSED AND EXISTING UTILITIES, OR IF THE EXISTING UTILITIES ARE IN ANY WAY DIFFERENT FROM WHAT IS SHOWN ON THE DRAWINGS. THEN IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER OR OTHER AFFECTED UTILITIES BEFORE PROCEEDING WITH ANY CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESOLVING ALL CONFLICTS AT HIS EXPENSE. THE OWNER WILL CONSIDER ANY CONFLICTS AT SAID LOCATIONS ON A CASE BY CASE BASIS IN ORDER TO DETERMINE IF THE CONTRACTOR SHOULD BE REIMBURSED FOR HIS EXPENSE IN SOLVING SAID CONFLICT.
5. CONTRACTOR SHALL MAKE ALL PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF THESE CONSTRUCTION OPERATIONS ARE TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR TO AT LEAST THE PREEXISTING CONDITION AT NO ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR SHALL COORDINATE INTERRUPTIONS OF ALL UTILITIES AND SERVICES WITH APPLICABLE UTILITY COMPANY OR COMPANIES. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY COMPANY OR AGENCY INVOLVED.
7. WHEN UNLOCATED OR INCORRECTLY LOCATED UNDERGROUND PIPING OR A BREAK IN A LINE OR OTHER UTILITIES AND SERVICES ARE ENCOUNTERED DURING SITE WORK OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE APPLICABLE UTILITY COMPANY IMMEDIATELY TO OBTAIN PROCEDURE DIRECTIONS. CONTRACTOR TO COOPERATE WITH THE APPLICABLE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.
8. CONTRACTOR SHALL CONTACT THE OWNER, CITY OF CAMERON AT 1-254-697-6646 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. IN ADVANCE OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE OWNERS WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT RIGHT-OF-WAY OR EASEMENT LINES.
9. CONTRACTOR SHALL REMOVE AND REPLACE 6 INCHES OF TOPSOIL FOR INSTALLATIONS WITHIN NATURAL GROUND.
10. CONTRACTOR SHALL PROTECT ALL EXISTING FENCES. IN THE EVENT THAT A FENCE MUST BE REMOVED, THE CONTRACTOR SHALL REPLACE SAID FENCE OR PORTION THEREOF WITH THE SAME TYPE OF FENCING TO A QUALITY OF EQUAL OR BETTER THAN THE ORIGINAL FENCE. THIS WILL NOT BE A SEPARATE PAY ITEM, UNLESS SPECIFICALLY NOTED ON THE CONSTRUCTION DRAWINGS.
11. CONTRACTOR SHALL MAKE AN EXAMINATION OF THE PROJECT SITE AND COMPLETELY FAMILIARIZE HIMSELF WITH THE NATURE AND EXTENT OF THE WORK TO BE ACCOMPLISHED. NO EXTRA COMPENSATION WILL BE ALLOWED FOR ANY WORK MADE NECESSARY BY UNUSUAL CONDITIONS OR OBSTACLES ENCOUNTERED DURING THE PROGRESS OF THE WORK, WHICH CONDITIONS OR OBSTACLES ARE READILY APPARENT UPON A VISIT TO THE SITE. IF THERE ARE ANY QUESTIONS OF THIS REGARD OR IF THERE ARE ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO THE SUBMISSION OF BIDS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF HIS MATERIALS AND EQUIPMENT FROM THEFT, VANDALISM, ANIMALS, FIRE, ETC., WHILE SAID MATERIALS AND EQUIPMENT ARE ON THE PROJECT WHETHER STORED OR INSTALLED IN PLACE, UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE OWNER.
13. UPON COMPLETION OF THE PROJECT, THE SITE(S) AS DEFINED HEREIN, SHALL BE CLEANED OF ALL DEBRIS AND LEFT IN A NEAT AND PRESENTABLE CONDITION.
14. IN THOSE CASES WHERE FIXED FEATURES REQUIRE, THE DESIGN SLOPES INDICATED HEREIN AND ON THE CROSS SECTIONS MAY BE MODIFIED IN THE FIELD AS DETERMINED BY THE OWNER.
15. CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT ALL ADJOINING PAVEMENT SECTIONS SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION AND ANY DAMAGES INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE.
16. WHERE EXISTING PAVEMENT ADJOINS NEW PAVEMENT, THE EXISTING PAVEMENT SHALL BE SAWED TO A NEAT TRANSVERSE LINE TO PERMIT ADEQUATE JOINING.
17. EXISTING PAVING, BUILDINGS AND OTHER ITEMS SHOWN ON THE PLANS ARE NOT SPECIFICALLY RELATED TO THE WORK OF THE CONTRACTOR AND IS FOR INFORMATION ONLY.
18. THE PROCUREMENT AND TRANSPORTATION OF WATER REQUIRED FOR INCLUSION IN THE PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR.
19. CONTRACTOR SHALL MAINTAIN ACCESS TO PUBLIC AND PRIVATE FACILITIES AT ALL TIMES AND IN ALL WEATHER CONDITIONS DURING CONSTRUCTION.
20. CONTRACTOR SHALL CONTROL DUST CAUSED BY THE WORK AND COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES.
21. CONTRACTOR SHALL REMOVE BUILT UP MATERIAL ON ADJACENT PUBLIC ROADWAYS RESULTING FROM HIS WORK. CLEANING TO BE AT LEAST ONCE A DAY.
22. CONTRACTOR SHALL NOT STOCKPILE MATERIAL WITHIN THE 100 YEAR FLOOD PLAIN.
23. ANY EXISTING PAVEMENT, CURBS, AND/OR SIDEWALK DAMAGED OR REMOVED BY THE CONTRACTOR THAT ARE NOT A PART OF THIS CONTRACT ARE TO BE REPAIRED BY THE CONTRACTOR TO AT LEAST THE PREEXISTING CONDITION AT HIS EXPENSE BEFORE ACCEPTANCE OF THE WORK.
24. MAKE CONNECTION BETWEEN NEW AND EXISTING ASPHALT STREETS BY REMOVING EXISTING STREET FROM THE END OF EXISTING PAVEMENT UNTIL FULL DEPTH BASE AND HMAAC ARE ENCOUNTERED AND HMAAC APPEARS TO BE IN SOUND CONDITION. PROVIDE EXPANSION JOINTS AND DOWELS WHERE CONNECTING EXISTING CURB TO NEW CONSTRUCTION.

