

South Padre Island Pedestrian Walkover

AT:
Neptune Circle
Beach Public Access
South Padre Island, Texas

OWNER:
City of South Padre Island
4601 Padre Blvd
South Padre Island, Texas

PROJECT & STRUCTURAL ENGINEER:
GREEN, RUBIANO & ASSOCIATES
1220 WEST HARRISON
HARLINGEN, TEXAS 78550
P: 956-428-4461
GRA@GRAENGINEERING.COM

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G0.0 COVER SHEET

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GLO-B1 AREA OF VEGETATION (IMPACTED)
GLO-B2 AREA OF RE-VEGETATION/NEW VEGETATION (MITIGATION)

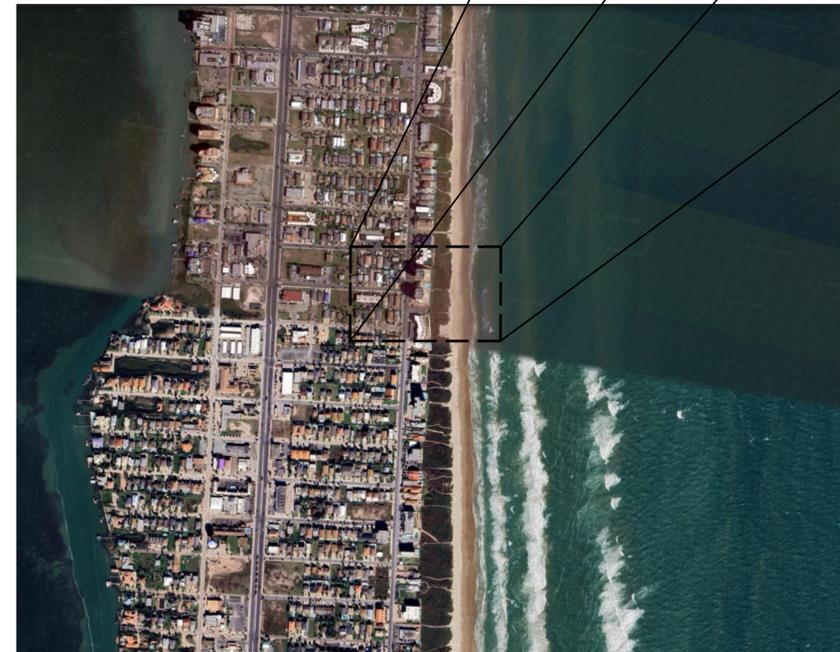
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LANDSCAPE:
SSP DESIGN LLC
789 E. WASHINGTON ST.
BROWNSVILLE, TEXAS 78520
P: 956-547-9977 F: 956-547-9977

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South Padre
ISLAND



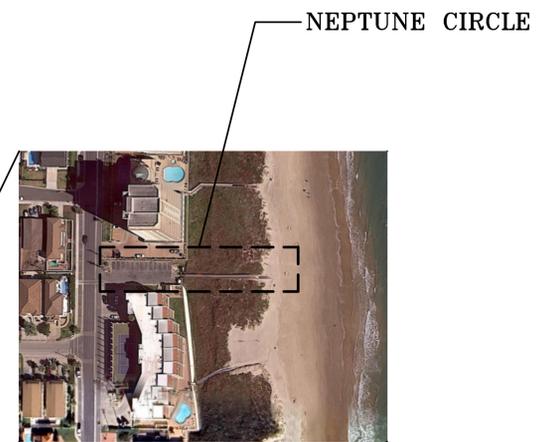
SITE MAP

NOT TO SCALE



ELECTRICAL PLUMBING ENGINEER:
ETHOS ENGINEERING
1126 SOUTH COMMERCE ST,
HARLINGEN, TEXAS 78550
P: 956-230-3435

ELECTRICAL PLUMBING SHEET INDEX:
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NEPTUNE CIRCLE



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SEAL



PROJECT

**SPI NEPTUNE CIRCLE
BEACH ACCESS
IMPROVEMENTS**

**SOUTH PADRE ISLAND,
TEXAS**

CLIENT

**CITY OF
SOUTH PADRE ISLAND**

South Padre
ISLAND

**SOUTH PADRE ISLAND,
TEXAS**

P: 956-761-3044
F: 956-761-3898



MARK	DATE	DESCRIPTION

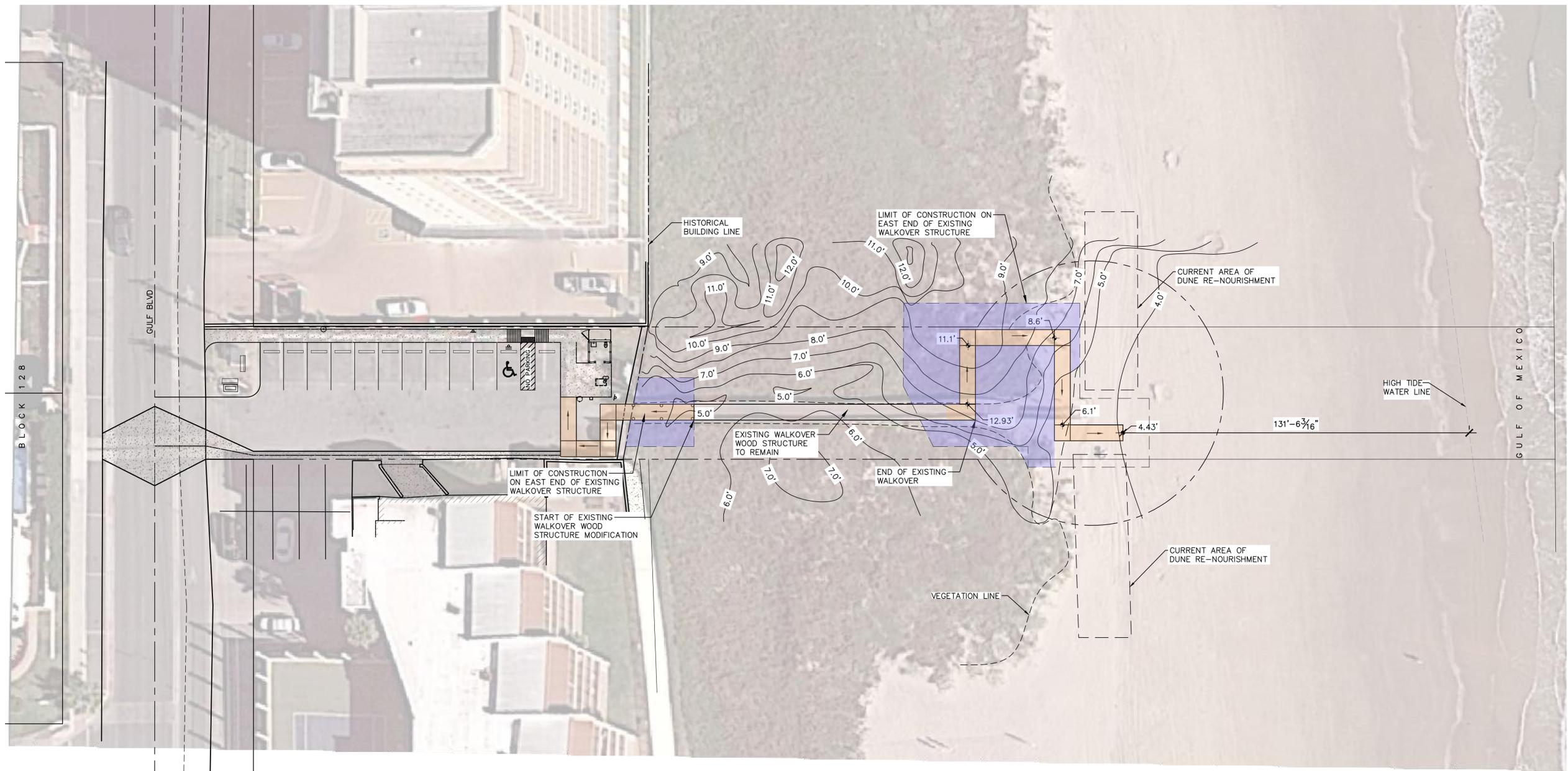
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SHEET TITLE

COVER SHEET

SHEET NO.

G0.0



SATURN LANE

1 VOLUME AND LOCATION OF DUNE FILL (MITIGATION)
 1" = 20'-0"



CUT / FILL TABLE		
DESCRIPTION	COLOR	APPROXIMATE VOLUME
FILL		241 CY



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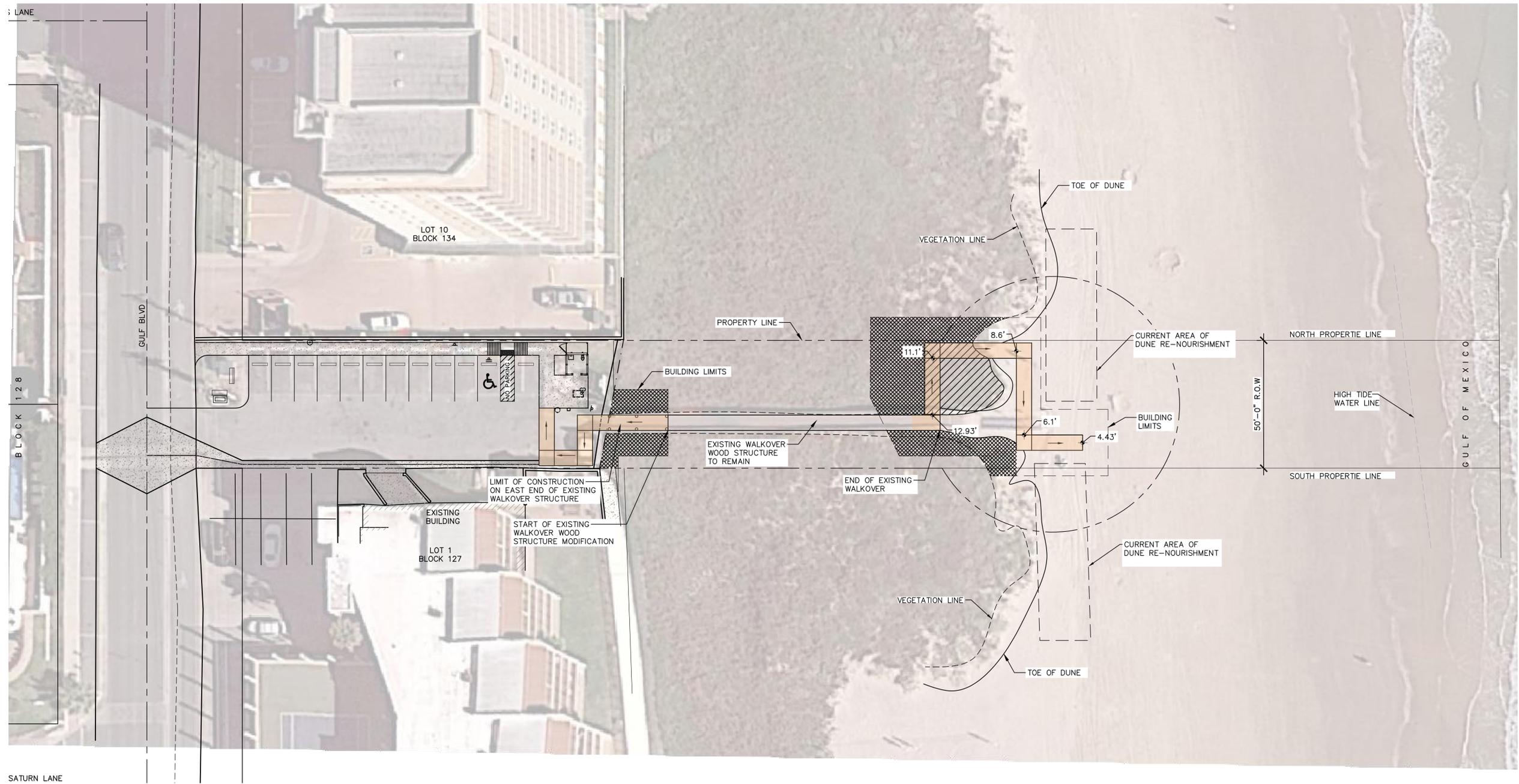
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SHEET TITLE
**VOLUME AND
 LOCATION OF
 DUNE FILL
 (MITIGATION)**

SHEET NO.

GLO-A2

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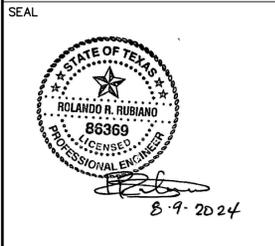


1 AREAS OF VEGETATION (IMPACTED)
 1" = 20'-0"
 PLAN NORTH

- NOTE:
- EXISTING VEGETATION AREA - IMPACT TO BE MITIGATED FOR = 2013 SQ. FT.
 - EXISTING VEGETATION AREA - IMPACT TO BE COMPENSATED FOR = 723 SQ. FT.



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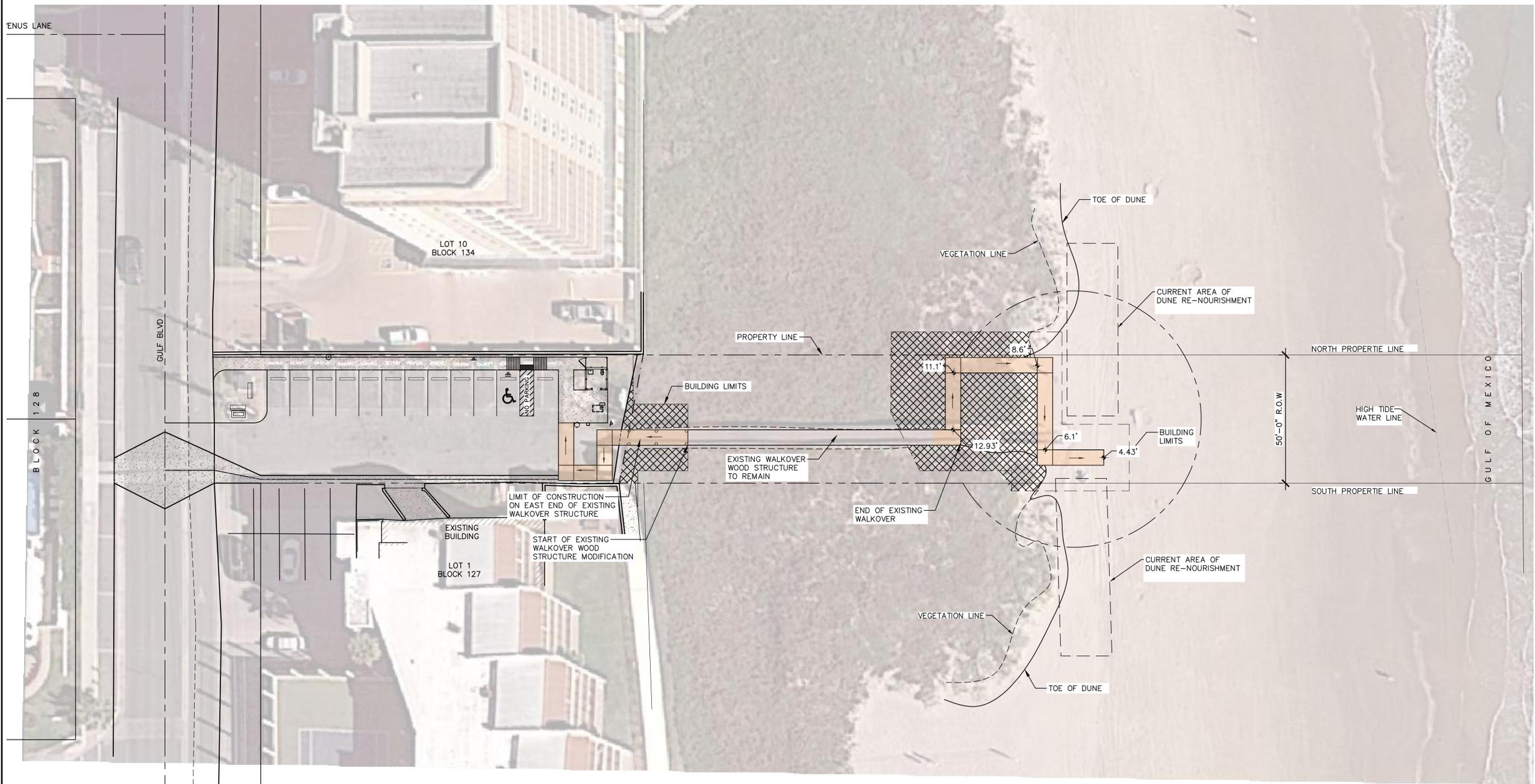
SHEET TITLE

**AREA OF
 VEGETATION
 (IMPACTED)**

SHEET NO.

GLO-B1

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**1 AREAS OF RE-VEGETATION/
NEW VEGETATION (MITIGATION)**
1" = 20'-0"



NOTE:
1. [Cross-hatched symbol] EXISTING VEGETATION AREA - MITIGATION
AREA OR IN-PLACE MITIGATION = 3076 SQ. FT.



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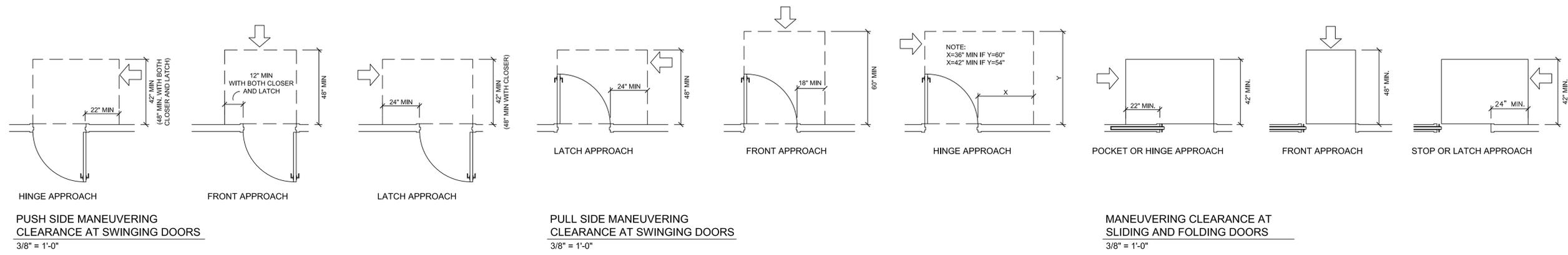
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SHEET TITLE
**AREA OF
RE-VEGETATION/
NEW VEGETATION
(MITIGATION)**

SHEET NO.
GLO-B2

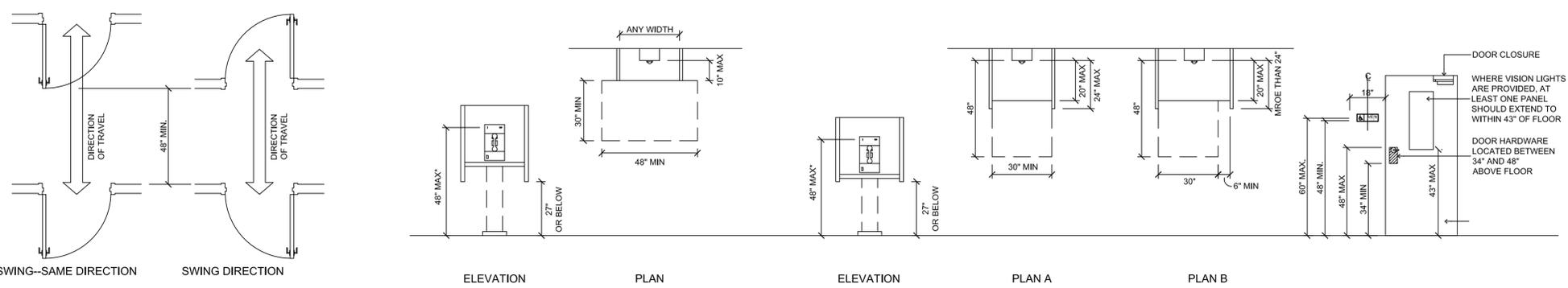
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PUSH SIDE MANEUVERING CLEARANCE AT SWINGING DOORS
3/8" = 1'-0"

PULL SIDE MANEUVERING CLEARANCE AT SWINGING DOORS
3/8" = 1'-0"

MANEUVERING CLEARANCE AT SLIDING AND FOLDING DOORS
3/8" = 1'-0"



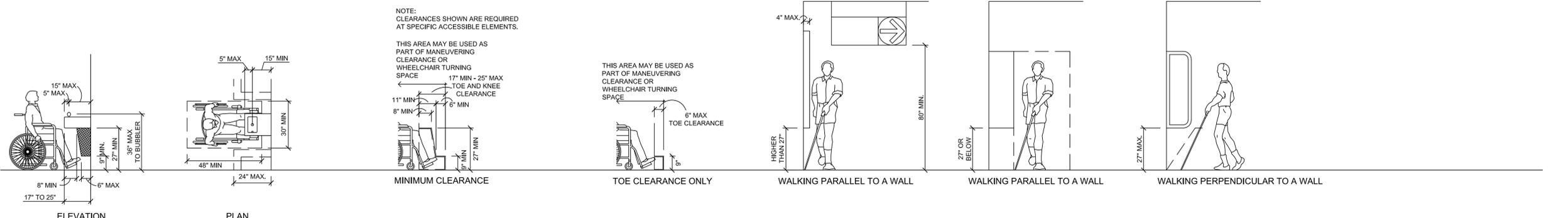
MANEUVERING CLEARANCE FOR TWO DOORS IN A SERIES
3/8" = 1'-0"

PUBLIC TELEPHONE SIDE REACH POSSIBLE
3/8" = 1'-0"

PUBLIC TELEPHONE FORWARD REACH REQUIRED
3/8" = 1'-0"

DOOR HARDWARE AND SIGNAGE MOUNTING HEIGHTS
3/8" = 1'-0"

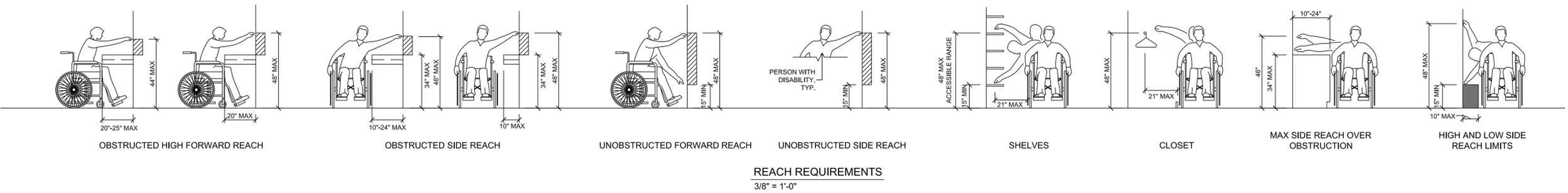
HARDWARE MOUNTING HEIGHTS	
FIXTURE / DEVICE	REMARKS - ALL HEIGHTS ARE MEASURED ABOVE FINISH FLOOR, UNLESS NOTED
TOP HINGE	5" FROM HEAD TO TOP OF HINGE LEAF
BOTTOM HINGE	10" FROM BOTTOM OF HINGE TO FINISH FLOOR
INTERMEDIATE HINGE (S)	EQUAL DISTANCE BETWEEN TOP AND BOTTOM HINGE
KNOBS, LOCKS, DEAD BOLTS	38" FROM FINISHED FLOOR TO CENTER OF KNOB
DOOR GUARD LOCKS	60" FROM FINISHED FLOOR, 48" IN ACCESSIBLE ROOMS
ROOM NUMBERS	ON CORRIDOR WALL ADJACENT TO STRIKE SIDE OF DOOR AT 60". RAISED LETTERS AND GRADE 2 BRAILLE TO BE PROVIDED PER ADA REQUIREMENTS
DOOR VIEWER (PEEP HOLE)	54"-60" FROM FINISH FLOOR TO CENTERLINE, 46" FROM FINISH FLOOR TO CENTERLINE IN ACCESSIBLE ROOMS
PUSH PLATES & PUSH BARS	45" FROM FINISH FLOOR TO CENTERLINE
DOOR PULL	45" FROM FINISH FLOOR TO CENTERLINE
EXIT DEVICE PANIC BAR	38" FROM FINISH FLOOR TO CENTERLINE OF PANIC BAR



DRINKING FOUNTAINS AND WATER COOLERS
3/8" = 1'-0"

KNEE AND TOE SPACE CLEARANCES
3/8" = 1'-0"

DIMENSIONS OF PROTRUDING OBJECTS
3/8" = 1'-0"



REACH REQUIREMENTS
3/8" = 1'-0"



PROJECT

SPI NEPTUNE CIRCLE BEACH ACCESS IMPROVEMENTS

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ACCESSIBILITY STANDARDS

SHEET NO.

S1.1



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**SITE AERIAL AND
 GENERAL NOTES**

SHEET NO.

S1.3



1 SITE AERIAL
 N.T.S.

**REF. SHEET S1.5 FOR SITE IMPROVEMENT PLAN
 AT NEPTUNE CIRCLE BEACH ACCESS**

GENERAL NOTES

SCOPE OF PROJECT

SCOPE OF WORK IS DEFINED BY THE DRAWINGS AND SPECIFICATIONS, INCLUDES ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT, PERMITTING AND FEES TO ACCOMPLISH THE WORK. THE SCOPE INCLUDES, BUT IS NOT LIMITED TO:

1. INSTALLATION OF NEW BEACH VEHICLE DRIVE OVER CONCRETE STRUCTURE AND WOOD WALKOVER STRUCTURE AT WHITE SANDS STREET, AND ASSOCIATED IMPROVEMENTS.

CODE COMPLIANCE

1. ALL WORK PERFORMED SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE, FEDERAL, AND LOCAL CODES, ORDINANCES, AND LAWS, INCLUDING THE INTERNATIONAL BUILDING CODE 2012 EDITION.
2. ALL DEMOLITION MATERIAL SHALL BE PROPERLY DISPOSED OF IN A LANDFILL MEETING ALL FEDERAL, STATE, AND LOCAL REGULATORY REQUIREMENTS. CONTRACTOR SHALL PROVIDE PROPER DOCUMENTATION FROM LANDFILL INDICATING PROPER DISPOSAL OF DEMOLITION MATERIAL.

COORDINATION

1. THE CONTRACTOR SHALL COORDINATE WORK BETWEEN ALL TRADES. ANY CONFLICTS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO THE WORK BEING INSTALLED. FAILURE TO DO SO WILL MAKE THE CONTRACTOR RESPONSIBLE FOR THE COST OF THE WORK.

EXISTING CONDITIONS

1. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND FULLY ACQUAINT THEMSELVES WITH THE EXISTING CONDITIONS.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL OBTAIN ALL FIELD MEASUREMENTS AS NECESSARY TO COORDINATE NEW CONSTRUCTION TO EXISTING CONDITIONS.
3. IF EXISTING CONDITIONS DIFFER FROM THE DRAWINGS, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION.
4. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES, INCLUDING STORM SEWER SYSTEM LINES, WASTE WATER LINES, IRRIGATION LINES, ETC., PRIOR TO MOBILIZATION AND COMMENCEMENT OF WORK. CONTACT ALL CITY OF SOUTH PADRE ISLAND MUNICIPALITIES AS REQUIRED TO LOCATE UNDERGROUND UTILITIES. ANY COSTS TO REPAIR DAMAGES IF UTILITIES ARE NOT PROPERLY IDENTIFIED, ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

TEMPORARY BRACING, FALSEWORK AND FORMWORK

1. THE DESIGN, ENGINEERING, FABRICATION, CONSTRUCTION, ERECTION, REMOVAL AND OVERALL SAFETY OF ALL TEMPORARY SUPPORTS SUCH AS FALSEWORK, FORMWORK, SHORES AND BRACING REQUIRED FOR THE EXECUTION OF THE CONTRACT ARE NOT INCLUDED IN THE DRAWINGS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE ENGINEER'S EFFORTS ARE AIMED AT DESIGNING A PROJECT WHICH WILL BE SAFE AFTER FULL COMPLETION. THE ENGINEER HAS NO EXPERTISE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOB SITE SAFETY DURING CONSTRUCTION. SAFETY IS EXCLUSIVELY THE CONTRACTOR'S RESPONSIBILITY. PROCESSING AND/OR APPROVING SUBMITTALS MADE BY CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO SHORING, CONSTRUCTION METHODS OR SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, MUST NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY ENGINEER OF ANY RESPONSIBILITY FOR THESE SAFETY PROCEDURES.

DOCUMENTATION OF PRE-CONSTRUCTION PHOTOGRAPHS

1. THE CONTRACTOR SHALL PHOTOGRAPH AND/OR VIDEO DOCUMENT AND TAKE WRITTEN NOTES OF EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF THE WORK ON THE SITE. COPIES OF ALL DOCUMENTATION TO BE PRESENTED TO THE OWNER PRIOR TO COMMENCING WORK.

PROTECTION OF EXISTING ADJACENT BUILDINGS

1. CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS NOT TO DAMAGE ADJACENT BUILDINGS DURING DEMOLITION.
2. THE CONTRACTOR SHALL TAKE PROPER PRECAUTION TO PROTECT ALL ADJACENT EXISTING TREES, LANDSCAPING, SITE LIGHTING, SIDEWALKS, AND SITE FEATURES FROM DAMAGE THROUGHOUT COURSE OF WORK. IF DAMAGED DURING THE COURSE OF THE WORK, REPAIR TO PRE-CONSTRUCTION CONDITION PRIOR TO COMPLETION OF THE PROJECT.

SAFETY

1. PERFORM ALL WORK IN A SAFE AND CONSCIENTIOUS MANNER TO PREVENT INJURIES.
2. CONTRACTOR SHALL MAINTAIN OSHA STANDARDS FOR JOB SAFETY AND WORKER PROTECTION, INCLUDING, BUT NOT LIMITED TO ADEQUATE PROTECTION, BARRICADES, SIGNS, ETC.
3. PEDESTRIAN PROTECTION REQUIREMENTS: PROVIDE CANOPY AND/OR BARRICADES AT SIDEWALKS AND OTHER PUBLICLY ACCESSIBLE AREAS WHICH MAY BE SUBJECT TO FALLING DEBRIS FROM THE WORK. COORDINATE ACCESS REQUIREMENTS WITH OWNER. BARRICADES AND CANOPY SHALL MEET OR EXCEED THE APPLICABLE REQUIREMENTS OF FEDERAL, STATE AND LOCAL LAWS, CODES, AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. AS A MINIMUM, CANOPY SHALL COMPLY WITH SECTION 3306, "PROTECTION OF PEDESTRIANS" OF THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC). UPON COMPLETION OF REMOVAL OF CANOPY AND BARRICADES, LEAVE PROPERTY IN GOOD CONDITION AS IT WAS PRIOR TO COMMENCEMENT OF WORK.
4. ALL CONSTRUCTION MATERIALS SHALL BE LOCKED-UP OR PLACED INSIDE A LOCKED CONSTRUCTION FENCE TO ENSURE MATERIALS DO NOT BECOME WINDBORNE OR CAUSE INJURY TO RESIDENTS, VISITORS OR PUBLIC.
5. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFETY. THE OWNER AND ENGINEER EXPRESSLY EXCLUDE ANY RESPONSIBILITY FOR CONTRACTOR SAFETY OR SAFETY OF JOBSITE.

TEMPORARY FACILITIES

1. COORDINATE LOCATION AND PLACEMENT OF FIELD OFFICE, MATERIAL STORAGE, PORTABLE TOILET, DUMPSTERS, ETC. WITH OWNER PRIOR TO CONSTRUCTION.

USE OF THE PREMISES

1. EQUIPMENT ACCESS TO BE SCHEDULED WITH OWNERS REPRESENTATIVE 48 HOURS IN ADVANCE.
2. TYPICAL HOURS OF WORK: 7:00 AM - 7:00 PM - MONDAY - FRIDAY, 8:00 AM - 7:00 PM - SATURDAY, 9:00 AM - 5:00 PM - SUNDAY, UNLESS OTHER ARRANGEMENTS MADE WITH OWNER'S REPRESENTATIVE. PRIOR TO COMMENCING WORK, COORDINATE HOURS OF WORK WITH THE OWNER TO MINIMIZE IMPACT TO THE SITE'S DAY-TO-DAY OPERATIONS.
3. MAINTAIN PUBLIC ACCESS FOR THE DURATION OF THE PROJECT, OR AS REQUIRED BY OWNER.
4. AN ON-SITE STORAGE AREA IS TO BE ESTABLISHED DURING CONSTRUCTION. STORAGE IS TO BE PROTECTED IN A SECURE WEATHERPROOF LOCATION TO PREVENT DAMAGE TO THE CONTENTS.
5. PROVIDE REGULAR SITE CLEAN UP. STORE MATERIALS IN A NEAT AND ORDERLY MANNER.
6. DO NOT PLACE LOADS ON THE EXISTING ADJACENT STRUCTURES OR STORE DEMOLISHED MATERIALS ON THE STRUCTURES IN A MANNER THAT WILL DAMAGE THEM.
7. WORKERS SHALL BE PROPERLY DRESSED AND DISPLAY APPROPRIATE BEHAVIOR AT ALL TIMES IN CONSTRUCTION AND ADJACENT AREAS.
8. REPAIR/RESTORE DAMAGED LAWN OR OTHER LANDSCAPING AT COMPLETION OF THE WORK AT NO COST TO OWNER.
9. REFERENCE "TOWN OF SOUTH PADRE ISLAND BUILDING CONSTRUCTION SITE MANAGEMENT NOTICE" FOR ADDITIONAL REQUIREMENTS.

SITE MAINTENANCE

1. MAINTAIN AREAS FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH.
2. MAINTAIN SITE IN A CLEAN AND ORDERLY CONDITION. AREAS USED AS PATHWAYS TO TRANSPORT MATERIALS OR TO REMOVE TRASH THAT ARE NOT DIRECTLY UNDER CONSTRUCTION ARE TO BE KEPT CLEAN.

