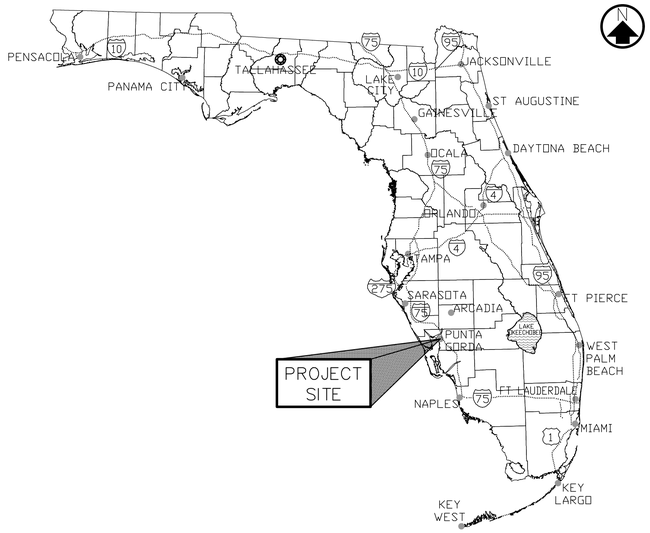
CONSTRUCTION PLANS

FOR

PUBLIC WORKS TEMPORARY OFFICES

SECTION 09, TOWNSHIP 41 S, RANGE 23 E
COUNTY, FLORIDA



STATE OF FLORIDA LOCATION MAP
NOT TO SCALE

LOCATION MAP
NOT TO SCALE

OWNER

CHARLOTTE COUNTY
18500 MURDOCK CIRCLE STE B208
PORT CHARLOTTE, FL 33948

PREPARED BY

THE WEILER ENGINEERING CORPORATION
201 W. MARION AVE, SUITE 1306
PUNTA GORDA, FLORIDA 33950
(941) 505-1700
WEILER ENGINEERING CORPORATION
30 YEARS of Service
WEC excellence in engineering
www.weilerengineering.org
EB # 6656

INDEX OF DRAWINGS

Joshua J. Jennings

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Date: 2025.06.20 15:50:25 -04'00'

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Professional Engineer,
State of Florida,
License No. 90677
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06-20-2025
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Joshua J. Jennings
Professional Engineer
State of Florida
Registration No. 90677

SHEET NO. C-1.0
WEC PROJECT NO.
24020.003

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1" = 100'

LEGEND:

PROPERTY BOUNDARY

PROJECT BOUNDARY

Design:	-
Drawn:	PG
Checked:	-
Approved By:	-
Scale:	1:100
Job No:	24020.003
Date Issued:	05/27/2025

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PUNTA GORDA, FLORIDA 33950
941.505.1700
EB #6656

2020 AERIAL PHOTOGRAPH for PUBLIC WORKS TEMPORARY OFFICES

Revisions	Description
-	-

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Sheet No. C-2.0

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1" = 50'

PROJECT DATA:

PROJECT:	PUBLIC WORKS TEMPORARY OFFICES 1700 FLORIDA STREET PUNTA GORDA, FL 33950
OWNERSHIP:	CHARLOTTE COUNTY 18500 MURDOCK CIRCLE STE B208 PORT CHARLOTTE, FL 33948
ENGINEER:	THE WEILER ENGINEERING CORPORATION JOSHUA J. JENNINGS, P.E. NO. 90677 201 W. MARION AVE, SUITE 1306 PUNTA GORDA, FLORIDA 33950 941.505.1700
SURVEYOR:	BANKS ENGINEERING LICENCE NO.6690 4161 TAMIAMI TRAIL – BLDG 5 UNIT 501 PORT CHARLOTTE, FL 33952 941.625.1165
SEWER UTILITY:	CITY OF PUNTA GORDA UTILITIES
WATER UTILITY:	CITY OF PUNTA GORDA UTILITIES
WASTE COLLECTION:	WASTE MANAGEMENT

GENERAL INFORMATION:

