LJA ENGINEERING
TEXAS ENGINEERING FIRM F-1386
5350 S. Staples Street, Suite 425
Corpus Christi, Texas 78411
phone.361.991.8550
www.LJA.com

CONSTRUCTION PLANS FOR

SOUTH PADRE ISLAND, TEXAS

MARISOL BOAT RAMP PROJECT

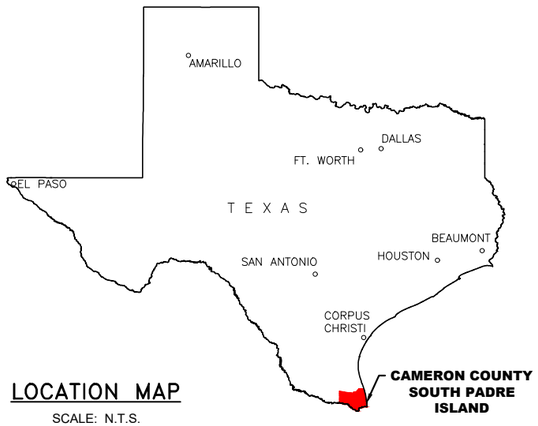
ITB **2025 - SL01** 1

LJA PROJECT No.: C275-21184

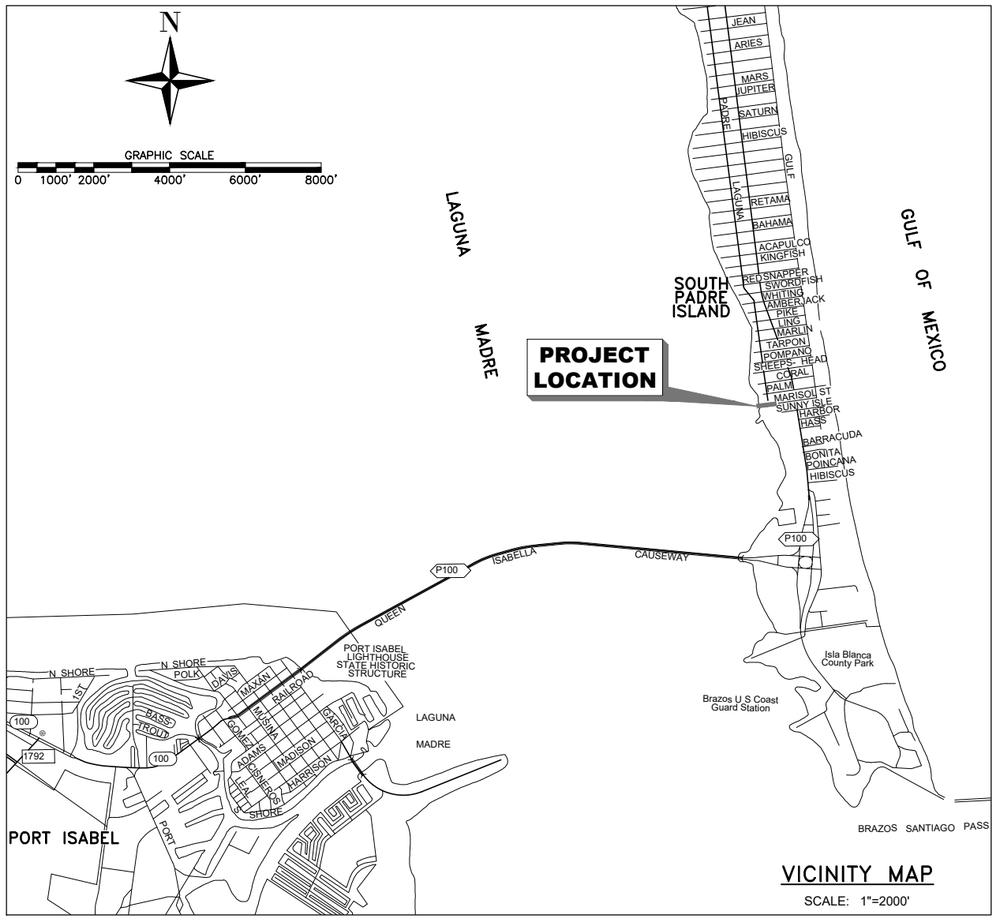
TDLR REGISTRATION No. TABS2023004314

TEXAS PARKS & WILDLIFE

U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR



LOCATION MAP
SCALE: N.T.S.



VICINITY MAP
SCALE: 1"=2000'

SHEET INDEX

CALL BEFORE YOU DIG!

Texas 811 — Know what's below. Call before you dig.

PARTICIPANTS REQUEST 48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST. STOP AND CALL 811

THE LONE STAR NOTIFICATION COMPANY AT 1-800-669-8344

DECEMBER 2023

P:\CLIENTS\CITY OF SOUTH PADRE - 275\21184 - Marisol Boat Ramp Project\CAD\TITLE SHEET.dgn mguerra Fri, Dec 22, 2023 @ 5:01:19 pm

PROJECT No.: C275-21184

STATE OF TEXAS — YESENIA SINGLETON — 102398 — LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

TITLE SHEET

REVISION NO.	DATE	BY	DESCRIPTION
1	05/27/2025	YS	REVISED ITB NUMBER TO COINCIDE WITH BID YEAR.

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275-21184

T1

GENERAL NOTES:

1. PROJECT CONTROL INFORMATION:

PROJECT CONTROL IS DRILLED HOLE IN BULKHEAD CAP
NORTHING = 16562723.818
EASTING = 1421444.282
ELEVATION = 4.97

PROJECT CONTROL IS CHISELED 'X' ON CONCRETE INLET
NORTHING = 16562753.491
EASTING = 1421788.232
ELEVATION = 3.20

PROJECT CONTROL IS DRILLED HOLE IN BULKHEAD CAP
NORTHING = 16562731.397
EASTING = 1421734.741
ELEVATION = 5.19

ALL HORIZONTAL INFORMATION SHOWN IS IN N.A.D. 83 DATUM, TEXAS SOUTH ZONE 4205, AS OBSERVED BY GPS. ALL VERTICAL INFORMATION SHOWN IS IN N.A.D. 88 DATUM, U.S. SURVEY FEET.

2. EXISTING UTILITIES AND STRUCTURES:

EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON CITY'S GIS MAP AS WELL AS AN ON THE GROUND SURVEY PERFORMED BY LJA ENGINEERING, INC. EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE FOR REFERENCE ONLY AND DO NOT NECESSARILY REPRESENT THE EXACT LOCATION OF SUCH FACILITIES, NOR IS IT IMPLIED THAT ALL EXISTING UTILITIES ARE SHOWN ON THE DRAWINGS. LJA ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR THE EXISTENCE OR LOCATION OF ANY SUBSURFACE UTILITIES OR STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY OWNERS AND LOCATING ALL EXISTING UTILITIES PRIOR TO COMMENCING WITH ANY CONSTRUCTION OPERATIONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL UTILITIES AND PRIVATE OR PUBLIC PROPERTY ON OR NEAR THE PROJECT FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES AND PRIVATE OR PUBLIC PROPERTY SHALL BE REMEDIED AND PAID FOR IN WHOLE BY THE CONTRACTOR.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE OR OTHERWISE PROVIDE FOR THE ADJUSTMENT OR RELOCATION OF ANY UTILITIES AS REQUIRED TO COMPLETE THE PROPOSED CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES AS NECESSARY TO IMPLEMENT THE PROPOSED CONSTRUCTION. NO SEPARATE PAYMENT WILL BE MADE FOR ANY SUCH ADJUSTMENTS OF RELOCATIONS, FORESEEN OR UNFORESEEN.

CONTRACTOR TO REPLACE ALL SIGNS, CULVERTS, FENCES, AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION. NO SEPARATE PAY.

CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES 48 HOURS PRIOR TO THE START OF CONSTRUCTION:

TEXAS 811
EMERGENCY 911
CITY OF SOUTH PADRE ISLAND – (596) 761–6456
FIRE DEPARTMENT – (596) 761–3040
POLICE DEPARTMENT – (956) 761–5454
PUBLIC WORKS– (956) 761–8159
LAGUNA MADRE WATER DISTRICT (956) 943–2626
ENVIRONMENTAL HEALTH SERVICES (956) 761–8123
LJA ENGINEERING, INC. – (361) 991–8550

3. EXPLORATORY EXCAVATION:

PRIOR TO ANY CONSTRUCTION WHEREVER ON THE PROJECT, CONTRACTOR SHALL PERFORM EXPLORATORY EXCAVATION TO LOCATE BULKHEAD DEADMAN ANCHORS, WITHOUT DISTURBING THEM, AND OTHER UNDERGROUND UTILITIES.

THE WORK SHALL BE PERFORMED PRIOR TO COMMENCEMENT OF CONSTRUCTION AND CONFLICTS WITH PROPOSED CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER.

CONTRACTOR SHALL THEN PREPARE A SET OF MARKED PLANS AND SUBMIT IT TO THE ENGINEER FOR APPROVAL INDICATING BULKHEAD DEADMAN ANCHORS, THE OWNER OF PIPELINES AND UTILITIES EXCAVATED AND SURVEYED, AS WELL AS THE APPROXIMATE STATION THEREOF, DISTANCE TO THE PROPOSED IMPROVEMENTS AND ELEVATIONS OF THE TOP OF EXISTING PIPELINES AND PROPOSED PROFILE OF NEW IMPROVEMENTS IF DIFFERENT FROM THAT SHOWN ON THE PLANS. THE ENGINEER WILL REQUIRE 10 WORKING DAYS AFTER RECEIPT IN HIS OFFICE OF THE MARKED PLANS TO REVIEW, ANALYZE AND, IF NECESSARY, MAKE CHANGES IN ALIGNMENT AND/OR ELEVATION.

CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM ANY CONSTRUCTION WORK ON THE PROJECT UNTIL ALL EXPLORATORY EXCAVATIONS HAVE BEEN MADE IN THEIR ENTIRETY, THE RESULTS THEREOF REPORTED TO THE ENGINEER AND UNTIL CONTRACTOR RECEIVES ENGINEER'S APPROVAL OF REPORT.

4. RIGHT OF ENTRY:

CONTRACTOR MAY NEED TO OBTAIN A TEMPORARY RIGHT OF ENTRY OR CONSTRUCTION EASEMENT FROM ADJACENT PROPERTY IN ORDER TO INSTALL BOAT RAMP AT LOT LINE.

5. STORM WATER POLLUTION PREVENTION:

CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT SILT AND DEBRIS FROM CONSTRUCTION OPERATIONS DOES NOT FLOW ONTO THE ADJACENT PRIVATE PROPERTY NOR ENTER INTO ADJACENT DRAINAGE AND IRRIGATION DITCHES AND CANALS AS SHOWN IN THE STORM WATER MEASURES AND DETAILS. THE PROJECT SITE IS LESS THAN ONE (1) ACRE AND IS NOT PART OF LARGER COMMON PLAN OF DEVELOPMENT THEREFORE A NOTICE OF INTENT (NOI) PERMIT IS NOT REQUIRE.

6. SAFETY:

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF HIS EMPLOYEES AND THE PUBLIC DURING ALL PHASES OF THE CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY REGULATIONS.

TRENCHING OPERATIONS SHALL COMPLY WITH WORKER SAFETY REQUIREMENTS FOR EXCAVATION AND TRENCHING OPERATIONS. WORKER SAFETY IN EXCAVATIONS AND TRENCHES SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS 29 CFR PART 1926 SUBPART P–EXCAVATIONS. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND NOT THE TEXAS FACILITY COMMISSION OR CONSULTING ENGINEER, TO DETERMINE AND MONITOR SPECIFIC APPLICABILITY OF THE SAFETY SYSTEM TO THE FIELD CONDITIONS. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE TEXAS FACILITY COMMISSION AND CONSULTING ENGINEER FROM ANY AND ALL DAMAGES AND COSTS THAT MAY RESULT FROM FAILURE OF METHODS OR EQUIPMENT USED BY THE CONTRACTOR TO PROVIDE FOR WORKER SAFETY.

DURING CONSTRUCTION, CONTRACTOR SHALL MAINTAIN A SAFE DISTANCE AWAY FROM EXISTING LINES TO KEEP THE EXISTING LINES FROM COLLAPSING.

7. EARTHWORK:

AREAS THAT RECEIVE FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% OF THE STANDARD PROCTOR DENSITY PER ASTM D–698 AND A MOISTURE CONTENT WITHIN +3% TO –1% OF OPTIMUM. FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 8" OF UNDISTURBED SOIL FREE OF DEBRIS AND ORGANIC MATERIALS. TEST REPORTS FOR COMPACTED FILL SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

CONTRACTOR TO REMOVE ALL EXCESS SPOIL, STRIPPED MATERIAL AND DEBRIS WITHIN LIMITS OF PROPOSED CONSTRUCTION OR AS SHOWN ON PLANS. DISPOSAL SHALL BE CONTRACTOR'S RESPONSIBILITY.

ALL TESTING SHALL BE PROVIDED BY THE OWNER.

8. PIPE FOR NEW WATERLINES:

PIPE FOR NEW WATERLINES SHALL CONSIST OF PVC PIPE WITH A DIMENSION RATIO (DR) OF 18 AND SHALL MEET THE REQUIREMENTS OF AWWA C900 AND THE STANDARD DETAILS AND SPECIFICATIONS.

ALL LINES TO BE INSTALLED SO AS TO NOT EXCEED THE MANUFACTURER'S MAXIMUM RECOMMENDED DEFLECTION PER JOINT. THE CONTRACTOR IS RESPONSIBLE FOR CALCULATION OF THE MINIMUM DEFLECTION DISTANCES REQUIRED FOR UTILITY CLEARANCES.

CONTRACTOR TO INSURE A "DRY DITCH" CONDITION PRIOR TO THE PLACEMENT OF WATERLINES.

CONTRACTOR TO MAINTAIN ADEQUATE PIPE, MISCELLANEOUS FITTINGS, SUPPLIES, AND PUMPS ON THE PROJECT TO INSURE WATER LINE BREAKS WILL BE REPAIRED RAPIDLY. CONTRACTOR SHALL OPERATE NO VALVES WITHOUT CONSENT OF THE LAGUNA MADRE WATER DISTRICT.

9. COORDINATION:

ALL PUBLIC UTILITIES WORK SHALL BE COORDINATED WITH THE LAGUNA MADRE WATER DISTRICT'S INSPECTOR AND ENGINEER AND SHALL BE PERFORMED IN ACCORDANCE WITH THEIR REQUIREMENTS.

10. REPAIR OF DAMAGED FACILITIES:

CONTRACTOR SHALL REPAIR OR REPLACE, AT CONTRACTOR'S EXPENSE, ANY AND ALL EXISTING UTILITIES, DRAINAGE FACILITIES, ELECTRICAL DUCT BANKS OR CABLES, PAVEMENTS, SIDEWALKS, CURBS, PIPELINES, SIGNS, LIGHTS, FENCES, GATES, PROPERTY PINS OR OTHER ITEMS DAMAGED OR DISTURBED BY CONTRACTOR'S OPERATIONS.

ANY DAMAGE TO EXISTING PAVEMENT, DRAINAGE, UTILITIES, OR EXISTING STRUCTURES SHALL BE REPAIRED TO PRE–CONSTRUCTION CONDITION AT THE CONTRACTOR'S EXPENSE.

11. PERMITS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS TO COMPLETE THE PROPOSED CONSTRUCTION.

A PERMIT IS REQUIRED FOR ANY PUBLIC UTILITY CONSTRUCTION DONE IN A PUBLIC RIGHT OF WAY OR PUBLIC EASEMENT (WATER CONNECTION). CONTACT LAGUNA MADRE WATER DISTRICT FOR WATER SERVICES CONNECTION AND TESTING REQUIRED.

12. MATERIALS AND WORKMANSHIP:

ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH PROJECT STANDARD SPECIFICATIONS. ANY DEVIATION OF THESE PLANS AND SPECIFICATIONS FROM SUCH STANDARDS AND PRACTICES THAT WILL AFFECT THE PROJECT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AS SOON AS POSSIBLE FOR REVIEW AND ACTION.

13. ENGINEER'S RESPONSIBILITY DURING CONSTRUCTION:

THE ENGINEER OR ENGINEER'S REPRESENTATIVE SHALL BE AT THE SITE SOLELY FOR THE PURPOSE OF PROVIDING GENERAL OBSERVATION OF THE CONTRACTOR'S COMPLIANCE WITH THE DESIGN, PROGRESS REVIEW AND DESIGN PROBLEM RESOLUTION. THE ENGINEER SHALL NOT SUPERVISE THE CONSTRUCTION OR BE RESPONSIBLE FOR SAFETY PRECAUTIONS OR COMPLIANCE.

14. CONCRETE NOTES:

ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI–318 BUILDING CODE. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED. ALL REINFORCING STEEL MATERIAL TO BE A615–GRADE 60 (EPOXY COATED). ALL REINFORCING STEEL PLACEMENT AND SPLICING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI–318 BUILDING CODE. ALL BARS ARE TO BE SUPPORTED IN THE FORMS AND SLAB WITH CHAIRS AND TIED AT EVERY OTHER INTERSECTION. ALL CONDUIT, GROUND WIRES, DRAINS, ETC., ARE TO BE IN PLACE PRIOR TO POURING CONCRETE. ALL REINFORCING STEEL SHALL HAVE 3" MIN. CLEAR COVER UNLESS NOTED OTHERWISE.

15. PIPE FOR WASTEWATER LINES:

PIPE AND FITTINGS FOR NEW WATER SERVICE LINES SHALL MEET THE REQUIREMENTS OF LAGUNA MADRE WATER DISTRICT, STANDARD DETAILS AND SPECIFICATIONS.

ALL WATER LINES UNDER PROPOSED PAVEMENT, TO BE BACKFILLED ACCORDING TO DETAIL SHEETS.

16. TRAFFIC CONTROL:

IF TRAFFIC CHANNELIZATION AND BARRICADES ARE REQUIRED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

CONTRACTOR SHALL PROVIDE PROTECTIVE DEVICES SUCH AS SIGNS, LIGHTS, AND SIGNALS FOR THE SAFETY OF THE PUBLIC AND WORKERS, AS REQUIRED.

CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND SAFETY OF THE WORK, WORKERS, SUBCONTRACTORS, MATERIALS AND EQUIPMENT.

TEMPORARY TRAFFIC CONTROL PLANS AND TRAFFIC CONTROL DEVICES SHALL CONFORM WITH THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), LATEST EDITION (EDITION 2011, REVISION 2, OCTOBER 2014, AS OF THE DATE OF THESE PLANS).

THE CONTRACTOR SHALL SUBMIT THE TEMPORARY TRAFFIC CONTROL PLANS TO THE CITY'S PUBLIC WORKS DEPARTMENT (STREET OPERATIONS) FOR APPROVAL AT LEAST 14 WORKING DAYS PRIOR TO THE ANTICIPATED START DATE.

THE CONTRACTOR SHALL PROVIDE A 72 HOUR NOTICE TO THE CITY, LJA ENGINEERING, AS WELL AS AFFECTED BUSINESSES AND RESIDENCES, PRIOR TO IMPLEMENTING THE TEMPORARY TRAFFIC CONTROL PLAN AND COMMENCING CONSTRUCTION ACTIVITIES.

17. TESTING:

FOR ALL NEW WATERLINES, CONTRACTOR SHALL PERFORM HYDROSTATIC TESTING AND BACTERIOLOGICAL (STERILIZATION) TESTING ON WATERLINES IN ACCORDANCE WITH THE SPECIFICATIONS. ALL WATER DISCHARGE MUST BE DECHLORINATED IN ACCORDANCE WITH TCEQ AND NPDES REGULATIONS.

18. BOAT RAMP EXCAVATION:

IN THE EVENT THE CONTRACTOR UTILIZES ANY PORTION OF THE PROPOSED WINGWALL/TOE WALL AS PART OF HIS COFFERDAM, HE SHALL BE RESPONSIBLE FOR THE STRUCTURAL ADEQUACY OF ALL CONSTRUCTION WHEN THE RAMP IS DEWATERED FOR CONSTRUCTION PURPOSES. HE SHALL BE RESPONSIBLE FOR PROVIDING A CERTIFIED SKETCH AND DESIGN, PREPARED BY AN ENGINEER LICENSED IN THE STATE OF TEXAS, DELINEATING ANY AND/OR ALL BRACING REQUIRED, AND SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REMOVAL OF THE COFFERDAM AS NECESSARY TO ADEQUATELY PROVIDE CONTINUOUS DEWATERING OF THE BOAT RAMP AREA DURING PLACEMENT OF THE SUB–BASE AND CONCRETE AND CURING OF THE CONCRETE.

EXCAVATION OF THE BOAT RAMP'S SUBGRADE MATERIAL SHALL BE PERFORMED TO THE REQUIRED DEPTH, AS SHOWN ON THE CONTRACT DRAWINGS. SLOPES SHALL BE MAINTAINED AS NECESSARY OR AS OTHERWISE DIRECTED OR APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE EXCAVATED SLOPES TO THE REQUIRED LIMITS UNTIL PLACEMENT OF THE #57 STONE BASE MATERIAL IS COMPLETED. PRIOR TO INITIATION OF EXCAVATION, THE CONTRACTOR SHALL SUBMIT TO THE OWNER OR OWNER'S REPRESENTATIVE FOR APPROVAL HIS PROPOSED METHOD OF EXCAVATION.

19. GEOTECHNICAL ENGINEERING REPORT:

IN THE BACK OF THE OF THE CONTRACT DOCUMENTS, A COPY OF THE GEOTECHNICAL ENGINEERING REPORT CALLED "BOAT RAMP AND PARKING LOT PROJECT"; CAN BE FOUND FOR REFERENCE PURPOSES.

PROJECT No.:
C275–21184

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

GENERAL NOTES

REVISION NO.	DATE	BY	DESCRIPTION

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275–21184

G1

LEGEND

EXISTING LEGEND:

BOTTOM OF BANK		TOP OF BANK	
CONCRETE		BUILDING CORNER	
EDGE OF ASPHALT		IRON ROD FOUND	
WOODEN FENCE		WATER VALVE	WV
CHAIN FENCE		WATER METER	W
OVERHEAD ELECTRIC	OHE	WATERLINE TAP	
UNDERGROUND COMMS	UGT	WATERLINE	WL
WASTEWATER LINE	WW	TELEPHONE PEDESTAL	
MAJOR CONTOUR		TELECOMMUNICATION BOX	COM
MINOR CONTOUR		LIGHT POLE	
POWER POLE		GUY WIRE	
SPOT ELEVATION	16.76	EBOX	
TRAFFIC SIGN		DRILL HOLE	
WASTE WATER MANHOLE	WW		
STORM WATER MANHOLE	ST		

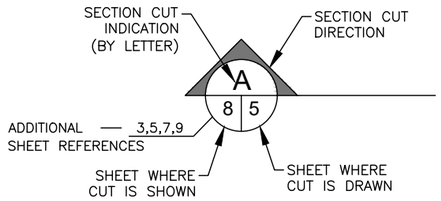
PROPOSED LEGEND:

BULKHEAD	
LANDSCAPE	
PAVERS	
BOAT RAMP	
ADA RAMP	
PARKING LOT	
DECK	
CURB & GUTTER	
STRIPING	
2 WL — WATERLINE	
PROPOSED CONTOUR	10
EXPANSION JOINT	EJ
CONTROL JOINT	CJ
EXISTING ELEVATION	EX
TOP OF CONCRETE	TC
TOP OF PAVERS	TP
TOP OF BULKHEAD	BK
BACK OF CURB	BOC
LANDING	L
PROPOSED LIGHT POLE	

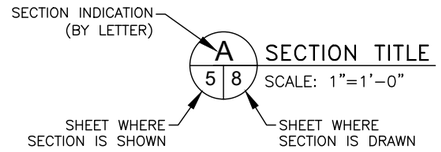
ABBREVIATIONS

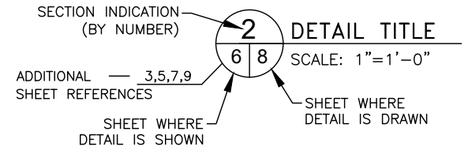
ASPHT – ASPHALT PAVEMENT
C&G – CURB AND GUTTER
CONC – CONCRETE
C TO C – CENTER TO CENTER
ELEV – ELEVATION
EXIST – EXISTING
G – GUTTER
LP – LIGHT POLE
LT – LEFT
MIN. – MINIMUM
MAX. – MAXIMUM
NG – NATURAL GROUND
O.C. – ON CENTER
OCEW – ON CENTER EACH WAY
PVMT – PAVEMENT
R – RADIUS
S – SLOPE
R.O.W. – RIGHT OF WAY
RCP – REINFORCED CONCRETE PIPE
RIM – ELEVATION AT MANHOLE COVER
RT – RIGHT
S.E.T. – SAFETY END TREATMENT
ST – STORM WATER
S/W – SIDEWALK
TC 00.00 – TOP OF CONCRETE ELEVATION
TS – TRAFFIC SIGNAL
TYP – TYPICAL
WT – WALKING TRAIL
WTR – WATER
WW – WASTEWATER

TYPICAL SECTION AND DETAIL SYMBOLS



SECTION CUTS





NORTH ARROW

TESTING SCHEDULE *

DESCRIPTION	RATE
SOILS:	
STANDARD PROCTOR – TRENCH BACKFILL	PER MATERIAL SOURCE
STANDARD PROCTOR – SUBGRADE	PER STREET/MATERIAL
DENSITIES – SUBGRADE (CONCRETE PAVEMENT)	PER 200 LF/LANE/LIFT
DENSITIES – SUBGRADE (DRIVEWAYS)	PER 2 DRIVEWAYS
DENSITIES – SUBGRADE (SIDEWALKS)	PER 5,000 SF
DENSITIES – BEHIND CURB AND GUTTER	PER 200 LF
FLEXIBLE BASE:	
SIEVE ANALYSIS	PER 3,000 CY
ATTERBURG LIMITS	PER 3,000 CY
MODIFIED PROCTOR	PER 3,000 CY
L.A. ABRASION	PER 3,000 CY
CBR (STANDARD)	PER MATERIAL SOURCE
WET BALL MILL TEST	PER MATERIAL SOURCE
TRIAXIAL TEST	PER MATERIAL SOURCE
DENSITIES OF COMPACTED BASE (CONCRETE STREET)	PER 200 LF/LANE/LIFT
DENSITIES OF COMPACTED BASE (C&G)	PER 200 LF C&G
CONCRETE:	
(UNCONFINED COMPRESSION, 7, 14, & 28 DAY)	
CURB & GUTTER / CURB	PER 500 LF C&G / CURB
SIDEWALK AND CURB RAMPS	PER 4,000 SF
RIPRAP, APRONS & S.E.T.s	PER 4,000 SF
RIGID CONCRETE PAVEMENT:	
COMPRESSION STRENGTH (7 & 28 DAY)	PER 2,500 SY OR DAY
FLEXURAL (BEAM) STRENGTH (7 & 28 DAY)	PER 2,500 SY OR DAY
AIR CONTENT	PER 2,500 SY OR DAY
SLUMP	PER 2,500 SY OR DAY
NOTE: THE ENINGEER MAY REQUIRE ADDITIONAL TESTING AS HE/SHE DEEMS NECESSARY.	

1. THE ABOVE TESTING RATES ARE ONLY ANTICIPATED GUIDELINES. THE ENGINEER RESERVES THE RIGHT TO CONDUCT ADDITIONAL TESTING AT THE ENGINEER'S DISCRETION. RE-TEST FOR FAILURES ARE NOT INCLUDED.
2. MOISTURE CONTENTS TO BE INCLUDED WITH DENSITY TEST.
3. IN THE EVENT OF FAILURES, ADDITIONAL TESTS WILL BE REQUIRED. IF EXCESSIVE RAIN OR DRY PERIOD OCCURS ON A PREVIOUSLY TESTED SECTION, THE CITY MAY ORDER RE-TESTS AS NECESSARY.

PROJECT No.: C275-21184

STATE OF TEXAS · YESENIA SINGLETON · 102398 · LICENSED PROFESSIONAL ENGINEER
December 22, 2023

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South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

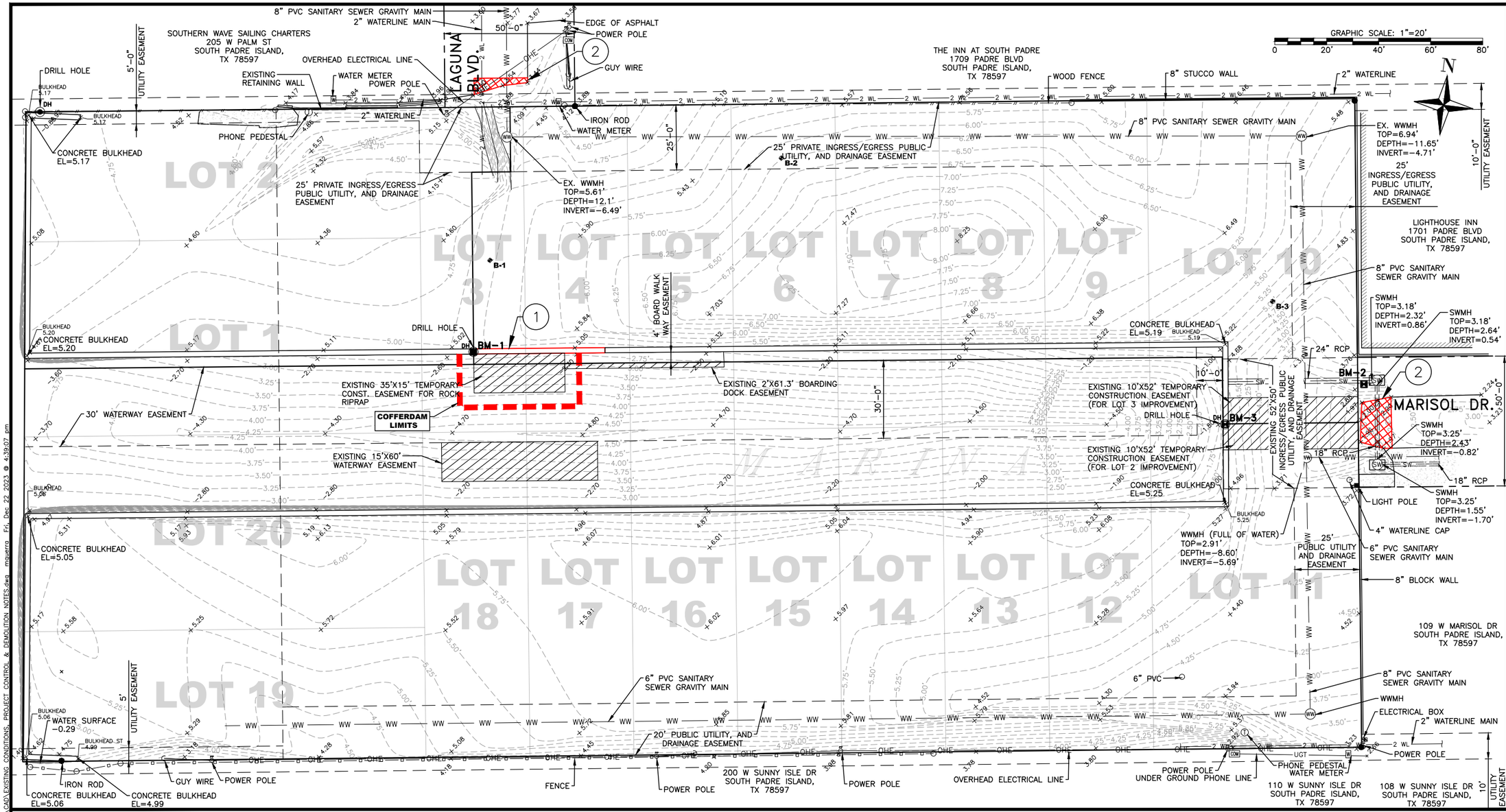
MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

LEGEND, ABBREV., QUANTITY & TESTING SCHEDULE

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275-21184

G2

R:\CLIENTS\CITY OF SOUTH PADRE – 275\21184 – Marisol Boat Ramp Project\CAD\LEGEND, ABBREV, QUANTITY & TESTING SCHEDULE.dwg maguerra Fri, Dec 22, 2023 @ 4:38:59 pm



PROJECT CONTROL – MARISOL BOAT RAMP				
POINT No.	NORTHING	EASTING	ELEVATION	DESCRIPTION
☒ BM–1	16562723.818	1421444.282	4.97	DRILLED HOLE IN BULKHEAD CAP
☒ BM–2	16562753.491	1421788.232	3.20	CHISELED 'X' ON INLET
☒ BM–3	16562731.397	1421734.741	5.19	DRILLED HOLE IN BULKHEAD CAP

NOTES:

1. ALL HORIZONTAL INFORMATION SHOWN IS IN N.A.D. 83 DATUM, TEXAS SOUTH ZONE 4205, AS OBSERVED BY GPS.
2. ALL VERTICAL INFORMATION SHOWN IS IN N.A.D. 88 DATUM, U.S. SURVEY FEET.

DEMOLITION NOTES:

(1) REMOVE 51 LF OF CONCRETE BULKHEAD.

(2) REMOVE 32 SY OF BITUMINOUS SURFACE.

GENERAL NOTES:

1. INSTALL COFFERDAM PRIOR TO DEMOLITION. CONTRACTOR SHALL MINIMIZE TEMPORARY IMPACT TO WETLAND AREA/SEAGRASS. SEE PERMITTING.
2. ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION PROJECT SHALL OPERATE AT "NO WAKE/IDLE" SPEEDS AT ALL TIMES WHILE IN THE CONSTRUCTION AREA AND WHILE IN WATER DEPTHS WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR–FOOT CLEARANCE FROM THE BOTTOM.

PROJECT No.: C275–21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED
PROFESSIONAL ENGINEER
December 22, 2023

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South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

EXISTING CONDITIONS, PROJECT CONTROL & DEMOLITION NOTES

SCALE: AS NOTED
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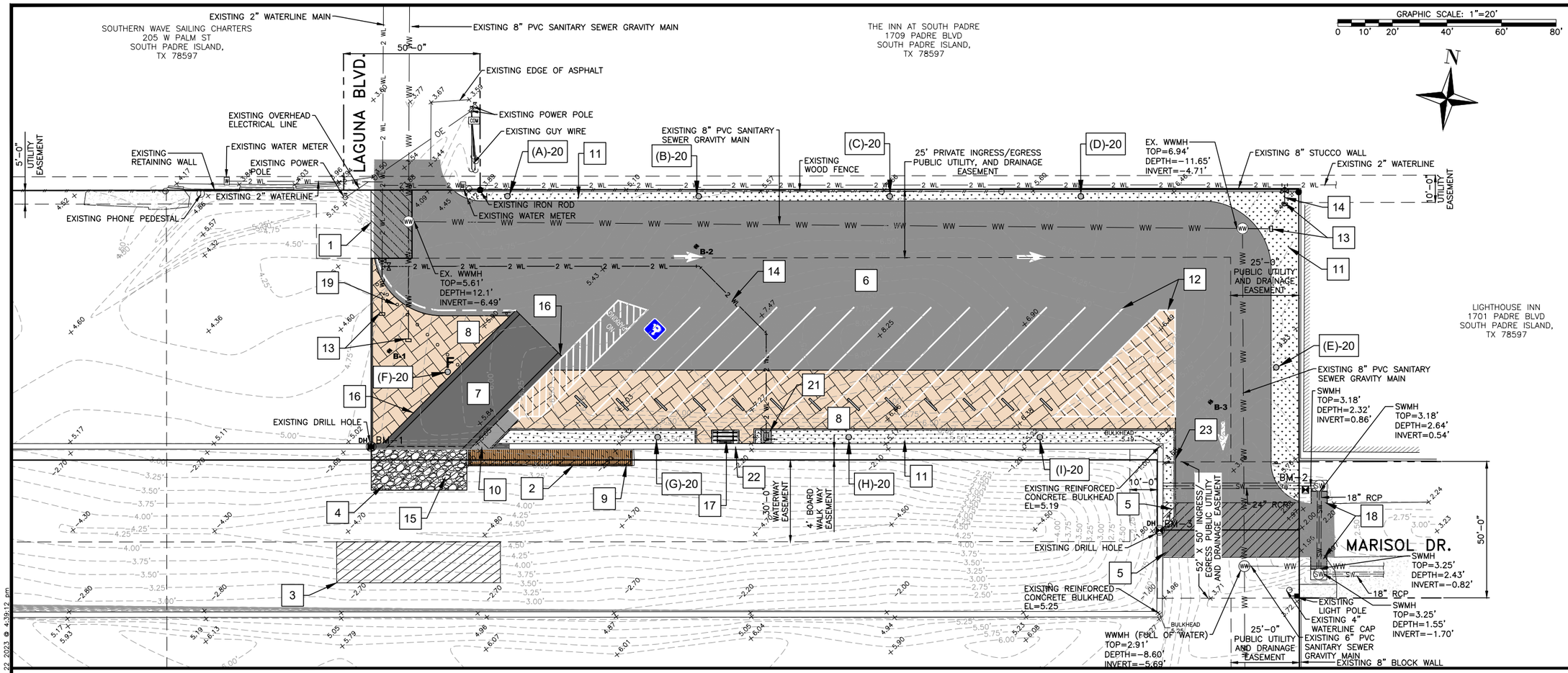
C1



DRILLED SHAFT FOUNDATION LOCATIONS		
LOCATION ID	NORTHING	EASTING
A	16562821.44	1421481.77
B	16562830.63	1421551.21
C	16562839.81	1421620.63
D	16562849.00	1421690.06
E	16562796.25	1421769.29
F	16562754.71	1421468.53
G	16562741.13	1421547.90
H	16562750.32	1421617.34
I	16562759.50	1421686.76

NOTES:

1. PROPOSED DRILLED SHAFT FOUNDATIONS
2. (A) INDICATES ID.

CONSTRUCTION NOTES:

1. EXISTING 25' PRIVATE INGRESS/EGRESS PUBLIC UTILITY, AND DRAINAGE EASEMENT.
2. EXISTING 2'X61.3' BOARDING DOCK EASEMENT.
3. EXISTING 15'X60' WATERWAY EASEMENT.
4. EXISTING 35'X15' TEMPORARY CONSTRUCTION EASEMENT FOR ROCK RIPRAP.
5. EXISTING 10'X52' TEMPORARY CONSTRUCTION EASEMENT.
6. PROPOSED 2,036 SY OF 6" REINFORCED CONCRETE PARKING LOT (SEE SHEET C3, C10 & C11 FOR DETAILS).
7. PROPOSED 133 SY OF 6" REINFORCED CONCRETE BOAT RAMP (SEE SHEET C4, C10 & C11 FOR DETAILS).
8. PROPOSED 789 SF OF 4" PAVERS (SEE SHEET C9 FOR DETAILS).
9. PROPOSED 360 SF (6' X 60') OF WOODEN ATTENDANT DOCK (SEE SHEET C19 FOR DETAILS).
10. PROPOSED 95 SF OF 4" REINFORCED CONCRETE ADA RAMP (SEE SHEET C7 FOR DETAILS).
11. PROPOSED 393 SY OF SOD.
12. PROPOSED 1,425 LF. OF PARKING LOT STRIPING (SEE SHEET C6-C8 FOR DETAILS).
13. PROPOSED UTILITIES STUB-OUTS (SEE SHEET C12-C13 FOR DETAILS)
14. PROPOSED 254 LF OF 2" (SCH 80) WATER LINE (SEE SHEET C14-C16 FOR DETAILS)
15. PROPOSED 36 CY OF ROCK RIPRAP SEE SHEET C4 & C10 FOR DETAILS)
16. PROPOSED 132 LF OF REINFORCED CONCRETE BULKHEAD (SEE SHEET C11 FOR DETAILS)
17. PROPOSED FISH CLEANING STATION (SEE SHEET C17-C18 FOR DETAILS)
18. PROPOSED REINFORCED CONCRETE RIPRAP (SEE SHEET C11 FOR DETAILS)
19. PROPOSED BOLLARDS (SEE SHEET C11 FOR DETAILS)
20. PROPOSED DRILLED SHAFT FOUNDATIONS (A-I) FOR LIGHT POLES (SEE SHEET C9 FOR DETAILS)
21. PROPOSED BACKFLOW PREVENTER (SEE SHEET C14-C16 FOR DETAILS)
22. PROPOSED 1" (SCH 80) WATERLINE, HOSE BIB, AND RELATED APPURTENANCES (SEE SHEET C14-C16 FOR DETAILS)
23. PROPOSED 38 LF OF 6" HEADER CURB (SEE SHEET C10 FOR DETAILS)

PROJECT No.: C275-21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

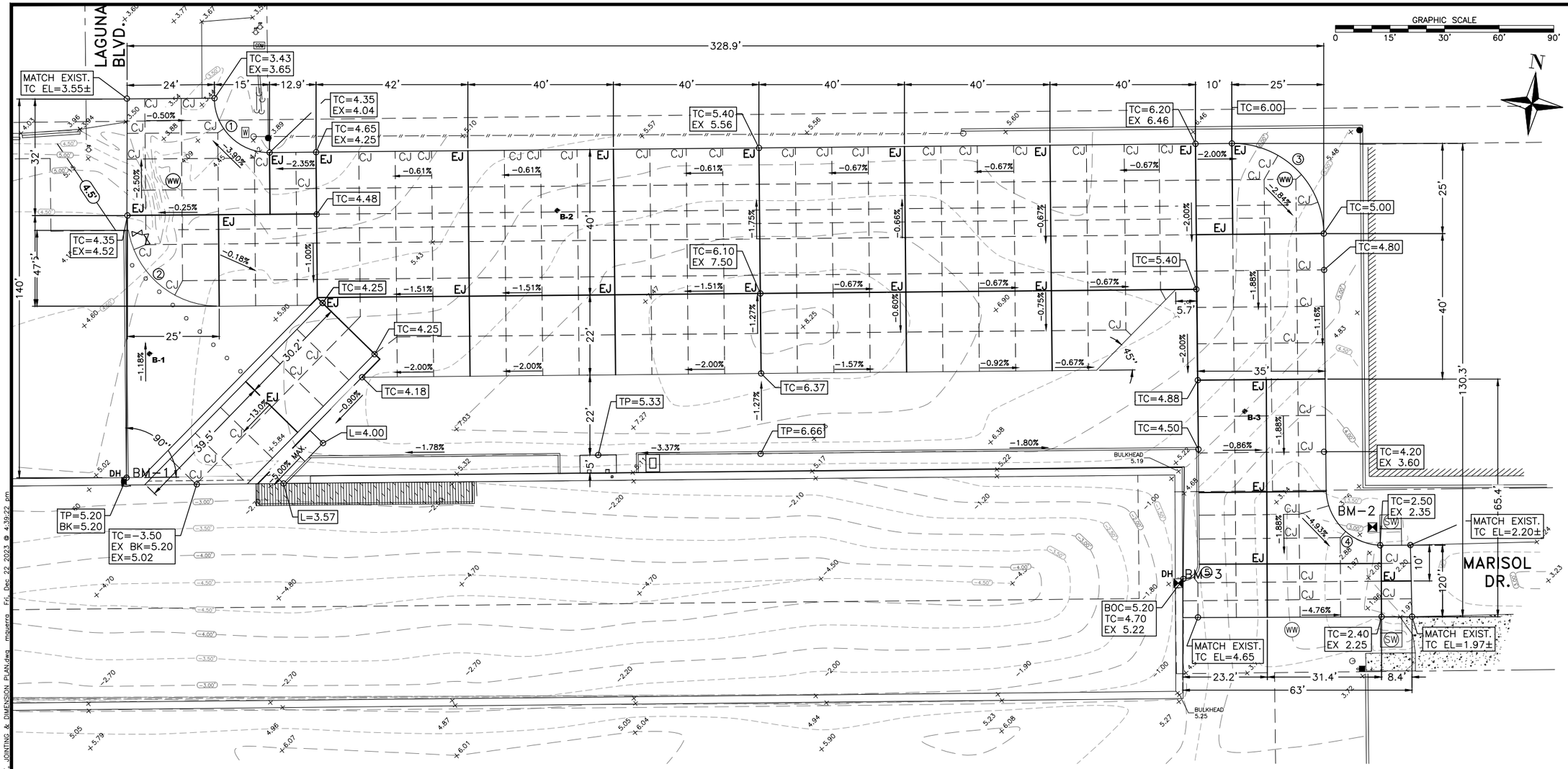
REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

PROPOSED SITE PLAN

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275-21184

C2



PROPOSED LEGEND:

4.5'	PROPOSED CONTOUR
EJ	EXPANSION JOINT
CJ	CONTROL JOINT
EX	EXISTING ELEVATION
TC	TOP OF CONCRETE
TP	TOP OF PAVERS
BK	TOP OF BULKHEAD
BOC	BACK OF CURB
L	LANDING

CURVE DATA CHART				
CURVE NUMBER	DELTA	RADIUS	TANGENT	LENGTH
①	90d29'21"	15'	15.13'	23.69'
②	81d3'43"	25'	21.38'	35.37'
③	90d0'0"	25'	25'	39.27'
④	85d44'30"	15.59'	14.47'	23.33'
⑤	92d10'57"	4.5'	4.67'	7.24'

NOTES:

1. PROPOSED WATER VALVE AND EXISTING WASTEWATER MANHOLE RIM AND COVERS TO BE ADJUSTED TO PROPOSED CONCRETE PAVEMENT FINAL GRADE.