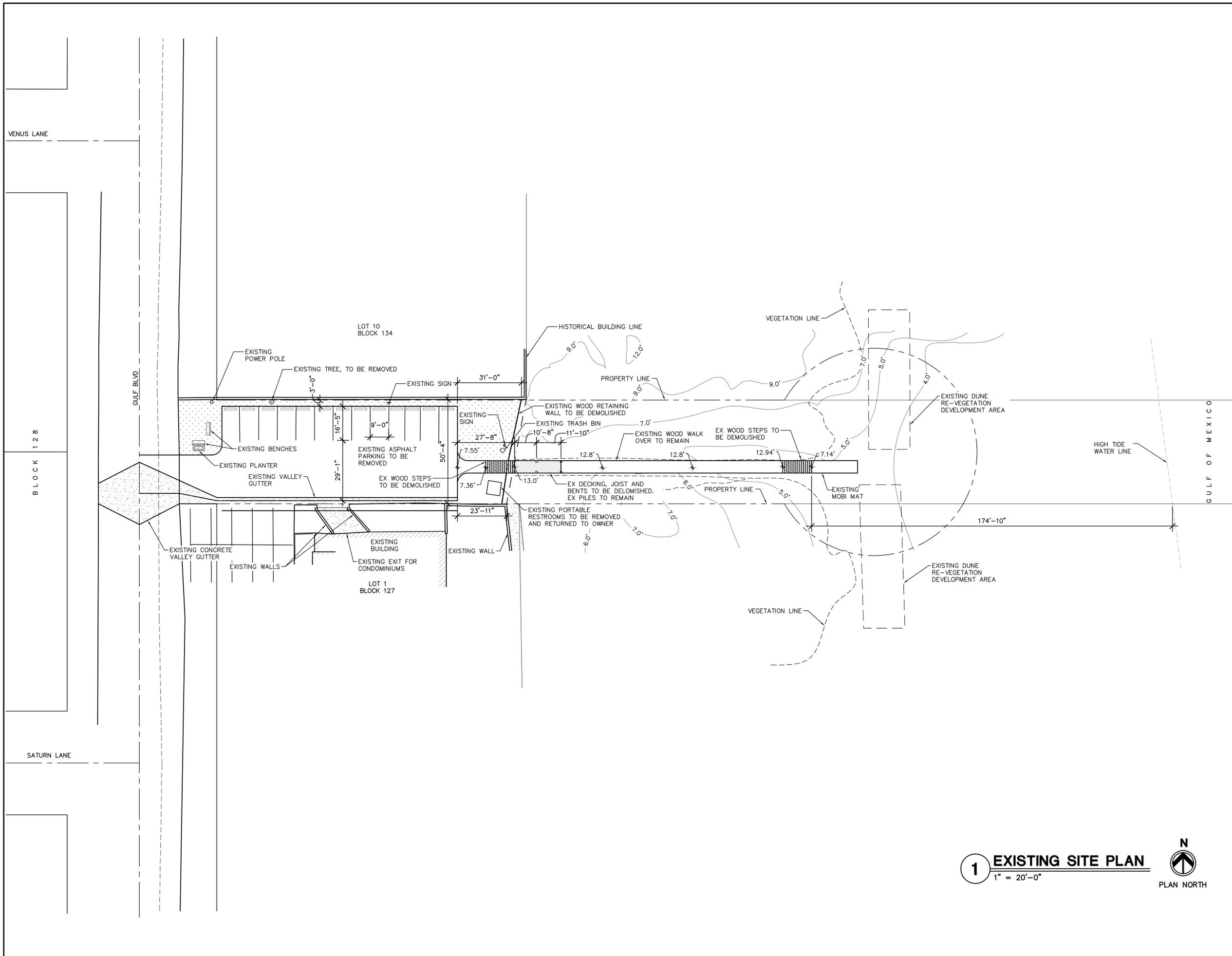
FIRE PROTECTION

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE PROTECTION AND FIRE WATCH DURING ALL CONSTRUCTION OPERATIONS.
2. NO SMOKING SHALL BE PERMITTED AT THE SITE. CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY FIRE EXTINGUISHERS UNTIL SUBSTANTIAL COMPLETION.

HAZARDOUS MATERIALS ABATEMENT/ MANAGEMENT

1. THE ENGINEER HAS NO RESPONSIBILITY OR LIABILITY FOR DESIGN, REMOVAL OF, OR TESTING FOR ASBESTOS/LEAD, OR FOR ABATEMENT /MANAGERIAL TREATMENTS, MONITORING, AND LEGAL DISPOSAL OF MATERIALS. CONTRACTOR SHALL DETERMINE IF ANY HAZARDOUS MATERIAL ABATEMENT/ MANAGEMENT IS REQUIRED AND SHALL INCLUDE COSTS THEREOF IN THE BID.

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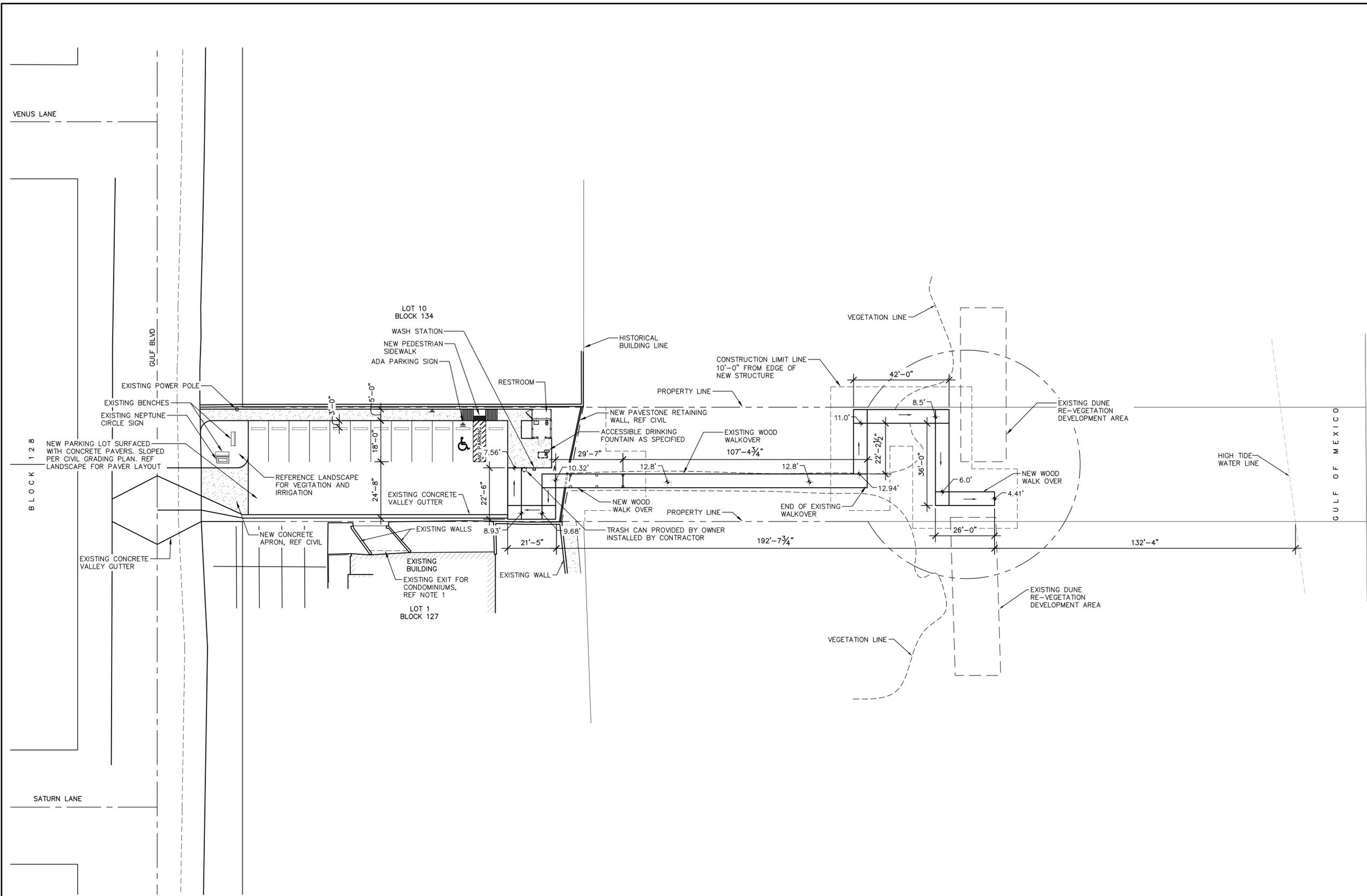
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**EXISTING
 SITE PLAN**

SHEET NO.
S1.4

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

 PLAN NORTH



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

NOTE:
 1. CONTRACTOR SHALL COORDINATE PARKING LOT SCOPE OF WORK TO MAINTAIN VEHICULAR ACCESS FROM ADJACENT SOUTH PROPERTY TO GULF BLVD RIGHT OF WAY.



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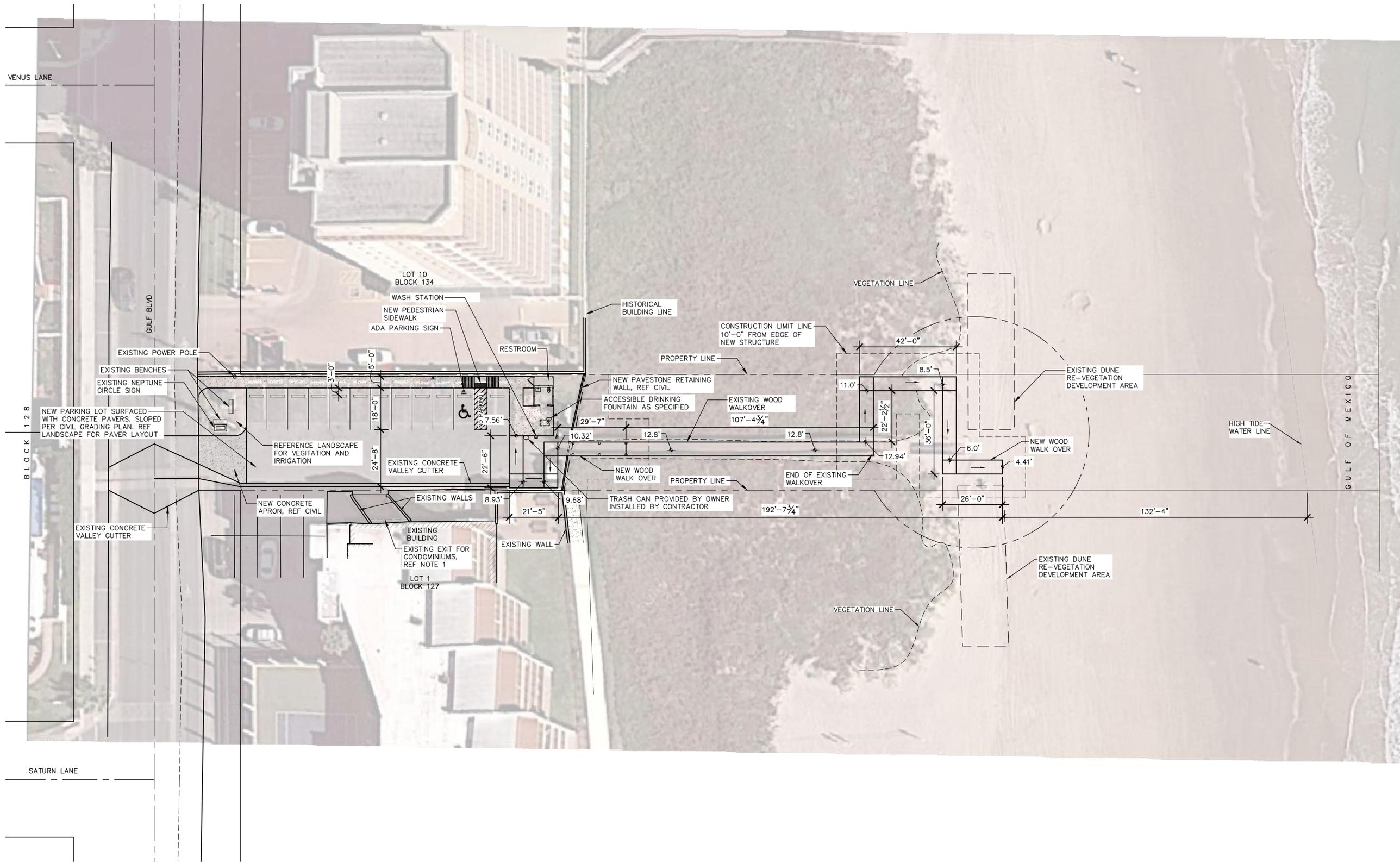
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SHEET TITLE
SITE PLAN

SHEET NO.
S1.5

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1 SITE PLAN WITH AERIAL OVERLAY
 1" = 20'-0"



NOTE:
 1. CONTRACTOR SHALL COORDINATE PARKING LOT SCOPE OF WORK TO MAINTAIN VEHICULAR ACCESS FROM ADJACENT SOUTH PROPERTY TO GULF BLVD RIGHT OF WAY.



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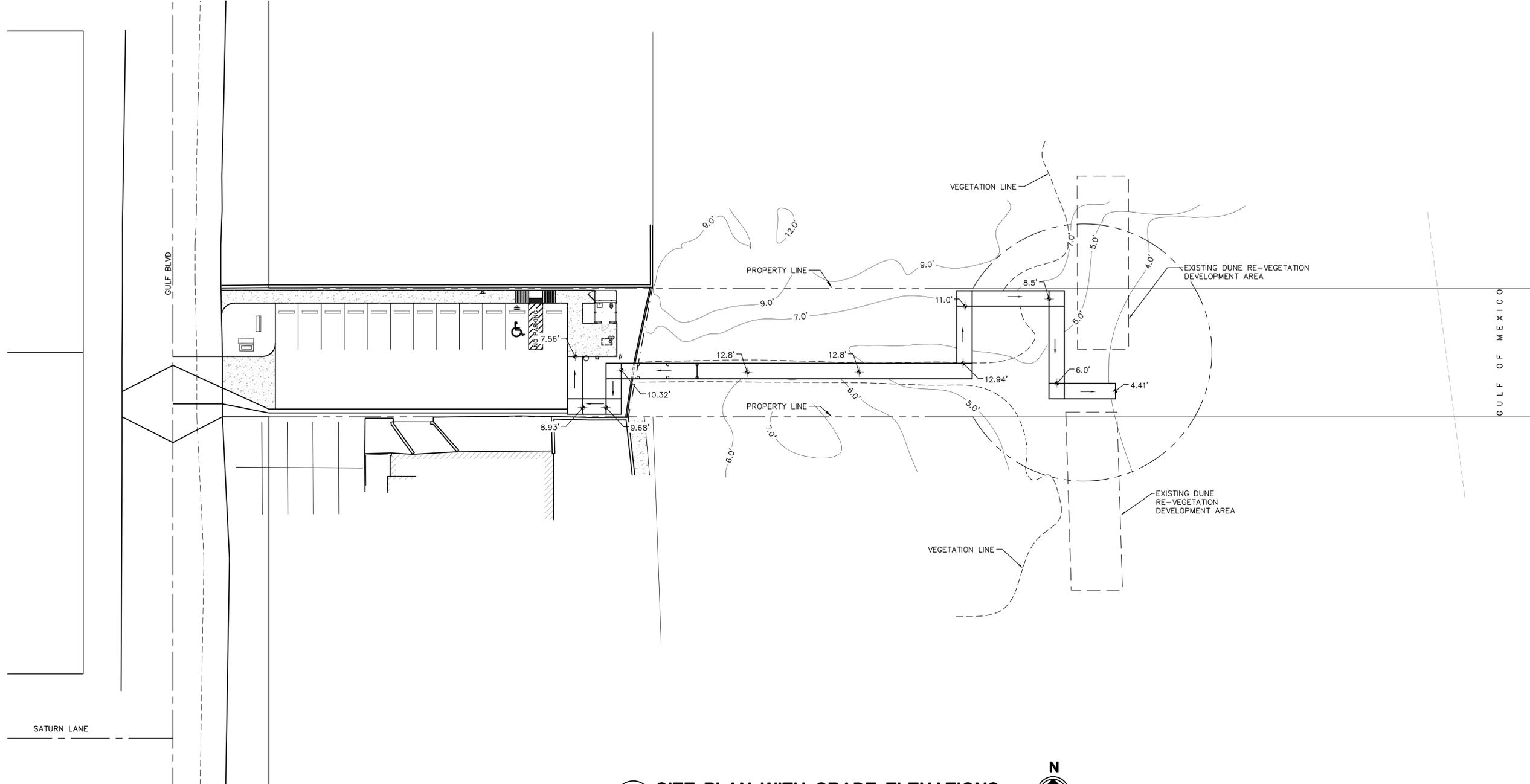
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**SITE PLAN
 WITH AERIAL
 OVERLAY**

SHEET NO.
S1.5A

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1 SITE PLAN WITH GRADE ELEVATIONS
 1" = 20'-0"



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8-9-2024

PROJECT

**SPI NEPTUNE CIRCLE
 BEACH ACCESS
 IMPROVEMENTS**

**SOUTH PADRE ISLAND,
 TEXAS**

CLIENT

**CITY OF
 SOUTH PADRE ISLAND**



**SOUTH PADRE ISLAND,
 TEXAS**

P: 956-761-3044
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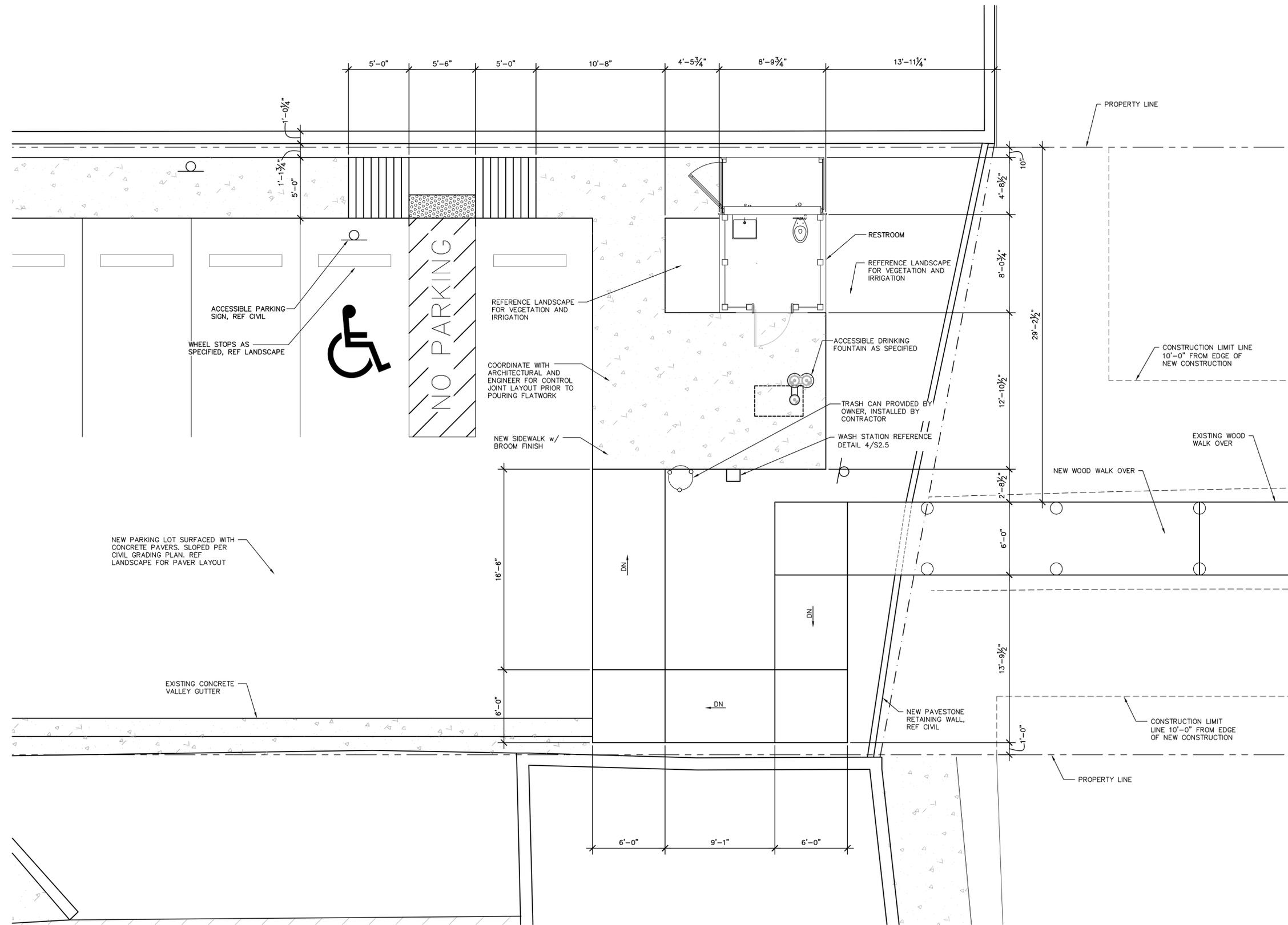
MARK	DATE	DESCRIPTION

PROJECT NO.	1065-21
DATE	08-09-2024
DRAWN BY	AT
CHECKED BY	BD
SCALE	AS SHOWN

SHEET TITLE
**SITE GRADE
 ELEVATIONS**

SHEET NO.
S1.6

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1 ENLARGED PARTIAL SITE IMPROVEMENT PLAN AT RESTROOMS
 1/4" = 1'-0"
 FANTASY CIRCLE BEACH ACCESS PLAN NORTH

NOTES:
 1. REFERENCE SHEET S1.5 FOR OVERALL SITE IMPROVEMENT PLAN.



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 SOUTH PADRE ISLAND, TEXAS

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ENLARGED SITE IMPROVEMENT PLAN

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S1.7

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GENERAL STRUCTURAL NOTES

THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS OR DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL & CIVIL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR SITE SAFETY. DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CONTROLLING PROVISIONS OF THE 2018 EDITION OF THE **INTERNATIONAL BUILDING CODE (IBC)**.

DESIGN CRITERIA

1. BASIS FOR DESIGN AND CODE COMPLIANCE

A. GOVERNING BUILDING CODE.....IBC 2018 EDITION

2. GRAVITY DESIGN

RESTROOMS:
DEAD LOAD.....SELF-WEIGHT OF STRUCTURE & ROOFING SYSTEM
LIVE LOAD (ROOF).....20 PSF
LIVE LOAD.....50 PSF

WALKOVERS:
DEAD LOAD.....SELF-WEIGHT OF STRUCTURE
LIVE LOAD.....100 PSF

DRIVEOVER:
DEAD LOAD.....SELF-WEIGHT OF STRUCTURE
LIVE LOAD.....250 PSF

3. BREAKING WAVE LOADS ON CROSSOVER STRUCTURE

A. BASE FLOOD ELEVATION ELEV 12'-0"

B. ASSUMED GROUND ELEVATION AT STORM SURGE ELEV 0'-0"

C. COEFFICIENT OF DRAG FOR BREAKING WAVES FOR DRILLED PIER
Cd = 1.75

D. DYNAMIC PRESSURE COEFFICIENT FOR VERTICAL SURFACE
CATEGORY II, Cp = 2.8

4. WIND DESIGN BASED ON:

A. ASCE 7-16 REQUIREMENTS

ULTIMATE DESIGN WIND SPEED.....140 MPH (V_{ASD}=108MPH)
OCCUPANCY CATEGORY.....
WIND EXPOSURE CATEGORY.....D
INTERNAL PRESSURE COEFFICIENT (Gcp).....+/-0.18
Kzt.....1.0
Kd.....0.85

5. THESE BUILDINGS ARE DESIGNED TO MEET ASCE 7-16 WIND PRESSURES. ALL COMPONENTS AND CLADDINGS (E.G. WINDOWS, DOORS, ARCHITECTURAL SIDINGS AND ROOF PANELS) MUST MEET MINIMUM WIND CODE REQUIREMENTS.

6. PIER DESIGN IS IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE, AND IS BASED ON THE VALUES RECOMMENDED IN TABLE 1806.2 PRESUMPTIVE LOAD BEARING VALUES, AS LISTED BELOW:

VERTICAL FOUNDATION PRESSURE.....2,000 PSF

ALLOWABLE SHAFT RESISTANCE.....333 PSF

LATERAL BEARING CAPACITY.....150 PCF

7. A GEOTECHNICAL ENGINEER SHALL BE RETAINED TO PERFORM TESTING AND INSPECTIONS DURING INSTALLATION OF DRILLED PIERS AND WOOD PILES AS REQUIRED BY SPECIFICATIONS AND GENERAL STRUCTURAL NOTES.

WOOD PILES

1. MAXIMUM DESIGN LOAD OF EACH PILE IS 6.0 KIIPS.

2. PRIOR TO PILE PLACEMENT, THE CONTRACTOR SHALL PROVIDE THE ENGINEER DATA REGARDING THE PROPOSED HAMMER AND CUSHION SYSTEM.

3. PILES SHALL BE ASTM D-25, CLASS "C" TREATED, PEELDED SOUTHERN YELLOW PINE OR DOUGLAS FIR. PILES SHALL BE CREOSOTED ACCORDING TO AWP MANUAL STANDARDS C-3 WITH A MINIMUM RETENTION OF 12 POUNDS PER CUBIC FOOT.

4. PILES SHALL HAVE A MINIMUM BUTT DIAMETER OF 12 INCHES AND A MINIMUM TIP DIAMETER OF 8 INCHES.

5. A 8 INCH DIAMETER PILOT HOLE MAY BE DRILLED TO A DEPTH OF 5 FEET ABOVE THE FINAL TIP ELEVATION TO FACILITATE PILE DRIVING. JETTING ALONG SIDE OF PILES IS NOT PERMITTED.

6. PILES SHALL BE DRIVEN WITH A DYNAMIC HAMMER HAVING AN EFFECTIVE DRIVING ENERGY OF 18,000 TO 48,000 FT/LBS/BLOW.

7. ADEQUATE CUSHIONING MATERIAL SHALL BE PROVIDED BETWEEN THE PILE DRIVER CAP AND THE PILE HEAD. A SOFTWOOD CUSHION WITH A THICKNESS OF 6 TO 12 INCHES IS PREFERRED.

8. THE PILE DRIVING HELMET OR CAP SHALL BE SUFFICIENTLY LOOSE AROUND THE PILE BUTT SO AS NOT TO DEVELOP TORSIONAL STRESSES IN THE PILE DURING INSTALLATION, HOWEVER THE HELMET SHOULD BE CAPABLE OF CONTROLLING PILE ALIGNMENT.

9. THE ENTIRE HAMMER-CUSHION-PILE SYSTEM SHOULD BE COMPATIBLE AND CAPABLE OF DRIVING PILES TO THE DESIGN PENETRATIONS WITHOUT DAMAGING PILES. BLOW COUNTS CONSISTENTLY IN EXCESS OF 50 BLOWS/FOOT ARE NOT IN LINE WITH GOOD PRACTICE.

10. PILES SHALL BE PROPERLY ALIGNED PRIOR TO DRIVING AND HELD WITH FIXED LEADS. REALIGNMENT ONCE DRIVING HAS COMMENCED IS NOT PERMITTED.

DRILLED PIERS

1. EACH PIER SHAFT SHALL BE INSPECTED BY QUALIFIED GEOTECHNICAL OR A/E PERSONNEL TO INSURE PROPER BEARING AT SCHEDULED ELEVATION AND TO VERIFY STRATAS NOTED IN THE GEOTECHNICAL REPORT.

2. ALL PIERS SHALL BE CENTERED ON BEAMS UNLESS OTHERWISE SHOWN.

3. DRILL PIERS TO THE EXACT SIZE SHOWN. SHAFTS SHALL BE BORED PLUMB WITH A TOLERANCE OF TWO INCHES. INSTALL OFFSET STAKES ON OPPOSITE SIDES OF THE PIER AND USE TO MAINTAIN THE PIER CENTERS AND TO CHECK THE PIER PLUMBNESS. FOOTING BOTTOMS SHALL BE INSPECTED FOR A MAXIMUM OF ONE INCH (1") OF LOOSE DIRT AND TWO INCHES (2") OF GROUND WATER IMMEDIATELY PRIOR TO PLACING CONCRETE. IF MACHINE CLEANING IS NOT SATISFACTORY TO ARCHITECT/ENGINEER, HAND CLEANING WILL BE REQUIRED.

DRILLED PIERS CONTINUED

4. FOR ESTIMATING PURPOSES, CARRY ALL PIERS TO THE DEPTHS INDICATED ON THE DRAWINGS. WHEN DIRECTED BY THE ARCHITECT/ENGINEER, PIERS SHALL BE ADJUSTED AS REQUIRED TO MEET DESIGN REQUIREMENTS. ADJUSTMENTS WILL BE SPECIFIED IN THE CONTRACT PRICE FOR DEPTH ADJUSTMENTS IN ACCORDANCE WITH THE UNIT PRICES QUOTED IN THE CONTRACTOR'S BID.

5. DUE TO SUBSURFACE STRATIGRAPHY AND WATER LEVELS ENCOUNTERED DURING DRILLING OPERATIONS, IF THE CONTRACTOR CANNOT INSTALL THE RECOMMENDED PIER AT THE REQUIRED DEPTH, THE ENGINEER MUST BE CONTACTED IMMEDIATELY.

6. PROVIDE SUITABLE ACCESS AND LIGHTING FOR INSPECTION OF THE EXCAVATIONS FOR CLEANLINESS AND FOR CORRECTNESS OF DIMENSIONS AND ALIGNMENT.

7. PLACEMENT OF CONCRETE SHALL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER EXCAVATION IS COMPLETE, REINFORCING CAGE IS PLACED AND INSPECTED. THE CONCRETE SHOULD NOT BE ALLOWED TO RICOCHET OFF THE WALLS OF THE PIER EXCAVATION NOR OFF OF THE REINFORCING STEEL. PLACEMENT OF CONCRETE SHALL COMPLY WITH AMERICAN CONCRETE INSTITUTE (ACI) 318-89 CODE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND ACI 336-3R-72 ENTITLED "SUGGESTED DESIGN AND CONSTRUCTION PROCEDURES FOR PIER FOUNDATIONS". NO PIER EXCAVATION SHALL BE LEFT OPEN OVERNIGHT WITHOUT CONCRETING.

8. CASINGS SHALL BE REQUIRED TO PREVENT CAVING OF SOIL AND SEEPAGE OF WATER INTO THE DRILLED FOOTINGS. CASINGS SHALL BE METAL WITH AMPLE STRENGTH TO WITHSTAND HANDLING STRESSES, CONCRETE AND EARTH PRESSURES, AND SHALL BE WATERTIGHT. CONTRACTORS SHALL FURNISH UNIT PRICES FOR CASING OF DIFFERENT SIZE PIER SHAFTS.

9. AS AN ALTERNATE TO USING CASINGS TO INSTALL THE PIERS, THE SLURRY METHOD MAY BE CONSIDERED.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE SPECIFICATION, A.C.I. #301 AND BUILDING CODE REQUIREMENTS, A.C.I. #318, LATEST EDITION.

2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.

3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 4000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL MEET ASTM C150, TYPE II (MODERATE).

4. A MAXIMUM OF 25% FLYASH MAY BE USED AS A CEMENT SUBSTITUTE AND SHALL CONFORM TO ASTM C618, CLASS C. THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.5 AND SLUMPS SHALL BE 5 INCHES (±1 INCH). CONCRETE FOR PIERS SHALL BE DESIGNED TO ACHIEVE SPECIFIED STRENGTH WHEN PLACED WITH A SEVEN (7) INCH (±1) SLUMP. AGGREGATE SHALL BE WELL-GRADED, 1" MAXIMUM FOR THE SLAB ON GRADE, 1" MAXIMUM FOR CAST-IN-PLACE BEAMS AND ABOVE GRADE SLABS. COARSE AGGREGATE SHALL MEET ASTM C33, GRADATION #57. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO FURNISH MIX DESIGNS FOR ALL CLASSES OF CONCRETE. A SAMPLE OF FOUR CYLINDERS SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 100 YDS OF CONCRETE. ONE CYLINDER SHALL BE TESTED AT 7 DAYS AND TWO AT 28 DAYS. THE FOURTH CYLINDER MAY BE DISPOSED OF AFTER 45 DAYS IF NOT USED.

5. ADMIXTURES CONTAINING WATER SOLUBLE CHLORIDE IONS GREATER THAN 0.06% BY WEIGHT OF CEMENT SHALL NOT BE USED.

6. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60. #3 BARS MAY BE GRADE 40.

7. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

WHERE CAST AGAINST DIRT OR FILL 3 IN.
EXPOSED TO EARTH OR WEATHER 2 IN.
SLABS AND WALLS 1 IN.
OTHER 1-1/2 IN.

8. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION. ACCESSORIES FOR EXPOSED CONCRETE SOFFITS SHALL HAVE PLASTIC COATED FEET.

9. SLAB MAT TO BE SUPPORTED BY REINFORCING BAR CHAIRS SPACED AT 4 FEET ON CENTER EACH WAY (MAX). BEAM CAGES SUPPORTED BY CHAIRS AT 4 FEET ON CENTER.

10. MAINTAIN A MINIMUM OF ONE AND ONE-HALF (1-1/2) TIMES THE MAXIMUM COARSE AGGREGATE SIZE BETWEEN ALL REINFORCING BARS (EXCEPT AT LAPS).

11. BARS SCHEDULED OR DETAILED "CONT" SHALL BE LAPPED 48 BAR DIAMETERS (24 INCHES MINIMUM) UNLESS OTHERWISE NOTED. ON REINFORCED CONCRETE BEAMS, SPLICES OF BEAM BOTTOM BARS SHALL BE LAPPED AT THE COLUMN SUPPORTS, AND SPLICES OF TOP BARS SHALL BE LAPPED AT THE MIDDLE THIRD OF THE SPAN OF THE BEAM.

12. WHERE CONCRETE IS TO HAVE UNEXPOSED SURFACES, THE FORMS MAY BE CONSTRUCTED OF #2 LUMBER OR BETTER. WHERE SURFACES ARE EXPOSED, SUCH AS FOR FINISH PAINTING THE FORMS SHALL BE COMMERCIAL STANDARD DOUGLAS FIR, MOISTURE-RESISTANT CONCRETE FORM PLYWOOD; MINIMUM 5-PLY AND AT LEAST 9/16" THICK, OR FORMS LINED WITH COMMERCIAL STANDARD DOUGLAS FIR, CONCRETE FORM EXTERIOR, 3-PLY, NOT LESS THAN 1/4" THICK. WHERE CONCRETE IS EXPOSED, A SMOOTH SURFACE IS REQUIRED, FREE FROM FINS, HONEYCOMB, FORM MARKS OR OTHER DEFECTS.

13. CONSTRUCT FORMS SO THAT JOINTS ARE LEAKPROOF. MAINTAIN FORMS SUFFICIENTLY RIGID TO PREVENT DEFORMATION UNDER LOAD.

14. COLUMN FORMS AND BEAMS SIDE FORMS MAY BE REMOVED 48 HOURS AFTER CONCRETE PLACEMENT. BEAM AND SLAB BOTTOM FORMS AND SHORING MAY BE REMOVED AFTER CONCRETE COMPRESSIVE STRENGTH REACHES 3000 PSI OR GREATER.

