





**CONSTRUCTION PLANS FOR** 

# THE BOSTON GROUP WRANOSKY PARK IMPROVEMENTS

422 GRAHAM ROAD, CORPUS CHRISTI, TEXAS, 78418

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THE FOLLOWING CITY OF CORPUS CHRISTI STANDARD DETAILS ARE A PART OF THIS PROJECT:

CURB, GUTTER AND SIDEWALK STANDARD DETAILS (SHEET 1) DRIVEWAY STANDARD DETAILS (SHEET 1 THRU 3)

THE STANDARD SPECIFICATIONS ARE TO BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION FROM THE FOLLOWING

http://www.cctexas.com/promo/standard-details http://www.cctexas.com/promo/standard-specifications

GENERAL CONTACT INFORMATION	
EMERGENCY: 911	
POLICE (NON-EMERGENCY)	(361)886-2600
FIRE (NON-EMERGENCY)	(361)826-3900
CITY OF CORPUS CHRISTI	
CITY CALL CENTER	(361)826-2489
DEVELOPMENT SERVICES	(361)826-3240
ENGINEERING SERVICES	(361)826-3500
ENVIRONMENTAL SERVICES	(361)826-4066
GAS DEPARTMENT	(361)885-6900
OR 24HRS	6 - (361)854-4369 / (361)885-6942
TRAFFIC ENGINEERING	(361)826-2489
UTILITIES DEPARTMENT	(361)826-2489
	OR AFTER 7PM WEEKDAYS
	AND HOLIDAYS - (361)885-6942

#### NOTICE

- THE GENERAL CONTRACTOR AND ALL SUBCONTRACTOR(S) WHICH WILL BE PERFORMING ANY WORK INDICATED WITHIN THESE DRAWINGS WILL BE SOLELY RESPONSIBLE FOR CONTACTING TEXAS 811, LONE STAR 811, AND OTHER UTILITY LOCATING COMPANIES AS WELL AS ALL LOCAL UTILITIES (WASTEWATER, STORM, WATER, GAS, TRAFFIC, ETC.) BY ALL MEANS POSSIBLE FOR THE LOCATING AND MARKING OF UNDERGROUND AND ABOVE GROUND UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION.
- DAMAGES TO UTILITIES WILL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE GENERAL CONTRACTOR TO PROVIDE A REMEDY TO THE DAMAGE WITH THE UTILITY
- THE PROJECT OWNER, PROJECT ENGINEER, OWNER'S AUTHORIZED REPRESENTATIVE (OAR), AND ANY EMPLOYEES OF THESE SHALL NOT BE RESPONSIBLE FOR CONTACTING ANY COMPANY FOR LOCATING OR REMEDYING OF ANY DAMAGE OF ANY UTILITY.



811 OR 1-800-344-8377 OR www.texas811.org GIVE 4 WORKING DAYS (M-F) NOTICE

RESPONSIBLE FOR COSTS INCURRED BY PROCEEDING WITH ELEVATION(S) OF EXISTING UTILITIES THAT DIFFER FROM THOSE PRESENTED ON THE

5. IN THE EVENT THAT A UTILITY LINE NEEDS TO BE ADJUSTED, THE CONTRACTOR SHALL COORDINATE CONSTRUCTION SO THAT THE ADJUSTMENT

6. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR LOCATING, MARKING (IN ACCORDANCE WITH TEXAS ADMINISTRATIVE CODE (TAC) TITLE 16, PART 1, CHAPTER 18, RULE \$18.6 AND AMERICAN PUBLIC WORKS ADMINISTRATION (APWA) UNIFORM COLOR CODE), AND VERIFYING THE ACTUAL LOCATION AND ELEVATION OF ALL ABOVE GROUND AND UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE PROJECT AREA PRIOR TO

6.1. LOCAL WATER, SEWER, STORM SEWER, GAS, AND TRAFFIC DEPARTMENTS SHALL BE NOTIFIED INDIVIDUALLY TO ENSURE LOCATION OF

7.1. IF ANY DAMAGE OCCURS TO ANY OF THE ABOVE MENTIONED ITEMS DURING CONSTRUCTION, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE

FOR ALL COSTS ASSOCIATED WITH THE REPAIR, REPLACEMENT, OR REMEDY OF THE DAMAGED ITEM TO EQUAL OR BETTER THAN ITS ORIGINAL CONDITION AS REQUIRED BY THE OWNER OF THE DAMAGED ITEM IN A PROMPT MANNER WITH NO ADDITIONAL TIME ADDED TO

THE OWNER'S REPRESENTATIVE THAT THE FACILITY(IES) ARE ABANDONED. 8.1. THE CONTRACTOR SHALL REMOVE THE ABANDONED UNDERGROUND FACILITY(IES) REQUIRED TO COMPLETE THE WORK OR SHALL FULLY

GROUT THE ABANDONED FACILITY(IES) IN PLACE, UNLESS OTHERWISE INDICATED BY THE OWNER'S REPRESENTATIVE; ALL WORK SHALL BE INCIDENTAL AND NO SEPARATE PAYMENT SHALL BE MADE.

9. THE CONTRACTOR SHALL TAKE SPECIAL CONSIDERATION PRIOR TO REMOVING A PORTION OF AN EXISTING DRAINAGE SYSTEM TO FACILITATE ANY WORK TO PREVENT ADVERSE DRAINAGE ISSUES.

9.1. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE TO PROVIDE ALL REQUIRED EQUIPMENT AND PERSONNEL TO PREVENT DAMAGE TO PRIVATE

PROPERTY, EXISTING IMPROVEMENTS, AND PROPOSED IMPROVEMENTS, WITH ANY DAMAGE BEING REMEDIED BY THE CONTRACTOR. 10.THE CONTRACTOR IS TO NOTIFY THE PROPERTY OWNER(S) OF ANY WORK THAT WILL AFFECT ANY PUBLIC OR PRIVATE IRRIGATION SYSTEM.

10.1. TEMPORARY REPAIRS TO THE SYSTEM SHALL BE MADE TO MAINTAIN THE UN-AFFECTED PORTION OF THE SYSTEM IN A WORKING CONDITION.

10.2. REPAIRS TO THE SYSTEM SHALL BE COMPLETED AS SOON AS PRACTICABLE BY A LICENSED IRRIGATION SYSTEM INSTALLER. 11.THE CONTRACTOR SHALL REMOVE, REPLACE, AND RESTORE TO ORIGINAL CONDITION, ELEVATION, AND LOCATION ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN THAT ARE ENCOUNTERED DURING CONSTRUCTION, UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNER'S REPRESENTATIVE.

#### PROTECTION OF VEGETATION AND ENVIRONMENTALLY SENSITIVE AREAS

. <u>NOTICE:</u> IF THE PROJECT IS REGULATED BY A U.S. ARMY CORPS OF ENGINEERS (USACE) PERMIT OR OTHER ENVIRONMENTAL PERMIT, THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLYING WITH THE PERMIT. 2. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL ENVIRONMENTALLY SENSITIVE AREAS NOTED ON THE DRAWINGS OR AS

IDENTIFIED BY THE OWNER'S REPRESENTATIVE. 2.1. IF AN ENVIRONMENTALLY SENSITIVE AREA IS DISTURBED OR DAMAGED, IT WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REMEDY THE DISTURBANCE OR DAMAGE TO THE REQUIREMENTS OF A LOCAL EXPERT APPROVED BY THE OWNER'S REPRESENTATIVE AND IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS AND REQUIREMENTS AT THE CONTRACTOR'S SOLE EXPENSE

3. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL VEGETATION THAT IS NOTED ON THE DRAWINGS OR AS DIRECTED BY THE 3.1. TREES, SHRUBS, AND VEGETATION THAT ARE TO REMAIN SHALL BE TRIMMED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICES

AND PROTECTED FROM DAMAGE. 3.2. IF DAMAGE SHOULD OCCUR TO A TREE OR SHRUB THAT IS TO REMAIN. THE CONTRACTOR WILL BE RESPONSIBLE FOR CARING/REPLACING THE ITEM FOR A PERIOD TO BE DETERMINED BY A COMPETENT PERSON AT THE CONTRACTOR'S SOLE EXPENSE.

WORK SITE SAFETY AND SECURITY

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT A SAFETY PROGRAM THAT IS IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS FOR ALL WORKERS AND VISITORS FOR THE ENTIRETY OF THE PROJECT.

2. THE CONTRACTOR SHALL POST ON-SITE ALL EMERGENCY PHONE NUMBERS FOR: 2.1. POLICE, FIRE, AND MEDICAL EMERGENCIES

2.2. PUBLIC UTILITY OPERATORS (FOR EACH OPERATOR WITHIN AND ADJACENT TO THE PROJECT SITE)

2.3. PRIVATE UTILITY OPERATORS (FOR EACH OPERATOR WITHIN AND ADJACENT TO THE PROJECT SITE)

2.4. STREET OPERATORS (FOR EACH OPERATOR WITHIN AND ADJACENT TO THE PROJECT SITE) 2.5. TRAFFIC SIGNAL OPERATORS (FOR EACH OPERATOR WITHIN AND ADJACENT TO THE PROJECT SITE)

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAINING ALL EMPLOYEES AND SUBCONTRACTORS IN THE RECOGNITION AND AVOIDANCE OF UNSAFE CONDITIONS AND IN THE REGULATIONS AND HAZARDS WHICH APPLY TO THE AREA IN WHICH THE WORK WILL TAKE PLACE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL EQUIPMENT AND MATERIALS FOR THE PROTECTION OF PERSONS AND PROPERTY AND FOR

PROVIDING SAFE WORKING CONDITIONS THROUGHOUT THE WORK PROGRESS. 4.1. ALL SAFETY EXPOSURES OR VIOLATIONS SHALL BE RECTIFIED IMMEDIATELY BY THE CONTRACTOR.

5. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER SUCH THAT TRUCKS AND OTHER EQUIPMENT DO NOT CREATE A SAFETY HAZARD ON ANY PUBLIC OR PRIVATE STREETS. 6. TRENCH SAFETY

6.1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A TRENCH SAFETY PROGRAM WHICH MEETS OR EXCEEDS THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) AND ANY OTHER LOCAL, STATE. AND FEDERAL REGULATIONS THAT PERTAIN TO TRENCH SAFETY.

6.1.1. ALL EXCAVATIONS AND BACKFILL OPERATIONS SHALL BE IN ACCORDANCE WITH THE LATEST OSHA EXCAVATION SAFETY STANDARDS, STATE REGULATIONS, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL PROVIDE AN EXCAVATION PLAN PREPARED BY AN ENGINEER

REGISTERED IN THE STATE OF TEXAS PRIOR TO BEGINNING TRENCHING OPERATIONS. 6.1.2. THE CONTRACTOR SHALL APPOINT A "COMPETENT PERSON" AS DEFINED BY OSHA WHO WILL BE ON-SITE AT ALL TIMES WHILE TRENCHING, PERFORMING EXCAVATIONS, AND WHEN WORKERS ARE IN TRENCHES.

6.1.3. THE EXCAVATION PLAN SHALL INDICATE THE PROCEDURES TO BE USED BY THE CONTRACTOR TO COMPLY WITH THE OSHA, STATE, AND

6.1.4. THE TRENCH SAFETY PROGRAM AND EXCAVATION PLAN SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR RECORD PURPOSES ONLY AND NOT FOR APPROVAL OR VERIFICATION. 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING AND CONTROLLING THE WORK SITE TO PREVENT ACCIDENTS, THEFT, AND VANDALISM. 7.1. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR REPLACEMENT OR SATISFACTORY REPAIRS TO EXISTING AND NEW IMPROVEMENTS DUE

TO ACCIDENTS, THEFT, AND VANDALISM. 8. IT WILL NOT BE THE RESPONSIBILITY OF THE OWNER, OWNER'S REPRESENTATIVE, OR ENGINEER TO ENSURE THAT ALL SAFETY REGULATIONS ARE ABIDED BY. HOWEVER, IF THE OWNER, OWNER'S REPRESENTATIVE, OR ENGINEER RECOGNIZES OR IS NOTIFIED OF UNSAFE CONDITIONS, THE WORK BEING ACCOMPLISHED WILL BE STOPPED UNTIL THE CONTRACTOR INDICATES THAT IT IS NOT AN UNSAFE METHOD OR RECTIFIES THE SITUATION AT NO EXPENSE TO THE OWNER, OWNER'S REPRESENTATIVE, OR ENGINEER.

**CONSTRUCTION EQUIPMENT** 

. ONLY EQUIPMENT REQUIRED FOR PERFORMING THE WORK ON THE PROJECT WILL BE ALLOWED AT THE SITE

3. ALL EQUIPMENT REQUIRED TO PERFORM THE WORK ON THE PROJECT SHALL BE IN GOOD WORKING ORDER AND MAINTAINED THROUGHOUT

CONSTRUCTION.

4. ANY EQUIPMENT THAT IS TO BE STORED ON-SITE SHALL BE LOCATED IN AN AREA THAT IS PROTECTED TO PREVENT ACCIDENTS, DAMAGE TO MATERIALS, AND ANY ADVERSE ENVIRONMENTAL EFFECTS.

5. ANY EQUIPMENT THAT IS LEAKING FLUIDS SHALL BE FIXED PROMPTLY AND ANY FLUID CONTAMINATED SOIL SHALL BE REMOVED PROMPTLY IN

ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. 6. THE CONTRACTOR SHALL PROTECT AGAINST SOIL/WATER CONTAMINATION BY UTILIZING CONTAINERS OR BARRIERS.

7. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL FLUIDS, CLEANING MATERIALS, AND LIQUIDS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

1. ONLY MATERIALS MEETING THE REQUIREMENTS OF THE SPECIFICATIONS AND REQUIRED FOR PERFORMING THE WORK ON THE PROJECT WILL BE ALLOWED AT THE SITE. 2. ANY PROPOSED ALTERNATIVES TO THE MATERIALS NOTED WITHIN THE DRAWINGS OR REQUIRED BY THE SPECIFICATIONS ARE TO BE SUBMITTED TO

THE OWNER'S REPRESENTATIVE FOR APPROVAL SEVEN (7) CALENDAR DAYS PRIOR TO THE BID OPENING, 2.1. ANY CHANGES TO THE DRAWINGS REQUIRED BY ACCEPTANCE OF MATERIAL ALTERNATIVES AND/OR SUBSTITUTIONS ARE THE RESPONSIBILITY

OF THE CONTRACTOR AND SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL, WITH ALL COSTS ASSOCIATED WITH THE CHANGE BEING THE RESPONSIBILITY OF THE CONTRACTOR

2.2. THE OWNER RESERVES THE RIGHT TO REJECT ANY PROPOSED SUBSTITUTION IN FAVOR OF THAT SPECIFIED. 3. MATERIALS THAT ARE TO BE STORED ON-SITE SHALL BE STORED IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS AND PROJECT SPECIFICATIONS AND SHALL BE LOCATED IN AN AREA THAT IS PROTECTED TO PREVENT ACCIDENTS, DAMAGE TO MATERIALS, AND ANY ADVERSE ENVIRONMENTAL EFFECTS.

4. ANY DAMAGED MATERIALS SHALL BE PROMPTLY REMEDIED BY THE CONTRACTOR AT THE CONTRACTOR'S SOLE EXPENSE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

4.1. IF IT IS DETERMINED THAT THE MATERIAL(S) ARE NOT SUITABLE FOR INSTALLATION BY EITHER THE ENGINEER OR THE OWNER, THEN THE MATERIAL(S) ARE TO BE REMOVED FROM THE PROJECT SITE IMMEDIATELY AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATION AT THE SOLE EXPENSE OF THE CONTRACTOR.

5.1. SUBMIT MATERIAL DESCRIPTIVE LITERATURE, BULLETINS, TECHNICAL DATA SHEETS, MATERIAL SAFETY DATA SHEETS, AND INSTALLATION INSTRUCTIONS FOR SANITARY SEWER UTILITIES, STORM SEWER UTILITIES, WATER UTILITIES, PAVEMENT, AND OTHER MATERIALS THAT WILL BE

USED ON THE PROJECT. 5.2. MATERIAL INFORMATION SHALL INDICATE THAT SPECIFICATIONS ARE MET OR EXCEEDED. 5.3. SUBMITTALS FOR PREFABRICATED ASSEMBLIES SHALL BEAR THE SEAL OF AN ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS

CERTIFYING THAT THE PRODUCT MEETS ALL APPLICABLE DESIGN CONDITIONS AND CONFORMS TO GOVERNING CODE REQUIREMENTS. 6. SUBMIT REINFORCING STEEL SHOP DRAWINGS DETAILING REINFORCEMENT FABRICATION AND BAR PLACEMENT.

6.1. SHOP DRAWINGS SHALL INCLUDE A COMPLETE BILL OF MATERIALS FOR ALL REINFORCING STEEL, WHICH IS REFERENCED IN THE INFORMATION ON THE SHOP DRAWINGS.

6.2. THE SHOP DRAWINGS SHALL PROVIDE SUFFICIENT DETAIL TO PERMIT PLACEMENT OF THE REINFORCEMENT WITHOUT THE USE OF DESIGN

SUBMITTAL REQUIREMENTS

1. THE FOLLOWING PARTIAL LISTING OF SUBMITTALS SHALL BE FORWARDED TO THE OWNER'S REPRESENTATIVE FOR REVIEW WITH ANY WORK ASSOCIATED WITH THESE ITEMS NOT COMMENCING UNTIL THE SUBMITTALS HAVE BEEN REVIEWED AND APPROVED BY THE OWNER'S

1.1. SUBMIT GRADATION, ATTERBURG LIMITS AND MOISTURE DENSITY CURVES FOR EACH TYPE OF EXISTING SUBGRADE ENCOUNTERED AND FOR EACH TYPE OF FILL MATERIAL TO BE USED. 1.2. SUBMIT REINFORCING STEEL SHOP DRAWINGS DETAILING REINFORCEMENT FABRICATION AND BAR PLACEMENT.

1.2.1. SHOP DRAWINGS SHALL INCLUDE A COMPLETE BILL OF MATERIALS FOR ALL REINFORCING STEEL, WHICH IS REFERENCED TO THE INFORMATION ON THE SHOP DRAWINGS.

1.2.2. SHOP DRAWINGS SHALL PROVIDE SUFFICIENT DETAIL TO PERMIT PLACEMENT OF THE REINFORCEMENT WITHOUT THE USE OF THE DESIGN 1.3. SUBMIT DESCRIPTIVE LITERATURE, BULLETINS, TECHNICAL DATA SHEETS, MATERIAL SAFETY DATA SHEETS (MSDS), AND INSTALLATION

INSTRUCTIONS FOR THE FOLLOWING: 1.3.1. SANITARY SEWER UTILITY — INCLUDING BUT NOT LIMITED TO: PIPE, MANHOLES, FRAME AND COVER, CONCRETE, FITTINGS, AND

APPURTENANCES. 1.3.2. STORM SEWER UTILITY - INCLUDING BUT NOT LIMITED TO: PIPE, MANHOLES, INLETS, FRAME AND COVER/GRATE, CONCRETE, AND

APPURTENANCES. 1.3.3. WATER UTILITY - INCLUDING BUT NOT LIMITED TO: PIPE, VALVES, FITTINGS, CONCRETE, AND APPURTENANCES. 1.3.4. PAVING — INCLUDING BUT NOT LIMITED TO: ASPHALT MATERIALS, BASE MATERIALS, SUBGRADE MATERIALS, STEEL REINFORCEMENT FOR

CONCRETE PAVING, CURB AND GUTTER, SIDEWALKS, MIX DESIGNS FOR ASPHALT AND CONCRETE, CONSTRUCTION AND CONTROL JOINT MATERIALS/FILLERS, AND APPURTENANCES.

1.4. SUBMITTALS FOR PRECAST OR PREFABRICATED ASSEMBLIES SHALL BEAR THE SEAL OF A ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS CERTIFYING THAT THE PRODUCT MEETS ALL APPLICABLE DESIGN CONDITIONS AND CONFORMS TO GOVERNING CODE REQUIREMENTS.

1.5. SUBMIT ANY PROPOSED SUBSTITUTIONS TO THE ITEMS SPECIFIED HEREIN OR IN THE SPECIFICATIONS. 1.5.1. OWNER RESERVES THE RIGHT TO REJECT ANY PROPOSED SUBSTITUTION IN FAVOR OF THAT SPECIFIED.

1.5.2. IN THE EVENT THAT A SUBSTITUTED ITEM REQUIRES THE CONSTRUCTION DRAWINGS TO BE REVISED IN ANY MANNER, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL ASSOCIATED ENGINEERING AND REPRODUCTION COSTS FROM THE OWNER, MUNOZ ENGINEERING, LLC, AND ANY OTHER COSTS FROM ANYONE THE CONTRACTOR USES TO MAKE THE ADJUSTMENTS.

1.5.2.1. ALL ADJUSTMENTS TO THE CONSTRUCTION DRAWINGS MUST BE PERFORMED BY MUNOZ ENGINEERING, LLC. 1.5.3. IN THE EVENT THAT A SUBSTITUTED ITEM REQUIRES THE ADJUSTMENT AND/OR REINSTALLATION OF EXISTING OR PROPOSED UTILITIES AND/OR IMPROVEMENTS THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL COSTS.

1.6. CONTRACTOR SHALL SUBMIT PAVEMENT CONSTRUCTION AND CONTROL JOINT LOCATIONS FOR REVIEW PRIOR TO PLACING ANY PAVEMENT

CONCRETE. SUBMITTAL SHALL HIGHLIGHT JOINT LOCATIONS THAT HAVE BEEN CHANGED FROM THE LAYOUT SHOWN IN THE BID DOCUMENTS IN GENERAL, PAVEMENT CONSTRUCTION JOINT SPACING SHALL NOT EXCEED FORTY-FEET (40') ON CENTER AND PAVEMENT CONTROL JOIN SPACING SHALL NOT EXCEED TEN-FEEET (10') ON CENTER.

EROSION AND POLLUTION CONTROL DURING CONSTRUCTION

4. SEE ALSO TEMPORARY EROSION AND POLLUTION CONTROL NOTES AND PLAN(S) WITHIN THIS DRAWING SET.

1. ALL CONSTRUCTION ACTIVITIES SHALL BE SUBJECT TO THE EROSION AND POLLUTION PREVENTION REQUIREMENTS OF THE CITY. COUNTY, TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), ALL APPLICABLE PERMITS, AND ALL LAWS AND REGULATIONS. 1.1. A TCEQ STORMWATER PERMIT FOR CONSTRUCTION WILL BE REQUIRED FOR THIS PROJECT.

2. THE CONTRACTOR IS TO OBTAIN ALL REQUIRED PERMITS AND POST REQUIRED COPIES ON-SITE AT ALL ENTRANCES PRIOR TO COMMENCING CONSTRUCTION

3. THE CONTRACTOR WILL BE REQUIRED AT ALL TIMES DURING CONSTRUCTION TO PROVIDE AND MAINTAIN ALL REQUIRED CONTROL DEVICES THA ARE INDICATED WITHIN THE DRAWINGS AND ALL REQUIRED DEVICES AS REQUIRED BY ANY PERMIT.

TRAFFIC CONTROL AND EXISTING PEDESTRIAN FACILITIES

1. THE CONTRACTOR IS SOLELY RESPONSIBLE TO OBTAIN ALL TRAFFIC CONTROL PERMITS PRIOR TO COMMENCING ANY WORK WITHIN THE RIGHT-OF WAY FROM THE COUNTY OR CITY AND TXDOT (WHERE APPLICABLE).

2. THE CONTRACTOR IS SOLELY RESPONSIBLE TO PROVIDE, IMPLEMENT, AND COMPLY WITH A TRAFFIC CONTROL PLAN (TCP) MEETING TH REQUIREMENTS OF THE COUNTY OR CITY, TXDOT, THE OWNER'S REPRESENTATIVE, AND THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) (LATEST EDITION) FOR ANY WORK WITHIN THE RIGHT-OF-WAY AND ALL ADJACENT ROADS TO THE PROJECT SITE.

2.1. THE PLAN SHALL CONTAIN PROVISIONS FOR ALL PROJECT PHASES AND PROVIDE SUFFICIENT BARRICADES, WARNINGS, AND LIGHTING T WARN AND GUIDE MOTORISTS AND PEDESTRIANS THROUGH THE WORK AREA. 2.2. THIS PLAN IS TO BE SUBMITTED TO AND APPROVED BY ALL APPROPRIATE AGENCIES BEFORE CONSTRUCTION ALONG THE ROAD IS TO

2.3. THIS PLAN AND THE APPROVAL NOTIFICATION ARE TO BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR RECORD KEEPING PURPOSE:

ONLY BEFORE CONSTRUCTION ALONG THE ROAD IS TO COMMENCE. 2.4. IF A PLAN IS INCLUDED WITHIN THE DRAWINGS, IT SHOULD BE USED AS A GENERAL GUIDELINE. 3. ANY MODIFICATIONS TO THE APPROVED TRAFFIC CONTROL PLAN (TCP) SHALL BE SUBMITTED TO ALL APPROPRIATE AGENCIES FOR APPROVAL

PRIOR TO IMPLEMENTATION. 4. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR MAINTAINING AND VERIFYING THAT ALL TRAFFIC CONTROL DEVICES ARE IN THE PROPEI POSITION, WORKING ORDER, AND MEET THE SPECIFICATIONS EACH DAY PRIOR TO COMMENCING WORK AND PRIOR TO LEAVING FOR THE DAY AND VERIFYING AT LEAST ONCE PER DAY WHEN NO WORK IS DONE INCLUDING WEEKENDS, HOLIDAYS, AND WEATHER DAYS.

5. MAINTENANCE OF TRAFFIC CONTROL DEVICES ARE TO OCCUR IMMEDIATELY WHEN NOTICED THAT THE DEVICE DOES NOT MEET THE TRAFFIC CONTROL PLAN AND SPECIFICATIONS 5.1. IMMEDIATELY AFTER AN STORM EVENT THE CONTRACTOR SHALL PERFORM AN INSPECTION OF ALL TRAFFIC CONTROL DEVICES.

6. ALL TRAFFIC CONTROL DEVICES SHALL BE CLEAN AND HAVE ALL REQUIRED MARKINGS, LETTERINGS, AND ACCESSORIES INSTALLED ON THEM THROUGHOUT THE DURATION OF USE. 6.1. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN SUCH A MANNER TO PREVENT MOVEMENT DUE TO WIND EITHER FROM NATURA

7. IF TRAFFIC ON A ROAD IS TO BE DETOURED, OBSTRUCTED, AND/OR ROAD CLOSED, THE CONTRACTOR SHALL PROVIDE DAILY NOTIFICATION T ALL PUBLIC EMERGENCY DEPARTMENTS (I.E. FIRE, POLICE, EMS) AND ALL PRIVATE EMS.

7.1. AT ALL TIMES, THE CONTRACTOR SHALL MAINTAIN INGRESS/EGRESS TO ADJACENT PROPERTIES FOR EMERGENCY VEHICLES AND POSTAL SERVICE IF AN ALTERNATE ROUTE IS NOT AVAILABLE. 8. PLACEMENT OF TEMPORARY AND PERMANENT PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE TMUTCD, THE DRAWINGS, AND SHALL BE

APPROVED BY THE GOVERNING ENTITY. 9. THE CONTRACTOR SHALL MAINTAIN AND PROVIDE FOR SAFE AND CONVENIENT INGRESS/EGRESS TO THE PROPERTY ADJACENT TO CONSTRUCTION, PROTECT EXISTING IMPROVEMENTS, AND SHALL COORDINATE WITH THE PROPERTY OWNER / LESSEE FOR WORK ON THE SITE.

9.1. THE CONTRACTOR SHALL NOTIFY PROPERTY OWNER/LESSEE IN WRITING SEVEN (7) DAYS PRIOR TO START OF CONSTRUCTION AND SHALL NOTIFY IN WRITING AT LEAST TWO (2) WEEKS IN ADVANCE OF ANY WORK AFFECTING INGRESS/EGRESS FROM THE PROPERTY.