PROJECT No.: C275-21184

STATE OF TEXAS · YESENIA SINGLETON · 102398 · LICENSED PROFESSIONAL ENGINEER
December 22, 2023

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TBPE FIRM REG. NO. F-1386

South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

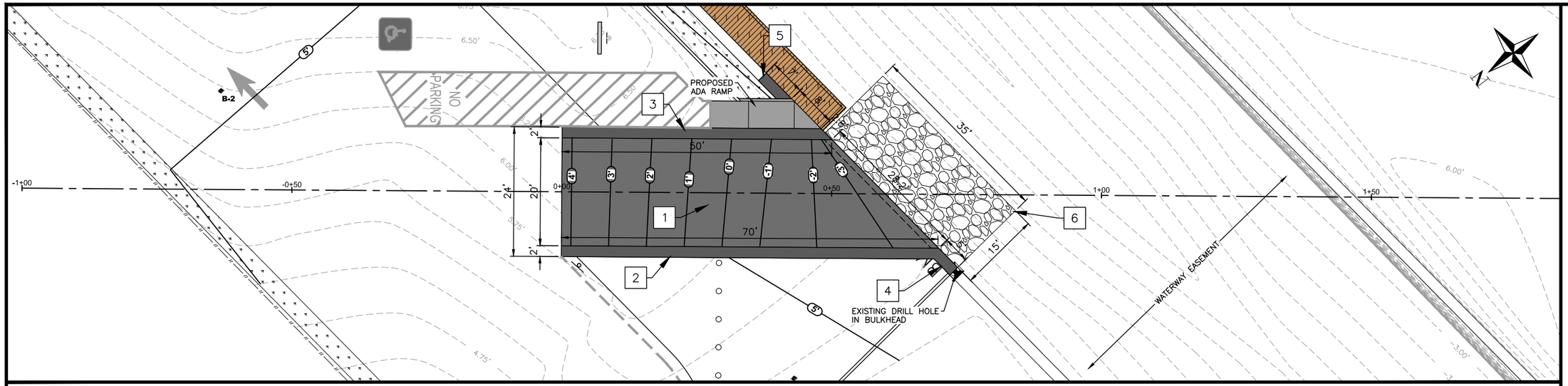
GRADING, DRAINAGE, JOINTING & DIMENSION PLAN

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275-21184

C3

REVISION NO. | DATE | BY | DESCRIPTION

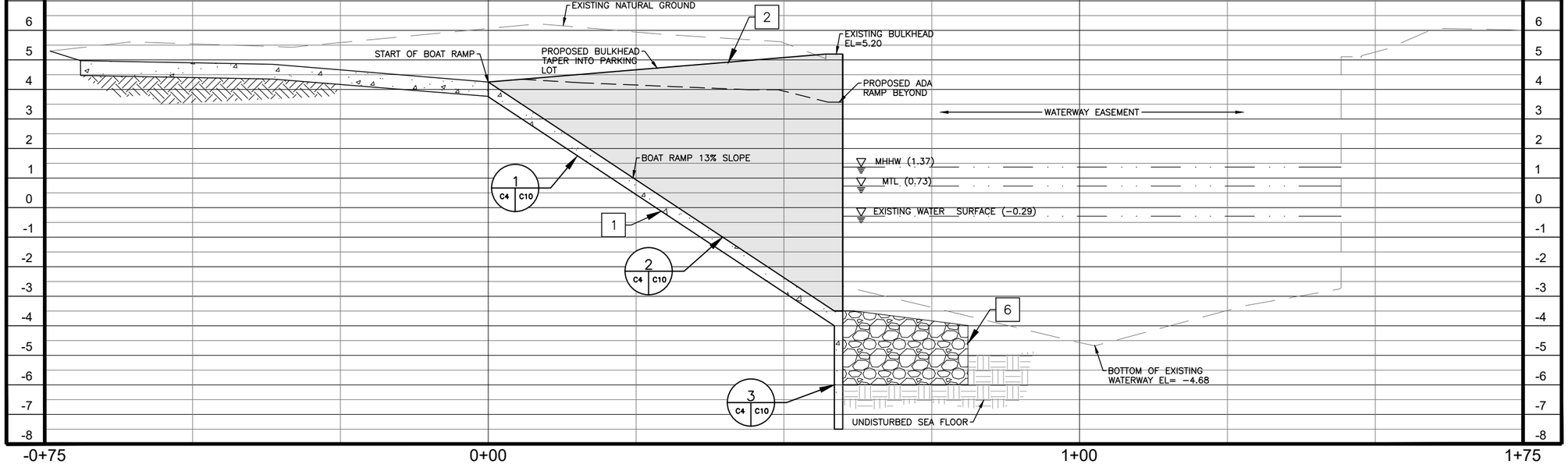
R:\CLIENTS\CITY OF SOUTH PADRE - 275\21184 - Marisol Boat Ramp Project\CAD\GRADING, DRAINAGE, JOINTING & DIMENSION PLAN.dwg mayerya Fri, Dec 22, 2023 @ 4:39:22 pm



HORIZONTAL GRAPHIC SCALE
0 10' 20' 30'

VERTICAL GRAPHIC SCALE
0 2' 4' 6'

MARISOL BOAT RAMP
PROPOSED PLAN & PROFILE



CONSTRUCTION NOTES:

1. PROPOSED 133 SY OF 6" CONCRETE BOAT RAMP (SEE SHEET C10 & C11 FOR DETAILS).
2. PROPOSED 70 LF OF CONCRETE BULKHEAD TAPERED FROM EL: 5.20 TO 4.25 (SEE SHEET C11 FOR DETAILS)
3. PROPOSED 50 LF OF CONCRETE BULKHEAD TAPERED FROM EL: 5.20 TO 4.25 (SEE SHEET C11 FOR DETAILS)
4. PROPOSED 5 LF OF CONCRETE BULKHEAD EL= 5.20 (SEE SHEET C11 FOR DETAILS)
5. PROPOSED 7 LF OF CONCRETE BULKHEAD EL= 5.20 (SEE SHEET C11 FOR DETAILS)
6. PROPOSED 36 CY OF ROCK RIPRAP (SEE DETAIL 1 SHEET C10 FOR DETAILS)

PROJECT No.: C275-21184

STATE OF TEXAS
YESENIA SINGLETON
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LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

BOAT RAMP PLAN & PROFILE

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275-21184

C4

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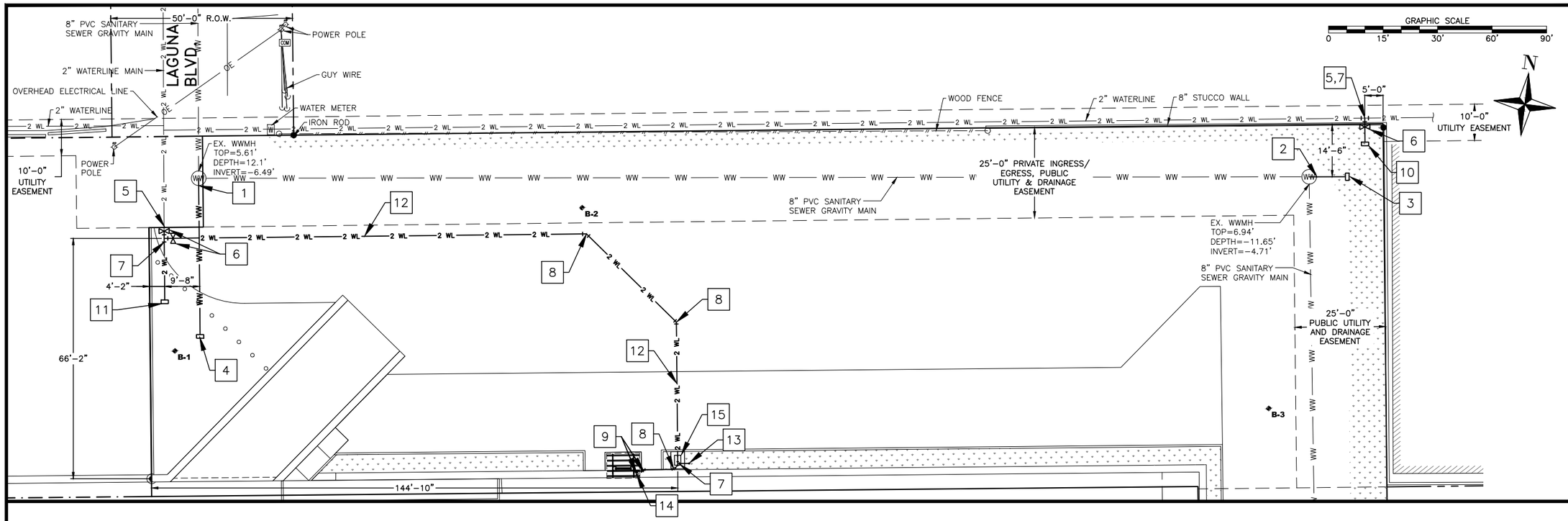

GENERAL NOTES:

1. CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER 2 DAYS (48 HOURS) IN ADVANCE PRIOR TO COMMENCING DRIVEWAY REPAIR CONSTRUCTION.
2. THE EXISTING WASTEWATER SERVICE TIE-IN FLOWLINE IS BASED OFF OF THE APPROXIMATE BURIAL DEPTH THAT WAS FIELD VERIFIED BY LJA. WASTEWATER TIE-IN FLOWLINE SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE WASTEWATER LINE. THE CONTRACTOR SHALL VERIFY THE CONDITION AND PIPE MATERIAL OF THE EXISTING WASTEWATER SERVICE.
3. ALL PROPOSED SERVICE TAPS SHALL BE MADE BY THE LAGUNA MADRE WATER DISTRICT.
4. CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN UNANTICIPATED UTILITY CONFLICTS ARISE AND IF THERE APPEARS TO BE EXISTING LEAKAGE FROM THE UNDERGROUND UTILITIES.
6. ALL ELEVATIONS SHOWN ARE IN FEET, UNLESS OTHERWISE STATED.
7. WHERE THE PROPOSED WATERLINE CROSSES OVER THE EXISTING WASTEWATER SERVICE:
   - 7.1. THERE SHALL BE A MINIMUM UNDISTURBED HORIZONTAL SEPARATION DISTANCE OF 4-FEET FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE, AND A VERTICAL SEPARATION OF 12-INCHES.
   - 7.2. CASING FOR THE PROPOSED WATERLINE MAY BE REQUIRED IF THE EXISTING WASTEWATER LINE PIPE MATERIAL DOES NOT HAVE A PRESSURE RATING OF AT LEAST 150 PSI.
8. SEE SHEETS C12-C16 FOR WASTEWATER LINE DETAILS AND WATER LINES DETAILS.
9. CONTRACTOR SHALL VERIFY FINAL RIM AND COVER ELEVATIONS OF EXISTING WASTEWATER MANHOLE OR PROPOSED WATER VALVE.
10. SEE SHEETS E1-E2 FOR ELECTRICAL DETAILS

CONSTRUCTION NOTES:

1. PROPOSED 4" WASTEWATER SERVICE CONNECTION TIE-IN WITH DROP CONNECTION TO EXISTING WASTEWATER MANHOLE. ADJUST RIM AND COVER TO PROPOSED FINISHED GRADE: PROP RIM: 4.15 PROP SERVICE CONNECTION INV: 0.10.
2. PROPOSED 4" WASTEWATER SERVICE CONNECTION TIE-IN WITH DROP CONNECTION TO EXISTING WASTEWATER MANHOLE. ADJUST RIM AND COVER TO PROPOSED FINISHED GRADE: PROP RIM: 5.46 PROP SERVICE CONNECTION INV: 1.31.
3. PROPOSED 10 LF OF 4" ASTM D-3034 PVC (SDR 26) @ 1.5% MINIMUM SLOPE WASTEWATER LINE WITH END CAP (MINIMUM 4' COVER).
4. PROPOSED 44 LF OF 4" ASTM D-3034 PVC (SDR 26) @ 1.5% MINIMUM SLOPE WASTEWATER LINE WITH END CAP (MINIMUM 4' COVER).
5. PROPOSED 2" (SCH 80) WATERLINE TAP INTO EXISTING 2" PVC WATERLINE (TOTAL: 2).
6. PROPOSED 2" WATER VALVE (TOTAL: 3).
7. PROPOSED 2" X 2" X 2" TEE (TOTAL: 3).
8. PROPOSED 2" 45° BEND (TOTAL: 3).
9. PROPOSED 2" 90° BEND (TOTAL: 6).
10. PROPOSED 7 LF OF 2" (SCH 80) WATERLINE WITH END CAP (MINIMUM 3' COVER).
11. PROPOSED 20 LF OF 2" (SCH 80) WATERLINE WITH END CAP (MINIMUM 3' COVER).
12. PROPOSED 224 LF OF 2" (SCH 80) WATERLINE (MINIMUM 3' COVER).
13. PROPOSED 3 LF OF 2" (SCH 80) WATERLINE WITH END CAP (MINIMUM 3' COVER).
14. PROPOSED HOSE BIB.
15. BACK FLOW PREVENTER

PROJECT No.: C275-21184

STATE OF TEXAS · YESENIA SINGLETON · 102398 · LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

UTILITY PLAN

REVISION NO.	DATE	BY	DESCRIPTION

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275-21184

C5

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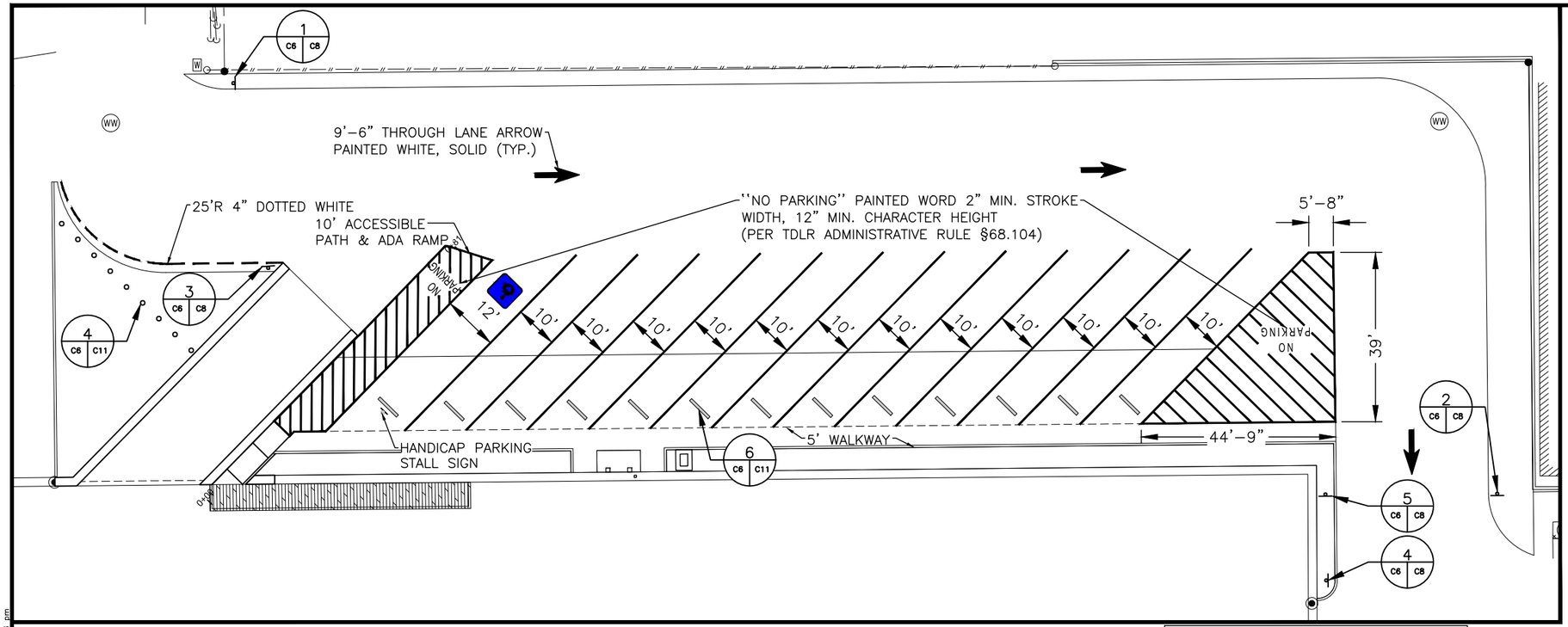
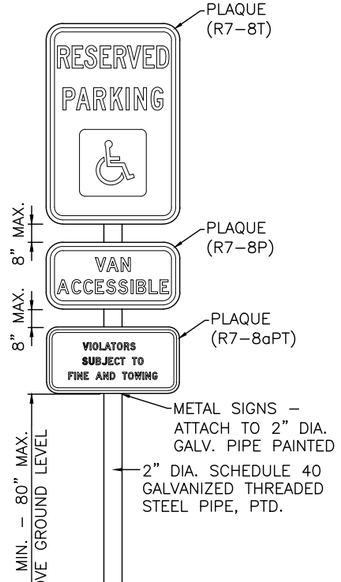
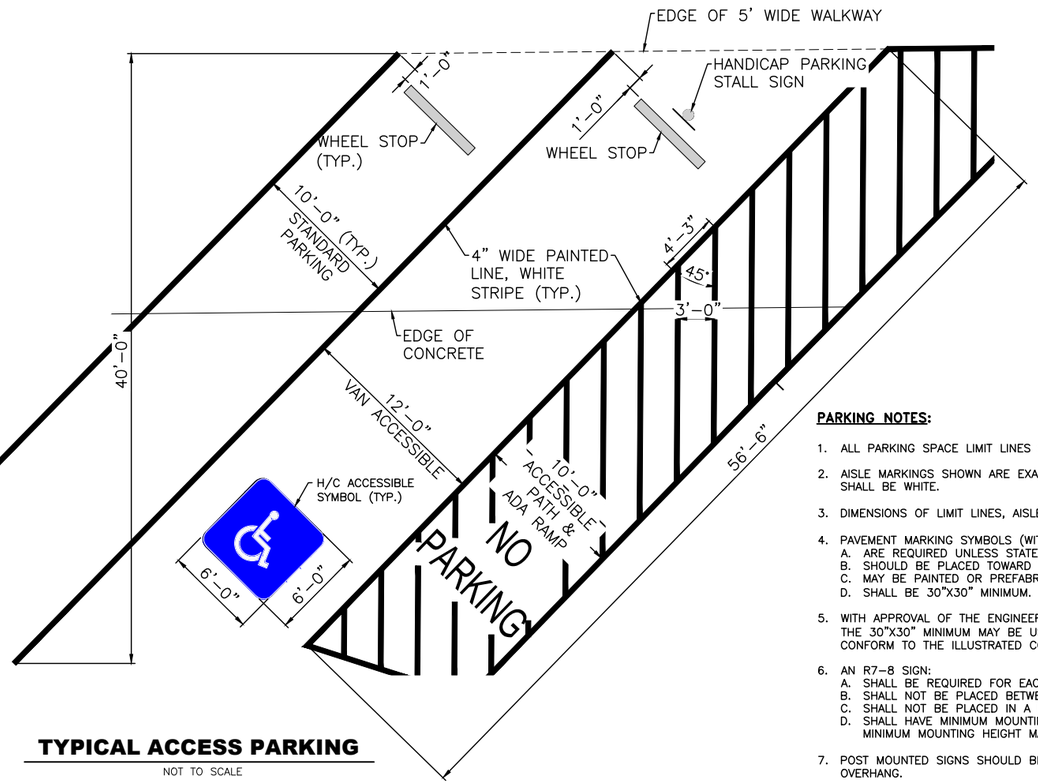


GRAPHIC SCALE
0 15' 30' 60' 90'

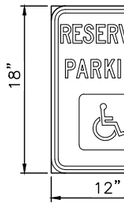
N





TYPICAL ACCESS PARKING

NOT TO SCALE

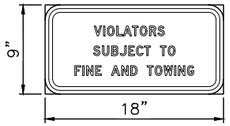


R7-8T

LEGEND AND BORDER: GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND: WHITE

R7-8P

LEGEND AND BORDER: GREEN
BACKGROUND: WHITE



R7-8qPT

LEGEND AND BORDER: GREEN
BACKGROUND: WHITE

SPECIFICATION REFERENCE TABLE

MATERIALS AND TESTS DIVISION SPECIFICATIONS	
ALUMINUM SIGN BLANKS	D-9-7110
REFLECTIVE SHEETING, TYPE C (HIGH SPECIFIC INTENSITY)	D-9S-8300

STRIPING NOTES:

1. PAINT FOR STRIPING PER SPECIFICATION SECTION 025807, PAVEMENT MARKINGS (S-45) PAINT AND THERMOPLASTIC.
2. PAINT SHALL BE APPLIED UNIFORMLY BY SUITABLE EQUIPMENT AT A RATE OF NOT LESS THAN 105 NOR MORE THAN 115 SQUARE FEET PER GALLON.
3. AFTER APPLICATION, ALL MARKINGS SHALL BE PROTECTED WHILE DRYING. THE FRESH MARKINGS SHALL BE PROTECTED FROM DAMAGE OF ANY KIND.

PARKING NOTES:

1. ALL PARKING SPACE LIMIT LINES SHALL BE 4" SOLID WHITE LINES.
2. AISLE MARKINGS SHOWN ARE EXAMPLES ONLY. OTHER METHODS TO INDICATE A NO PARKING AREA ARE ACCEPTABLE. AISLE MARKINGS SHALL BE WHITE.
3. DIMENSIONS OF LIMIT LINES, AISLE MARKINGS AND SYMBOLS (WITH OR WITHOUT BACKGROUND) MAY VARY + 10%.
4. PAVEMENT MARKING SYMBOLS (WITH BACKGROUND):
   A. ARE REQUIRED UNLESS STATED ELSEWHERE IN THE PLANS,
   B. SHOULD BE PLACED TOWARD THE FAR END OF THE PARKING SPACES SO AS TO BE VISIBLE TO MOTORISTS IN THE TRAVEL LANE,
   C. MAY BE PAINTED OR PREFABRICATED MATERIAL AND
   D. SHALL BE 30"X30" MINIMUM.
5. WITH APPROVAL OF THE ENGINEER, PREFABRICATED PAVEMENT MARKING SYMBOLS WITH BACKGROUND OF OTHER DIMENSIONS EXCEEDING THE 30"X30" MINIMUM MAY BE USED. ALTERNATIVE DESIGNS SHALL INCLUDE A PROPORTION SIZED SYMBOL OF ACCESSIBILITY AND SHALL CONFORM TO THE ILLUSTRATED COLORS FOR BACKGROUND, SYMBOL AND BORDER.
6. AN R7-8 SIGN:
   A. SHALL BE REQUIRED FOR EACH ACCESSIBLE PARKING SPACE,
   B. SHALL NOT BE PLACED BETWEEN TWO ACCESSIBLE PARKING SPACES,
   C. SHALL NOT BE PLACED IN A LOCATION THAT RESTRICTS MOVEMENT OF WHEELCHAIRS WITHIN THE ADJACENT SIDEWALK, AND
   D. SHALL HAVE MINIMUM MOUNTING HEIGHT OF 7 FEET. IF MOUNTED TO WALL OR LOCATED SO AS NOT TO BE NEAR PEDESTRIAN TRAFFIC MINIMUM MOUNTING HEIGHT MAY BE 7 FEET.
7. POST MOUNTED SIGNS SHOULD BE PLACED APPROXIMATELY 1 FOOT (OR GREATER) BEHIND THE CURB TO PREVENT DAMAGE FROM VEHICLE OVERHANG.
8. SIGNS MAY BE MOUNTED DIRECTLY TO AN ADJACENT WALL OF A BUILDING WHEN POST MOUNTING IS IMPRACTICAL.

HANDICAPPED PARKING SIGN NOTES:

A. THE ALPHABETS AND LATERAL SPACING BETWEEN LETTERS AND NUMERALS SHALL CONFORM WITH THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", LATEST EDITION, AND ANY APPROVED CHANGES THERETO. LATERAL SPACING OF TEXT SHALL PROVIDE A BALANCED APPEARANCE. ALL MATERIALS SHALL CONFORM TO DEPARTMENT SPECIFICATIONS.

B. LEGEND SHALL BE APPLIED BY SCREENING PROCESS OF BLACK AND/OR TRANSPARENT COLORED INK, CUT-OUT BLACK VINYL NON-REFLECTIVE DECAL SHEETING AND/OR REFLECTIVE SHEETING OR COMBINATION THEREOF. BACKGROUND SHALL BE WHITE REFLECTIVE SHEETING (TYPE C).

C. SIGN BLANKS SHALL BE ONE PIECE 0.08 INCH THICK SHEET ALUMINUM ALLOY (TYPE A). UNLESS OTHER-WISE NOTED ELSEWHERE IN THE PLANS.

HANDICAPPED PARKING SIGN

NOT TO SCALE

PROJECT No.: C275-21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

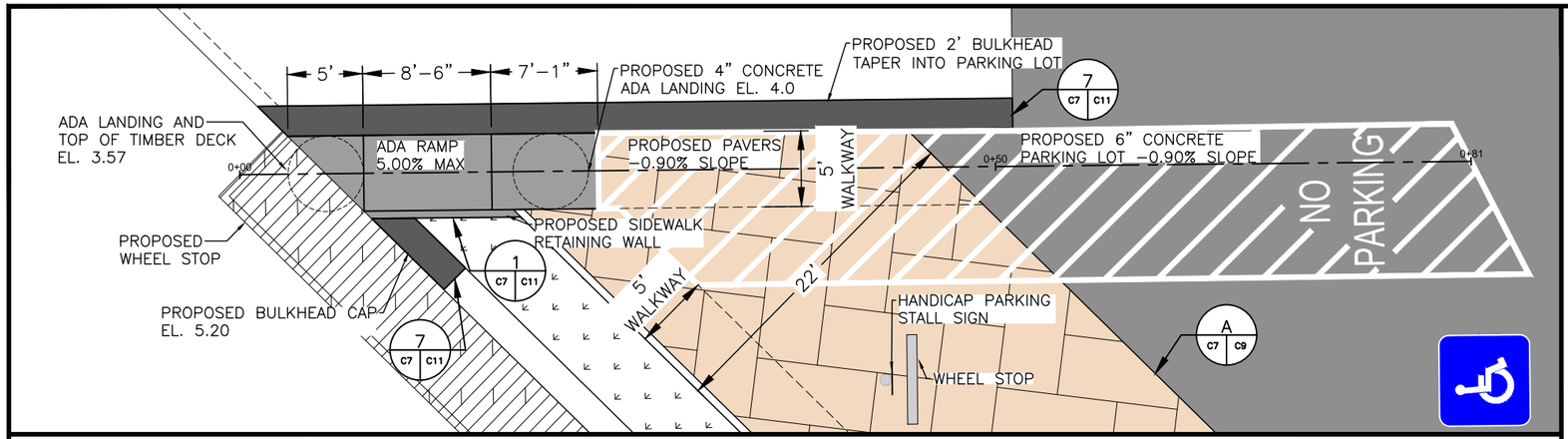
MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

PARKING LOT STRIPING & TDLR COMPLIANCE

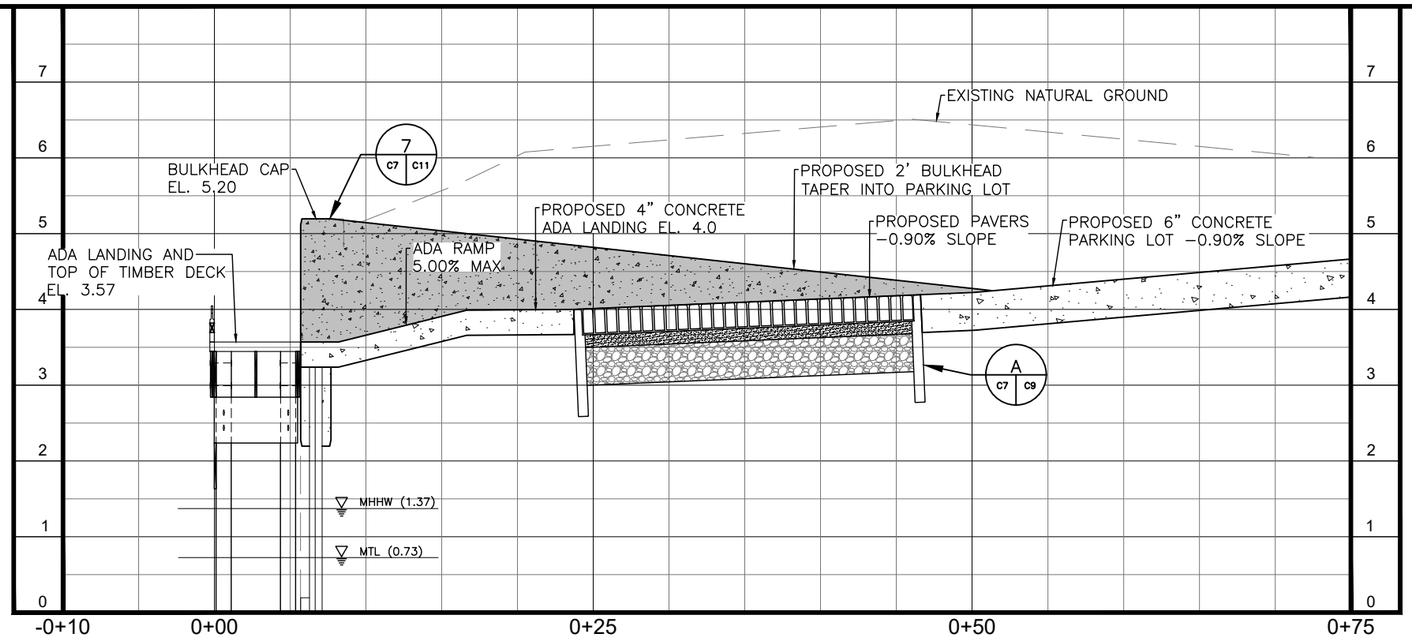
SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275-21184

C6

R:\CLIENTS\CITY OF SOUTH PADRE - 275\21184 - Marisol Boat Ramp Project\CAD\PARKING LOT STRIPING & TDLR COMPLIANCE.dwg mauerra Fri, Dec 22, 2023 @ 4:39:48 pm



MARISOL BOAT RAMP
PROPOSED PLAN & PROFILE



GENERAL NOTES:

1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED.
2. THE MAXIMUM ALLOWABLE SIDEWALK CROSS SLOPE EQUALS 2%.
3. PARKING LOTGRADES AND CROSS SLOPES SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
4. EXISTING FEATURES THAT COMPLY WITH TAS MAY REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS.
5. CHANGES IN LEVEL GREATER THAN 1/4 INCH ARE NOT PERMITTED.
6. THE LEAST POSSIBLE GRADE SHOULD BE USED TO MAXIMIZE ACCESSIBILITY. THE RUNNING SLOPE OF SIDEWALKS AND CROSSWALKS, WITHIN THE PUBLIC RIGHT–OF–WAY, MAY FOLLOW THE GRADE OF THE PARALLEL ROADWAY. WHERE A CONTINUOUS GRADE GREATER THAN 5% MUST BE PROVIDED. HANDRAILS MAY BE DESIRABLE ON ONE OR BOTH SIDES OF THE SIDEWALK TO IMPROVE ACCESSIBILITY. HANDRAILS MAY ALSO BE NEEDED TO PROTECT PEDESTRIANS FROM POTENTIALLY HAZARDOUS CONDITIONS. IF PROVIDED, HANDRAILS MUST COMPLY WITH TAS 4.85.
7. HANDRAIL EXTENSIONS SHALL NOT PROTRUDE INTO THE USEABLE LANDING AREA OR INTO INTERSECTING PEDESTRIAN ROUTES.
8. SIDEWALK DETAILS ARE SHOWN ELSEWHERE IN THE PLANS.

RAMP NOTES:

1. PROVIDE CURB RAMPS WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
2. SLOPE CRITERIA

RAMP AND LANDING AREA	MAX SLOPE (V:H, %, IN PER FT)
RAMP IN DIRECTION OF TRAVEL	1:12/8.03%/1" PER FT
SIDE SLOPE OF RAMP (FLARE)	1:10/10%/1.2" PER FT
CROSS SLOPE OF RAMP	1:50/2%/0.24" PER FT
LANDING AREA (ALL DIRECTIONS)	1:50/2%/0.24" PER FT

ADJOINING AREAS	
SIDEWALK IN DIRECTION OF TRAVEL	1:20/5%/0.60" PER FT
SIDEWALK CROSS SLOPE	1:50/2%/0.24" PER FT
GUTTER IN DIRECTION OF TRAVEL	1:20/5%/0.60" PER FT

A SMOOTH TRANSITION (S≤1:50) IN DIRECTION OF TRAVEL IN REQUIRED WHERE RAMPS TRANSITION TO THE PARKING LOT

3. PROVIDE FLARED SIDES WHERE THE PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP. FLARED SIDES SHALL BE SLOPED AT 10% MAXIMUM. MEASURED PARALLEL TO THE CURB. RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP, EITHER BECAUSE THE ADJACENT SURFACE IS PLANTED, SUBSTANTIALLY OBSTRUCTED, OR OTHERWISE PROTECTED.
4. LANDINGS SHALL BE 5'X5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
5. CURB RAMP MUST BE WHOLLY CONTAINED WITHIN CROSSWALK MARKINGS, EXCLUDING SIDE FLARES.
6. CURB RAMPS FLARES AND LANDINGS SHALL BE AT LEAST 5" THICK CONCRETE AND EXPANSION JOINTS SHALL TYPICALLY BE USED AT MATCHLINE WITH ADJOINING AREAS.
7. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4'X4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
8. LAYBACK CURB AND GUTTER MAY BE CONSTRUCTED MONOLITHICALLY WITH CURB RAMPS. PROVIDE NO. 4 X 12" LONG SMOOTH DOWELS @ 12" ON CENTERS IF NOT PLACED MONOLITHICALLY.
9. PROVIDE A SMOOTH TRANSITION WHERE THE CURB RAMPS CONNECT TO THE STREET. 5% MAXIMUM SLOPE IN GUTTER.
10. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGNED, LIGHT REFLECTIVE VALUE AND TEXTURE MAYBE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC §68.102
11. FINAL ACCEPTANCE OF THE PROJECT SHALL BE CONTINGENT UPON THE CONTRACTOR PROVIDING THE CITY WITH A FINAL INSPECTION REPORT FROM A CERTIFIED REGISTERED ACCESSIBILITY SPECIALIST (RAS) PER 16 TAC §68.52 STATING THAT ALL ADA (AMERICANS WITH DISABILITIES ACT) HANDICAP IMPROVEMENTS, AS CONSTRUCTED, COMPLY WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) FOR ELIMINATION OF ARCHITECTURAL BARRIERS PER TEXAS GOVERNMENT CODE CHAPTER 469.