C. CONSTRUCTION LAYOUT/PROJECT COORDINATION

1. THE ENGINEER WILL PROVIDE OFF-SET CONSTRUCTION STAKING FOR THE PROJECT ON A ONE TIME BASIS FOR ALL IMPROVEMENTS.
2. CONSTRUCTION OFF-SET STAKES PROVIDED BY THE ENGINEER THAT ARE DESTROYED BY THE CONTRACTOR WILL BE REPLACED BY THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR. SURVEY CREW RATES WILL BE CHARGED AT A RATE OF \$110.00/HOUR. CUT SHEET PREPARATION AND REMARKING THE STAKES WILL BE CHARGED AT A RATE OF \$95.00/HOUR.
3. CONTRACTOR SHALL LOCATE, PROTECT AND MAINTAIN BENCHMARKS, MONUMENTS AND CONTROL POINTS. RE-ESTABLISHMENT OF DISTURBED OR DESTROYED ITEMS SHALL BE ACCOMPLISHED BY A TEXAS REGISTERED PROFESSIONAL LAND SURVEYOR AT NO COST TO THE OWNER.
4. PRE-CONSTRUCTION CONFERENCE
 - A. PRIOR TO BEGINNING WORK ON THE PROJECT AND SOON AFTER THE AWARD OF CONTRACT, A CONFERENCE WILL BE HELD AMONG THE REPRESENTATIVES OF THE OWNER, THE ENGINEER, THE CONTRACTOR AND ANY SUBCONTRACTOR THAT WILL BE INVOLVED IN THE WORK. AT THAT TIME THE CONTRACTOR SHALL SUBMIT CHARTS OR BRIEFS, OUTLINING THE MANNER OF EXECUTION OF THE WORK THAT IS INTENDED IN ORDER TO COMPLETE THE SPECIFIED WORK WITHIN THE ALLOTTED TIME. 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.
 - B. IN ADDITION, AT THIS CONFERENCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING THE ENGINEER WITH ALL OF THE FOLLOWING, AS SPECIFIED HEREIN OR AS DIRECTED BY THE ENGINEER:
 - i. SAMPLES OF ALL MATERIALS TO BE USED ON THE PROJECT WITH IDENTIFICATION AS TO PRODUCT NAME, NAME, LOCATION, PHONE NUMBER (INCLUDING AREA CODE) AND MAILING ADDRESS OF PRODUCT SOURCE AND MANUFACTURER, 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.
 - ii. MANUFACTURER'S LITERATURE OF ALL MATERIALS AND EQUIPMENT TO BE INSTALLED ON THE PROJECT.
5. THE PLANS FOR THIS PROJECT SHOW PROPOSED ELEVATIONS, SLOPES AND DIMENSIONS THAT ARE INTENDED FOR ACTUAL PLACEMENT. HOWEVER, THERE MAY BE SOME INSTANCES WHERE EXISTING CONDITIONS MAKE IT IMPRACTICAL TO ACHIEVE THE IDEAL. IN THOSE INSTANCES, THE OWNER WILL ASSIST THE CONTRACTOR IN MAKING PROPER FIELD CHANGES TO BETTER ACCOUNT FOR FIELD CONDITIONS.

D. TESTING AND SUBMITTALS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING MATERIAL SAMPLES AS WELL AS ANY MANUFACTURER'S LITERATURE OF MATERIALS USED ON THIS PROJECT AS REQUIRED BY THE ENGINEER. ANY COSTS ASSOCIATED WITH ANY SAMPLING AND TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THESE COSTS SHALL BE CONSIDERED AS INCIDENTAL AND THE CONTRACTOR WILL NOT BE ENTITLED TO ANY ADDITIONAL COMPENSATION.
2. CONTRACTOR SHALL COORDINATE ALL MATERIALS TESTING WITH THE OWNERS CONSTRUCTION REPRESENTATIVE, INCLUDING SOIL DENSITY TESTS AND RELATED SOILS ANALYSIS. TESTS TO BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY UNDER CONTRACT WITH THE OWNER, AT THE FREQUENCY, TIME AND LOCATION AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS. A COPY OF THE TEST RESULTS SHALL BE FORWARDED TO THE OWNER, THE OWNERS REPRESENTATIVE, AND THE CONTRACTOR. TESTS WHICH SHOW UNSATISFACTORY RESULTS SHALL BE REPEATED AT THE EXPENSE OF THE CONTRACTOR SUBSEQUENT TO THE CONTRACTOR'S REMEDIAL ACTIVITIES.
3. 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, LIQUID ASPHALT, AGGREGATE, WATER, CEMENT, CURING COMPOUND, GUARD RAIL, HOT MIX, ETC. THE TESTS FOR WHICH THE CONTRACTOR WILL TYPICALLY BE RESPONSIBLE ARE ATTERBERG LIMITS, SIEVE ANALYSIS, PLASTICITY INDICES, MIX DESIGN, CALIFORNIA BEARING RATIOS, TRIAXIAL TESTING, PROCTORS (MOISTURE DENSITY CURVES) AND ALL TESTS REQUIRED BY THE SPECIFICATIONS THAT PROVE THE MATERIAL BROUGHT TO THE PROJECT SITES MEETS OR EXCEEDS THE SPECIFICATIONS AND CONTRACT DOCUMENTS. THE OWNER WILL PAY ALL THE CHARGES OF TESTING LABORATORIES FOR SERVICES IN CONNECTION WITH IN PLACE FIELD DENSITIES, CONCRETE CYLINDERS TESTING, HWAC DENSITY TESTS AND ANY IN PLACE TEST REQUIRED FOR QUALITY ASSURANCE. RETESTING AFTER FAILURE OF INPLACE TESTS SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

E. CONCRETE FOR CONSTRUCTION

1. ALL REINFORCING STEEL FOR CONCRETE SHALL MEET ASTM A 615, GRADE 60.
2. PRE-CAST INLETS, JUNCTION BOXES, MANHOLES AND BOX CULVERTS ARE ALLOWABLE ON THIS PROJECT. HOWEVER, ALL SUPPLIER SUBMITTALS WILL BE REQUIRED AND THE OWNER RESERVES THE RIGHT TO CHANGE ELEVATIONS AND SLOPES OF, TO AND FROM EACH PROPOSED STRUCTURE AT ANY TIME.

F. JOB SITE SAFETY

1. ALL CONSTRUCTION OPERATIONS FOR THIS PROJECT SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). COPIES OF THE OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE OBTAINED FROM OSHA: 903 SAN JACINTO; AUSTIN, TEXAS.
2. THESE PLANS, PREPARED BY KASBERG, PATRICK & ASSOCIATES, LP, DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR HIS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF KASBERG, PATRICK & ASSOCIATES, LP, REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED IN THE WORK.
3. CONTRACTOR SHALL PROVIDE A TRENCH SAFETY PLAN TO THE OWNER AS REQUIRED BY THE LAWS OF THE STATE OF TEXAS. IMPLEMENTATION OF THE SUBMITTED TRENCH SAFETY PLAN SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. CONTRACTOR SHALL BE RESPONSIBLE AND LIABLE FOR ALL JOB SITE SAFETY, FOR MANAGEMENT OF JOB SITE PERSONNEL, FOR SUPERVISION OF THE USE OF JOB SITE EQUIPMENT AND FOR DIRECTION OF ALL CONSTRUCTION PROCEDURES, METHODS AND ELEMENTS REQUIRED TO COMPLETE THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
5. BLASTING IS NOT PERMITTED ON THIS PROJECT.
6. IN ADDITION TO OTHER SAFETY REQUIREMENTS, ALL TRUCKS USED FOR HAULING MATERIAL AND/OR EQUIPMENT TO AND/OR FROM THIS PROJECT SHALL BE EQUIPPED WITH AN AUDIBLE BACKUP WARNING DEVICE THAT IS IN GOOD OPERATING CONDITION.

7. ADVISORY SPEED LIMIT SIGNS SHALL BE PLACED AS DIRECTED BY THE OWNER AND THE TEXAS DEPARTMENT OF TRANSPORTATION. THE LOCATION AND SPEED SHALL BE DETERMINED BY THOSE TWO ENTITIES IN ORDER TO FIT PROJECT CONDITIONS.
8. PROTECTION OF VEHICULAR AND PEDESTRIAN TRAFFIC IS OF THE UTMOST IMPORTANCE FOR THE PROJECT. THE TRAFFIC CONTROL AND SEQUENCE OF CONSTRUCTION PLAN SHALL ADDRESS ALL ANTICIPATED SITUATIONS IN THIS REGARD WITH SUFFICIENT DETAIL. THE CONTRACTORS PLAN WILL BE REVIEWED BY LOCAL TxDOT OFFICIALS AND THE OWNER.