9.1.1. THE NOTICE SHALL BE APPROVED OF BY THE OWNER AND THE OWNER'S REPRESENTATIVE.

9.1.2. THE NOTICE SHALL BE HAND DELIVERED BY THE CONTRACTOR. 9.1.3. THE NOTICE SHALL INDICATE WHAT DISRUPTIONS WILL OCCUR AND PROVIDE DATES AND CONTRACTOR CONTACT INFORMATION IN THE EVENT OF EMERGENCIES OR ANY QUESTIONS.

IF THE CONTRACTOR IS TO MAINTAIN ACCESS TO A DRIVEWAY ACROSS THE WORK AREA THE CONTRACTOR SHALL PROVIDE A TEMPORARY DRIVE THAT HAS AN ALL WEATHER SURFACE OF NO LESS THAN THIRTY-FEET (30-FEET) IN WIDTH WITH APPROPRIATE RADIUSES AT EITHER END TO FACILITATE SAFE ENTRY AND EXIT TO HANDLE THE TRAFFIC THAT WILL BE USING THE TEMPORARY DRIVE. 10. THE CONTRACTOR SHALL MAINTAIN EXISTING PEDESTRIAN FACILITIES DURING CONSTRUCTION.

11. THE CONTRACTOR SHALL FILL ANY HOLES LEFT WHEN BARRICADES AND SIGNS ARE REMOVED AND RESTORE THE AREA TO THE ADJACENT

EXCESS, DEMOLITION, AND SALVAGED MATERIALS\_

AND/OR VEHICLE SOURCES.

1. THE PROJECT AREA SHALL AT ALL TIMES BE KEPT FREE OF DEBRIS AND EXCESS MATERIAL TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

2. EXCESS AND DEMOLITION MATERIALS WHICH ARE NOT USED ON THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS TH OWNER'S REPRESENTATIVE STATES OTHERWISE.

3. EXCESS SOIL MATERIAL FROM GRADING ACTIVITIES SHALL NOT BE REMOVED FROM THE SITE, UNLESS DIRECTED BY THE OWNER'S

4. DISPOSAL OF ALL EXCESS AND DEMOLITION MATERIALS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DISPOSED OF N ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. 5. DEMOLITION

5.1. DEMOLITION OF EXISTING IMPROVEMENTS SHALL BE PERFORMED BY THE CONTRACTOR BY SAW-CUTTING AT THE POINT WHERE THE ITEM IS TO REMAIN, UNLESS OTHERWISE INDICATED BY THE OWNER'S REPRESENTATIVE.

5.1.1. CUTS SHALL BE VERTICAL AND TO A DEPTH THAT WILL ALLOW THE PORTION TO BE REMOVED WITHOUT DAMAGING ANY PORTION T 5.2. DEMOLITION SHALL BE COMPLETED IN A MANNER THAT WILL NOT DAMAGE THE PORTION THAT WILL REMAIN AND SHALL BE DONE IN

MANNER THAT IS CONSISTENT WITH INDUSTRY STANDARDS. 5.2.1. DAMAGE TO ANY PORTION THAT IS TO REMAIN SHALL BE REPLACED OR REPAIRED TO A LIKE OR BETTER CONDITION BY THE CONTRACTOR

AT NO EXPENSE TO THE PROJECT. 5.3. CEASE OPERATIONS AND NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY IF ADJACENT IMPROVEMENTS APPEAR TO BE ENDANGERED.

5.4. WELDING OR CUTTING STEEL WITH A TORCH IS NOT PERMITTED UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE. 5.5. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS AND METHODS TO PREVENT THE SPREAD OF DUST AND/OR OTHER DEBRIS FF ENTERING OCCUPIED AREAS OF ADJACENT BUILDINGS OR FROM DAMAGING EXISTING ITEMS THAT ARE TO REMAIN.

6. MATERIALS THAT ARE DEEMED SALVAGEABLE SHALL BE HANDLED BY THE CONTRACTOR IN A MANNER TO PREVENT DAMAGE AND SHALL STORED AT A LOCATION THAT IS SUITABLE FOR THE OWNER'S REPRESENTATIVE.

7. IF WASTE AREAS OR MATERIAL SOURCE AREAS RESULT FROM THIS PROJECT, THE CONTRACTOR IS TO FOLLOW ALL LOCAL, STATE, AND FEDERA REGULATIONS.

DRAINAGE DURING CONSTRUCTION

 THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES DURING CONSTRUCTION THE CONTRACTOR SHALL PROVIDE INTERIM DRAINAGE BY MEANS OF PUMPS AND TEMPORARY DITCHES DURING CONSTRUCTION AS REQUIRED MAINTAIN A WELL-DRAINED SITE FREE OF STANDING WATER AND WATER SOFTENED SOILS, UNLESS OTHERWISE INDICATED BY THE OWNER'S

REPRESENTATIVE. DRAINAGE FROM ADJACENT PROPERTIES SHALL NOT BE BLOCKED AT ANYTIME PRIOR, DURING, AND AFTER CONSTRUCTION AND WILL HANDLED AS SHOWN ON THE DRAWINGS OR AS INDICATED BY THE OWNER'S REPRESENTATIVE.

## NOTICE

 THE GENERAL CONTRACTOR AND ALL SUBCONTRACTOR(S) WHICH WILL B PERFORMING ANY WORK INDICATED WITHIN THESE DRAWINGS WILL BE SOLELY RESPONSIBLE FOR CONTACTING TEXAS 811, LONE STAR 811, AND OTHER UTILITY LOCATING COMPANIES AS WELL AS ALL LOCAL UTILITIES (WASTEWATER, STORM, WATER, GAS, TRAFFIC, ETC.) BY ALL MEANS POSSIBLE FOR THE LOCATING AND MARKING OF UNDERGROUND AND ABOVE GROUND UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION.

DAMAGES TO UTILITIES WILL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE GENERAL CONTRACTOR TO PROVIDE A REMEDY TO THE DAMAGE WITH THE UTILITY OWNER

THE PROJECT OWNER, PROJECT ENGINEER, OWNER'S AUTHORIZED REPRESENTATIVE (OAR), AND ANY EMPLOYEES OF THESE SHALL NOT BE RESPONSIBLE FOR CONTACTING ANY COMPANY FOR LOCATING OR REMEDYING OF ANY DAMAGE OF ANY UTILITY.



811 OR 1-800-344-8377 OR www.texas811.org GIVE 4 WORKING DAYS (M-F) NOTICE

CENSED SIONAL ENG - Julio

ME PROJECT NO.: 240086

RAMIRO MUÑOZ

100346

# THE SITE SHALL BE CLEARED OF ALL TREES, SHRUBS, AND STUMPS UNLESS OTHERWISE NOTED ON THE DRAWINGS OR INDICTED BY

- THE SITE SHALL BE CLEARED OF ALL EXISTING CONCRETE, PAVEMENT, WALLS, FENCING, FOUNDATIONS, ETC. AS REQUIRED TO PROPERLY CONSTRUCT THE PROJECT WITH ALL WORK IN ACCORDANCE WITH THE SPECIFICATIONS AND AS INDICATED ON THE
- THE TOP SIX-INCHES (6") OF MATERIAL SHALL BE STOCKPILED ON-SITE AND USED FOR FINAL STABILIZATION BETWEEN THE BACK OF CURB / ROAD EDGE AND SIDEWALK / RIGHT-OF-WAY LINE / PROPERTY LINE AND COMPACTED TO ACHIEVE A A DEPTH OF
- 4. ALL EARTHWORK (SITE GRADING, FILLING, HAULING, CUTTING, LOADING, ETC.) REQUIRED TO ACHIEVE THE LINES AND GRADES AS
- FILL BEYOND THE RIGHT-OF-WAY (ON LOTS) SHALL BE PLACED IN SIX-INCH (6") LIFTS AND COMPACTED TO MEET THAT OF THE
- CONTRACTOR SHALL PERFORM ROUGH EARTHWORK (SITE GRADING, FILLING, HAULING, CUTTING, LOADING, ETC.) TO VERIFY ADEQUATE EARTH QUANTITY ON-SITE TO ACHIEVE THE REQUIRED GRADES INDICATED WITHIN THIS DRAWING SET PRIOR TO ANY OTHER
- 6.1. IF MATERIAL IS TO BE HAULED FROM OFF-SITE SOURCES THE MATERIAL SHALL BE OF LIKE MATERIAL COMPOSITION AS TO WHAT IS
- GRADES NOT OTHERWISE INDICATED SHALL BE UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE GIVEN, OR

- 10.1. THE CONTRACTOR SHALL PHASE WORK ON THE SITE AND USE WATER, TEMPORARY COVER, AND/OR DUST CONTROL AGENTS TO
- 10.2. IF DUST FROM THE PROJECT SITE BECOMES EXCESSIVE, THE CONTRACTOR WILL BE REQUIRED TO TAKE ANY AND ALL MEASURES
- 11. CONTRACTOR SHALL LIMIT THE AMOUNT OF EROSION DUE TO STORM EVENTS AND ANY EROSION AREAS SHALL BE RESHAPED AND
- 12. WHEN THE FINISHED FLOOR (FF) ELEVATION IS INDICATED ON THE GRADING PLAN, IT IS TO BE UNDERSTOOD THAT IT IS A RECOMMENDATION BASED UPON THE DRAINAGE DESIGN OF THE PROJECT. THIS RECOMMENDED FINISHED FLOOR ELEVATION (FF) IS
- 12.1. THE OWNER AND THE DESIGN PROFESSIONAL OF THE BUILDING WILL BE SOLELY RESPONSIBLE FOR ADJUSTING THE FINISHED FLOOR (FF) ELEVATION UPON VERIFICATION OF CURRENT CONDITIONS AND ALL CURRENT APPLICABLE LAWS, STATUTES. RULES. REGULATIONS, ORDINANCES, CODES, AND ORDERS OF ANY AND ALL GOVERNMENTAL BODIES, AGENCIES, AUTHORITIES, AND COURTS
- THE CONTRACTOR SHALL PROVIDE INTERIM DRAINAGE BY MEANS OF PUMPS AND TEMPORARY DITCHES DURING CONSTRUCTION AS REQUIRED TO MAINTAIN A WELL-DRAINED SITE FREE OF STANDING WATER AND WATER SOFTENED SOILS, UNLESS OTHERWISE
- DRAINAGE FROM ADJACENT PROPERTIES SHALL NOT BE BLOCKED AT ANYTIME PRIOR, DURING, AND AFTER CONSTRUCTION AND WILL BE
- 1.1. IF ANY IMPROVEMENT IS DAMAGED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE ITEM
- THE CONTRACTOR SHALL CONSTRUCT THE PROJECT TO THE LINES, GRADES, AND ELEVATIONS AS SPECIFIED AND AS INDICATED WITHIN PAVEMENT CONSTRUCTION
- 4. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTROLLING DUST AND SOIL MOVEMENT BY WIND AND WATER ONCE SITE GRADING
- 4.1. IF DUST AND SOIL MOVEMENT BY WIND AND WATER BECOMES EXCESSIVE, THE OWNER'S REPRESENTATIVE MAY CEASE ALL
- 5.1. THIS MATERIAL, WITH THE EXCEPTION OF OBJECTIONABLE MATTER, SHALL BE STOCKPILED, IF FEASIBLE, AND REUSED AS SURFACE
- OBJECTIONABLE MATTER SHALL BE DETERMINED BY THE OWNER'S REPRESENTATIVE AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS, UNLESS OTHERWISE
- 6. IMPORT MATERIAL, WHEN REQUIRED, SHALL BE OF SIMILAR MATERIAL AS TO THE NATURAL OCCURRING MATERIAL ON-SITE AND
- 6.1. MATERIAL SHALL BE FREE OF LARGE CLODS, LARGE ROCKS, ORGANIC MATTER, CONSTRUCTION MATERIAL, TRASH, AND OTHER
- 6.2.1. THE OWNER'S REPRESENTATIVE SHALL BE PROVIDED TRIP TICKETS THAT INDICATE THE TRUCK NUMBER, DATE OF DELIVERY,
- 6.2.2. TRIP TICKETS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE ON A WEEKLY INTERVAL AND AS REQUESTED.
- 6.2.3. THE OWNER, OWNER'S REPRESENTATIVE(S), AND ENGINEER WILL NOT VERIFY ANY MATERIAL QUANTITY THAT IS DELIVERED, NOR
- 8. NO FILL THAT IS PLACED BY DUMPING IN A PILE OR WINDROW SHALL BE INCORPORATED INTO A LAYER IN THAT POSITION; ALL SUCH
- ALL FILL SHALL BE PLACED IN LAYERS APPROXIMATELY PARALLEL TO THE FINISH GRADE AND IN LAYERS NOT IN EXCESS OF
- 10.1.1. TO A DENSITY WHICH APPROXIMATES THAT OF THE EXISTING NATURAL GROUND, UNLESS OTHERWISE INDICATED BY THE OWNER'S
- 10.1.2. DENSITY VERIFICATION WILL NOT REQUIRED UNLESS THE OWNER'S REPRESENTATIVE DETERMINES THAT DENSITIES NEED TO BE TAKEN TO ENSURE PROPER PLACEMENT HAS BEEN ACHIEVED. 10.2. 5' BEYOND RIGHT-OF-WAY AND WITHIN RIGHT-OF-WAY AREAS
- 10.2.1. TO A DENSITY OF NOT LESS THAN 95% STANDARD PROCTOR AT OPTIMUM MOISTURE CONTENT, UNLESS INDICATED OTHERWISE BY THE OWNER'S REPRESENTATIVE.
- 10.3. ALL IRREGULARITIES, DEPRESSIONS, AND SOFT SPOTS WHICH DEVELOP FROM COMPACTION SHALL BE CORRECTED BY THE CONTRACTOR.
- 11. ANY EARTHWORK QUANTITIES SHOWN WITHIN THE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REFLECT THE ACTUAL AMOUNT THAT WILL BE REQUIRED TO COMPLETE THE WORK DUE TO CONSTRUCTION METHODS.