PROJECT No.: C275–21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

ADA RAMP DETAILS

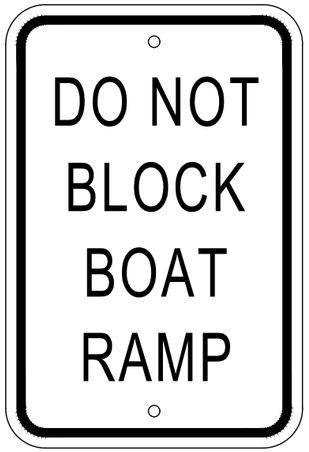
SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275–21184

C7

BOLTS USED TO MOUNT SIGN PANELS TO THE CLAMP ARE 5/16–18 UNC GALVANIZED SQUARE HEAD WITH NUT, NYLON WASHER, FLAT WASHER AND LOCK WASHER. THE BOLT LENGTH IS 1 INCH FOR ALUMINUM.

1 C6 C8 **ENTRANCE ONLY SIGN**
NOT TO SCALE

2 C6 C8 **EXIT ONLY SIGN**
NOT TO SCALE

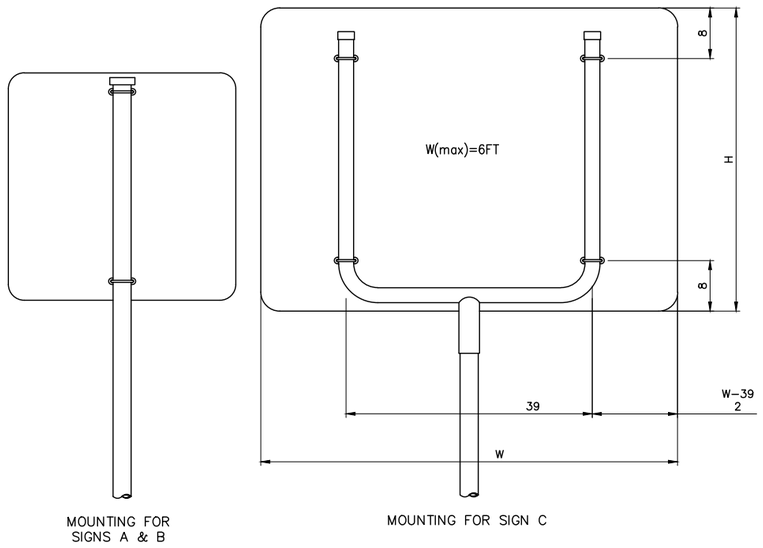


WEB SAFE COLOR
00CCFF BLUE

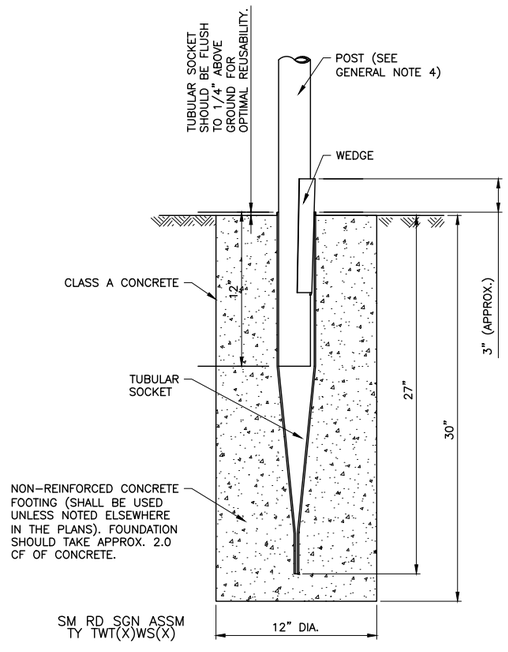
3 C6 C8 **BOAT RAMP SIGN**
NOT TO SCALE

4 C6 C8 **NO RIGHT TURN (R3-1)**
NOT TO SCALE

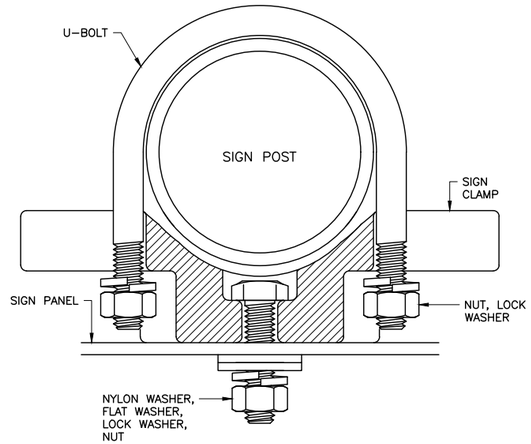
5 C6 C8 **DO NOT ENTER (R5-1)**
NOT TO SCALE



A C8 C8 **SIGN MOUTING DETAIL**
NOT TO SCALE



B C8 C8 **WEDGE ANCHOR STEEL SYSTEM**
NOT TO SCALE



C C8 C8 **TYP. SIGN ATTACHMENT DETAIL**
NOT TO SCALE

PROJECT No.:
C275–21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED
PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

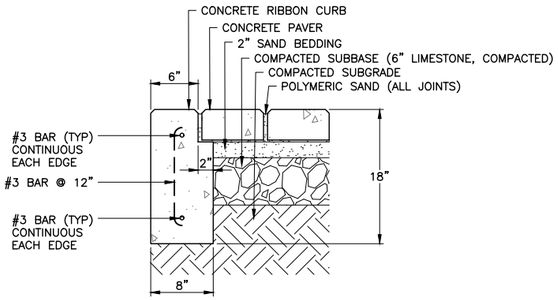
REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

SIGNAGE DETAILS

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275–21184

C8



PAVER INSTALLATION DETAIL

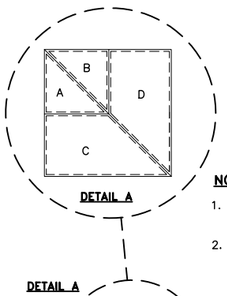
NOT TO SCALE

GENERAL SPECIFICATIONS INSTALLATION

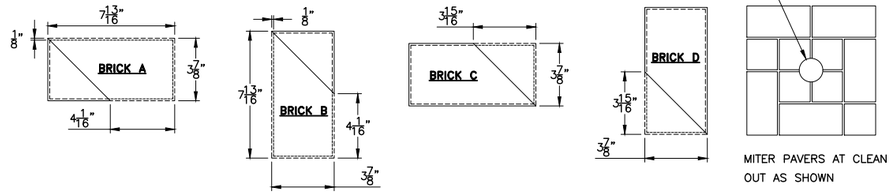
1. EXCAVATE UNSUITABLE, UNSTABLE OR UNCONSOLIDATED SUBGRADE MATERIAL AND COMPACT THE AREA WHICH HAS BEEN CLEARED. THEN BACKFILL AND LEVEL WITH DENSE GRADED AGGREGATE SUITABLE FOR SUBBASE MATERIAL (6" OF COMPACTED LIMESTONE)
2. PLACE BEDDING COURSE OF WASHED CONCRETE SAND CONFORMING TO THE GRADING REQUIREMENTS OF ASTM C33 TO A UNIFORM DEPTH OF 2" (50MM) SCREEDED TO THE GRADE AND PROFILE REQUIRED.
3. INSTALL PAVERS WITH JOINTS APPROXIMATELY 1/8" (3MM). (PAVERS WITH SPACER RIBS AUTOMATICALLY PROVIDE MINIMUM JOINT WIDTH.)
4. WHERE REQUIRED, CUT PAVERS WITH AN APPROVED CUTTER TO FIT ACCURATELY, NEATLY AND WITHOUT DAMAGED EDGES.
5. TAMP PAVERS WITH A PLATE COMPACTOR, UNFORMILY LEVEL, TRUE TO GRADE AND FREE OF MOVEMENT.
6. FILL JOINTS WITH POLYMERIC SAND BINDER (SANDLOCK OR APPROVED EQUAL.)

NOTES

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. CONFIRM COLOR AND SIZE WITH OWNER PRIOR TO INSTALLATION
4. CONTRACTOR TO PROVIDE 6'x6' MOCKUP OF PAVING TO INCLUDE FIELD PATTERN, BORDER PATTERN AND COLORS.



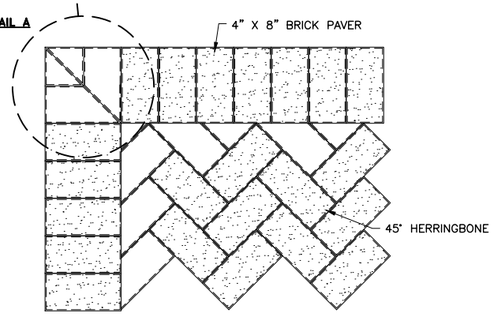
DETAIL A



NOTES:

1. DIMENSIONS SHOWN ARE FOR A 90° CORNER. ADJUST DIMENSIONS ACCORDINGLY FOR OTHER ANGLED CORNERS.
2. ALL MITER CUTS TO BE EVEN AND CONSISTENT.

DETAIL A



PAVER DETAIL - 90° MITER

NOT TO SCALE

PAVING NOTES

1. CONTRACTOR SHALL REVIEW AND COORDINATE WITH EXISTING CONDITIONS. LOCATE AND PROTECT ALL UNDERGROUND UTILITIES, DRAINS, ELECTRICAL, ETC.
2. CONTRACTOR TO FOLLOW CIVIL ENGINEER'S GRADING/DRAINAGE PLANS. ENSURE PROPER DRAINAGE AWAY FROM ALL BUILDINGS TO DRAIN INLETS PER GRADING/DRAINAGE PLANS.
3. CONTRACTOR SHALL STAKE OUT ALL PAVING AREAS FOR SSP APPROVAL PRIOR TO STARTING ANY PAVING WORK.
4. CONTRACTOR SHALL STRIP/REMOVE EXISTING UNSUITABLE SOIL/SOD/GRASS IN AL PAVER AREAS.
5. CONTRACTOR SHALL SUPPLY/INSTALL SELECT FILL, SUB-BASE, MOISTURE CONDITION, AND COMPACT SUB GRADE TO 95% PROCTOR DENSITY (ASTM D698).
6. CONTRACTOR SHALL SUPPLY/APPLY PRE-EMERGENT HERBICIDE TO SUB-BASE OF ALL PAVER AREAS. USE 'RONSTAR' PRE-EMERGENT HERBICIDE OR APPROVED EQUAL.
7. CONTRACTOR SHALL SUPPLY/INSTALL PAVERS AS INDICATED IN SCHEDULE
8. CONTRACTOR SHALL CUT/MITRE ALL RADII AND CORNERS USING MASONRY SAW AS DETAILED.
9. CONTRACTOR SHALL FILL/SWEEP AL JOINTS WITH MIXTURE OF JOINT SAND AND 'SANDLOCK' JOINT STABILIZER. MI. 3-4 LBS. OF 'SANDLOCK' PER 100 LBS OF JOINT SAND. SWEEP ADDITIONAL 'SANDLOCK' ONTO FINAL SURFACE AND INTO AL JOINTS THEN SATURATE WITH WATER TO ACTIVATE STABILIZER.
10. CONTRACTOR SHALL NOTIFY SSP BEFORE INSTALLATION FOR INSPECTIONS/APPROVALS OF AL WORK.
11. CONTRACTOR SHALL WARRANTY ALL MATERIALS AND LABOR FOR A PERIOD OF TWO YEARS.
12. INCLUDED RE-SANDING IF REQUIRED, HERBICIDE TREATMENT AND REPAIR OF ALL SUBGRADE FAILURES IF REQUIRED.

PAVING MATERIAL SCHEDULE		
DESCRIPTION	NOTES	QUANTITY
BRICK PAVERS	4"X8" MM KEYSTONE HOLLANDSTONE BRICK PAVERS BAND (LIGHT BROWN/TAN MIX)	
BRICK PAVERS BAND	4"X8" MM KEYSTONE HOLLANDSTONE BRICK PAVERS BAND (DARK BROWN)	

NOTE CONTRACTOR TO PROVIDE AVAILABLE PAVER COLORS FOR APPROVAL BY CITY BEFORE OFFERING MATERIAL

A / C9 C9 **PAVER DETAILS**

NOT TO SCALE

PROJECT No.: C275-21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED PROFESSIONAL ENGINEER
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South Padre ISLAND

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1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

PAVER DETAILS

SCALE:	AS NOTED
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C9

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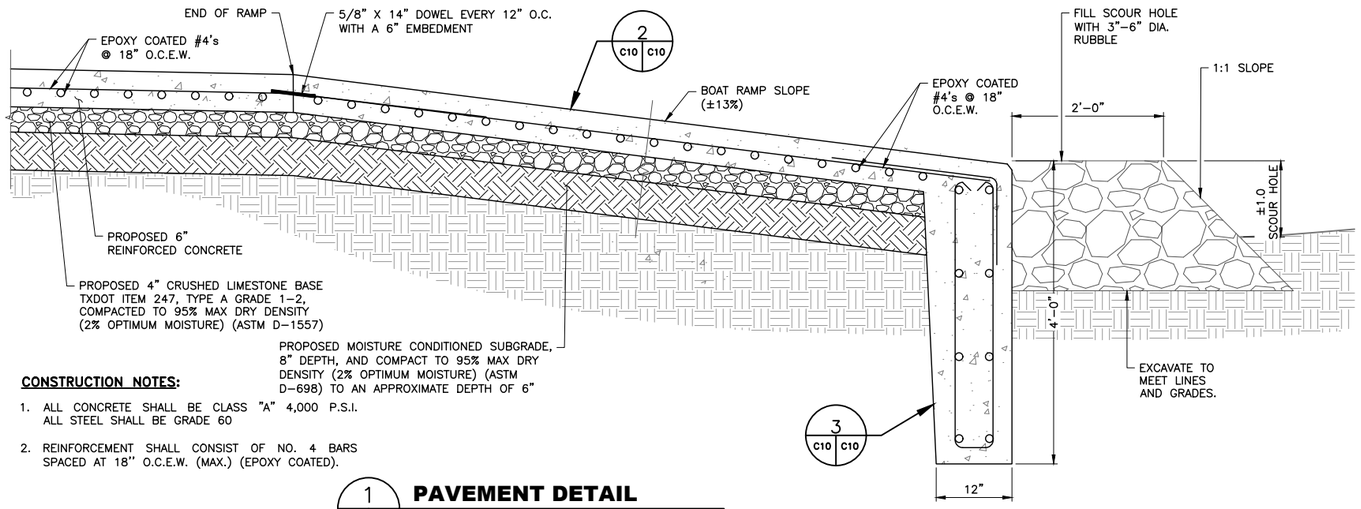
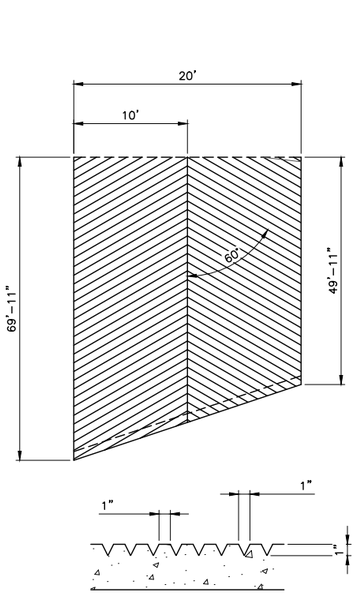


CONSTRUCTION NOTES:

1. ALL CONCRETE SHALL BE CLASS "A" 4,000 P.S.I. ALL STEEL SHALL BE GRADE 60
2. REINFORCEMENT SHALL CONSIST OF NO. 4 BARS SPACED AT 18" O.C.E.W. (MAX.) (EPOXY COATED).

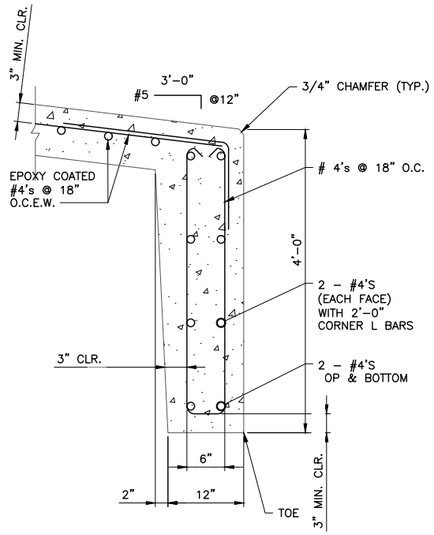
1 C2 C10 PAVEMENT DETAIL

NOT TO SCALE



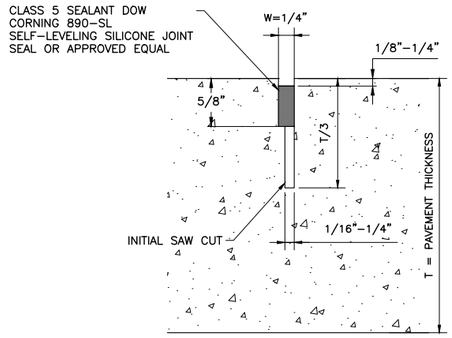
2 C10 C10 RAMP V-GROOVE FINISHING DETAIL

NOT TO SCALE

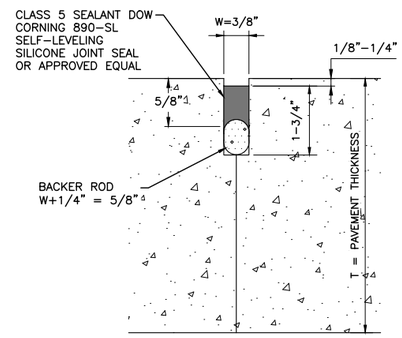


3 C10 C10 TOE WALL DETAIL

NOT TO SCALE



SAWED LONGITUDINAL JOINT



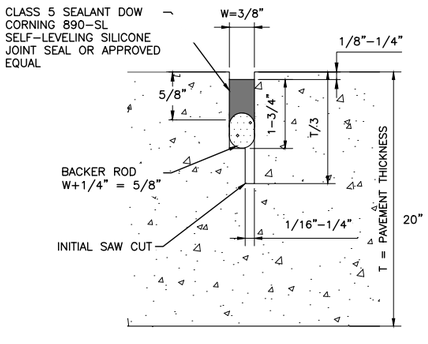
LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINT

JOINT SEALANT COMPOUND NOTES:

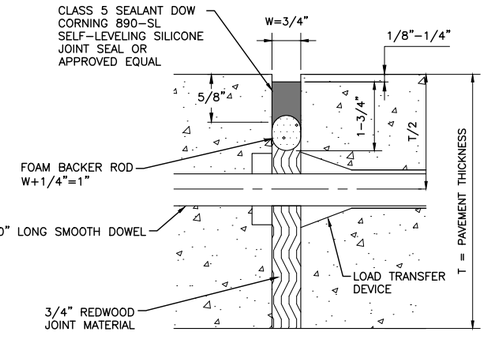
1. THE LOCATION OF JOINTS SHALL BE AS SHOWN ELSEWHERE IN THE DRAWINGS.
2. THE JOINT RESERVOIR FOR SEALANT SHALL BE SAWED UNLESS OTHERWISE SHOWN ON THE PLANS FOR THE LONGITUDINAL AND TRANSVERSE CONSTRUCTION AND THE TWO SAWED JOINTS.
3. THE JOINTS SHALL BE CLEANED IN ACCORDANCE WITH THE SEALANT MANUFACTURE'S RECOMMENDATION. PRIOR TO BEGINNING OPERATIONS, THE CONTRACTOR SHALL SUBMIT A STATEMENT FROM THE SEALANT MANUFACTURER SHOWING THE RECOMMENDED EQUIPMENT AND INSTALLATION PROCEDURES TO BE USED.
4. THE SAW CUT FOR THE LONGITUDINAL JOINT SHALL BE ONE FOURTH THE SLAB THICKNESS WHEN CRUSHED LIMESTONE IS USED AS THE COARSE AGGREGATE.

6" CURB NOTES:

1. EXPANSION AND CONSTRUCTION JOINTS OF THE 6" SEPARATE CURB SHALL MATCH CONCRETE PAVEMENT, AND SHALL NOT EXCEED 39' O.C. (MAX) SPACING.
2. TRANSVERSE GROOVES 1/8" WIDE BY 1/2" DEEP SHALL BE MADE AT 10' O.C. (MAXIMUM).
3. EXPANSION JOINTS ON ALL CURBS SHALL BE REDWOOD. ALL JOINTS IN 6" SEPARATE CURB SHALL BE SEALED IMMEDIATELY WITH JOINT SEALANT.
4. SEAL ALL LANDSCAPED AREAS ADJACENT TO PAVEMENT AND CURB AND GUTTER.
5. PLACE CURB AND SIDEWALK DIRECTLY ON LOW PERMEABLE SUBGRADE SOILS.



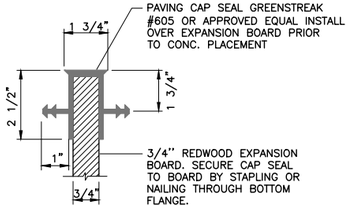
TRANSVERSE SAWED CONTRACTION JOINT



EXPANSION JOINT

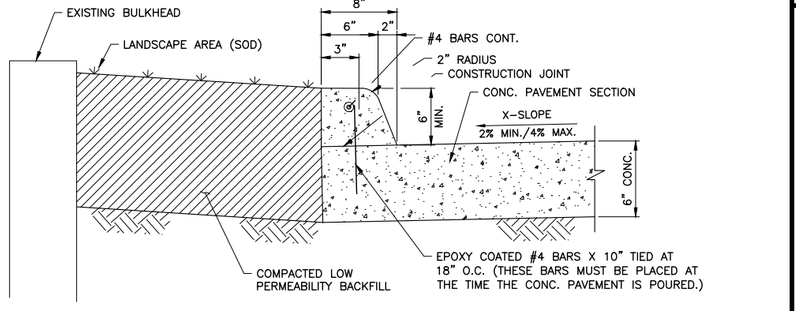
4 C3 C10 JOINT SEALANT COMPOUND

NOT TO SCALE



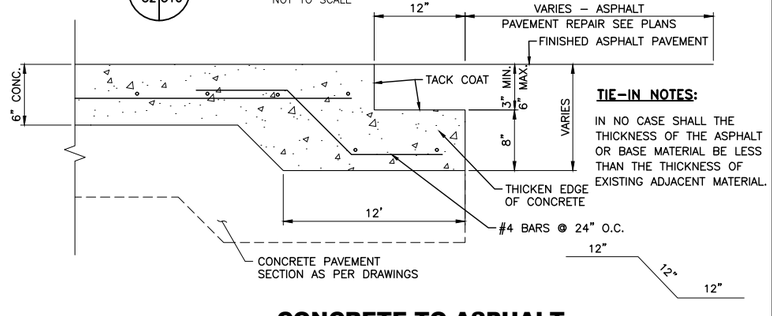
6 C10 C10 CAP SEAL DETAIL NEW CONC. TO NEW CONC.

NOT TO SCALE



5 C2 C10 CURB DETAIL DETAIL

NOT TO SCALE



TIE–IN NOTES:

IN NO CASE SHALL THE THICKNESS OF THE ASPHALT OR BASE MATERIAL BE LESS THAN THE THICKNESS OF EXISTING ADJACENT MATERIAL.

7 C2 C10 CONCRETE TO ASPHALT PAVEMENT SECTION TIE-IN DETAIL

NOT TO SCALE

PROJECT No.: C275–21184

STATE OF TEXAS · YESENIA SINGLETON · 102398 · LICENSED PROFESSIONAL ENGINEER

December 22, 2023

LJA ENGINEERING
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South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

CONCRETE DETAILS (1 OF 2)

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275–21184

C10

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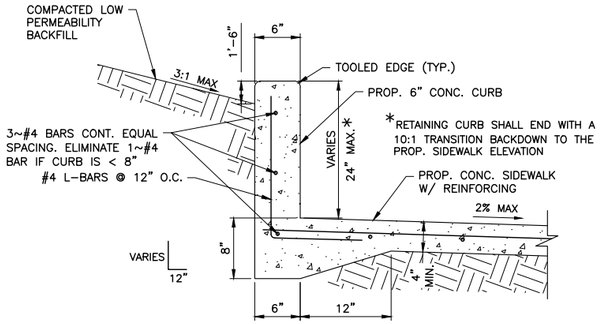
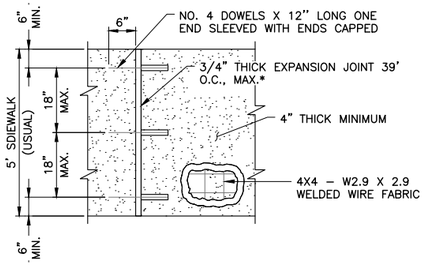


1 SIDEWALK RETAINING CURB DETAIL

C2 C11

NOT TO SCALE



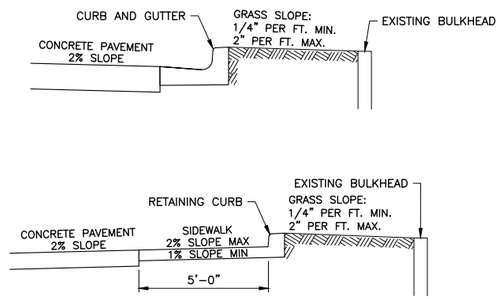
2 PLAN FOR SIDEWALK

C2 C11

NOT TO SCALE

SIDEWALK NOTES:

1. ALL EXPANSION JOINTS TO BE 3/4" REDWOOD EXPANSION BOARD, UNLESS OTHERWISE NOTED.
2. ALL CONCRETE CLASS "A", 3,000 PSI. ALL STEEL, GRADE 60, FY =60,000 PSI.
3. CONCRETE TO RECEIVE BROOM FINISH.
4. TRANSVERSE CONTRACTION JOINTS 1/8": WIDE BY 1/2" DEEP SHALL BE CUT IN ALL SIDEWALKS AT 5'-0" INTERVALS (TYPICAL) OR THE INTERVALS SHALL BE SPACED TO MATCH THE WIDTH OF THE SIDEWALK.
5. PLACE CURB AND SIDEWALK DIRECTLY ON LOW PERMEABLE SUBGRADE SOILS.



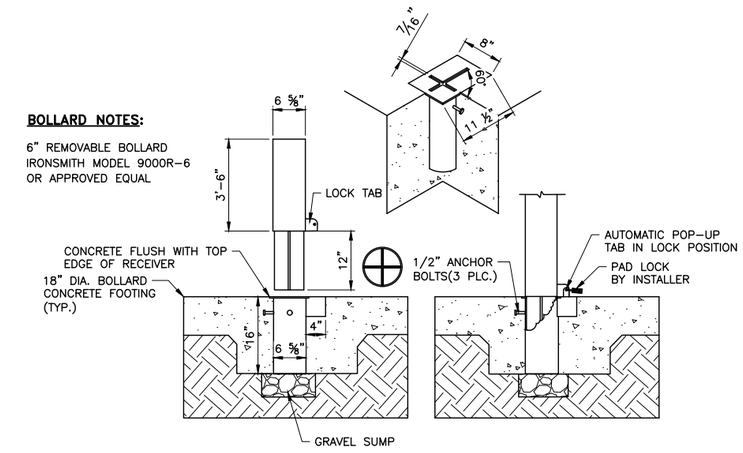
3 SURFACES AND SLOPES

C2 C11

NOT TO SCALE

BOLLARD NOTES:

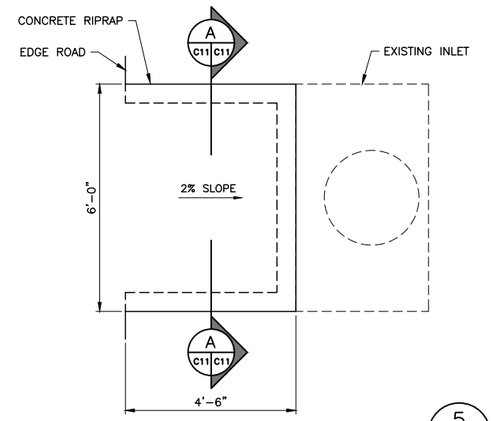
6" REMOVABLE BOLLARD IRONSMITH MODEL 9000R-6 OR APPROVED EQUAL



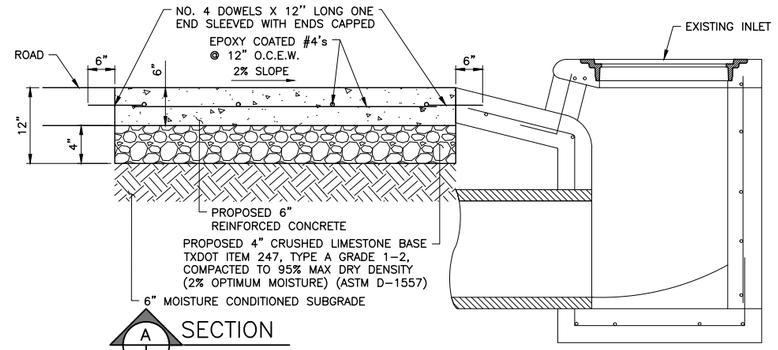
4 REMOVEABLE BOLLARD

C2 C11

NOT TO SCALE



PLAN

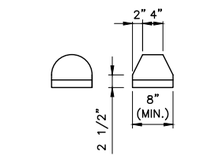


SECTION

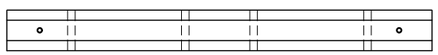
5 CONCRETE RIPRAP

C2 C11

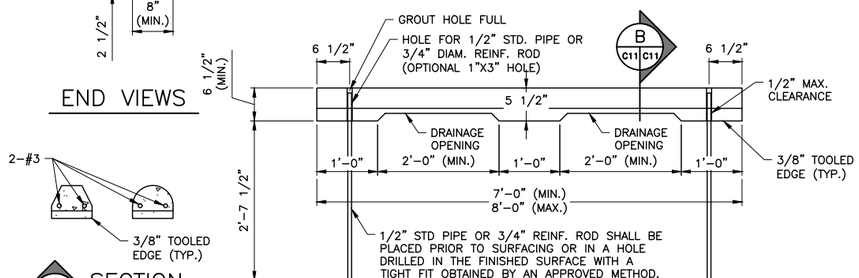
NOT TO SCALE



END VIEWS



PLAN



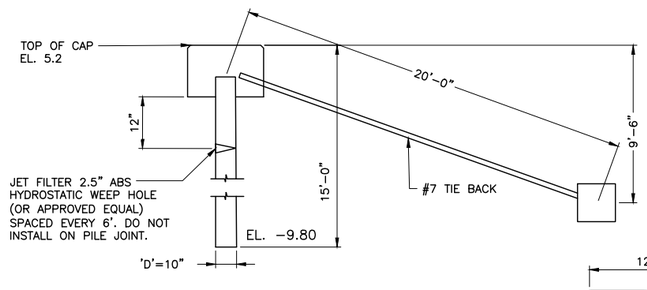
SECTION

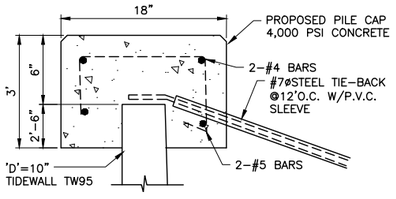
ELEVATION

6 PRECAST CONCRETE WHEEL STOP DETAILS

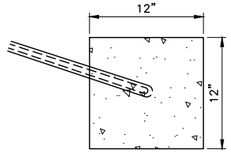
C2 C11

NOT TO SCALE





CAP DETAIL

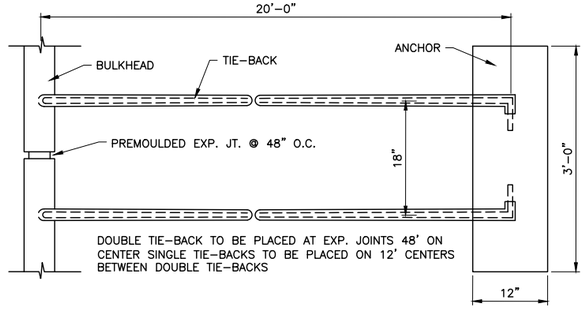


ANCHOR DETAIL

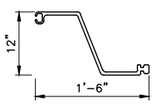
7 BULKHEAD

C2 C11

NOT TO SCALE



PLAN- DOUBLE TIE BACK



SHEET PILE NOTE:

1. VINYL SHEET PILE, TIDEWALL™ TW95, OR APPROVED EQUAL.

'Z' PROFILE TIDEWALL TW95 DETAIL

PROJECT No.: C275-21184

STATE OF TEXAS — YESENIA SINGLETON — 102398 — LICENSED PROFESSIONAL ENGINEER

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South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

CONCRETE DETAILS (2 OF 2)

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275-21184

C11

REVISION NO. | DATE | BY | DESCRIPTION

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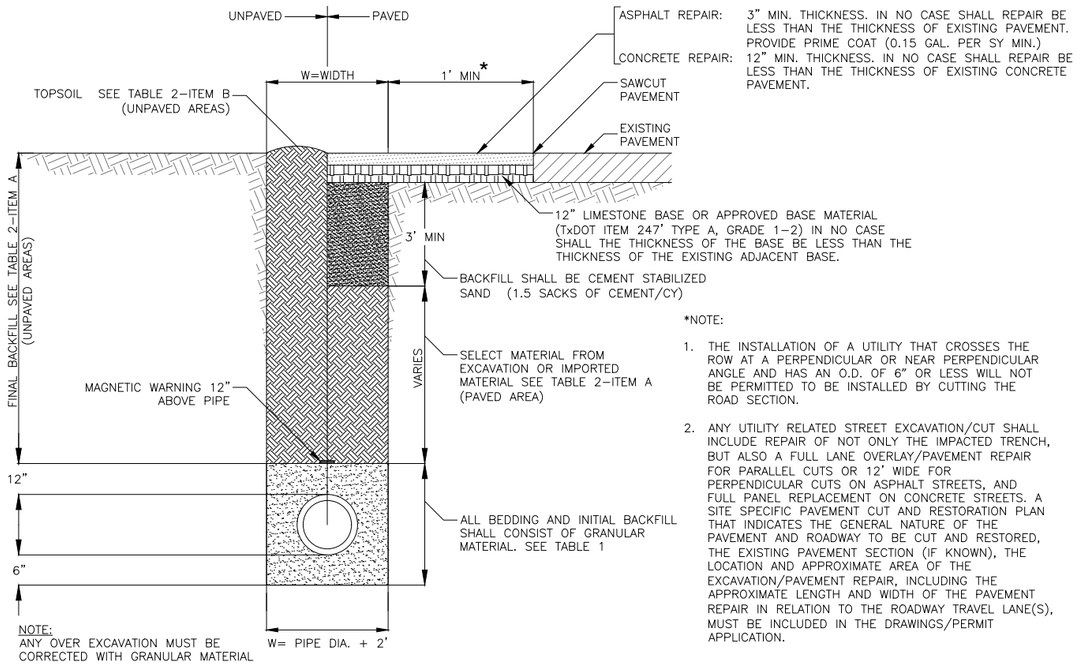


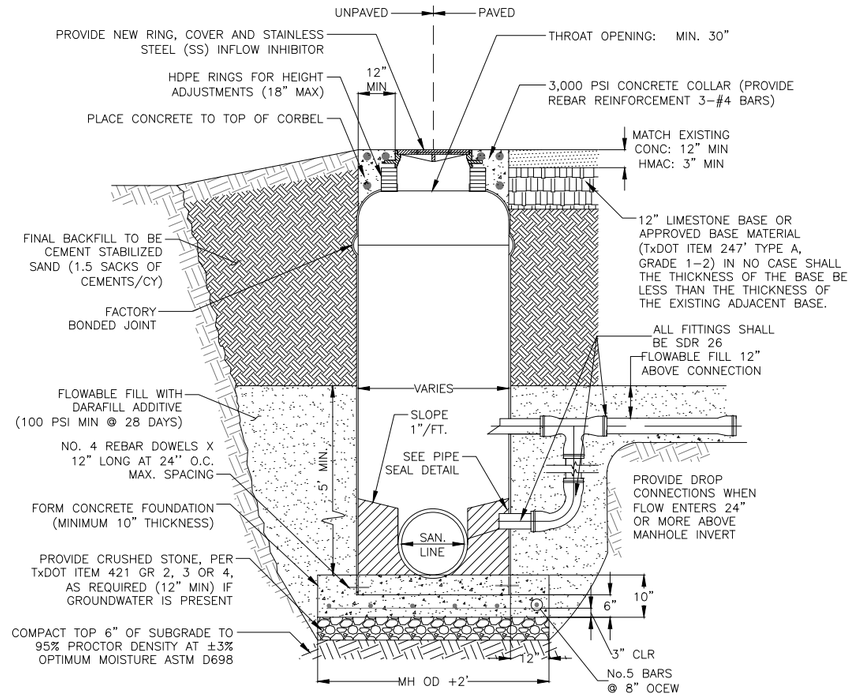
NOTE:
ANY OVER EXCAVATION MUST BE CORRECTED WITH GRANULAR MATERIAL SHOWN IN TABLE 1.

*NOTE:

1. THE INSTALLATION OF A UTILITY THAT CROSSES THE ROW AT A PERPENDICULAR OR NEAR PERPENDICULAR ANGLE AND HAS AN O.D. OF 6" OR LESS WILL NOT BE PERMITTED TO BE INSTALLED BY CUTTING THE ROAD SECTION.
2. ANY UTILITY RELATED STREET EXCAVATION/CUT SHALL INCLUDE REPAIR OF NOT ONLY THE IMPACTED TRENCH, BUT ALSO A FULL LANE OVERLAY/PAVEMENT REPAIR FOR PARALLEL CUTS OR 12' WIDE FOR PERPENDICULAR CUTS ON ASPHALT STREETS, AND FULL PANEL REPLACEMENT ON CONCRETE STREETS. A SITE SPECIFIC PAVEMENT CUT AND RESTORATION PLAN THAT INDICATES THE GENERAL NATURE OF THE PAVEMENT AND ROADWAY TO BE CUT AND RESTORED, THE EXISTING PAVEMENT SECTION (IF KNOWN), THE LOCATION AND APPROXIMATE AREA OF THE EXCAVATION/PAVEMENT REPAIR, INCLUDING THE APPROXIMATE LENGTH AND WIDTH OF THE PAVEMENT REPAIR IN RELATION TO THE ROADWAY TRAVEL LANE(S), MUST BE INCLUDED IN THE DRAWINGS/PERMIT APPLICATION.

TRENCH BACKFILL FOR WASTEWATER LINES AND PAVEMENT REPAIR FOR UTILITIES

NOT TO SCALE



FIBERGLASS MANHOLE

NOT TO SCALE

GENERAL NOTES FOR BACKFILL

TABLE 1
BEDDING AND INITIAL BACKFILL
(BELOW PIPE TO 12" ABOVE PIPE)

ALL BEDDING AND INITIAL BACKFILL SHALL CONSIST OF THE FOLLOWING OR REFER TO DESIGN ENGINEER REQUIREMENTS: GRANULAR BACKFILL CONSISTING OF EITHER NATURAL SAND OR SANDY GRAVEL, OR MATERIAL PRODUCED BY CRUSHING OF NATURAL STONE OR GRAVEL:

(1.) EXCAVATIONS <20 FT. DEEP AND ABOVE WATER TABLE, USE MATERIAL MEETING THE FOLLOWING CRITERIA.

MEETING REQUIREMENTS OF ASTM D2487 FOR:

SP	GP
SW	GW
SP–SM	GP–GM
SW–SM	GW–GM

AND IN ADDITION:
PASSING 1/2" SIEVE – 100%
PASSING #4 SIEVE – 30% MINIMUM
PLASTICITY INDEX (PI) – NP TO 10 MAX.

(2.) IN DEEP EXCAVATIONS (>20') OR BELOW WATER TABLE, USE CRUSHED STONE OR CRUSHED GRAVEL MEETING GRADATION OF:

A. CONCRETE COARSE AGGREGATE; TxDOT ITEM 421; GRADE 2, 3, OR 4.

OR

B. CRUSHED LIMESTONE PER TxDOT ITEM 421' GRADE 2, 3, OR 4.

TABLE 2
FINAL BACKFILL
(GREATER THAN 12" ABOVE PIPE)

UNPAVED AREAS

A. FROM 12" ABOVE PIPE TO BOTTOM OF TOPSOIL BACKFILL SHALL BE APPROVED SELECT MATERIAL FROM THE EXCAVAT– ION; OR IMPORTED MATERIAL; ALL TO BE FREE OF ROCKS, DEBRIS, OR ANY CLUMPS GR– EATER THAN 2" IN DIAMETER; LOOSE LIFTS TO BE PLACED 10" MAX.