G. ENVIRONMENTAL

1. CONTRACTOR SHALL PROVIDE AND MAINTAIN SANITARY FACILITIES ON THIS PROJECT FOR EMPLOYEES.
2. CONTRACTOR SHALL NOT PLACE ASPHALT PRODUCTS ON THE GROUND WITHIN 48 HOURS OF FORECASTED RAIN.
3. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING AND DISPOSAL.
4. CONTRACTOR SHALL MAINTAIN ACCESS TO PUBLIC AND PRIVATE FACILITIES DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES TO BE COORDINATED WITH THE OWNER.
5. CONTRACTOR SHALL LOCATE MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. CONTRACTOR SHALL PROVIDE PROTECTED STORAGE AREAS FOR CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS AND OTHER POTENTIALLY TOXIC MATERIALS.
6. NO BURNING IS ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM APPLICABLE GOVERNMENT AGENCIES AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR MAY HAUL CLEARED VEGETATION TO AN ACCEPTABLE OFF-SITE LOCATION WITH WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL DESIGNATE TO THE OWNER'S REPRESENTATIVE WHICH METHOD WILL BE USED FOR DISPOSAL OF CLEARED VEGETATION.
7. FUEL STORAGE IS NOT ALLOWED ON THIS PROJECT.
8. CONTRACTOR SHALL ADVISE OWNER IMMEDIATELY, VERBALLY AND IN WRITING, OF ANY FUEL OR TOXIC MATERIAL SPILLS ONTO THE PROJECT CONSTRUCTION AREA AND THE ACTIONS TO BE TAKEN TO REMEDY THE PROBLEM.
9. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF HIS FUELS, MATERIALS AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
10. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE ENVIRONMENTAL LAWS.
11. IN THE EVENT THAT SITE GRADING AND/OR EXCAVATION REVEALS WHAT MIGHT BE HAZARDOUS MATERIALS, ALL CONSTRUCTION OPERATIONS SHALL CEASE. THE FIRE DEPARTMENT, FIRE CHIEF AND THE ENGINEER SHALL BE CALLED TO THE SITE TO EVALUATE THE SITUATION. IF REQUIRED, THE OWNER WILL AUTHORIZE THE HAZARDOUS MATERIALS RESPONSE COMPANY WHICH IS UNDER CONTRACT WITH THE OWNER TO BEGIN REMEDIATION OF THE SITUATION. AT THAT SAME TIME, THE OWNER WILL DETERMINE WHAT CONSTRUCTION ACTIVITIES MAY CONTINUE THAT WOULD NOT ENDANGER CONSTRUCTION WORKERS OR CITIZENS.

H. BID SCHEDULE

1. PAYMENT FOR DIRECT COST WILL BE BASED ON DOCUMENTED INVOICES AND ON DOCUMENTED TIME SHEETS.
2. LABOR FROM TIME SHEETS WILL BE PAID AT SALARY COST. SALARY COST IS DEFINED AS DIRECT SALARY PLUS FRINGE BENEFITS, SUCH AS FICA, SICK LEAVE, VACATION AND WORKMAN'S COMPENSATION INSURANCE.
3. THE BID SCHEDULE CONTAINS A BID ITEM FOR PAYMENT TO THE CONTRACTOR FOR PROVIDING RECORD DRAWINGS (AS-BUILTS) FOR THIS PROJECT. FINAL RETAINAGE FOR THE PROJECT WILL NOT BE RELEASED BY THE OWNER UNTIL THE RECORD DRAWINGS ARE DELIVERED TO THE ENGINEER IN AN ACCEPTABLE, LEGIBLE CONDITION.

I. WATERLINE

1. ALL TESTING SHALL BE IN COMPLIANCE WITH CURRENT TCEO REGULATIONS, AND TECHNICAL SPECIFICATIONS.
2. ALL WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT TCEO REGULATIONS, CHAPTER 290.
3. ALL FIRE HYDRANTS TO BE CITY OF TEMPLE STANDARD FIRE HYDRANT, UNLESS OTHERWISE NOTED.
4. PIPE MATERIAL FOR 3" AND SMALLER WATER LINES SHALL BE DR-21 PVC, CLASS 200. PIPE MATERIAL FOR 4"-INCH TO 12"-INCH WATER LINES SHALL BE PVC, AWWA C900, CLASS 150, DR-18 OR CLASS 250 DUCTILE IRON PIPE. PIPE MATERIAL FOR 14"-INCH AND LARGER WATER LINES SHALL BE PVC, AWWA C905, CLASS 150, DR-18 OR CLASS 250 DUCTILE IRON PIPE.
5. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT A PLAN FOR TIE-INS AND FLUSHING FOR APPROVAL BY OWNER. SCHEDULE SHALL BE CONFIRMED WITH THE CITY 48 HOURS PRIOR TO ACTIVITY.

J. TEXAS WATER DEVELOPMENT BOARD REQUIREMENTS

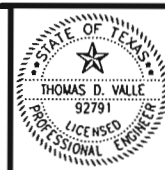
1. THIS PROJECT IS BEING CONSTRUCTED UNDER LOANS FROM THE TEXAS WATER DEVELOPMENT BOARD'S (TWDB) DRINKING WATER STATE REVOLVING FUND.
 - A. PROJECT # 62695
 - B. LOAN # -- L1000517 & LF 1000534
2. AS SUCH, CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE CITY'S AGREEMENT. SPECIFIC COMPONENTS ARE LISTED HEREIN.
3. THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE FOLLOWING:
 - A. SAFE DRINKING WATER ACT, 42 U.S.C. §§ 3001 et seq, AND THE EPA REGULATIONS AT 40 CFR PART 35;
 - B. ALL FEDERAL LAWS AND REGULATIONS. THE BASIC RULES FOR COMPLYING WITH CROSS-CUTTING FEDERAL AUTHORITIES ARE SET OUT IN DWSRF REGULATIONS AT 40 C.F.R. §§ 35.3575. A LINK TO THESE AUTHORITIES IS AVAILABLE FROM THE EPA AT http://water.epa.gov/grants_funding/dwsrf/scutscim. A HANDBOOK ON THE APPLICABILITY OF THE CROSS-CUTTING FEDERAL AUTHORITIES IS AVAILABLE FROM THE EPA AT <http://www.epa.gov/owm/cwfinance/cwsl/enhance/DocFiles/Other%20Docs/CrosscutlerHandbook.pdf>.
 - C. TEXAS WATER CODE, CHAPTER 15, §§ 15.601 - 15.618;
 - D. 30 TAC CHAPTER 290; and
 - E. 31 TAC CHAPTER 371.

P:\Cameron\2016\2016-109\cad\WORKING DWG.dwg - NOTES

NO.	DATE	REVISION	BY
		Plot Date: Feb 21, 2017 - 3:50pm	
		Plotted By: BBAKER	

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PROJECT NO.	2016-109
DRAWN BY	BRIAN V. BAKER
DESIGNED BY	THOMAS D. VALLI, P.E.
APPROVED BY	<i>Thomas D. Valli</i>
DATE	2-21-17