## EXCAVATION AND TRENCHING FOR UTILITIES, ROADWAY, AND STRUCTURES

- ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE TRENCH SAFETY PROGRAM THAT HAS BEEN DEVELOPED AND IMPLEMENTED BY 2. EXCAVATIONS SHALL NOT BE MADE DURING INCLEMENT WEATHER.
- WATER ACCUMULATION IN EXCAVATIONS EXCEEDING ONE-INCH (1") SHALL BE PUMPED OUT PRIOR TO CONTINUING CONSTRUCTION OR AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- TRENCH EXCAVATION SHALL NOT PRECEDE BACKFILL BY MORE THAN 200 FEET.
- TRENCHES SHALL NOT BE LEFT OPEN OR UNSECURED AFTER NORMAL WORKING HOURS OR WHILE WORKERS ARE NOT PRESENT

- 5.1. IF TRENCHES ARE LEFT OPEN, THEY SHALL BE COVERED AND APPROPRIATE AND ADEQUATE BARRICADES SHALL BE PLACED TO PREVENT ACCESS INTO THE TRENCH AREA.
- ALL TOP SOIL, VEGETATION, ORGANIC MATERIAL, AND UNSUITABLE SOIL UNDER CONSTRUCTION AREAS SHALL BE EXCAVATED IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS AND STOCKPILED AND USED AS STABILIZATION MATERIAL FOR AREAS THAT WILL NOT BE BENEATH ROADS, DRIVEWAYS, SIDEWALKS, STRUCTURES, AND OTHER ITEMS AS INDICATED BY THE OWNER'S REPRESENTATIVE.

#### DEWATERING

- DEWATERING ACTIVITIES MAY BE REQUIRED TO CONSTRUCT PORTIONS OF THE PROJECT
- 1.1. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL REQUIRED PERMITS AND EROSION AND POLLUTION CONTROL DEVICES TO CONTROL THE EFFLUENT AND SHALL INSTALL THOSE DEVICES PRIOR TO COMMENCING DEWATERING ACTIVITIES
- THE LOCATION OF THE(SE) DEVICES SHALL BE INSTALLED AT APPROVED LOCATION(S) BY THE OWNER'S REPRESENTATIVE. 2. ALL DEWATERING ACTIVITIES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND LOCAL, STATE, AND FEDERAL REGULATIONS. THE CONTRACTOR WILL ALSO BE REQUIRED TO TEST THE SURROUNDING SURFACE WATER(S) AND THE WATER FROM THE DEWATERING
- ACTIVITIES FOR WATER COMPOSITION PRIOR TO DISCHARGING EFFLUENT 3.1. THE CONTRACTOR SHALL FURNISH THE OWNER'S REPRESENTATIVE WITH A COPY OF THE TEST REPORT
- 3.2. IF THE WATER IS DETERMINED TO BE OF A COMPOSITION THAT MAY HARM THE SURROUNDING ENVIRONMENT, THEN THE CONTRACTOR WILL BE RESPONSIBLE FOR THE DISPOSAL IN A MANNER THAT IS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
- WATER REMOVED FROM EXCAVATIONS SHALL BE HANDLED IN SUCH A MANNER AS TO PREVENT DAMAGE TO ADJACENT PROPERTY AND
- OTHER WORK. 4.1. DAMAGE CAUSED BY DEWATERING OPERATIONS TO THE ADJACENT PROPERTY OR WORK SHALL BE REPAIRED OR REMEDIED BY THE CONTRACTOR AT THE CONTRACTOR'S SOLE EXPENSE.
- 4.2. IF WATER IS TO BE DISPOSED OF OFFSITE, THE CONTRACTOR WILL BE REQUIRED TO LOCATE AND ACQUIRE THE DISPOSAL SITE, OBTAIN ALL PERMITS, AND DISPOSE OF IT IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

#### **STORM WATER UTILITY NOTES**

- ALL STORM SEWER SHALL BE AS INDICATED ON THE DRAWINGS AND SHALL BE INSTALLED, BEDDED, AND BACK FILLED IN ACCORDANCE WITH THE STANDARDS, DETAILS, INDUSTRY STANDARDS, AND MANUFACTURERS RECOMMENDATIONS
- 2. ALL TRENCH BACKFILL SHALL BE PLACED IN 6" LIFTS AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM D-698/AASHTO T99).
- ALL REINFORCED CONCRETE PIPE (RCP) JOINTS SHALL BE WRAPPED WITH GEOTEXTILE. OFF THE PROJECT SITE DURING AND AFTER WORKING HOURS SEVEN (7) DAYS A WEEK THROUGHOUT THE DURATION OF THE 4. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLET LEADS ARE TO BE PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE
  - INDICATED ON THE DRAWINGS OR INDICATED BY THE OWNER'S REPRESENTATIVE.
  - 5. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 12" CLEARANCE AT STORM SEWER AND WATERLINE CROSSINGS. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM THAT
  - HAS BECOME DISTURBED AS A RESULT OF THIS WORK. ALL DITCHES SHALL BE GRADED TO THE PROPOSED ELEVATIONS TO ENSURE PROPER DRAINAGE
  - B. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED 9. ALL DRIVEWAYS SHALL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES, UNLESS OTHERWISE INDICATED.

#### EXISTING PAVEMENT REMOVAL AND REPAIR

- 1.1. PAVEMENT SHALL BE SAW-CUT FULL DEPTH WHERE EXISTING PAVEMENT IS BEING PARTIALLY REMOVED.
- 1.2. AT A MINIMUM, PAVEMENT REPAIR SHALL CONSIST OF TWO-INCH (2") HOT MIX ASPHALTIC CEMENT (HMAC) AND TWELVE-INCH (12") COMPACTED FLEXIBLE BASE IN ACCORDANCE WITH THE SPECIFICATIONS.
- 1.2.1. BASE SHALL BE COMPACTED TO A MINIMUM OF NINETY-EIGHT PERCENT (98%) MODIFIED PROCTOR IN ACCORDANCE WITH ASTM D1557 AT MOISTURE CONTENT -1% TO +3% OF OPTIMUM.
- 1.2.2. IF THE EXISTING PAVEMENT SECTION IS FOUND TO BE THICKER, THE PAVEMENT REPAIR SECTION SHALL BE INCREASED TO MATCH THE EXISTING SECTION.
- CONCRETE PAVEMENT 2.1. PAVEMENT SHALL BE SAW-CUT FULL DEPTH WHERE EXISTING PAVEMENT IS BEING PARTIALLY REMOVED.
- 2.2. AT A MINIMUM, PAVEMENT REPAIR SHALL CONSIST OF SIX-INCH (6") REINFORCED WITH #4 BARS ON TWELVE-INCH (12") ON-CENTERS WITH DOWELS INTO THE EXISTING PAVEMENT EVERY TWENTY-FOUR INCHES (24") OR EVENLY SPACED AND EIGHT-INCH (8") COMPACTED FLEXIBLE BASE IN ACCORDANCE WITH THE SPECIFICATIONS.
- 2.2.1. BASE SHALL BE COMPACTED TO A MINIMUM OF NINETY-EIGHT PERCENT (98%) MODIFIED PROCTOR IN ACCORDANCE WITH ASTM
- D1557 AT MOSITURE CONTENT -1% TO +3% OF OPTIMUM. 2.2.2. IF THE EXISTING PAVEMENT SECTION IS FOUND TO BE THICKER, THE PAVEMENT REPAIR SECTION SHALL BE INCREASED TO MATCH THE EXISTING SECTION.

- PRIOR TO COMMENCING PAVING ACTIVITIES, ALL IMPROVEMENTS SHALL BE PROTECTED FROM DAMAGE. 1.1. IF ANY IMPROVEMENT IS DAMAGED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE ITEM DAMAGED AT NO ADDITIONAL COST TO THE PROJECT.
- THE CONTRACTOR SHALL CONSTRUCT PAVEMENT TO THE LINES, GRADES, AND ELEVATIONS AS REQUIRED BY THE SPECIFICATIONS AND 4. AS INDICATED WITHIN THE DRAWINGS.
- 2.1. ANY ADJUSTMENTS TO THE LINES, GRADES, AND ELEVATIONS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE. 3. THE CONTRACTOR SHALL CONSTRUCT PAVEMENT SECTIONS AS INDICATED WITHIN THE DRAWINGS WITH MATERIALS MEETING OR EXCEEDING THE SPECIFICATIONS.
- 3.1. FLEXIBLE PAVEMENT SECTION 3.1.1. PUBLIC IMPROVEMENT AND PRIVATE IMPROVEMENT WITHIN PUBLIC ROW WITH CLAY SOILS
  - SUBGRADE SHALL BE LIME TREATED, WHEN INDICATED WITHIN THE DRAWINGS, IN ACCORDANCE WITH LOCAL GOVERNING
  - IF LOCAL SPECIFICATIONS ARE NOT AVAILABLE THEN AT A MINIMUM THE SUBGRADE MATERIAL SHALL BE IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 260 - LIME TREATMENT (ROAD-MIXED)
  - AT A MINIMUM THE SUBGRADE SHALL BE TREATED WITH LIME SLURRY TO RESULT IN A PLASTICITY INDEX (P.I.) BELOW TWENTY (20), IN NO CASE SHALL THE PERCENT LIME BY LESS THAN FIVE-PERCENT (5%).
  - 3.1.1.2. BASE AND SUBGRADE REINFORCEMENT (GEOGRID), ONLY WHEN INDICATED WITHIN THE DRAWINGS, SHALL BE TENSAR TRIAX? TX5 GEOGRID OR APPROVED EQUAL (NOTE: EQUAL MUST INDICATE SAME OR BETTER TESTING RESULTS FROM THE SAME TESTS), INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
- 3.1.1.3. BASE MATERIAL SHALL BE IN ACCORDANCE WITH LOCAL GOVERNING SPECIFICATIONS. 3.1.1.3.1. IF LOCAL SPECIFICATIONS ARE NOT AVAILABLE, OR DO NOT INDICATE TYPE, THEN AT A MINIMUM THE BASE MATERIAL SHALL BE TYPE A GRADE 1-2 IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND
- MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 247 FLEXIBLE BASE. 3.1.1.4. HOT MIX ASPHALTIC CONCRETE (HMAC) SHALL BE IN ACCORDANCE WITH LOCAL GOVERNING SPECIFICATIONS. 3.1.1.4.1. IF LOCAL SPECIFICATIONS ARE NOT AVAILABLE, OR DO NOT INDICATE TYPE, THEN AT A MINIMUM THE HMAC SHALL BE
- TYPE D IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 341 - DENSE-GRADED HOT-MIX ASPHALT. 3.1.2. PRIVATE IMPROVEMENT WITHIN PRIVATE PROPERTY WITH CLAY SOILS
- 3.1.2.1. SUBGRADE SHALL BE LIME TREATED, WHEN INDICATED WITHIN THE DRAWINGS, IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 260 - LIME TREATMENT (ROAD-MIXED). 3.1.2.1.1. AT A MINIMUM THE SUBGRADE SHALL BE TREATED WITH LIME SLURRY TO RESULT IN A PLASTICITY INDEX (P.I.) BELOW
- TWENTY (20), IN NO CASE SHALL THE PERCENT LIME BY LESS THAN FIVE-PERCENT (5%). 3.1.2.2. BASE AND SUBGRADE REINFORCEMENT (GEOGRID), ONLY WHEN INDICATED WITHIN THE DRAWINGS, SHALL BE TENSAR TRIAX?
- TX5 GEOGRID OR APPROVED EQUAL (NOTE: EQUAL MUST INDICATE SAME OR BETTER TESTING RESULTS FROM THE SAME TESTS), INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS. BASE MATERIAL SHALL BE TYPE A GRADE 1-2, OR AS INDICATED WITHIN THE DRAWINGS, IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 247 -
- HOT MIX ASPHALTIC CONCRETE (HMAC) SHALL BE TYPE D IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR 3.1.2.4. CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 341 - DENSE-GRADED HOT-MIX
- ASPHALT. 3.1.3. PUBLIC IMPROVEMENT OR PRIVATE IMPROVEMENT WITHIN PUBLIC ROW WITH SAND SOILS SUGBRADE SHALL BE AS PER TYPE INDICATED WITHIN THE DRAWINGS AND IN ACCORDANCE WITH LOCAL GOVERNING SPECIFICATIONS.
  - BASE MATERIAL SHALL BE AS PER TYPE AS INDICATED WITHIN THE DRAWINGS AND IN ACCORDANCE WITH LOCAL GOVERNING SPECIFICATIONS. IF LOCAL SPECIFICATIONS ARE NOT AVAILABLE, OR DO NOT INDICATE TYPE, THEN AT A MINIMUM THE MATERIAL SHALL BE CEMENT STABILIZED BASE.
- CEMENT STABILIZED BASE 3.1.3.3.2.1. AT A MINIMUM SHALL HAVE A PLASTICITY INDEX (P.I.) BELOW TWENTY (20) AND BE TREATED WITH

- ELEVEN-PERCENT (11%) CEMENT (CONTRACTOR MAY, AT HIS SOLE COST, HAVE THE SOIL TESTED BY TH TESTING COMPANY TO PROVIDE A RECOMMENDATION OF THE PERCENT CEMENT REQUIRED).
- IF LOCAL SPECIFICATIONS ARE NOT AVAILABLE THEN AT A MINIMUM THE BASE MATERIAL SHALL BE II ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS
- STREETS, AND BRIDGES ITEM 275 CEMENT TREATMENT (ROAD-MIXED). FLEXIBLE BASE 3.1.3.3.3.1. SHALL BE TYPE A GRADE 1-2, OR AS INDICATED WITHIN THE DRAWINGS, IN ACCORDANCE WITH TXDOT STANDARD
- SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 247
- 3.1.1.4. HOT MIX ASPHALTIC CONCRETE (HMAC) SHALL BE IN ACCORDANCE WITH LOCAL GOVERNING SPECIFICATIONS. 3.1.1.4.1. IF LOCAL SPECIFICATIONS ARE NOT AVAILABLE, OR DO NOT INDICATE TYPE, THEN AT A MINIMUM THE HMAC SHALL B
- TYPE D IN ACCORDANCE WITH TxDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS STREETS, AND BRIDGES ITEM 341 - DENSE-GRADED HOT-MIX ASPHALT.
- 3.1.2. PRIVATE IMPROVEMENT WITHIN PRIVATE PROPERTY WITH SAND SOILS 3.1.3.2. SUGBRADE SHALL BE AS PER TYPE INDICATED WITHIN THE DRAWINGS
- BASE MATERIAL SHALL BE AS PER TYPE AS INDICATED WITHIN THE DRAWINGS. 3.1.3.3.1. CEMENT STABILIZED BASE
- 3.1.3.3.1.1. AT A MINIMUM SHALL HAVE A PLASTICITY INDEX (P.I.) BELOW TWENTY (20) AND BE TREATED WITH ELEVEN-PERCENT (11%) CEMENT (CONTRACTOR MAY, AT HIS SOLE COST, HAVE THE SOIL TESTED BY THE TESTING COMPANY TO PROVIDE A RECOMMENDATION OF THE PERCENT CEMENT REQUIRED) AND SHALL BE II ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS
- 3.1.3.3.2. FLEXIBLE BASE SHALL BE TYPE A GRADE 1-2, OR AS INDICATED WITHIN THE DRAWINGS, IN ACCORDANCE WITH TXDOT STANDARI 3.1.3.3.2.1. SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 247
- 3.1.1.4. HOT MIX ASPHALTIC CONCRETE (HMAC) SHALL BE TYPE D IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FO CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 341 - DENSE-GRADED HOT-MIX

STREETS, AND BRIDGES ITEM 275 - CEMENT TREATMENT (ROAD-MIXED).