COMPACT MATERIAL TO 95% STD. PROCTOR (D698).

MOISTURE TO BE ADJUSTED TO ± 3% OF OPTIMUM.

B. TOPSOIL TO BE PROVIDED EQUAL OR BETTER THAN EXISTING; AND MATCH EXISTING TOPSOIL DEPTH. COMPACT TO EXISTING ADJACENT TOP–SOIL THICKNESS. (CONSTRUCTION TO BE PERFORMED BY "DOUBLE DITCH" METHOD–TOP SOIL SALVAGED TO BE PLACED ON TOP)

PAVED AREAS

A. FROM 12" ABOVE PIPE TO 3' BELOW BOTTOM OF ROAD BASE: BACKFILL SHALL BE SELECT MATERIAL FROM EXCAVATION OR IMPORTED MATERIAL. IN EITHER CASE, ALL MATERIAL SHALL MEET THE FOLLOWING:

LL<35
PI 8–20
NO CLUMPS > 2" DIA.
MOISTURE – 1 TO +3%
COMPACT 95% D698 STD PROCTOR

LOOSE LIFTS OF 12" MAX
OR IF SELECT MATERIAL FROM EXCAVATION DOES NOT
MEET REQUIREMENTS, THEN USE CEMENT STABILIZED SAND.
SEE TABLE 2–ITEM B BELOW.

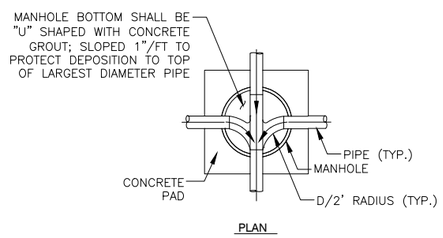
B. FROM 3' BELOW BOTTOM OF ROAD BASE TO BOTTOM OF ROAD BASE:

BACKFILL SHALL BE CEMENT STABILIZED SAND (1.5 SK/C.Y.)
AND SHALL MEET THE FOLLOWING REQUIREMENTS:

SAND GRADATION:
% PASSING

#4	55–100
#10	40–100
#40	25–100
#200	10–20
PI	NP–10

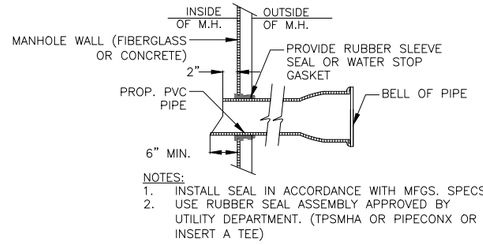
COMPACT TO 95% OF D588. MOISTURE TO BE ADJUSTED TO
TO (+/–2%) OF OPTIMUM.



PLAN

WASTEWATER MANHOLE (BOTTOM)

NOT TO SCALE



NOTES:
1. INSTALL SEAL IN ACCORDANCE WITH MFGS. SPECS.
2. USE RUBBER SEAL ASSEMBLY APPROVED BY UTILITY DEPARTMENT. (TPSMHA OR PIPECONX OR INSERT A TEE)

PIPE SEAL DETAIL

NOT TO SCALE

MANHOLE REQUIREMENTS	
PIPE DIAMETER	MANHOLE DIAMETER
≤18"	4'
18"< TO ≤36"	5'
36"< TO ≤42"	6'

APPROVED COATINGS TABLE	
MANUFACTURER	MODEL NAME
JEFFCOAT	JEFFCOAT 326
RAVEN LINING SYSTEM	RAVEN 405
SHERWIN WILLIAMS	DURAPLATE 5800
CARBOLINE	PHENOLINE 309

NOTE:
COAT ALL CONCRETE SURFACES INCLUDING BENCH & WALLS.

GENERAL WASTEWATER CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND EXAMINE LOCAL CONDITIONS TO BE ENCOUNTERED, IMPROVEMENTS TO BE PROTECTED, AND PERMITS AND FEES TO BE REQUIRED, ALONG WITH OTHER RESEARCH THAT IS NECESSARY TO ENSURE THAT THE CONTRACTOR THOROUGHLY UNDERSTANDS THE PROJECT AND IS FULLY AWARE OF ALL THE CONDITIONS AND CONSTRAINTS THAT MAY BE ENCOUNTERED DURING THE COURSE OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ADHERE TO ALL TCEQ REGULATIONS PER 30 TAC CHAPTER 217 AND TRENCH SAFETY FOR EXCAVATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL AND MUST ADHERE TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL FIBERGLASS MANHOLES SHALL BE MONOLITHIC WITH 0.50" MINIMUM WALL THICKNESS. IF PROVIDED OR REQUIRED, FIBERGLASS BOTTOM SHALL BE DESIGNED TO WITHSTAND HYDROSTATIC HEAD PRESSURE UNDER ALL CONDITIONS.
5. THE MANHOLE WALL PENETRATIONS FOR PIPE (8"–15" DIAMETER PIPE) ABOVE THE FLOWLINE OF THE MANHOLE SHALL BE CORED AND SEALED WITH APPROVED SEAL GASKET WATER STOP ASSEMBLY.
6. FOR FIBERGLASS MANHOLES, THE MANHOLE FOUNDATION MAY BE PRECAST ON GROUND SURFACE. (PROCEDURE MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL.)
7. THE CONTRACTOR SHALL PROVIDE PROTECTIVE COATING ON ALL EXPOSED CONCRETE SURFACES, INCLUDING CORBEL AREA, MANHOLE WALLS AND MANHOLE BENCH.
8. FOR FIBERGLASS MANHOLES WITH WATERTIGHT BOTTOM, ADHERE TO ALL MANUFACTURER REQUIREMENTS. FIBERGLASS BOTTOM AND BENCH MUST ALSO BE FACTORY INSTALLED.

PROJECT No.: C275–21184

YESENIA SINGLETON 102398 LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

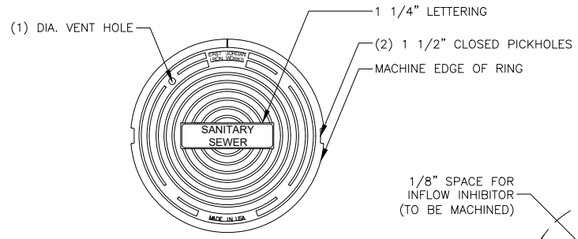
MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

WASTEWATER STANDARD DETAILS (1 OF 2)

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275–21184

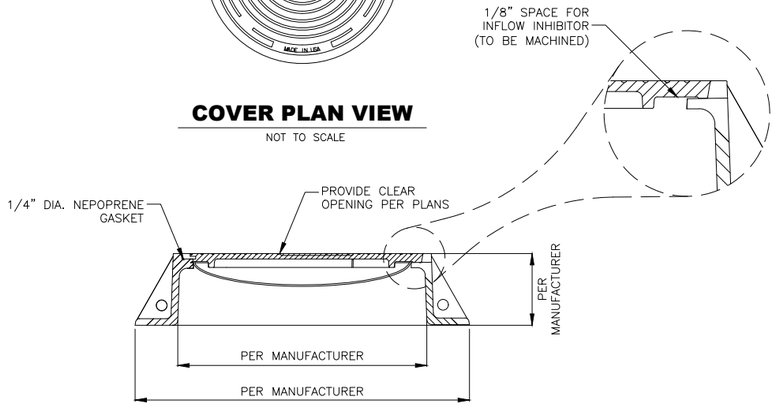
C12

R:\CLIENTS\CITY OF SOUTH PADRE – 275\21184 – Marisol Boat Ramp Project\CAD\Wastewater Std Details.dwg mquerra Fri, Dec 22, 2023 @ 4:40:20 pm



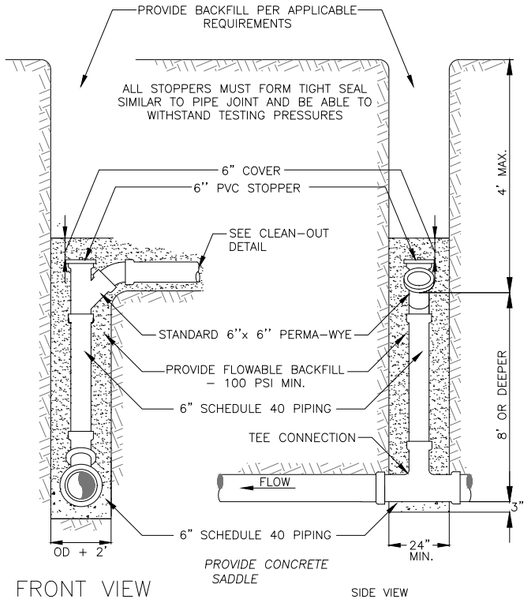
COVER PLAN VIEW

NOT TO SCALE



SECTION OF RING & COVER

NOT TO SCALE



DEEP CUT SERVICE CONNECTION

NOT TO SCALE

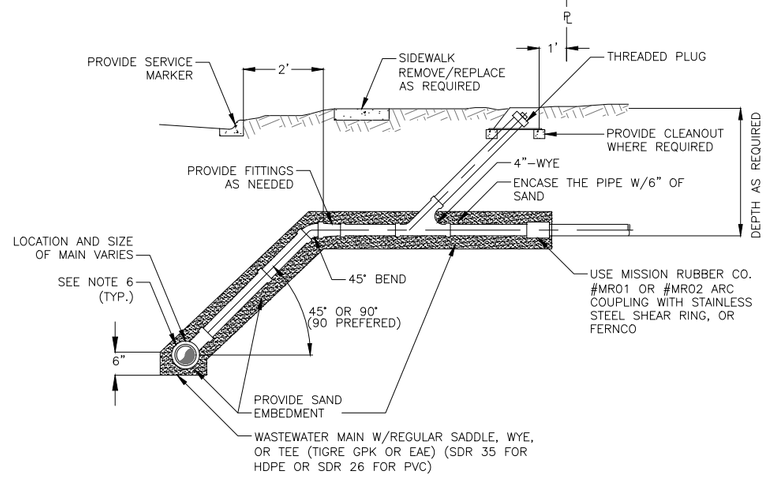
ROADWAY MANHOLE RING AND COVER:

1. THE CONTRACTOR SHALL PROVIDE STAINLESS STEEL (S.S.) INFLOW INHIBITOR WITH SS TETHER SECURED TO MANHOLE WALL, SUCH THAT THE INNER LID IS FLUSH WITH THE OUTER LID.
2. TRAFFIC SHALL BE RESTRICTED FROM MANHOLE FOR 48 HOURS AFTER THE PLACEMENT OF CONCRETE, AND COLLAR SHALL PROVIDE A SUFFICIENT, CLEAR OPENING TO ACCOMMODATE THE SPECIFIED MANHOLE COVER.
3. AASHTO-M-306 (LATEST REVISION) PROOF LOAD TESTING IS REQUIRED (40,000 LBS) AND MUST BE INSPECTED. PRIOR TO INSTALLATION, THE RESULTS OF THE TEST SHALL BE SUBMITTED TO THE CITY.
4. THE MANUFACTURING FACILITIES FOR ALL PROVIDED RING AND COVER ASSEMBLIES SHALL MEET OR EXCEED ALL EPA ENVIRONMENTAL STANDARDS AND OSHA SAFETY STANDARDS. THE CONTRACTOR SHALL PROVIDE CERTIFICATION.

CLEAR OPENING	MANUFACTURER (1)	MODEL NUMBER*	INFLOW INHIBITOR
24"	EAST JORDAN IRON WORKS	V-1168	STAINLESS STEEL REQUIRED ON ALL INSTALLATIONS PER CITY SPECIFICATIONS
	U.S. FOUNDRY	COVER- #8018538 FRAME- #8022247	
	NEENAH FOUNDRY	R-1930-24	
30" (2)	EAST JORDAN IRON WORKS	COVER- V1430 FRAME- V1420	
	U.S. FOUNDRY	COVER- #9210048 FRAME- #8021361	
	NEENAH FOUNDRY	DF-1274	

(1) OR APPROVED EQUAL (MADE IN THE USA)
(2) UNLESS NOTED IN THE PLANS, ALL COVERS SHALL BE 24" DIAMETER AND NOT INTENDED FOR MANNED ENTRY.

RING & COVER APPROVED LIST

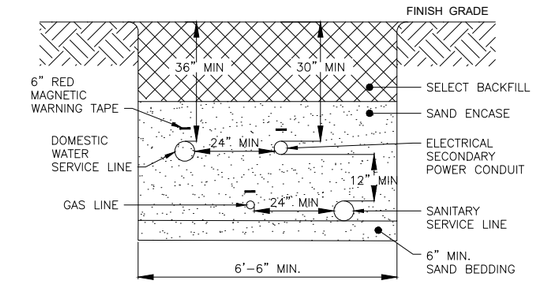


SERVICE CONNECTION NOTES:

1. CONTRACTOR TO PROVIDE SERVICE CONNECTION TAP TO THE R.O.W. LINE & CONNECT EXIST. SERVICE LINE OUTSIDE EASEMENT AS SHOWN AND REQUIRED.
2. ALL SERVICE PIPE AND FITTINGS TO BE SOLVENT WELD SCH 40 PVC UNLESS SHOWN OTHERWISE IN THE PLANS.
3. FOR EXISTING MAIN PIPE MATERIAL – PVC AND/OR VCP USE PUBIC WORKS DEPARTMENT APPROVED CONNECTOR.
4. FOR NEW PVC MAIN AND SERVICE, USE PVC WYE OR TEE AS DIRECTED AT SERVICE CONNECTION.
5. IF PIPE LENGTH, ON SERVICE LINE, IS GREATER THAN 50', USE 6" PVC SCH 40 FROM CLEANOUT WYE TO THE MAIN LINE.

SERVICE CONNECTION DETAILS

NOT TO SCALE

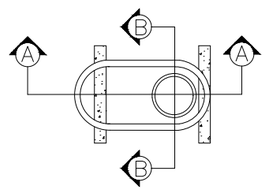


UTILITY TRENCH DETAIL

NOT TO SCALE

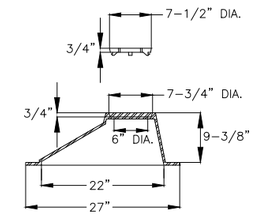
GENERAL NOTES FOR INSTALLATION OF UNDERGROUND CONDUIT SYSTEMS:

1. UNDERGROUND (BURIED) CONDUIT SHALL BE SCHEDULE 80 PVC.
2. CONDUIT MINIMUM DEPTH SHALL BE 36 INCHES.
3. TRENCHES ARE TO BE IN AS STRAIGHT AND DIRECT A LINE AS POSSIBLE.
4. CAUTION RIBBON SHALL BE INSTALLED ABOVE THE CONDUIT, A FOOT BELOW FINISHED GRADE.
5. A PULLING ROPE, 3/4 INCH DIAMETER POLYPROPYLENE, SHALL BE INSTALLED IN EACH CONDUIT.
6. THE ENDS OF THE CONDUIT SHALL BE PLUGGED DURING CONSTRUCTION TO PREVENT THE ENTRANCE OF FOREIGN MATTER.
7. CONDUIT SHALL TERMINATE NOT MORE THAN 6 INCHES INSIDE A HANDHOLE OR J-BOX. WHENEVER POSSIBLE THE CONDUIT SHALL RUN STRAIGHT INTO THE HANDHOLE WITHOUT SWEEPS OR BENDS.
8. ALL ENDS, JOINTS AND INTERNAL FINISH OF THE CONDUIT SHALL BE FREE OF SHARP EDGES OR BURRS WHICH COULD DAMAGE THE CABLE.
9. ALL BURIED JOINTS SHALL BE GLUED WITH CEMENT AS RECOMMENDED BY THE CONDUIT MANUFACTURER.
10. INSTALL A COPPER CONDUCTOR IN EACH CONDUIT TRENCH FOR FUTURE CONDUIT LOCATES.
11. PLACE 6" OF COMPACTED GRAVEL UNDER THE BOX. GRAVEL SHOULD NOT ENCROACH ON THE INTERIOR VOLUME OF BOX. GRAVEL BED SHOULD BE PLACE PRIOR TO SETTING BOX AND CONDUITS SHALL BE CAPPED.
12. STEEL COVER SHOULD BE MARKED WITH DESIGNATED UTILITY NAME SUCH AS ELECTRICAL, COMMUNICATION OR IRRIGATION.
13. STEEL COVER SHOULD BE FURNISH WITH LID GASKETS INHIBIT WATER FLOW INTO THE BOX TO PREVENT WATER INTRUSION.
14. MAINTAIN A MINIMUM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.
15. SEWER LINES WHICH PARALLEL PRIMARY ELECTRICAL RACEWAYS SHALL HAVE A HORIZONTAL CLEARANCE OF NOT LESS THAN 24".
16. JUNCTION BOX FOR POWER OUTLET NEAR THE LIGHT POLE SHALL BE OLDCASTLE SYNERTECH 1212, 18" DEEP WITH CLOSE BOTTOM, LID GASKET AND SEALER AROUND CONDUIT TO WEATHERPROOF.
17. AEP PRIMARY CONDUIT MINIMUM DEPTH SHALL BE 52 INCHES AND 48 INCHES FOR SECONDARY AEP CONDUIT.



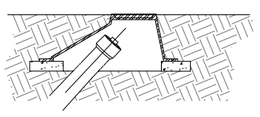
PLAN

NOT TO SCALE



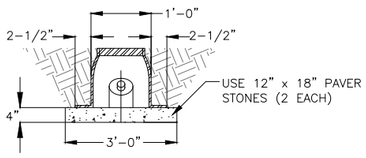
CLEAN-OUT BOOT

NOT TO SCALE



SECTION A-A

NOT TO SCALE



SECTION B-B

NOT TO SCALE

TYPICAL CAST IRON CLEAN-OUT BOOT

NOT TO SCALE

PROJECT No.: C275-21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

WASTEWATER STANDARD DETAILS (2 OF 2)

REVISION NO.	DATE	BY	DESCRIPTION

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275-21184

C13

WATER DISTRIBUTION SYSTEM GENERAL NOTES

1. PROPOSED WATER DISTRIBUTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF SOUTH PADRE ISLAND PUBLIC WORKS DISTRIBUTION SYSTEM STANDARDS.
2. THE CITY RESERVES THE RIGHT TO ACCEPT THE SYSTEM FOR OPERATION AT ANY TIME, BUT THE DATE OF OFFICIAL ACCEPTANCE OF THE SYSTEM WILL BE UPON COMPLETION OF THE PROJECT AND SATISFACTORY TEST RESULTS.
3. THE EXISTING SYSTEM SHALL REMAIN IN SERVICE UNTIL THE PROPOSED SYSTEM IS PUT INTO SERVICE. THE CONTRACTOR SHALL PROTECT THE EXISTING SYSTEM UNTIL IT IS TAKEN OUT OF SERVICE.
4. THE CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT REQUIRED TO INSTALL THE PROPOSED SYSTEM.
5. TESTING OF LINES (STERILIZATION AND PRESSURED) SHALL BE DONE BY THE CONTRACTOR UNDER THE SUPERVISION OF PUBIC WORKS DEPARTMENT. WATER FOR FILLING THE NEW WATER LINE AND PERFORMING TESTS WILL BE FURNISHED TO THE CONTRACTOR BY THE CITY OF SOUTH PADRE ISLAND THROUGH A STANDARD WATER CONSTRUCTION METER CONNECTION. STANDARD WATER CONSTRUCTION METER AND GAUGE WILL BE SUPPLIED BY THE CITY AFTER THE CONTRACTOR HAS PAID ALL APPLICABLE FEES FOR THE WATER CONSTRUCTION METER. ALL WATER DISCHARGE MUST BE DECHLORINATED IN ACCORDANCE WITH TCEQ & NPDES REGULATIONS.
6. THE CONTRACTOR SHALL RECOVER AND STOCK–PILE AT A LOCATION DESIGNATED BY THE PUBLIC WORKS INSPECTOR, ALL FIRE HYDRANTS, VALVES, AND FITTINGS THAT ARE TAKEN OUT OF SERVICE . THESE MATERIALS MAY BE SALVAGED BY THE CITY . HOWEVER, ALL ITEMS NOT CLAIMED BY THE CITY PRIOR TO THE FINAL INSPECTION SHALL BE DISPOSED OF BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL BEAR ALL COST ASSOCIATED WITH WATERLINE REPAIRS (WHICH RESULT FROM DAMAGE CAUSED BY THE CONTRACTOR) UPON COMPLETION OF PROJECTS. ALL WATER LINES SHALL BE FREE OF ALL PATCHES AND SPLICES.
8. ALL PHYSICAL TIES OF THE PROPOSED SYSTEM INTO THE EXISTING WATERLINE SHALL BE RECONNECTED AND BE MADE UNDER SUPERVISION OF THE PUBLIC WORKS INSPECTOR. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND ALL EQUIPMENT THAT IS REQUIRED TO MAKE TIE–INS. CITY PUBLIC WORKS CREWS WILL MAKE TAPS ON CITY MAINS ARRANGED THROUGH PUBLIC WORKS INSPECTOR (72 HOUR NOTIFICATION).
9. ALL EXISTING SERVICE CONNECTIONS TIED ONTO THE EXISTING WATERLINE SHALL BE RECONNECTED BY THE CONTRACTOR, INCLUDING RELOCATING EXISTING WATER METERS. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY AND COORDINATE WITH THE PUBLIC WORKS INSPECTOR SAID RECONNECTIONS / RELOCATIONS IN ADVANCE OF CONSTRUCTION TO AVOID DELAYS. (NO SEPARATE COSTS)
10. MINOR LENGTH OF DUCTILE IRON PIPE ADJACENT TO FITTINGS MAY BE REQUIRED AS DIRECTED BY THE PUBLIC WORKS INSPECTOR BASED ON CONDITIONS ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL USE D.I.P. AS DIRECTED AND SHALL BE PAID AT THE UNIT PRICE BID FOR THE APPROPRIATE SIZE WATERLINE. A MINOR LENGTH IS DEFINED AS A SINGLE LOCATION REQUIRING THE USE OF TWO JOINTS OR LESS.
11. MINOR ADJUSTMENTS IN THE LOCATIONS OF FITTINGS, VALVES, FIRE HYDRANTS, ETC. CAN BE ANTICIPATED. THE CONTRACTOR SHALL MAKE SAID MINOR ADJUSTMENTS AS DIRECTED BY THE ENGINEER AND/OR PUBLIC WORKS INSPECTOR AT NO INCREASE OF CONTRACT PRICE. PUBLIC WORKS WILL BE NOTIFIED PRIOR TO ALL CHANGES.
12. ALL NIPPLES BETWEEN FITTINGS AND VALVES ALONG MAINS SHALL BE DUCTILE IRON.
13. ALL DUCTILE IRON PIPES, VALVES, AND FITTINGS SHALL BE WRAPPED WITH (2) THICKNESSES OF 8 MIL. POLYETHYLENE AND SHALL BE RESTRAINED WITH "MEGALUG", MECHANICAL JOINT RESTRAINT OR ENGINEER APPROVED EQUAL AT ALL FITTINGS. CONCRETE THRUST BLOCKS SHALL BE PLACED BEHIND ALL FIRE HYDRANTS AS SHOWN ON DETAIL EXCEPT WHERE LOCKING OR SWIVEL FITTINGS ARE UTILIZED, UNLESS OTHERWISE SPECIFIED BY THE PUBLIC WORKS DEPARTMENT.
14. ALL OFFSETS ARE TO BE DUCTILE IRON PIPE ASSEMBLIES LOCKED TOGETHER BY RETAINER GLANDS. DUCTILE IRON BENDS SHALL BE UTILIZED FOR ANY CHANGES IN ALIGNMENT OR GRADE.
15. IF A WATER LINE IS TO BE ABANDONED, THE CONTRACTOR WILL FILL WITH CONTROLLED LOW STRENGTH MATERIAL, "DARAFILL" BRAND OR ENGINEER APPROVED EQUAL, VALVES WILL BE REMOVED OR FILLED AS REQUIRED BY PUBLIC WORKS INSPECTOR.
16. CONTRACTOR SHALL COORDINATE WITH PUBLIC WORKS INSPECTOR AND NOTIFY ALL AFFECTED CUSTOMERS 24 HOURS PRIOR TO KILLOUT OF EXISTING WATER SYSTEM.
17. WATER DISTRIBUTION SYSTEM STANDARDS CALL FOR MAXIMUM 48" COVER ON WATERLINES. WHEN DEPTHS EXCEED 48" COVER TO AVOID OBSTRUCTION, THE USES OF BENDS COULD BE REQUIRED.
18. CONTRACTOR SHALL KEEP ALL EXISTING VALVES ACCESSIBLE DURING ALL PHASES OF CONSTRUCTION.
19. ALL NEW WATER MAINS SHALL BE INSTALLED SO THAT PIPE IDENTIFICATION MARKINGS ARE LOCATED ON THE TOP OF THE PIPE.
20. ALL SERVICE LINES UNDER PAVEMENT SHALL BE ONE INCH, INSIDE DIAMETER, MINIMUM, UNLESS SPECIFIED OTHERWISE.

SPECIAL NOTE:

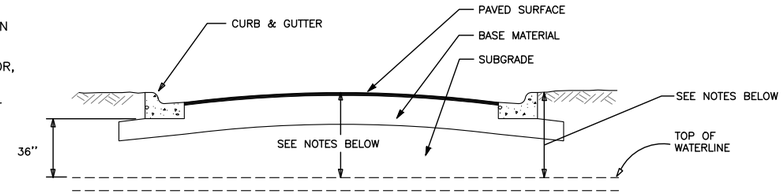
ENGINEER SHALL CONTACT THE PUBLIC WORKS DEPARTMENT FOR WATER VAULT DESIGN COORDINATION.

SEPARATION OF WATER AND WASTEWATER LINES

1. THE SEPARATION OF WATER AND WASTEWATER LINES AND THE MATERIAL USED SHALL BE IN ACCORDANCE WITH THE "RULES & REGULATIONS FOR PUBLIC WATER SYSTEMS" OF TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND THE CITY WATER DETAILS.
2. WHENEVER WATER & WASTEWATER LINES CROSS, ONE JOINT OF C900 PVC WATER LINE SHALL BE CENTERED OVER THE WASTEWATER LINE IN ADDITION TO ANY REQUIREMENTS AS DICTATED BY ITEM 1 ABOVE .

NOTES:

CONTRACTOR MAY BE REQUIRED BY THE PUBIC WORKS DEPARTMENT INSPECTOR TO INSTALL CENTERED JOINTS OF DUCTILE IRON PIPE AT WATERLINE CROSSINGS OF EXISTING HAZARDOUS PRODUCT FLOWLINES.

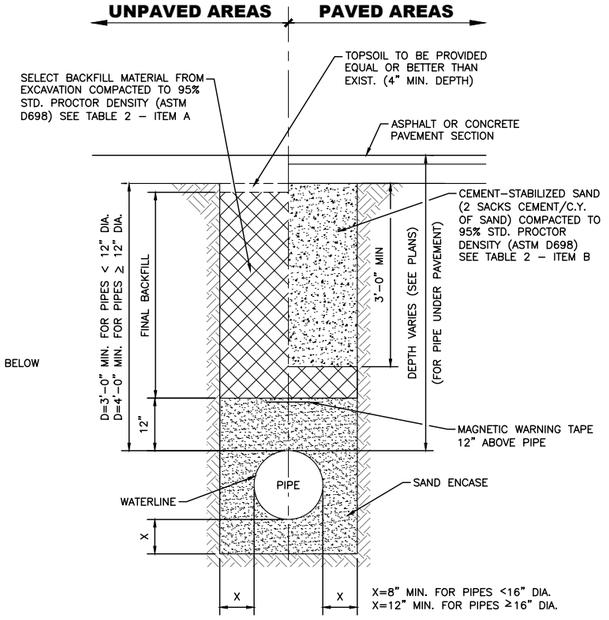


WATERLINE MINIMUM COVER REQUIREMENTS

NOT TO SCALE

NOTES:

1. ALL MAINS IN THE STREET SHALL HAVE A MINIMUM OF 36" OF COVER AND BE 12" MINIMUM BELOW SUBGRADE AT ALL POINTS AND HAVE VALVE CLEARANCES IN ACCORDANCE WITH THE VALVE DETAIL.
2. ALL TRANSMISSION MAINS (12" DIAMETER & ABOVE) IN THE STREET SHALL HAVE 48" OF COVER AT ALL POINTS.
3. ALL MAINS NOT UNDER THE STREET SHALL HAVE A MINIMUM OF 36" OF COVER AT ALL POINTS.



TYP. PIPE TRENCHING BEDDING AND BACKFILL FOR WATERLINE

NOT TO SCALE

NOTE: (CONCRETE PAVEMENT ONLY)

CONTRACTOR HAS OPTION TO USE CEMENT STABILIZED SAND OR BACKFILL WITH SELECT BACKFILL MATERIAL

GENERAL NOTES FOR BACKFILL

TABLE 1
BEDDING AND INITIAL BACKFILL
(BELOW PIPE TO 12" ABOVE PIPE)

ALL BEDDING AND INITIAL BACKFILL SHALL CONSIST OF THE FOLLOWING OR REFER TO DESIGN ENGINEER REQUIREMENTS:
GRANULAR BACKFILL CONSISTING OF EITHER NATURAL SAND OR SANDY GRAVEL, OR MATERIAL PRODUCED BY CRUSHING OF NATURAL STONE OR GRAVEL.

WATER LINES:

1. EXCAVATIONS <20FT. DEEP AND ABOVE WATER TABLE, USE MATERIAL MEETING THE FOLLOWING CRITERIA.

   MEETING REQUIREMENTS OF ASTM D2487 FOR:

SP	GP
SW	GW
SP–SM	GP–GM
SW–SM	GW–GM

   AND IN ADDITION:
   PASSING 1/2" SIEVE – 100%
   PASSING #4 SIEVE – 30% MINIMUM
   PLASTICITY INDEX (PI) – NP TO 10 MAX.

2. IN DEEP EXCAVATIONS (>20') OR BELOW WATER TABLE, USE CRUSHED STONE OR CRUSHED GRAVEL MEETING GRADATION OF:

   A. CONCRETE COARSE AGGREGATE; TxDOT ITEM 421; GRADE 2, 3, OR 4.

TABLE 2
FINAL BACKFILL
(GREATER THAN 12" ABOVE PIPE)

UNPAVED AREAS

A. FOR 12" ABOVE PIPE TO BOTTOM OF TOPSOIL BACKFILL SHALL BE APPROVED SELECT MATERIAL FROM THE EXCAVATION; OR IMPORTED MATERIAL; ALL TO BE FREE OF ROCKS, DEBRIS, OR ANY CLUMPS GREATER THAN 2" IN DIAMETER; LOOSE LIFTS TO BE PLACED 10" MAX.

   COMPACT MATERIAL TO 95% STD. PROCTOR (D698).

   MOISTURE TO BE ADJUSTED TO ± 3% OF OPTIMUM.

B. TOPSOIL TO BE PROVIDED EQUAL OR BETTER THAN EXISTING; AND MATCH EXISTING TOPSOIL DEPTH. COMPACT TO FIX CONFLICT TO EXISTING ADJACENT TOPSOIL. (CONSTRUCTION TO BE PERFORMED BY "DOUBLE DITCH" METHOD TOP SOIL SALVAGED TO BE PLACED ON TOP)

PAVED AREAS

A. FOR 12" ABOVE PIPE TO 3' BELOW BOTTOM OF ROAD BASE: BACKFILL SHALL BE SELECT MATERIAL FROM EXCAVATION OR TO BE IMPORTED MATERIAL IN EITHER CASE, ALL MATERIAL SHALL MEET THE FOLLOWING:

   LL<35
   PI 8–20
   NO CLUMPS > 2" DIA.
   MOISTURE 0 TO +3%
   COMPACT 95% D698 STD PROCTOR

   LOOSE LIFTS OF 10" MAX OR IF SELECT MATERIAL FROM EXCAVATION DOES NOT MEET REQUIREMENTS, THEN USE CEMENT STABILIZED SAND SEE TABLE 2–ITEM B BELOW (OR PER DESIGN ENGINEER)

B. FOR 3' BELOW BOTTOM OF ROAD BASE TO BOTTOM OF ROAD BASE:

   BACKFILL SHALL BE CEMENT STABILIZED SAND (2 SK/C.Y.) AND SHALL MEET THE FOLLOWING REQUIREMENTS:

   SAND GRADATION:
   % PASSING

#4	55–100
#10	40–100
#40	25–100
#200	10–20
PI	NP–10

   (OR AS PER DESIGN ENGINEER)

   COMPACT TO 95% OF D698. MOISTURE TO BE ADJUSTED TO (+/–2%) OF OPTIMUM.

PROJECT No.: C275–21184

STATE OF TEXAS · YESENIA SINGLETON · 102398 · LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

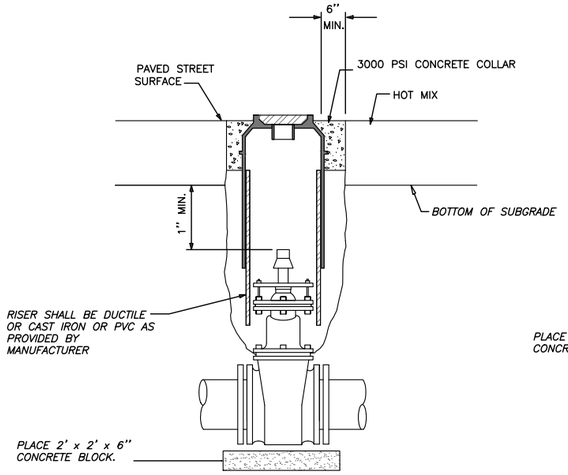
WATER STANDARD DETAILS (1 OF 3)

REVISION NO.	DATE	BY	DESCRIPTION

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275–21184

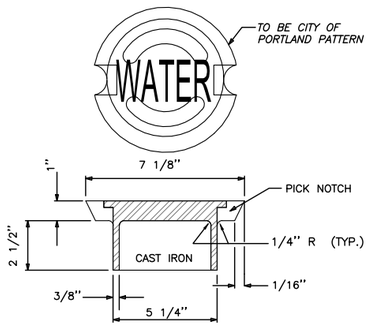
C14

R:\CLIENTS\CITY OF SOUTH PADRE – 275\21184 – Marisol Boat Ramp Project\CAD\Water Std Details.dwg mfalcon Fri, Dec 22, 2023 @ 4:40:30 pm



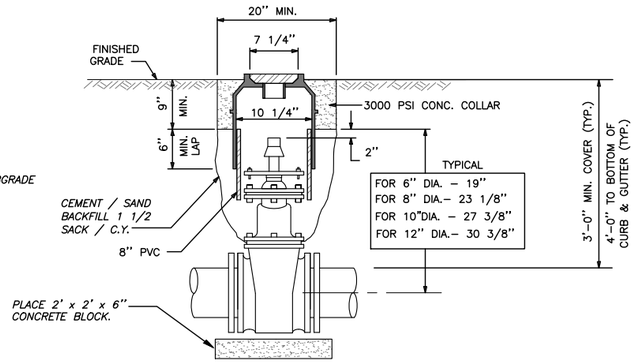
VALVE BOX DETAIL @ PAVEMENT

NOT TO SCALE



LID DETAIL

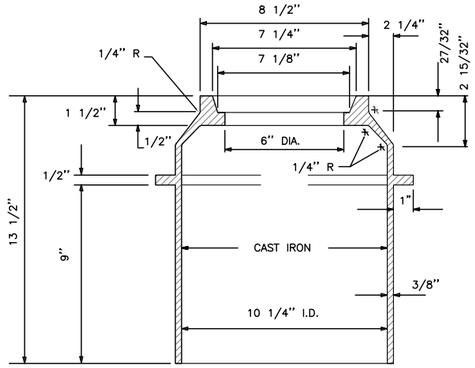
NOT TO SCALE



VALVE BOX DETAIL @ NATURAL GROUND

NOT TO SCALE

ALL VALVES SHALL BE HOUSED IN APPROVED VALVE BOXES



EXTENSION DETAIL

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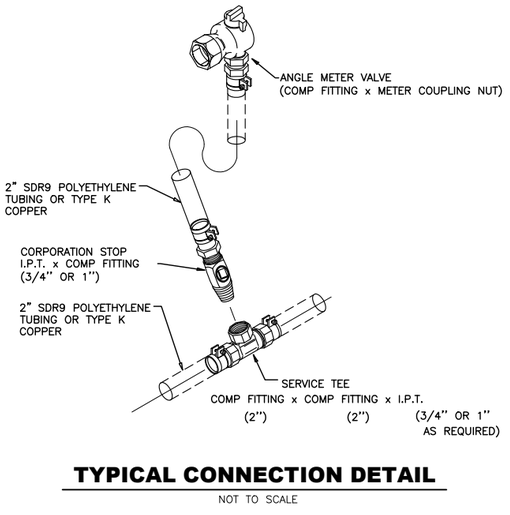
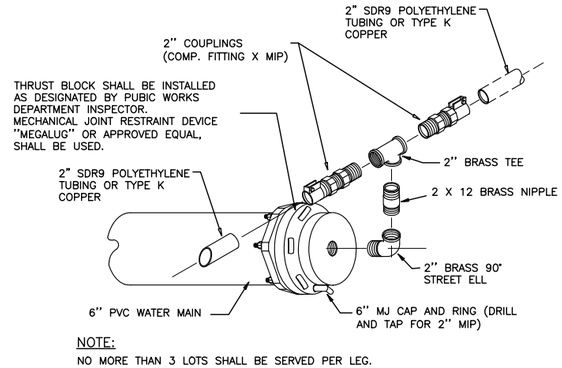


TYPICAL CONNECTION DETAIL

NOT TO SCALE

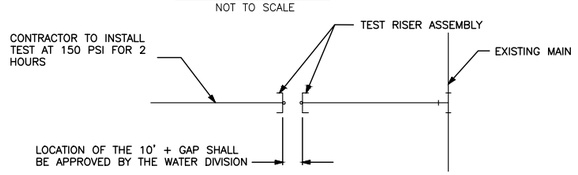


NOTE:

NO MORE THAN 3 LOTS SHALL BE SERVED PER LEG.