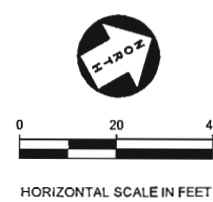
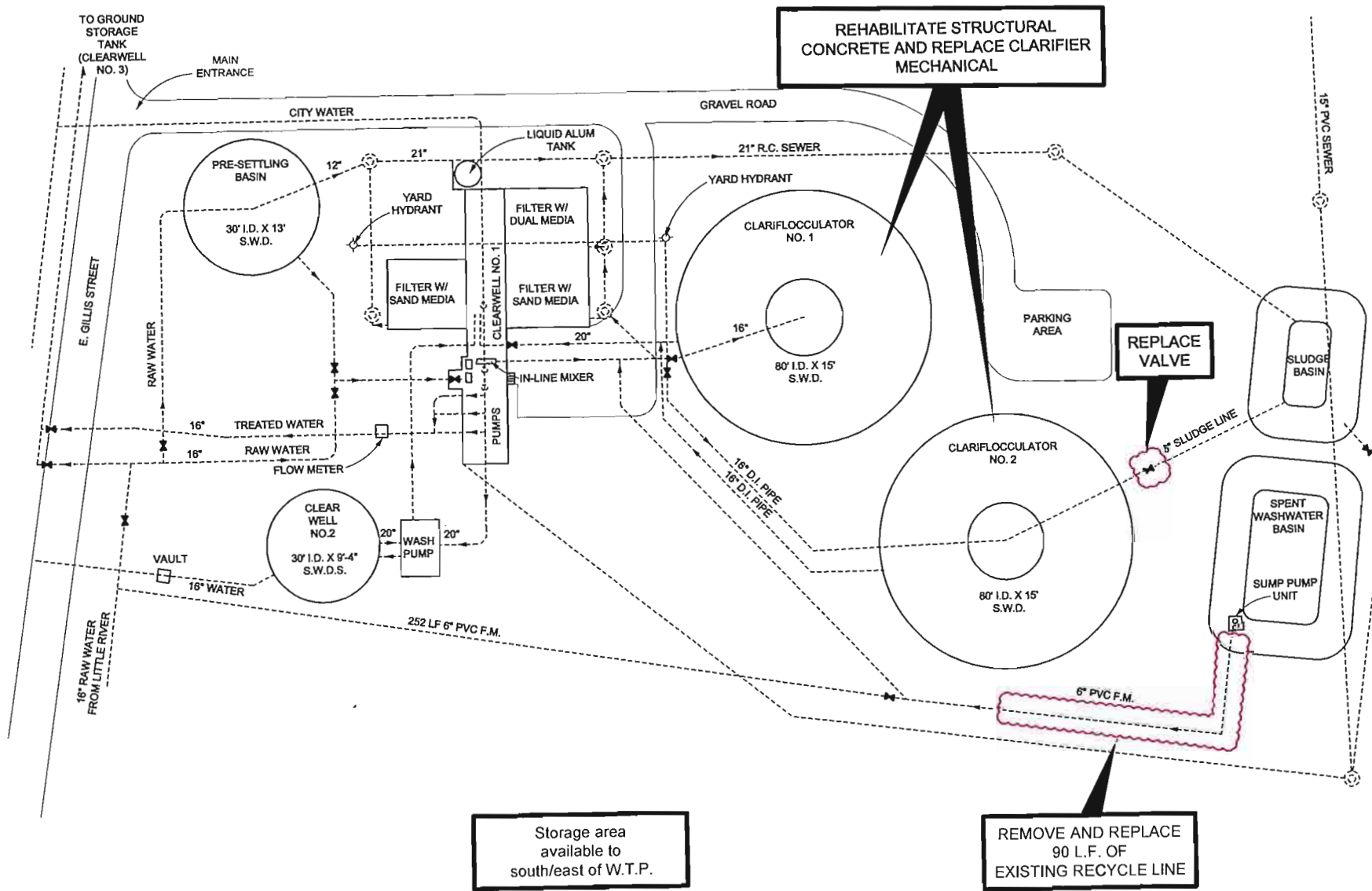
KASBERG, PATRICK & ASSOCIATES, LP
CONSULTING ENGINEERS
TEMPLE, TEXAS 76501

CITY OF CAMERON, TEXAS
WATER TREATMENT PLANT
CLARIFIER REHABILITATION
GENERAL SHEETS
GENERAL NOTES

SHEET NO. **02**
OF **10**

NOTES:

1. SCOPE OF WORK
 - A. REHABILITATION OF EXISTING CLARIFIER NO. 1 AND CLARIFIER NO. 2 CONCRETE STRUCTURES BY INJECTION AND COATING INTERIOR.
 - B. REMOVE AND REPLACE ALL METAL AND MECHANICAL COMPONENTS WITHIN CLARIFIERS.
 - C. REPLACE ELECTRICAL CONDUIT WITHIN LIMITS OF CLARIFIERS. INSTALL NEW CABLE AS NECESSARY.
 - D. CONNECT NEW CLARIFIER EQUIPMENT INTO EXISTING SCADA SYSTEM (ALARMS, ON/OFF ETC.)
 - E. REMOVE AND REPLACE EXISTING 6-INCH SLUDGE REMOVAL VALVE ON CLARIFIER NO.2.
 - F. REMOVE AND REPLACE 90 LF OF EXISTING 6-INCH RECYCLE LINE.
2. CLARIFIER NO.2 IS CURRENTLY INACTIVE. CLARIFIER NO. 2 SHALL BE FULLY REHABILITATED AND PLACED INTO 48 HOURS OF CONTINUOUS SERVICE PRIOR TO CLARIFIER NO.1 BEING TAKEN OUT OF SERVICE FOR REHABILITATION.
3. EXISTING CATWALK CONFIGURATION SHALL BE RECREATED ON NEW CLARIFIERS. EXISTING STAIRS, LADDERS, AND/OR LANDING CAN BE BLASTED, PAINTED AND REUSED, IF NECESSARY.



Storage area available to south/east of W.T.P.

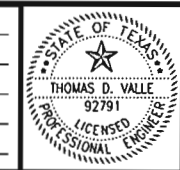
REMOVE AND REPLACE 90 L.F. OF EXISTING RECYCLE LINE

P:\Cameron\2016\2016-109\cad\PLANT YARD.DWG - YARD

NO.	DATE	REVISION	BY

Plot Date: Nov 18, 2016 - 2:09pm
Plotted By: BBAKER

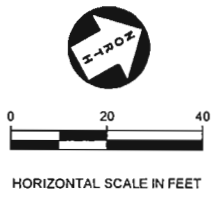
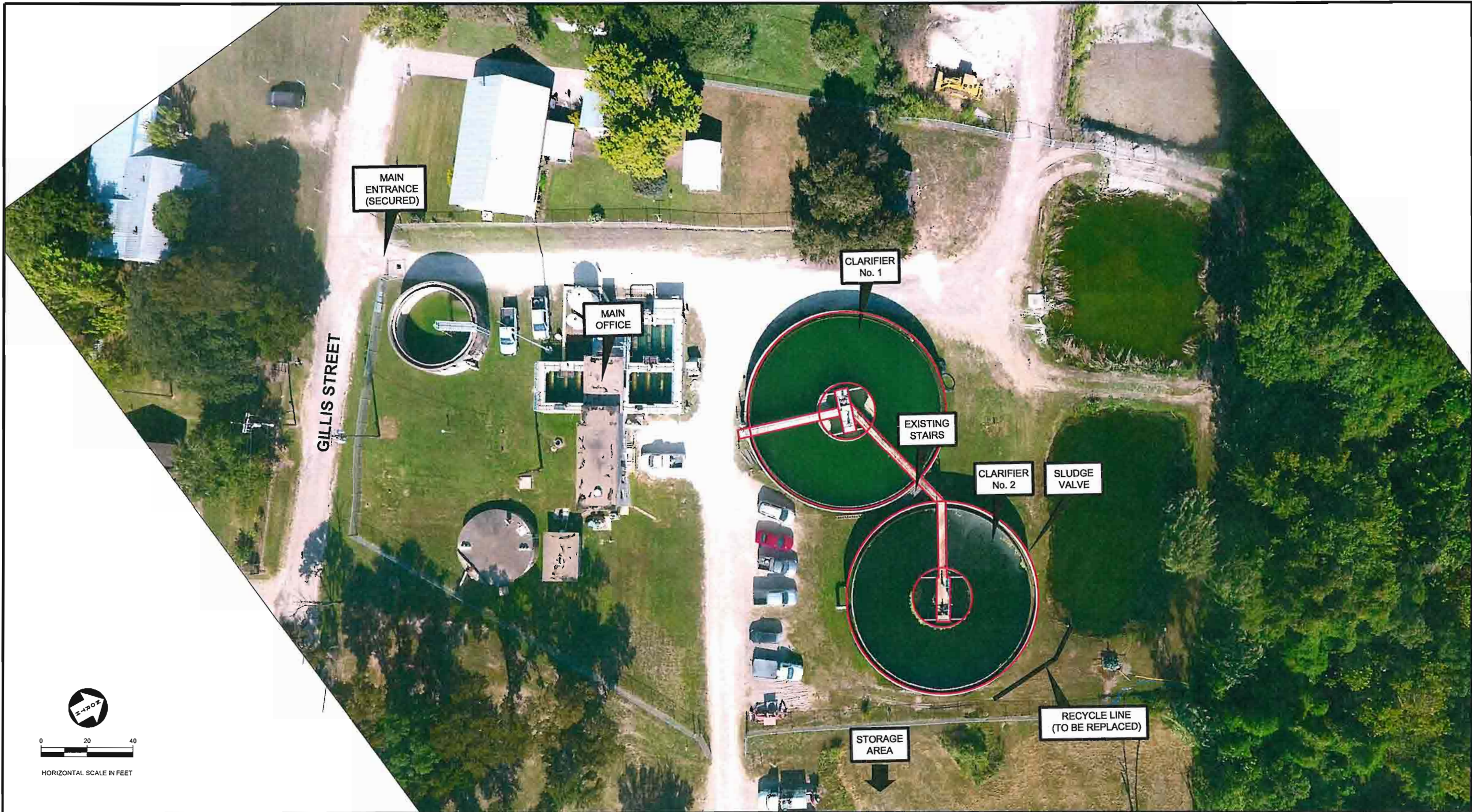
PROJECT NO. 2016-109
 DRAWN BY BRIAN V. BAKER
 DESIGNED BY THOMAS D. VALLE, P.E.
 APPROVED BY *Thomas D. Valle*
 DATE 11-4-16