- 3.2. RIGID PAVEMENT SECTION
- 3.2.1. PUBLIC IMPROVEMENT AND PRIVATE IMPROVEMENT WITHIN PUBLIC ROW WITH CLAY SOILS 3.2.1.1. SUBGRADE SHALL BE LIME TREATED IN ACCORDANCE WITH LOCAL GOVERNING SPECIFICATIONS. IF LOCAL SPECIFICATIONS ARE NOT AVAILABLE THEN AT A MINIMUM THE SUBGRADE MATERIAL SHALL BE I ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS
- AND BRIDGES ITEM 260 LIME TREATMENT (ROAD-MIXED). 3.2.1.1.2. AT A MINIMUM THE SUBGRADE SHALL BE TREATED WITH LIME SLURRY TO RESULT IN A PLASTICITY INDEX (P.I.) BELOW TWENTY (20), IN NO CASE SHALL THE PERCENT LIME BY LESS THAN FIVE-PERCENT (5%)
- 3.2.1.2. BASE MATERIAL SHALL BE IN ACCORDANCE WITH LOCAL GOVERNING SPECIFICATIONS 3.2.1.2.1. IF LOCAL SPECIFICATIONS ARE NOT AVAILABLE, OR DO NOT INDICATE TYPE. BASE SHALL BE AS INDICATED WITHIN TH DRAWINGS, WHEN INDICATED SHALL BE TYPE A GRADE 1-2 IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS
- FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES ITEM 247 FLEXIBLE BASE. CONCRETE SHALL BE IN ACCORDANCE WITH LOCAL GOVERNING SPECIFICATIONS AND THE DRAWINGS. IF LOCAL SPECIFICATIONS ARE NOT AVAILABLE, OR DO NOT INDICATE TYPE AND MATERIALS, THEN AT A MINIMUM THE CONCRETE SHALL BE IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE
- OF HIGHWAYS, STREETS, AND BRIDGES ITEM 360 CONCRETE PAVEMENT. MATERIALS SHALL BE AT A MINIMUM THE FOLLOWING: 3.2.1.3.2.1. CONCRETE SHALL BE MINIMUM 4,000 PSI AT TWENTY-EIGHT (28) DAYS, UNLESS OTHERWISE NOTED.
- 3.2.1.3.2.2. REINFORCING STEEL SHALL BE MINIMUM ASTM A 615, GRADE 60. 3.2.1.3.2.3. MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE ONE-ONE HALF INCH (1-1/2) INCH) AND FINE AGGREGATE
- SHALL BE CLEAN WITHOUT ANY CLAY PARTICLES 3.2.1.3.2.4. ALL CONCRETE SHALL BE AIR ENTRAINED, CONFORMING TO ASTM C-260 MINIMUM AIR CONTENT, 6% ANY OTHER
- ADDITIVES SHALL BE SUBJECT TO PRIOR APPROVAL BY THE OWNER'S REPRESENTATIVE LAP AND SPLICES SHALL BE MINIMUM THIRTY (30) BAR DIAMETERS OF LARGER DIAMETER BAR AND STAGGER ADJACENT BAR SPLICES A MINIMUM OF TWENTY-FOUR INCHES (24-INCHES).
- 3.2.1.3.2.6. REINFORCEMENT SHALL BE SECURELY SUPPORTED TO PREVENT VERTICAL AND HORIZONTAL MOVEMENT DURING
- PROVIDE EXPANSION JOINTS AND CONTROL JOINTS FOR CONCRETE FLATWORK AS INDICATED ON THE DRAWINGS.
- 3.2.1.3.2.8. PROVIDE UNIFORM SLOPE FROM HIGH POINT TO LOW POINT AS INDICATED ON THE DRAWINGS, DO NOT POOL OR POCKET SURFACE WATER. INSTALL PAVING JOINT FILLER BOARD AND EXPANSION JOINT CAPS PER MANUFACTURER'S RECOMMENDATIONS. 3.2.1.3.2.9.
- 3.2.1.3.2.10. APPLY A SINGLE BEAD OF EPOXY (GREENSTREAK 7300 GP EPOXY OR EQUAL) BETWEEN ALL ONE—SIDED RETROFIT PVC EXPANSION JOINT CAP SEALS (628 OR 632) AND EXISTING SLAB, CURB OR FOUNDATION PRIOR TO PLACING NEW PAVING.
- FLEXIBLE JOINT SEALANT COMPOUND (POLYSPEC 2235 SL POLY-SULFIDE POLYMER OR APPROVED EQUAL) USE ALONG WITH CELLULAR FOAM PACKING MATERIAL (BACKER ROD) MAY BE USED INSTEAD OF PVC PAVING CAP WITH FHR APPROVAL.
- THE CONTRACTOR WILL BE REQUIRED TO HAVE THE SUBGRADE AND PROPOSED BASE MATERIALS TESTED BY AN OWNER'S REPRESENTATIVE APPROVED GEOTECHNICAL TESTING LABORATORY FOR THE ESTABLISHMENT OF AN OPTIMUM SOIL MOISTURE AND
- DENSITY PROCTOR. 4.1. REPORT COPIES SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK REQUIRING THE
- IMPROVEMENTS WITHIN THE PAVEMENT AREA SHALL BE MARKED BY THE CONTRACTOR SO THAT AFTER PAVING ACTIVITIES ARE COMPLETE, THE IMPROVEMENTS CAN BE ADJUSTED TO WITHIN ONE-QUARTER INCH (1/4") OF THE FINAL SURFACE, UNLESS
- OTHERWISE REQUIRED BY OTHER DETAILS OR THE OWNER'S REPRESENTATIVE. PRIOR TO PLACEMENT OF ANY PAVING IMPROVEMENTS, ALL UNDERGROUND IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: SANITARY SEWER UTILITIES, STORM SEWER UTILITIES, WATER UTILITIES, SLEEVES FOR ELECTRICAL UTILITIES, SLEEVES FOR IRRIGATION UTILITIES SLEEVES FOR COMMUNICATION UTILITIES, AND OTHER UNDERGROUND IMPROVEMENTS THAT ARE REQUIRED AND ARE BENEATH AND ADJACENT TO THE PAVING IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND INDUSTRY STANDARDS
- VERIFIED BY THE CONTRACTOR, AND PASS ALL TESTING REQUIREMENTS. 6.1. THE CONTRACTOR MAY PROCEED SOLELY AT THE CONTRACTOR'S OWN RISK IN THE PLACEMENT OF PAVING IMPROVEMENTS PRIOR TO THE VERIFICATION AND FINAL TESTING OF UNDERGROUND IMPROVEMENTS WITH ANY COSTS RESULTING FROM THE VERIFICATION OR TESTING FAILURE BEING SOLELY AT THE CONTRACTOR'S EXPENSE.

RESULTING FROM ACTIVITIES TO REMEDY THE SITUATION SHALL BE SOLELY AT THE CONTRACTOR'S EXPENSE.

- 6.2. IF IT IS DETERMINED THAT THE CONTRACTOR HAS FAILED TO PLACE THE UNDERGROUND IMPROVEMENTS AS INDICATED ON THE DRAWINGS AND/OR FAILED TO VERIFY THE LOCATION PRIOR TO THE PLACEMENT OF PAVING IMPROVEMENTS, THEN ANY COSTS
- WHERE THE PROPOSED PAVEMENT IMPROVEMENTS MEET THE EXISTING PAVEMENTS, THE CONTRACTOR SHALL SAW CUT THE PAVEMENT IN A LINE THAT IS PARALLEL TO THE PROPOSED PAVEMENT EDGE TO A POINT THAT IS NOT DAMAGED AND AT A MINIMUM DISTANCE OF TWO-FEET (2') BEYOND THE START OF THE PROPOSED PAVEMENT.

#### NOTICE

- THE GENERAL CONTRACTOR AND ALL SUBCONTRACTOR(S) WHICH WILL B PERFORMING ANY WORK INDICATED WITHIN THESE DRAWINGS WILL BE SOLELY RESPONSIBLE FOR CONTACTING TEXAS 811, LONE STAR 811, AND OTHER UTILITY LOCATING COMPANIES AS WELL AS ALL LOCAL UTILITIES (WASTEWATER, STORM, WATER, GAS, TRAFFIC, ETC.) BY ALL MEANS POSSIBLE FOR THE LOCATING AND MARKING OF UNDERGROUND AND ABOVE GROUND UTILITIES PRIOR TO COMMENCING
- ANY CONSTRUCTION. DAMAGES TO UTILITIES WILL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE GENERAL CONTRACTOR TO PROVIDE A REMEDY TO THE DAMAGE WITH THE UTILITY
- THE PROJECT OWNER, PROJECT ENGINEER, OWNER'S AUTHORIZED REPRESENTATIVE (OAR), AND ANY EMPLOYEES OF THESE SHALL NOT BE RESPONSIBLE FOR CONTACTING ANY COMPANY FOR LOCATING OR REMEDYING OF ANY DAMAGE OF ANY UTILITY.



811 OR 1-800-344-8377 OR www.texas811.org GIVE 4 WORKING DAYS (M-F) NOTICE

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#### **EXISTING LEGEND**

**EXIST EXISTING** FIRE HYDRANT WATER METER WATER VALVE POWER POLE LIGHT POLE CONTROL/BENCHMARK IRON ROD SIGN WASTEWATER MH STORM SEWER MH GUY ANCHOR  $\longrightarrow$ Ø **CLEANOUT** GRATE INLET BUILDING WOOD FENCE CHAINLINK FENCE ——X—— OVERHEAD POWER LINE WATERLINE WASTEWATER LINE ——GAS—— — PL — PROPERTY LINE STORM WATER PIPE -RCP-

CONTOURS

SPOT ELEVATIONS

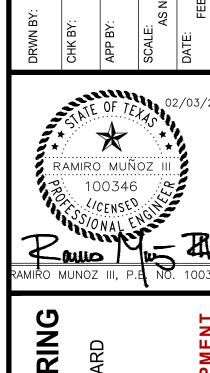
ASPHALT PAVEMENT

BASE PAVEMENT

CONCRETE PAVEMENT/SIDEWALK

--0.00-

## PROPOSED LEGEND PROPOSED FIRE HYDRANT WATER METER WATER VALVE TEE/TAPPING SADDLE 45° BEND 90° BEND WASTEWATER MH STORM SEWER MH SANITARY SEWER LINE WATER LINE CHAINLINK FENCE SEDIMENT CONTROL FENCE PROP CONCRETE SIDEWALK



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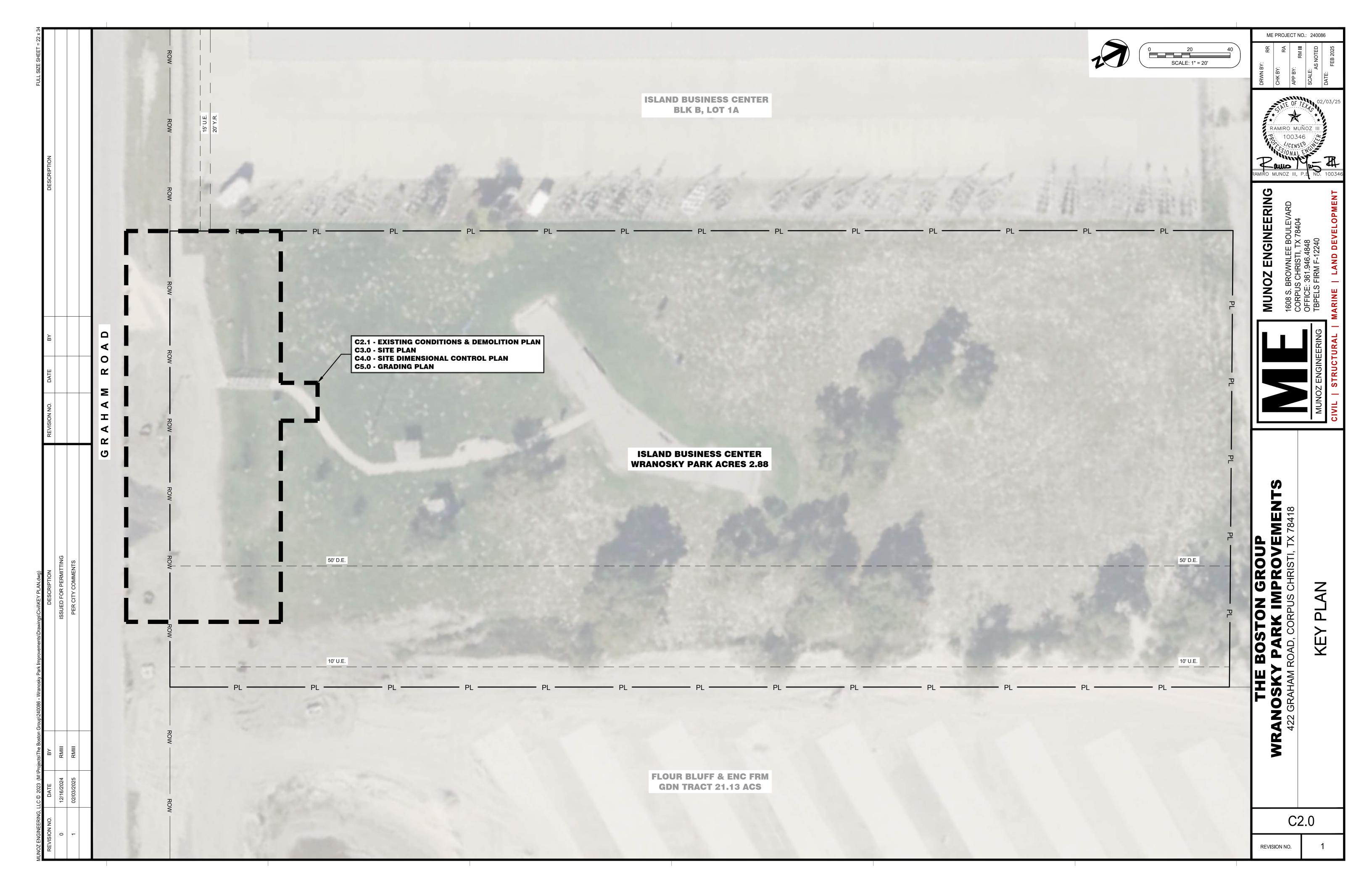
811 OR 1-800-344-8377 OR www.texas811.org GIVE 4 WORKING DAYS (M-F) NOTICE