15. CONCRETE MAY BE PLACED WITH CHUTES UP TO 25' MAXIMUM. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.

16. CONCRETE PLACED BY PUMPING SHALL MEET THE FOLLOWING REQUIREMENTS:

- a) COARSE AGGREGATE SHALL BE GRADED FROM A MAXIMUM OF 1" DOWN
- b) MAXIMUM ALLOWABLE INCREASE IN CEMENT FACTOR SHALL BE 1/2 SACK PER CUBIC YARD OVER NORMAL MIX DESIGN.
- c) MAXIMUM WATER CEMENT RATIO SHALL BE 7-1/2 GALLONS PER SACK OF CEMENT. IF MORE WORKABILITY IS REQUIRED, AN ADMIXTURE MAY BE USED.
- d) MAXIMUM WEIGHT RATIO OF FINE AGGREGATES TO COARSE AGGREGATES SHALL NOT EXCEED 2/3.
- e) REFER TO A.C.I. #301, LATEST EDITION, SECTION 800, FOR OTHER PUMPING REQUIREMENTS.
- f) IN NO CASE SHALL CONCRETE BE PUMPED THROUGH AN ALUMINUM TUBE.
- g) SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.

CONCRETE CONTINUED

17. FLOOR FINISH (TOLERANCES)

a) STEEL TROWEL FINISH 1/8" IN 10'

b) FLOAT FINISH 1/4" IN 10'

c) SCRATCH FINISH 1/2" IN 10'

d) IN ALL INSTANCES MINIMUM SLAB THICKNESS SHALL BE PROVIDED. COORDINATE SLAB FINISH REQUIREMENTS WITH PLANS/SPECIFICATIONS. REFERENCE PLANS AND/OR SPECIFICATIONS FOR CONCRETE FINISHES.

18. CONCRETE TO BE CURED IN ACCORDANCE WITH ACI RECOMMENDATIONS. PROPOSED METHOD OF CURING TO BE COORDINATED WITH ENGINEER PRIOR TO CONCRETE PLACEMENT.

19. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. SUBMITTALS SHALL BE TRANSMITTED AS A SINGLE ELECTRONIC FILE (PDF FORMAT). ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

20. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.

21. ENGINEER TO BE NOTIFIED 24 HOURS PRIOR TO PLACEMENT OF FOUNDATION AND OF STRUCTURAL CONCRETE TO SCHEDULE REQUIRED INSPECTIONS.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

2. ALL MEMBERS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.

3. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS (A.W.S. D-1.1).

4. WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1-72 CODE AND SERIES E 70XX.

5. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.

6. ALL COMPLETE PENETRATION WELDS, BOTH SHOP AND FIELD, SHALL BE TESTED BY A QUALIFIED TESTING LABORATORY UTILIZING ULTRA SONIC TESTING PROCEDURES IN ACCORDANCE WITH AWS D1.1 ANY WELDS FOUND DEFECTIVE SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER. ALL X-RAYED WELDS SHALL BE GROUND SMOOTH.

7. THE FABRICATOR SHALL SUPPLY BACK-UP PLATES AND EXTENSION TABS FOR ALL COMPLETE PENETRATION WELDS.

8. ALL STEEL MEMBERS, UNLESS NOTED OTHERWISE, SHALL STAINLESS STEEL.

9. AFTER ERECTION, PRIME WELDS, ABRASIONS AND SURFACES NOT PRIMED. USE PRIMER CONSISTENT WITH STEEL FINISH.

10. FIELD WELDS SHALL BE VISUALLY INSPECTED BY A QUALIFIED INDEPENDENT INSPECTOR. THE INSPECTOR SHALL PROVIDE A WRITTEN REPORT TO THE STRUCTURAL ENGINEER.

11. A SINGLE ELECTRONIC FILE (PDF FORMAT) SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL COMPONENTS AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

12. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.

13. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED FOR A FRAMING OBSERVATIONS IMMEDIATELY AFTER ROOF DECK IS INSTALLED AND BEFORE INSTALLATION OF THE CEILING.

FASTENERS

1. CAST-IN-PLACE AND POST-INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST-INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED. ALL ANCHORS SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153

2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY.

3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.

4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

A. KWIK BOLT III (ICC-ES ESR-2302) BY HILTI (CONCRETE)

B. KWIK BOLT III (ICC-ES-ESR-1385) BY HILTI (MASONRY)

C. STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE (CONCRETE)

D. WEDGE-ALL ANCHOR (ICC-ES ESR-1396) BY SIMPSON STRONG-TIE (MASONRY)

5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:

A. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)

B. KWIK HUS-EZ (ICC-ES ESR-3056) BY HILTI (MASONRY)

C. TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE (CONCRETE)

D. TAPCON ANCHORS (ICC-ES ESR-1671) (MASONRY)

E. POWERS WEDGE BOLT (ICC-ES ESR-1678) (MASONRY)

FASTENERS CONTINUED

7. UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

A. HDA (ICC-ES ESR-1546) BY HILTI (CONCRETE)

B. TORQ-CUT (ICC-ES ESR-2705) BY SIMPSON STRONG-TIE (CONCRETE)

8. POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

A. X-U (ICC-ES ESR-2269) BY HILTI (CONCRETE/MASONRY)

B. POWDER ACTUATED FASTENERS (ICC-ES ESR-2138) BY SIMPSON STRONG TIE (CONCRETE/MASONRY)

9. ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308. ACCEPTABLE PRODUCTS:

A. HIT-RE 500-SD (ICC-ES ESR-2322) BY HILTI (CONCRETE)

B. HIT-HY 150 MAX (ICC-ES ESR-1967) BY HILTI (MASONRY)

C. SET-XP (ICC-ES ESR-2508) BY SIMPSON STRONG-TIE (CONCRETE)

D. SET (ICC-ES ESR-1772) BY SIMPSON STRONG-TIE (MASONRY)

10. J-BOLTS SHALL BE FABRICATED FROM ASTM A36/A307 ROD. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J-BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.

11. HEADED ANCHOR RODS SHALL BE FABRICATED FROM ASTM F1554 MATERIAL, Fy=36 KSI

12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC-ES OR IAPMO-ES) REPORT.

ROUGH CARPENTRY SPECIFICATIONS AND NOTES

1. ROUGH CARPENTRY SHALL COMPLY WITH THE PROVISIONS OF THE 2009 EDITION OF THE INTERNATIONAL BUILDING CODE.

2. ALL LUMBER USED FOR LOAD SUPPORTING PURPOSES SHALL BE IDENTIFIED BY THE GRADE MARK OF AN APPROVED LUMBER GRADING OR INSPECTION BUREAU OR AGENCY.

3. ALL LUMBER SHALL BE PRESERVATIVELY TREATED AND SHALL BEAR AN APPROVED AWPB QUALITY MARK. THE QUALITY MARK SHALL BE ON A STAMP OR LABEL AFFIXED TO THE PRESERVATIVE-TREATED WOOD, AND SHALL INCLUDE THE FOLLOWING INFORMATION:

- A. IDENTIFICATION OF TREATING MANUFACTURER.
- B. TYPE OF PRESERVATIVE USED.
- C. MINIMUM PERSERVATIVE RETENSION (pcf).
- D. END USE FOR WHICH THE PRODUCT IS TREATED.
- E. AWPB STANDARD TO WHICH THE PRODUCT WAS TREATED.
- F. IDENTITY OF THE ACCREDITED INSPECTION AGENCY.

4. FRAMING LUMBER MOISTURE CONTENT SHALL NOT EXCEED 19 PERCENT AT TIME OF INSTALLATION.

5. MATERIALS

A. FRAMING LUMBER

USE-ITEM	LUMBER SPECIES	MINIMUM GRADE
JOISTS, BEAMS	SOUTHERN PINE	#2
PLANKS	2x6 WOOD COMPOSITE DECKING	SEE MFR REQUIREMENTS

B. FASTENERS

1. NAILS AND BOLTS SHALL BE STAINLESS STEEL.

6. VERTICAL FRAMING MEMBERS SHALL BE CONTINUOUS LENGTH WITHOUT SPLICING. SPLICES IN HORIZONTAL MEMBERS SHALL OCCUR ONLY OVER BEARING POINTS. LAP MEMBERS WHICH BEAR ON PLATES TO PROVIDE FULL BEARING FOR EACH MEMBER.

7. STRUCTURAL MEMBERS WHOSE STRENGTH IS IMPAIRED BY IMPROPER CUTTING, DRILLING, OR EXCESSIVE DEFECTS SHALL BE REPLACED OR REINFORCED IN A MANNER ACCEPTABLE TO THE ENGINEER.

8. PROVIDE SOLID BLOCKING BETWEEN FLOOR JOISTS AT BEARING LOCATIONS AND AT MID OPENING OF SPANS GREATER THAN 8'-0" OR AS NOTED. BLOCKING TO MATCH SIZE OF FRAMING MEMBER.

9. ALL METAL HANGERS, ETC., SHALL BE STAINLESS STEEL.

WOOD COMPOSITE DECKING MATERIAL FOR PLANKS

1. NOMINAL SIZE OF WOOD COMPOSITE DECKING MATERIAL FOR PLANKS SHALL BE 2"x6" BOARD.

2. WOOD COMPOSITE DECKING BOARD MANUFACTURED BY TREX COMPANY, INC., OR EQUIVALENT COMPOSITE DECKING BOARDS MAY BE USED SUBJECT TO REVIEW AND EVALUATION OF THE ENGINEER.

3. WOOD COMPOSITE DECKING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS, PROCEDURES AND REQUIREMENTS.

4. ALL FASTENERS SHALL BE MADE OF STAINLESS STEEL.

5. DECKING SHALL BE DESIGNED AND INSTALLED TO LIMIT BENDING DEFLECTION UNDER TOTAL LOAD TO LESS THAN OR EQUAL TO L/360. DESIGN LIVE LOAD IS 100 PSF.

6. THE CONTRATOR AND MANUFACTURER SHALL SUBMIT TO THE ENGINEER THE FOLLOWING FOR REVIEW AND EVALUATION:

- A. PRODUCT DATA INCLUDING SPECIFICATIONS, PRODUCT HANDLING, AND INSTALLATION INSTRUCTION.



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SEAL



8-9-2024

PROJECT

**SPI NEPTUNE CIRCLE
BEACH ACCESS
IMPROVEMENTS**

**SOUTH PADRE ISLAND,
TEXAS**

**CITY OF
SOUTH PADRE ISLAND**



**SOUTH PADRE ISLAND,
TEXAS**

P: 956-761-3044
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MARK	DATE	DESCRIPTION

PROJECT NO. 1065-21

GENERAL STRUCTURAL NOTES

CONCRETE MASONRY

1. **THE GENERAL CONTRACTOR, PROJECT SUPERINTENDENT, TESTING LABORATORY AND THE MASONRY FOREMAN SHALL MEET WITH THE STRUCTURAL ENGINEER PRIOR TO THE START OF MASONRY WORK TO REVIEW PROJECT REQUIREMENTS AND PROCEDURES.**
2. AN INDEPENDENT TESTING LAB SHALL VERIFY PLACEMENT OF VERTICAL REINFORCING IN WALLS AND HORIZONTAL REINFORCING IN BOND BEAMS AND LINTELS PRIOR TO PLACEMENT OF GROUT. INDEPENDENT TESTING LAB SHALL PROVIDE CONTINUOUS VISUAL OBSERVATIONS OF GROUTING PROCEDURES, REBAR PLACEMENT, SITE MIXING OF MORTAR, INSTALLATION OF EMBEDDED STEEL CONNECTORS, AND GENERAL PLACEMENT OF MASONRY UNITS AND MORTAR JOINTS. INSPECTION REPORTS ARE TO BE GENERATED DAILY BY THE TESTING LAB. INSPECTION SUMMARY REPORTS SHALL BE EMAILED TO THE STRUCTURAL ENGINEER IN ELECTRONIC (PDF) FORMAT.
3. ALL CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING CODES AND THE AMERICAN CONCRETE INSTITUTE (ACI 530-13/ASCE 5-13/TMS 402-16). DESIGN IS BASED ON MASONRY COMPRESSIVE STRENGTH (f_m) OF 2,000 PSI.
4. HOT AND COLD WEATHER CONSTRUCTION PROCEDURES SHALL BE UTILIZED AS REQUIRED BY THE SPECIFICATIONS AND ACI 530.1.
5. HOLLOW CONCRETE MASONRY UNITS SHALL BE DOMESTIC LIGHTWEIGHT MOISTURE CONTROLLED TYPE I UNITS, CONFORMING TO ASTM C-90.
6. MASONRY UNITS SHALL HAVE A MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 1,900 PSI (NET AREA) WHEN TESTED IN ACCORDANCE WITH ASTM C-140, "METHODS OF SAMPLING AND TESTING CONCRETE MASONRY UNITS".
7. MORTAR PROPORTIONS FOR REINFORCED MASONRY SHALL BE ESTABLISHED PER ASTM C270 PROPORTION SPECIFICATIONS, TYPE S USING MASONRY CEMENT.
8. GROUT FOR ALL REINFORCED HOLLOW MASONRY UNIT WALLS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI WITH A MAXIMUM 3/8" AGGREGATE. A MID RANGE WATER REDUCING AGENT SUCH AS "POLYHEED" (MASTER BUILDERS) SHALL BE USED. SLUMP TO BE BETWEEN 8 AND 11 INCHES. **ALL GROUT SHALL BE PUMPED.** PLACING OF GROUT TO FOLLOW AMERICAN CONCRETE INSTITUTE (ACI) RECOMMENDATIONS REGARDING **LOW & HIGH LIFT GROUTING**. MAXIMUM LIFT OF GROUT SHALL NOT EXCEED 5'-0" UNLESS APPROVED BY THE ENGINEER PRIOR TO START OF GROUTING. GROUT TO BE TESTED BY A QUALIFIED TESTING LABORATORY AT A RATE OF ONE TEST PER 25 CY OF GROUT IN ACCORDANCE WITH ASTM C1019.
9. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60. ALL BAR REINFORCING SHALL BE LAPPED 48 BAR DIAMETERS (MIN). BARS SHALL BE PLACED WITHIN 1/2" (CENTERLINE OF BAR TO FACE OF MASONRY) OF LOCATION SHOWN IN STRUCTURAL PLANS. BARS SHALL BE HELD IN POSITION DURING GROUTING WITH BAR POSITIONERS. POSITIONERS SHALL BE LOCATED AT THE BOTTOM AND TOP OF THE WALL AND AT 10 TO 15 FOOT INTERVALS. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN ONE-FIFTH THE REQUIRED LENGTH OF LAP NOR MORE THAN 8 INCHES.
10. VERTICAL BARS SHALL EXTEND TO THE TOP OF THE PARAPET WALL OR BOND BEAM WHEN A 16" DEEP BEAM IS SPECIFIED. HOOKED DOWELS SHALL BE PROVIDED AT ROOF BOND BEAMS (w/o PARAPETS) LESS THAN 16" DEEP. DOWELS SHALL BE 30" LONG WITH 12" HOOKS.
11. ALL EXTERIOR MASONRY WALLS SHALL BE REINFORCED WITH 9 GA. HOT DIPPED GALVANIZED HORIZONTAL WIRE REINFORCEMENT (LADDER TYPE) EMBEDDED IN MORTAR JOINTS AT 16" O.C. NOMINAL WIDTH OF JOINT REINFORCING SHALL EQUAL WALL THICKNESS. (INTERIOR WALLS MAY BE MILL GALVANIZED). WIRE REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION A-82, AND SHALL BE LAPPED AT LEAST 8" WITH AT LEAST ONE CROSS WIRE WITHIN THE LAP. JOINT REINFORCING SHALL BE INSTALLED IN THE FIRST AND SECOND MORTAR BED JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS. WIRE REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS.
12. EXTERIOR WALLS SHALL BE BONDED WITH CONCRETE MASONRY UNITS AT BUILDING CORNERS.
13. ONE GROUTED #5 BAR SHALL BE PROVIDED AROUND THE PERIMETER OF ALL WALL OPENINGS AND AT BUILDING CORNERS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS.
14. NEATLY TOOL INTERIOR AND EXTERIOR JOINTS IN MASONRY TO FORM A SLIGHTLY CONCAVE PROFILE WHEN MORTAR IS THUMBPRINT HARD UNLESS SHOWN OTHERWISE. ALL MORTAR JOINTS SHALL BE TOOLED THE ENTIRE HEIGHT OF WALL.
15. BOND BEAMS SHALL BE REINFORCED WITH TWO CONTINUOUS #5 BARS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS. REINFORCING SHALL BE CONTINUOUS AT ALL CORNERS AND INTERSECTING WALLS. (PROVIDE CORNER BARS). WHERE SIDE WALL AND END WALL BOND BEAMS DO NOT COURSE, CONTINUE THE LOWER BOND BEAM AROUND THE BUILDING CORNER TO THE FIRST VERTICAL REINFORCED CELL.
16. CONTROL JOINTS SHALL BE CONSTRUCTED WITH SLOTTED MASONRY UNITS AND FACTORY MOLDED JOINT FILLER. JOINTS SHALL BE CAULKED WITH AN APPROVED MATERIAL. JOINTS SHALL BE PROVIDED AT MAXIMUM SPACING OF 22 FT. AND AT ALL LOCATIONS WHERE COLUMNS ARE PLACED IN CMU CELLS. (EXTERIOR AND INTERIOR WALLS). JOINT LOCATIONS, IF NOT SHOWN ON PLANS, SHALL BE COORDINATED WITH ARCHITECT.
17. CONTROL JOINTS **SHALL NOT** EXTEND THROUGH BOND BEAMS UNLESS INDICATED ON THE STRUCTURAL PLANS.
18. CONTROL JOINTS IN CMU WALLS SHALL NOT BE LOCATED CLOSER THAN 2'-0" FROM AN EDGE OF OPENING WITHOUT REVIEW OF STRUCTURAL ENGINEER.
19. COLUMNS WHICH EXTEND THROUGH BOND BEAMS SHALL BE WRAPPED WITH 2 LAYERS OF 30# BUILDING PAPER. REINFORCING SHALL BE CONTINUOUS PAST COLUMNS WHEN ADEQUATE CLEARANCE EXISTS.
20. LINTELS OVER ALL OPENINGS IN INTERIOR MASONRY PARTITIONS, NOT OTHERWISE COVERED, ARE TO BE OF STANDARD CMU LINTEL BLOCK WITH THICKNESS EQUAL TO WALL THICKNESS. DEPTH SHALL BE 8" FOR OPENINGS UP TO 6'-0", REINFORCED WITH TWO #5's, LOCATED 2-1/2" ABOVE THE BOTTOM EXTERIOR FACE OF THE UNIT.

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2018. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2018.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X
PERFORM CLASSIFICATION AND TESTING OF SELECT FILL MATERIALS		X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF SELECT FILL	X	
PRIOR TO PLACEMENT OF SELECT FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X

REQUIRED VERIFICATION AND INSPECTION OF PIER FOUNDATIONS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS OF EACH PIER	X	
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM PIER DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END BEARING STRATA CAPACITY	X	
FOR CONCRETE PIERS, PERFORM ADDITIONAL INSPECTIONS AS REQUIRED FOR CONCRETE CONSTRUCTION		X

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT		X
INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	X	
VERIFY USE OF REQUIRED DESIGN MIX		X
PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE AT THE TIME OF SAMPLING FRESH CONCRETE FOR MAKING SPECIMENS FOR STRENGTH TESTS PER ACI 318	X	
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES	X	
VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X
ERECTION OF PRECAST CONCRETE MEMBERS		X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

REQUIRED LEVEL 1 SPECIAL INSPECTION OF MASONRY CONSTRUCTION (OCCUPANCY CATEGORY I, II, III)

INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
PROPORTIONS OF SITE-PREPARED MORTAR		X
PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS		X
LOCATION OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
THE INSPECTION PROGRAM SHALL VERIFY:		
SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X
TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION		X
SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT		X
PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)		X
PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
GROUT SPACE IS CLEAN		X
PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
CONSTRUCTION OF MORTAR JOINTS		X
GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS	X	
PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	X	
COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBSTITUTIONS SHALL BE VERIFIED		X

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST-IN-PLACE, POST-INSTALLED, MECHANICAL AND EPOXY SET ANCHORS:		FREQUENCY OF INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT ICC-ES EVALUATION REPORT, OR PER THE SPECIAL INSPECTION REQUIREMENTS OF THE ANCHOR SUBSTRATE, WHICHEVER IS MORE STRINGENT
AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC-ES EVALUATION REPORT		

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		X
INSPECTION OF HIGH STRENGTH BOLTING		X
INSPECTION OF WELDING:		
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	X	
MULTIPASS FILLET WELDS	X	
SINGLE-PASS FILLET WELDS		X
FLOOR AND ROOF DECK WELDS		X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		X



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PROJECT

**SPI NEPTUNE CIRCLE
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**SOUTH PADRE ISLAND,
TEXAS**

CLIENT

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MARK	DATE	DESCRIPTION

PROJECT NO. 1065-21
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SHEET TITLE

**GENERAL
STRUCTURAL
NOTES**

SHEET NO.

S2.1



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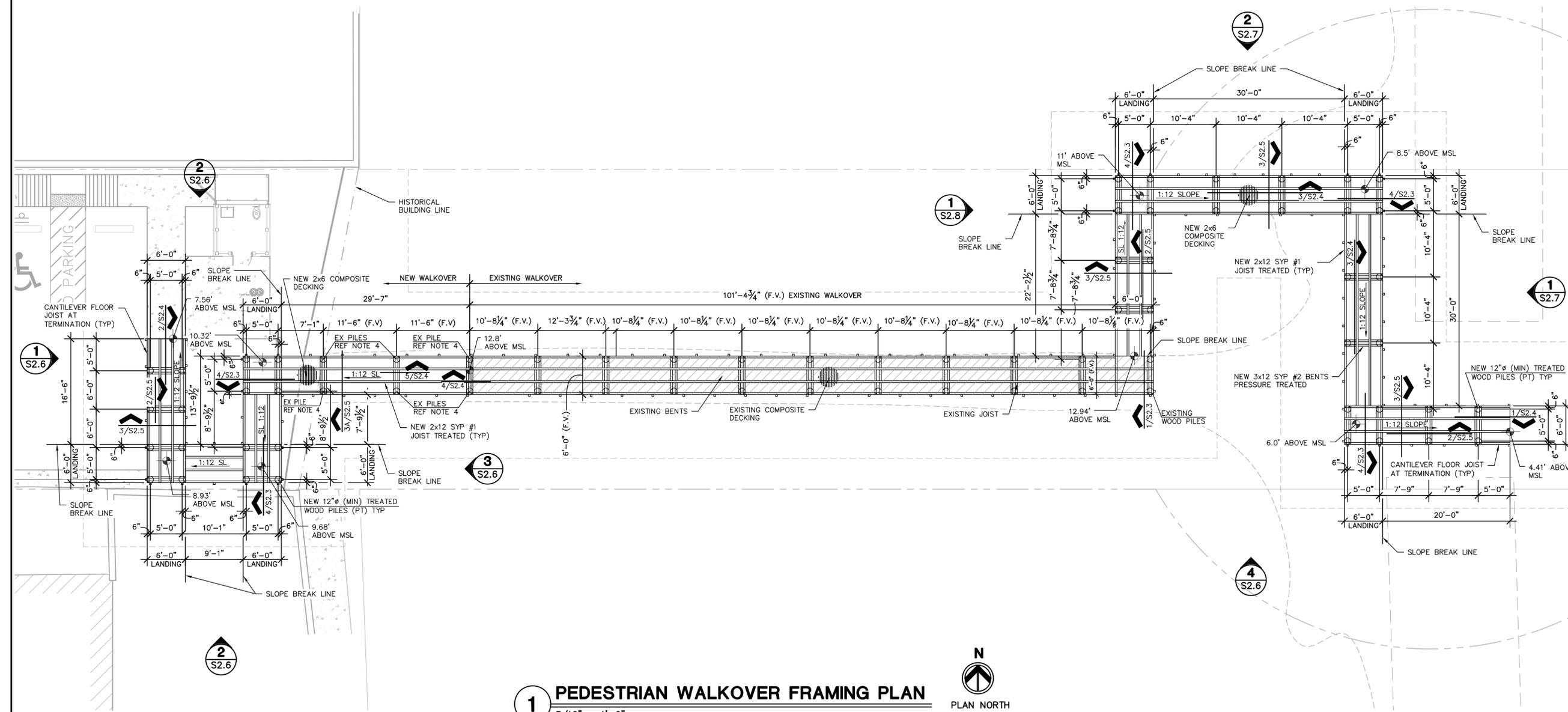
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SHEET TITLE

**PEDESTRIAN
 WALKOVER
 FRAMING PLAN**

SHEET NO.

S2.2



1 PEDESTRIAN WALKOVER FRAMING PLAN
 3/16" = 1'-0"



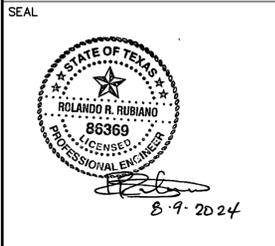
NOTES:

- ALL LUMBER SHALL BE PRESSURE TREATED WITH WOOD PRESERVATIVES AND SHALL BEAR AN APPROVED AWPB QUALITY MARK. WOOD PRESERVATIVES SHALL BE FREE OF ARSENIC AND CHROMIUM.
- ALL PILES SHALL BE EMBEDDED BELOW THE BOTTOM OF DUNE LINE AS STATED BELOW, REF. CIVIL DRAWINGS FOR GRADING PLAN:

DIAMETER	TOTAL LENGTH	MINIMUM EMBEDMENT
12"	20'-0"	12'-0"
- FLOOR DECKING AT PEDESTRIAN WALKOVER SHALL BE 2x6 COMPOSITE PLANKS MANUFACTURED BY TREX COMPANY, INC., OR APPROVED EQUIVALENT.
- CONTRACTOR SHALL CUT DOWN TOP OF EXISTING PILE AS REQUIRED FOR SLOPE OF NEW WALKOVER JOIST AND NOTCH TOP PILE AS REQUIRED TO ACCOMMODATE NEW 3x12 SYP #2 BENTS.



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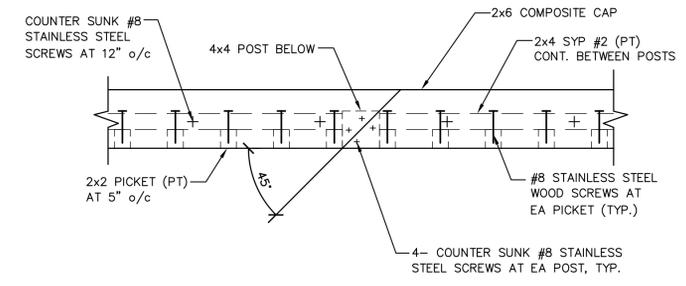
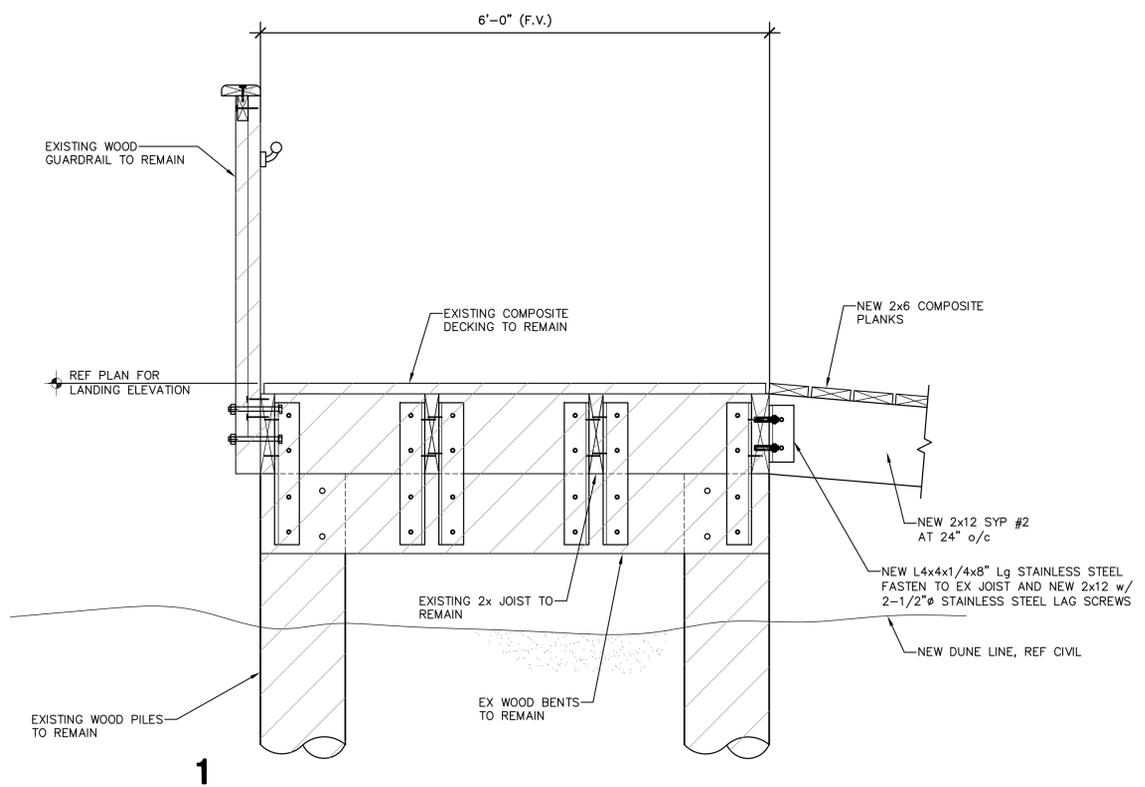
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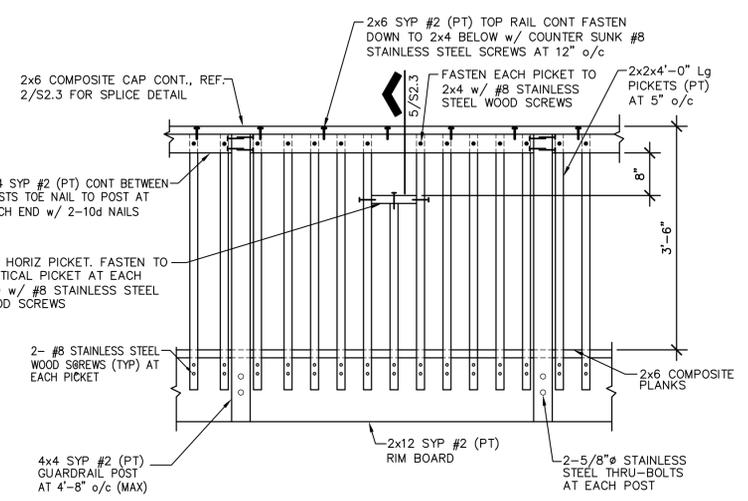
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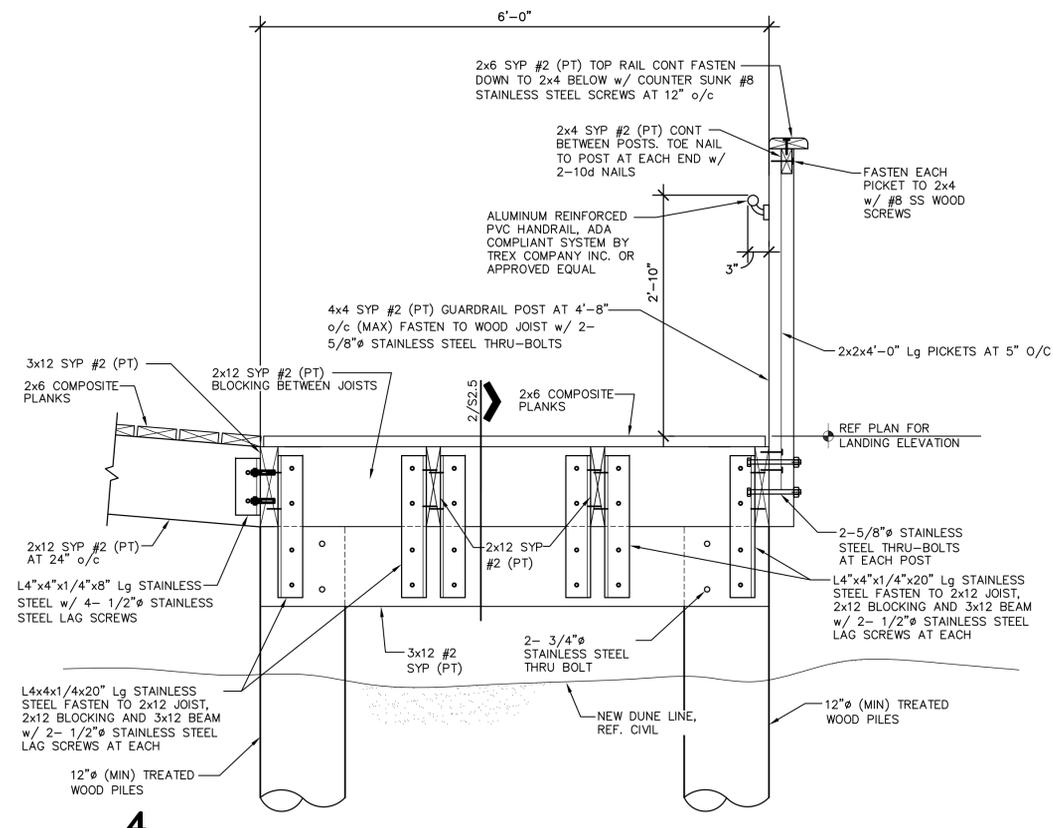
SHEET TITLE
**FRAMING
 DETAILS**
 SHEET NO.
S2.3



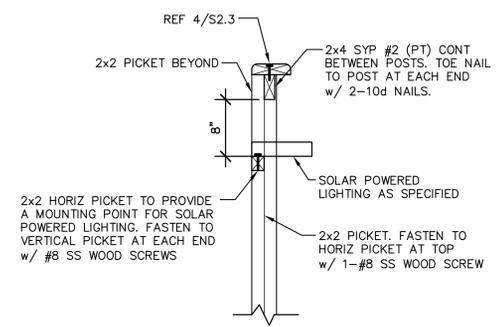
2 2x6 RAIL SPLICE DETAIL
 1.1/2" = 1'-0"