TYPICAL CONNECTION DETAIL

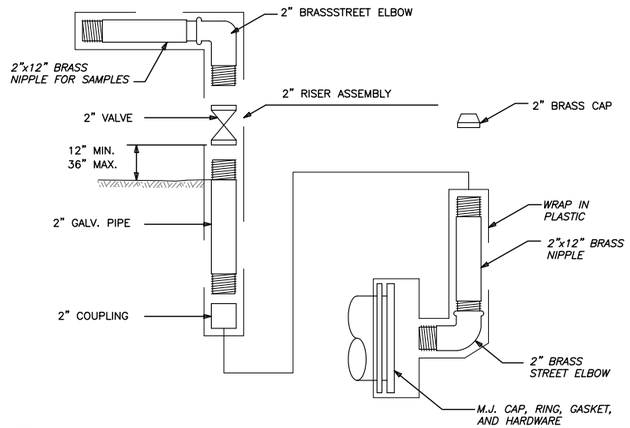
NOT TO SCALE



1. HYDROSTATIC TEST: WATER FOR FILLING THE NEW WATER LINE AND PERFORMING TESTS WILL BE FURNISHED TO THE CONTRACTOR BY THE CITY OF SOUTH PADRE ISLAND THROUGH A STANDARD WATER CONSTRUCTION METER CONNECTION. STANDARD WATER CONSTRUCTION METER AND GAUGE WILL BE SUPPLIED BY THE CITY AFTER THE CONTRACTOR HAS PAID ALL APPLICABLE FEES FOR THE WATER CONSTRUCTION METER. THE TEST PUMP WITH APPROPRIATE CONNECTION POINTS AS APPROVED BY THE WATER SUPERINTENDENT FOR THE INSTALLATION OF METER AND GAUGE SHALL BE FURNISHED BY THE CONTRACTOR. THE METER SHALL BE DIRECTLY CONNECTED TO THE MAIN OR PIPE BEING TESTED BY THE USE OF COPPER TUBING OR AN APPROVED REINFORCED HOSE. THE METER SHALL BE PROTECTED AGAINST EXTREME PRESSURES BY THE USE OF A ONE (1") INCH SAFETY RELIEF VALVE SET AT THE TEST PRESSURE PLUS TEN POUNDS PER SQUARE INCH AND FURNISHED BY THE CITY (48 HOURS NOTIFICATION).
2. BACTERIOLOGICAL TEST: CONTRACTOR SHALL FURNISH AND INSTALL TEST RISER ASSEMBLY. AFTER BACTERIOLOGICAL SAMPLE PASSES TEST, CONTRACTOR SHALL REMOVE TEST RISER ASSEMBLIES AND TIE NEW SYSTEM TO EXISTING UNDER THE SUPERVISION OF THE PUBIC WORKS DEPARTMENT INSPECTOR. CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT THAT IS REQUIRED TO MAKE TIE / CONNECTION. CONTRACTOR WILL SCHEDULE & COORDINATE WITH PUBIC WORKS DEPARTMENT INSPECTOR ON DATE & TIME OF TIE-IN. (24 HOURS NOTIFICATION)
3. CONTRACTOR SHALL FURNISH AND INSTALL TAPPING SLEEVE OR SADDLE AND TAPPING GATE VALVE AND VALVE BOX COMPLETE. CITY TO MAKE TAP (72 HOURS NOTIFICATION)

DETAIL "A" TEST RISER ASSEMBLY CONNECTION

NOT TO SCALE



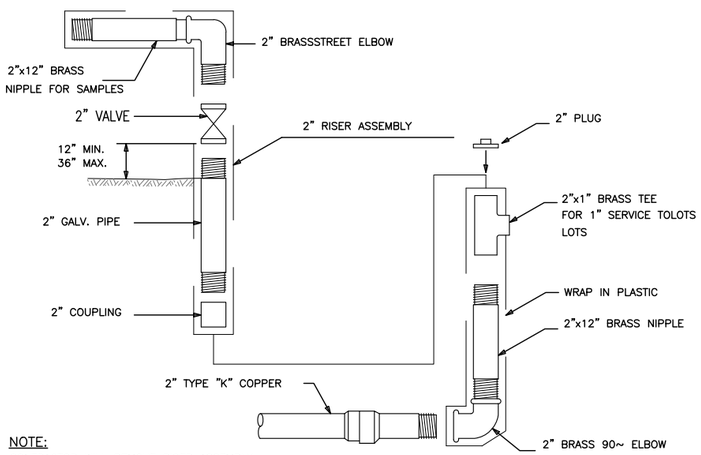
NOTE:

AFTER BACTERIOLOGICAL SAMPLE PASSES TEST, CONTRACTOR WILL REMOVE RISER ASSEMBLY AND INSTALL 2" BRASS CAP

DETAIL "B" TEST RISER ASSEMBLY

NOT TO SCALE

FURNISHED AND INSTALLED BY CONTRACTOR



NOTE:

CONTRACTOR WILL REMOVE RISER ASSEMBLY AND INSTALL 2" BRASS PLUG ON 2"x1" BRASS TEE AFTER SAMPLE PASSES

DETAIL "C" TEST RISER ASSEMBLY

NOT TO SCALE

FURNISHED AND INSTALLED BY CONTRACTOR

SERVICE LINE MATERIALS

SERVICE CLAMPS
FOR 3/4", 1", 1 1/2" I.P. THREAD TAPS FOR 6" MAINS; 2" I.P. THREAD CLAMP TAP CONNECTION ALLOWED FOR 8" AND LARGER MAINS.

CORPORATION STOPS
3/4", 1", 1 1/2". AND 2" REQUIRED WITH I.P. THREAD INLET BY COPPER COMPRESSION OUTLET WITH CLAMP – CORPORATION STOP REQUIRED AT ALL SERVICE TAPS.

ONE PIECE SDR9 POLYETHYLENE TUBING OR TYPE K COPPER
REQUIRED FOR ALL SERVICE LINES BETWEEN MAIN TO METER – SIZES REQUIRED 3/4", 1", 1 1/2", AND 2" (NO SPLICES ALLOWED)

ANGLE METER STOP
REQUIRED AT ALL METERS – SIZES 3/4" & 1" – INSTALL 3/4" UNLESS DIRECTED OTHERWISE – COPPER COMPRESSION W/ CLAMP INLET BY METER COUPLING NUT OUTLET.

METER (BY OTHERS)
METER ADAPTER AND CHECK VALVE (BY OTHERS)
REQUIRED AT ALL METERS – SIZES 3/4" & 1" – INSTALL 3/4" UNLESS DIRECTED OTHERWISE – METER NUT INLET BY 3/4" MALE I.P. OUTLET.

ADAPTER COUPLING (BY OTHERS)
REQUIRED AT ALL METERS – 3/4" & 1" – FEMALE I.P. BY PVC COMPRESSION.

METER BOX
CAST IRON W/ HOT TAR DIP SHALL BE PROVIDED BY THE CONTRACTOR FOR 3/4" METER SETTINGS, IF EXISTING STRUCTURE DOES NOT HAVE ONE. BOXES FOR LARGER (1" & UP) METER SETTINGS SHALL BE FURNISHED BY THE CITY.

BRASS FITTINGS
BRASS FITTINGS SHALL COMPLY WITH A.W.W.A. C800–66 AND BE WRAPPED IN POLYETHYLENE.

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South Padre ISLAND

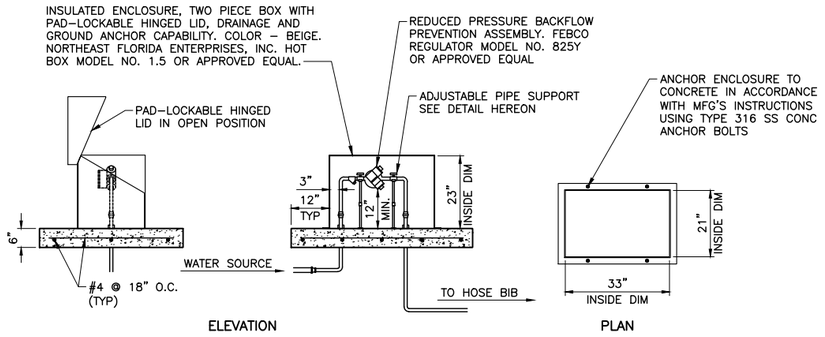
MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

WATER STANDARD DETAILS (2 OF 3)

REVISION NO.	DATE	BY	DESCRIPTION

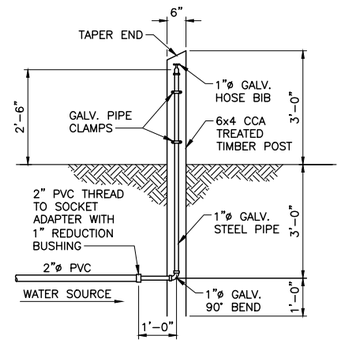
SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275–21184

C15



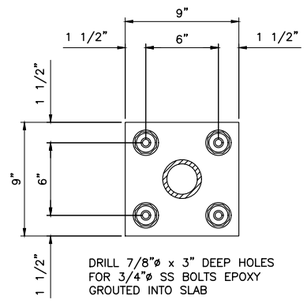
A C17 C16 **BACKFLOW PREVENTER**

NOT TO SCALE

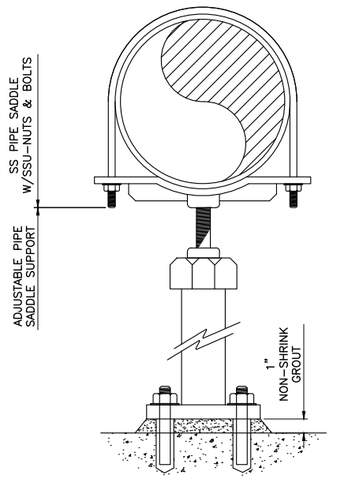


B C17 C16 **HOSE BIB**

NOT TO SCALE



NOTE:
EPOXY TO BE SIMPSON STRONG TIE SET-XP® OR APPROVED EQUAL.



NOTE:
"PIPING TECHNOLOGY AND PRODUCTS" ADJUSTABLE PIPE SADDLE SUPPORT W/SS PIPE SADDLE, STEEL U-BOLTS OR APPROVED EQUAL.

ADJUSTABLE PIPE SUPPORT

NOT TO SCALE

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PROJECT No.: C275-21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

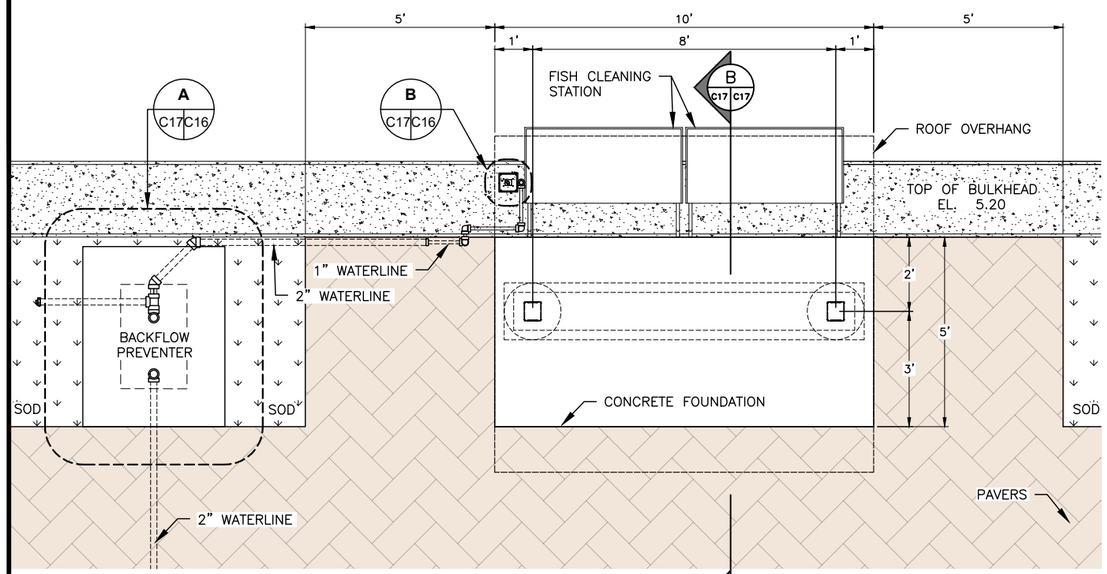
MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

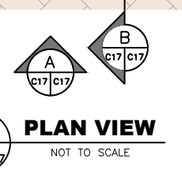
WATER STANDARD DETAILS (3 OF 3)

REVISION NO.	DATE	BY	DESCRIPTION

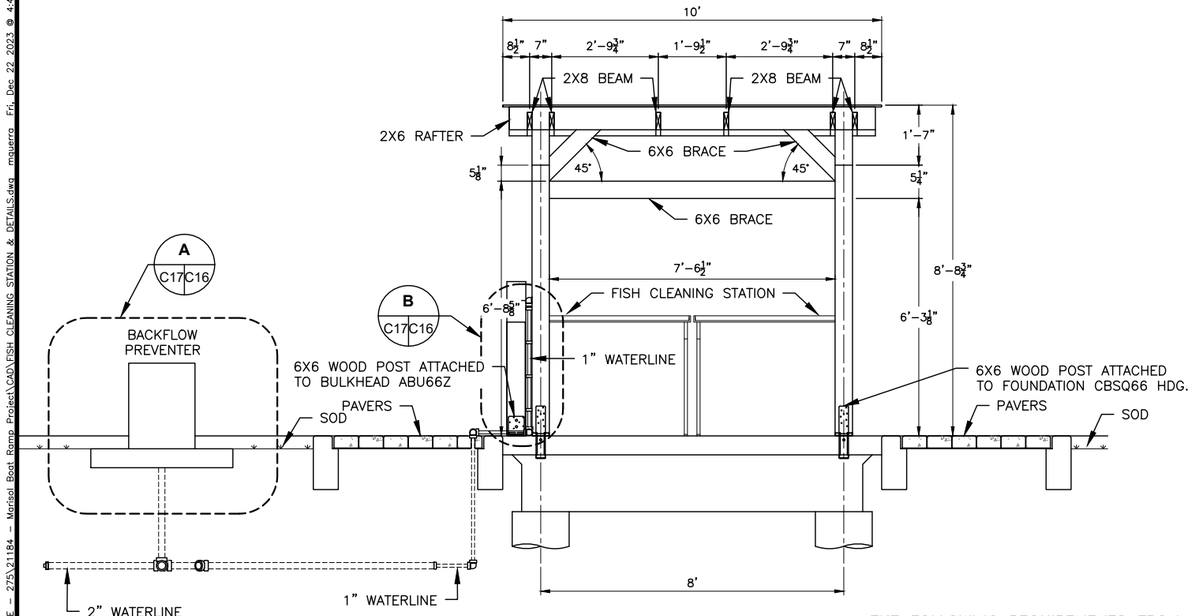
SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275-21184

C16

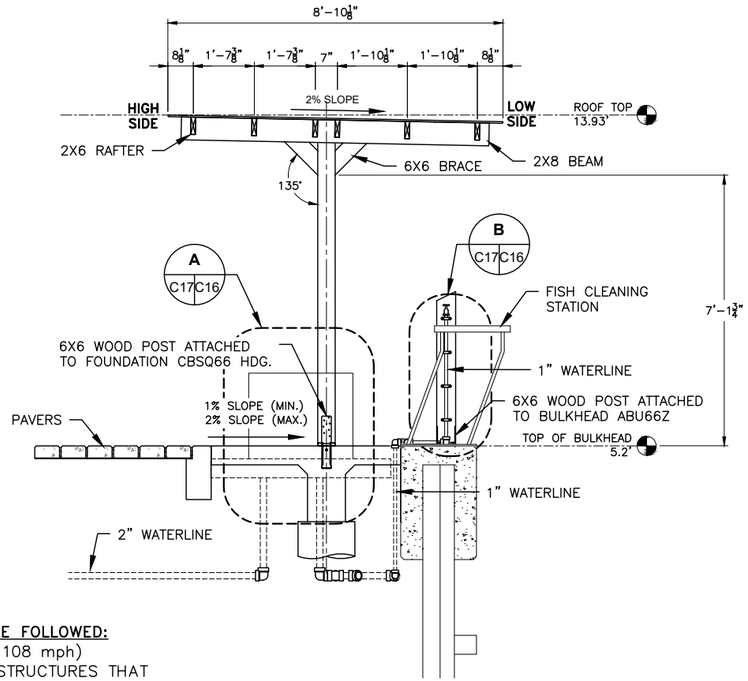




1 C2 C17 **PLAN VIEW**
NOT TO SCALE



A C17 C17 FRAMING DETAIL **FRONT VIEW**
NOT TO SCALE



B C17 C17 FRAMING DETAIL **SECTION VIEW**
NOT TO SCALE

GENERAL NOTES:

1. ALL HURRICANE TIES SHALL BE SIMPSON STRONG–TIE STAINLESS STEEL TYPE 316 OR APPROVED EQUAL. INSTALL PER MANUFACTURE'S RECOMMENDATIONS.
2. ROOF SHEATHING NAILS WILL BE 10D STAINLESS STEEL NAILS AT 4" ON CENTER ALONG EDGE AND 6" ON CENTER AT INTERIOR SUPPORTS.
3. ALL 10D STAINLESS STEEL NAILS TO MEET MINIMUM LENGTH AT 3" AND SHANK DIAMETER AT 0.148"
4. PROVIDE PLYWOOD FILLER AS REQUIRED TO BE FLUSH WITH WOOD POST.

CONSTRUCTION NOTES:

1 FISH CLEANING STATION CM MARINES– LINE FISH CLEANING STATION ANGLED PRODUCT ID: CP1600–007 MFG ID: SLFCS40–4 OR APPROVED EQUAL.

2 ALL HARDWARE TO BE STAINLESS STEEL.

3 ALL SLABS & BEAMS ARE SUSPENDED. REFER TO SECTIONAL DETAILS FOR REINFORCEMENT.

4 SPLICE JOINTS FOR TOP BARS FOR REINFORCED CONCRETE SLABS AND BEAMS SHALL BE LOCATED AT MIDDLE THIRD OF THE SPAN OF SLABS OR BEAMS.

5 SPLICE JOINTS FOR BOTTOM BARS FOR REINFORCED CONCRETE SLAB AND BEAMS SHALL BE LOCATED AT SUPPORTS.

6 CONSTRUCTION JOINTS OF CONCRETE BEAMS/SLABS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN. CONTRACTOR TO SUBMIT PROPOSED LOCATION OF CONSTRUCTION JOINTS TO ARCHITECT/ENGINEER FOR APPROVAL.

7 LAPPING OF SPLICE BARS AT SPLICE JOINTS SHALL BE 62 BAR DIAMETER OR A MINIMUM OF 36" LONG.

8 ☐ INDICATES SIMPSON 6X6 COLUMN BASE CBSQ66 HDG.

9 ▣ INDICATES SIMPSON 6X6 POST BASE ABU66Z.

THE FOLLOWING REQUIREMENTS FROM ASCE 7–16 WERE FOLLOWED:

- ULTIMATE DESIGN WIND SPEED: 140 mph (VASD = 108 mph)
- OCCUPANCY CATEGORY: I (BUILDINGS AND OTHER STRUCTURES THAT PRESENT A LOW HAZARD TO HUMAN LIFE IN THE EVENT OF FAILURE)
- WIND EXPOSURE CATEROGY: D
- INTERNAL PRESSURE COEFFICIENT (GCpi): 0.18 (+/–)
- Kzt: 1
- Kd: 0.85

PROJECT No.: C275–21184

STATE OF TEXAS · YESENIA SINGLETON · 102398 · LICENSED PROFESSIONAL ENGINEER
December 22, 2023

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South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

FISH CLEANING STATION

REVISION NO.	DATE	BY	DESCRIPTION

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275–21184

C17

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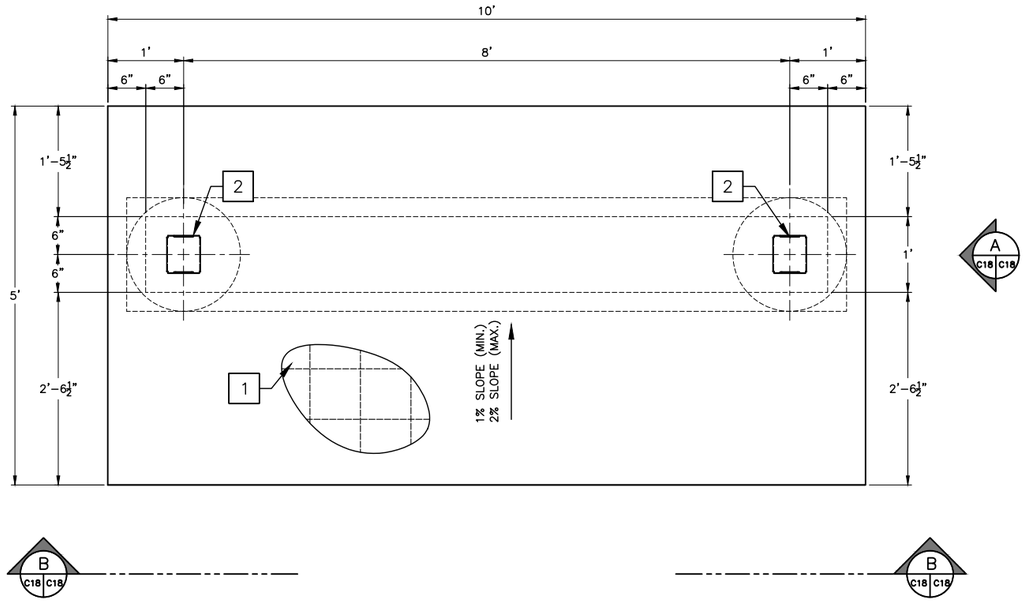
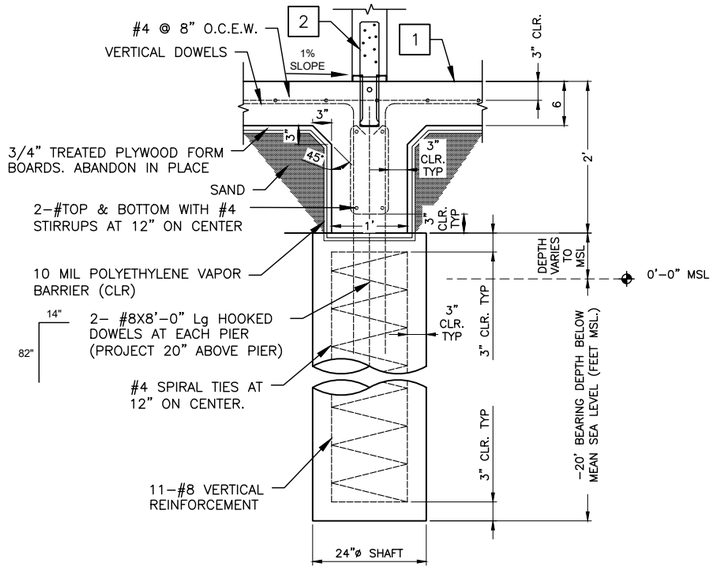


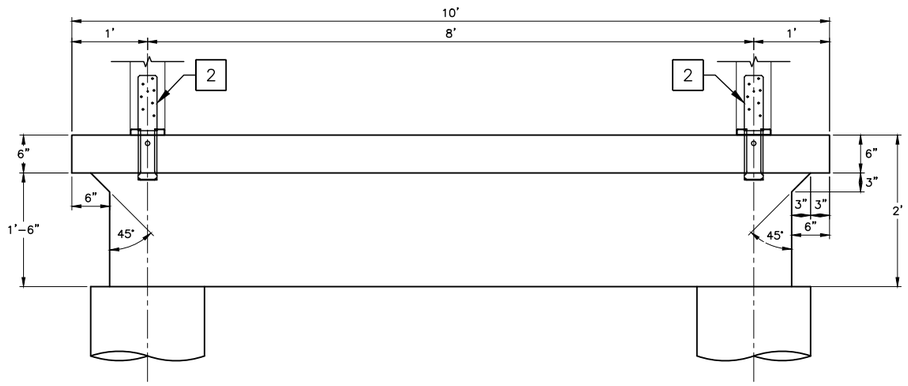
1 C18 C18 **FOUNDATION PLAN VIEW**

SCALE: 1"= 1'-0"



A C18 C18 **FOOT DETAIL**

SCALE: 1"= 1'-0"



B C18 C18 FOUNDATION ELVETAION **SECTION VIEW**

SCALE: 1"= 1'-0"

THE FOLLOWING REQUIREMENTS FROM ASCE 7-16 WERE FOLLOWED:

- ULTIMATE DESIGN WIND SPEED: 140 mph (VASD = 108 mph)
- OCCUPANCY CATEGORY: I (BUILDINGS AND OTHER STRUCTURES THAT PRESENT A LOW HAZARD TO HUMAN LIFE IN THE EVENT OF FAILURE)
- WIND EXPOSURE CATEROGY: D
- INTERNAL PRESSURE COEFFICIENT (GCpi): 0.18 (+/-)
- Kzt: 1
- Kd: 0.85

GENERAL NOTES:

1. ALL SLABS & BEAMS ARE SUSPENDED. REFER TO SECTIONAL DETAILS FOR REINFORCEMENT.
2. SPLICE JOINTS FOR TOP BARS FOR REINFORCED CONCRETE SLABS AND BEAMS SHALL BE LOCATED AT MIDDLE THIRD OF THE SPAN OF SLABS OR BEAMS.
3. SPLICE JOINTS FOR BOTTOM BARS FOR REINFORCED CONCRETE SLAB AND BEAMS SHALL BE LOCATED AT SUPPORTS.
4. CONSTRUCTION JOINTS OF CONCRETE BEAMS/SLABS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN. CONTRACTOR TO SUBMIT PROPOSED LOCATION OF CONSTRUCTION JOINTS TO ARCHITECT/ENGINEER FOR APPROVAL.
5. LAPPING OF SPLICE BARS AT SPLICE JOINTS SHALL BE 62 BAR DIAMETER OR A MINIMUM OF 36" LONG.
6. ☐ INDICATES SIMPSON 6X6 COLUMN BASE CBSQ66 HDG.

CONSTRUCTION NOTES:

1 PROPOSED 6" CONCRETE FOUNDATION SLAB AT A 1% SLOPE (TOTAL: 25 ft³) WITH #4 @ 8" O.C.E.W. ON COMPACTED SELECT FILL.

2 PROPOSED 6X6 COLUMN BASE CBSQ66 HDG (TOTAL: 2) TYP. INSTALL PER MRF RECOMMENDATIONS.

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South Padre ISLAND

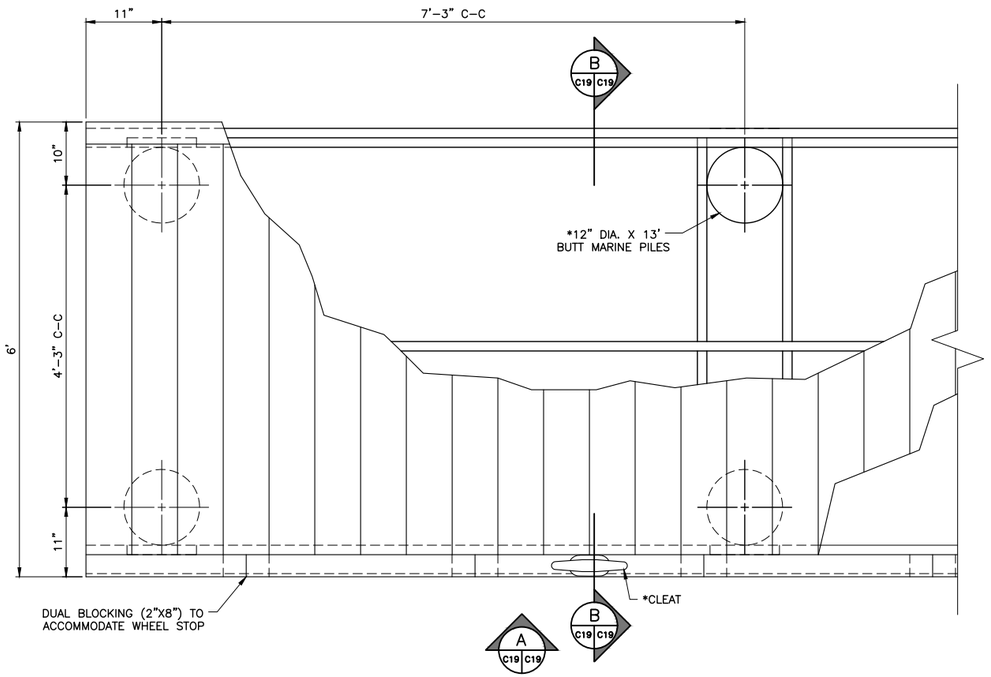
REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

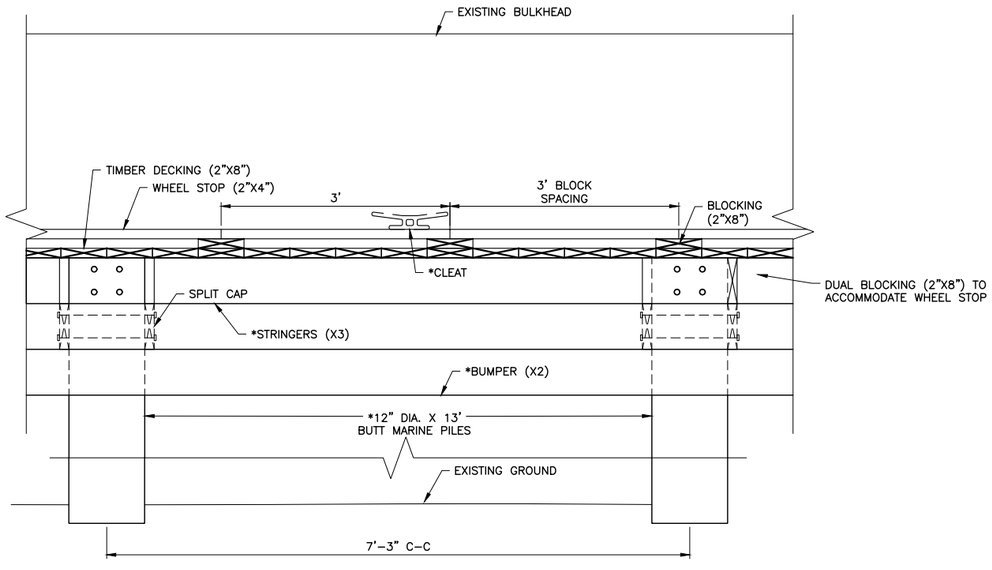
FISH CLEANING STATION FOUNDATION PLAN

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275-21184

C18



1 C2 C19 **PLAN VIEW**
NOT TO SCALE



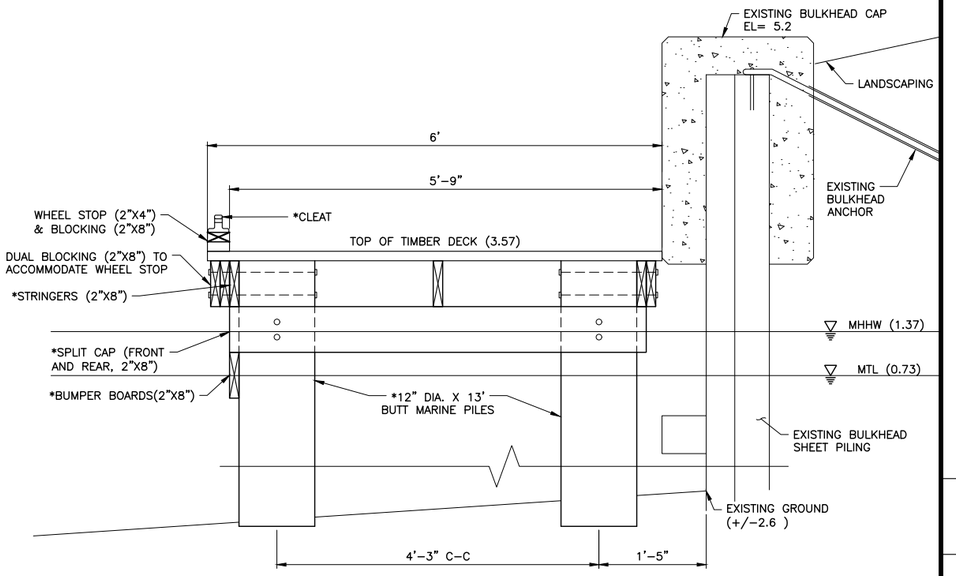
A C19 C19 FRAMING DETAIL
FRONT VIEW
NOT TO SCALE

WOOD CONSTRUCTION

1. PROVIDE DRESSED LUMBER, S4S, UNLESS OTHERWISE INDICATED.
2. PIER LUMBER: NO. 2 GRADE, SOUTHERN YELLOW PINE
3. PRESSURE TREATMENT: IN ACCORDANCE WITH THE REQUIREMENTS OF AWPA STANDARD C1 AND IN ACCORDANCE WITH THE FOLLOWING STANDARDS FOR INDICATED END USES:
   A. LUMBER (SALT WATER USE ONLY): C2
   B. PILING: C3
   C. MARINE CONSTRUCTION: C18
4. CCA TREATED WOOD, AWPA USE CATEGORY UC5C – MARINE USE, SOUTHERN WATERS
5. PRESERVATIVE RETENTION: IN ACCORDANCE WITH THE SPECIFIED STANDARD, DETERMINED IN THE SPECIFIED ZONE FOR THE FOLLOWING APPLICATIONS:
   D. ABOVE GROUND
   E. SALT WATER IMMERSION
6. ANY CUT SURFACES SHOULD BE FIELD TREATED IN ACCORDANCE WITH AWPA STANDARD M4 WITH A PRESERVATIVE CONTAINING AT LEAST 2% COPPER.

GENERAL NOTES:

1. 12" CLEATS SHALL BE INSTALLED THROUGH STINGERS AND DECKING.
2. ALL HARDWARE SHALL BE STAINLESS STEEL
3. MAXIMUM SPACING BETWEEN TIMBER DECKING SHALL BE 1/2" (HORIZONTAL).



B C19 C19 TYPICAL FRAMING
SECTION VIEW
NOT TO SCALE

PROJECT No.:
C275-21184

STATE OF TEXAS
YESENIA SINGLETON
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1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

DOCK DETAILS

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275-21184

C19

R:\CLIENTS\CITY OF SOUTH PADRE – 275\21184 – Marisol Boat Ramp Project\CAD\DOCK DETAILS.dwg mfolson Fri, Dec 22, 2023 @ 4:40:55 pm

DRILLED SHAFT FOUNDATION NOTES:

1. DESIGN LOADS
   A. WIND LOAD (ASCE 7-10)
      RISK CATEGORY II: 160 MPH
   B. LIGHT POLE AND LIGHTING FIXTURE LIMITS
      LIGHT POLE TYPE: ROUND
      OVERALL POLE LENGTH: 18 FT. MAX.
      POLE HEIGHT ABOVE GRADE: 20 FT. MAX.
      POLE BASE O.D.: 8-1/4 INCH.
      POLE AND LIGHTING FIXTURE WEIGHT: 600 LBS MAX.
      LIGHTING FIXTURE EPA: 2.1 SQ. FT. MAX.

2. DESIGN STRENGTH
   A. CONCRETE: F'c = 4,000 PSI AT 28 DAYS
   B. REINFORCEMENT: Fy = 60,000 PSI. PROVIDE ASTM A615 GRADE 60 STEEL.

3. FOR BORING LOGS, REFER TO GEOTECHNICAL REPORT TITLED: "GEOTECHNICAL ENGINEERING REPORT, BOAT RAMP AND PARKING LOT PROJECT, SOUTH PADRE ISLAND, TEXAS", PREPARED BY TERRACON CONSULTANTS, INC., TERRACON PROJECT NO. 88225026, MARCH 28, 2022.

4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, UNDERGROUND, AND OVERHEAD CONDITIONS PRIOR TO CONSTRUCTION.

5. EXISTING BULKHEAD TIE BACKS, RETAINING WALL FOOTINGS, BUILDING FOUNDATIONS ADJACENT TO THE DRILLED SHAFT SHALL BE PHYSICALLY LOCATED AND PROTECTED DURING FOUNDATION CONSTRUCTION. COORDINATE FINAL LIGHT POLE FOUNDATION LOCATIONS TO AVOID CONFLICTS. PROVIDE BRACING AND TEMPORARY SUPPORT IF NEEDED.

6. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SOIL CONDITION AND PROVIDE PROPER CONSTRUCTION METHOD TO ENSURE THE SIZE AND DEPTH OF THE DRILLED HOLES FOR SHAFT INSTALLATION.

7. IF SHALLOW OR PERCHED GROUNDWATER IS ENCOUNTERED AT THE TIME OF CONSTRUCTION, DRILLED SHAFT CONSTRUCTION SHOULD UTILIZE EITHER THE WET CONSTRUCTION METHOD USING DRILLING SLURRY OR THE CASING CONSTRUCTION METHOD TO FACILITATE PROPER DRILLED SHAFT INSTALLATION.

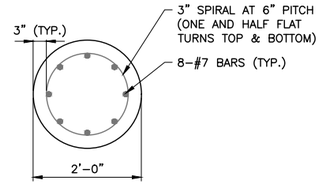
8. SHAFT EXCAVATION SHALL BE OBSERVED BY GEOTECHNICAL ENGINEER OF RECORD TO DETERMINE THAT THE PROPER BEARING STRATUM IS ENCOUNTERED.

9. DRILLED SHAFT INSTALLATION SHALL COMPLY WITH CHAPTER 4 OF THE FHWA PUBLICATION GEC 010 "DRILLED SHAFTS: CONSTRUCTION PROCEDURES AND LRFD DESIGN METHODS" (FHWA-NHI-10-016), AND "STANDARD SPECIFICATION FOR THE CONSTRUCTION OF DRILLED PIERS", ACI PUBLICATION NO. 336.1-01.

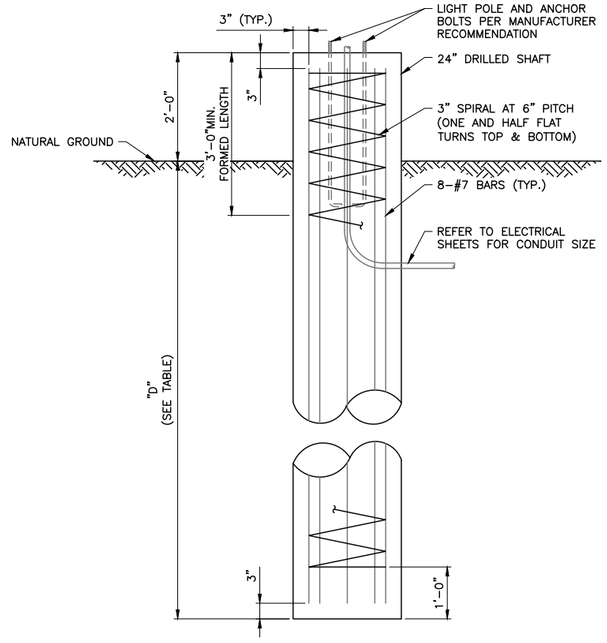
10. DRILLED SHAFTS SHOULD BE CHECKED FOR SIZE AND DEPTH PRIOR TO THE PLACEMENT OF CONCRETE. PRECAUTIONS SHOULD BE TAKEN DURING THE PLACEMENT OF THE PIER REINFORCEMENT CONCRETE IN DRILLED SHAFTS TO PREVENT THE LOOSE EXCAVATED MATERIAL FROM FALLING INTO THE EXCAVATION.

DRILLED SHAFT FOUNDATION ID	"D" (FT)
A-E	15
F-I	25

REFER TO PROPOSED SIGHT PLAN FOR DRILLED SHAFT FOUNDATIONS A-I EXACT LOCATIONS.



DRILLED SHAFT FOUNDATION
TOP VIEW



DRILLED SHAFT FOUNDATION
FOR 17'-10" HIGH LIGHT POLE

1 / C2 C20 **DRILLED SHAFT FOUNDATION DETAIL**
NOT TO SCALE

PROJECT No.: C275-21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

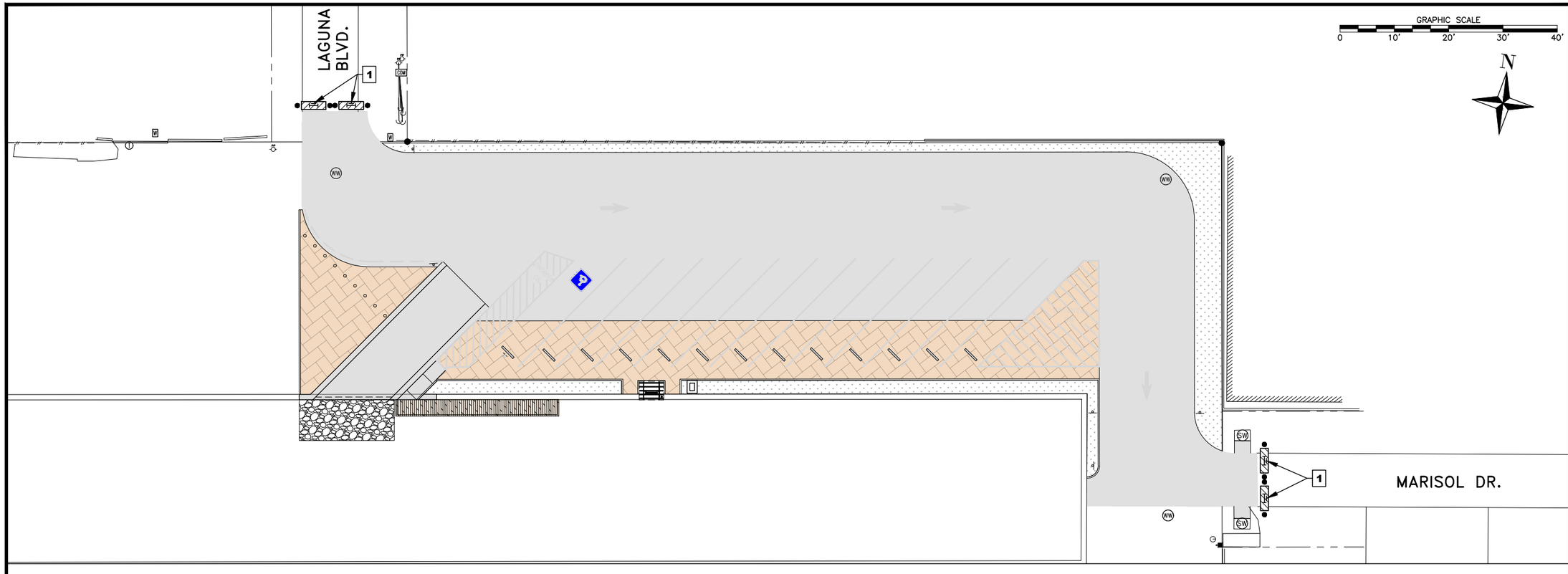
MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

DRILLED SHAFT LIGHT POLE FOUNDATION

REVISION NO.	DATE	BY	DESCRIPTION

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275-21184

C20



SPECIAL CONDITIONS:

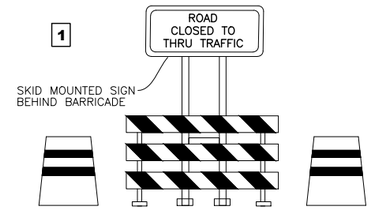
THE FOLLOWING SPECIAL CONDITIONS OUTLINE THE MINIMUM REQUIREMENTS ASSOCIATED WITH THIS TRAFFIC CONTROL PLAN.