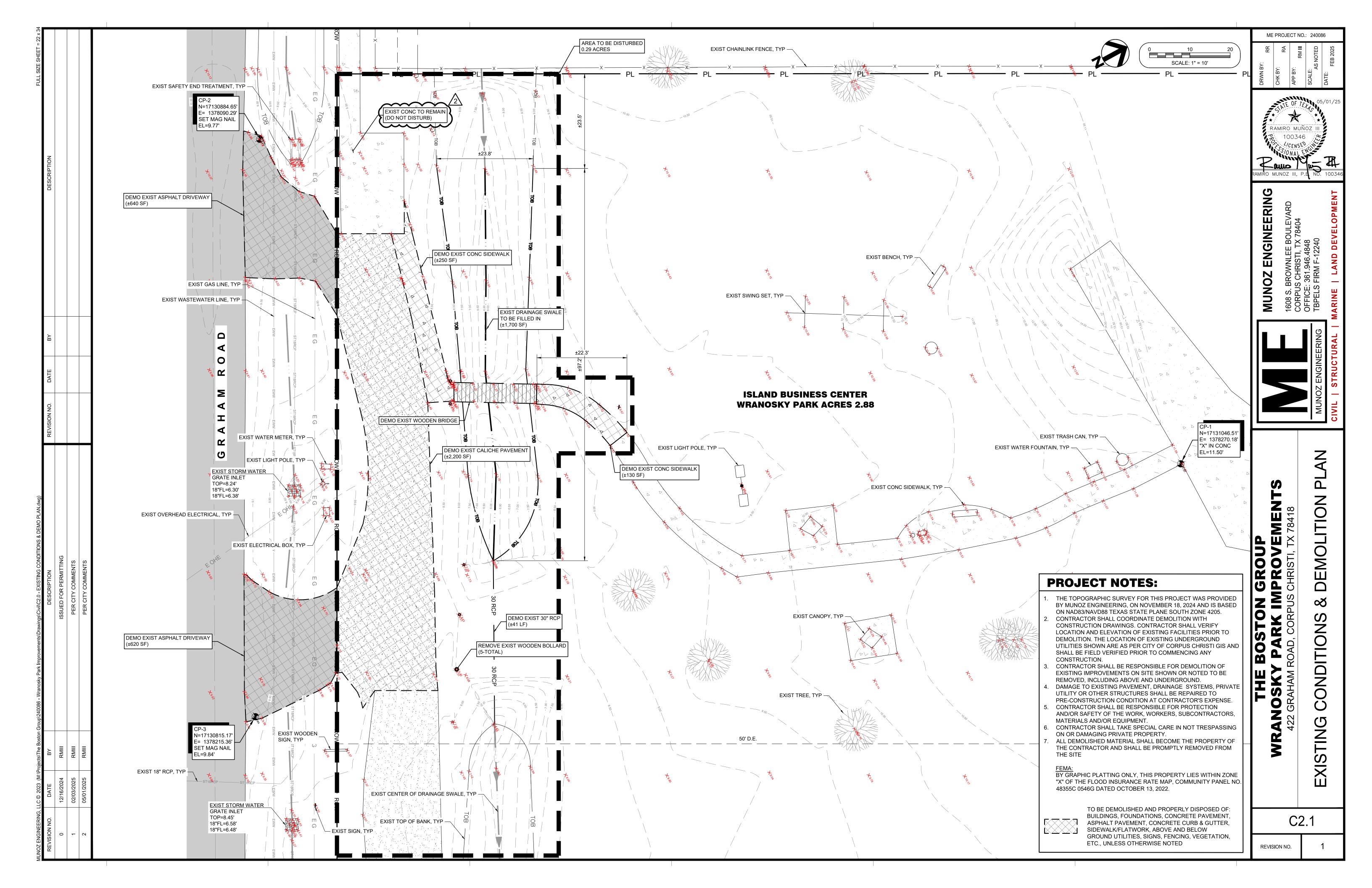
Call before you dig.

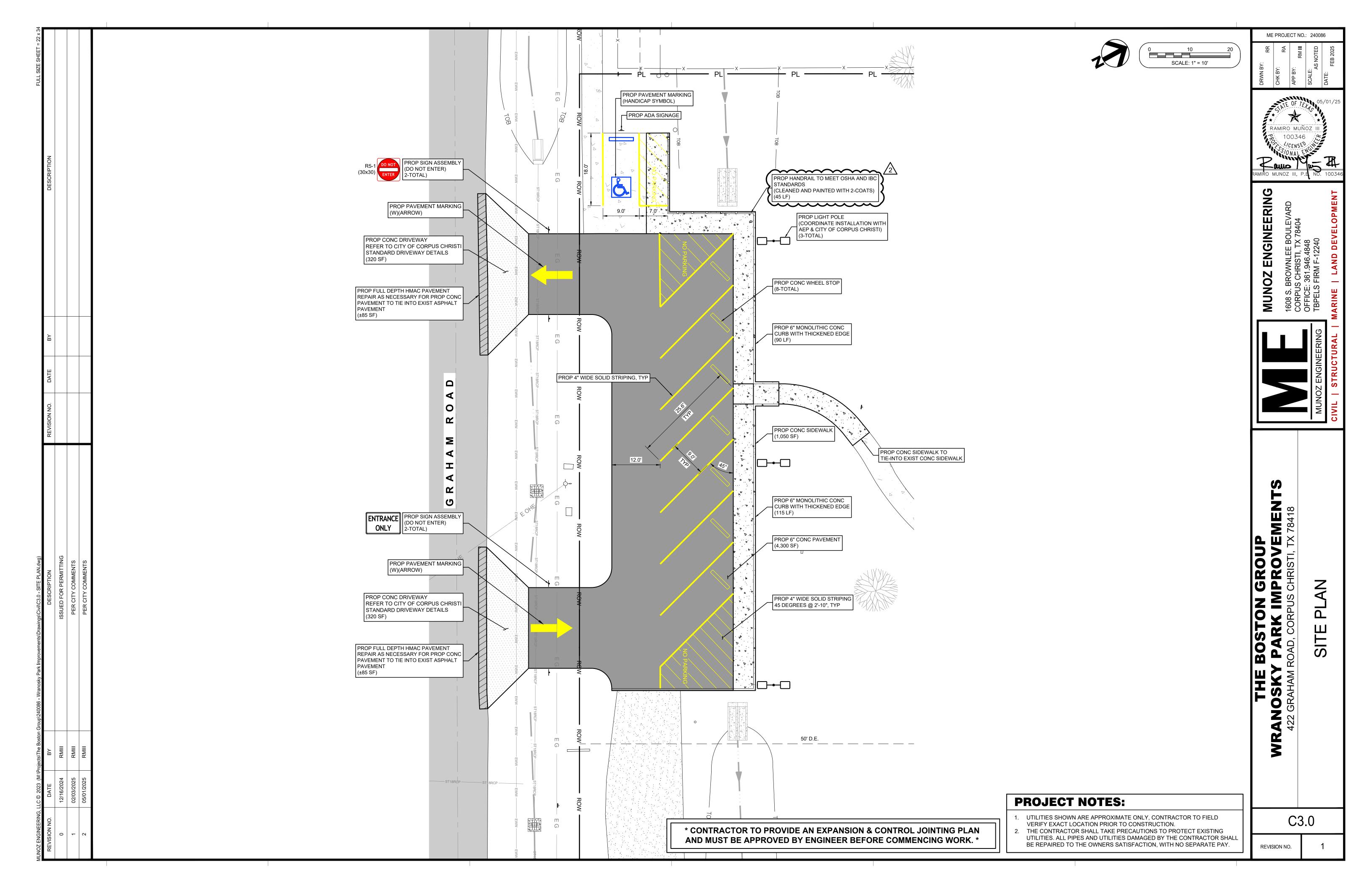
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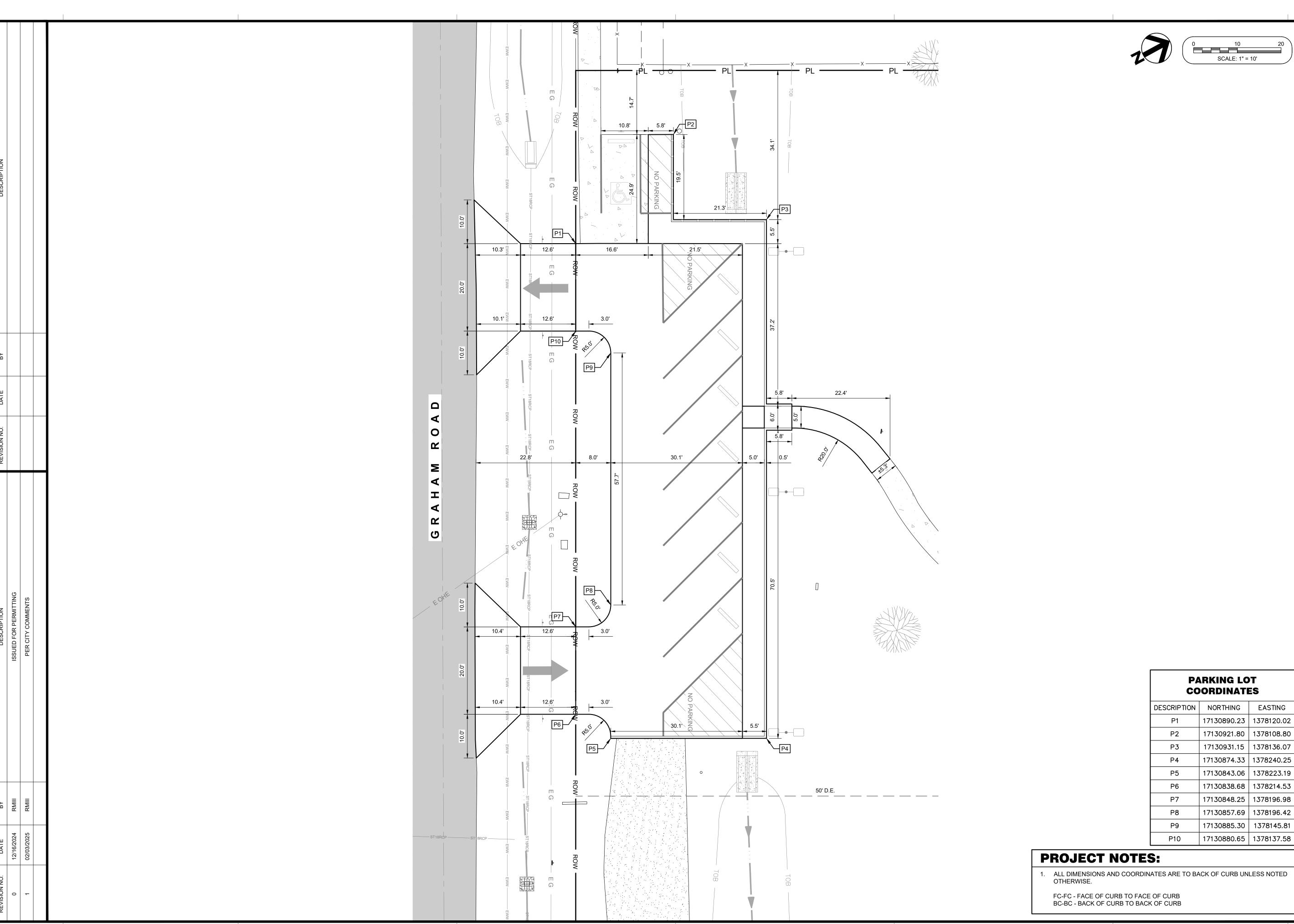
# NOTICE

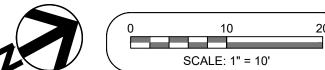
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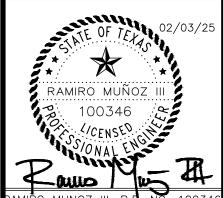