3 TYPICAL GUARDRAIL ELEVATION

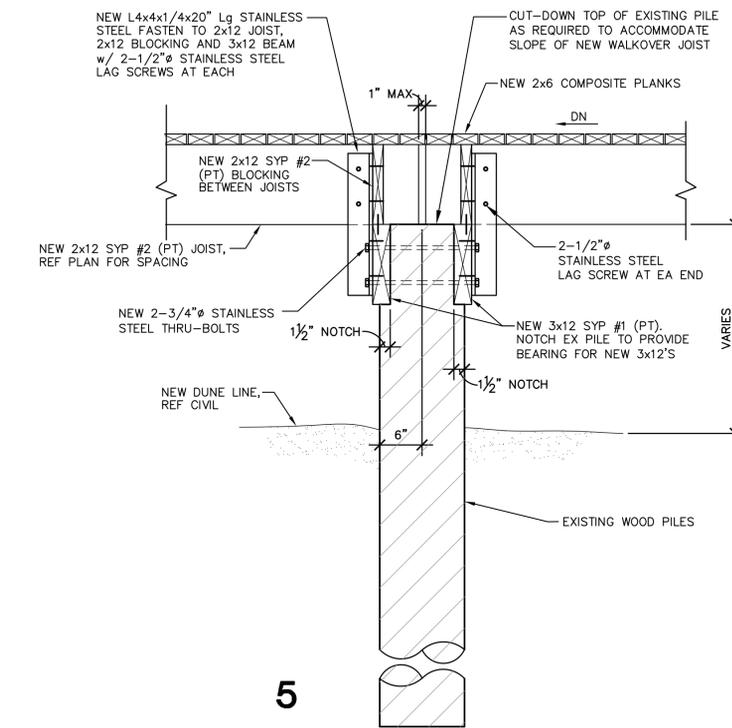
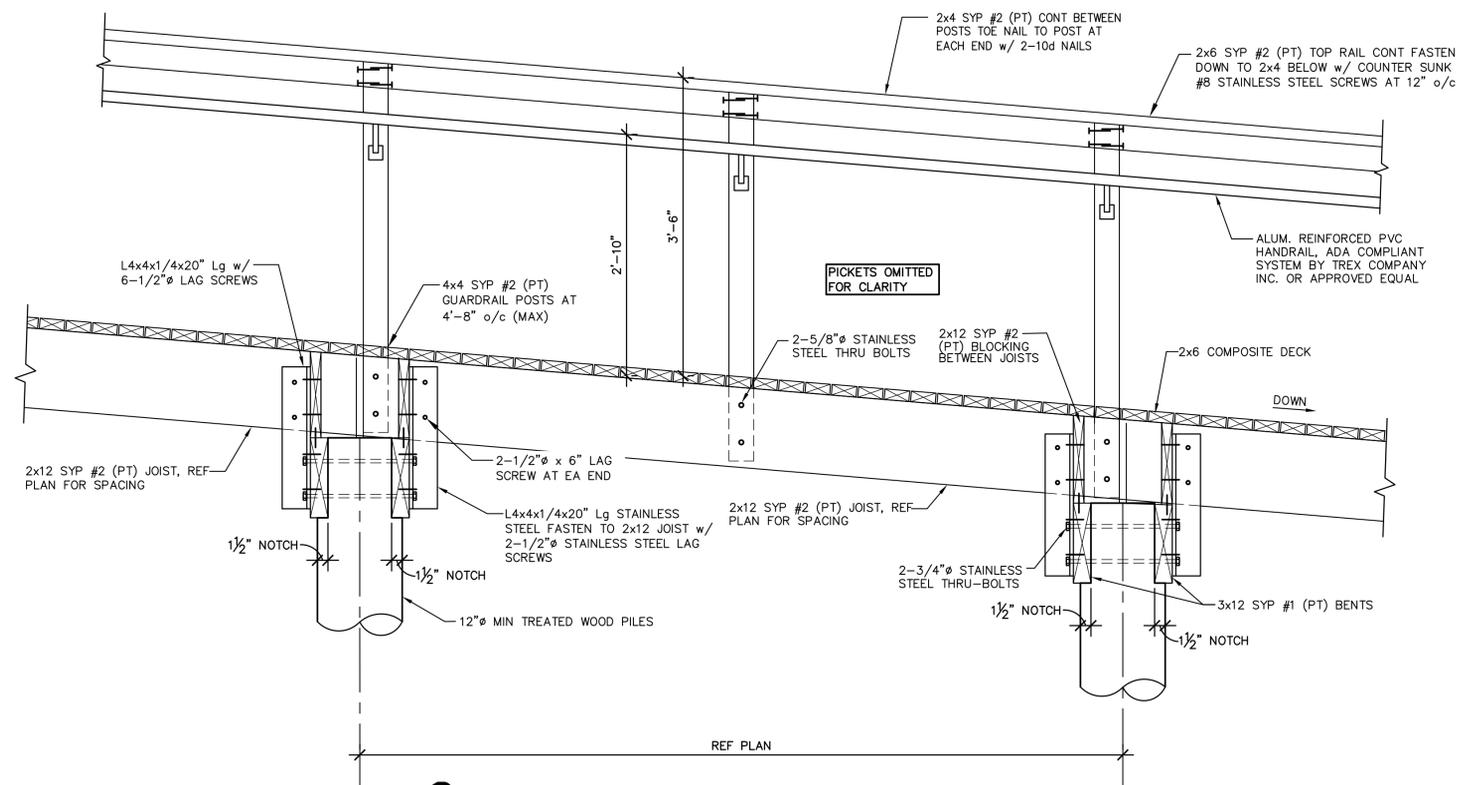
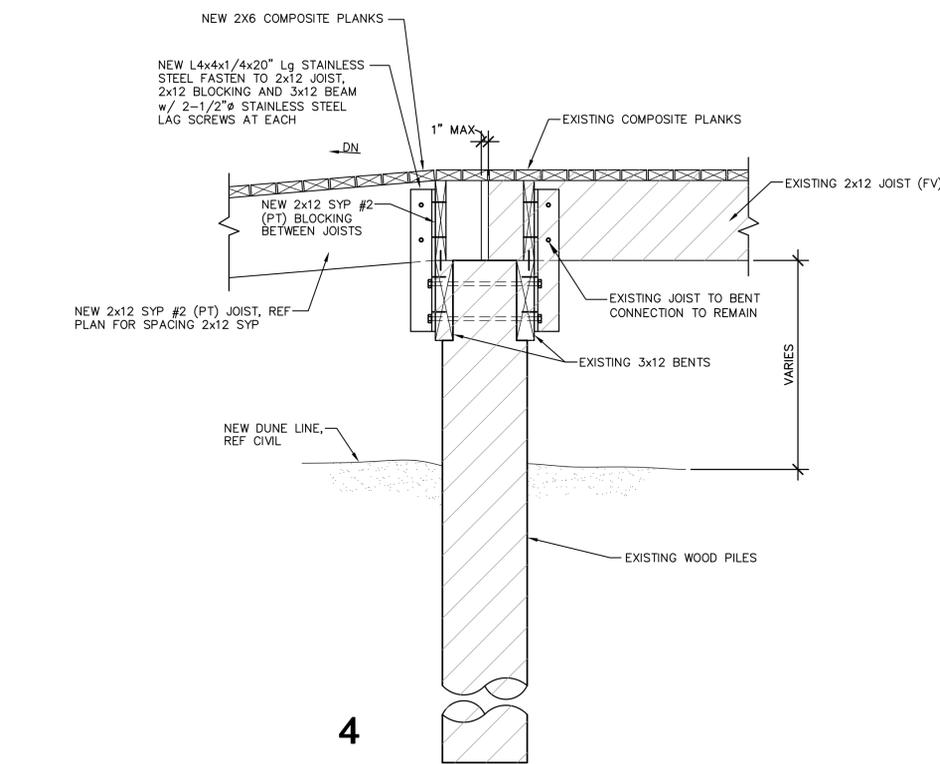
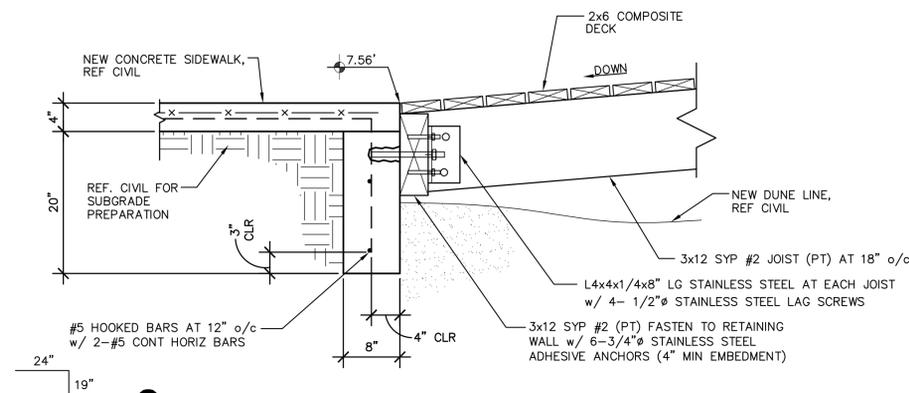
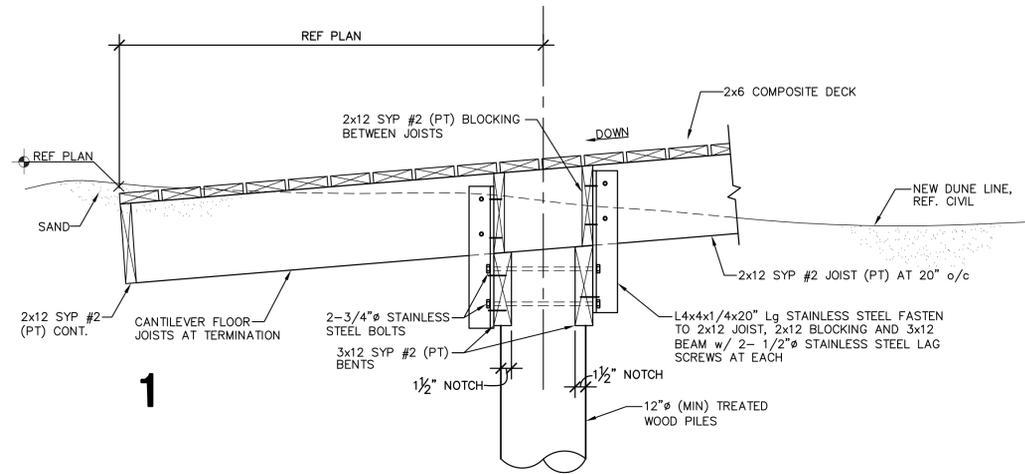


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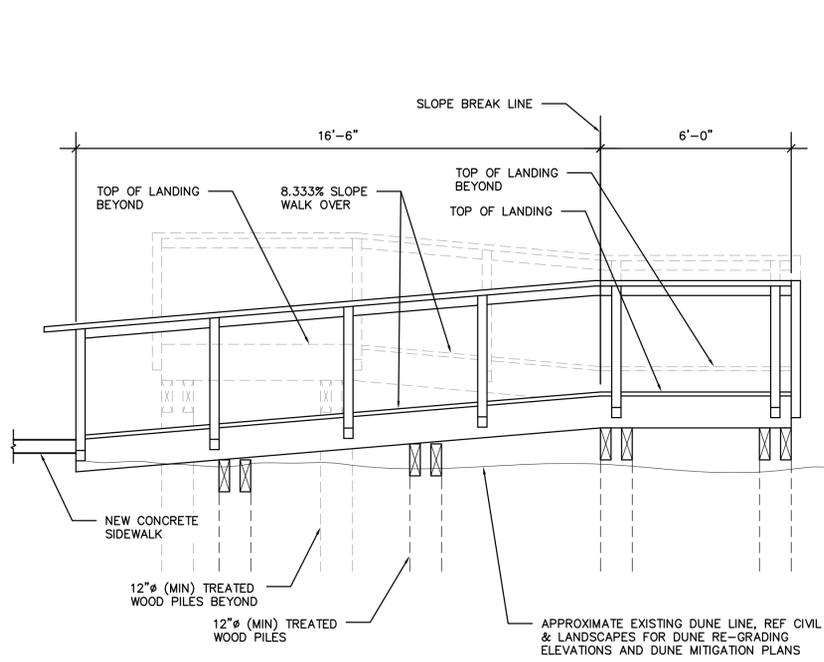
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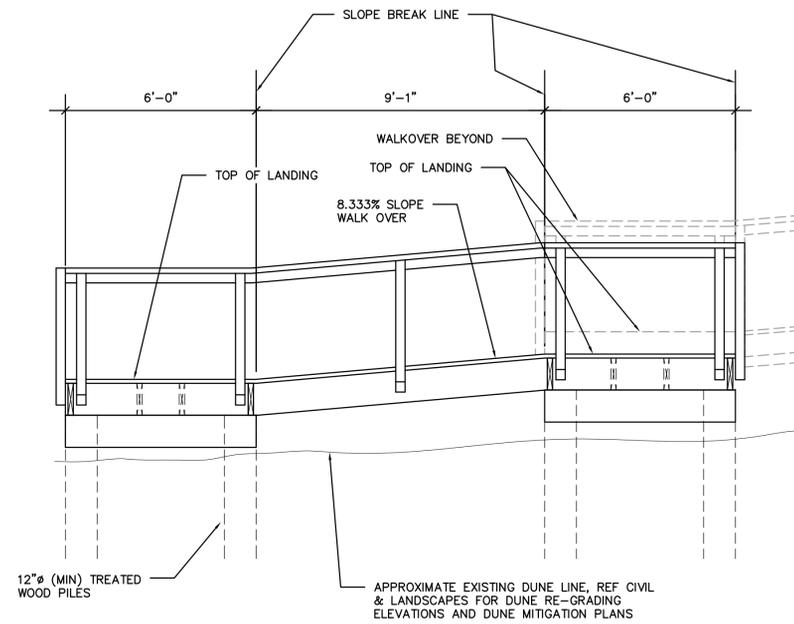
SHEET TITLE
**FRAMING
 DETAILS**

SHEET NO.
S2.4

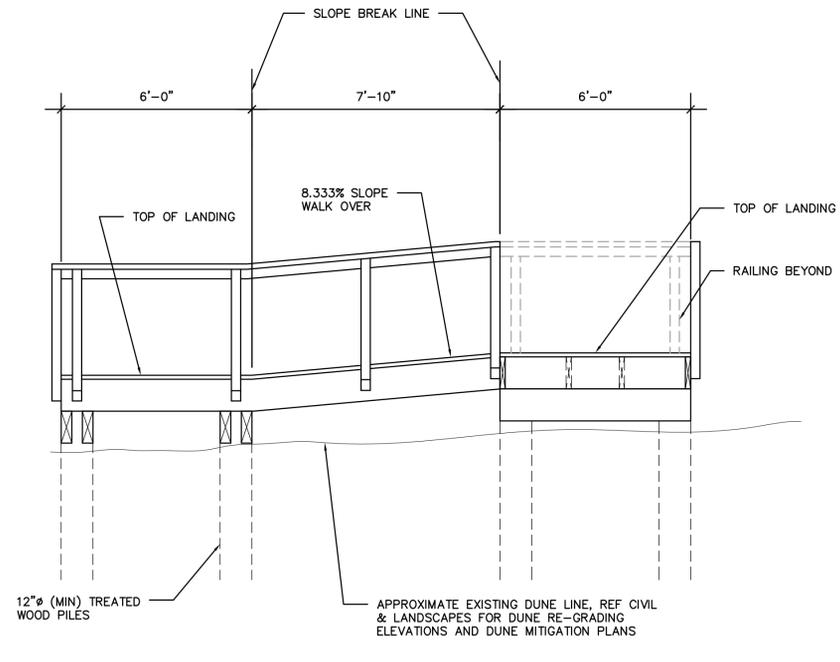
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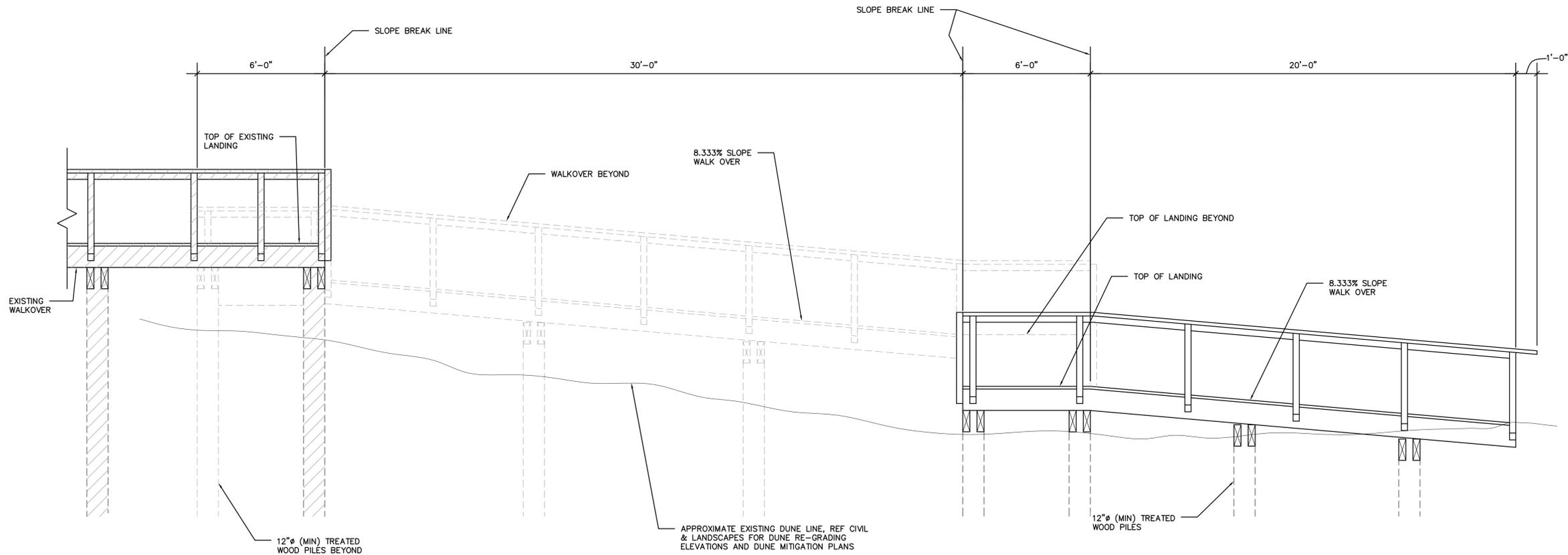
1 WALKOVER ELEVATIONS
3/8" = 1'-0"



2 WALKOVER ELEVATIONS
3/8" = 1'-0"



3 WALKOVER ELEVATIONS
3/8" = 1'-0"



4 WALKOVER ELEVATIONS
3/8" = 1'-0"



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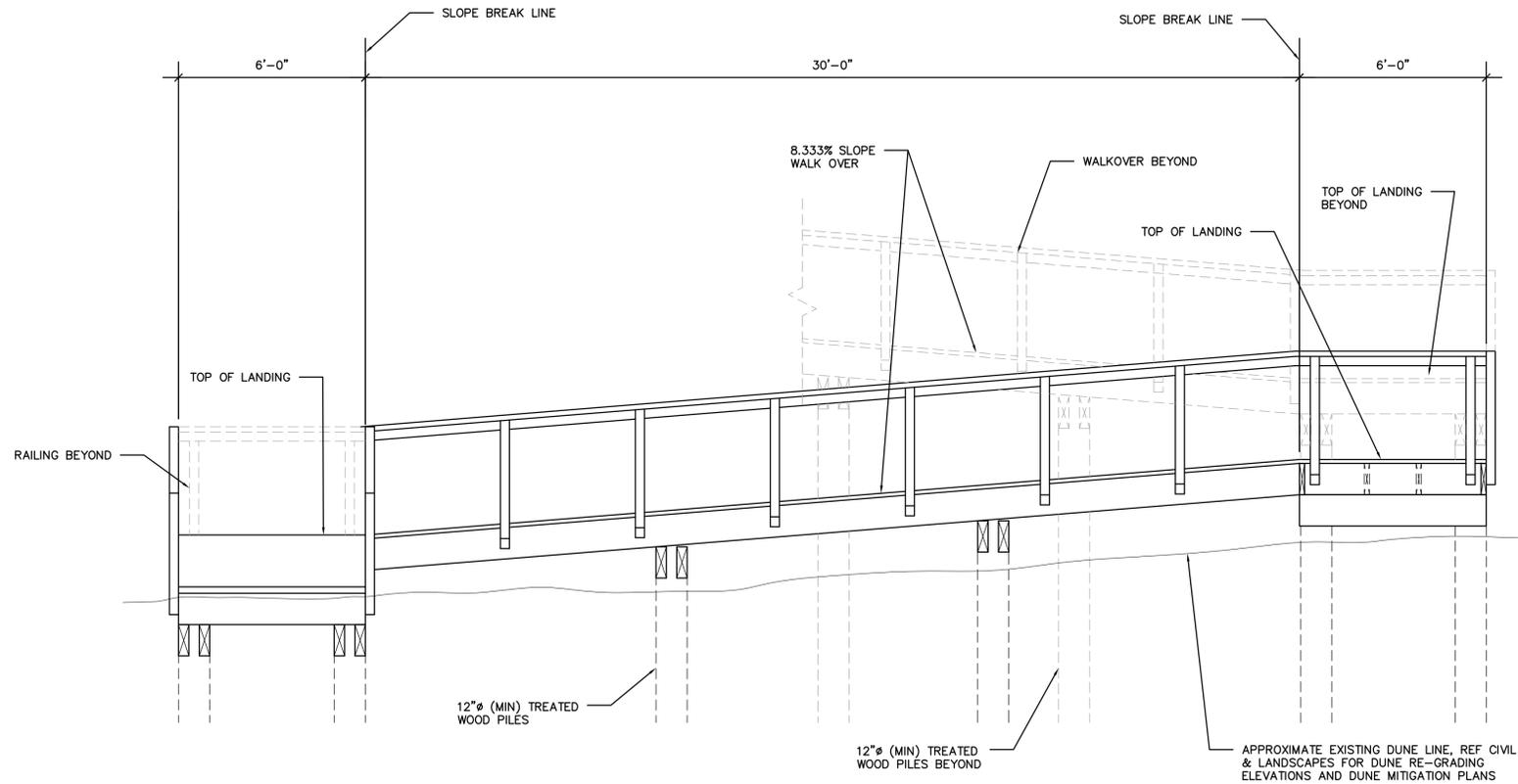
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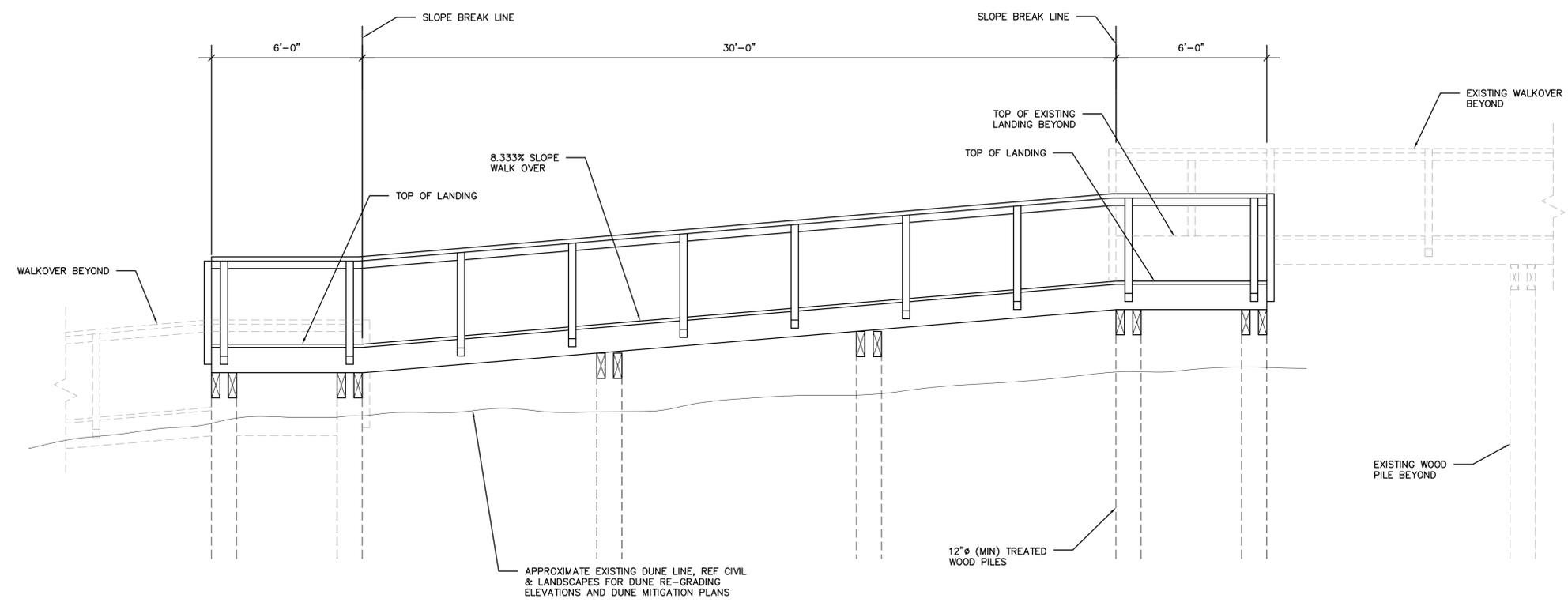
SHEET TITLE
**WALKOVER
ELEVATIONS**

SHEET NO.
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1 WALKOVER ELEVATIONS
3/8" = 1'-0"



2 WALKOVER ELEVATIONS
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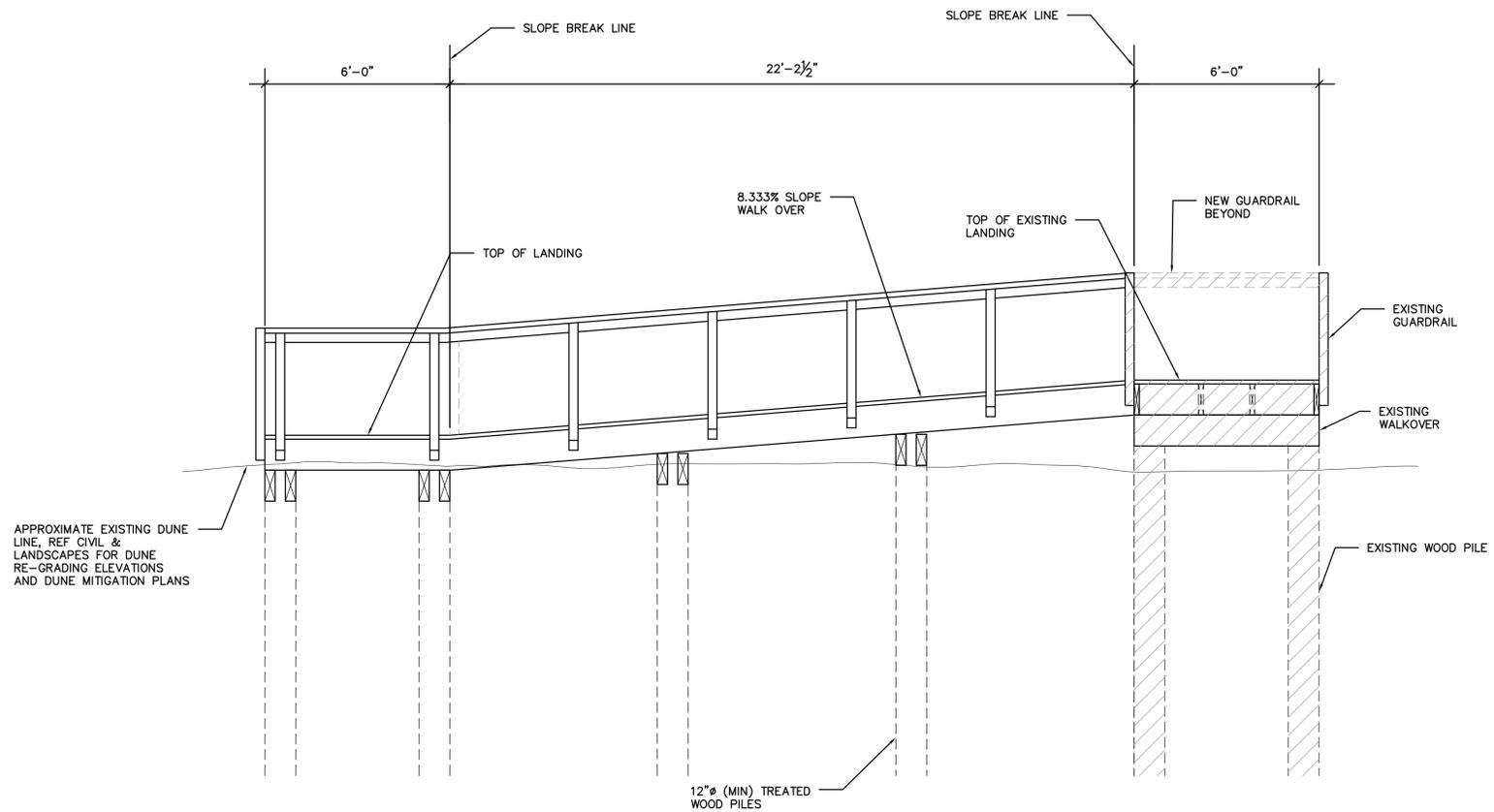
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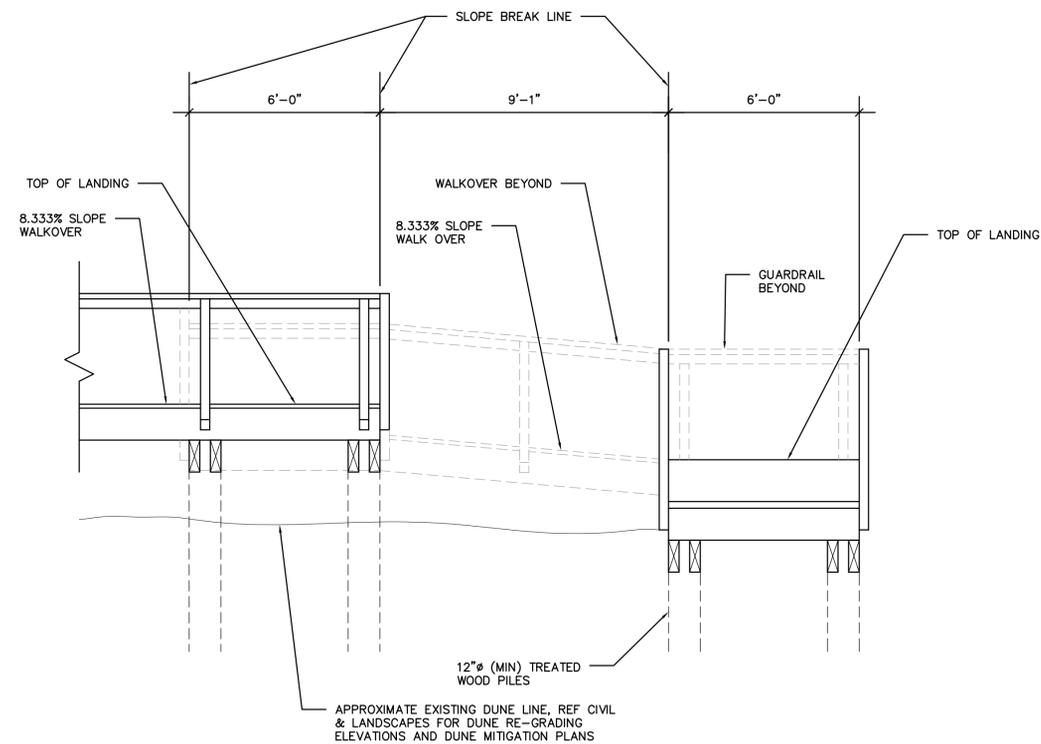
SHEET TITLE
**WALKOVER
ELEVATIONS**

SHEET NO.
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1 WALKOVER ELEVATIONS
3/8" = 1'-0"



2 WALKOVER ELEVATIONS
3/8" = 1'-0"



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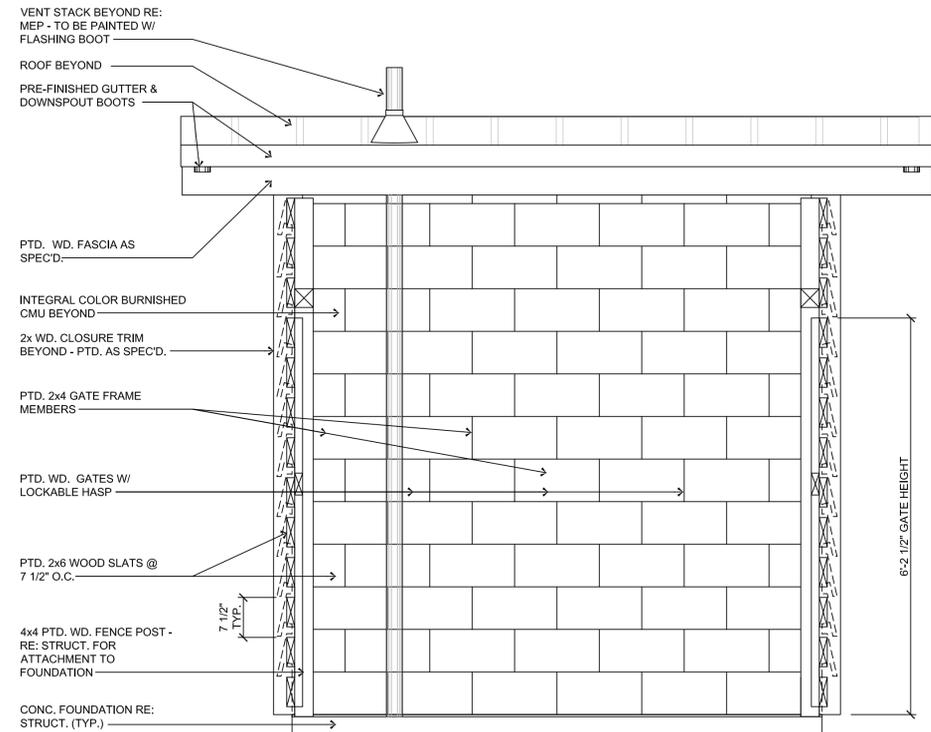