NOTE:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM WITH CITY AND STATE SPECIFICATIONS IN ACCORDANCE WITH THE LATEST VERSION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND SUBSEQUENT REVISIONS.
2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES DURING THE COURSE OF THE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL MAINTAIN ALL TRAFFIC SIGNS DURING THE CONSTRUCTION PERIOD.
4. ALL CONSTRUCTION WARNING SIGNS MAY BE MOUNTED ON PORTABLE DEVICES.
5. SHOULD ANY TRAFFIC SIGN, SIGN POST OR ITS FOUNDATION BE DAMAGED, CONTRACTOR SHALL REPORT SUCH INFORMATION IMMEDIATELY TO THE ATTENTION OF THE CITY'S STREET DEPARTMENT AT. AFTER 5 PM WEEKDAYS AND ON WEEKENDS, ALL EMERGENCY SITUATIONS SHOULD BE REPORTED TO THE POLICE DEPARTMENT AT.
6. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL RESIDENT AND BUSINESS DRIVEWAYS DURING THE CONSTRUCTION PERIOD.
7. THE CONTRACTOR SHALL PROVIDE A CERTIFIED FLAGGER DURING THE COURSE OF THE CONSTRUCTION PERIOD. CERTIFIED FLAGGER WILL NOT BE PAID DIRECTLY BUT TO BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS. CONTRACTOR SHALL NOT BEGIN ANY CONSTRUCTION ACTIVITIES UNLESS THERE IS ENOUGH PERSONNEL TO ENSURE TCP IS FOLLOWED AS WELL AS CONSTRUCTION ACTIVITY.
8. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELIZING BICYCLE TRAFFIC AROUND ALL WORK AREAS THROUGHOUT THE PERIODS OF CONSTRUCTION WHEN EXISTING BICYCLE TRAILS, LANES, OR ROUTES ARE DESIGNATED. WHERE POSSIBLE, ADEQUATE SPACE FOR BICYCLISTS MUST BE PROVIDED, AND BICYCLE DETOUR SIGNS, INCLUDING "SHARE THE ROAD" SIGNS SHALL BE INSTALLED. WHEN ADEQUATE SPACE IS NOT AVAILABLE TO PROVIDE FOR BICYCLE ACCESS, THE BICYCLE FACILITIES SHALL BE ADEQUATELY DETOURED AROUND THE CONSTRUCTION SITE. THE DETOUR ROUTE SHALL MINIMIZE OUT–OF–DIRECTION TRAVEL DISTANCE, AND SHALL BE ADEQUATELY SIGNED AND DIRECTED. BICYCLE DETOUR SIGNS SHALL BE INCIDENTAL TO PAYMENT FOR TRAFFIC CONTROL.
9. THE WORK AREA SHALL NEVER PRESENT AN IMPASSABLE CONDITION. CONTRACTOR SHALL MAINTAIN AT LEAST ONE 9' MINIMUM TRAVEL LANE AT ALL TIMES DURING CONSTRUCTION.
10. ALL CONSTRUCTION ACTIVITIES WITHIN THE PROPOSED CONSTRUCTION AREA SHALL BE CONTAINED IN BETWEEN TWO FLAG PERSONS.
11. FLAG PERSONS SHALL BE EQUIPPED WITH TWO–WAY RADIOS FOR COMMUNICATION, AND WILL BE RESPONSIBLE FOR STOPPING AND RELEASING TRAFFIC AS NEEDED AROUND THE WORK AREA.
12. CONTRACTOR SHALL SCHEDULE CONSTRUCTION SO THAT BOTH TRAFFIC LANES WILL BE OPENED ALLOWING FOR TWO–WAY TRAFFIC AT THE END OF EACH DAY. PRIOR TO DIRECTING TRAFFIC ON A MILLED, UNEVEN OR ANY OTHER SURFACE LESS THAN A SMOOTH PAVEMENT, THE CONTRACTOR SHALL PLACE THE APPROPRIATE SIGNS TO WARN TRAFFIC OF THE UPCOMING CONDITIONS. THE FOLLOWING SIGNS MAY BE REQUIRED DEPENDING ON WHICHEVER SUITS THE CURRENT CONDITIONS: ECW8–8 "ROUGH ROAD" , ECW8–7 "LOOSE GRAVEL", CW8–11 "UNEVEN LANES".
13. CONTRACTOR NEEDS TO INFORM PROPERTY OWNERS WHEN THEY PLAN TO START WORK AND LET THEM KNOW HOW LONG WORK WILL LAST DEPENDING ON WEATHER CONDITIONS.

LEGEND:

- PROPOSED CONSTRUCTION AREA
- TYPE III BARRICADE
- DENOTES - SKID MOUNTED SIGNS
- REFLECTORIZED PLASTIC DRUM

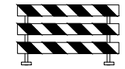


TYPICAL ROAD CLOSURE TRAFFIC CONTROL APPLICATION

NOTE:

1. USE 30 MPH SPEED LIMIT FOR MIN. SIGN SPACING
2. FOR CONSTRUCTION WARNING SIGN SIZE AND SPACING SEE TABLE 'B'

REFLECTORIZED PLASTIC DRUM



8' TYPE III BARRICADE

TABLE B		Minimum Desirable Taper Lengths X x			Suggested Maximum Spacing of Device		Minimum Sign Spacing X Distance
Posted Speed X	Formula	10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent	
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60–75	120'
35		205'	225'	245'	35'	70'–90'	160'
40		265'	295'	320'	40'	80'–100'	240'
45	L=WS	450'	495'	540'	45'	90'–110'	320'
50		500'	550'	600'	50'	100'–125'	400'
55		550'	605'	660'	55'	110'–140'	500'
60		600'	660'	720'	60'	120'–150'	X 600'
65		650'	715'	780'	65'	130'–165'	X 700'
70		700'	770'	840'	70'	140'–175'	X 800'

PERIMETER SIGNAGE PLAN
NOTE: FOR CONSTRUCTION WARNING SIGN SPACING (SEE TABLE "B")

PROJECT No.: C275–21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

TRAFFIC CONTROL PLAN

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275–21184

C21

R:\CLIENTS\CITY OF SOUTH PADRE – 275\21184 – Marisol Boat Ramp Project\CAD\TRAFFIC CONTROL PLAN.dwg mqueros Fri, Dec 22, 2023 @ 4:41:07 pm

1. STORMWATER POLLUTION PREVENTION–CLEAN WATER ACT SECTION 402

TPDES TXR 150000: STORMWATER DISCHARGE PERMIT OR CONSTRUCTION GENERAL PERMIT REQUIRED FOR PROJECTS WITH 1 OR MORE ACRES DISTURBED SOIL. PROJECTS WITH ANY DISTURBED SOIL MUST PROTECT FOR EROSION AND SEDIMENTATION IN ACCORDANCE WITH THE SPECIFICATIONS.
LIST MS4 OPERATOR(S) THAT MAY RECEIVE DISCHARGE FROM THIS PROJECT. THEY MAY NEED TO BE NOTIFIED PRIOR TO CONSTRUCTION ACTIVITIES.

1. THIS PROJECT IS LOCATED WITHIN THE BOUNDARIES OF THE SOUTH PADRE ISLAND MUNICIPAL SEPARATE STORM SEWER SYSTEM, AND WOULD COMPLY WITH ALL APPLICABLE MS4 REQUIREMENTS.

☑ NO ACTION REQUIRED ☐ REQUIRED ACTION

ACTION NO.

1. PREVENT STORMWATER POLLUTION BY CONTROLLING EROSION AND SEDIMENTATION IN ACCORDANCE WITH TPDES PERMIT TXR 150000.
2. COMPLY WITH THE SW3P AND REVISE WHEN NECESSARY TO CONTROL POLLUTION OR REQUIRED BY THE ENGINEER.
3. POST CONSTRUCTION SITE NOTICE (CSN) WITH SW3P INFORMATION ON OR NEAR THE SITE, ACCESSIBLE TO THE PUBLIC AND TCEQ, EPA OR OTHER INSPECTORS.
4. WHEN CONTRACTOR PROJECT SPECIFIC LOCATIONS (PSL's) INCREASE DISTURBED SOIL AREA TO 5 ACRES OR MORE, SUBMIT NOI TO TCEQ AND THE ENGINEER.

2. WORK IN OR NEAR STREAMS, WATER BODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404.

USACE PERMIT REQUIRED FOR FILLING, DREDGING, EXCAVATING OR OTHER WORK IN ANY WATER BODIES, RIVERS, CREEKS, STREAMS, WETLANDS OR WET AREAS.

THE CONTRACTOR MUST ADHERE TO ALL OF THE TERMS AND CONDITIONS ASSOCIATED WITH THE FOLLOWING PERMIT(S):

☐ NO PERMIT REQUIRED

☐ NATIONWIDE PERMIT 14 – PCN NOT REQUIRED (LESS THAN 1/10TH ACRE WATERS OR WETLANDS AFFECTED)

☑ NATIONWIDE PERMIT 36 – BOAT RAMPS – PCN REQUIRED (1/10 TO <1/2 ACRE, 1/3 IN TIDAL WATERS)

☐ INDIVIDUAL 404 PERMIT REQUIRED

☑ OTHER NATIONWIDE PERMIT REQUIRED: LETTER OF PERMISSION (ATTENDANT DOCK) SWG–2022–00301

REQUIRED ACTIONS: LIST WATERS OF THE US PERMIT APPLIES TO, LOCATION IN PROJECT AND CHECK BEST MANAGEMENT PRACTICES PLANNED TO CONTROL EROSION, SEDIMENTATION AND POST–PROJECT TSS.

1.
2.
3.
4.

THE ELEVATION OF THE ORDINARY HIGH WATER MARKS OF ANY AREAS REQUIRING WORK TO BE PERFORMED IN THE WATERS OF THE US REQUIRING THE USE OF A NATIONWIDE PERMIT CAN BE FOUND ON THE BRIDGE LAYOUTS.

BEST MANAGEMENT PRACTICES:

EROSION	SEDIMENTATION	POST–CONSTRUCTION TSS
☑ TEMPORARY VEGETATION	☑ SILT FENCE	☐ VEGETATIVE FILTER STRIPS
☐ BLANKETS/MATTING	☐ ROCK BERM	☐ RETENTION/IRRIGATION SYSTEMS
☑ MULCH	☐ TRIANGULAR FILTER DIKE	☐ EXTENDED DETENTION BASIN
☐ SODDING	☐ SAND BAG BERM	☐ CONSTRUCTED WETLANDS
☐ INTERCEPTOR SWALE	☐ STRAW BALE DIKE	☐ WET BASIN
☐ DIVERSION DIKE	☐ BUSH BERMS	☐ EROSION CONTROL COMPOST
☐ EROSION CONTROL COMPOST	☐ EROSION CONTROL COMPOST	☐ MULCH FILTER BERM & SOCKS
☐ MULCH FILTER BERM & SOCKS	☐ MULCH FILTER BERM & SOCKS	☐ COMPOST FILTER BERM & SOCKS
☐ COMPOST FILTER BERM & SOCKS	☐ COMPOST FILTER BERM & SOCKS	☐ VEGETATION LINED DITCHES
	☐ STONE OUTLET SEDIMENT TRAPS	☐ SAND FILTER SYSTEMS
	☐ SEDIMENT BASINS	

3. CULTURAL RESOURCES

REFER TO TxDOT STANDARD SPECIFICATIONS IN THE EVENT HISTORICAL ISSUES OR ARCHEOLOGICAL ARTIFACTS ARE FOUND DURING CONSTRUCTION. UPON DISCOVERY OF ARCHEOLOGICAL ARTIFACTS (BONES, BURNT ROCK, FLINT, POTTERY, ETC.) CEASE WORK IN THE IMMEDIATE AREA AND CONTACT THE ENGINEER IMMEDIATELY.

☑ NO ACTION REQUIRED ☐ REQUIRED ACTION

ACTION NO.

1.
2.
3.
4.

4. VEGETATION RESOURCES

PRESERVE NATIVE VEGETATION TO THE EXTENT PRACTICAL.

☑ NO ACTION REQUIRED ☐ REQUIRED ACTION

ACTION NO.

1.
2.

5. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS.

☐ NO ACTION REQUIRED ☑ REQUIRED ACTION

ACTION NO.

1. THE FEDERAL MIGRATORY BIRD TREATY ACT (MBTA) STATES THAT IT IS UNLAWFUL TO KILL, CAPTURE, COLLECT, POSSESS, BUY, SELL, TRADE OR TRANSPORT ANY MIGRATORY BIRD, NEST, YOUNG, FEATHER, OR EGG IN PART OR IN WHOLE, WITHOUT A FEDERAL PERMIT. IN ACCORDANCE WITH THIS REGULATION, THE CONTRACTOR WILL AVOID DISTURBING, DESTROYING, REMOVING, OR RELOCATING ACTIVE NESTS FOUND IN TREES, CULVERTS, BRIDGES, ON THE GROUND, ETC. TYPICAL BREEDING SEASON OCCURS FROM MARCH THROUGH AUGUST; THEREFORE, TREE TRIMMING AND OTHER ACTIVITIES THAT MAY DISTURB BREEDING BIRDS SHOULD BE DONE I THE NON–BREEDING SEASON (SEPTEMBER–FEBRUARY), WHEN POSSIBLE. IF WORK MUST BE PERFORMED DURING THE BREEDING SEASON, THE CONTRACTOR SHALL HAVE A QUALIFIED BIOLOGIST CONDUCT A SURVEY OF THE RIGHT OF WAY TO DETERMINE IF BIRD NESTS ARE PRESENT. IN THE EVENT THAT ACTIVE NESTS ARE ENCOUNTERED ON–SITE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND MEASURES SHALL BE TAKEN TO AVOID DISTURBANCE OF THESE BIRDS, THEIR OCCUPIED NEST, EGGS, AND/OR YOUNG, IN ACCORDANCE WITH THE MBTA. PHASING OF WORK DURING CONSTRUCTION MAY BE NECESSARY TO STAY IN COMPLIANCE WITH THE MBTA. THE CONTRACTOR CAN DISCUSS OTHER PREVENTATIVE MEASURES WITH THE PROJECT ENGINEER AND/OR DISTRICT ENVIRONMENTAL STAFF.
2. WEST INDIAN MANATEES MAY APPROACH THE PROJECT AREA AND ARE VULNERABLE TO BOAT STRIKES. THE SILT CURTAIN SHALL REMAIN IN PLACE AS BARRIER TO ENTRY TO THE WORK AREA WHILE WORK IS BEING COMPLETED IN THE WATER. DO NOT FEED OR WATER MANATEES. IF A MANATEE REMAINS IN THE PROJECT AREA, THEN CONTACT THE USFWS AT 361–533–6765 AND/OR THE TEXAS MARINE MAMMAL STRANDING NETWORK AT 800–962–6625. THE USFWS RECOMMENDS THE CONTRACTOR PROVIDE MATERIALS TO ASSIST WITH THESE INSTRUCTIONS PREFERABLY IN BOTH ENGLISH AND SPANISH.

LIST OF ABBREVIATIONS

BMP: BEST MANAGEMENT PRACTICE
CGP: CONSTRUCTION GENERAL PERMIT
DSHS: TEXAS DEPARTMENT OF STATE HEALTH SERVICES
FHWA: FEDERAL HIGHWAY ADMINISTRATION
MOA: MEMORANDUM OF AGREEMENT
MOU: MEMORANDUM OF UNDERSTANDING
MS4: MUNICIPAL SEPARATE STORMWATER SEWER SYSTEM
MBTA: MIGRATORY BIRD TREATY ACT
NOT: NOTICE OF TERMINATION
NWP: NATIONWIDE PERMIT
NOI: NOTICE OF INTENT
SPCC: SPILL PREVENTION CONTROL AND COUNTERMEASURE
SW3P: STORM WATER POLLUTION PREVENTION PLAN
PCN: PRE–CONSTRUCTION NOTIFICATION
PSL: PROJECT SPECIFIC LOCATION
TCEQ: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
TPDES: TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM
TPWD: TEXAS PARKS AND WILDLIFE DEPARTMENT
TxDOT: TEXAS DEPARTMENT OF TRANSPORTATION
T&E: THREATENED AND ENDANGERED SPECIES
USACE: U.S. ARMY CORPS OF ENGINEERS
USFWS: U.S. FISH AND WILDLIFE SERVICE

6. HAZARDOUS MATERIAL OR CONTAMINATION ISSUES

GENERAL (APPLIES TO ALL PROJECTS):
COMPLY WITH THE HAZARD COMMUNICATION ACT (THE ACT) FOR PERSONNEL WHO WILL BE WORKING WITH HAZARDOUS MATERIALS BY CONDUCTING SAFETY MEETINGS PRIOR TO BEGINNING CONSTRUCTION AND MAKING WORKERS AWARE OF POTENTIAL HAZARDS IN THE WORKPLACE. ENSURE THAT ALL WORKERS ARE PROVIDED WITH PERSONAL PROTECTIVE EQUIPMENT APPROPRIATE FOR ANY HAZARDOUS MATERIALS USED.
OBTAIN AND KEEP ON–SITE MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL HAZARDOUS PRODUCTS USED ON THE PROJECT, WHICH MAY INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING CATEGORIES: PAINTS, ACIDS, SOLVENTS, ASPHALT PRODUCTS, CHEMICAL ADDITIVES, FUELS AND CONCRETE CURING COMPOUNDS OR ADDITIVES. PROVIDE PROTECTED STORAGE, OFF BORE GROUND AND COVERED, FOR PRODUCTS WHICH MAY BE HAZARDOUS. MAINTAIN PRODUCT LABELING AS REQUIRED BY THE ACT.
MAINTAIN AN ADEQUATE SUPPLY OF ON–SITE SPILL RESPONSE MATERIALS, AS INDICATED IN THE MSDS. IN THE EVENT OF A SPILL, TAKE ACTIONS TO MITIGATE THE SPILL AS INDICATED IN THE MSDS, IN ACCORDANCE WITH SAFE WORK PRACTICES, AND CONTACT THE DISTRICT SPILL COORDINATOR IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER CONTAINMENT AND CLEANUP OF ALL PRODUCT SPILLS.

CONTACT THE ENGINEER IF ANY OF THE FOLLOWING ARE DETECTED:
* DEAD OR DISTRESSED VEGETATION (NOT IDENTIFIED AS NORMAL)
* TRASH PILES, DRUMS, CANISTERS, BARRELS, ETC.
* UNDESIRABLE SMELLS OR ODORS
* EVIDENCE OF LEACHING OR SEEPAGE OF SUBSTANCES

DOES THE PROJECT INVOLVE ANY BRIDGE CLASS STRUCTURE REHABILITATION OR REPLACEMENTS (BRIDGE CLASS STRUCTURES NOT INCLUDING BOX CULVERTS)?

☐ YES ☑ NO

IF "NO", THEN NO FURTHER ACTION IS REQUIRED.

IF "YES', THEN TxDOT IS RESPONSIBLE FOR COMPLETING ASBESTOS ASSESSMENT/INSPECTION.
ARE THE RESULTS OF THE ASBESTOS INSPECTION POSITIVE (IS ASBESTOS PRESENT)?

☐ YES ☑ NO

IF "YES", THEN TxDOT MUST RETAIN A DSHS LICENSED ASBESTOS CONSULTANT TO ASSIST WITH THE NOTIFICATION, DEVELOP ABATEMENT/MITIGATION PROCEDURES, AND PERFORM MANAGEMENT ACTIVITIES AS NECESSARY. THE NOTIFICATION FORM TO DSHS MUST BE POSTMARKED AT LEAST 15 WORKING DAYS PRIOR TO SCHEDULED DEMOLITION.

IF "NO", THEN TxDOT IS STILL REQUIRED TO NOTIFY DSHS 15 WORKING DAYS PRIOR TO ANY SCHEDULED DEMOLITION.

IN EITHER CASE, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE DATE(S) FOR ABATEMENT ACTIVITIES AND/OR DEMOLITION WITH CAREFUL COORDINATION BETWEEN THE ENGINEER AND ASBESTOS CONSULTANT IN ORDER TO MINIMIZE CONSTRUCTION DELAYS AND SUBSEQUENT CLAIMS.

ANY OTHER EVIDENCE INDICATING POSSIBLE HAZARDOUS MATERIALS OR CONTAMINATION DISCOVERED ON SITE. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES SPECIFIC TO THIS PROJECT:

☑ NO ACTION REQUIRED ☐ REQUIRED ACTION

ACTION NO.

1.
2.
3.

7. OTHER ENVIRONMENTAL ISSUES

(INCLUDES REGIONAL ISSUES SUCH AS EDWARDS AQUIFER DISTRICT, ETC.)

☑ NO ACTION REQUIRED ☐ REQUIRED ACTION

1.
2.
3.

REVISION NO.	DATE	BY	DESCRIPTION

PROJECT No.: C275–21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

ENVIRONMENTAL PERMITS ISSUED & COMMENTS (EPIC)

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275–21184

C22

SITE DESCRIPTION

PROJECT LIMITS: THE MARISOL BOAT RAMP PROJECT WILL BE LOCATED AT 1705 LAGUNA BLVD., SOUTH PADRE ISLAND, TX 78597 (SEE SHEET C4).

- LATITUDE. 26°05'48" N
- LONGITUDE 97°10'04" W

PROJECT DESCRIPTION: PROJECT SITE IS LOCATED AT THE END OF WEST MARISOL STREET AND SOUTH OF LAGUNA BOULEVARD. THE IMPROVEMENTS CONSIST OF REMOVING 60 LINEAR FEET OF EXISTING BULKHEAD AND INSTALLATION OF NEW BOAT RAMP FACILITIES INCLUDING DRAINAGE, PAVING, LIGHTING, SIDEWALK, ATTENDANT DOCK, UTILITIES, AND FISH CLEANING STATION.

MAJOR SOIL DISTURBING ACTIVITIES: SOIL DISTURBING ACTIVITIES WILL INCLUDE INSTALLATION OF SEDIMENT AND EROSION CONTROL BMPs. EXCAVATION/DEMOLITION OF EXISTING BULKHEAD, GRADING PREPARATION, AND CONSTRUCTION OF NEW BOAT RAMP, ATTENDANT DOCK, AND PARKING LOT AMENITIES.

TOTAL PROJECT AREA: APPROXIMATELY 0.78 ACRES

TOTAL AREA TO BE DISTURBED: APPROXIMATELY 0.70 ACRES

WEIGHTED RUNOFF COEFFICIENT:
(AFTER CONSTRUCTION): THE WEIGHTED RUNOFF FOR PAVED AREAS WILL BE 0.85

EXISTING CONDITION OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: THE EXISTING SOIL IS TYPICALLY LEAN CLAY AND SILTY SAND. MOST OF THE LAND REMAINS CLEARED WITH VERY MINIMAL VEGETATION ON THE OUTER EDGES OF THE PROPERTY.

NAME OF RECEIVING WATERS: THE RECEIVING WATERS FOR THE STORM WATER RUNOFF FROM THIS PROPERTY IS THE LAGUNA MADRE DRAINAGE BASIN, SEGMENT 2491. THE TCEQ HAS CLASSIFIED THESE WATERS AS BAY AND ESTUARY. THE TCEQ HAS CLASSIFIED THE WATER BODY USES AS AQUATIC LIFE USE, CONTACT RECREATION USE, GENERAL USE, FISH CONSUMPTION USE, OYSTER WATERS USE.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ✓ TEMPORARY SEEDING
- ✓ PERMANENT PLANTING, SODDING, OR SEEDING
- ____ MULCHING
- ____ SOIL RETENTION BLANKET
- ____ BUFFER ZONES
- ✓ PRESERVATION OF NATURAL RESOURCES

OTHER: _____

STRUCTURAL PRACTICES:

- ✓ SILT FENCES
- ✓ HAY BALES
- ____ ROCK BERMS
- ____ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- ____ DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- ____ DIVERSION DIKE AND SWALE COMBINATIONS
- ____ PIPE SLOPE DRAINS
- ____ PAVED FLUMES
- ____ ROCK BEDDING AT CONSTRUCTION EXIT
- ____ TIMBER MATTING AT CONSTRUCTION EXIT
- ____ CHANNEL LINERS
- ____ SEDIMENT TRAPS
- ____ SEDIMENT BASINS
- ____ STORM INLET SEDIMENT TRAP
- ____ STONE OUTLET STRUCTURES
- ____ CURBS AND GUTTERS
- ____ STORM SEWERS
- ____ VELOCITY CONTROL DEVICES
- ____ EROSION CONTROL LOGS

OTHER: STABILIZED CONSTRUCTION ENTRANCE AND EXIT.

NARRATIVE – SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES:

REFER TO PLAN SHEET C24.

STORM WATER MANAGEMENT: THE CONTRACTOR SHALL ABIDE BY THE PROVISIONS OF TCEQ STORM WATER POLLUTANT DISCHARGE ELIMINATION SYSTEM REGULATIONS CONCERNING PERMITS FOR CONSTRUCTION ACTIVITIES, INCLUDING IMPLEMENTATION OF THE POLLUTION PREVENTION PLAN AND BEST MANAGEMENT PRACTICES. FUELING AND MAINTENANCE OF VEHICLES AND EQUIPMENT SHALL BE PERFORMED IN COMPLIANCE WITH EPA AND ALL OTHER FEDERAL AND STATE REGULATIONS. NATURAL AND CULTIVATED VEGETATION SHALL BE LEFT UNDISTURBED AS MUCH AS POSSIBLE. THE CONTRACTOR SHALL CONSTRUCT STRUCTURAL BEST MANAGEMENT PRACTICES AS NEEDED AND AS REQUIRED TO PREVENT SILT AND DEBRIS FROM ENTERING INTO THE STORM SEWER SYSTEM. THE CONTRACTOR SHALL BE REQUIRED TO SPRINKLE FOR DUST CONTROL AS DIRECTED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL INSPECT TEMPORARY EROSION/SEDIMENTATION CONTROLS PERIODICALLY TO ENSURE THAT THE CONTROLS HAVE NOT BEEN SIGNIFICANTLY DISTURBED. ANY SEDIMENT OR DEBRIS THAT HAS ACCUMULATED SHALL BE REMOVED AND PLACED IN A DESIGNATED SPOILS DISPOSAL SITE. ALL TREES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING OR OTHER APPROVED MEANS. WHERE CONDITIONS PREVENT INSTALLING TEMPORARY FENCING AT LEAST 4 FEET FROM THE TREE TRUNK, THE CONTRACTOR SHALL PROTECT THE TREE TRUNK WITH STRAPPED-ON PLANKING. USE OF NAILS IS PROHIBITED. THE CONTRACTOR SHALL NOT USE MECHANICAL EXCAVATORS, TO THE MAXIMUM EXTENT PRACTICAL, WITHIN THE CRITICAL ROOT ZONE OF TREES TO AVOID DAMAGE TO THE TREE'S ROOT SYSTEM. THE CONTRACTOR SHALL DIRECTIONAL BORE UTILITY LINES OR HAND DIG UTILITY LINES WITHOUT DAMAGING ROOTS.

OTHER EROSION AND SEDIMENT CONTROLS:

MAINTENANCE: ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER, IF A REPAIR IS NECESSARY, IT WILL BE DONE AT THE EARLIEST DATE POSSIBLE. ACCUMULATIONS OF SEDIMENT WILL BE REMOVED BEFORE OR AS INDICATED BY THE RESULTS OF REGULAR SITE INSPECTIONS AND IMMEDIATELY BEFORE THE ACCUMULATION REACHES 50% OF DESIGN CAPACITY. SEDIMENT ACCUMULATED IN THE STREET WILL BE REMOVED AND DISPOSED OF PROPERLY FROM THE SITE AS INDICATED IN THE BMP.

INSPECTION: INSPECTIONS WILL BE PERFORMED BY THE CONTRACTOR AND/OR THE CITY EVERY FOURTEEN (14) DAYS AND WITHIN 24 HOURS OF A 0.5-INCH OR MORE RAIN EVENT (AS RECORDED ON A RAIN GAUGE TO BE LOCATED AT THE PROJECT SITE). SITE INSPECTION REPORTS WILL BE COMPLETED AND THE ORIGINAL KEPT WITH THE SWPPP. COPIES OF INSPECTION REPORTS AND OTHER SWPPP DOCUMENTATION SHALL BE PROVIDED TO THE CITY INSPECTOR.

WASTE MATERIALS: TRASH, CONSTRUCTION DEBRIS AND CONSTRUCTION CHEMICALS WILL BE REMOVED BEFORE OR AS INDICATED BY THE RESULTS OF THE REGULAR SITE INSPECTIONS. SUBCONTRACTORS USING CONSTRUCTION CHEMICALS WILL REMOVE ALL UNUSED CONTAINERS. EMPTY CONTAINERS WILL BE DISPOSED OF IN ACCORDANCE WITH TCEQ REGULATIONS.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING): SPILL RESPONSE BULLETINS SHALL BE POSTED ON SITE OR AVAILABLE IN THE SITE SUPERINTENDENT'S VEHICLE. PAINTS, THINNERS, ACIDS, AND SOLVENTS SHALL BE STORED IN A STRUCTURE SECURED FROM STORM WATER EXPOSURE, OR IN THE CONTRACTOR'S VEHICLES. THESE ITEMS SHALL BE REMOVED FROM THE WORK SITE DAILY. NO WASTE PRODUCTS SHALL BE PERMITTED IN THE DUMPSTER. ON SITE FUELING TANKS, IF USED, SHALL BE EQUIPPED WITH POLLUTION DAMS CAPABLE OF HOLDING CAPACITY EQUAL TO THE TANK. AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO BE HAZARDOUS: PAINTS, ADHESIVES, PETROLEUM PRODUCTS, CLEANING SOLVENTS, ASPHALT PRODUCTS, OR CONCRETE CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE SPILL COORDINATOR SHALL BE CONTACTED IMMEDIATELY. ALL PRODUCTS USED SHALL BE STORED IN PROPERLY LABELED CONTAINERS, AND REMOVED FROM THE JOBSITE WHEN NO LONGER NEEDED.

SANITARY WASTE: ALL SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS AS NECESSARY; OR AS REQUIRED BY LOCAL REGULATION, BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

OFFSITE VEHICLE TRACKING:

- ✓ HAUL ROADS DAMPENED FOR DUST CONTROL
- ✓ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- ✓ EXCESS DIRT ON ROAD REMOVED DAILY
- ✓ STABILIZED CONSTRUCTION ENTRANCE

OTHER: ALL TEMPORARY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED IMMEDIATELY AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY CONTROLS ARE NO LONGER NEEDED, WHICHEVER IS LATER. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DEBRIS BOOM/SILT CURTAIN SHALL BE INSTALLED AROUND THE WETTED PERIMETER OF ALL ACTIVE DEMOLITION, EXCAVATION, FILLING AND MATERIAL OFFLOADING WORK AREAS. CONTRACTOR SHALL MAINTAIN THE BOOM THROUGHOUT DURATION OF ALL IN-WATER CONSTRUCTION ACTIVITIES. ALL CONTRACTOR VESSELS SHALL BE MOORED INSIDE THE BOOM. SILT CURTAINS SHALL BE DEPLOYED AROUND EXCAVATION AND OFFLOADING WORK AREAS AS DICTATED BY WATER QUALITY REQUIREMENTS. DURING MATERIAL DEWATERING OPERATIONS, THE CONTRACTOR SHALL IMPLEMENT SEDIMENT CONTROL BMPS (SILT FENCING, MULCH SOCKS, OR APPROVED EQUIVALENT) TO MANAGE SEDIMENT RUNOFF.

REMARKS: DISPOSAL AREAS, STOCKPILES, AND HAUL ROADS SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNT OF SEDIMENT THAT MAY ENTER RECEIVING WATERS, DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WETLAND, STREAMBED OR WATER BODY. CONSTRUCTION STAGING AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR. CONSTRUCTION SHOULD BE ACCOMPLISHED IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS. ALL WATERWAYS SHALL BE CLEARED OF TEMPORARY EMBANKMENT, TEMPORARY MATTING, FALSE WORK, OR OTHER OBSTRUCTIONS PLACED DURING CONSTRUCTION OPERATIONS THAT ARE NOT PART OF THE FINISHED WORK. NO CONSTRUCTION WASTE WILL BE ALLOWED TO BE BURIED WITHIN THE LIMITS OF THE RIGHT OF WAY.

PERMITS:

CONTRACTOR SHALL UTILIZE THE STORM WATER POLLUTION PREVENTION PLAN AND SHALL OBTAIN ALL PERMITS AND FULFILL ALL PERMIT REQUIREMENTS, INCLUDING FEES, FOR T.C.E.Q. GENERAL PERMIT NO. TXR 150000 RELATING TO DISCHARGES FROM CONSTRUCTION ACTIVITIES. THESE ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO NOTICE OF INTENT (NOI, REQUIRED SITE POSTINGS AND NOTICE OF TERMINATION (NOT). ALL ACTIVITIES WILL BE PERFORMED AT THE MILESTONES REQUIRED BY THE T.C.E.Q. NO SEPARATE PAYMENT WILL BE MADE FOR SUCH PERMITS.

PROJECT No.: C275-21184

STATE OF TEXAS
YESENIA SINGLETON
102398
LICENSED
PROFESSIONAL ENGINEER
December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

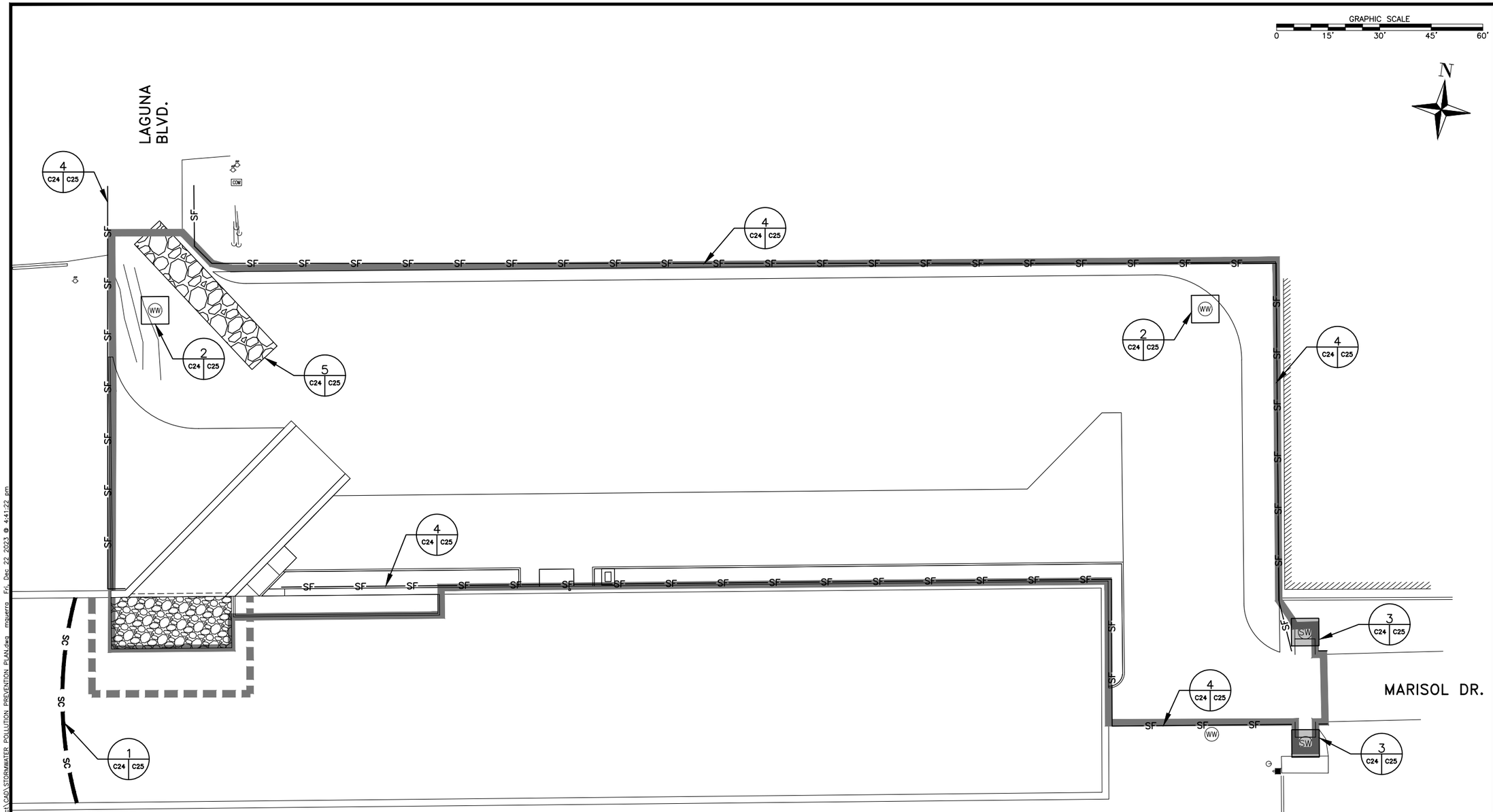
MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

STORMWATER POLLUTION PREVENTION PLAN NOTES

REVISION NO.	DATE	BY	DESCRIPTION

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275-21184

C23



LEGEND:

- SC — DEBRIS BOOM/ SILT CURTAIN. REFER TO DETAIL 1 ON SHEET C25.
- TEMPORARY FILTER FABRIC MANHOLE PROTECTION. REFER TO DETAIL 2 ON SHEET C25.
- CURB INLET PROTECTION. REFER TO DETAIL 3 ON SHEET C25.
- SF — TEMPORARY SEDIMENT CONTROL FENCE. REFER TO DETAIL 4 ON SHEET C25.
- STABILIZE CONSTRUCTION ENTRANCE. REFER TO DETAIL 5 ON SHEET C25.
- COFFERDAM LIMITS
- PROJECT LIMITS

CONSTRUCTION SITE DATA

1. NATURE OF CONSTRUCTION ACTIVITY: SITE CONSTRUCTION.
2. TOTAL AREA OF PROJECT: APPROX. .078 ACRES
3. TOTAL AREA OF SITE EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES: APPROX. .070 ACRES
4. ESTIMATE OF RUNOFF COEFFICIENT OF THE SITE AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED: UNCHANGED.
5. EXISTING SOIL IS TYPICALLY LEAN CLAY & SILTY SAND.
6. DISCHARGE FROM THE SITE WILL BE FILTERED.
7. WATER BODY RECEIVING STORMWATER RUNOFF IS LAGUNA MADRE.