" = 10'	DRWN BY:	CHK BY:	APP BY: RM III	SCALE: AS NOTED	DATE: FEB 2025
	ئە	STATE	OF TE	02 145	2/03/25



ME PROJECT NO.: 240086

MUNOZ ENGINEERING

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**PARKING LOT COORDINATES** 

17130890.23 | 1378120.02

17130921.80 | 1378108.80

17130931.15 | 1378136.07

17130874.33 | 1378240.25

17130843.06 | 1378223.19

17130838.68 | 1378214.53

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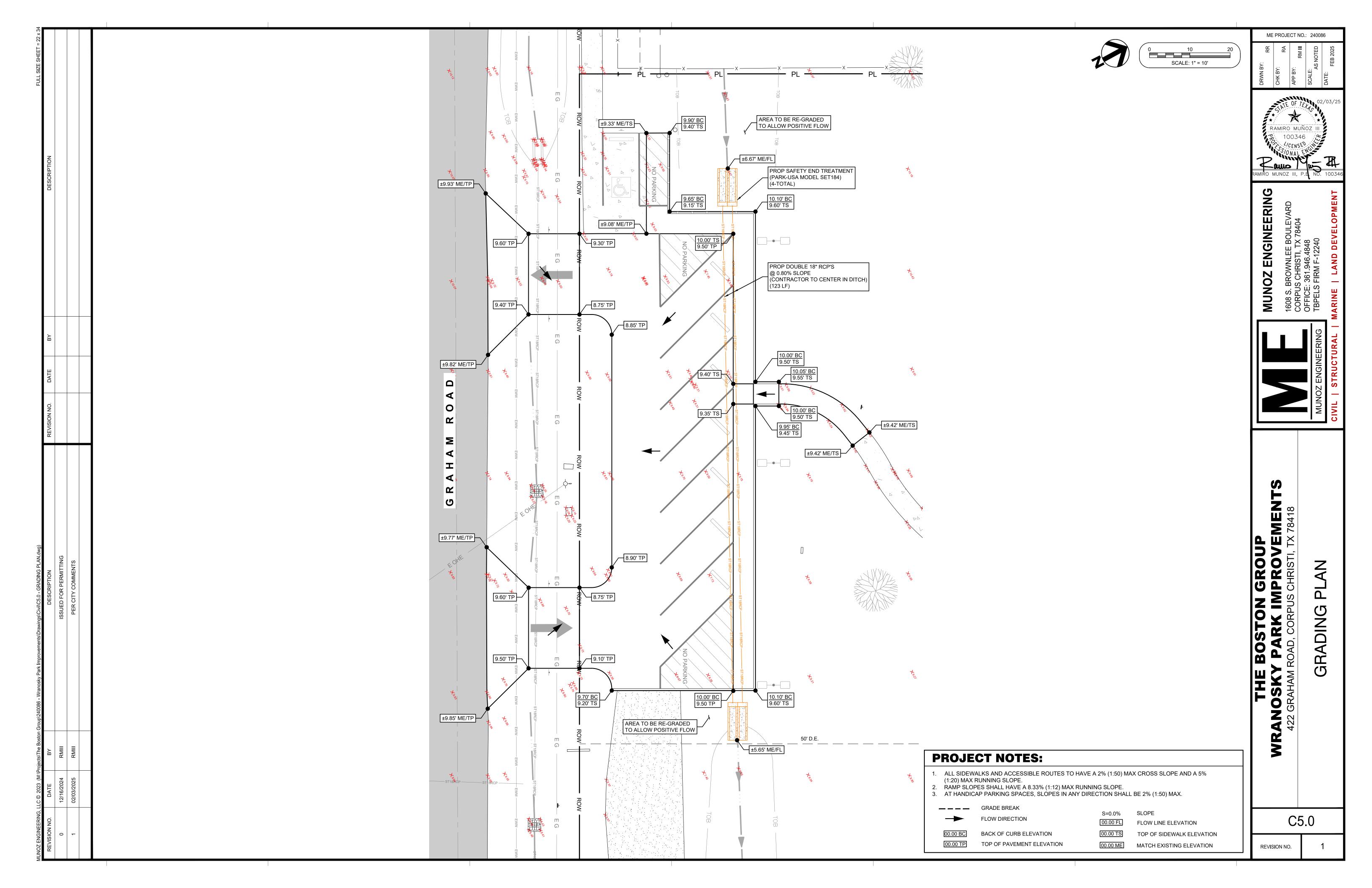
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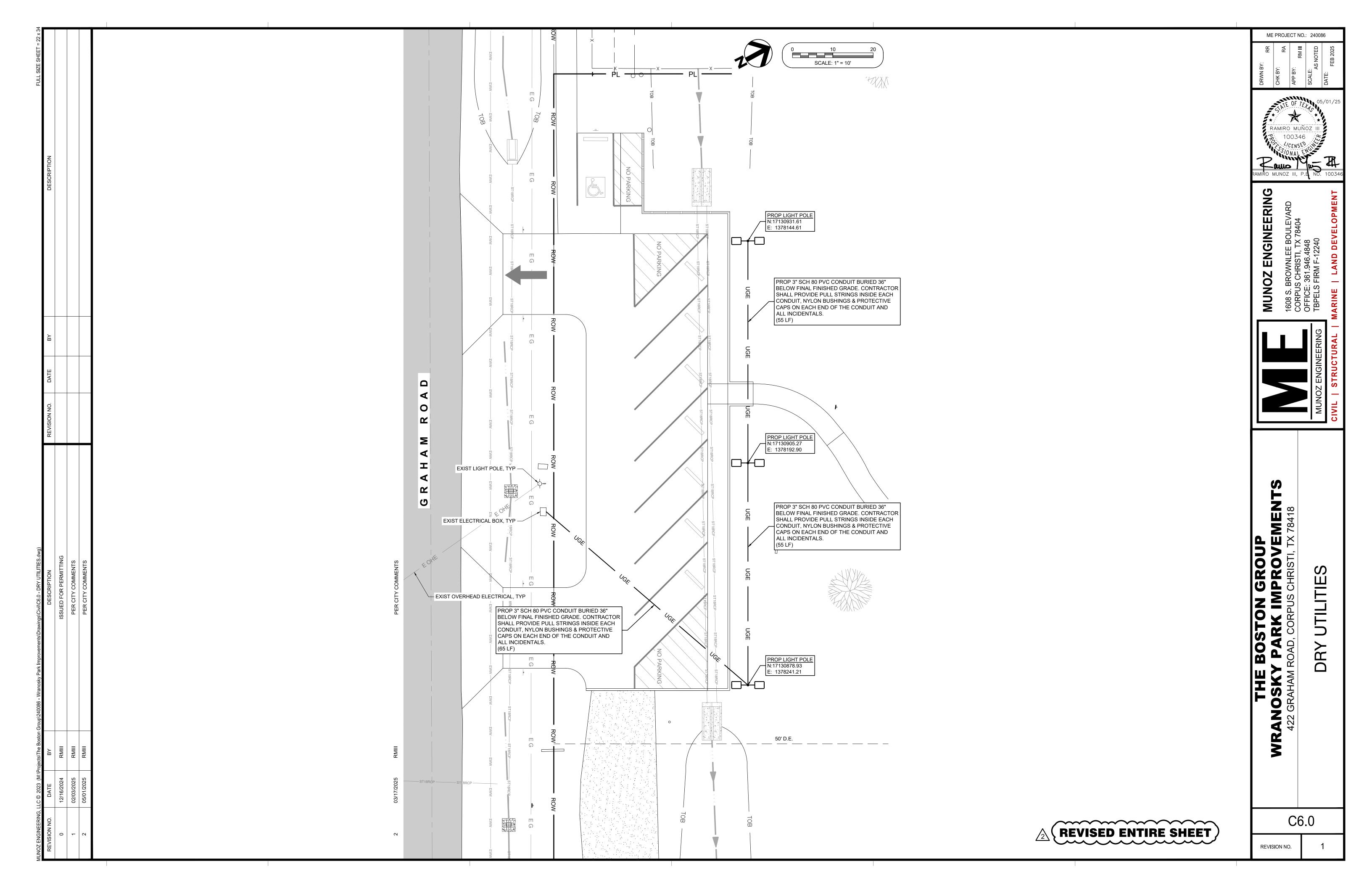
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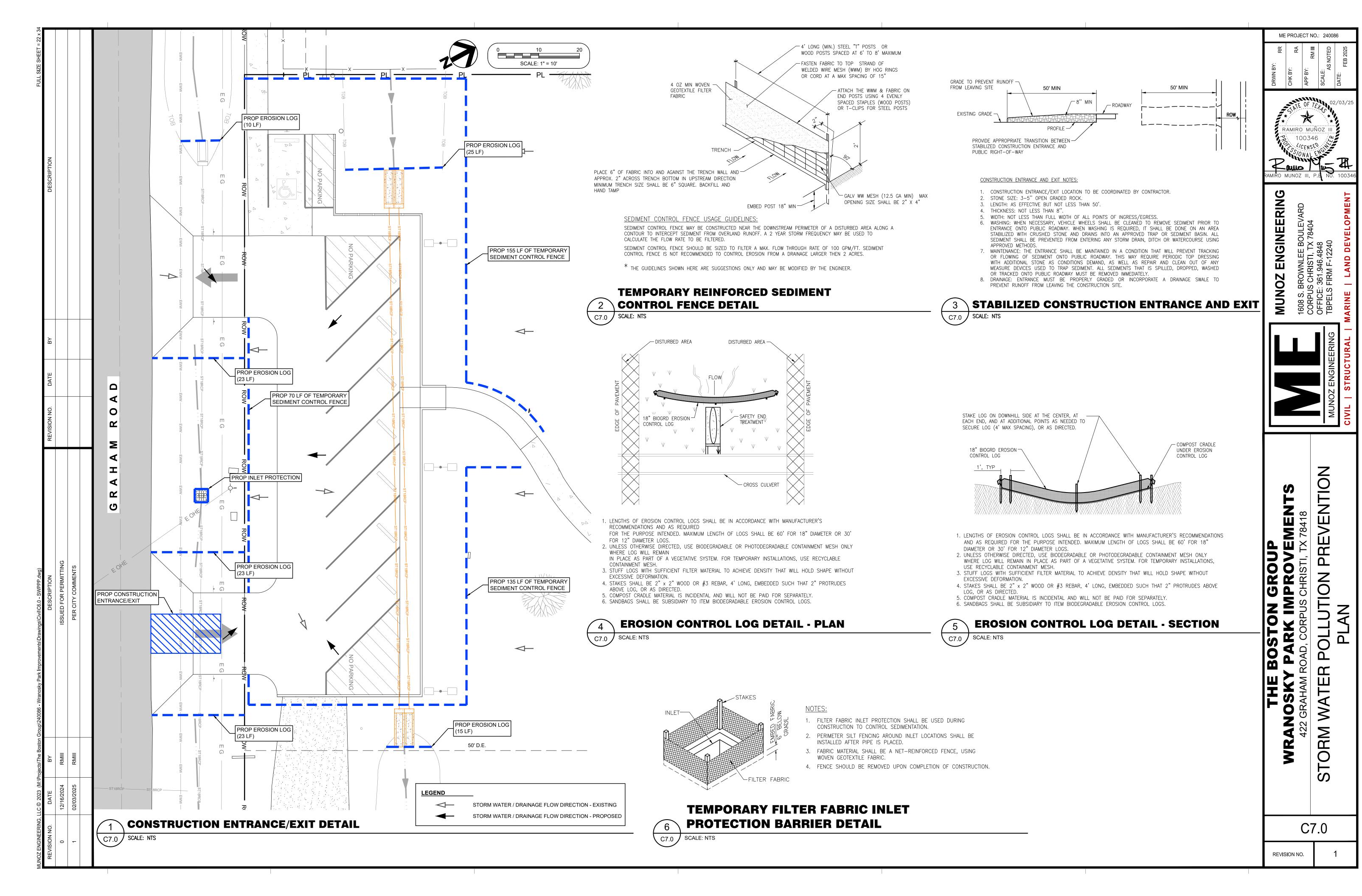
17130880.65 | 1378137.58

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THIS STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) IS SUBJECT TO CHANGES AND MODIFICATIONS AS DESIGN OF THE PROJECT IS COMPLETED WITH OR WITHOUT THE KNOWLEDGE OF THE ENGINEER WHOSE SEAL AND SIGNATURE APPEARS ON THE SWQMP, THEREFORE THE CONSTRUCTION DRAWINGS FOR THE DEVELOPMENT NAME AS INDICATED WITHIN THE SWQMP SHALL BE REVIEWED FOR ANY CHANGES.

#### GENERAL INFORMATION

- PROPERTY INFORMATION 1.1. LEGAL DESCRIPTION:
- 1.2. ISLAND BUSINESS CENTER WRANOSKY PARK ACRES 2.88.
- 1.3. DEVELOPMENT NAME THAT THIS SWQMP WILL BE ASSOCIATED WITH:
- 1.3.1. ISLAND BUSINESS CENTER WRANOSKY PARK.
- SITE DESCRIPTION
- 2.1. TOTAL AREA OF CONTIGUOUS SITE INCLUDED IN THIS SWQMP IS 2.88 ACRES
- 2.2. THE OVERALL PROJECT WILL DISTURB 0.29 ACRES
- FEMA FLOOD INSURANCE RATE MAP
- 3.1. PLOTTING THE PROPERTY BY SCALE ON THE FEMA FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL NO. 48355C 0545G, MAP REVISED OCTOBER 13, 2022 INDICATES THE PROPERTY IS LOCATED IN FLOOD ZONE(S) X.
- NOTE: THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON PART OF THE ENGINEER OR SURVEYOR.
- 4. THE RECEIVING WATERS FOR THE STORM WATER FROM THIS SITE IS:
- 4.1 LAGUNA MADRE DRAINAGE BASIN LAGUNA MADRE DRAINAGE BASIN

THE RECEIVING WATER FOR THE STORM WATER RUNOFF FROM THIS PROPERTY IS THE LAGUNA MADRE. THE TCEQ HAS CLASSIFIED THE AQUATIC LIFE USE FOR THE LAGUNA MADRE AS "EXCEPTIONAL" AND "OYSTER WATERS". TCEQ ALSO CATEGORIZED THE LAGUNA MADRE AS "CONTACT RECREATION" USE.

- **EXISTING SITE CONDITIONS** LAND USE:
- 1.4. RECREATIONAL LAND 2. SOIL TYPE(S) PRESENT ON-SITE IS AS FOLLOWS:
- 2.1. SANDY
- 3. CURRENT SITE COVERAGE IS AS FOLLOWS: 3.1. GRASSED
- 4. CURRENT DRAINAGE STRUCTURES ON-SITE:
- 4.1. MINOR DRAINAGE SWALE
- 5. STORM WATER ON-SITE GENERALLY FLOWS IN THE FOLLOWING DIRECTION: 5.1. THE GENERAL DIRECTION OF THE FLOW IS FALLING TOWARDS LAGUNA MADRE DRAINAGE BASIN.
- 6. ENVIRONMENTALLY SENSITIVE AREAS, INCLUDING BUT NOT LIMITED TO, RECEIVING WATERS, KNOWN NATURAL WATER BODIES, JURISDICTIONAL WETLANDS, ENDANGERED SPECIES

HABITAT, STATE OF TEXAS SUBMERGED LANDS, HABITAT FOR ENDANGERED, THREATENED, OR PROTECTED SPECIES, CRITICAL DUNES, FLOOD PLAINS, FLOODWAYS, AND /OR VELOCITY ZONES ON THE SITE HAVE BEEN IDENTIFIED WITHIN THE SWQMP. IF ANY OF THESE AFOREMENTIONED AREAS ARE INDICATED ON THE PROPERTY ARE TO BE DISTURBED DURING CONSTRUCTION ADDITIONAL PERMITTING MAY BE REQUIRED.