MARK	DATE	DESCRIPTION

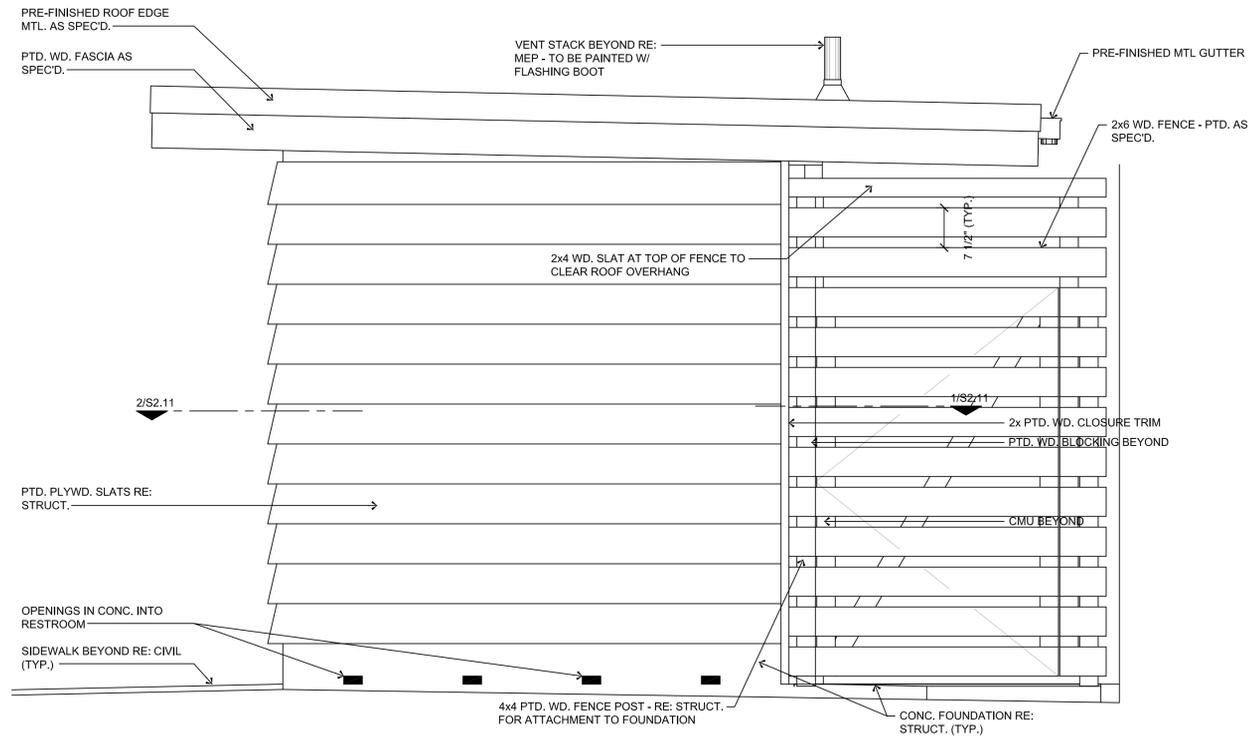
PROJECT NO.	1065-21
DATE	08-09-2024
DRAWN BY	AT
CHECKED BY	BD
SCALE	AS SHOWN

SHEET TITLE
**WALKOVER
ELEVATIONS**

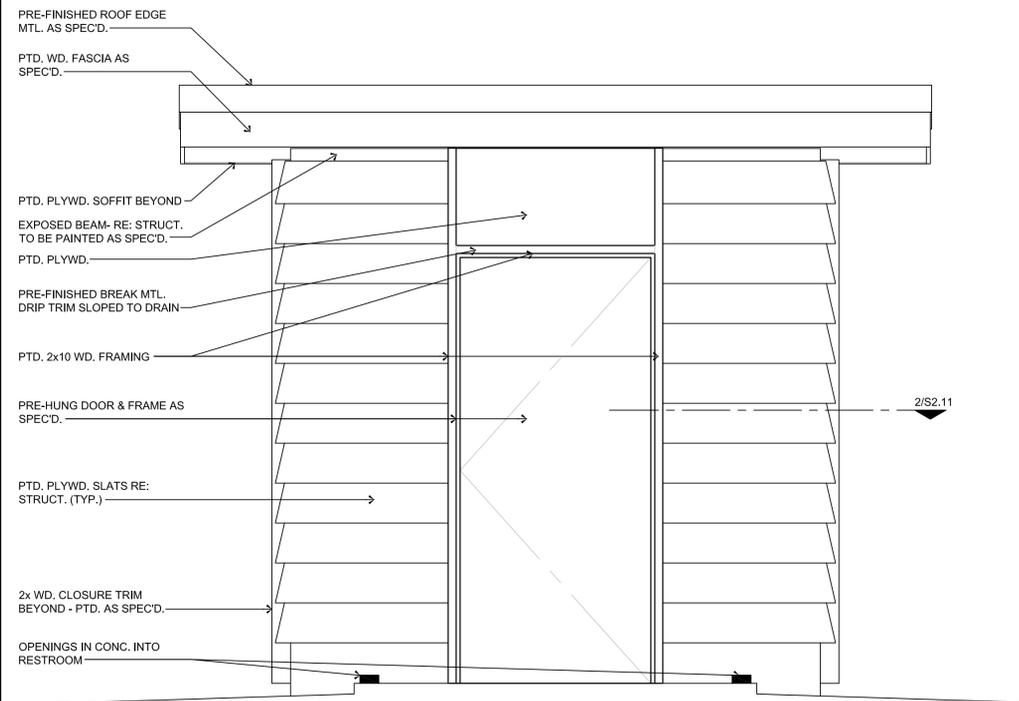
SHEET NO.
S2.8



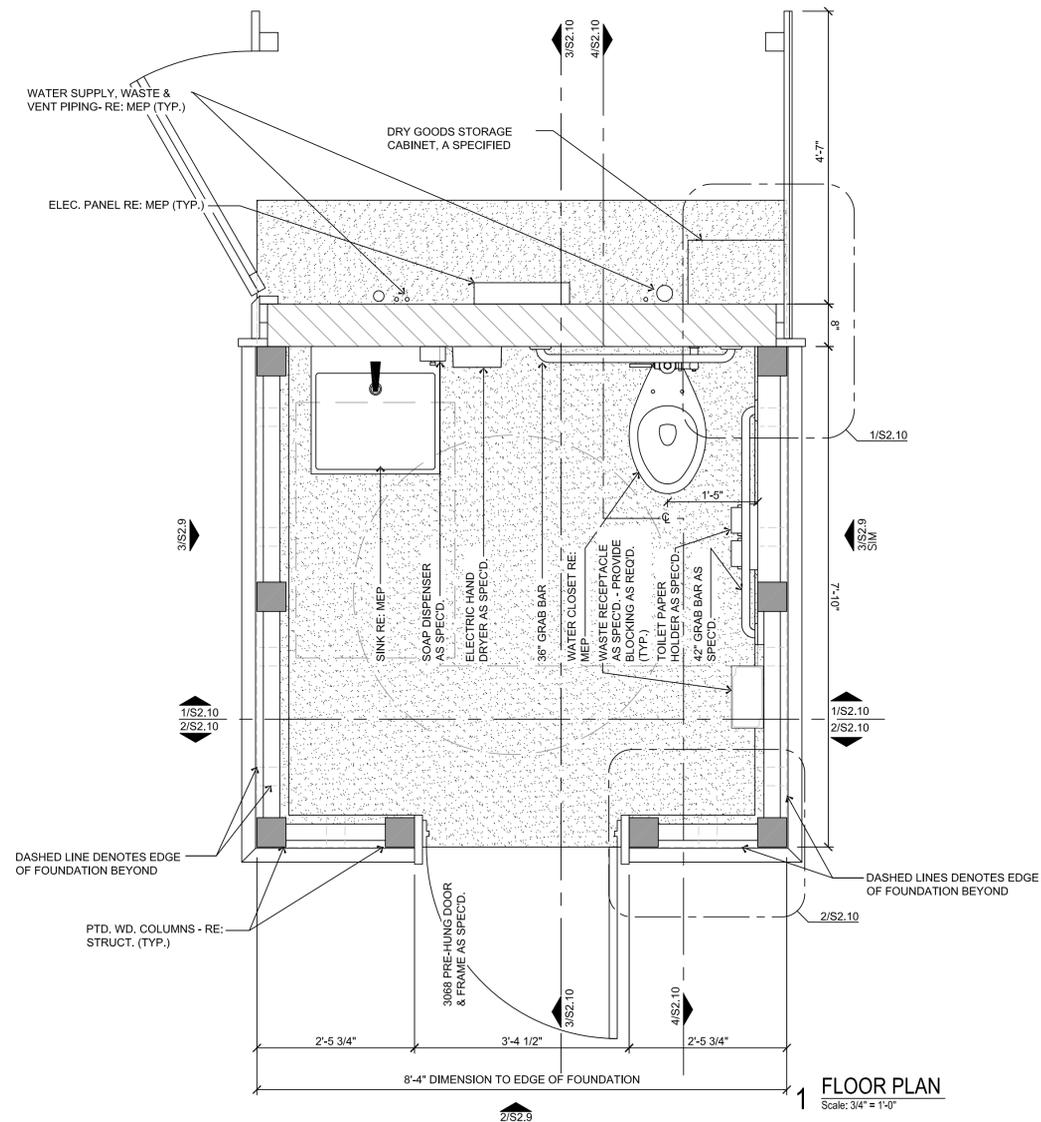
4 BACK ELEVATION
Scale: 3/4" = 1'-0"



3 SIDE ELEVATION
Scale: 3/4" = 1'-0"



2 FRONT ELEVATION
Scale: 3/4" = 1'-0"



FLOOR PLAN
Scale: 3/4" = 1'-0"



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8-9-2024

PROJECT

**SPI NEPTUNE CIRCLE
BEACH ACCESS
IMPROVEMENTS**

**SOUTH PADRE ISLAND,
TEXAS**

CLIENT

**CITY OF
SOUTH PADRE ISLAND**



**SOUTH PADRE ISLAND,
TEXAS**

P: 956-761-3044
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PROJECT NO. 1065-21

DATE 08-09-2024

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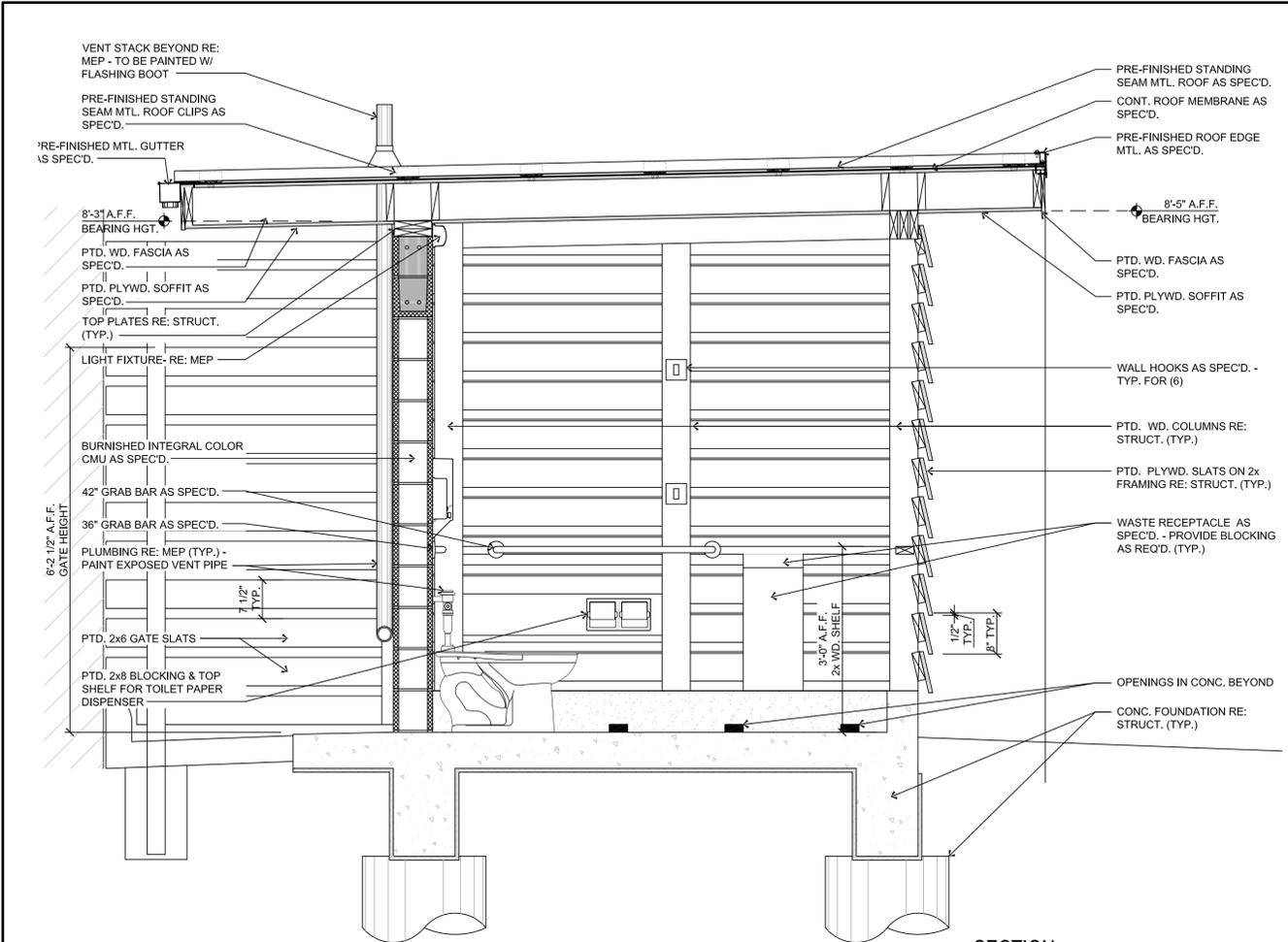
SCALE AS SHOWN

SHEET TITLE

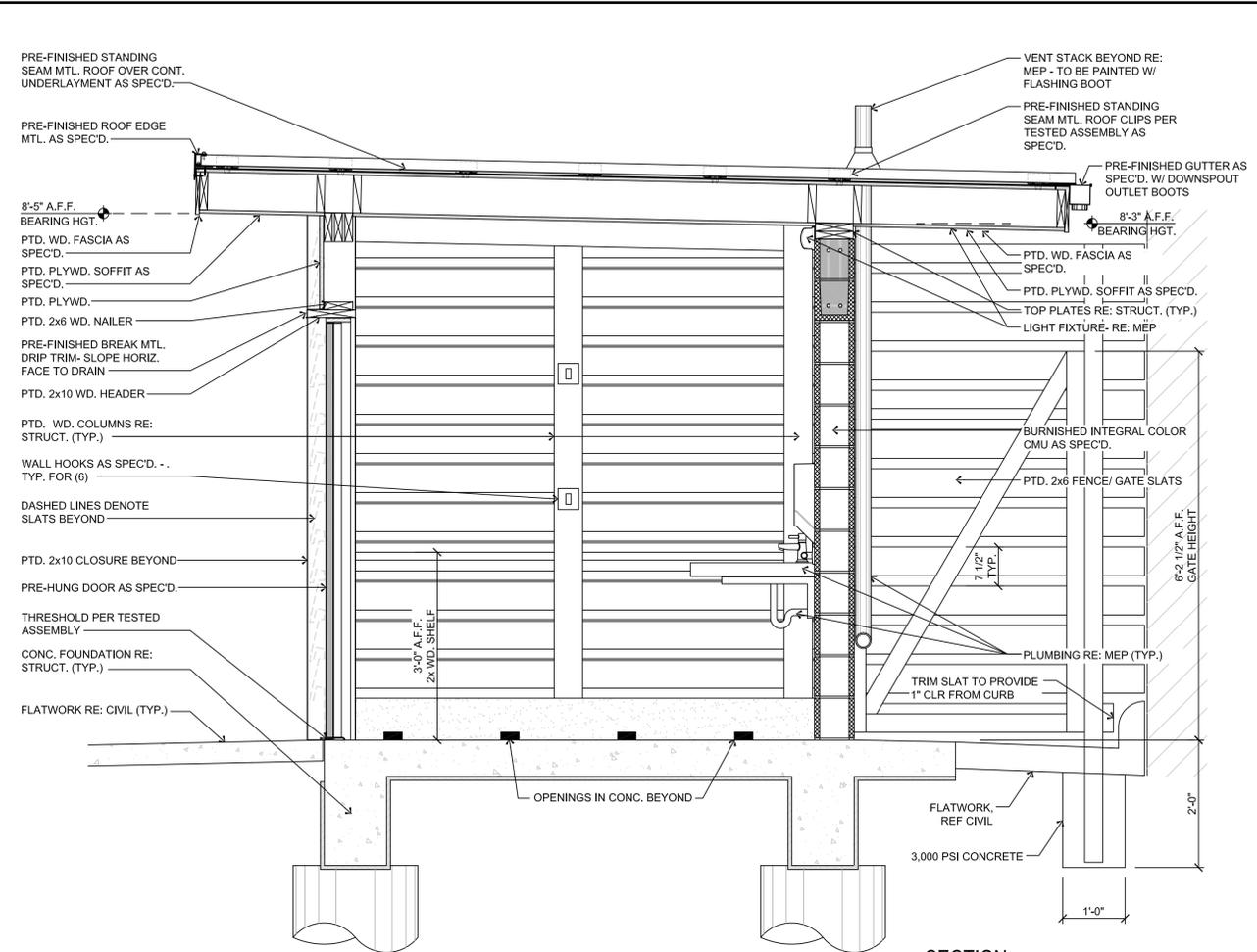
**RESTROOM
PLAN AND
ELEVATIONS**

SHEET NO.

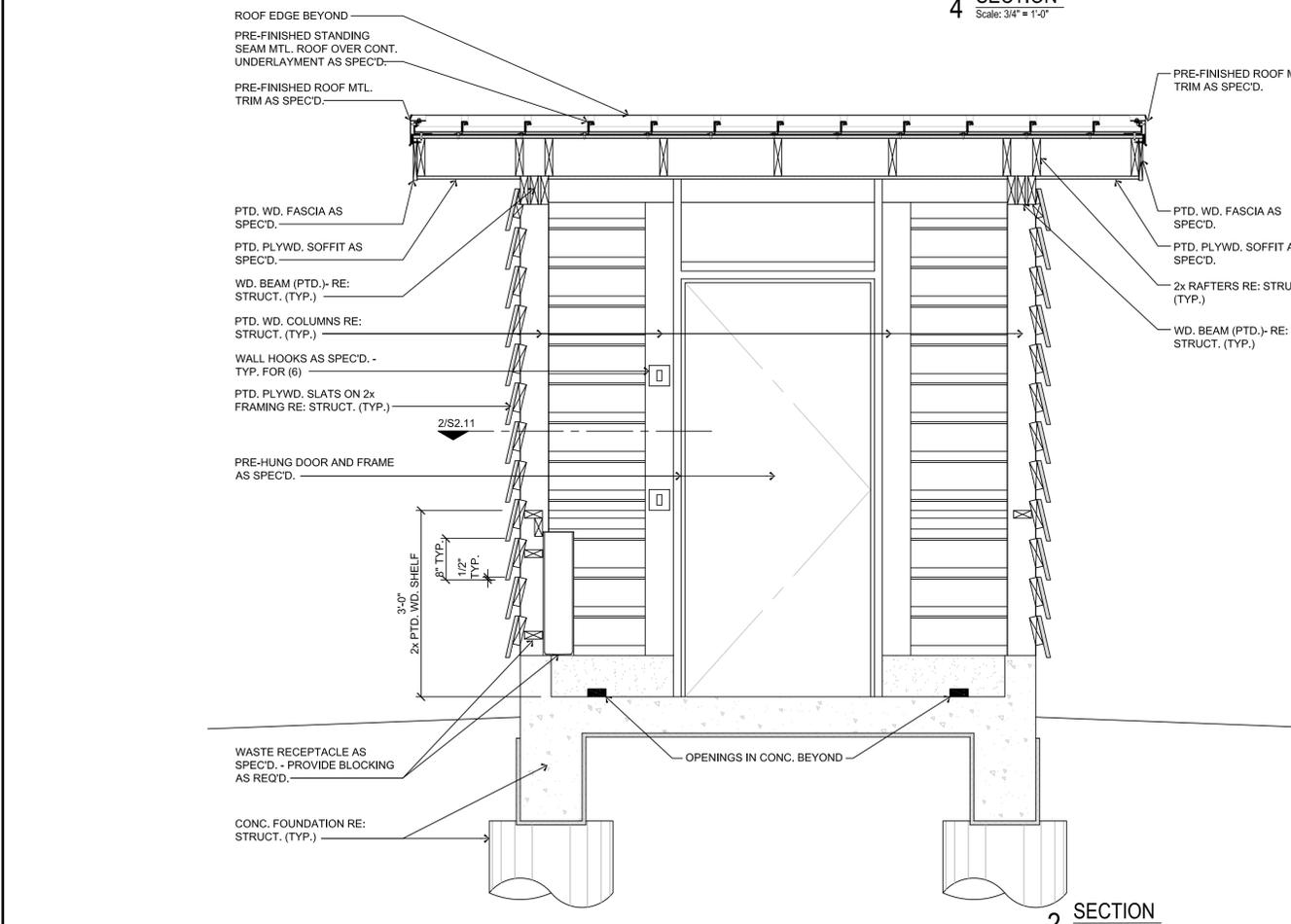
S2.9



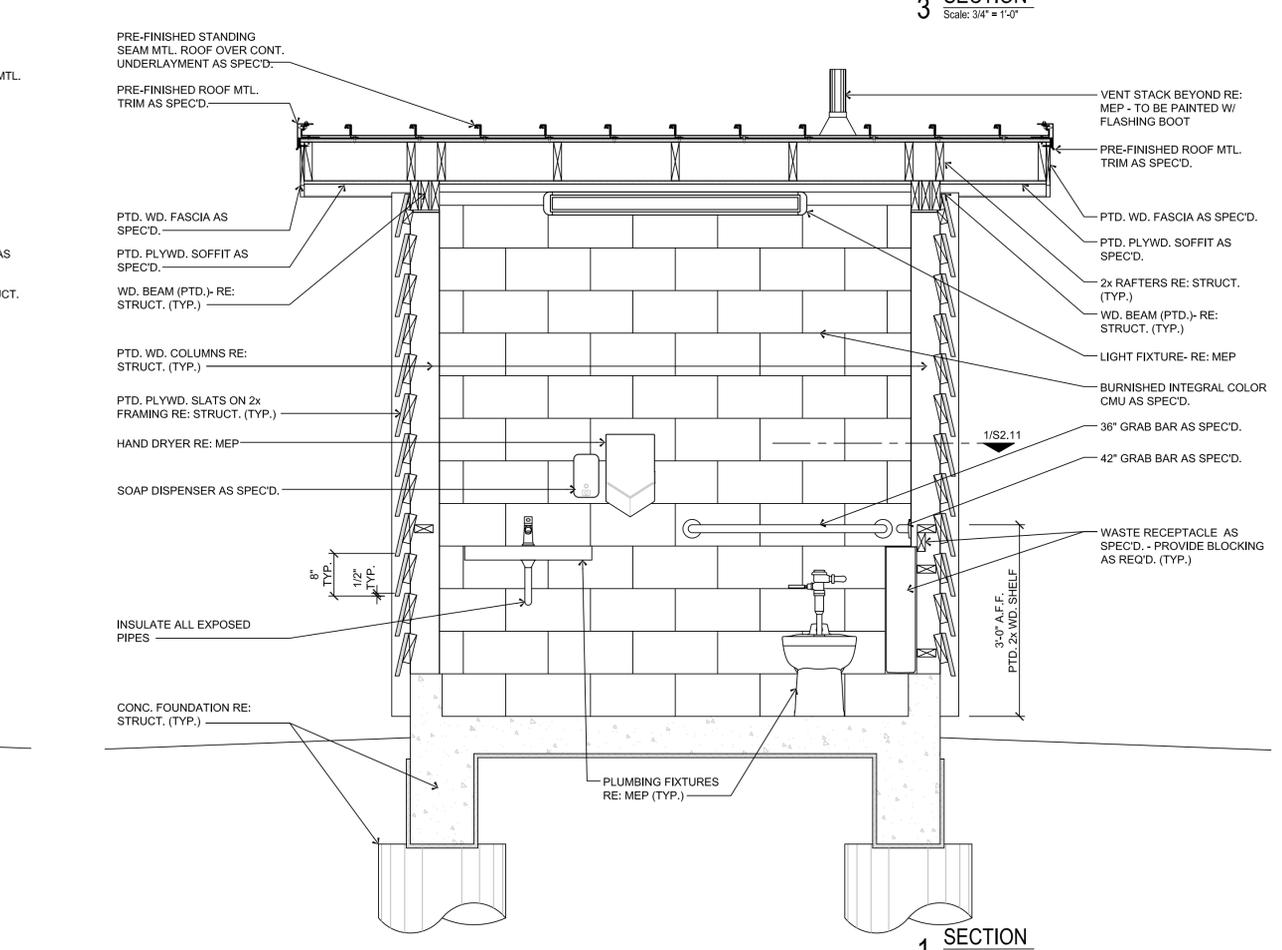
4 SECTION
Scale: 3/4" = 1'-0"



3 SECTION
Scale: 3/4" = 1'-0"



2 SECTION
Scale: 3/4" = 1'-0"



1 SECTION
Scale: 3/4" = 1'-0"



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SHEET TITLE
**RESTROOM
SECTIONS**

SHEET NO.
S2.10

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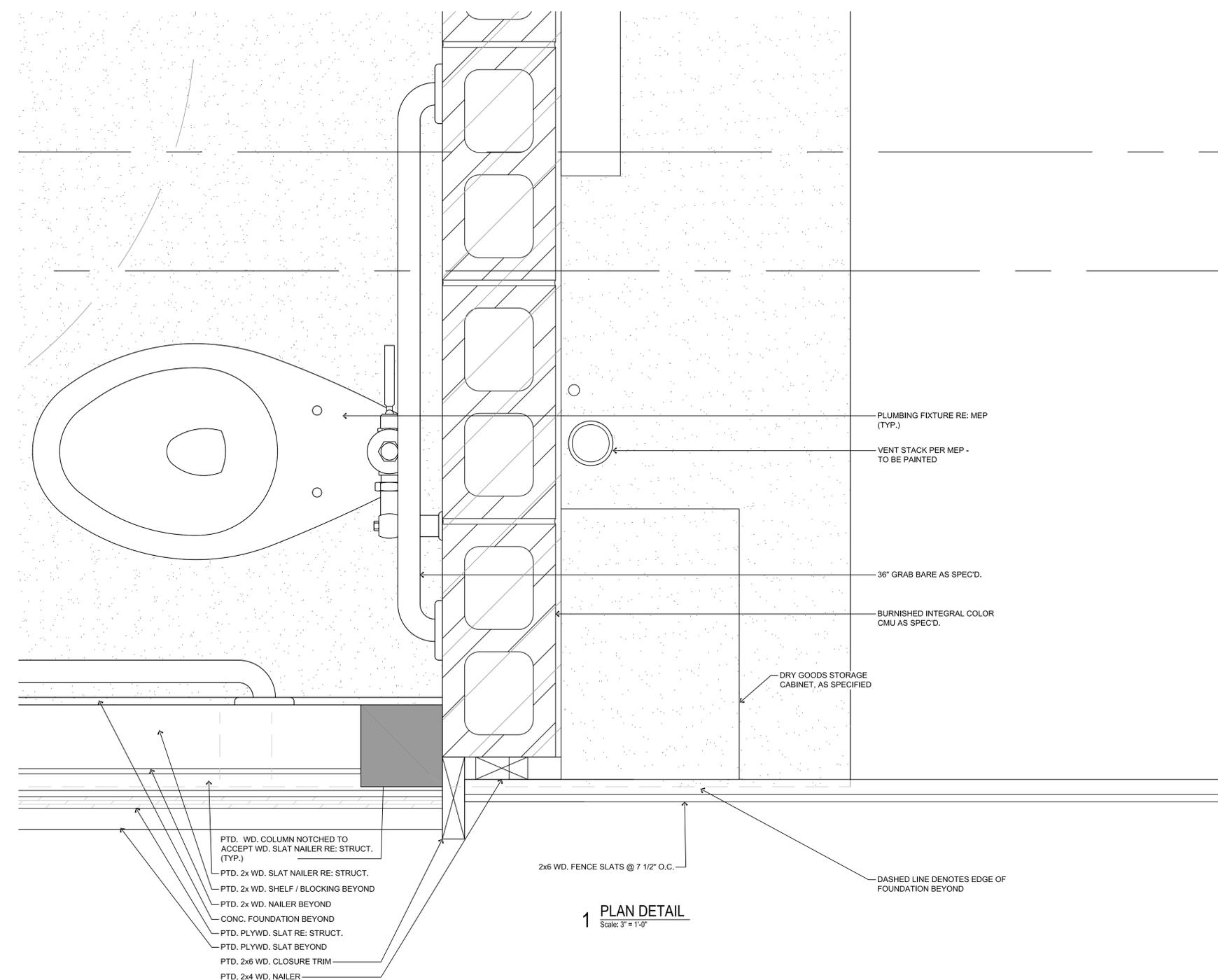
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**PLAN
 DETAILS**

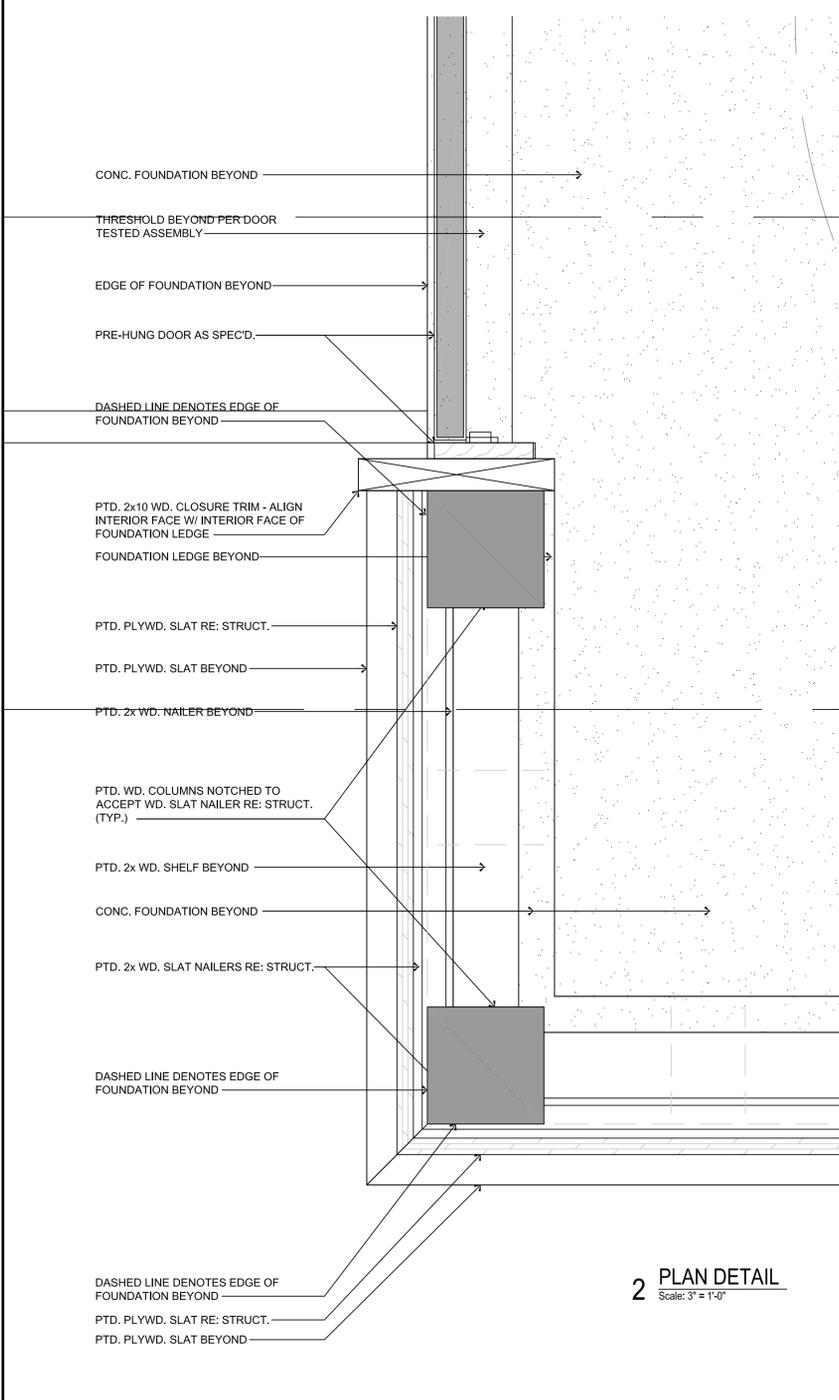
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S2.11

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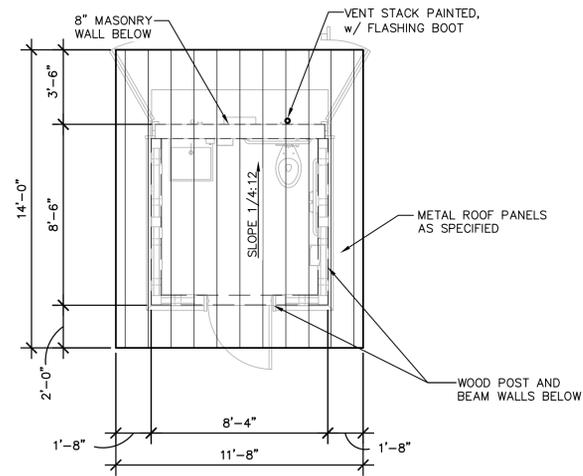


1 PLAN DETAIL
 Scale: 3" = 1'-0"

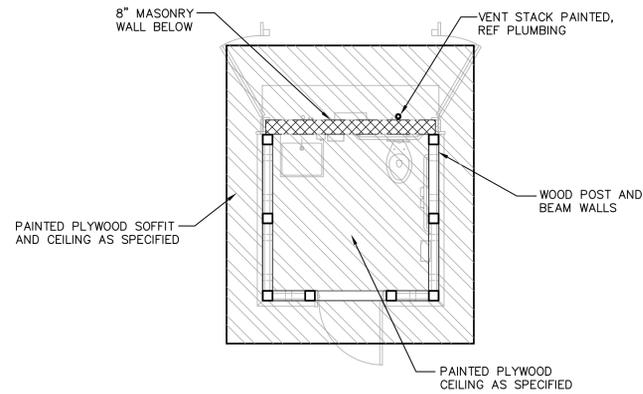


2 PLAN DETAIL
 Scale: 3" = 1'-0"

- PTD. WD. COLUMN NOTCHED TO ACCEPT WD. SLAT NAILER RE: STRUCT. (TYP.)
- PTD. 2x WD. SLAT NAILER RE: STRUCT.
- PTD. 2x WD. SHELF / BLOCKING BEYOND
- PTD. 2x WD. NAILER BEYOND
- CONC. FOUNDATION BEYOND
- PTD. PLYWD. SLAT RE: STRUCT.
- PTD. PLYWD. SLAT BEYOND
- PTD. 2x6 WD. CLOSURE TRIM
- PTD. 2x4 WD. NAILER



1 RESTROOM ROOF PLAN
1/4" = 1'-0"



2 RESTROOM CEILING AND SOFFIT PLAN
1/4" = 1'-0"



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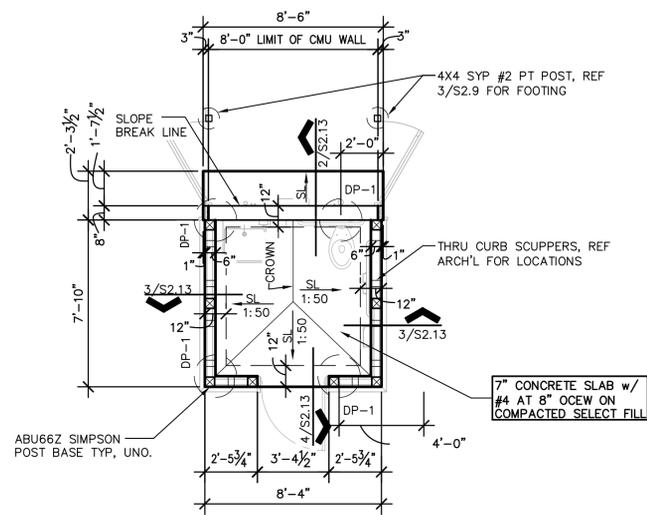


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SHEET TITLE
**RESTROOM
ROOF AND
CEILING PLAN**

SHEET NO.
S2.12



1 RESTROOM FOUNDATION PLAN

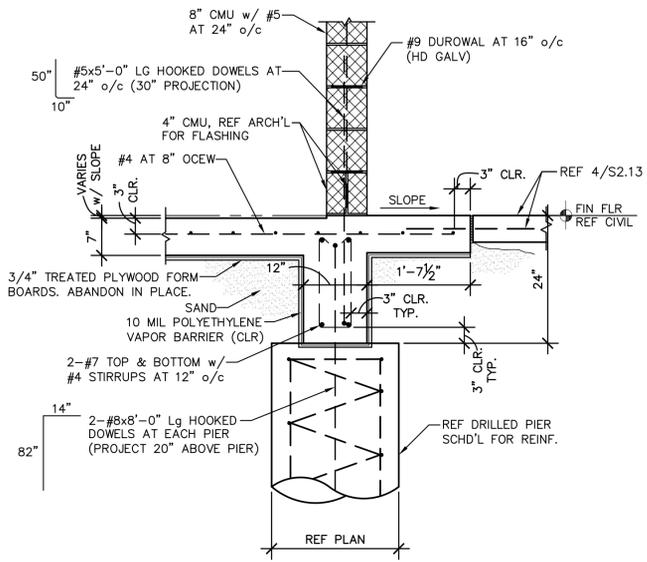
1/4" = 1'-0"



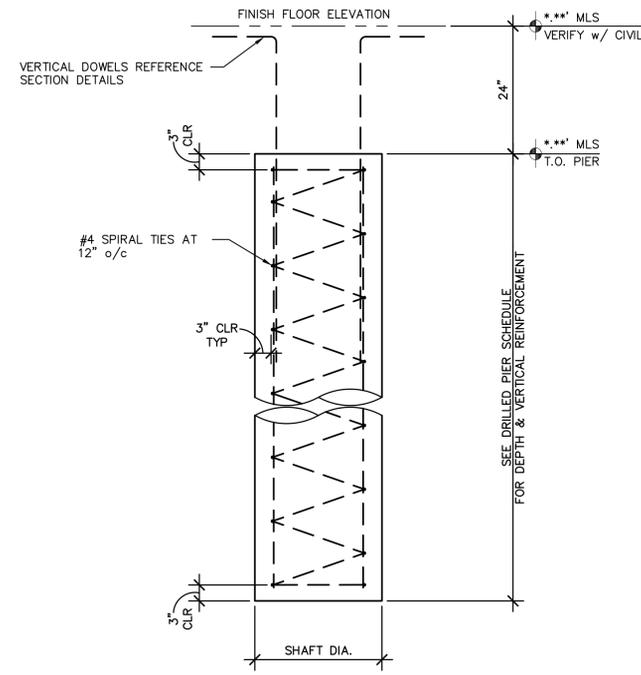
NOTES:

- ALL SLABS & BEAMS ARE SUSPENDED. REFER TO SECTIONAL DETAILS FOR REINFORCEMENT.
- SPLICE JOINTS FOR TOP BARS FOR REINFORCED CONCRETE SLABS AND BEAMS SHALL BE LOCATED AT MIDDLE THIRD OF THE SPAN OF SLABS OR BEAMS.
- SPLICE JOINTS FOR BOTTOM BARS FOR REINFORCED CONCRETE SLAB AND BEAMS SHALL BE LOCATED AT SUPPORTS.
- 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.
- LAPPING OF SPLICE BARS AT SPLICE JOINTS SHALL BE 62 BAR DIAMETER OR A MINIMUM OF 36" LONG.
- ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER (O.D.) SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
- MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
- A SINGLE CONDUIT (MAX 3" O.D.) MAY BE PLACED WITHIN THE BEAM CAGE. ALL CONDUIT IN BEAM CAGES TO BE TIED TO STIRRUPS MINIMUM OF 4" FROM HORIZONTAL BARS.
- INDICATES ABU66Z SIMPSON STAND-OFF POST BASE.
- ALL MASONRY WALLS SHALL BE BURNISHED INTREGAL COLOR CMU AS SPECIFIED.