KPA KASBERG, PATRICK & ASSOCIATES, LP
 CONSULTING ENGINEERS
 TEMPLE, TEXAS 76501

CITY OF CAMERON, TEXAS
 WATER TREATMENT PLANT
 CLARIFIER REHABILITATION
 WATER TREATMENT PLANT YARD
 LOCATION OF IMPROVEMENTS

SHEET NO. **03**
 OF **10**



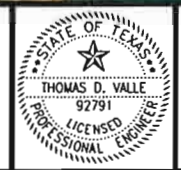
P:\Cameron\2016\2016-109\cad\PLANT YARD.DWG - CLARIFIERS PHOTO

NO.	DATE	REVISION	BY

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Plot Date: Nov 18, 2016 - 2:10pm
Plotted By: BBAKER

PROJECT NO.	2016-109
DRAWN BY	BRIAN V. BAKER
DESIGNED BY	THOMAS D. VALLE, P.E.
APPROVED BY	<i>Thomas D. Valle</i>
DATE	11-4-16

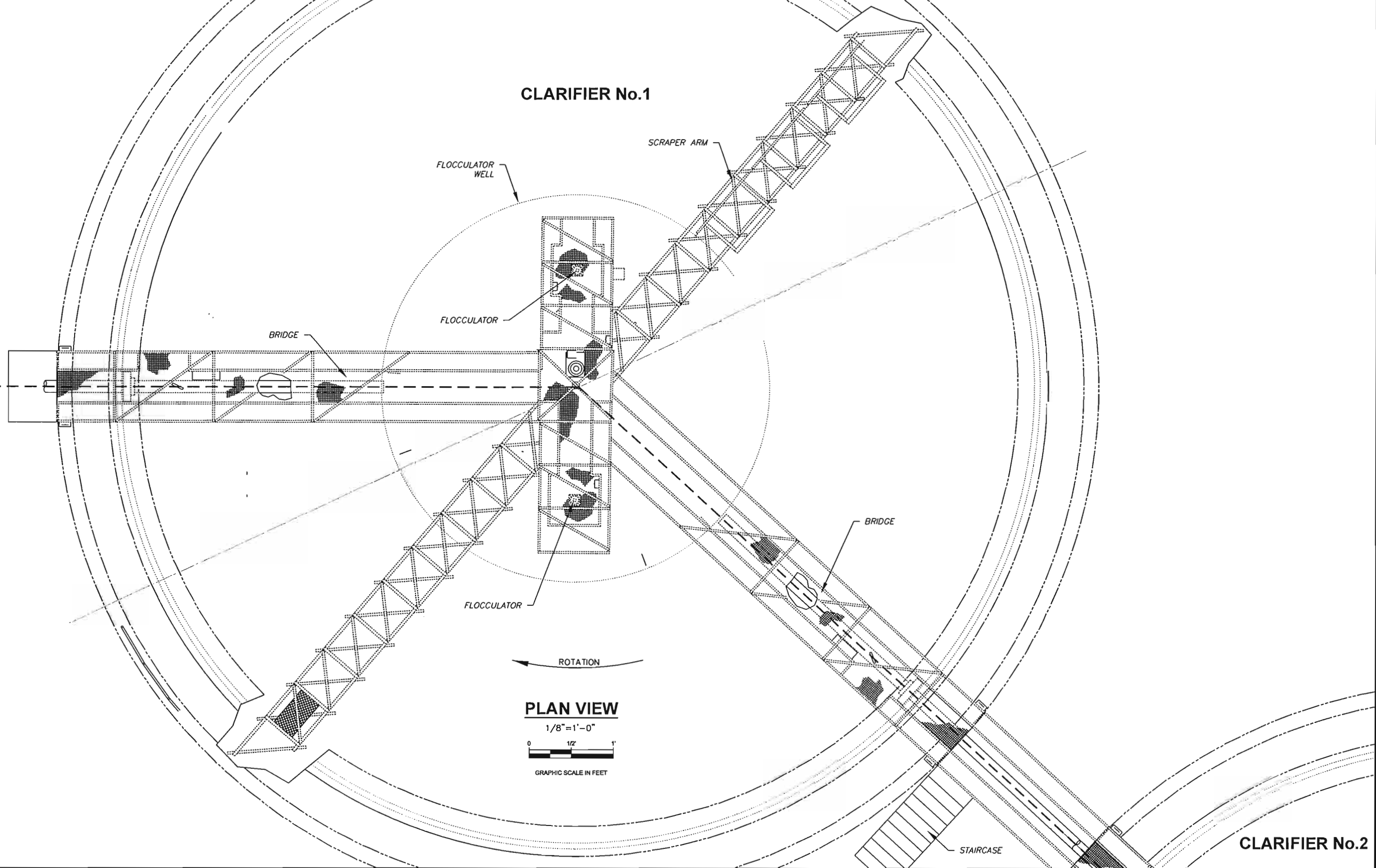


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CITY OF CAMERON, TEXAS
WATER TREATMENT PLANT
CLARIFIER REHABILITATION
LOCATION OF IMPROVEMENTS
AERIAL PHOTO

SHEET NO. **04**
OF **10**

CLARIFIER No.1



PLAN VIEW

1/8" = 1'-0"



GRAPHIC SCALE IN FEET

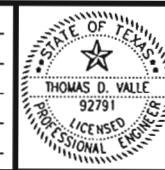
CLARIFIER No.2

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 WATER TREATMENT PLANT
 CLARIFIER REHABILITATION
 CLARIFIER NO. 1 PLAN

SHEET NO. **05**
 OF **10**

CLARIFIER No.1

STAIRCASE

CLARIFIER No.2

SCRAPER ARM

BRIDGE

ROTATION

FLOCCULATOR

FLOCCULATOR

FLOCCULATOR WELL

PLAN VIEW

1/8" = 1'-0"



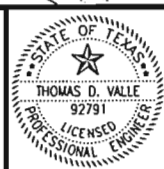
GRAPHIC SCALE IN FEET

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Plot Date: Nov 18, 2016 - 2:10pm
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 APPROVED BY *Thomas D. Valle*
 DATE 11-4-16