## PROPOSED SITE CONDITIONS

- LAND USE: RECREATIONAL LAND
- 3. AFTER CONSTRUCTION THE SOIL TYPE(S) PRESENT ON-SITE WILL BE AS FOLLOWS:
- 4. AFTER CONSTRUCTION THE SITE COVERAGE WILL BE AS FOLLOWS: 4.1. GRASSED
- 4.2. PAVED
- 5. AFTER CONSTRUCTION THE DRAINAGE STRUCTURES ON-SITE WILL BE AS FOLLOWS: 5.1. MINOR DRAINAGE SWALE
- 5.2. SAFETY END TREATMENTS
- 6. AFTER CONSTRUCTION THE STORM WATER ON-SITE GENERALLY WILL FLOW IN THE FOLLOWING DIRECTION:
- 6.1. THE GENERAL DIRECTION OF THE FLOW IS FALLING TOWARDS LAGUNA MADRE DRAINAGE BASIN. 6.2. THE STORM WATER FLOW AS NOTED ABOVE AND INDICATED WITHIN THE SWQMP IS IN CONFORMANCE WITH THE DRAFT VERSION OF THE CITY OF CORPUS CHRISTI STORM WATER MASTER PLAN - MAY 2009.
- 6.3. STORM WATER FROM ADJACENT PROPERTIES SHALL NOT BE BLOCKED AND WILL BE HANDLED AS INDICATED ON THE SWQMP.
- 7. TEMPORARY AND PERMANENT EROSION CONTROL DEVICES WILL BE OUTLINED WITHIN THE STORM WATER POLLUTION PREVENTION PLAN OR THE STORM WATER CONTROL PLAN ASSOCIATED WITH THE CONSTRUCTION OF THE DEVELOPMENT.



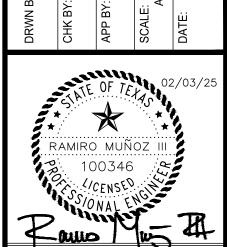
BASIN INFORMATION **WRANOSKY PARK** PROJECT NAME: **EXISTING BASIN SIZE** PROPOSED BASIN SIZE PROJECT ID: 240086 **CALCULATED BY:** 12,563.06 SQFT 12,563.06 SQFT COUNTY: NUECES DATE: 12/13/2024 0.29 ACRES 0.29 ACRES

RUNOFF COEFFICIENT (C)										
	COEFFICIENT (SLOPE BASED) *							PROPOSED		
USE AND RELATED INFORAMTION *			1-3.5%	>3.5%	C	AREA	%	C	AREA	%
C. LAWN	TYPE A SOILS (SAND)	0.05	0.08	0.12	0.08	8,541	68.0%	0.08	6,356	50.6%
C. LAVIN	TYPE B SOILS (CLAY)	0.15	0.18	0.22			0.0%			0.0%
	CONCRETE	0.85	0.85	0.85	0.85	755	6.0%	0.85	5,165	41.1%
E. STREETS/PAVING	ASPHALT	0.80	0.80	0.80	0.80	3,169	25.2%	0.80	1,040	8.3%
E. STRELTS/FAVING	1/4 ACRE TO 1/3 ACRE	0.40	0.50	0.60			0.0%			0.0%
	LOTS < 1/4 ACRE	0.50	0.55	0.60			0.0%			0.0%
I. OPEN SPACES	PARKS / GREENBELTS	0.20	0.30	0.30	0.30	98	0.8%			0.0%
i. OPEN SPACES	PLAYGROUND	0.25	0.35	0.35			0.0%			0.0%
* IN ACCORDANCE WITH THE CITY OF CO		Acres:	0.29	100.0%	Acres:	0.29	100%			
SERVICES INFRASTRUCTURE DESIGN N		Weighted C (C <sub>Ew</sub> ): 0.31			Weighted C (C <sub>Pw</sub> ): 0.4					

#### HYDRAULICS

RATIONAL METHOD CALCULATIONS														
DESIGN YEAR: 5					INTENSITY - DURATION -				EXISTING		PROPOSED			
					FREQUENCY (IDF) COEFFECIENT **			DESIGN	INTENSITY	EXISTING Q	INTENSITY	PROPOSED	DELTA Q	
TIME OF CONCENTRATION (TOC)					e (in)	b	d (mins)	YEAR	(in/hr)	(CFS)	(in/hr)	Q (CFS)	(CFS)	
EXISTING TO	OC CALCUL	ATIONS	PROPOSED TOC CALCULATIONS			0.8320	69.9997	13.9783	2-yr	3.01	0.27	3.01	0.40	0.13
USE	TIME	% OF AREA	USE	TIME	% OF AREA	0.7990	79.2371	12.9804	5-yr	3.93	0.35	3.93	0.52	0.17
A - F Tc <sub>P</sub>	30.00	99.2%	A - F Tc <sub>P</sub>	30.00	100.0%	0.7816	87.1302	12.5721	10-yr	4.64	0.41	4.64	0.61	0.20
G - H Tc <sub>P</sub>	15.00	0.0%	G - H Tc <sub>P</sub>	15.00	0.0%	0.7633	98.0172	12.2672	25-yr	5.63	0.50	5.63	0.74	0.24
I Tc <sub>P</sub>	30.00	0.8%	I Tc <sub>P</sub>	30.00	0.0%	0.7509	105.9782	12.0678	50-yr	6.39	0.57	6.39	0.84	0.27
AVG TcE	30.00	100.0%	AVG Tcp	29.99	100.0%	0.7398	114.6062	12.0953	100-yr	7.20	0.64	7.21	0.95	0.30

\*\* BASED ON "NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S (NOAA) ATLAS 14 PRECIPITATION-FREQUENCY ATLAS OF THE UNITED STATES, VOLUME 11 VERSION 2.0: TEXAS" (PERCIA ET AL. 2018) FOR THE INDICATED COUNTY.



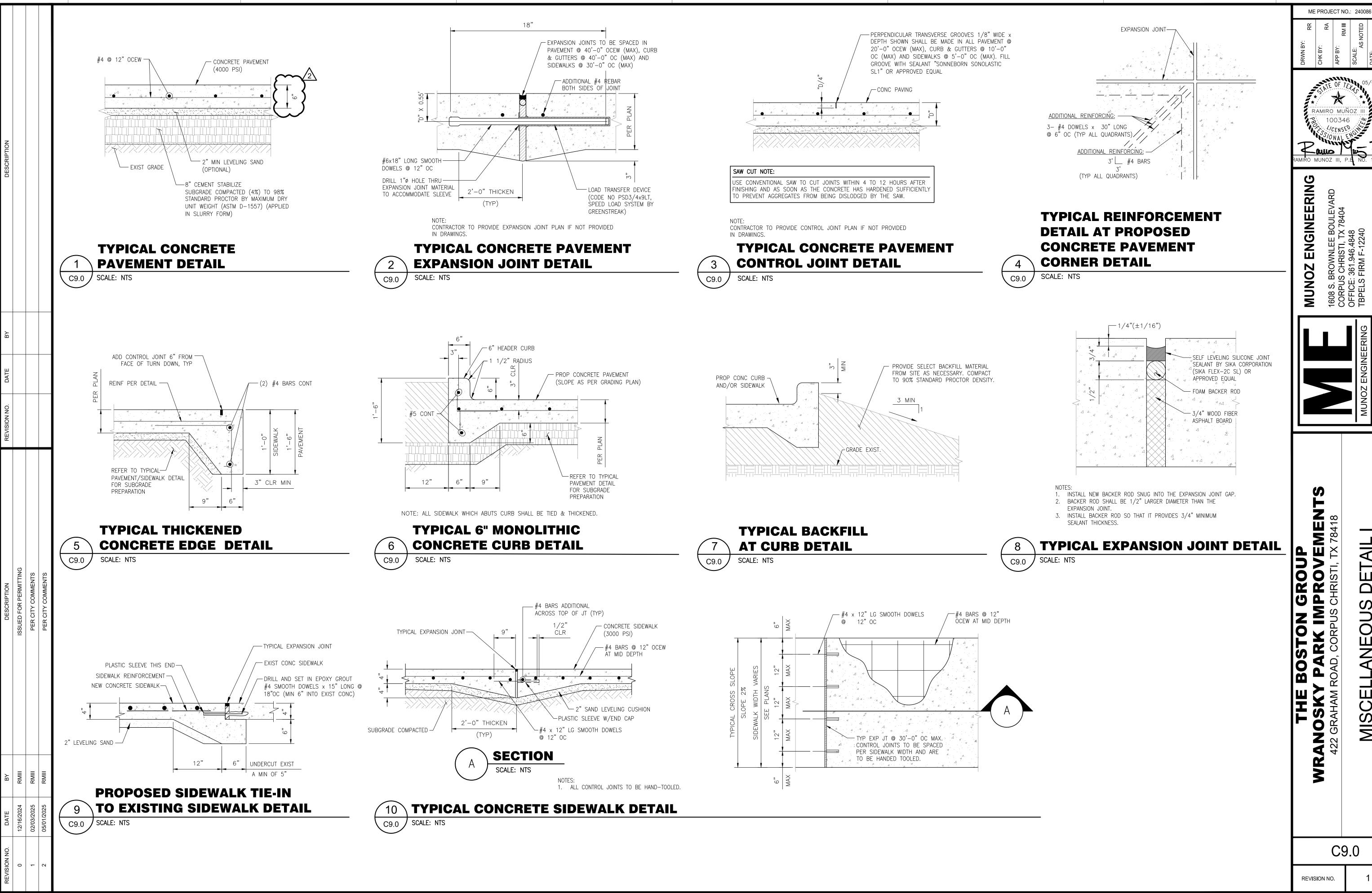
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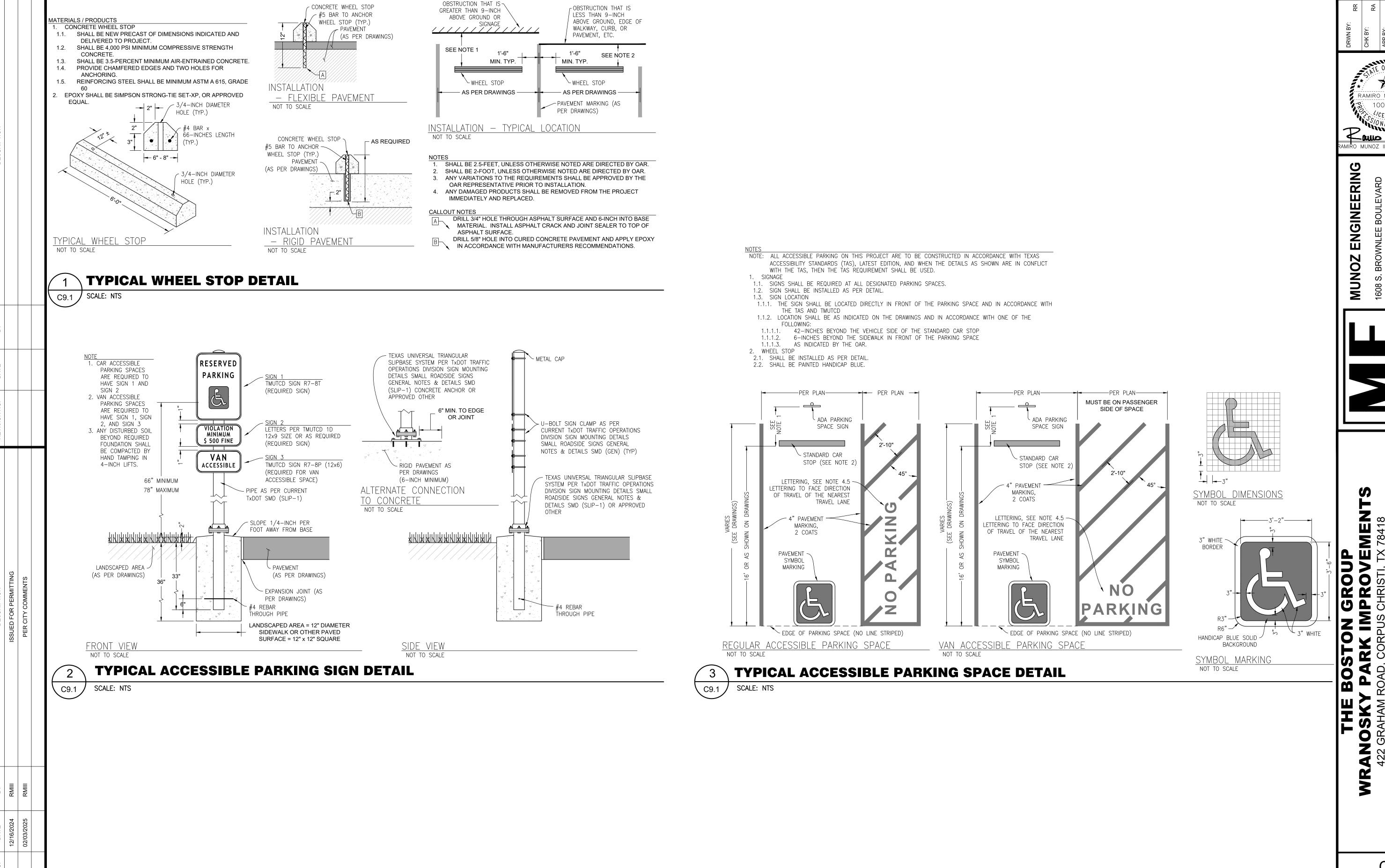
STORM



RAMIRO MUÑOZ

MISCELL

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RAMIRO MUÑOZ

ME PROJECT NO.: 240086

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