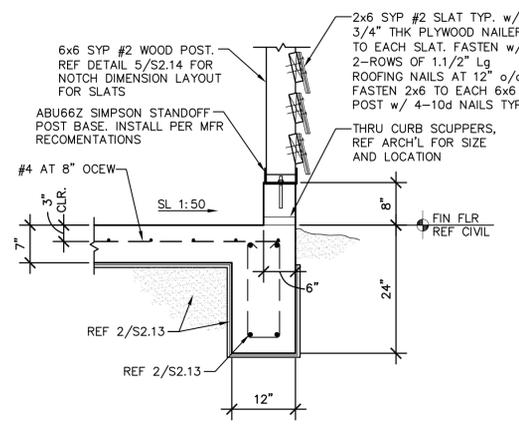
DRILLED PIER SCHEDULE			
MARK	SHAFT DIA. (INCHES)	VERTICAL REINFORCING	BEARING DEPTH BELOW MEAN SEA LEVEL (FEET MSL)
DP-1	18"	8-#7	-30.00'



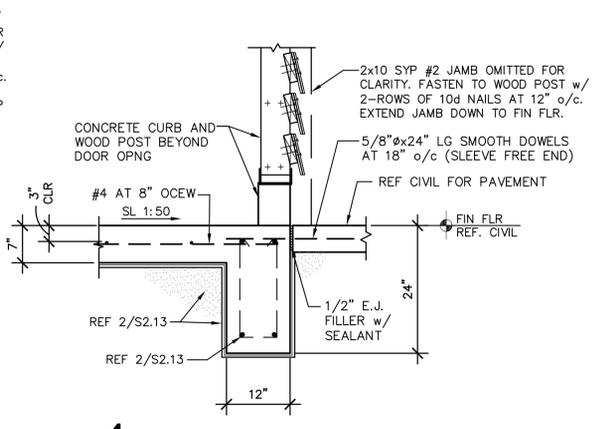
2



5 DRILLED PIER PROFILE



3



4

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PROJECT

SPI NEPTUNE CIRCLE BEACH ACCESS IMPROVEMENTS

SOUTH PADRE ISLAND, TEXAS

CLIENT

CITY OF SOUTH PADRE ISLAND

SOUTH PADRE ISLAND, TEXAS

P: 956-761-3044
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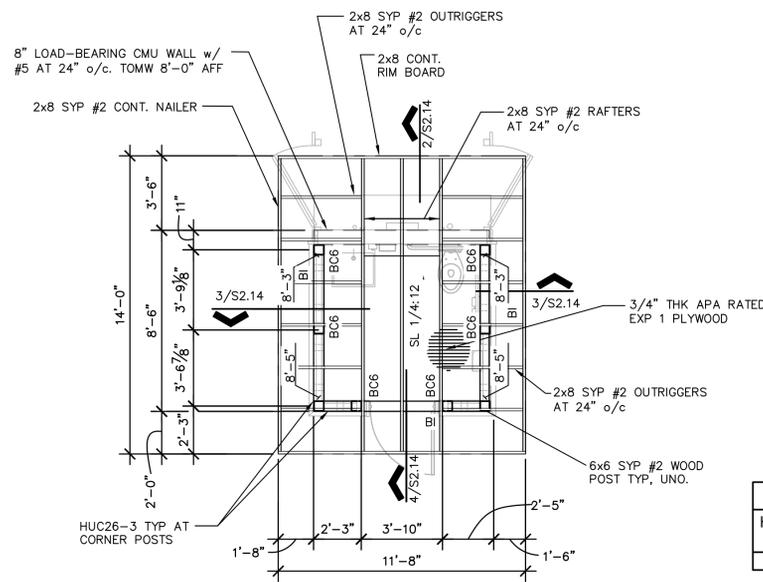
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SHEET TITLE

RESTROOM FOUNDATION PLAN/DETAILS

SHEET NO.

S2.13



1 RESTROOM ROOF FRAMING PLAN
1/4" = 1'-0"

- NOTES:
1. ROOF SHEATHING SHALL BE 3/4" APA RATED EXPOSURE 1. SPAN RATED 48/24.
 2. REFERENCE ROOF SHEATHING NAILING SCHEDULE FOR PROPER PLYWOOD ATTACHMENT.
 3. ALL HURRICANE TIES SHALL BE SIMPSON STRONG-TIE STAINLESS STEEL TYPE 316 OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 4. ALL MASONRY WALLS SHALL BE BURNISHED INTREGAL COLOR CMU AS SPECIFIED.



BEAM SCHEDULE		
HEADER MARK	HEADER TYPE	POST SIZE
B1	3-2x6	6x6

- NOTES:
1. PROVIDE PLYWOOD FILLER AS REQUIRED TO BE FLUSH WITH WOOD POST.

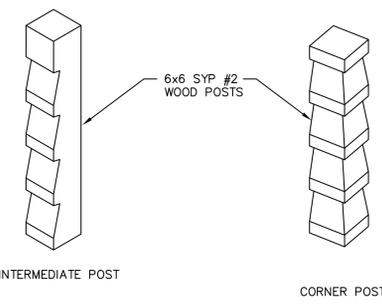
ROOF SHEATHING NAILING SCHEDULE	
10d STAINLESS STEEL NAILS AT 4" o/c ALONG EDGE OF SHEET AND 6" o/c AT INTERIOR SUPPORTS	

ALL 10d STAINLESS STEEL NAILS TO MEET MINIMUM LENGTH/DIAMETER BELOW
LENGTH 3"
SHANK DIAMETER 0.148"

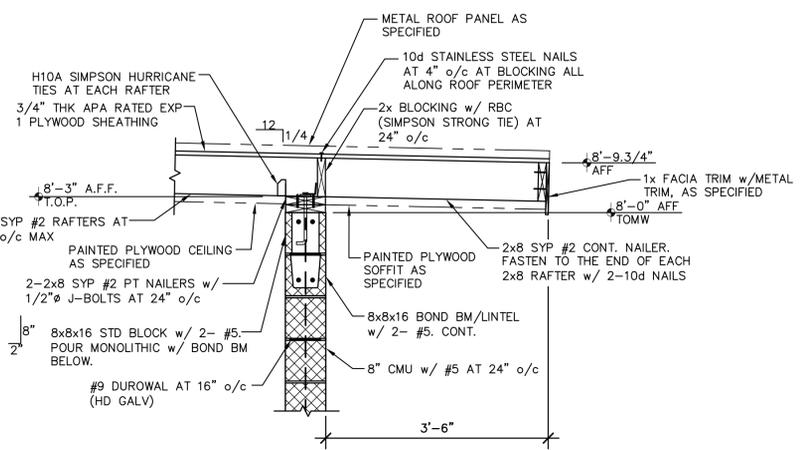
CITY OF SOUTH PADRE ISLAND
NEPTUNE CIRCLE WALKOVER RESTROOM
ROOF DESIGN WIND PRESSURE DIAGRAM (SERVICE)

DESIGN WIND PRESSURE FOR ROOF COMPONENTS & CLADDING	
ZONE	P- (UPLIFT)
3	-89 PSF

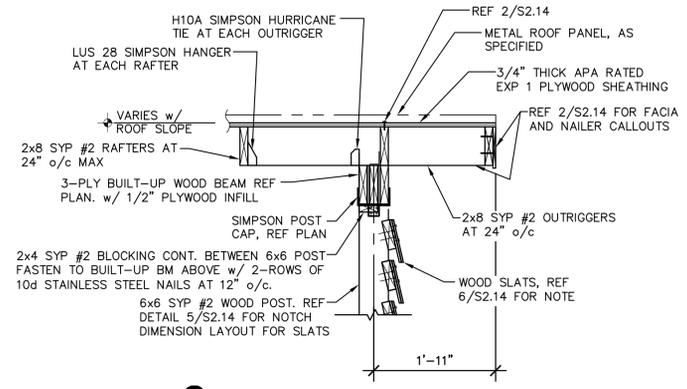
DOORS & WINDOWS MAXIMUM DESIGN WIND PRESSURES
P+ = +29 PSF TOWARDS THE SURFACE
P- = -38 PSF AWAY FROM THE SURFACE



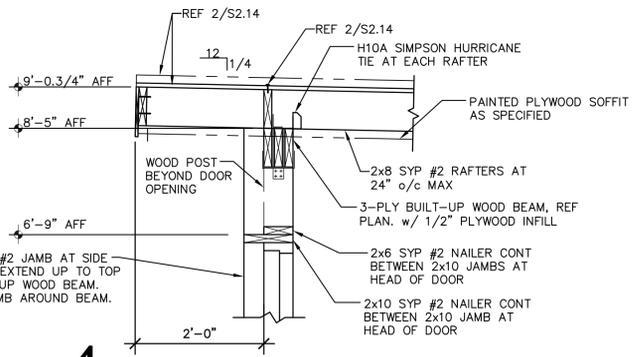
7 ISOMETRIC VIEWS OF WOOD POST
1" = 1'-0"



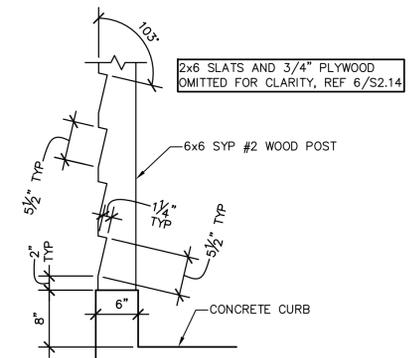
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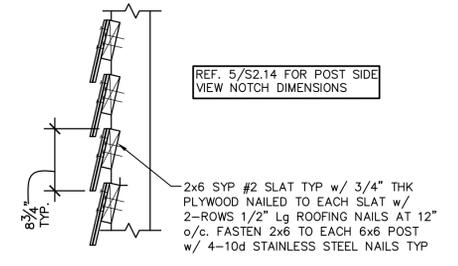
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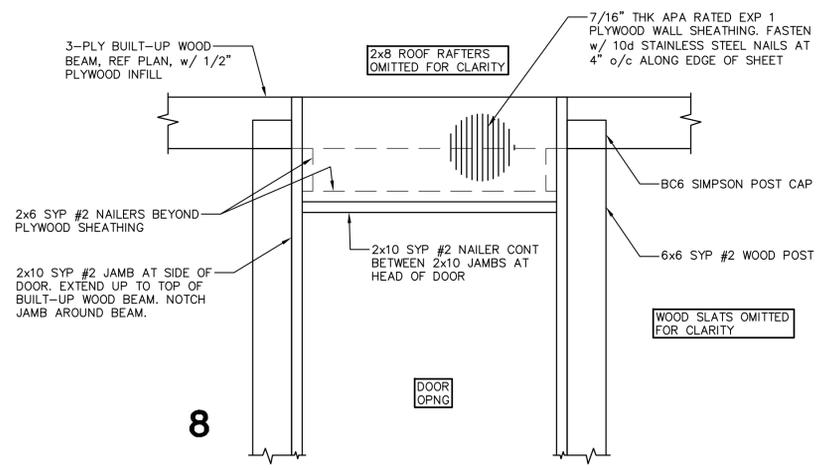
4



5 POST SIDE VIEW NOTCH DIMENSIONS
1" = 1'-0"



6 SLAT CONNECTION DETAIL
1" = 1'-0"



8

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PROJECT
SPI NEPTUNE CIRCLE BEACH ACCESS IMPROVEMENTS
SOUTH PADRE ISLAND, TEXAS

CLIENT
CITY OF SOUTH PADRE ISLAND
South Padre Island
SOUTH PADRE ISLAND, TEXAS
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SHEET TITLE
FRAMING PLAN/DETAILS

SHEET NO.
S2.14



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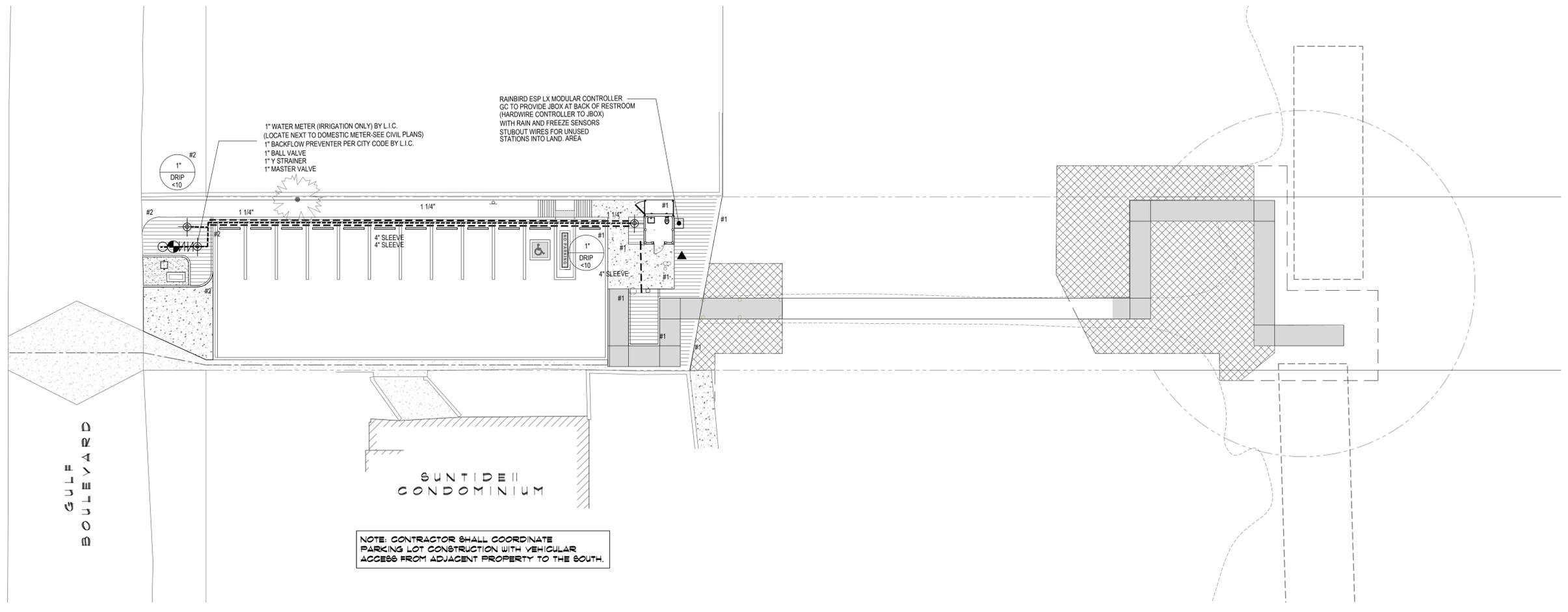
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SHEET TITLE
**IRRIGATION
 PLAN**
 SHEET NO.
LI.01



NOTE: CONTRACTOR SHALL COORDINATE PARKING LOT CONSTRUCTION WITH VEHICULAR ACCESS FROM ADJACENT PROPERTY TO THE SOUTH.

NOTE:
 CONTRACTOR TO INSTALL TEMPORARY IRRIGATION AND WATER/LEACH DUNES DAILY FOR AT LEAST 14 DAYS PRIOR TO PLANTING.

1 IRRIGATION PLAN
 SCALE: 1/16" = 1'-0"
 W — E

IRRIGATION LEGEND

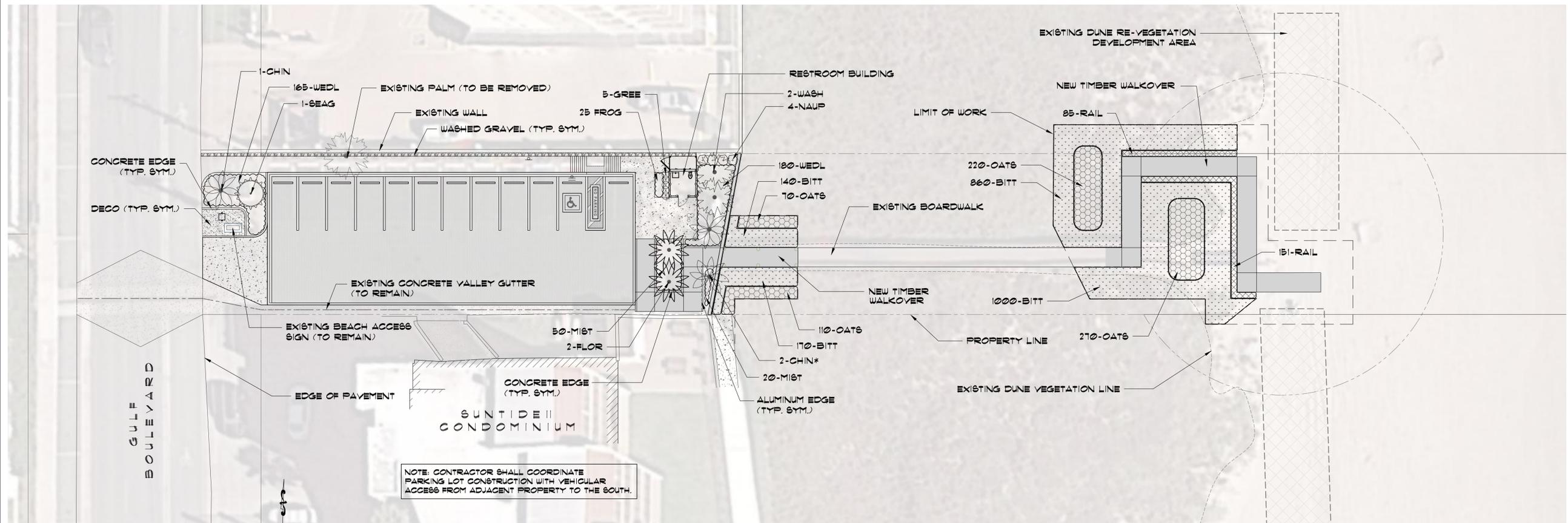
- ▲ RAINBIRD QUICK COUPLER VALVE (33-DLRC) QUICK COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE ZONE THAT ACTIVATES MASTER VALVE AND ACTIVATES THE QUICK COUPLERS. LABEL ON COLORED ZONING DIAGRAM - LOCATED ALONG MAINLINE 200' SPACING
- ⊕ RAINBIRD PEB SERIES ELECTRIC VALVE
- CONTROLLER (ESP-LX WITH RAIN/FREEZE SENSOR)
- WATER METER (AS SIZED)
- ≡ BACKFLOW PREVENTER (AS SIZED)
- CLASS 200 PVC LATERAL PIPING
- CLASS 200 PVC MAINLINE
- - - SCH. 40 PVC SLEEVING (AS SIZED)
- VALVE SIZE
- GPM
- ▨ DRIPLINE (PLANTING BED)
- ▩ RAINBIRD DRIPLINE XFS - (18" LATERAL SPACING, 12" EMITTER SPACING) XF SERIES TIE DOWN STAKES (TDS-050) @ 36" O.C. & TWO ON EACH TEE/ELBOW PVC LATERAL PIPING SIZED AS REQUIRED
- ▩ RAINBIRD DRIP CONTROL ZONE KIT XCZ-100-PRB-COM (EACH DRIP ZONE) 1" BALL VALVE WITH REGULATED PRESSURE AND 200 MESH FILTRATION (1) DRIP SYSTEM OPERATION INDICATOR (OPERIND) PER IRRIGATION ZONE INSTALL ALL EQUIPMENT ACCORDING TO MANUFACTURERS SPECIFICATIONS ALL VALVE BOXES SHALL BE RAINBIRD VB-STD OR APPROVED EQUAL ALL VALVE BOXES SHALL HAVE FILTER FABRIC AND 4" OF GRAVEL AT BASE
- ▩ TEMPORARY IRRIGATION (ROTORS) TO COVER DUNE RESTORATION AREA TO REMAIN UNTIL END OF 90 DAY MAINTENANCE PERIOD . (CONNECT TO QUICK COUPLERS).

DESIGN PRESSURE 60 PSI
 ELECTRICAL SPLICES AT EACH VALVE AND CONTROLLER ONLY.
 IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), MC-1191 P.O. BOX 13087, AUSTIN, TX 78711-3087. TCEQ'S WEBSITE IS: www.tceq.state.tx.us

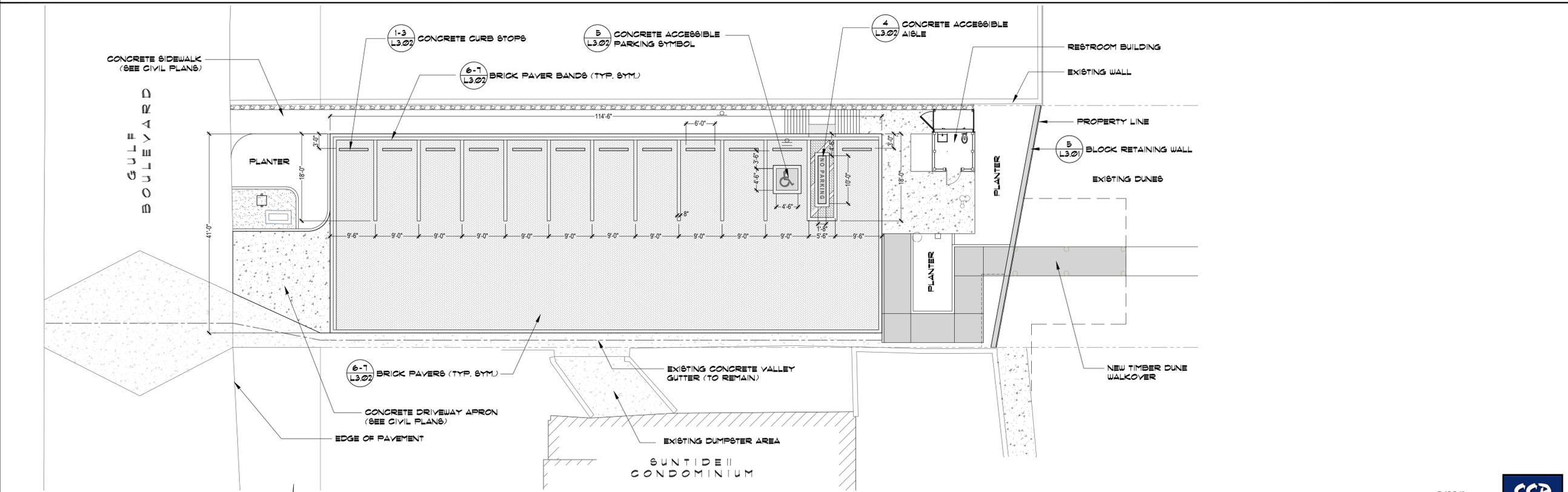
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 landscape architecture
 STEVEN M. RAHN, INC.
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 www.sspdesign.com

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1 LANDSCAPE PLAN
SCALE: 1/16" = 1'-0"



2 LAYOUT PLAN
SCALE: 3/32" = 1'-0"

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SOUTH PADRE ISLAND,
TEXAS

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**LANDSCAPE/
LAYOUT PLAN**

SHEET NO.
L2.01

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PLANT SCHEDULE (SITE)

CODE	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	SPACING	QTY
	PALMS					
CHIN	LIVISTONA CHINENSIS	CHINESE FAN PALM	B/B	6-8' TRUNK	A.B.	1
CHIN*	LIVISTONA CHINENSIS	CHINESE FAN PALM	B/B	10-12' TRUNK	A.B.	2
SABL	SABAL TEXANA	TEXAS SABAL PALM	B/B	10-12' TRUNK	A.B.	2
WASH	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM	B/B	15-20' TRUNK	A.B.	2
	SHRUBS					
GREE	FICUS MICROCARPA	GREEN ISLAND FIGUS	3 GAL	12"HT-BUSHY	A.B.	5
MIST	EUPATORIUM BITIONICIFOLIUM	PADRE ISLAND MIST FLOWER	1 GAL	12"HT-BUSHY	18" O.C.	70
NAUP	SCAEVOLA FRUTESCENS	NAUPAKA	3 GAL	18"HT-BUSHY	A.B.	4
SEAG	COCCOLOBA UVIFERA	SEA GRAPE	10 GAL	5' HT - 4' W	A.B.	1
	GROUND COVERING					
FROG	PHYLIA INGISA	TEXAS FROG FRUIT	QTS.		18" O.C.	25
WEDL	WEDDIA TRILOBATA	WEDDIA	4" POTS		12" O.C.	345

PLANT SCHEDULE (DUNE RESTORATION)

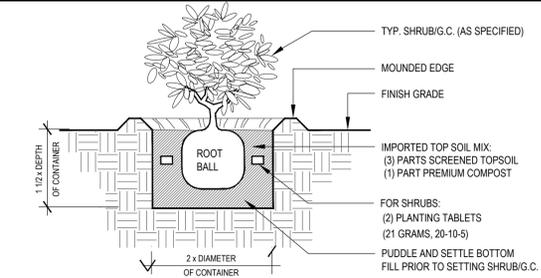
CODE	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	SPACING	QTY
	DUNE PLANTS					
BITT	PANICUM AMARUM	BITTER PANICUM	2"	TRAYS/CUTTINGS	1 PER SF.	2,170
OATS	UNIOA PANICULATA	SEA OATS	2"	TRAYS/CUTTINGS	1 PER SF.	670
RAIL	IPOMOEA PES-CAPRAE	RAILROAD VINE	2"	TRAYS/CUTTINGS	1 PER SF.	236

NOTE: THIS PROJECT INCLUDES 3,076 SF. OF DUNE RESTORATION PLANTING UTILIZING NATIVE DUNE SPECIES THAT MUST BE PRE ORDERED AND CONTRACT GROWN. DUNE RESTORATION PLANTING REQUIRES DUNE RESTORATION SPECIALIST TO MEET STATE GUIDELINES AND APPROVALS. SUBMIT NAME/NUMBER OF DUNE SPECIALIST SUB CONTRACTOR TO SSP FOR APPROVAL. CONTACT: STEVE MERCER - COASTAL TRANSPLANTS (912) 431-9814 OR APPROVED EQUAL.

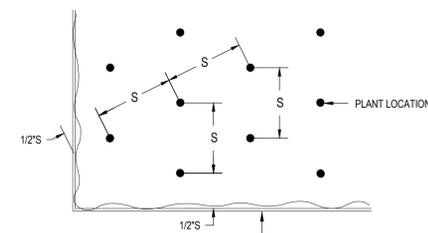
MATERIAL SCHEDULE

DESCRIPTION	NOTES	QUANTITY
DEMO	REMOVE EXISTING WASHINGTONIA PALM (18-20' HT.) AS PER PLANS	-
PREMIUM COMPOST	2" LAYER PREMIUM COMPOST (EARTHWISE ORGANIC MIX) (NOT FOR DUNE AREA)	5 C.Y.
SCREENED TOP SOIL	8" FOR ALL PLANTING BEDS (NOT FOR DUNE AREA)	20 C.Y.
MULCH (HARDWOOD)	2" MIN. FOR ALL PLANTING BEDS AND WATERING BASINS (TEXAS NATIVES HARDWOOD)	80 BAGS (2 CF.)
HERBICIDE	ALL PLANTING BED AREAS AS SPECIFIED	800 SF.
FERTILIZER	ALL PLANT MATERIAL PER DETAILS	800 SF.
PLANTING TABLETS	PER DETAILS / AS SPECIFIED	-
PRE-EMERGENT	ALL PLANTING BED AREAS AS SPECIFIED	800 SF.
GUYING / STAKING	ALL TREES/PALMS PER DETAILS	8
WASHED GRAVEL	6" DEPTH OF 1" - 1 1/2" WASHED GRAVEL 'TEXAS BLEND' AS PER PLANS/DETAILS	3 C.Y.
FILTER FABRIC	FABRICAPES 4 OZ. NON WOVEN FILTER FABRIC UNDER WASHED GRAVEL AS PER PLANS	150 SF.
DECO	4" COMPACTED DECOMPOSED GRANITE FINES 1/4" MINUS PER PLANS/DETAILS	100 SF.
ALUMINUM EDGE	5" BLACK ANODIZED ALUMINUM EDGE 'DREAMSCAPES' AS PER PLANS	25 L.F.
CONCRETE EDGE	6 x 6" EXTRUDED COLORED 'TEXAS BUFF' CONCRETE EDGING PER PLANS/DETAILS	85 L.F.
IRRIGATION SYSTEM	COMPLETE AUTOMATIC AND TEMPORARY IRRIGATION SYSTEM BY LICENSED CONTR. PER PLANS/SPECS	-

NOTE: CONTRACTORS MUST REVIEW TECHNICAL SPECIFICATIONS FOR ADDITIONAL PRODUCT INFORMATION AND PROJECT REQUIREMENTS.



1 SHRUB/G.C. PLANTING DETAIL
NOT TO SCALE

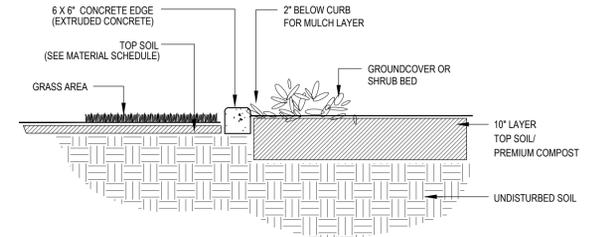


NOTES:
1. S = SPACING. (REFER PLANT LIST FOR AMOUNT OF SPACING.)
2. USE SPACING LAYOUT FOR SHRUBS, GROUNDCOVERS AND ANNUALS.