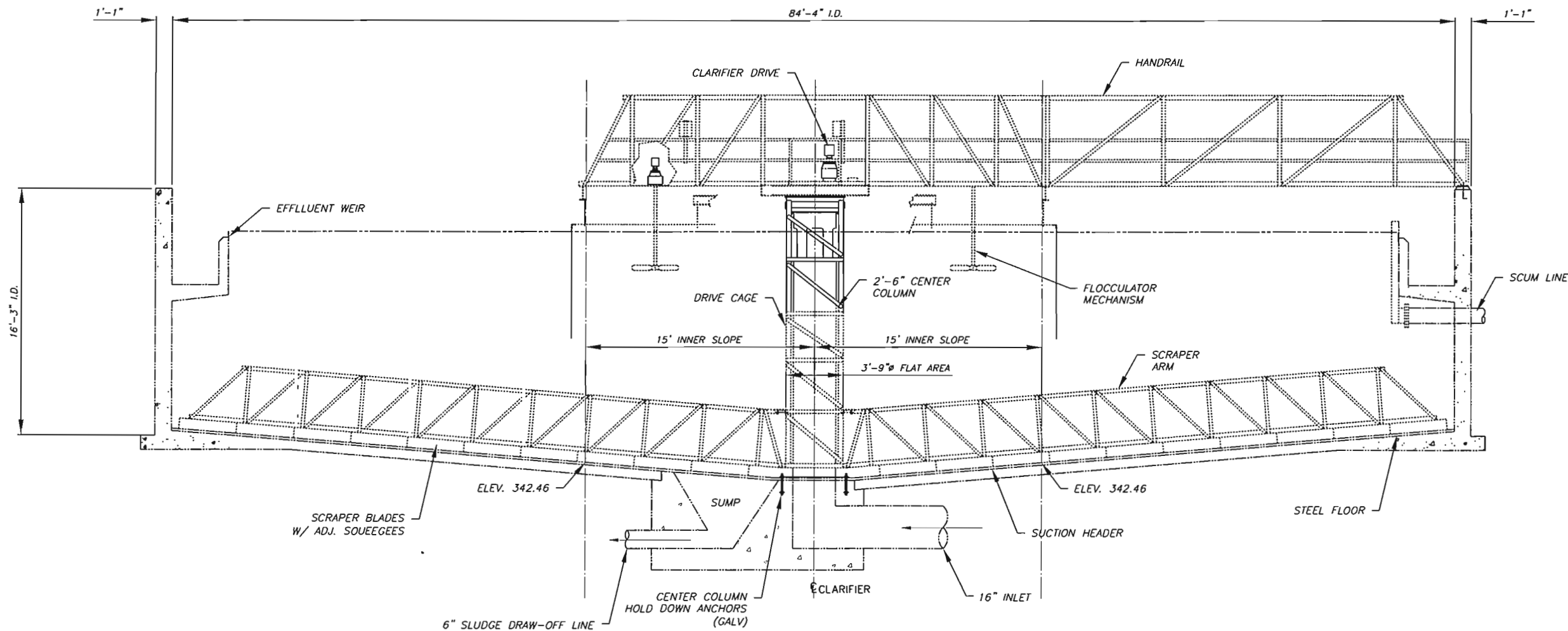
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CITY OF CAMERON, TEXAS
 WATER TREATMENT PLANT
 CLARIFIER REHABILITATION
 CLARIFIER MODIFICATIONS
 CLARIFIER NO. 2 PLAN

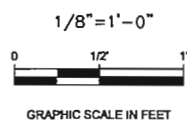
SHEET NO. 06
 OF 10

NOTES:

- SECTION, DIMENSIONS AND ELEVATIONS ARE SHOWN FROM RECORD DRAWINGS. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO/OR WITH SHOP DRAWING SUBMITTAL AND SHALL COORDINATE NECESSARY DIMENSION MODIFICATIONS TO ENSURE NEW EQUIPMENT MEETS EXISTING CONCRETE CONDITIONS.
- EXISTING CONCRETE STRUCTURES SHALL BE REHABILITATED PER TECH. SPECS.
- ALL EXISTING METAL AND MECHANICAL STRUCTURES WITHIN CLARIFIERS SHALL BE REMOVED AND REPLACED.



ILLUSTRATIVE SECTION



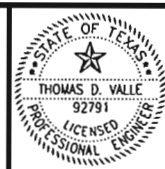
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DATE	11-4-16



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WATER TREATMENT PLANT
CLARIFIER REHABILITATION
CLARIFIER MODIFICATIONS
ILLUSTRATIVE SECTION VIEW



**CLARIFIER No. 2
6" SLUDGE VALVE RISER BOX**



CLARIFIER No. 2



**CLARIFIER No. 1
FROM CLARIFIER No. 2**



**6" RECYCLE LINE
(EAST SIDE OF CLARIFIER No. 2)**

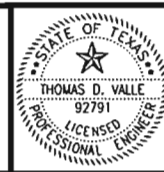
P:\Cameron\2016\2016-109\cad\PLANT YARD.DWG - YARD PHOTO

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WATER TREATMENT PLANT
CLARIFIER REHABILITATION
CLARIFIER MODIFICATIONS
EXISTING YARD PHOTOS

SHEET NO. **08**
OF **10**

GENERAL NOTES FOR WATER

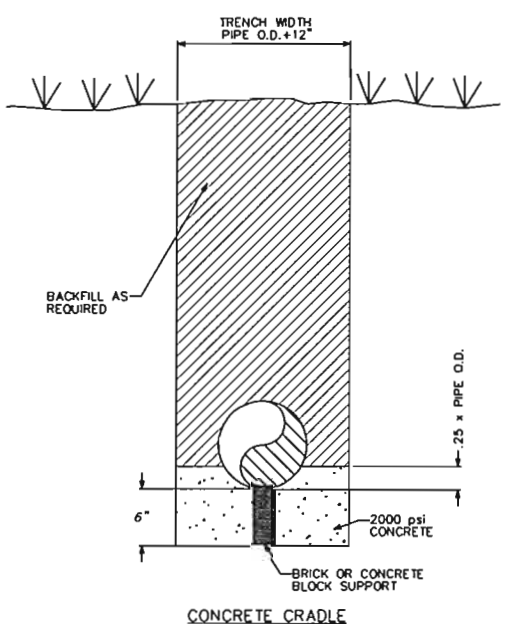
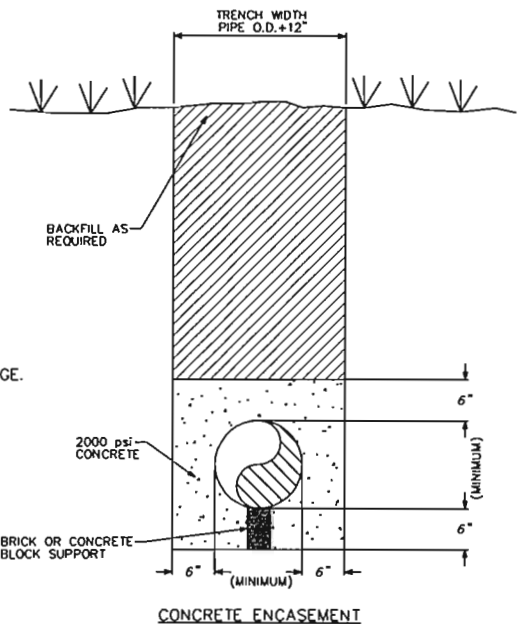
- ALL WATER MAINS TO BE ONE OR A COMBINATION OF THE FOLLOWING MATERIALS HAVING DUCTILE IRON OUTSIDE DIAMETERS:
 - DUCTILE IRON MUST:
 - MEET OR EXCEED AWWA SPECIFICATIONS C150 & C 151;
 - MECHANICAL JOINT BELL & SPIGOT JOINTS WITH A SINGLE RUBBER GASKET, MEETING AWWA SPECIFICATIONS C111;
 - HAVE A THICKNESS OF CLASS 50 OR BETTER
 - POLYVINYL CHLORIDE (PVC)
 - 4 INCH AND LARGER AWWA C900 CL150 W/RING-TITE SEAL, SDR-18;
 - 3 INCH OR LESS CL200 SDR-21 (MINIMUM) W/RING-TITE SEAL.
- TAPPING SLEEVE & VALVE:
 - TAPPING SLEEVE TO MEET AWWA SPECIFICATIONS WITH A MINIMUM WORKING PRESSURE OF 150 P.S.I.
 - TAPPING VALVE SHALL MEET AWWA SPECIFICATIONS WITH A MINIMUM WORKING PRESSURE OF 175 P.S.I.
 - ALL SIZE ON SIZE TAPS SHALL BE MADE USING A DUCTILE IRON FULL BODY TAPPING SLEEVE. ALL REDUCED SIZE TAPS MAY BE MADE USING AND EPOXY COATED FABRICATED STEEL TAPPING SLEEVE WITH STAINLESS STEEL BOLTS, OR A STAINLESS STEEL FULL CIRCLE TAPPING SLEEVE WITH DUCTILE IRON FLANGE.
- BENDS & FITTINGS:
 - ALL ENDS AND FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT (D.I.M.J.) MEETING THE SPECIFICATIONS OF ANSI/AWWA C110-77 OR AWWA C153.
 - ALL FITTINGS TO BE "MJ", NOT FLANGED (WITH EXCEPTION OF FULL BODIED TAPPING SLEEVE.)
 - FITTINGS LOCATED AT TEES/VALVES SHALL BE SWIVEL FITTINGS.
- TIED JOINT RESTRAINT SYSTEMS (ALL-THREAD ROD CONNECTIONS):
 - DIRECT CONNECTION OF THE ALL-THREAD ROD TO THE FLANGE OF THE FITTING WILL NOT BE PERMITTED. THE APPROPRIATE "TIEBOLT", NUT AND WASHER IS THE ONLY ACCEPTABLE MEANS OF MAKING THIS CONNECTION (TIEBOLT) SHOULD BE EQUAL TO OR EXCEED STAR "SUPER TIE-BOLT".
 - ALL-THREAD ROD WILL BE OF THE FOLLOWING DIMENSION:
 - 3 INCH OR SMALLER WATER LINE--5/8" DIAMETER ROD.
 - 4 INCH OR LARGER WATERLINE--3/4" DIAMETER ROD.
 - ALL THREAD RODS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL. SPECIFICATIONS FOR TIEBOLT SHALL MEET OR EXCEED THOSE OF THE "SUPERSTAR TIEBOLT".
- FLUSHING OF WATER MAINS:
 THE FLUSHING OF ALL WATER MAINS SHALL BE ACCOMPLISHED THROUGH AN ACCEPTABLE FLUSHING (BLOWOFF) ARRANGEMENT COMPRISING OF A GATE VALVE AND REQUIRED LENGTH OF PIPE. THOROUGH FLUSHING AT A MINIMUM VELOCITY OF 2.5 FEET PER SECOND SHALL BE ACHIEVED USING THE OUTLET SIZE OPENINGS LISTED BELOW. (40 P.S.I. RESIDUAL PRESSURE MUST BE MAINTAINED IN THE WATER MAIN).