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STATE OF TEXAS
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South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

STORMWATER POLLUTION PREVENTION PLAN

REVISION NO.	DATE	BY	DESCRIPTION

SCALE: AS NOTED
DRAWN BY: MF
APPROVED BY: YS
DATE: 12/22/2023
JOB NO. C275-21184

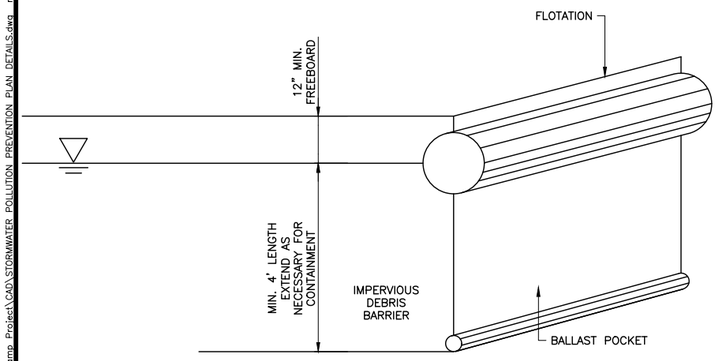
C24

P:\CLIENTS\CITY OF SOUTH PADRE - 275\21184 - Marisol Boat Ramp Project\CAD\STORMWATER POLLUTION PREVENTION PLAN.dwg mquerro Fri, Dec 22, 2023 @ 4:41:22 pm

BEST MANAGEMENT PRACTICES NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR PREPARATION OF A SWPPP AND FILING A NOTICE OF INTENT WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) AND OBTAINING A TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) PERMIT. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE TPDES PERMIT ON SITE AT ALL TIMES DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL ABIDE BY THE PROVISIONS OF TCEQ STORM WATER POLLUTANT DISCHARGE ELIMINATION SYSTEM REGULATIONS CONCERNING PERMITS FOR CONSTRUCTION ACTIVITIES, INCLUDING IMPLEMENTATION OF THE POLLUTION PREVENTION PLAN AND BEST MANAGEMENT PRACTICES.
3. FUELING AND MAINTENANCE OF VEHICLES AND EQUIPMENT SHALL BE PERFORMED IN COMPLIANCE WITH EPA AND ALL OTHER FEDERAL AND STATE REGULATIONS.
4. ALL TEMPORARY EROSION/SEDIMENTATION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE EROSION/ SEDIMENTATION CONTROL MEASURES TO PROTECT ADJACENT PROPERTIES, STORM SEWERS AND DRAINAGEWAYS.
5. NATURAL AND CULTIVATED VEGETATION SHALL BE LEFT UNDISTURBED AS MUCH AS POSSIBLE.
6. THE CONTRACTOR SHALL CONSTRUCT STRUCTURAL BEST MANAGEMENT PRACTICES AS NEEDED AND AS REQUIRED TO PREVENT SILT AND DEBRIS FROM ENTERING INTO THE STORM SEWER SYSTEM.
7. THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT SUFFICIENT LOCATIONS (AS NEC.) TO PREVENT VEHICLES AND EQUIPMENT FROM TRACKING MUD ONTO EXISTING STREETS.
8. THE CONTRACTOR SHALL BE REQUIRED TO SPRINKLE FOR DUST CONTROL AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
9. THE CONTRACTOR SHALL INSPECT TEMPORARY EROSION/SEDIMENTATION CONTROLS PERIODICALLY TO ENSURE THAT THE CONTROLS HAVE NOT BEEN SIGNIFICANTLY DISTURBED. ANY SEDIMENT OR DEBRIS THAT HAS ACCUMULATED SHALL BE REMOVED AND PLACED IN A DESIGNATED SPOILS DISPOSAL SITE.
10. ALL TREES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING OR OTHER APPROVED MEANS. WHERE CONDITIONS PREVENT INSTALLING TEMPORARY FENCING AT LEAST 4 FEET FROM THE TREE TRUNK, THE CONTRACTOR SHALL PROTECT THE TREE TRUNK WITH STRAPPED-ON PLANKING. USE OF NAILS IS PROHIBITED.
11. THE CONTRACTOR SHALL NOT USE MECHANICAL EXCAVATORS, TO THE MAXIMUM EXTENT PRACTICAL, WITHIN THE CRITICAL ROOT ZONE OF TREES TO AVOID DAMAGE TO THE TREE'S ROOT SYSTEM. THE CONTRACTOR SHALL DIRECTIONAL BORE UTILITY LINES OR HAND DIG UTILITY LINES WITHOUT DAMAGING ROOTS.
12. ALL DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE PLACED IN ALL DISTURBED AREAS. THE CONTRACTOR SHALL BEGIN RESTORATION AS SOON AS FINAL SHAPING OR USE OF THE AREA IS COMPLETE, PRIOR TO FINAL COMPLETION OF ALL IMPROVEMENTS. RESTORATION SHALL INCLUDE HYDRO MULCHING, SEEDING OR SODDING, FERTILIZING, FIBER MULCHING AND WATERING. RESTORATION SHALL BE ACCEPTABLE ONLY WHEN THE GRASS HAS REACHED A HEIGHT OF AT LEAST 1 INCH WITH 85 PERCENT COVERAGE, AND NO BARE SPOTS GREATER THAN 10 SQUARE FEET EXIST.
13. ALL NEW GRASS SOD AREAS SHALL BE IRRIGATED OR SPRINKLED IN A MANNER WHICH WILL NOT ERODE THE TOPSOIL BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF 6 INCHES.

CONTRACTOR/OPERATOR IS RESPONSIBLE FOR PREPARATION AND IMPLEMENTATION OF A SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH TCEQ REQUIREMENTS PRIOR TO COMMENCING WORK. THE SWPPP SHOULD INCLUDE THIS SHEET TO DEFINE THE TYPE AND LOCATION OF PROPOSED BMP'S.

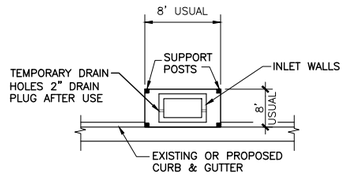


1 C24 C25 DEBRIS BOOM/SILT CURTAIN DETAIL

NOT TO SCALE

DEBRIS BOOM & SILT CURTAIN NOTES:

1. DEBRIS BOOM/SILT CURTAIN SHALL BE INSTALLED AROUND THE WETTED PERIMETER OF ALL ACTIVE DEMOLITION, EXCAVATION, FILLING AND MATERIAL OFF LOADING WORK AREAS
2. CONTRACTOR SHALL MAINTAIN THE BOOM THROUGHOUT DURATION OF ALL IN WATER CONSTRICTION ACTIVITIES.
3. ALL CONTRACTOR VESSELS SHALL BE MOORED INSIDE THE BOOM. SILT CURTAINS SHALL BE DEPLOYED AROUND EXACTION AND OFFLOADING WORK AREAS AS DIRECTED BY WATER QUALITY REQUIREMENTS.
4. DURING MATERIAL DEWATERING OPERATIONS, THE CONTRACTOR SHALL IMPALEMENT SEDIMENT CONTROL BMPS (SLIT FENCE, MULCH SOCKS, OR APPROVED EQUIVALENT) TO MANAGE SEDIMENT RUNOFF.
5. ALL EXCAVATION AND FILLING ACTIVITIES SHALL BE CONDUCTED IN A MANNER THAT WILL MINIMIZE TURBIDITY AND SEDIMENTATION. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING TURBIDITY LEVELS DURING EXCAVATION AND FILLING ACTIVITIES TO MINIMIZE TURBIDITY.

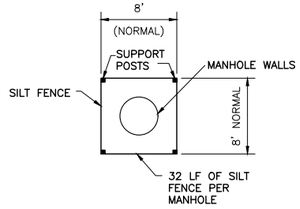


NOTE:

TYPICAL SILT FENCE INSTALLATION AT CURB INLET PRIOR TO PLACEMENT OF CURB AND INLET TOP.

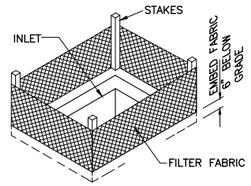
CURB INLET - PLAN

NOT TO SCALE



MANHOLE - PLAN

NOT TO SCALE

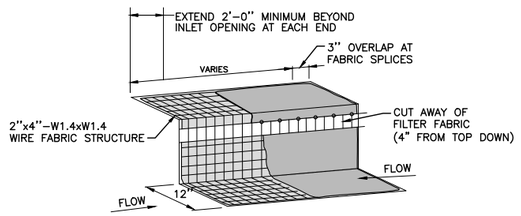


NOTES:

1. FILTER FABRIC INLET PROTECTION SHALL BE USED DURING CONSTRUCTION TO CONTROL SEDIMENTATION.
2. PERIMETER SILT FENCING AROUND INLET LOCATIONS SHALL BE INSTALLED AFTER PIPE IS PLACED.
3. FABRIC MATERIAL SHALL BE A NET-REINFORCED FENCE, USING WOVEN GEOTEXTILE FABRIC.
4. FENCE SHOULD BE REMOVED UPON COMPLETION OF CONSTRUCTION.

2 C24 C25 TEMPORARY FILTER FABRIC INLET PROTECTION DETAIL

NOT TO SCALE



NOTES:

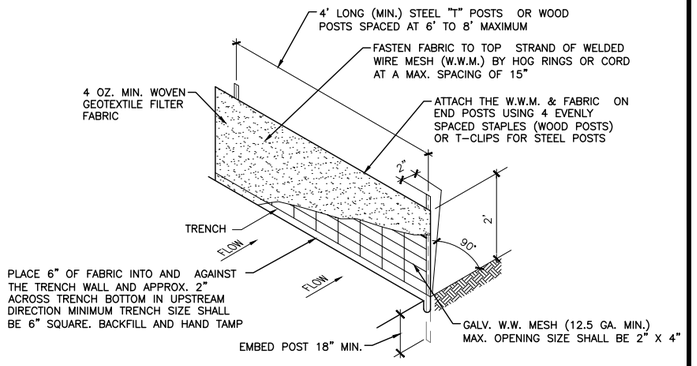
TYPICAL EROSION CONTROL INSTALLATION AT CURB INLET AFTER PLACEMENT OF CURB AND INLET TOP.

3 C24 C25 CURB INLET PROTECTION DETAIL

NOT TO SCALE

CURB INLET PROTECTION NOTES:

1. TO HOLD THE FILTER DIKE IN PLACE, 20 LB SANDBAGS SHALL BE USED AT 3' O.C. WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GUTTER, THE CONTRACTOR MAY SUBSTITUTE A 1"X4" BOARD, SECURED WITH 1/4" OR 3/8" CONCRETE SCREWS. THE 1/4" OR 3/8" CONCRETE SCREWS SHALL BE ATTACHED TO THE GUTTER BY DRILLING AN APPROPRIATE PILOT HOLE WITH A CONCRETE BIT AND INSERT PLASTIC FASTENERS. THE TOP OF THE SCREW SHALL BE RECESSED BELOW THE TOP OF THE BOARD. THE SCREWS SHALL BE PLACED ON 3' O.C. THIS METHOD IS USED IN LIEU OF SANDBAGS, IN THE GUTTER ONLY, TO HOLD THE FILTER DIKE IN PLACE. UPON REMOVAL, EITHER LEAVE THE PLASTIC FASTENERS IN PLACE, OR REMOVE THE PLASTIC FASTENERS, CLEAN ANY DIRT/DEBRIS FROM THE SCREW LOCATIONS, APPLY CHEMICAL SANDING AGENT AND APPLY NON-SHRINK GROUT FLUSH WITH THE SURFACE OF THE GUTTER. THIS METHOD SHALL NOT BE USED ON THE INLET IN LIEU OF SANDBAGS.
2. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
3. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2". INLET PROTECTION SHALL BE REPLACED AS NECESSARY DURING CONSTRUCTION DUE TO DAMAGE OR DETERIORATION (SUBSIDIARY TO INLET PROTECTION).
4. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND ONLY REMOVE INLET PROTECTION IF DIRECTED BY THE CITY OF PORTLAND, OR IF CONTRACTOR OBSERVES AN IMMINENT THREAT OF FLOODING OF SURROUNDING PROPERTY.
5. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.



4 C24 C25 TEMPORARY SEDIMENT CONTROL FENCE DETAIL

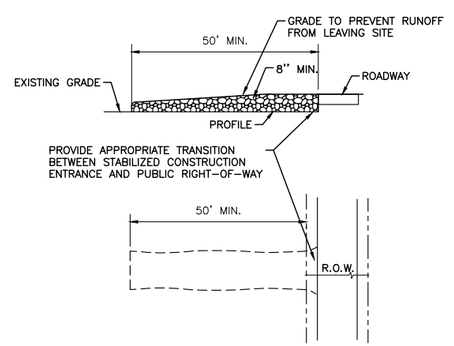
NOT TO SCALE

SEDIMENT CONTROL FENCE USAGE GUIDELINES:

SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAX. FLOW THROUGH RATE OF 100 GPM/FT. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE LARGER THEN 2 ACRES.

* THE GUIDELINES SHOWN HERE ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



5 C24 C25 STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE: 3-5" OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 50'.
3. THICKNESS: NOT LESS THAN 8".
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

PROJECT No.: C275-21184

STATE OF TEXAS · YESENIA SINGLETON · 102398 · LICENSED PROFESSIONAL ENGINEER

December 22, 2023

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

STORMWATER POLLUTION PREVENTION PLAN DETAILS

SCALE:	AS NOTED
DRAWN BY:	MF
APPROVED BY:	YS
DATE:	12/22/2023
JOB NO.	C275-21184

C25

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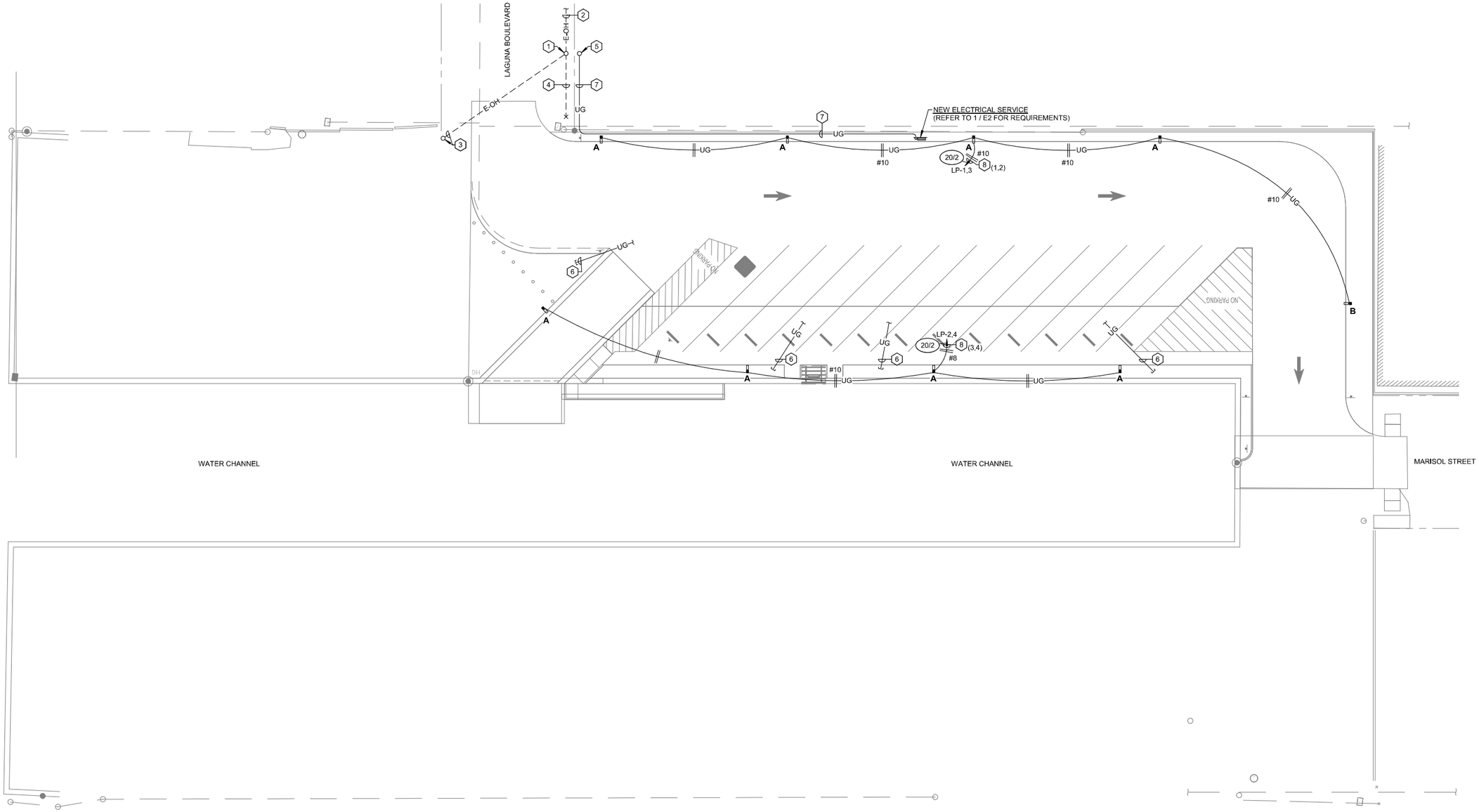


1 ELECTRICAL SITE PLAN
1" = 20'-0"

GENERAL NOTES:

A. INFORMATION INCLUDED ON THIS DRAWING IS INTENDED TO INDICATE THE GENERAL CHARACTER AND EXTENT OF WORK REQUIRED. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
B. DESIGN IS BASED UPON THE 2014 NFPA 70 AND 2015 IECC.
C. MOST EXISTING UNDERGROUND UTILITIES ARE NOT INDICATED ON THIS DRAWING. CONTRACTOR SHALL JOBSITE LOCATE AND PROTECT ALL UNDERGROUND UTILITIES PRIOR TO TRENCHING, DRILLING, AND/OR EXCAVATING.

KEYED NOTES:

1. EXISTING AEP POWER POLE TO REMAIN.
2. EXISTING OVERHEAD ELECTRICAL PRIMARY SERVICE TO REMAIN.
3. EXISTING AEP LEASE LIGHTING POLE TO REMAIN OR BE RELOCATED AT THE DISCRETION OF AEP. JOBSITE COORDINATE REQUIREMENTS WITH AEP.
4. EXISTING UTILITY GUY CABLE TO REMAIN OR BE REWORKED AT THE DISCRETION OF AEP. JOBSITE COORDINATE REQUIREMENTS WITH AEP.
5. APPROXIMATE LOCATION OF NEW TRANSFORMER / DIP POLE BY AEP. COORDINATE LOCATION WITH AEP.
6. ONE (1) - 1" SPARE CONDUIT (WITH PULLCORD) STUBBED AND CAPPED BELOW GRADE FOR FUTURE USE BY OWNER. ROUTE CONDUIT BELOW GRADE TO NEW PANEL ENCLOSURE AND TERMINATE AS REQUIRED. REFER TO 1 / E2 FOR ADDITIONAL REQUIREMENTS. REFER TO SPECIFICATIONS FOR STUB/CAP REQUIREMENTS.
7. NEW SECONDARY SERVICE BY CONTRACTOR. REFER TO 1 / E2 FOR ADDITIONAL REQUIREMENTS.
8. ROUTE CONDUIT AND CONDUCTORS THROUGH LIGHTING CONTACTOR LOAD POLES (INDICATED).

STATE OF TEXAS
SCOTT E. STRIDDE
84831
LICENSED
PROFESSIONAL ENGINEER

10/18/2023

STRIDDE, CALLINS & ASSOCIATES INC.
CONSULTING ENGINEERS
MECHANICAL ELECTRICAL
(361) 883-9199
Fax (361) 883-9177
342 S. Navigation Blvd.
Corpus Christi, TX 78405-3618
Registration # F-006328

PROJECT No.:
C275-21184

LJA ENGINEERING
TBPE FIRM REG. NO. F-1386

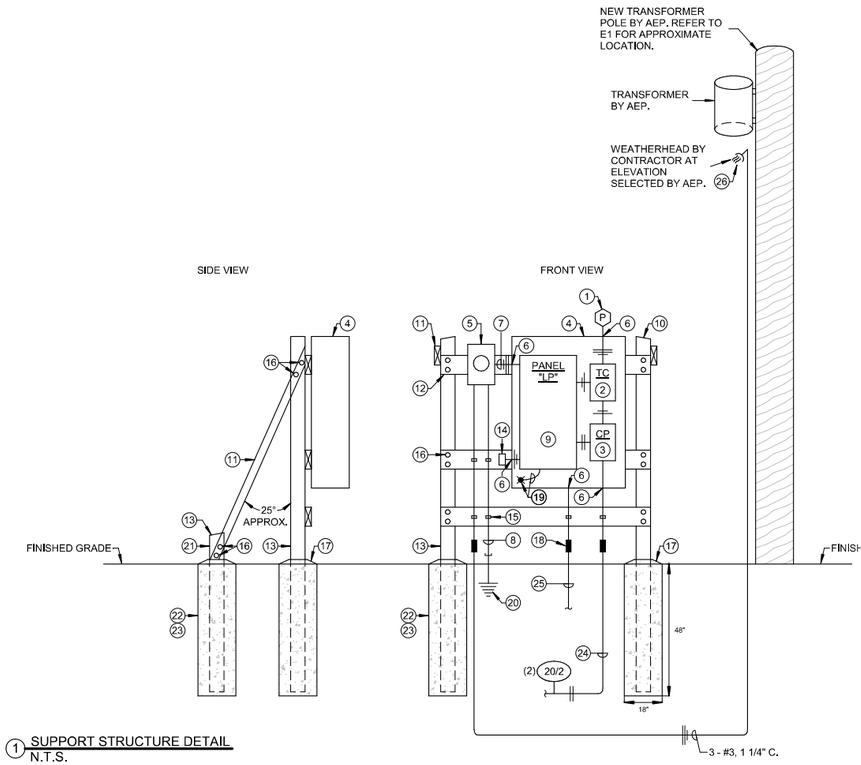
South Padre ISLAND

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

SCALE:	AS NOTED
DRAWN BY:	B.T.
APPROVED BY:	S.S.
DATE:	10/18/2023
JOB NO.	C275-21184

E1

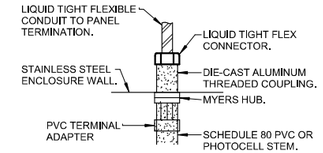
REVISION NO. | DATE | BY | DESCRIPTION



1 SUPPORT STRUCTURE DETAIL
N.T.S.

KEYED NOTES: (support structure detail)

1. PHOTO-ELECTRIC SENSOR SHALL BE INTERMATIC CAT. NO. K4421M, SERIES CONNECT WITH TIME CLOCK AS REQUIRED FOR PHOTOCELL "ON" / TIME CLOCK "OFF" OPERATION.
2. TIME CLOCK "TC" SHALL BE INTERMATIC CAT. NO. T171CR.
3. LIGHTING CONTACTOR "CP" SHALL BE SQUARE D, CLASS 8903, TYPE LG60VO2CP1. CONNECT CONTROL COIL TO LOAD SIDE OF TIME CLOCK CONTACT.
4. PROVIDE ONE (1) - HOFFMAN CAT. NO. WS483616SS (48"H. X 36"W. X 16"D.) STAINLESS STEEL RAINTIGHT LOCKABLE ENCLOSURE WITH VENTED DOOR.
5. METER CAN (BY CONTRACTOR) FOR FEED THRU SELF CONTAINED METER BY AEP.
6. REFER TO 2 / E2 FOR TERMINATION REQUIREMENTS.
7. ONE (1) - 1 1/2" CONDUIT WITH THREE (3) - #3, #6 GROUND.
8. #6 GROUND, 1/2" CONDUIT.
9. PANEL "LP" SHALL BE RACK MOUNTED, 120/240V., 1Ø, 3W., 100A. MAIN CIRCUIT BREAKER, SQUARE D TYPE NQ PANELBOARD. REFER TO PANEL SCHEDULE FOR CIRCUIT BREAKER QUANTITIES AND ARRANGEMENT.
10. TYPICAL: CUT POST TOP WITH MINIMUM 10° PITCH.
11. TYPICAL: 2" X 8" PTP TOE BRACE.
12. TYPICAL: 2" X 8" PTP LATERAL SUPPORT.
13. TYPICAL: MINIMUM 6" X 6" SQUARE PTP POST.
14. COMMERCIAL GRADE, 120V, 20A, GFCI RECEPTACLE IN DIRECT ALUMINUM OUTLET BOX WITH SPECIFIED COVERPLATE.
15. TYPICAL: STAINLESS STEEL TWO (2) HOLE CONDUIT STRAP.
16. TYPICAL: (2) - 1/2" 316 STAINLESS STEEL ALL-THREAD WITH NUT / FLAT WASHER FRONT AND BACK (ALL 316 STAINLESS STEEL). 316 STAINLESS STEEL BOLTS MAY BE SUBSTITUTED.
17. TYPICAL: CHAMFER PERIMETER.
18. TYPICAL: EXPANSION FITTING AS SPECIFIED.
19. #6 GROUND, GROUND BOND / LUG TO ENCLOSURE.
20. 5/8" X 8' COPPER GROUND ROD.
21. TOE BRACE STUB-HEIGHT ABOVE GRADE AS REQUIRED.
22. TYPICAL: 2,500 PSI CONCRETE.
23. TYPICAL: PROVIDE (8) - #7 VERTICAL BARS WITH #3 HOOP TIES 12" O.C. WITH MINIMUM CONCRETE COVER OVER STEEL OF 2 1/2". SET POST INSIDE FOOTING STEEL.
24. TWO (2) CONDUITS TO POLE MOUNTED LIGHTING FIXTURES.
25. FOUR (4) - SPARE CONDUIT STUBBED BELOW GRADE FOR FUTURE USE BY OWNER. REFER TO E1 FOR STUB LOCATION.
26. PROVIDE 3' LENGTH OF CONDUCTORS BEYOND WEATHERHEAD FOR TERMINATION BY AEP.



2 ENCLOSURE TERMINATION
N.T.S.

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	CATALOG REFERENCE	LAMPS	DRIVER VOLTAGE	FINISH		MOUNTING	REMARKS
				BODY	DIFFUSER		
A	LITHONIA CAT. NO. DSX2 LED P4 30K 80CRI T5M RPA PIR HS CCE DNAXD	L.E.D. FURNISHED 273 [W], 30K	MVOLT	NATURAL ALUMINUM	PRECISION MOLDED ACRYLIC	POLE	PROVIDE WITH HOUSE SIDE SHIELD, COASTAL CONSTRUCTION (GREY NATURAL EXPOSED AGGREGATE FINISH WITH AMERSHIELD COATING) AND AMERON POLE PRODUCTS CAT. NO. MBR07SPL 20'-0" (113i) MEDIUM BASE PLATED ROUND POLE. REFER TO SPECIFICATIONS FOR POLE REQUIREMENTS. FIXTURE EMBEDDED MOTION / AMBIENT SENSOR SHALL BE PROGRAMMED TO REDUCE LIGHT OUTPUT BY 30% WHEN NO MOTION IS DETECTED AFTER15 MINUTES FROM DUSK TO DAWN.
B	LITHONIA CAT. NO. DSX2 LED P4 30K 80CRI T2M RPA PIR HS CCE DNAXD	L.E.D. FURNISHED 273 [W], 30K	MVOLT	NATURAL ALUMINUM	PRECISION MOLDED ACRYLIC	POLE	PROVIDE WITH HOUSE SIDE SHIELD, COASTAL CONSTRUCTION (GREY NATURAL EXPOSED AGGREGATE FINISH WITH AMERSHIELD COATING) AND AMERON POLE PRODUCTS CAT. NO. MBR07SPL 20'-0" (113i) MEDIUM BASE PLATED ROUND POLE. REFER TO SPECIFICATIONS FOR POLE REQUIREMENTS. FIXTURE EMBEDDED MOTION / AMBIENT SENSOR SHALL BE PROGRAMMED TO REDUCE LIGHT OUTPUT BY 30% WHEN NO MOTION IS DETECTED AFTER15 MINUTES FROM DUSK TO DAWN.

PANELBOARD SCHEDULE

JOB: MARISOL BOAT RAMP CABINET: SURFACE MAINS: BREAKER VOLTAGE: 120/240 SINGLE PHASE CAPACITY: 100 A.

PANEL: LP SPECIAL FEATURES: SQUARE D, TYPE NQ PANELBOARD IN NEMA-3R ENCLOSURE

CKT	LOAD	C/B	LIGHTING	MISC 1Ø	MISC. EQPM.	KITCHEN EQPM.	WELDING EQPM.	A/C COOLING	A/C HEATING	CKT	LOAD	C/B	LIGHTING	MISC 1Ø	MISC. EQPM.	KITCHEN EQPM.	WELDING EQPM.	A/C COOLING	A/C HEATING
1	LIGHTING - NORTH	20/2	1,365							2	LIGHTING - SOUTH	20/2	1,095						
3										4									
5	TIME CLOCK - P.E.S.	20/1		20						6	RECEPTACLE - RACK	20/1		200					
7	SPARE	20/1								8	SPARE	20/1							
9	SPARE	20/1								10	SPARE	20/1							
11	SPARE	20/1								12	SPARE	20/1							
13	SPACE									14	SPACE								
15	SPACE									16	SPACE								
17	SPACE									18	SPACE								
19	SPACE									20	SPACE								
21	SPACE									22	SPACE								
23	SPACE									24	SPACE								
25	SPACE									26	SPACE								
27	SPACE									28	SPACE								
29	SPACE									30	SPACE								
		SUBTOTAL	1,365	20	0	0	0	0	0			SUBTOTAL	1,095	200	0	0	0	0	0
												TOTAL LOAD	2,460	220	0	0	0	0	0
													W=> DIV	220	W=> DIV	0	0		

TOTAL CONNECTED LOAD (VA) 2,680
DEMAND LOAD (VA) 2,680
AMPACITY DEMAND 11.2 A

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	RACEWAY WITH NUMBER OF CONDUCTORS INDICATED
IG	RACEWAY IN CONCRETE FLOOR SLAB AND/OR WALLS WITH NUMBER OF CONDUCTORS INDICATED
UG	UNDERGROUND RACEWAY
LA1,2	PANEL AND CIRCUIT NUMBERS
	ARROWS INDICATE HOME RUN TO PANEL
1"	CONDUIT SIZE IF INDICATED
30/2	BRANCH CIRCUIT BREAKER SIZE IN PANEL INDICATED IF OTHER THAN 1P20A
	NEUTRAL CONDUCTOR
	UNGROUNDED CONDUCTORS
#10	CONDUCTOR SIZE INDICATED IF OTHER THAN NO. 12 AWG
	CONDUCTORS SHALL BE SIZE INDICATED FOR ENTIRE LENGTH OF CIRCUIT
C	CONTROL SYSTEM RACEWAY AND/OR CONDUCTORS - REFER TO SPECIFICATIONS FOR REQUIREMENTS
	CONDUIT CONTINUATION TO POINT NOTED
	ELECTRICAL BRANCH CIRCUIT PANEL AS NOTED
WP	WEATHERPROOF DEVICE OR ENCLOSURE
	CEILING OUTLET WITH FIXTURE AS SCHEDULED
C R	CONTACTOR - C, RELAY - R
	DISCONNECT SWITCH
P	PHOTOELECTRIC SWITCH - REFER TO DRAWING NOTES FOR REQUIREMENTS
T	CONTROL TIME CLOCK - REFER TO DRAWING NOTES FOR REQUIREMENTS
J	JUNCTION BOX
	120 VOLT SINGLE PHASE CONNECTION TO EQUIPMENT NOTED
	208 VOLT OR 240 VOLT SINGLE PHASE CONNECTION TO EQUIPMENT NOTED
	CONTROL OUTLET AND CONNECTIONS AS REQUIRED

STATE OF TEXAS
SCOTT E. STRIDDE
84831
LICENSED PROFESSIONAL ENGINEER
10/18/2023

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PROJECT No.: C275-21184

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South Padre ISLAND

REVISION NO.	DATE	BY	DESCRIPTION

MARISOL BOAT RAMP PROJECT
1705 LAGUNA BOULEVARD
SOUTH PADRE ISLAND, TEXAS 78597

SCALE: AS NOTED
DRAWN BY: B.T.
APPROVED BY: S.S.
DATE: 10/18/2023
JOB NO. C275-21184

E2

CONSTRUCTION PLANS FOR

LANDSCAPE & IRRIGATION

TO SERVE

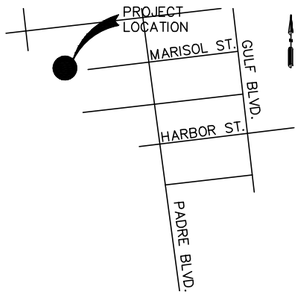
MARISOL BOAT RAMP

CITY OF SOUTH PADRE ISLAND CAMERON COUNTY,TEXAS

JOB NO. C275-21184 **DATE: NOVEMBER 03, 2023**

Planning + Landscape Architecture

INDEX OF DRAWINGS



LOCATION MAP

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!!
(713) 223-4567 (IN HOUSTON)
(NEW STATEWIDE NUMBER OUTSIDE HOUSTON)
1-800-545-6005

APPROVED FOR CONSTRUCTION

BY _____ DATE _____

Drawn	RB
Checked	JC

REGISTERED LANDSCAPE ARCHITECT
JACOB H. CLARK
2841
STATE OF TEXAS
11.3.23

Project #: C275-21184

Date: NOVEMBER 03, 2023

Revision	Date	Remarks

PROJECT: MARISOL BOAT RAMP LANDSCAPE & IRRIGATION

IRRIGATION NOTES

A. Except as otherwise provided, the contractor shall procure all permits and licenses, pay all charges & fees and give all notices necessary & incidental to the due lawful prosecution of the work.

B. The contractor shall follow the local municipal Public Works specifications for hot taps & installation of irrigation system.

C. The contractor shall notify pertinent utility companies 48 hours prior to construction for current utility locations. Extreme care shall be exercised in excavating and working near existing utilities. The contractor shall verify the location & condition of all utilities and be responsible for any damage to such.

D. The contractor shall not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that obstructions, grade differences or differences in the area's dimensions exist that might not have been considered in the engineering. Such obstructions or differences shall be brought to the attention of the Owner. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.

E. The drawings are diagrammatic. All irrigation mainlines, lateral lines, valves, wire, and fittings shall be placed in landscape areas. Gate valves, and remote control valves shall be placed in shrub beds whenever possible.

F. Avoid existing or future locations of trees and tree root balls when laying pipe.

G. The contractor shall clearly mark all exposed excavations, materials and equipment. Cover or barricade trenches when the contractor is not on site.

H. The contractor shall adjust the arc angle of the irrigation heads for even cover. Head layout shall be head to head coverage. All nozzles shall have matching precipitation rates.

I. The contractor shall at all times protect his work from damage and theft. In the event of damage or theft, the contractor shall replace all damaged or stolen parts until the work is accepted in writing by Owner.

LANDSCAPE NOTES

A. The contractor shall supply photos or samples of each plant species indicated on the planting legend, to Landscape Architect, to serve as min. requirements of each species type.

B. The contractor shall obtain an agricultural soils analysis by an approved lab for soils amendments and planting media recommendations. provide one copy to the Landscape Architect for approval prior to installation of soil mix.

C. The contractor shall be responsible for verifying all utility locations in the field prior to installation and shall be responsible for any damage to utilities.

D. Tree material shall be planted a min. of 3' from walkways, streets, or buildings unless otherwise noted on the drawings.

E. The contractor shall stake all tree locations and planting beds, and verify limits of turf in the field for approval by the Landscape Architect prior to installation.

F. Finish grade of all planting beds adjacent to buildings shall have a min. of 4-6' clearance from top of slab.

G. Existing soil shall be removed from planting holes, see specifications for appropriate backfill mix.

H. Stabilize soil below root ball prior to planting to prevent tree or shrub from settling.

I. The contract or is responsible for fine grading any areas disturbed by construction on site.

J. Contractor to repair or replace all disturbed turf areas from landscape construction outside and within limit of work, with solid sod of matching existing species.