2 TRIANGULAR PLANT SPACING DIAGRAM
NOT TO SCALE

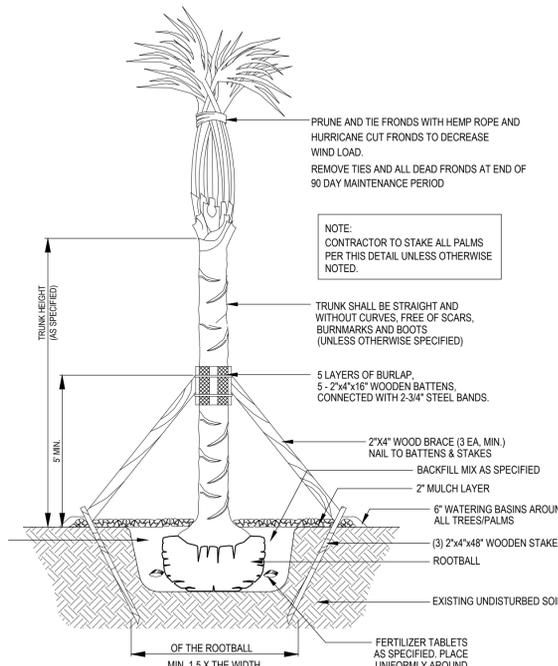
LANDSCAPE CONSTRUCTION NOTES

- WORK UNDER THIS CONTRACT INCLUDES SITE REVIEW AND COORDINATION WITH EXISTING CONDITIONS, SITE CLEANUP, EXCAVATION, BED PREP, TILLING, DUNE RESTORATION PLANTING, BRICK PAVERS, STAKING, IRRIGATION, MAINTENANCE AND GUARANTEE.
- LANDSCAPE CONTRACTOR SHALL FIELD VERIFY ALL QUANTITIES AND DIMENSIONS PRIOR TO BIDDING. QUANTITIES SHOWN IN SCHEDULE ARE FOR CONVENIENCE ONLY.
- NOTIFY SSP DESIGN PRIOR TO BID OF ANY DISCREPANCIES IN DRAWINGS/DETAILS OR INSUFFICIENT QUANTITIES DUE TO DIFFERENCES IN PLAN AND ACTUAL FIELD CONDITIONS.
- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. SPOTTING OF ALL UTILITIES IS REQUIRED.
- NOTIFY AND MEET WITH SSP DESIGN PRIOR TO ANY CONSTRUCTION FOR VERIFICATION/INTERPRETATION OF PLANS.
- LANDSCAPE CONTRACTOR SHALL VERIFY ALL PROPERTY BOUNDARIES AND LIMITS OF WORK WITH GENERAL CONTRACTOR/CIVIL ENGINEER. DO NOT BEGIN LANDSCAPE CONSTRUCTION UNTIL ALL BOUNDARIES, EASEMENTS AND RIGHTS-OF-WAY HAVE BEEN VERIFIED IN THE FIELD.
- LANDSCAPE CONTRACTOR SHALL STAKE OUT ALL BEDS, TREES, PALM LOCATIONS PRIOR TO INSTALLATION FOR APPROVAL BY SSP DESIGN.
- LANDSCAPE CONTRACTOR TO COORDINATE WITH SSP DESIGN TO ENSURE PROPER PLACEMENT OF PLANT MATERIAL AND IRRIGATION EQUIPMENT.
- LANDSCAPE CONTRACTOR TO INSTALL EDGING AS SHOWN ON PLANS/DETAILS.
- NOTIFY SSP DESIGN PRIOR TO PLANTING OPERATIONS FOR APPROVAL OF ALL PLANT MATERIAL ON SITE. ANY PLANT MATERIAL NOT APPROVED BY SSP DESIGN WILL BE SUBJECT TO REJECTION.
- IRRIGATION CONTRACTOR SHALL SUPPLY AND INSTALL COMPLETE AUTOMATIC IRRIGATION SYSTEM INCLUDING WATER METER, BACKFLOW DEVICE, CONTROLLER, MAINLINE, SLEEVES, LATERALS, AND POP-UP HEADS, TO COVER ALL LANDSCAPE AREAS PER PLANS/DETAILS. IRRIGATION SYSTEM SHALL BE INSTALLED BY A TEXAS LICENSED IRRIGATOR ONLY.
- LANDSCAPE CONTRACTOR SHALL REMOVE ALL EXISTING GRASS/WEEDS BY HERBICIDING PRIOR TO BED PREP AND SOIL REPLACEMENT.
- LANDSCAPE CONTRACTOR SHALL REMOVE 12" OF EXIST'G SOIL WITHIN ALL BED AREAS AND REPLACE WITH IMPORTED TOP SOIL/PREMIUM COMPOST MIX.
- LANDSCAPE CONTRACTOR SHALL CONSTRUCT 6"x36" WATERING BASINS AROUND ALL TREES/PALMS WITH A MIN. 2" LAYER OF MULCH.
- LANDSCAPE CONTRACTOR SHALL LOOSEN / GRADE ALL BED AREAS PRIOR TO PLANTING TO ENSURE PROPER DRAINAGE AND UNIFORM SURFACE.
- LANDSCAPE CONTRACTOR SHALL REMOVE ALL EXISTING GRASS AND WEEDS BY HERBICIDING, DISKING, FLOATING AND LIGHT GRADING OF ENTIRE PROJECT AREA PRIOR TO PLANTING.
- LANDSCAPE CONTRACTOR SHALL ESTABLISH AND MAINTAIN ALL PLANT MATERIAL FOR 90 DAYS AFTER 'SUBSTANTIAL COMPLETION' AND SHALL GUARANTEE ALL TREES/PALMS FOR A PERIOD OF ONE YEAR.
- IRRIGATION CONTRACTOR SHALL GUARANTEE ALL SYSTEM COMPONENTS FOR A PERIOD OF ONE YEAR.
- SEE SPECIFICATIONS FOR FURTHER INSTRUCTIONS/REQUIREMENTS.

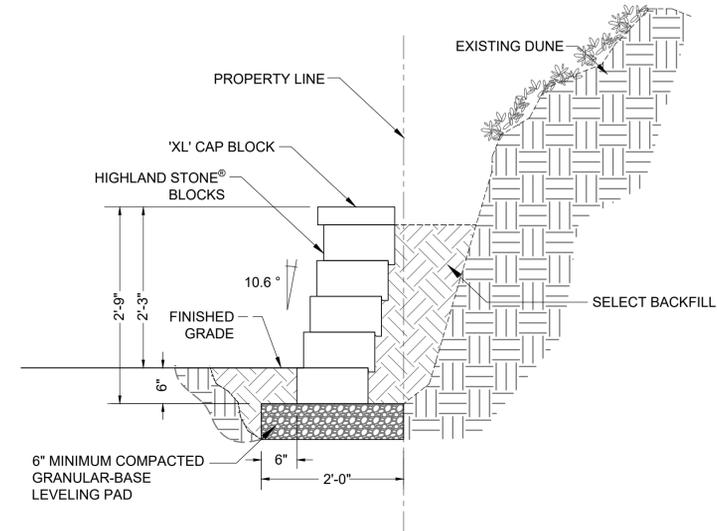


- NOTES:
- CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.
 - CONCRETE CURBING TO HAVE TAPERED DRAINAGE POINTS AT 10' O.C.
 - 2500-3000 PSI COMPRESSIVE STRENGTH, 480 PSI FLEXURAL STRENGTH.
 - USE HALF-INCH POLYPROPYLENE FIBER REINFORCEMENT.
 - EQUAL TO 'CONTOUR CURBS' EDGING (956-867-8350), CONTOURCURBS.NET

4 CONCRETE EDGE DETAIL
NOT TO SCALE



3 PALM PLANTING DETAIL
NOT TO SCALE



BASE LEVELING PAD NOTES:

- THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUSHED STONE OR LEVELING SAND.
- THE BASE FOUNDATION IS TO BE APPROVED BY SSP DESIGN PRIOR TO PLACEMENT OF THE LEVELING PAD.

GENERAL NOTES:

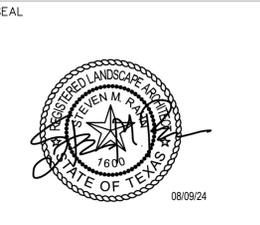
- CONCRETE UNITS TO BE BELGARD 'HIGHLAND STONE' 3 PIECE RETAINING WALL OR APPROVED EQUAL.
- COLOR AS PER MATERIAL SCHEDULE.
- APPLY LIQUID NAILS BETWEEN EACH COURSE OF BLOCK.

5 BLOCK WALL DETAIL
NOT TO SCALE

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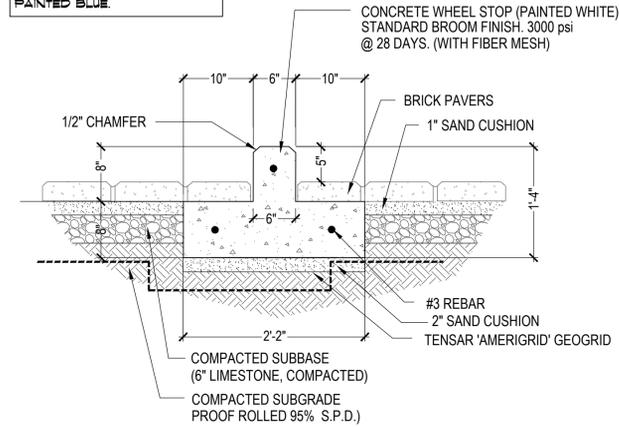
MARK	DATE	DESCRIPTION

PROJECT NO. 1065-21
DATE 08-09-2024
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CHECKED BY BD
SCALE AS SHOWN

**LANDSCAPE
SCHEDULES AND
DETAILS**

SHEET TITLE
L3.01
SHEET NO.

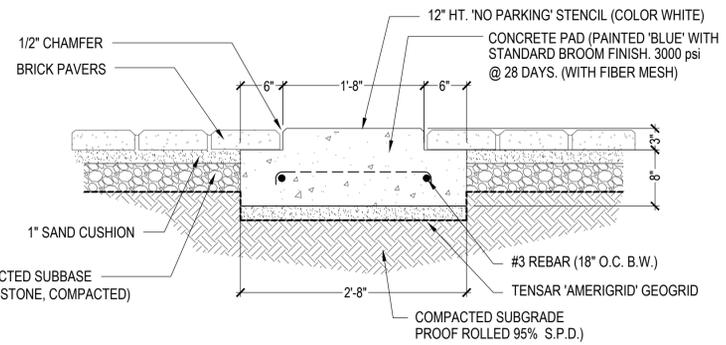
NOTE: CONTRACTOR TO PAINT CURB STOPS WHITE WITH THE SPI 'UMBRELLA' LOGO CONTACT CITY FOR STENCIL AND TO COORDINATE COLORS ADA CURB STOPS TO BE PAINTED BLUE.



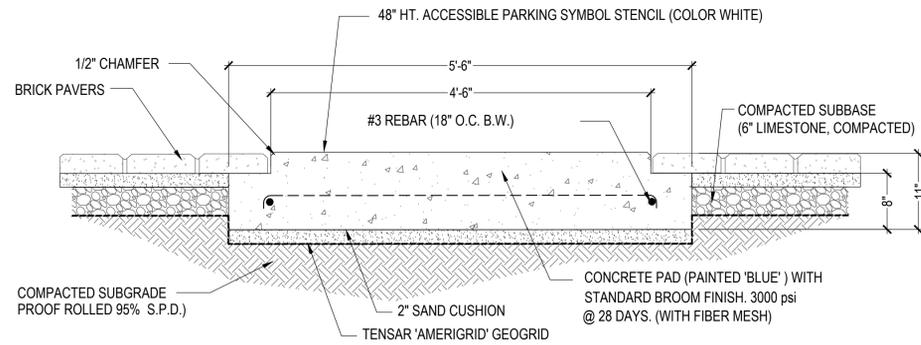
1 CONCRETE CURB STOP - SECTION 'SIDE'
SCALE: 1" = 1'-0"

PAVING NOTES

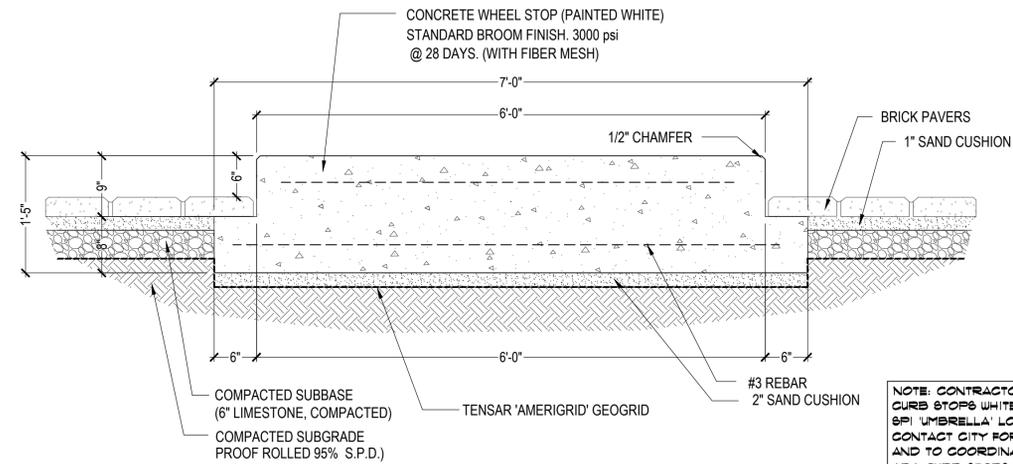
1. CONTRACTOR SHALL REVIEW AND COORDINATE WITH EXISTING CONDITIONS. LOCATE AND PROTECT ALL UNDERGROUND UTILITIES, DRAINS, ELECTRICAL, ETC.
2. CONTRACTOR TO FOLLOW CIVIL ENGINEER'S GRADING/DRAINAGE PLANS. ENSURE PROPER DRAINAGE AWAY FROM ALL BUILDINGS TO DRAIN INLETS PER GRADING/DRAINAGE PLANS.
3. CONTRACTOR 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 PAVEMENT AREAS.
5. CONTRACTOR SHALL SUPPLY/INSTALL SELECT FILL, SUB-BASE, MOISTURE CONDITION, AND COMPACT SUB GRADE TO 95% PROCTOR DENSITY.
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. APPLY PENETRATING SEALER WHEN PAVERS ARE COMPLETELY DRY AND CLEAN. MATTE FINISH, TECHNISEAL 'NATURAL LOOK' (N), PRODUCT CODE 60304120)
11. CONTRACTOR SHALL NOTIFY SSP BEFORE INSTALLATION FOR INSPECTIONS/APPROVALS OF AL WORK.
12. CONTRACTOR SHALL WARRANTY ALL MATERIALS AND LABOR FOR A PERIOD OF TWO YEARS. WARRANTY INCLUDED RE-SANDING IF REQUIRED, HERBICIDE TREATMENT AND REPAIR OF ALL SUBGRADE FAILURES IF REQUIRED.



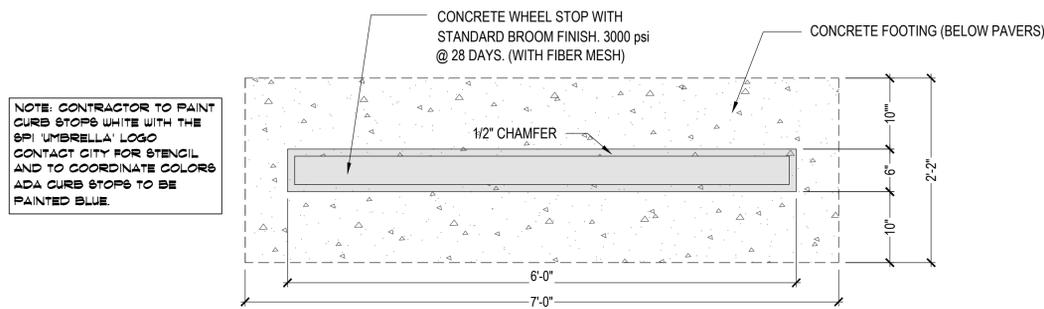
4 ACCESSIBLE ACCESS AISLE - CONCRETE PAD DETAIL
SCALE: 1" = 1'-0"



5 ACCESSIBLE PARKING SYMBOL - CONCRETE PAD DETAIL
SCALE: 1" = 1'-0"



2 CONCRETE CURB STOP - SECTION 'FRONT'
SCALE: 1" = 1'-0"

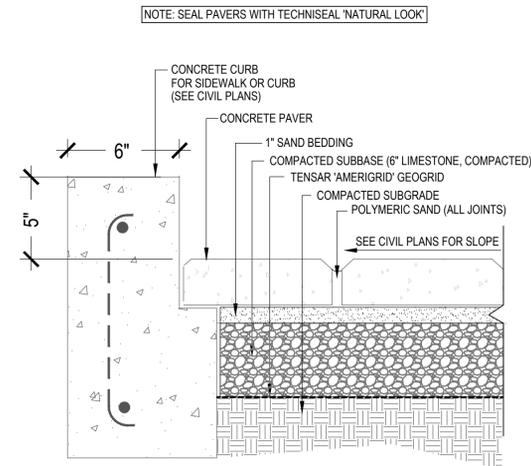


3 CONCRETE CURB STOP - PLAN
SCALE: 1" = 1'-0"

PAVING MATERIAL SCHEDULE

DESCRIPTION	NOTES	QUANTITY
BRICK PAVERS *	4x8" 80 MM KEYSTONE 'HOLLANDSTONE' BRICK PAVERS BAND (B/B/LIGHT BROWN/DARK BROWN MIX) * HERRINGBONE PATTERN AS PER PLANS/DETAILS	4200 SF.
BRICK PAVER BAND*	4x8" 80 MM KEYSTONE 'HOLLANDSTONE' BRICK PAVERS (LIMESTONE) * AS PER PLANS/DETAILS	525 SF.
CONCRETE WHEEL STOPS	8" x 6" CONCRETE WHEEL STOPS (PAINTED WHITE WITH SPI 'UMBRELLA' LOGO) AS PER PLANS/DETAILS	12
CONCRETE PADS	CONCRETE PADS (PAINTED BLUE) FOR ACCESSIBLE SYMBOL AND NO PARKING SPACE/SEE PLANS AND DETAILS FOR DIMENSIONS, EACH WITH PAINTED STENCIL (COLOR WHITE) AS PER PLANS/DETAILS	55 SF.
RETAINING WALL	BELGARD ANCHOR HIGHLAND STONE CONCRETE BLOCK RETAINING WALL (3 PIECE 6 x 6, 6 x 12, 6 x 18 x 12) WITH 3" XL CAP (COLOR 'DANVILLE BEIGE') AS PER PLANS/DETAILS	51 LF.

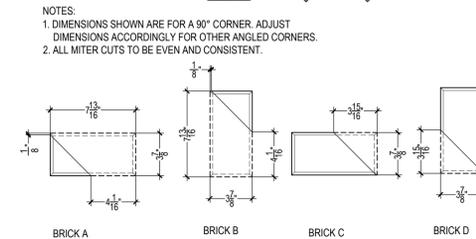
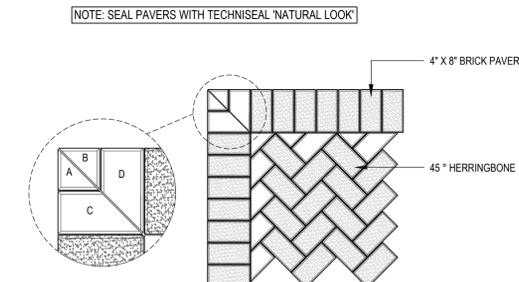
* NOTE CONTRACTOR TO PROVIDE AVAILABLE PAVER COLORS FOR APPROVAL BY CITY BEFORE ORDERING MATERIAL



- GENERAL SPECIFICATIONS:
- INSTALLATION
1. EXCAVATE UNSUITABLE, UNSTABLE OR UNCONSOLIDATED SUBGRADE MATERIAL AND COMPACT THE AREA WHICH HAS BEEN CLEARED AND LAYOUT GEOGRID. 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 1" TO 1 1/2" (25-38MM) SCREED 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, UNIFORMLY 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 6x6' MOCKUP OF PAVING TO INCLUDE FIELD PATTERN, BORDER PATTERN AND COLORS.

6 PAVING INSTALLATION DETAIL
NOT TO SCALE



7 PAVER DETAIL - 90° MITER
NOT TO SCALE

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PROJECT
**SPI NEPTUNE CIRCLE
BEACH ACCESS
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SOUTH PADRE ISLAND,
TEXAS

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DATE 08-09-2024
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SHEET TITLE

**HARDSCAPE
SCHEDULES AND
DETAILS**

SHEET NO.
L3.02

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PROJECT
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MARK	DATE	DESCRIPTION

PROJECT NO. 24v46
DATE 08-09-2024
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SHEET TITLE
**ELECTRICAL AND
PLUMBING SITE PLAN**

SHEET NO.
EP1.01

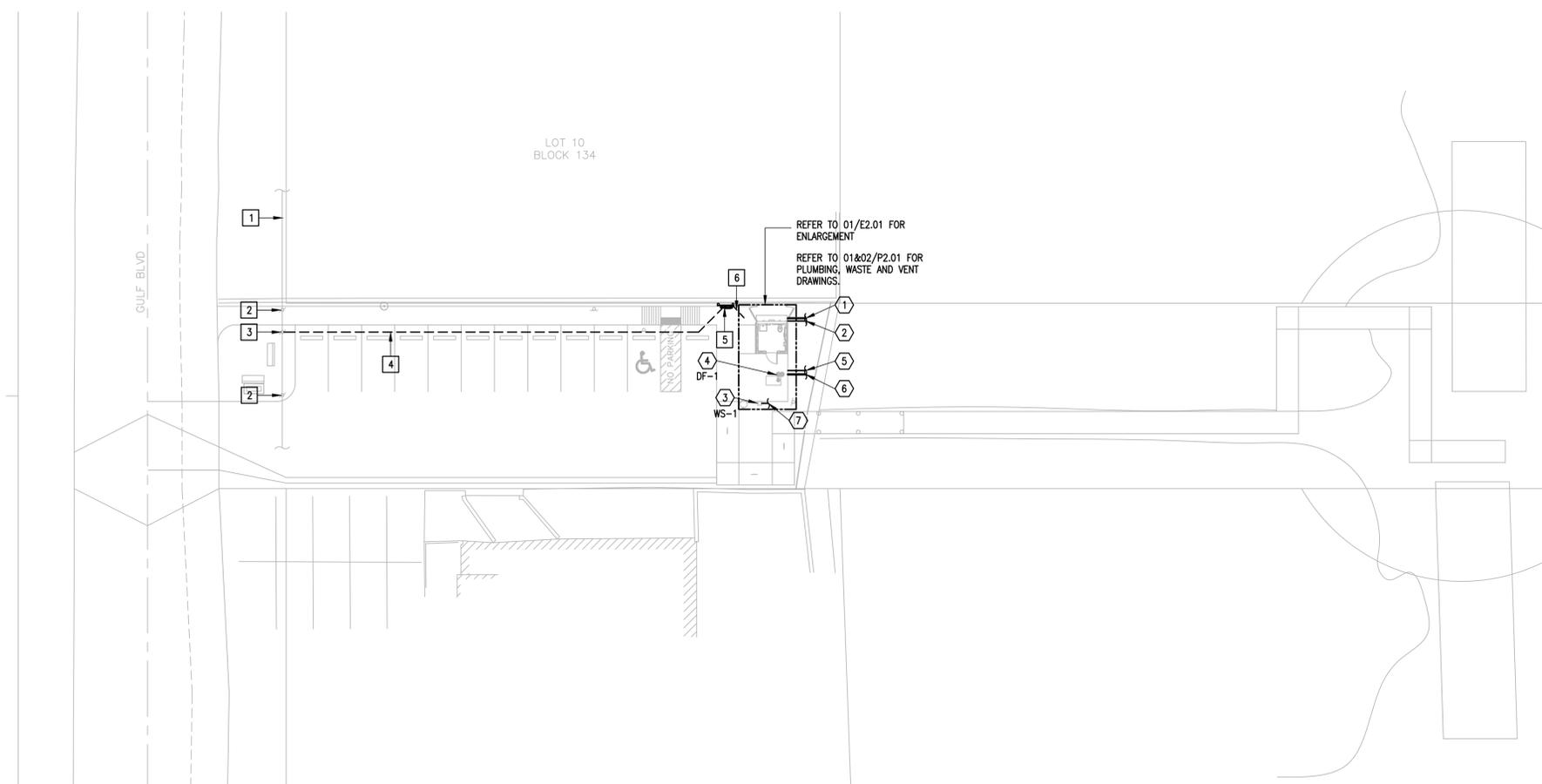


ELECTRICAL KEYED NOTES:

- 1 EXISTING ELECTRICAL UTILITY OVERHEAD SERVICE LINES.
- 2 EXISTING ELECTRIC UTILITY POWER POLE.
- 3 PROPOSED NEW ELECTRIC UTILITY POWER POLE, NEW ELECTRIC UTILITY POLE MOUNT TRANSFORMER, AND RISER DIP POLE.
- 4 PROVIDE ELECTRICAL UNDERGROUND SECONDARY.
- 5 PROVIDE ELECTRIC METER AND MAIN DISCONNECT.
- 6 PROVIDE UNDERGROUND FEEDER.

GENERAL NOTES:

1. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
2. FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
3. COORDINATE ELECTRICAL, AND PLUMBING WITH GENERAL CONSTRUCTION.
4. PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
5. FIELD VERIFY/SPOT EXACT LOCATIONS AND EXISTING CONDITIONS OF EXISTING PLUMBING, AND ELECTRICAL. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE AND WORKABLE SYSTEMS. SHOULD BIDDER FIND OMISSIONS OR DISCREPANCIES IN THE PLANS, BIDDER SHALL NOTIFY THE ENGINEER PRIOR TO THE BID DATE AND A WRITTEN CLARIFICATION WILL BE ISSUED.
6. DAMAGED ITEMS SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. CONTRACTORS ARE REQUIRED TO SEARCH AND INVESTIGATE FOR EXISTING UTILITIES BEFORE EXCAVATING.
7. ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
8. PROVIDE J-BOXES (POLYMER CONCRETE) AS REQUIRED FOR PULL WIRING.
9. ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
10. PERFORM ALL WORK PER LATEST VERSION OF NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
11. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
12. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
13. SEE CIVIL DRAWINGS FOR CUTTING, COMPACTING, & PATCHING.
14. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
15. SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
16. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING PHASE.
17. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
18. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
19. AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
20. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
21. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
22. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
23. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
24. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.
25. SLEEVE ALL EXTERIOR WALL PENETRATIONS.
26. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.



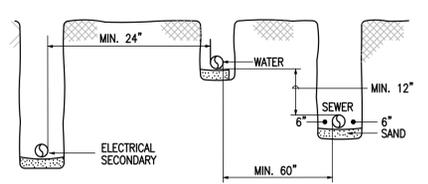
01 ELECTRICAL AND PLUMBING SITE PLAN
SCALE: 1" = 20'-0"



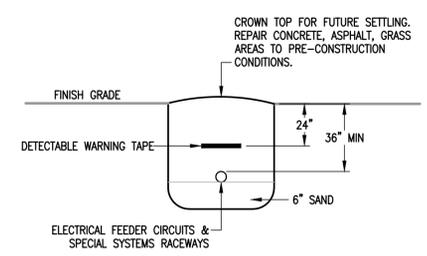
PLUMBING KEYED NOTES:

- 1 PROVIDE A 4" SANITARY SEWER CONNECTION. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
- 2 PROVIDE UNDERGROUND 1-1/4" SCH. 40 CPVC DOMESTIC WATER LINE TO SERVICE RESTROOM. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
- 3 PROVIDE (WS-1) WASH STATION. CONCEAL WATER LINE WITHIN A WOODEN ENCLOSURE. REFER TO 04/P3.01 FOR THE ASSOCIATED DETAIL.
- 4 PROVIDE PEDESTAL TYPE DRINKING FOUNTAIN AS SCHEDULED OR AN APPROVED EQUAL.
- 5 PROVIDE UNDERGROUND 3/4" SCH. 40 CPVC DOMESTIC WATER LINE TO SERVICE PEDESTAL TYPE NEW DRINKING FOUNTAIN AND NEW WASH STATION. PROVIDE GATE VALVE IN QUARTZITE BOX. SEE ASSOCIATED DETAIL ON DETAIL SHEET. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF PROPOSED DOMESTIC WATER LINE.
- 6 PROVIDE NEW 3" SANITARY SEWER CONNECTION. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
- 7 REFER TO 01/P2.01 FOR WASH STATION CONNECTION.

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.
COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.
MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.
MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIMUM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



03 TRENCHING DETAIL
SCALE: NONE



02 BURIAL DETAIL FOR ELECTRICAL RACEWAYS
SCALE: NONE

WIRING DEVICES SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DUPLEX RECEPTACLE W/ GROUND FAULT INTERRUPTING TYPE - HUBBELL MODEL #GFTWRST201 AND WHILE IN USE WEATHERPROOF COVER - HUBBELL MODEL #RWS8300	18" AFF

NOTES:

- 1.) U.N.O. INDICATES UNLESS NOTED OTHERWISE.
 18" AFF INDICATES TO TOP OF DEVICE.
 ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.
 AC INDICATES 4" ABOVE COUNTER TO BOTTOM OF DEVICE.
 ALL RECEPTACLES SHALL BE INSTALLED HORIZONTALLY.

GENERAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	JUNCTION BOX W/ BLANK COVERPLATE	AS REQUIRED
	ELECTRICAL PANELBOARD - SURFACE MOUNTED	AS REQUIRED
	UNDERGROUND RACEWAY	AS REQUIRED
	CONCEALED RACEWAY	AS REQUIRED
	CONDUIT OR EMT HOMERUN TO PANELBOARD CONCEALED IN WALLS OR ABOVE CEILING. LONG CROSSMARKS DENOTE NUMBER OF "HOT" CONDUCTORS SHORT CROSSMARKS INDICATE NEUTRALS AND DOTS INDICATE NUMBER OF GROUND CONDUCTORS. ARROW INDICATES HOME RUN TO ELECTRICAL PANEL.	AS REQUIRED

LIGHTING SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	SURFACE/WRAPAROUND EMERGENCY LIGHT FIXTURE CONNECT BATTERY PACK TO BE ON AT ALL TIMES (UNSWITCHED)	----
	SURFACE/WRAPAROUND LIGHT FIXTURE	----
	OUTDOOR TIME CLOCK - 365 DAY, ASTRONOMICAL, 2-CHANNEL, PROGRAMMABLE, CAPABLE OF HAVING MULTIPLE SCHEDULES.	AS REQUIRED

NOTES:

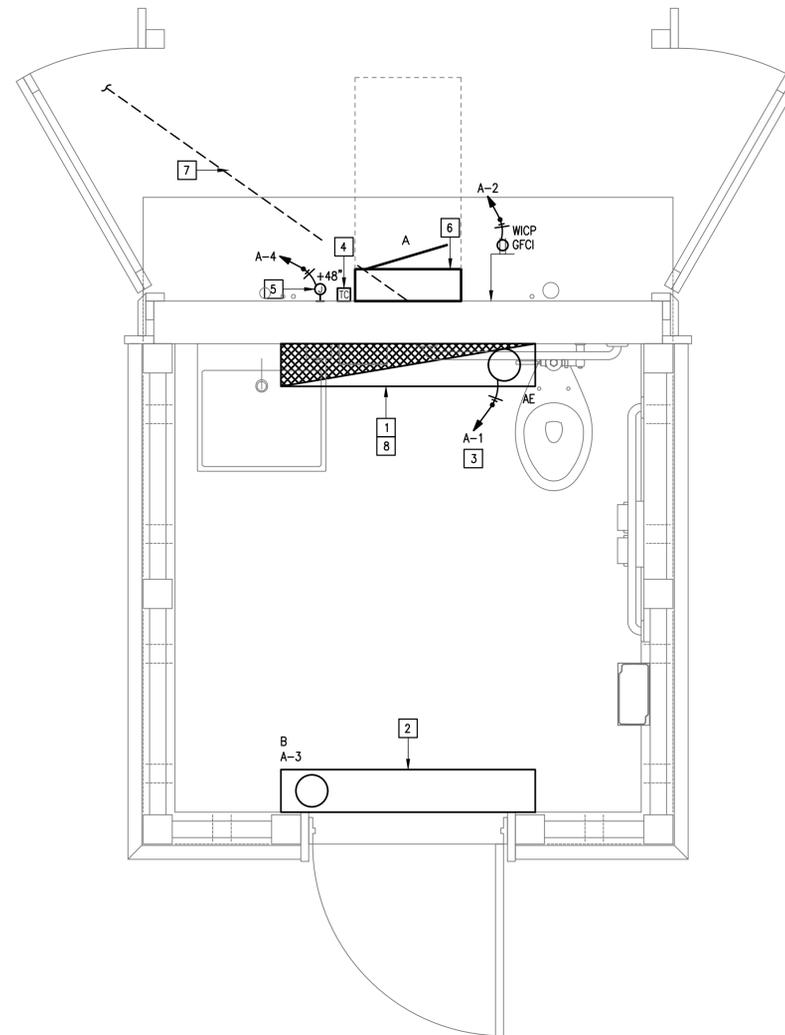
- 1.) REFERENCE LIGHT FIXTURE SCHEDULE FOR ALL MOUNTING HEIGHTS.

ABBREVIATIONS:

A	AMPS	CU.	COPPER	MECH	MECHANICAL
ABC	ABOVE CEILING LINE	DISC.	DISCONNECT	NTS	NOT TO SCALE
AC	ABOVE COUNTER BACKSPLASH	EXT.	EXTERNAL OR EXTERIOR	PH	PHASE
AFF	ABOVE FINISHED FLOOR	G.	GROUND	RM.	ROOM
B.	BOTTOM	GAL.	GAGE	SS	STAINLESS STEEL
BLC.	BELOW CEILING LINE	GALV.	GALVANIZED	UG	UNDERGROUND
C.	CONDUIT OR COMMON	GRND.	GROUND	UNO	UNLESS OTHERWISE NOTED
CLG.	CEILING	HP	HORSEPOWER	V	VOLTS
COND.	CONDUIT	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	W	WIRE

SCOPE OF WORK

- GENERAL:** THE "SPI NEPTUNE CIRCLE BEACH ACCESS IMPROVEMENTS" CONSISTS OF A NEW SINGLE- STORY BUILDINGS, APPROXIMATE SQUARE FOOTAGE 89FT2. THIS BUILDING WILL GENERALLY BE OPERATED FROM 8:00AM TO 6:00PM. (7 DAYS A WEEK).
- ELECTRICAL:** PROVIDE ALL MATERIALS AND LABOR ASSOCIATED WITH COMPLETE OPERATIONAL ELECTRICAL DISTRIBUTION SYSTEM. MAJOR ITEMS OF WORK INCLUDE, BUT ARE NOT LIMITED TO:
 - ELECTRICAL SERVICE:**
 - PROVIDE A NEW UNDERGROUND ELECTRICAL SERVICE; IT SHALL CONSIST OF UNDERGROUND ELECTRICAL RACEWAYS AND A SUPPORT STRUCTURE FOR UTILITY METER AND MAIN DISCONNECT.
 - UTILITY COMPANY SHALL PROVIDE MEDIUM VOLTAGE CONDUCTORS AND POLE MOUNTED TRANSFORMER.
 - LIGHTING SYSTEMS: SHALL CONSIST OF LED TYPE WITH TIME CLOCK CONTROLS.
 - POWER SYSTEMS: PROVIDE MISCELLANEOUS DUPLEX RECEPTACLES AND POWER FOR IRRIGATION CONTROLLER.