PIPE SIZE (IN)	REQUIRED GPM AT 2.5 FPS	FLUSH VALVE AND PIPE SIZE (IN)
6	220	6
8	400	8
10	660	10

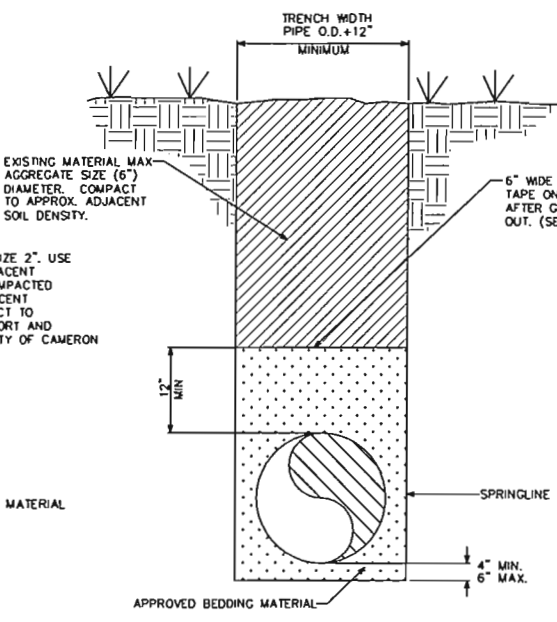
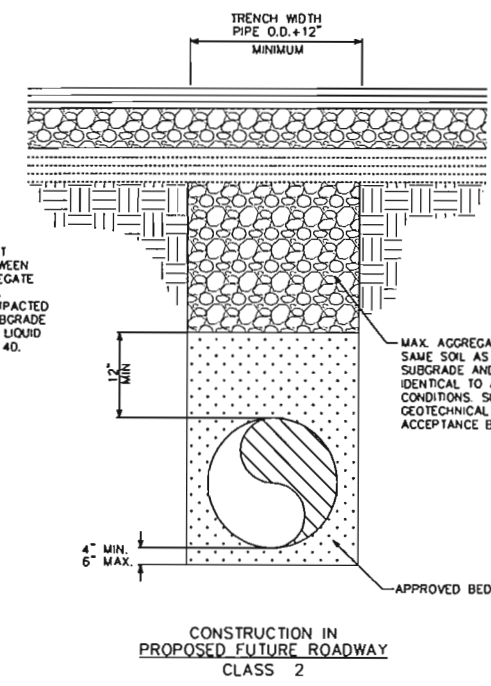
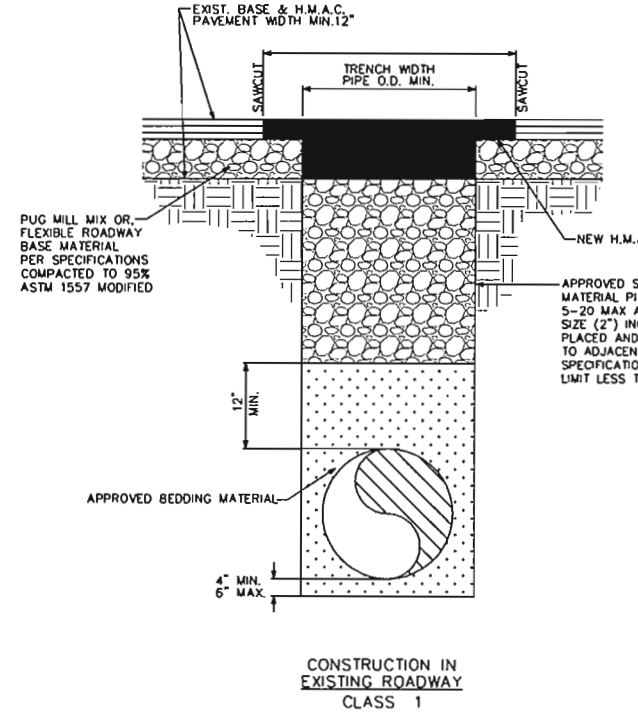
FOR ALL OTHER PIPE SIZES, ENGINEER TO SPECIFY FLUSH VALVE AND PIPE SIZE PER AWWA C651

ALL DEAD END WATER MAINS SHALL HAVE AN ADEQUATELY SIZED FLUSH ASSEMBLY TO FACILITATE PERIODICAL FLUSHING OF THE WATER LINES. CONTRACTOR SHALL STUDY THE PLANS AND MAKE PROVISIONS TO COMPLY WITH THIS REQUIREMENT. ANY ADDITIONAL COST TO THE CONTRACTOR FOR COMPLYING WITH THIS REQUIREMENT SHALL BE BORNE BY THE CONTRACTOR.