LJA Planning + Landscape Architecture

Key Map

MARISOL BOAT RAMP

LANDSCAPE & IRRIGATION DRAWINGS

THE CITY OF SOUTH PADRE ISLAND,
CAMERON COUNTY, TEXAS

DATE	ISSUE

Drawn RB

Checked JC

REGISTERED LANDSCAPE ARCHITECT
JACOB H. CLARK
2841
STATE OF TEXAS

11.3.23

Project #: C275-21184

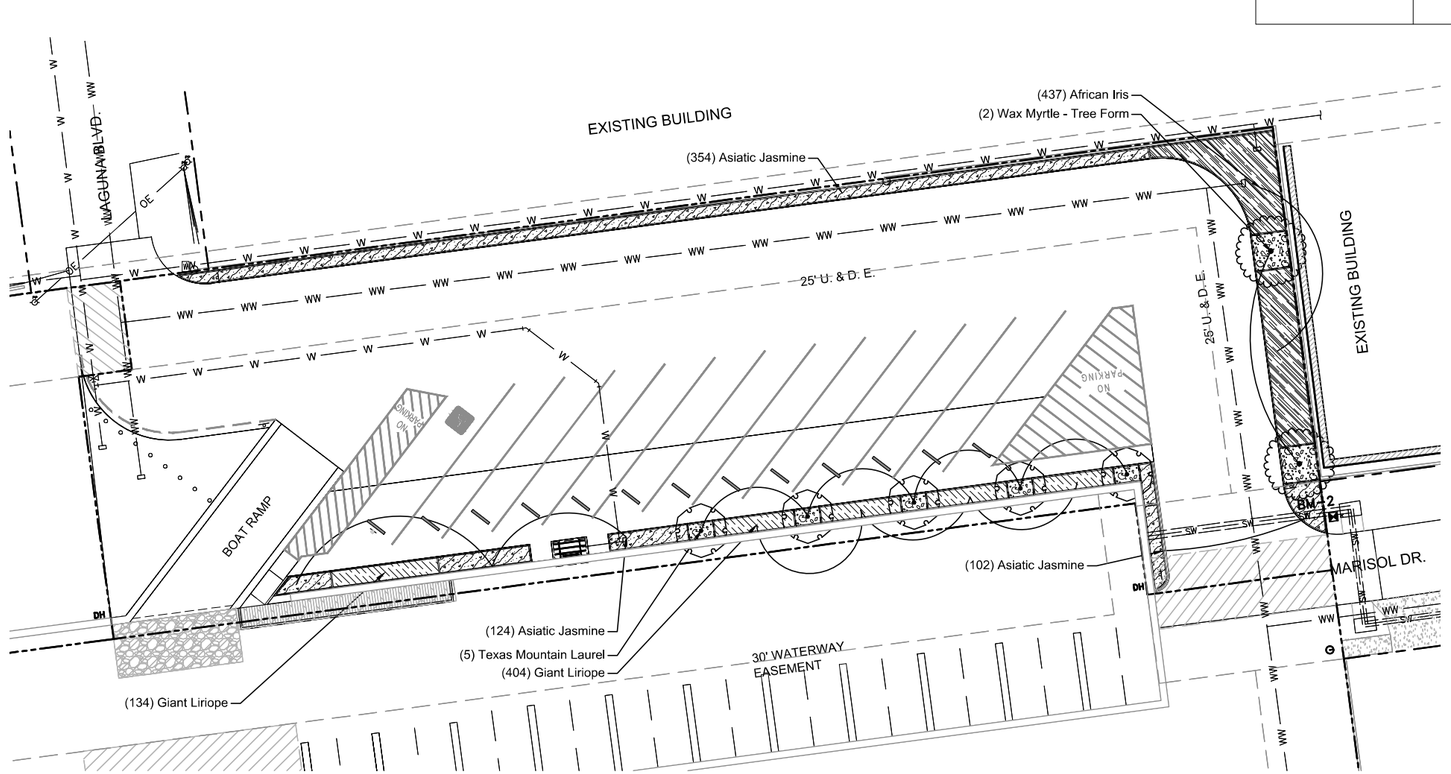
Date: NOVEMBER 03, 2023

Revision	Date	Remarks

Sheet Title:
GENERAL NOTES

Sheet Number
L0-00

PLANT SCHEDULE								
TREES	CONT	CAL	HEIGHT	SPREAD	SPACING		QTY	REMARKS
Texas Mountain Laurel	45 gal	2"		6`	4`		5	Container Grown, Well Rooted, Full Straight Trunk
EVERGREEN TREES	CONT	CAL	HEIGHT	SPREAD	SPACING		QTY	REMARKS
Wax Myrtle - Tree Form	30 gal		8` - 10`	6` - 8`			2	Multi trunk, matching, container grown
GROUND COVERS	CONT	HEIGHT	SPREAD			SPACING		
African Iris	3 gal	24"	12"			18" o.c.	437	full pot, container grown
Asiatic Jasmine	flat	4"	6"			18" o.c.	580	full pot, container grown
Giant Liriope	1 gal	8"	8"			12" o.c.	538	full pot, container grown
MISCELLANEOUS	CONT	HEIGHT	SPREAD			SPACING		
Blackstar Gravel	SF						343 sf	4" Depth; Installed Complete, Refer to Details and Specifications



PLANT SCHEDULE

TREES	COMMON NAME
	Texas Mountain Laurel
EVERGREEN TREES	**COMMON NAME**
	Wax Myrtle - Tree Form
GROUND COVERS	**COMMON NAME**
	African Iris
	Asiatic Jasmine
	Giant Liriope
MISCELLANEOUS	**COMMON NAME**
	Blackstar Gravel

LJA Planning + Landscape Architecture

Key Map

MARISOL BOAT RAMP

LANDSCAPE & IRRIGATION DRAWINGS

THE CITY OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS

DATE	ISSUE

0 10 20 40ft

Drawing Scale is 1" = 20'
(Original size is 24 x 36")

Drawn RB
Checked JC

REGISTERED LANDSCAPE ARCHITECT
JACOB H. CAPPS
2841
STATE OF TEXAS
11.3.23

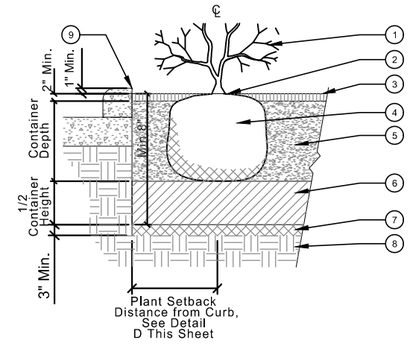
Project #: C275-21184

Date: NOVEMBER 03, 2023

Revison	Date	Remarks

Sheet Title:
LANDSCAPE LAYOUT

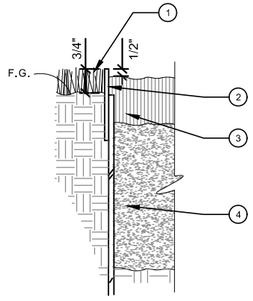
Sheet Number
L7-00



DETAIL CALLOUT LEGEND

1. Plant
2. Top of rootball to be flush with grade
3. 2" shredded hardwood mulch
4. Rootball
5. Planting mix per soils analysis
6. Compacted prepared planting mix with parent material
7. 3" scarification layer
8. Undisturbed soil
9. Concrete curb or sidewalk (if applicable)

D SHRUB/GROUNDCOVER PLANTING DETAIL
SCALE: NTS



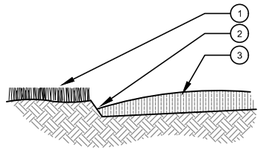
DETAIL CALLOUT LEGEND

1. Turf
2. 4" tall steel edging w/ ¾" of steel edging to be above finished grade and steel stakes 36" O.C., max. alternate sides black color
3. 2" shredded hardwood mulch
4. 8" min. prepared soil mix
5. Contractor shall place steel edging at all shrub beds adjacent to turf, unless otherwise noted on plans

NOTES:

1. Contractor shall place steel edging at all shrub beds adjacent to turf, unless otherwise noted on plans

C STEEL EDGING DETAIL
SCALE: NTS



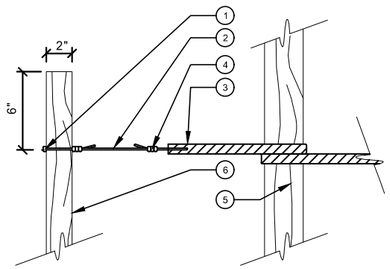
DETAIL CALLOUT LEGEND

1. Lawn
2. Shovel cut bed edge
3. Prepared bed

NOTES:

1. Contractor shall edge at all shrub beds adjacent to turf, unless otherwise noted on plans

F SHOVEL CUT EDGING DETAIL
SCALE: NTS

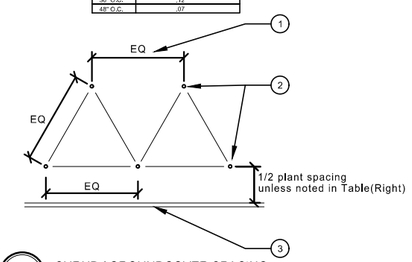


DETAIL CALLOUT LEGEND

1. Staple nail
2. ⅛" aircraft cable tree guy 7x7 strands
3. Rubber tie, black
4. Double crimped clamp
5. Trunk
6. Lodge pole pine stake

B TREE TIE DETAIL
SCALE: NTS

SPACING	PLANTS REQUIRED PER SQ/FT
6" O.C.	4.61
8" O.C.	2.60
9" O.C.	1.78
10" O.C.	1.66
12" O.C.	1.15
18" O.C.	.5
24" O.C.	.28
30" O.C.	.18
36" O.C.	.12
48" O.C.	.07



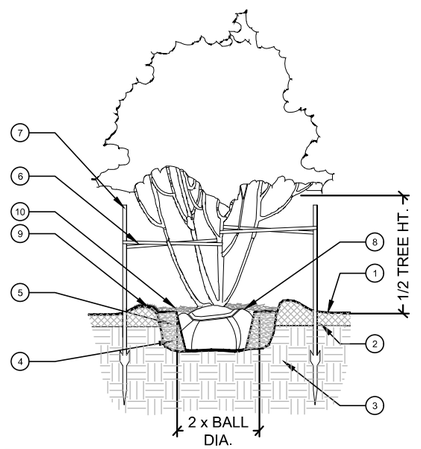
DETAIL CALLOUT LEGEND

1. Spacing as noted
2. Typical plant location
3. Edge of planting (Steel edging, curb, walls, ...etc) as defined on plan see detail D, this sheet for Steel edge planting section

NOTES:

1. Contractor shall use this spacing chart to determine total quantities of shrubs and groundcover. Contractor shall round total up to nearest whole plant. The contractor shall be responsible for providing all plantings necessary to fill all planting areas shown on the plans, based upon plant spaces provided by the spacing diagram and chart. Any quantities given by the owner or landscape architect, or determined by the contractor shall be for reference only. The contractor shall be responsible for all costs associated with underestimates

E SHRUB / GROUNDCOVER SPACING
SCALE: NTS



DETAIL CALLOUT LEGEND

1. Finished grade
2. Rough grade
3. Native subsoil
4. Backfill with 50% excavated soil and 50% prepared soil mix. Water and tamp to remove air pockets
5. Tree pit to be height of rootball
6. Polypropylene flat-woven tie, Figure 8 and tied to stake
7. Two (2) "T" post stakes, painted black, driven (min. 30") firmly into subgrade prior to backfilling
8. Set top of rootball 2" above the finished grade
9. Form saucer w/topsoil 4" height
10. Mulch 3" depth

A T-POST MULTI TRUNK
SCALE: NTS

Planning + Landscape Architecture

Key Map

MARISOL BOAT RAMP

LANDSCAPE & IRRIGATION DRAWINGS

THE CITY OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS

DATE	ISSUE

Drawn RB
Checked JC

REGISTERED LANDSCAPE ARCHITECT
JACOB H. CLARK
2841
STATE OF TEXAS
11.3.23

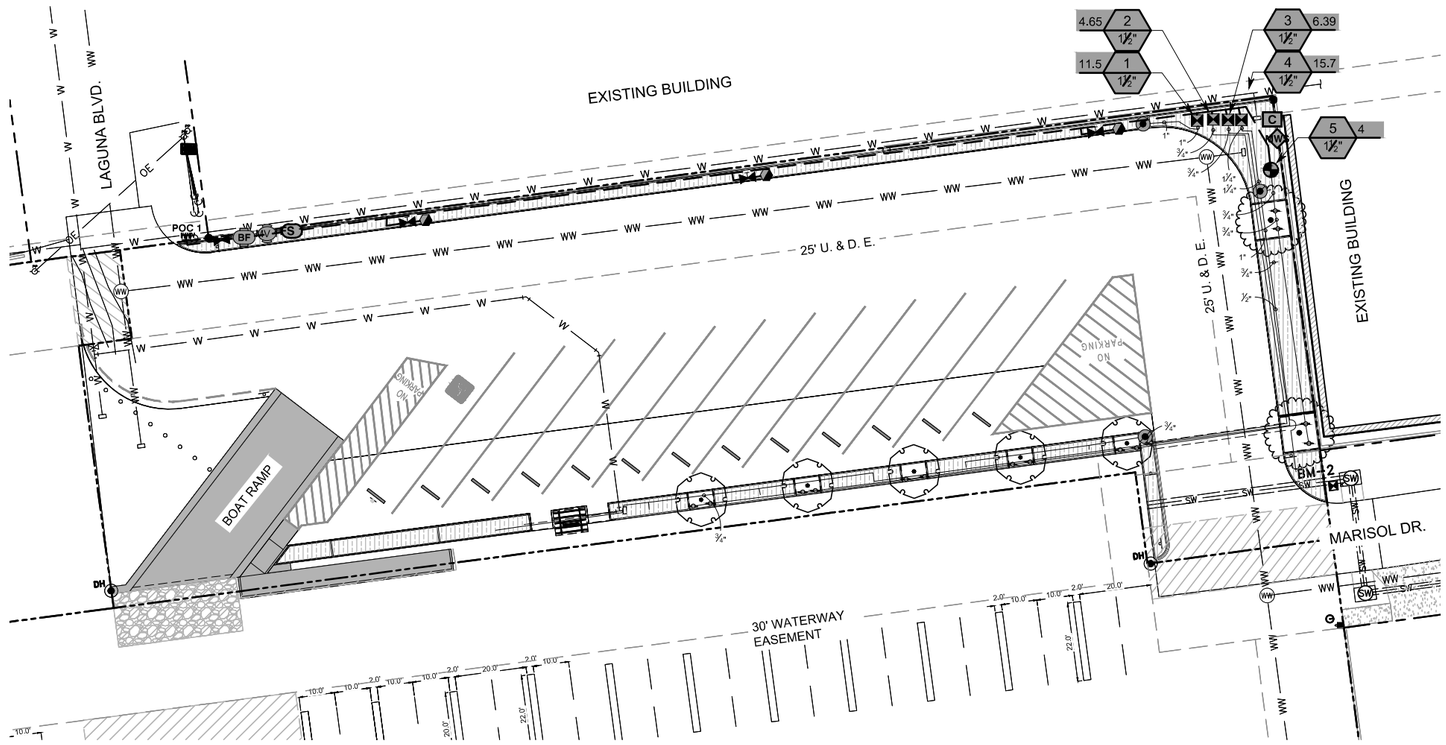
Project #: C275-21184

Date: NOVEMBER 03, 2023

Revision	Date	Remarks

Sheet Title:
LANDSCAPE DETAILS

Sheet Number
L8-01



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
25 50 10 20	Hunter PROS-06-PCN Flood Bubbler, 6.0" pop-up.	14

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter ICZ-151-40 Drip Control Zone Kit. 1-1/2" ICV Globe Valve with 1" HY100 filter system. Pressure Regulation: 40psi. Flow Range: 20 GPM to 60 GPM. 120 mesh stainless steel screen. 1-1/2" inlet x dual 1" outlets	4
	Pipe Transition Point in Drip Box Pipe transition point from PVC lateral to drip tubing with riser in 6in. drip box.	3
	Area to Receive Dripline Hunter HDL-09-12-PC HDL-09-12-PC: Hunter Dripline with 0.9 GPH flow. Light brown tubing with black striping. Emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. Install with Hunter PLD barbed or PLD-LOC fittings.	2,710 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter ICV-G - Remote Control Valve 1", 1-1/2", 2", and 3" Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	1
	Hunter HQ-44LRC-AW Quick coupler valve, yellow rubber locking cover, red brass and stainless steel, with 1in. NPT inlet, 2-piece body. Acme Key with Anti-Rotation Wings.	3
	LASCO Fittings TUBV-SC 1", 1-1/2", 2", and 3" Plastic Full Block True Union Ball Valve. Shut Off/Isolation Valve to Eliminate Water Hammer. Install same size as mainline.	4
MV	Hunter Master Valve ICV-G 1-1/2" 1", 1-1/2", 2", and 3" Plastic Electric Master Valve, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	1
MV	Hunter Master Valve ICV-G 1-1/2" 1", 1-1/2", 2", and 3" Plastic Electric Master Valve, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	1
BF	Febco 825Y 1-1/2" Reduced Pressure Backflow Preventer	1
C	Hunter PHC-1200 Wi-Fi enabled, full-functioning controller with touchscreen, 12-Station fixed controller, 120 VAC, Outdoor model.	1
MWS	Hunter MWS-FR Weather Station with rain sensor, wind sensor and freeze sensor, 120 VAC, 5 amp. 5 year warranty.	1
S	Hunter FLOW-CLIK-200 Flow Sensor SOV with Interface Panel, 2" Schedule 40 Sensor Body, 24 VAC, 2 amp, install Interface Panel as required.	1
POC 1	Point of Connection 3" CONNECT PROPOSED ISOLATION VALVE, BACKFLOW, MASTER VALVE, AND FLOW SENSOR TO EXISITNG WATER METER.	1
	Irrigation Lateral Line: PVC Schedule 40	888.6 l.f.
	Irrigation Mainline: PVC Schedule 40	367.8 l.f.
	Pipe Sleeve: (2) 6" PVC Sleeves - Schedule 40	62.8 l.f.

Valve Callout
Valve Number
Valve Flow
Valve Size

LJA Planning + Landscape Architecture

Key Map

MARISOL BOAT RAMP

LANDSCAPE & IRRIGATION DRAWINGS

THE CITY OF SOUTH PADRE ISLAND,
CAMERON COUNTY, TEXAS

DATE	ISSUE

0 10 20 40ft
Drawing Scale is 1" = 20'
(Original size is 24 x 36")

Drawn RB
Checked JC

REGISTERED LANDSCAPE ARCHITECT
JACOB H. CLARK
2841
STATE OF TEXAS
11.3.23

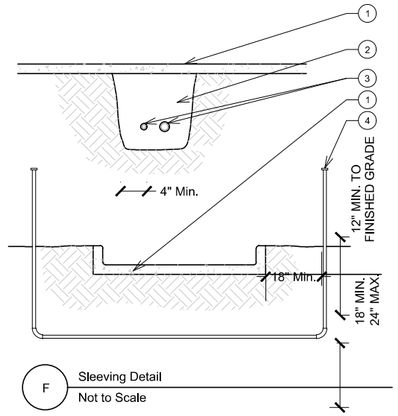
Project #: C275-21184

Date: NOVEMBER 03, 2023

Revision	Date	Remarks

Sheet Title:
IRRIGATION LAYOUT

Sheet Number
L9-00



DETAIL CALLOUT LEGEND

1. Paving
2. Trench
3. Sleeves
4. PVC Cap, Typ.

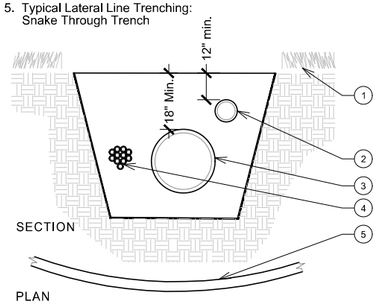
Notes:

1. All PVC Irrigation Sleeves To be Sch. 40 PVC Pipe.
2. All Elbows To Be lose fit and watertight.
3. Where There Is More Than One Sleeve, Extend The Smaller Sleeve 12" Minimum Above Finished Grade.
4. Mechanically Tamp soil around each sleeve To 95% Proctor.

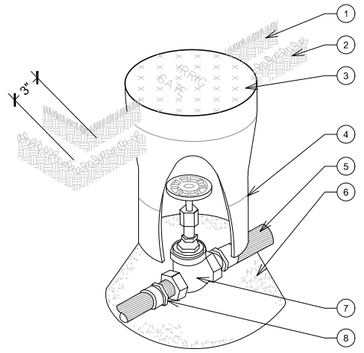
F Sleeving Detail
Not to Scale

DETAIL CALLOUT LEGEND

1. Finished Grade.
2. Lateral Line Size As Per Plan.
3. Mainline Size as Per Plan.
4. Tubing Or Wiring: Tape And Bundle At 10'-0" Intervals.
5. Typical Lateral Line Trenching: Snake Through Trench



C Wiring In Trench
Not to Scale

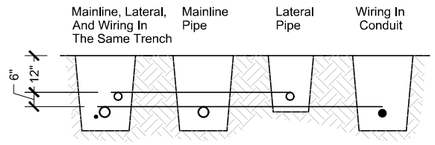


DETAIL CALLOUT LEGEND

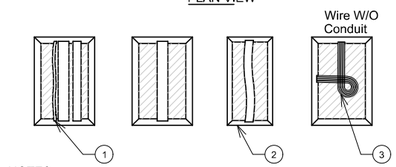
1. Finished Grade Lawn Areas.
2. Finished grade Shrub Areas.
3. Top Of Valve Box To be Flush With Finished Grade in seeded areas (Sodded Areas 1" Above Finished Grade, Shrub areas set flush with top of mulch).
4. Box Extension.
5. Mainline.
6. 6" depth min. of 3/4" washed gravel with commercial grade weed barrier
7. Gate Valve.
8. Sch. 80 PVC Male Adapter.

E Gate Valve
Not to Scale

SECTION VIEW



PLAN VIEW



DETAIL CALLOUT LEGEND

1. Run Wiring Above or Beside Mainline. Tape And Bundle At 10Ft Intervals.
2. All Solvent Weld Plastic Piping To Be Snaked In Trench As Shown.
3. Tie 24" Loop In All Wiring At Changes Of Direction Of 30° Or Greater. Untie After all Connections Have Been Made.

NOTES:

1. Sleeve Below All Hardscape Elements With Class 200PVC Twice The Diameter Of The Pipe Or Wire Bundle Within.
2. For Pipe And Wire Burial Depths See Specifications.

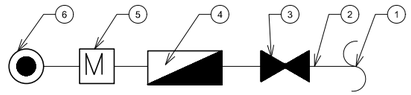
B Pipe & Wire Trenching
Not to Scale

DETAIL CALLOUT LEGEND

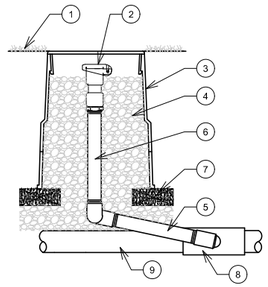
1. To Valves.
2. Irrigation Mainline (See Legend For Size).
3. Gate Valve or Master Valve (Mainline Size) (See plan).
4. Backflow Prevention As Approved Per City Requirements.
5. Water Meter As Approved Per City Requirements.
6. Point Of Connection. Verify Location In Field.

NOTE:

See Irrigation Legend For Full Details, Sizing And Requirements.



G Typical Diagram - Point of Connection
Not to Scale



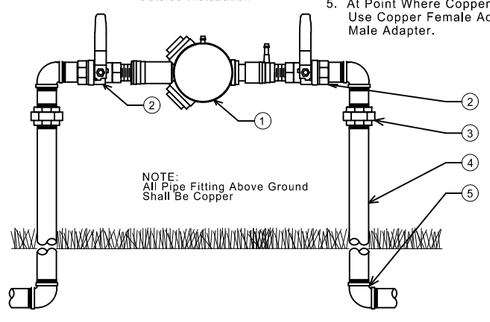
DETAIL CALLOUT LEGEND

1. Finished Grade/Top of Mulch.
2. Quick Coupling Valve: Hunter HQ-33DLRC-R 3/4", Two Piece Body with 3/4" inlet and 3/4" key outlet
3. Valve Box with purple cover
4. 6" depth min. of 3/4" washed gravel with commercial grade weed barrier
5. Hunter HSJ-0 Series Swing Joint, size as required
6. PVC Sch. 80 Nipple 3/4" (Length as Required)
7. Brick Supports (2)
8. PVC Sch. 40 Tee Or Ell, 3/4" etc.
9. PVC Mainline Pipe.

NOTE: Furnish fittings and piping nominally sized identical to nominal quick coupling valve inlet size.

D HQ33 Quick Coupling Valve
Not to Scale

FEBCO MODEL 825Y
Reduced Pressure Zone Assembly
Outside Installation



DETAIL CALLOUT LEGEND

1. Reduced Pressure Zone Assembly
2. Gate Valves.
3. Brass Union.
4. Copper Pipe, Wrap With Thermo Wrap For Protection.
5. At Point Where Copper Meets PVC, Use Copper Female Adapter & PVC Male Adapter.

A BACKFLOW PREVENTION
Not to Scale

Planning + Landscape Architecture

Key Map

MARISOL BOAT RAMP

LANDSCAPE & IRRIGATION DRAWINGS

THE CITY OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS

DATE	ISSUE

Drawn RB
Checked JC

REGISTERED LANDSCAPE ARCHITECT
JACOB A. CLARK
2841
STATE OF TEXAS
11.3.23

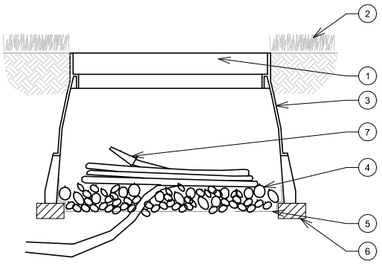
Project #: C275-21184

Date: NOVEMBER 03, 2023

Revision	Date	Remarks

Sheet Title:
IRRIGATION DETAILS

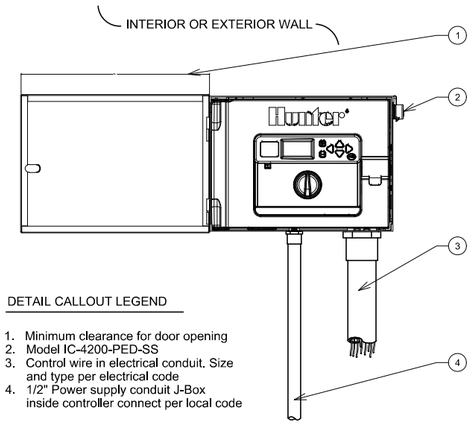
Sheet Number
L9-01



DETAIL CALLOUT LEGEND

1. Top Of Valve Box To Be Flush With Finished Grade marked "2W" in white paint (3" ht. min.).
2. Finished Grade
3. Valve Box
4. 3/8" Dia. Gravel 6" Min. Depth.
5. Filter Fabric.
6. Brick Supports Min. (4) Per Valve Box.
7. Wires to Controller, 36" MIN.
8. Lateral Line

C Two Wire Terminus Box
Not to Scale

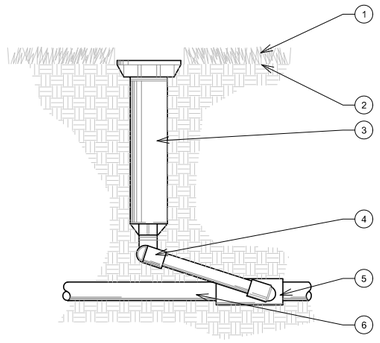


DETAIL CALLOUT LEGEND

1. Minimum clearance for door opening
2. Model IC-4200-PED-SS
3. Control wire in electrical conduit. Size and type per electrical code
4. 1/2" Power supply conduit J-Box inside controller connect per local code

NOTE: Controller shall be hard-wired to grounded 110 VAC power source

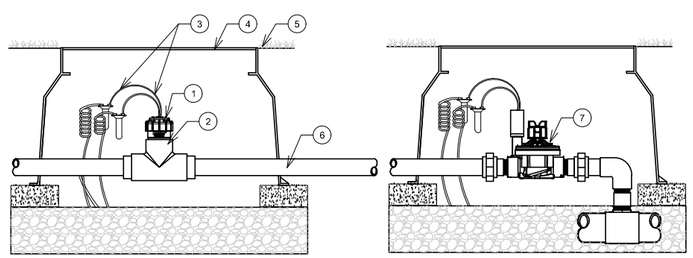
E Irrigation Controller (ICC2-PED-SS)
Not to Scale



DETAIL CALLOUT LEGEND

1. Turf Area.
2. Finished Grade.
3. Pro-Spray 6" Sprinkler body with PCN-25 Bubbler Nozzle
4. Hunter HSJ Series swing joint, size as required
5. Sch. 40 PVC Tee Or Elbow.
6. PVC Lateral Line (12" Min. Cover As Noted In Legend).

B Tree Bubbler Pop-Up Detail
Not to Scale



D Flow-Clik
Not to Scale

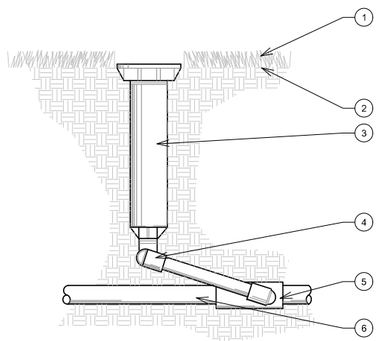
DETAIL CALLOUT LEGEND

1. Model Flow-Clik - xxx
2. Model FCT-XXX (See Plan to Size)
3. Min. 18/2 wire to interface panel maximum wire distance run of 1,000'
4. Standard Valve Box
5. Finished Grade
6. Mainline Pipe
7. Master Valve

FCT FITTING SELECTION

FCT100	1 INCH	SCH. 40
FCT150	1.5 INCH	SCH. 40
FCT158	1.5 INCH	SCH. 80
FCT200	2 INCH	SCH. 40
FCT208	2 INCH	SCH. 80
FCT300	3 INCH	SCH. 40
FCT308	3 INCH	SCH. 80
FCT400	4 INCH	SCH. 40

NOTE INLET PIPE LENGTH OF SENSOR MUST BE MIN. 10X PIPE DIA. STRAIGHT, CLEAN RUN OF PIPE. NO FITTINGS OR TURNS. OUTLET PIPE LENGTH OF SENSOR MUST BE MIN. 5X PIPE DIA. OF STRAIGTH CLEAN RUN OF PIPE, NO FITTINGS OR TURNS.



DETAIL CALLOUT LEGEND

1. Turf Area.
2. Finished Grade.
3. Pro-Spray 6" Sprinkler body, See Plan for specific nozzle types
4. Hunter HSJ Series swing joint, size as required
5. Sch. 40 PVC Tee Or Elbow.
6. PVC Lateral Line (12" Min. Cover As Noted In Legend).

A Turf Pop-Up Spray Detail
Not to Scale

LJA Planning + Landscape Architecture

Key Map

MARISOL BOAT RAMP

LANDSCAPE & IRRIGATION DRAWINGS

THE CITY OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS

DATE	ISSUE

Drawn RB
Checked JC

REGISTERED LANDSCAPE ARCHITECT
JACOB H. CLARK
2841
STATE OF TEXAS
11.3.23

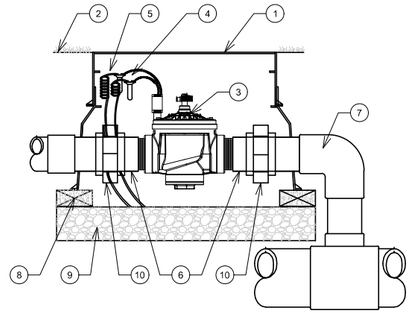
Project #: C275-21184

Date: NOVEMBER 03, 2023

Revision	Date	Remarks

Sheet Title:
IRRIGATION DETAILS

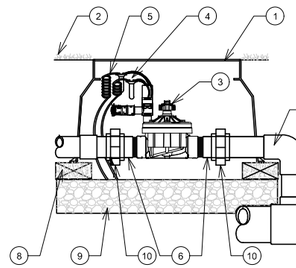
Sheet Number
L9-02



DETAIL CALLOUT LEGEND

1. Jumbo box with extension
2. Finish grade
3. Remote control valve model ICV-301g with filter sentry
4. DBRY Waterproof connectors (2)
5. 18-24" Coiled Wire
6. Sch 80 t.o.e. nipple
7. Main line pipe & fittings
8. Brick supports (4)
9. 3" depth min. of 3/4" washed gravel with commercial grade weed barrier
10. PVC slip unions

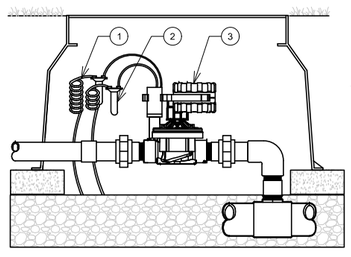
C ICV 3" Globe Valve
Not to Scale



DETAIL CALLOUT LEGEND

1. Standard valve box
2. Finish grade
3. Remote control valve model ICV-151g & ICV-201g with filter sentry
4. DBRY Waterproof connectors (2)
5. 18-24" Coiled Wire
6. Sch 80 t.o.e. nipple
7. Main line pipe & fittings
8. Brick supports (4)
9. 3" depth min. of 3/4" washed gravel with commercial grade weed barrier
10. PVC slip unions

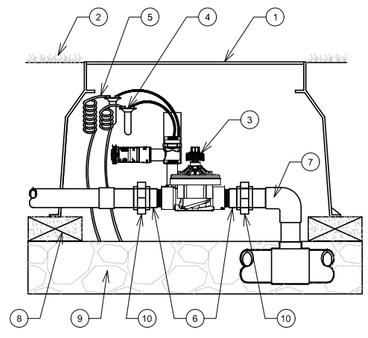
B ICV 1 1/2" - 2" Globe Valve
Not to Scale



DETAIL CALLOUT LEGEND

1. 18-24" coiled wire
2. DBRY Waterproof connectors (2)
3. Node-x00

D Node Controller
Not to Scale



DETAIL CALLOUT LEGEND

1. Standard valve box
2. Finish grade
3. Remote control valve model ICV-101g with filter sentry
4. DBRY Waterproof connectors (2)
5. Standard valve box
6. Sch 80 t.o.e. nipple
7. Main line pipe & fittings
8. Brick supports (4)
9. 3" depth min. of 3/4" washed gravel with commercial grade weed barrier
10. PVC slip unions

A ICV 1" Globe Valve
Not to Scale

LJA Planning + Landscape Architecture

Key Map

MARISOL BOAT RAMP

LANDSCAPE & IRRIGATION DRAWINGS

THE CITY OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS

DATE	ISSUE

Drawn RB
Checked JC

JACOB H. CLARK REGISTERED LANDSCAPE ARCHITECT 2841 STATE OF TEXAS
11.3.23

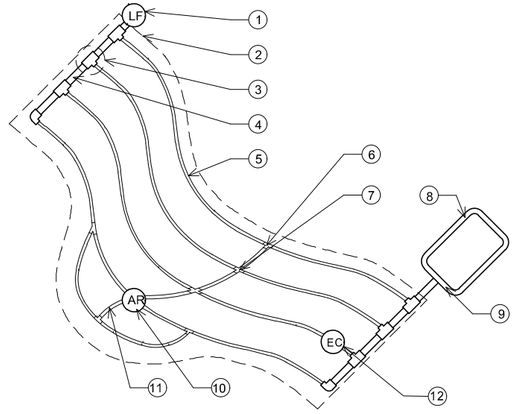
Project #: C275-21184

Date: NOVEMBER 03, 2023

Revision	Date	Remarks

Sheet Title:
IRRIGATION DETAILS

Sheet Number:
L9-03



H Irrigation Layout Typical Irregular Planting Area
Not to Scale

DETAIL CALLOUT LEGEND

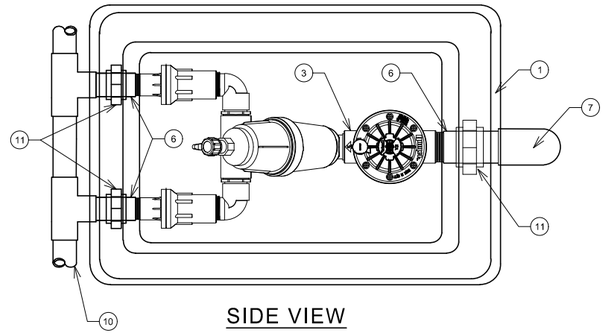
1. Line Flushing Valve Plumbed To Techline Or Poly.
2. Planting Bed/Area Perimeter.
3. Techline Start Connection.
4. 1" PVC Or Poly Exhaust Header
5. Techline Tubing Lateral, 18" O.C. with .9 GPH Emitters @ 18" O.C.
6. Techline Tee.
7. Techline Cross.
8. Remote Control Valve With Disc Filter And PRV, See Irrigation Plan For Size.
9. 1" PVC Supply Header, Unless Noted As Otherwise On Plans.
10. Air/Vacuum Relief Valve, Locate At High Point Of Zone.
11. Blank Tubing Centered On Mound Or Berm.
12. Eco Indicator, by Hunter to be installed in each drip zone.

NOTE:

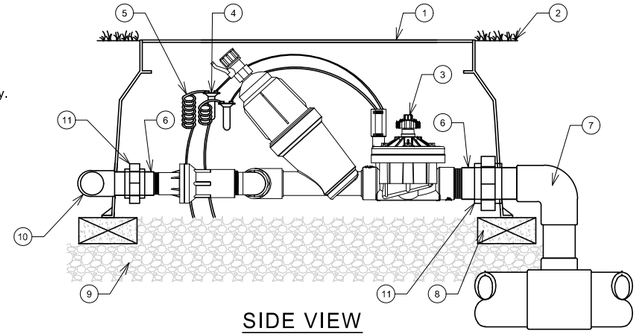
Netafim, Or approved Equal, Drip Irrigation Shall Be Installed As Per Manufacturers Guidelines And Specifications For Local Soil. All Drip Tubing To be Installed 4" Below Finished Grade And Staked Every 3'-0", And Before And After Every Turn.

DETAIL CALLOUT LEGEND

1. Super jumbo valve box
2. Finish grade
3. Drip zone kit model ICZ-151-40 with filter (tip 45 degrees) regulator 40 psi
4. DBRY Waterproof connectors (2)
5. 18-24" coiled wire
6. Sch 80 t.o.e. nipple
7. Main line pipe & fittings
8. Brick supports (4)
9. 3" depth min. of 3/4" washed gravel with commercial grade weed barrier
10. Lateral pipe and fittings
11. Pvc slip unions (2)



SIDE VIEW

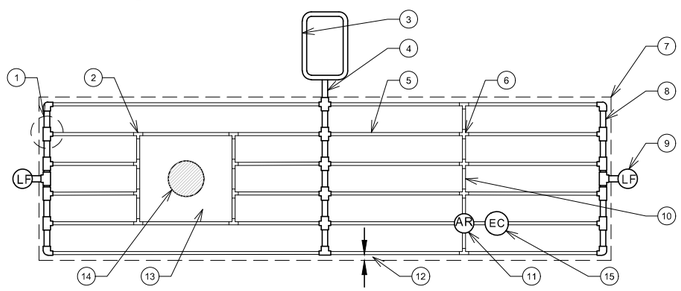


SIDE VIEW

B ICZ 151-40 Drip Control Kit - Flow 20 to 60 GPM
Not to Scale

DETAIL CALLOUT LEGEND

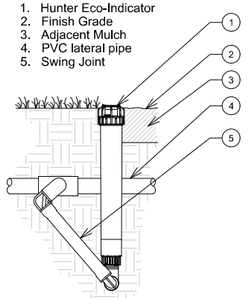
1. Techline Start Connection.
2. Techline Tee.
3. Remote Control Valve With Disc Filter And PRV, See Irrigation Plan For Size.
4. 1" PVC Supply Header, Unless Noted As Otherwise On Plans.
5. Techline Tubing Lateral, 18" O.C. with .9 GPH Emitters @ 18" O.C.
6. Techline Cross.
7. Planting Bed/Area Perimeter.
8. 1" PVC Or Poly Exhaust Header.
9. Line Flushing Valve Plumbed To PVC Or Poly.
10. Blank Techline Tubing (@ 50' O.C.).
11. Air/Vacuum Relief Valve, Locate At High Point Of Zone.
12. Perimeter Laterals 6" From Hard Edge.
13. Tree Opening In Drip Line.
14. Tree/Palm, See Planting Plans.
15. Eco Indicator, by Hunter to be installed in each drip zone.



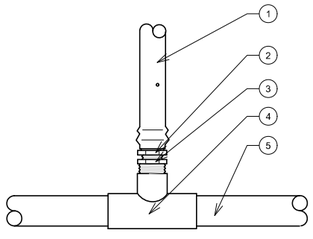
G Irrigation Layout Typical Regular Planting Area
Not to Scale

DETAIL CALLOUT LEGEND

1. Hunter Eco-Indicator
2. Finish Grade
3. Adjacent Mulch
4. PVC lateral pipe
5. Swing Joint



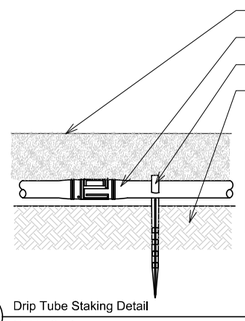
J Eco Indicator - Swing Joint
Not to Scale



DETAIL CALLOUT LEGEND

1. Techline Tubing.
2. 3/4" Male Adapter.
3. 3/4" Male x 1/2" Female Reduction Bushing.
4. PVC Tee (SxSxT).
5. PVC Lateral (Or Exhaust Header).

F Typical Dripline Start Connection
Not to Scale



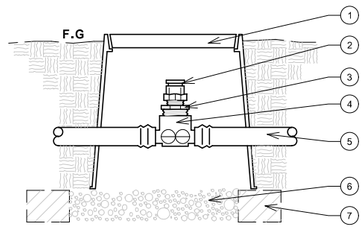
DETAIL CALLOUT LEGEND

1. Top Of Mulch.
2. Landscape Dripline Tubing.
3. Tie Down Stake: Rain Bird LD16STK.
4. Finish Grade.

NOTE:

Drip Irrigation To Be Staked Every 3'-0", And Before And After Every Turn.

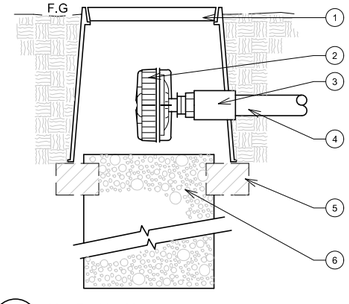
E Drip Tube Staking Detail
Not to Scale



DETAIL CALLOUT LEGEND

1. 6" Round Valve Box With Cover.
2. Air/Vacuum Relief Valve Hunter PLD-AVR 3/4".
3. 3/4" Male x 1/2" Female Reduction Bushing.
4. Techline 180 2-Way Adapter Tee.
5. Techline Tubing.
6. 3/4" Crushed Gravel Sump.
7. Brick Supports (Three).

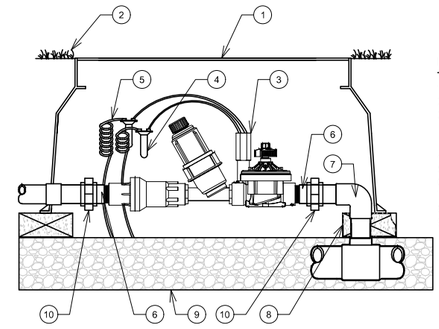
D Typical Air/Vaccum Relief
Not to Scale



DETAIL CALLOUT LEGEND

1. 6" Round Valve Box With Cover.
2. Line flushing Valve by Hunter AFV-T .
3. PVC Reducer Adapters S x 1/2"FTP (Size As Required).
4. PVC Lateral (Or Exhaust Header).
5. Brick Supports (Three).
6. 3/4" Crushed Gravel Sump (1 Cubic Ft).

C Line Flushing Valve
Not to Scale



DETAIL CALLOUT LEGEND

1. Jumbo valve box
2. Finish grade
3. Drip zone kit model ICZ-101-xx with filter (tip 45 degrees) regulator 25 or 40 psi
4. DBRY Waterproof connectors (2)
5. 18-24" coiled wire
6. Sch 80 t.o.e. nipple
7. Main line pipe & fittings
8. Brick supports (4)
9. 3" depth min. of 3/4" washed gravel with commercial grade weed barrier
10. PVC slip unions (2)

A ICZ 101 Drip Control Kit - Flow 2 to 20 GPM
Not to Scale

Planning + Landscape Architecture

Key Map

MARISOL BOAT RAMP

LANDSCAPE & IRRIGATION DRAWINGS

THE CITY OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS

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JACOB H. CLARK
2841
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Project #: C275-21184

Date: NOVEMBER 03, 2023

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Sheet Title:
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Sheet Number
L9-04