01 RESTROOM LIGHTING AND ELECTRICAL PLAN
 SCALE: 3/4" = 1'-0"



GENERAL NOTES:

- ALL ELECTRICAL MATERIALS (OUTDOORS), INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PANELBOARDS, SAFETY SWITCHES, HARDWARE (316 SS), SUPPORTING APPURTENANCES, ETC. SHALL BE SUITABLE FOR MARINE/COASTAL TYPE INSTALLATIONS.
 - UNISTRUT - PVC COATED
 - HARDWARE - STAINLESS STEEL 316.
 - ELECTRICAL GEAR ENCLOSURE - REINFORCED FIBERGLASS.
 - RACEWAYS ABOVE GROUND - PVC SCHEDULE 80, SUNLIGHT RESISTANT.
 - RACEWAYS BELOW GROUND - PVC SCHEDULE 40.
- LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" - 2#12 & #12G. 20A/120V HOMERUNS EXCEEDING 100FT THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
- INTERIOR LIGHTING CONTROLS SHALL BE BY TIME CLOCK.
- EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.
- PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND WALL SWITCH.
- THE INTENT IS FOR ALL LIGHTING RACEWAYS TO BE CONCEALED WITHIN WALLS AS MUCH AS POSSIBLE. WHERE RACEWAYS ARE TO BE INSTALLED SURFACE MOUNTED TO CEILINGS THEY SHALL FOLLOW THE PATCH INDICATED ON THE ARCHITECTURAL DRAWINGS. PRIOR TO ROUGH-IN OF ANY LIGHTING RACEWAY A SHOP DRAWINGS INDICATING ALL ROUTES SHALL BE SUBMITTED FOR APPROVAL.

ELECTRICAL KEYED NOTES:

- CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY TIME CLOCK. MOUNT AS HIGH AS POSSIBLE - TYPICAL.
- LIGHT FIXTURE SHALL BE OPERATED BY TIME CLOCK (SUNSET TO SUNRISE) - MOUNT FIXTURE AS HIGH AS POSSIBLE - TYPICAL.
- SWITCH VIA TIME CLOCK. THE INTENT IS FOR LIGHT FIXTURE TO BE "ON" FROM SUNRISE TO SUNSET - TYPICAL.
- PROVIDE TIME CLOCK.
- CONNECT IRRIGATION CONTROLLER.
- PROVIDE PANELBOARD - SEE SCHEDULE.
- PROVIDE UNDERGROUND FEEDER.
- CONTROLLED BY TIME CLOCK (SUNRISE TO SUNSET).



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PROJECT

SPI NEPTUNE CIRCLE
 BEACH ACCESS
 IMPROVEMENTS

SOUTH PADRE ISLAND,
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DRAWN BY	ETHOS
CHECKED BY	CG
SCALE	AS SHOWN

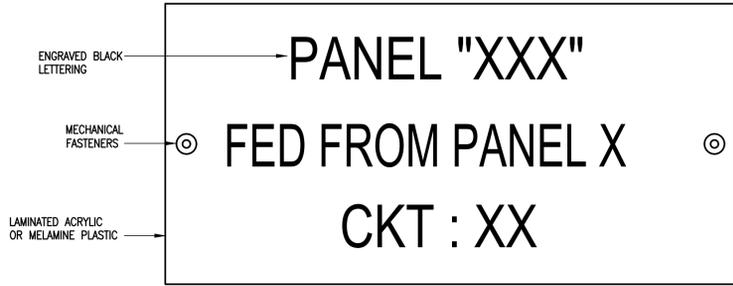
SHEET TITLE
**RESTROOM LIGHTING
 AND ELECTRICAL
 PLAN**

SHEET NO.

E2.01



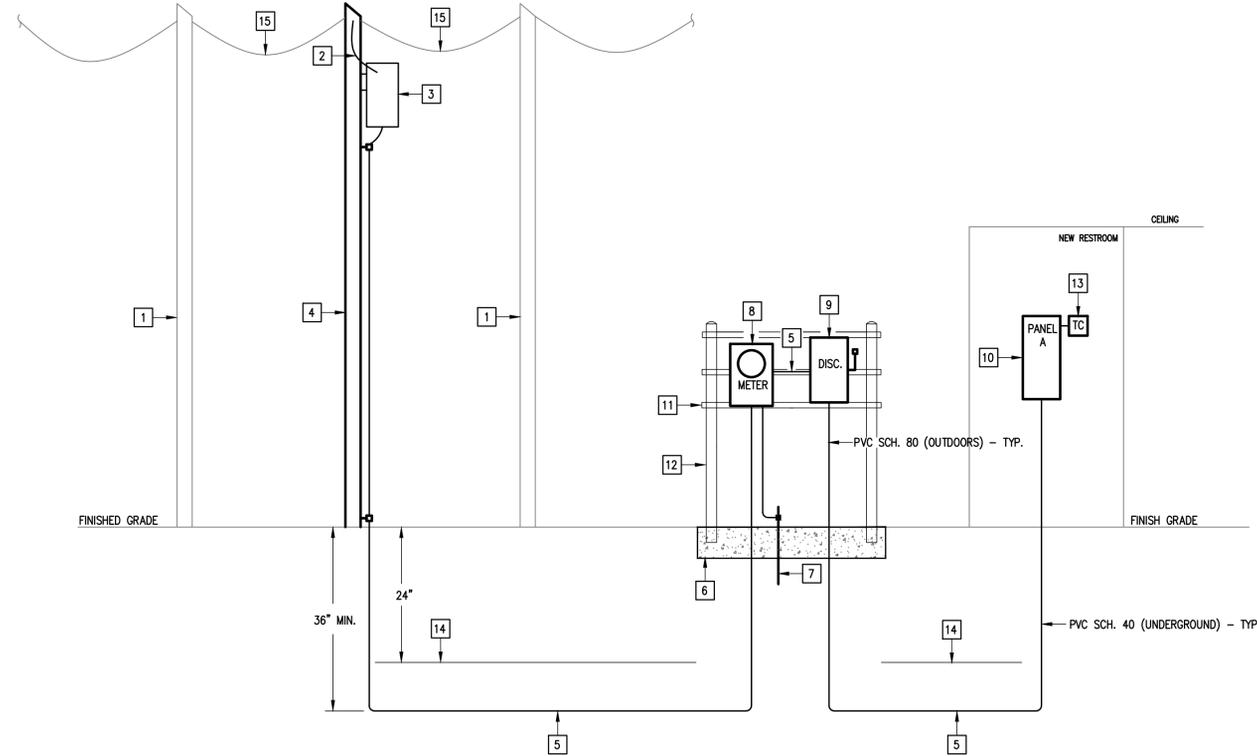
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NOTE: ATTACH NAMEPLATES TO ALL ELECTRICAL GEAR AS NOTED ON SECTION 260553.
EQUIPMENT
02 IDENTIFICATION LABEL DETAIL
SCALE: NOT TO SCALE



03 LIGHT FIXTURE TYPE "AE, B"
SCALE: NOT TO SCALE



**ELECTRICAL RISER DIAGRAM
KEYED NOTES:**

- 1 EXISTING ELECTRIC UTILITY POLE.
- 2 NEW ELECTRICAL UTILITY OVERHEAD SERVICE LINE.
- 3 PROPOSED NEW TRANSFORMER.
- 4 PROPOSED NEW ELECTRIC UTILITY POLE.
- 5 PROVIDE 1"-3/8" & #8G (COPPER).
- 6 24" WIDE X 36" LONG X 24" DEEP (4" ABOVE GRADE) CONCRETE FOOTING WITH #4 REBAR WELDED.
- 7 PROVIDE 3/4" X 10' COPPER CLAD GROUND ROD AND 3/4" -#8 COPPER GROUND ELECTRODE CONDUCTOR.
- 8 PROVIDE FOR METERING PER ELECTRIC UTILITY STANDARDS.
- 9 PROVIDE 100A, 2P2F, 240V, NEMA 4, REINFORCED FIBERGLASS.
- 10 PROVIDE PANELBOARD - SEE SCHEDULE.
- 11 PROVIDE PVC COATED UNISTRUT.
- 12 PROVIDE 3" PVC COATED STEEL PIPE.
- 13 TIME CLOCK. PROVIDE A HINGED PVC ENCLOSURE.
- 14 PROVIDE CONTINUOUS DETECTABLE UNDERGROUND WARNING TAPE.
- 15 EXISTING ELECTRIC UTILITY OVERHEAD SERVICE LINES.

01 ELECTRICAL RISER DIAGRAM
SCALE: NOT TO SCALE

LUMINAIRE SCHEDULE											
CALLOUT	LAMP	DESCRIPTION	DRIVER	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTES	LUMENS/LAMP	LUMEN MAINTENANCE	HOURS
AE	LED	4' VANDAL RESISTANT WRAPAROUND	0-10V	SURFACE	LUMINAIRE LED: VPF4 4FT MIN1 25W 4000K MVOLT CLP X EMB310	25	120V 1P 2W	PROVIDE UL LISTED FOR DAMP LOCATIONS AND WITH AN EMERGENCY BATTERY PACK.	2994	L70	130,000
B	LED	4' VANDAL RESISTANT WRAPAROUND	DRIVER	SURFACE	LUMINAIRE LED: VPF4 4FT NODIM 40W AMB 120-277 CLP X	40	120V 1P 2W	PROVIDE UL LISTED FOR DAMP LOCATIONS AND WITH AN AMBER LIGHT SOURCE.	645	L70	130,000

GENERAL NOTES:
 1. OTHER LIGHT FIXTURE MANUFACTURERS THAN THOSE LISTED ON THIS SCHEDULE ARE REQUIRED TO OBTAIN PRIOR APPROVAL BY SUBMITTING CUT SHEETS OF THEIR SUBSTITUTIONS AT LEAST (10) DAYS PRIOR TO BID. CUT SHEETS SHALL INDICATE/HIGHLIGHT PHOTOMETRIC CURVE, EFFICIENCY & CONSTRUCTION FOR DIRECT COMPARISON WITH SPECIFIED FIXTURES.
 2. EXTRA MATERIALS: SEE SPECIFICATIONS.
 3. EMERGENCY BATTERY PACKS SHALL BE COMPLETE FACTORY INSTALLED WITH NI-CAD BATTERY, CHARGER INDICATING LIGHT, ELECTRONIC CIRCUITRY, 1400 LUMENS OUTPUT, 90 MINUTES DURATION & FIVE FULL YEARS WARRANTY.

A											
ROOM			VOLTS 240/120V 2P 3W			AIC 10,000					
MOUNTING FLUSH			BUS AMPS 100			MAIN BKR MLO					
FED FROM UTILITY			NEUTRAL 100%			LUGS STANDARD					
NOTE: PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			
			A	B				A	B		
1	20/1	LIGHTING	0.025		2	20/1	RECEPT.	1.5			
3	20/1	LIGHTING		0.04	4	20/1	IRR. CONTROLLER		0.18		
5	20/2	SPARE	0		6	20/1	SPARE	0			
7				0	8	20/1	SPARE		0		
9	20/2	SPARE	0		10	20/1	SPARE	0			
11				0	12	20/1	SPARE		0		
								TOTAL CONNECTED KVA BY PHASE		1.53	0.22
			CONN KVA		CALC KVA		CALC KVA				
LIGHTING			0.065	0.081	(125%)		TOTAL LOAD		1.76		
RECEPTACLES			1.68	1.68	(50%>10)		BALANCED LOAD		7.34 A		

PROVIDE NEMA 4 (REINFORCED FIBERGLASS) ENCLOSURE.



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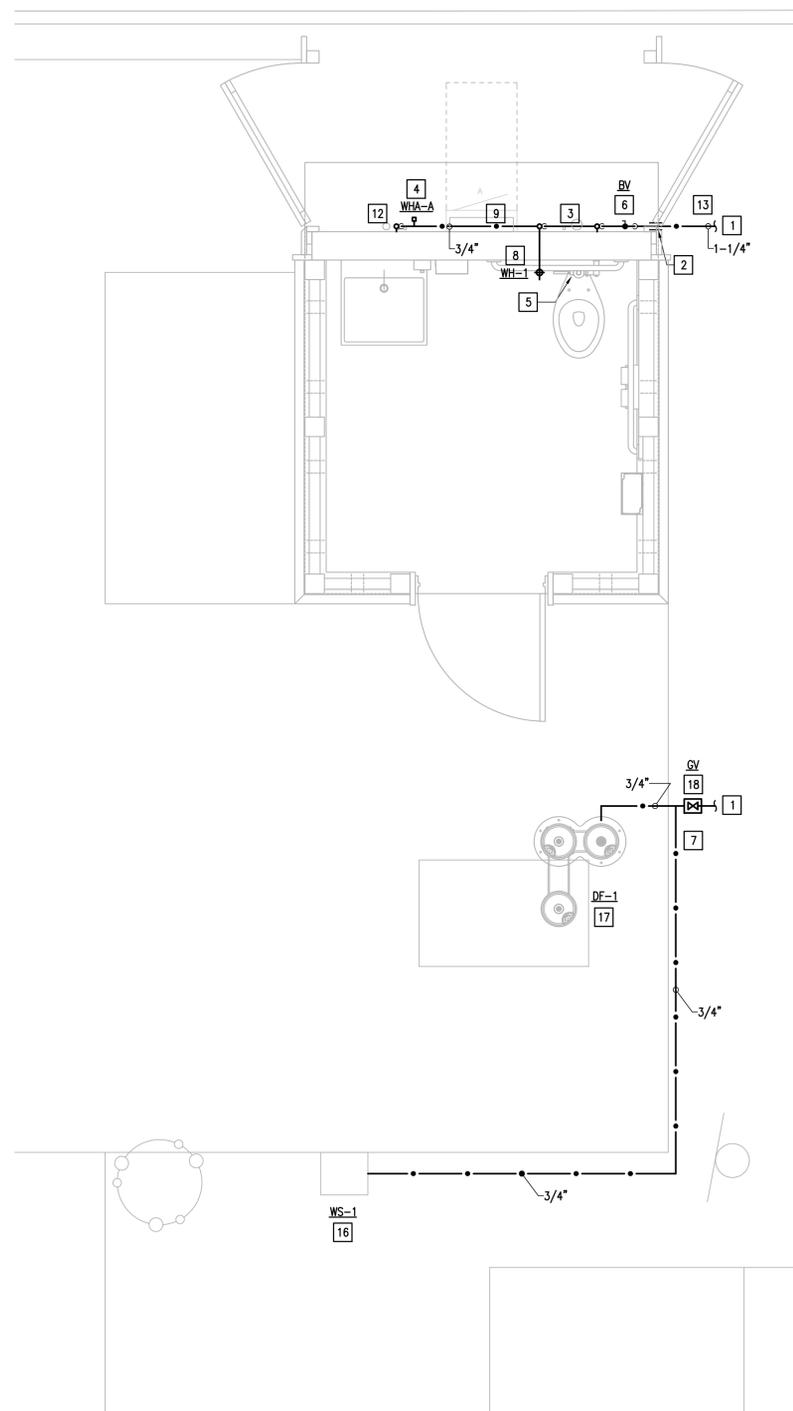


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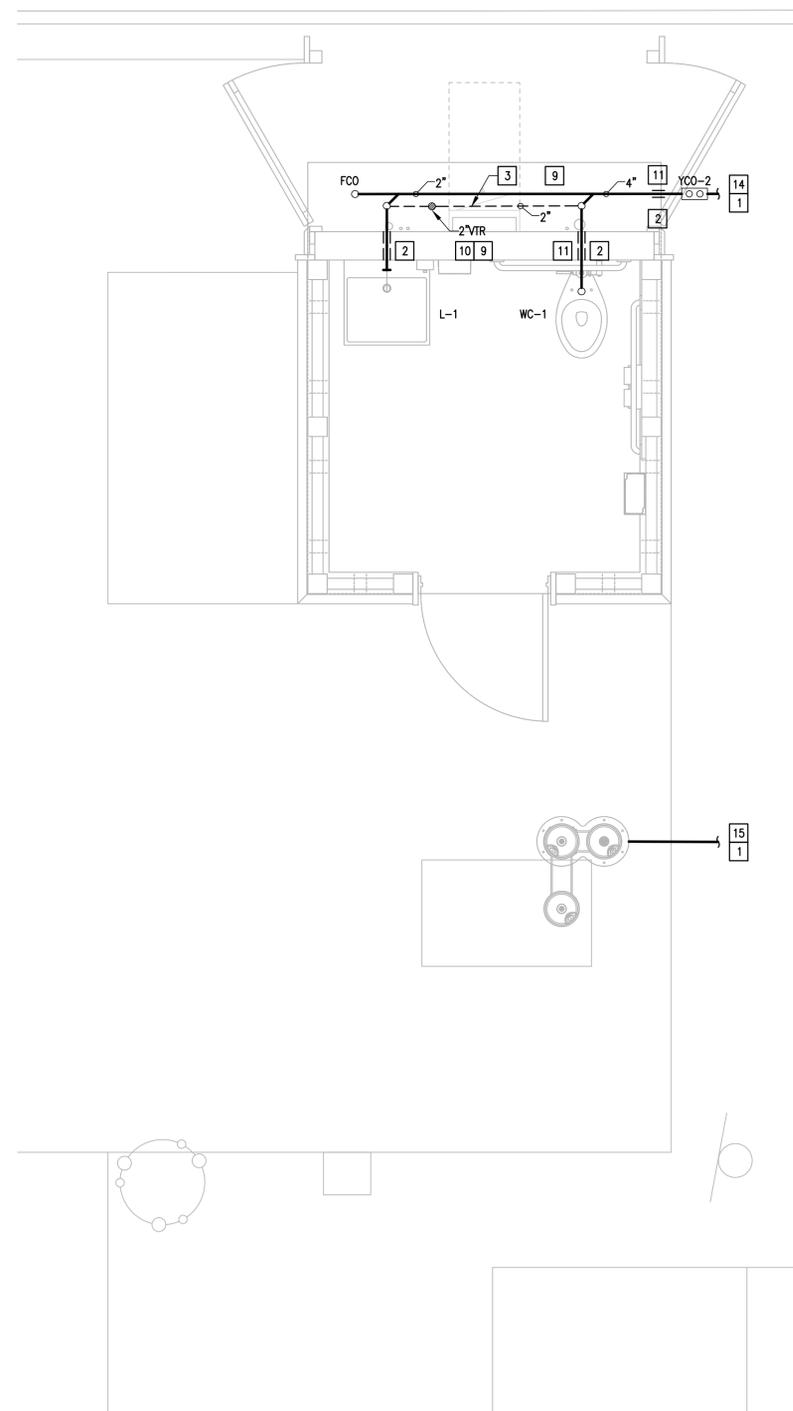
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**ELECTRICAL RISER
DIAGRAM AND
SCHEDULES**

SHEET NO.
E2.02



01 RESTROOM PLUMBING FLOOR PLAN
 SCALE : 1/2" = 1'-0"
 PLAN NORTH



02 RESTROOM WASTE AND VENT PLAN
 SCALE : 1/2" = 1'-0"
 PLAN NORTH

GENERAL NOTES:

- HANGERS SHALL BE STAINLESS STEEL. REFER TO SPECIFICATIONS FOR MORE DETAILS.
- BALL VALVES AND DOMESTIC WATER PIPING SHALL BE SCH. 40 CPVC. REFER TO SPECIFICATIONS FOR MORE DETAILS.

PLUMBING KEYED NOTES:

- REFER TO MEP SITE PLAN FOR CONTINUATION.
- SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
- MOUNT CPVC DOMESTIC WATER PIPING AND PVC VENT PIPING TO THE MASONRY WALL.
- PROVIDE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
- INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDE SIDE OF THE ROOM. COORDINATE WITH GENERAL CONTRACTOR. (TYPICAL)
- PROVIDE CPVC BALL VALVE IN LINE OF WATER ENTRANCE. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
- BRANCH OFF WITH A 3/4" SCH. 40 CPVC WATER LINE FROM CIVIL'S DOMESTIC WATER LINE TO SERVICE NEW WASH STATION (WS-1). REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF PROPOSED DOMESTIC WATER LINE.
- PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
- PAINT ALL EXPOSED PIPING TO MATCH ARCHITECTURAL FINISHES.
- PROVIDE 2" VENT UP TO 2" VENT THRU ROOF.
- RUN SANITARY SEWER BELOW GRADE BEAMS.
- CAP HOT WATER LAVATORY FAUCET LINE. HOT WATER WILL NOT BE SUPPLIED.
- PROVIDE NEW UNDERGROUND 1-1/4" SCHEDULE 40 CPVC DOMESTIC WATER LINE TO SERVICE PLUMBING FIXTURES.
- PROVIDE NEW 4" SANITARY SEWER PIPE. REFER TO MEP SITE PLAN FOR SITE LOCATION.
- PROVIDE NEW 2" SANITARY SEWER PIPE TO SERVE PEDESTAL TYPE DRINKING FOUNTAIN. REFER TO MEP SITE PLAN FOR SITE LOCATION AND REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
- PROVIDE WASH STATION (WS-1). CONCEAL WATER LINE WITHIN A WOODEN ENCLOSURE. REFER TO 04/P3.01 FOR ASSOCIATED DETAIL.
- PROVIDE PEDESTAL TYPE DRINKING FOUNTAIN (DF-1) AS SCHEDULED OR AN APPROVED EQUAL.
- PROVIDE UNDERGROUND 3/4" SCH. 40 CPVC DOMESTIC WATER LINE TO SERVICE PEDESTAL TYPE DRINKING FOUNTAIN. PROVIDE GATE VALVE IN QUAZITE BOX. REFER TO CIVIL DRAWINGS FOR CONTINUATION.



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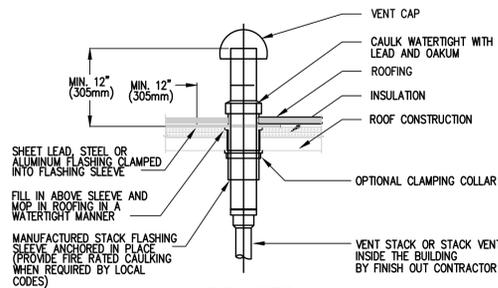
PROJECT NO.	24v46
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CHECKED BY	CG
SCALE	AS SHOWN

SHEET TITLE
**RESTROOM
 PLUMBING, WASTE
 AND VENT PLAN**

SHEET NO.
P2.01

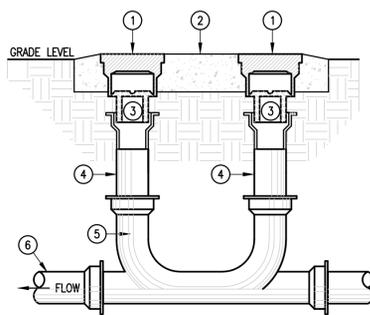


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01 VENT THRU ROOF DETAIL

SCALE: NOT TO SCALE



KEYED NOTES

- PROVIDE "HEAVY DUTY" NICKEL BRONZE COVER FOR ALL EXTERIOR CLEANOUTS.
- 48"x24"x8" DEEP CONCRETE CLEANOUT BOX (BOX IS INDEPENDENT OF PIPE AND THEREFORE IS FREE TO MOVE WITH THE SETTLEMENT OF GRADE)
- CLEANOUT FITTING ZURN ZN-1400-4 (SEE SPECS).
- SAME SIZE AS LINE SERVED EXCEPT 4" MAXIMUM REQUIRED. SHORT LENGTH OF C.I. PIPE FURNISHED WITH CLEANOUT BOX.
- DOUBLE 2-WAY CLEANOUT.
- SEWER LINE.

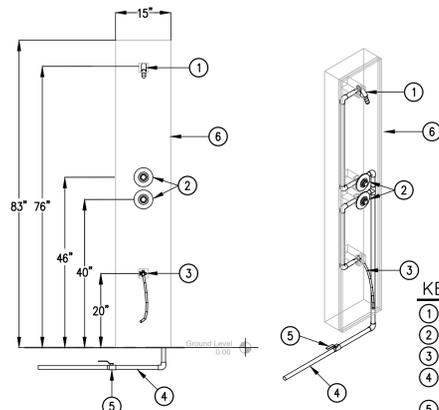
02 2-WAY YARD CLEANOUT DETAIL

SCALE: NOT TO SCALE

PLUMBING SYMBOLS LEGEND

	COLD WATER SUPPLY		WALL CLEANOUT
	HOT WATER SUPPLY		*GATE VALVE (GV)
	GAS LINE		*BALL VALVE
	SOIL & WASTE LINE - ENLARGED PLANS		VALVE IN RISER TYPE AS NOTED
	VENT LINE - ENLARGED PLANS		WC WATER CLOSET
	ACID WASTE LINE - ENLARGED PLANS		UR URINAL
	GREASE WASTE LINE - ENLARGED PLANS		L LAVATORY
	FIRE SPRINKLER LINE		SK SINK
	FLOOR CLEANOUT		EDF ELECTRIC DRINKING FOUNTAIN
	FLOOR CLEANOUT - 2 WAY		MSB MOP SERVICE BASIN
	FLOOR DRAIN (FD) WITH DEEP SEAL TRAP		EESHV EMERGENCY EYE/SHOWER
	HUB DRAIN WITH DEEP SEAL TRAP		TP TRAP PRIMER
	FLOOR SINK		EWHE ELECTRIC WATER HEATER
	YARD CLEANOUT		VTR VENT THRU ROOF
	YARD CLEANOUT - 2 WAY		CO CLEANOUT
	WALL HYDRANT		A.F.F. ABOVE FINISH FLOOR
	TRAP PRIMER		ADT ACID DILUTION TANK
	*WATER HAMMER		GT GREASE TRAP

* PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA.



KEYED NOTES

- SHOWER HEAD AS SCHEDULED
- DIVERTER VALVE AS SCHEDULED
- HOSE BIBB WITH FLEXIBLE HOSE
- CONCEALED SCH. 40 CPVC WATER LINE
- SHUTOFF VALVE BY PLUMBING CONTRACTOR
- WOOD ENCLOSURE BY OTHERS

04 WS-1 WASH STATION DETAIL

NOT TO SCALE

PLUMBING FIXTURE SCHEDULE

Project: Neptune Circle Beach Access Improvements

MARK	MANUFACTURER & MODEL NUMBER	DESCRIPTION	CONNECTIONS					REMARKS
			WASTE	VENT	CW	HW	NOTES	
WC-1	AMERICAN STANDARD 3461.001 5901.100 SEAT (1" THICK) SLOAN ROYAL #111-1.28	16-1/2" FLOOR MOUNTED, ELONGATED BOWL, HIGH EFFICIENCY, LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH SIPHON JET ACTION BOWL, 1.28 GPF TOP FLUSH VALVE, WHITE OPEN FRONT TOILET SEAT LESS COVER AND BOLT CAPS. ADULT ADA MOUNTING.	4"	2"	1"	-	3	18" TO TOP OF SEAT
L-1	KOHLER K2314-1 CHICAGO FAUCET #410-T41E2805ABCP 0.5 GPM AERATOR MOUNTING BRACKET K-9583 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO KIT	24" X 24" WALL MOUNTED SQUARE SHALLOW BASIN, 4" SINGLE FAUCET HOLES LAVATORY. SINGLE LEVER, CHROME PLATED SUPPLY STOPS WITH STAINLESS STEEL FLEXIBLE CONNECTORS, CHROME PLATED DRAIN GRID AND TAILPIECE. DECK MOUNTED, SINGLE LEVER FAUCET WITH SINGLE HOLE MOUNTING ON CENTER.	2"	2"	1/2"	1/2"	1	SEE ARCHITECTURAL
WS-1	ZURN Z7000-I2 CENTRAL BRASS COMPANY 0336-N2-1/2	OUTDOOR BUILT-IN 1.25 GPM WATER SAVER FLOW SHOWER HEAD WITH CHROME PLATED FINISH, VANDAL RESISTANT, WITH 2 SLOW-CLOSE STRAIGHT STOP VALVES AND STAINLESS STEEL HOSE.			1/2"		2	
DF-1	ELKAY LK4420DB	BI-LEVEL PEDESTAL WITH PET STATION, NON FILTERED, NON REFRIGERATED, 316 STAINLESS STEEL, HEAVY DUTTY FLOOR MOUNTED / FREESTANDING DRINKING FOUNTAIN. VANDAL RESISTANT BUBBLER WITH MECHANICAL FRONT BUBBLER BOTTOM ACTIVATION. OUTDOOR RATED.	2"	-	1/2"	-	2	COORDINATE COLOR WITH OWNER
WH-1	ZURN # Z1300-SS-34UN	ENCASED ANTI-SIPHON AUTOMATIC DRAINING WALL HYDRANT FOR FLUSH INSTALLATION. COMPLETE WITH NON-FREEZE TYPE INTEGRAL BACKFLOW PREVENTER, BRONZE CASING, ALL BRONZE INTERIOR PARTS, NON-TURNING OPERATING ROD WITH FREE-FLOATING COMPRESSION CLOSURE VALVE, REPLACEABLE BRONZE SEAT AND SEAT WASHER, STAINLESS STEEL BOX AND HINGED COVER WITH OPERATING KEY LOCK AND "WATER" CAST ON COVER.	-	-	3/4"	-	2	

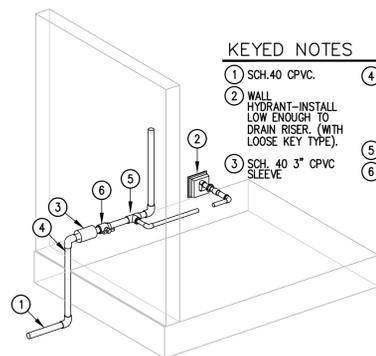
NOTES:

- PROVIDE OFFSET TAILPIECE FOR ALL ADA SINKS.
- MANUFACTURER AND MODEL NUMBER ARE "OR APPROVED EQUAL".
- INSTALL FLUSH VALVE ON THE WIDE SIDE OF STALL.

GENERAL NOTES:

(APPLY TO ALL PLUMBING SHEETS)

- ALL PLUMBING WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.
- DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.
- ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH THE WORK OF OTHER TRADES. COORDINATE WITH MECHANICAL, ELECTRICAL AND STRUCTURAL FOR PROPER CLEARANCES.
- REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION WORK.
- COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR.
- SLEEVE ALL OUTSIDE WALLS, FOUNDATION GRADE BEAMS, INTERIOR WALL PENETRATIONS, AND FIRE SEAL ALL PENETRATION THROUGH FIRE WALLS AND FLOORS WHETHER SHOWN ON PLANS OR NOT.
- RECORD INVERT ELEVATIONS OF ALL YARD CLEAN OUT (YCO) ON "AS-BUILT" DRAWINGS.
- PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGH-INS TO FIXTURES AND EQUIPMENTS.
- PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.
- PROVIDE ANY BACKFLOW PREVENTION DEVICE REQUIRED BY CODE OR LOCAL AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY AND LOCAL AGENCIES AND INCLUDE COST IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.
- REFER TO PLUMBING FIXTURE ROUGH-IN SCHEDULE FOR INDIVIDUAL PIPE CONNECTIONS TO FIXTURES.
- PRIOR TO POURING FOUNDATION AND ERECTING WALLS, COORDINATE INSTALLATION OF PLUMBING FIXTURE CARRIERS WITH GENERAL CONTRACTOR.
- STUDS AT DRY WALLS SHALL NOT BE CUT THRU HORIZONTAL DIRECTION. COORDINATE WITH DRY WALL CONTRACTOR.
- CONTRACTOR SHALL NOT CUT ANY EXTERIOR WALL STUD.



03 WATER ENTRANCE DETAIL

SCALE: NOT TO SCALE

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PROJECT
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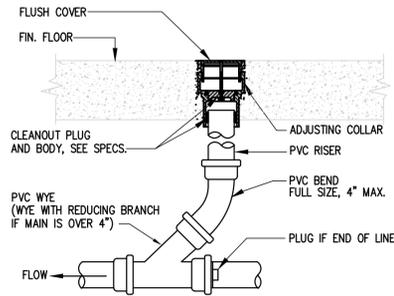
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SHEET TITLE
PLUMBING SCHEDULES AND DETAILS

SHEET NO.
P3.01



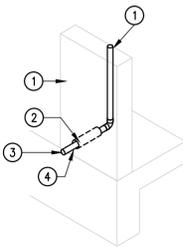
1126 SOUTH COMMERCE ST.
HARLINGEN, TX
PHONE: 956-230-3495
TEXAS REGISTERED ENGINEERING FIRM
F-15998



01 **FCO FLOOR CLEAN OUT DETAIL**
SCALE: NOT TO SCALE

KEYED NOTES

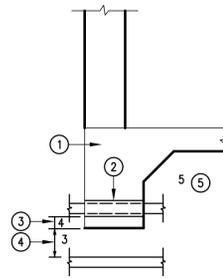
- ① MASONRY WALL.
- ② GALVANIZED SCH 40 STEEL OR COPPER SLEEVE, SIZE TO BE MINIMUM TWO PIPE SIZES GREATER THAN PIPE AND INSULATION.
- ③ PLUMBING PIPE (RELIEF LINES, DOMESTIC WATER, AIR, AND GAS PIPING.)
- ④ FILL VOID WITH MINERAL WOOL AND CAULK VERMIN TIGHT.



02 **WALL SLEEVE DETAIL**
SCALE: NOT TO SCALE

KEYED NOTES

- ① GRADE BEAM.
- ② GALV. SCH 40 STEEL SLEEVE, SIZE PER SPECS. CENTER PIPE IN SLEEVE.
- ③ PIPING PASSING HORIZ. THROUGH GRADE BEAM SHALL BE LOCATED NO LESS THAN 6" ABOVE BOTTOM OF BEAM.
- ④ PIPING PASSING HORIZ. UNDER GRADE BEAM SHALL BE LOCATED A MINIMUM OF 6" BELOW BEAM. PROVIDE A SLEEVE.
- ⑤ COORDINATE LOCATIONS OF PIPING IN 3, 4, 5, ABOVE AS RELIEVING ARCHES OR ADDITIONAL CONCRETE MAY BE REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF BEAM.



03 **GRADE BEAM SLEEVE DETAIL**
SCALE: NOT TO SCALE



04 **DF-1**
SCALE: NOT TO SCALE



05 **L-1**
SCALE: NOT TO SCALE



06 **WH-1**
SCALE: NOT TO SCALE



07 **WC-1**
SCALE: NOT TO SCALE



08 **WS-1**
SCALE: NOT TO SCALE



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PROJECT
SPI NEPTUNE CIRCLE
BEACH ACCESS
IMPROVEMENTS
SOUTH PADRE ISLAND,
TEXAS

CLIENT
CITY OF
SOUTH PADRE ISLAND
South Padre
ISLAND
SOUTH PADRE ISLAND,
TEXAS
P: 956-761-3044
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MARK	DATE	DESCRIPTION

PROJECT NO.	24v46
DATE	08-09-2024
DRAWN BY	JV
CHECKED BY	CG
SCALE	AS SHOWN

SHEET TITLE
**PLUMBING FIXTURES
IMAGES**

SHEET NO.
P3.02