- JOINT RESTRAINERS OR ADAPTER FLANGES:
 WHEN RESTRAINER FLANGES ARE SPECIFIED ON PLANS, OR WHERE THE CONTRACTOR ELECTS TO USE THEM, THE FLANGES WILL MEET OR EXCEED THE REQUIREMENTS/SPECIFICATIONS OF UNI-FLANGE SERIES 1300 OR 1500 FOR PVC PIPE OR SERIES 200 FOR DUCTILE IRON PIPE. INSTALLATION OF THESE ITEMS WILL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS FOR THE TYPE OF MATERIAL USED. (THE CONTRACTOR WILL SUPPLY THE INSPECTOR WITH COPIES OF THE MANUFACTURER'S INSTALLATION SPECIFICATIONS PRIOR TO INSTALLATION OF THESE ITEMS).
- ALL WATER LINES MUST BE CONSTRUCTED IN ACCORDANCE WITH CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) REGULATIONS, CHAPTER 290.
- ALL WATER MAINS SHALL BE PRESSURE TESTED FOR A PERIOD NOT LESS THAN 4 HOURS AND AT A PRESSURE NOT LESS THAN 150 PSI (REFER TO TABLE 506.5(d) OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION--NOT CENTRAL TEXAS). THOROUGHLY DISINFECTED (AWWA C651), AND PASS MICROBIOLOGICAL ANALYSIS BEFORE BEING PLACED IN SERVICE.
- MINIMUM DEPTH FOR ALL WATER MAIN LINES SHALL BE 42 INCHES FROM FINAL GRADE TO TOP OF PIPE.
- ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE WRAPPED IN 8 MIL POLYETHYLENE IN ACCORDANCE WITH ANSI/AWWA C105/A21.5-99 (POLYETHYLENE ENCASEMENT) FOR CORROSION PROTECTION.
- PIPE CLEANLINESS:
 EVERY EFFORT SHALL BE MADE TO KEEP PIPE LINES CLEAN DURING INSTALLATION. FOREIGN MATERIAL SHALL BE PREVENTED FROM ENTERING THE PIPE WHILE IT IS BEING PLACED IN THE TRENCH.
- METER BOXES:
 METER BOXES TO BE FURNISHED AND INSTALLED BY THE CITY OF CAMERON AND PAID FOR BY PERMITTEE AT THE TIME OF METER INSTALLATION.



ROADWAY = ROAD B/C TO B/C + 4" IN EACH DIRECTION

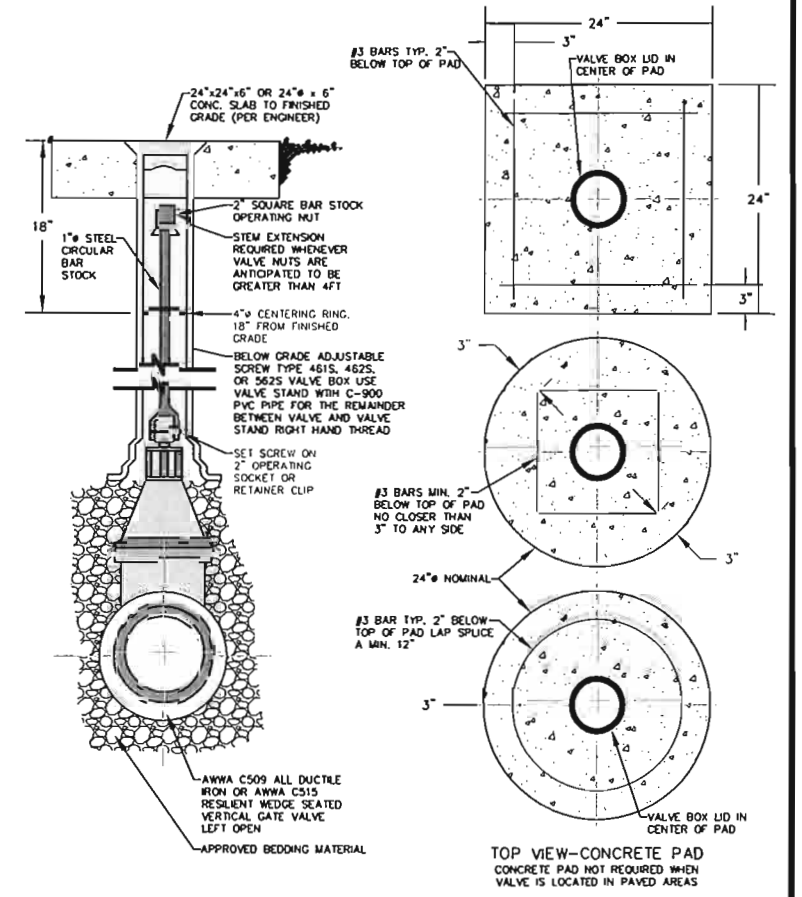


BEDDING MATERIAL SPECIFICATIONS:

- ALL AGGREGATES SHALL BE CLEAN AND DURABLE PARTICLES OF NATURAL OR MANUFACTURED MATERIAL.
- CLEAN, WASHED SAND SHALL CONFORM TO THE FOLLOWING GRADATION:

SEIVE	% PASS
3/8"	100
No. 4	95-100
No. 16	50-85
No. 200	0-5
- WASHED OR SCREENED GRAVEL SHALL CONFORM TO THE FOLLOWING GRADATION:

SEIVE	% PASS
1/2"	100
3/8"	80-100
No. 4	15-70
No. 10	0-10
- WHERE GROUNDWATER IS ENCOUNTERED, GRAVEL SHALL BE USED FOR BEDDING MATERIAL.
- BEDDING MATERIAL SHALL BE PLACED AND CONSOLIDATED TO ELIMINATE VOIDS.
- MANUFACTURER'S RECOMMENDATIONS FOR BEDDING MATERIALS SHALL BE CONSIDERED WHERE STRUCTURAL INTEGRITY IS REQUIRED.
- WASTEWATER LINES REQUIRE GRAVEL TO BE USED AS BEDDING MATERIAL.



- NOTES:
- SAW CUT TO REPAIR ASPHALT OR CONCRETE PAVEMENT AND PRIOR TO OPENING THE DITCH
 - THE EMBEDMENT CONSISTS OF WASHED GRAVEL
 - TRENCH WIDTHS SHOWN ARE MINIMUM FOR PROPER PLACEMENT AND COMPACTED OF EMBEDMENT
 - THE MINIMUM CLEAR WIDTH OF TRENCH (SHEETED OR UNSHEETED) MEASURED AT SPRINGLINE OF PIPE SHALL BE 12" GREATER THAN THE OUTSIDE DIAMETER OF THE PIPE.
 - WHERE PIPE INSTALLATION IS IN ROCK (OR OTHER INCOMPRESSIBLE FOUNDATION), THE CONTRACTOR SHALL EXCAVATE SO AS TO PROVIDE A MINIMUM OF 8" GRANULAR CUSHION BENEATH THE PIPE.
 - INSTALLATION OF ANY PIPE WITHIN 4" OF THE BACK OF CURB OR EDGE OF STREET, SHALL REQUIRE THE SAME EMBEDMENT AS FOR INSTALLATION IN STREETS.
 - CONTRACTOR SHALL SHAPE EMBEDMENT MATERIAL TO ACCOMMODATE THE BELLED JOINTS OF PIPES TO INSURE SUPPORT THROUGHOUT THEIR LENGTH. BELLED JOINTS SHALL HAVE A MINIMUM OF 2" OF FILL BENEATH THEM.
 - IF EXCAVATED MATERIAL IS NOT ACCEPTABLE TO THE ENGINEER FOR BACKFILL, CONTRACTOR WILL PROVIDE SELECT IMPORT MATERIAL AS REQUIRED.
 - FOR TRENCHING, BEDDING, AND BACKFILL, SEE TCEQ CHAPTER 317.2 "BEDDING".
 - FOR ROCK AND OTHER CONDITIONS NOT SPECIFIED HERE, REFER TO ENGINEER FOR BACKFILL DESIGN.
 - GREEN TAPE TO BE USED FOR WASTEWATER MAINS, BLUE TAPE TO BE USED FOR WATER MAINS.

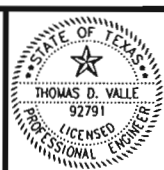
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CITY OF CAMERON, TEXAS
WATER TREATMENT PLANT
CLARIFIER REHABILITATION
STANDARD DETAILS

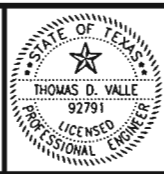
SHEET NO. **09**
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CITY OF CAMERON, TEXAS
 WATER TREATMENT PLANT
 CLARIFIER REHABILITATION
 ADDENDA

SHEET NO. **10**
 OF **10**