CONSTRUCTION PHASING:	PROJECT TO BE CONSTRUCTED IN # PHASE
DATUM:	NAVD 88
FLOOD ZONE:	ZONE ON SITE: "AE 9" AS SHOWN ON: F.E.M.A. FLOOD INSURANCE RATE MAP: # 12015C0242G COMMUNITY # 12061 | PANEL # 0242 | SUFFIX: G EFFECTIVE DATE : 12/15/2022
EXISTING ZONING:	INDUSTRIAL INTENSIVE II
FUTURE LAND USE:	PUBLIC LANDS & FACILITIES
PARKING REQUIRED:	1 PER 200 SF 11,806 SF / 200 SF = 60 PARKING SPACES
PARKING PROVIDED:	158 EXISTING PARKING SPACES

DEMOLITION NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DETERMINE THE SCOPE OF DEMOLITION WORK REQUIRED PRIOR TO CONSTRUCTION, WHETHER SPECIFICALLY SHOWN OR NOT.
2. PROTECT ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN THROUGHOUT THE COURSE OF CONSTRUCTION TO PREVENT DAMAGE OR LOSS. ANY SUCH DAMAGE CAUSED DURING THE COURSE OF THIS WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, PRIOR TO THE COMPLETION OF CONSTRUCTION.
3. EXISTING OPERATING SYSTEMS, SERVICES, AND UTILITIES SERVING THE SITE SHALL BE MAINTAINED IN OPERATION TO SERVE THE NEEDS OF PORTIONS OF THE SITE NOT INVOLVED IN THE WORK AT ALL TIMES DURING THE PROGRESS OF CONSTRUCTION, EXCEPT FOR SUCH SHORT PERIODS AS ARE ABSOLUTELY NECESSARY TO PERFORM THE WORK. SUCH OPERATING SYSTEMS, SERVICES, AND UTILITIES INCLUDE BUT ARE NOT LIMITED TO WATER, ELECTRICITY, HVAC, SANITARY, SEWER, FIRE ALARM, TELEPHONE AND SECURITY. PRIOR TO INTERRUPTING OR OTHERWISE AFFECTING ANY SUCH OPERATING SYSTEM, SERVICE, OR UTILITY, THE CONTRACTOR SHALL CONSULT WITH OWNER'S REPRESENTATIVE TO ESTABLISH A MUTUALLY SATISFACTORY SCHEDULE FOR DISRUPTION OR OTHER CHANGE IN THE OPERATION OF THE AFFECTED SYSTEM, SERVICE, OR UTILITY.
4. CONTRACTOR SHALL BE RESPONSIBLE TO ARRANGE FOR SHUT OFF OF EXISTING UTILITIES AS REQUIRED.
5. CONTRACTOR SHALL ARRANGE ALL TEMPORARY POWER AS REQUIRED FOR CONSTRUCTION.
6. PROVIDE TEMPORARY SAFETY BARRIERS OR PARTITIONS, AS REQUIRED, AND COORDINATE SUCH LOCATIONS WITH OWNER. DEMOLITION SHALL BE COMPLETED IN A CAREFUL AND ORDERLY MANNER SO AS TO PREVENT DAMAGE TO FINISHES AND EQUIPMENT TO REMAIN.
7. CONTRACTOR IS RESPONSIBLE FOR DEMOLISHING AND REMOVING ALL MATERIALS FROM PREMISES NECESSARY TO ACCOMPLISH THE SCOPE OF THE NEW WORK. ALL MATERIALS SHALL BE SALVAGED OR DISPOSED OF IN COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR SHALL ENSURE SUFFICIENT ACCESS FOR EMERGENCY SERVICES IS PROVIDED AND MAINTAINED THROUGHOUT DEMOLITION AND CONSTRUCTION.
9. ALL WORK SHALL BE PERFORMED IN A MANNER THAT ENSURES THE CONTINUED OPERATION OF THE SITE TO MAXIMUM EXTENT PRACTICABLE. COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR USE OF SITE AREAS REQUIRED TO FACILITATE DEMOLITION AND CONSTRUCTION ACTIVITIES.

Design: -
Drawn: PG
Checked: -
Approved By: -
Scale: -
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Date Issued: 05/27/2025

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EXISTING CONDITIONS & DEMO PLAN for PUBLIC WORKS TEMPORARY OFFICES

Revisions	Description
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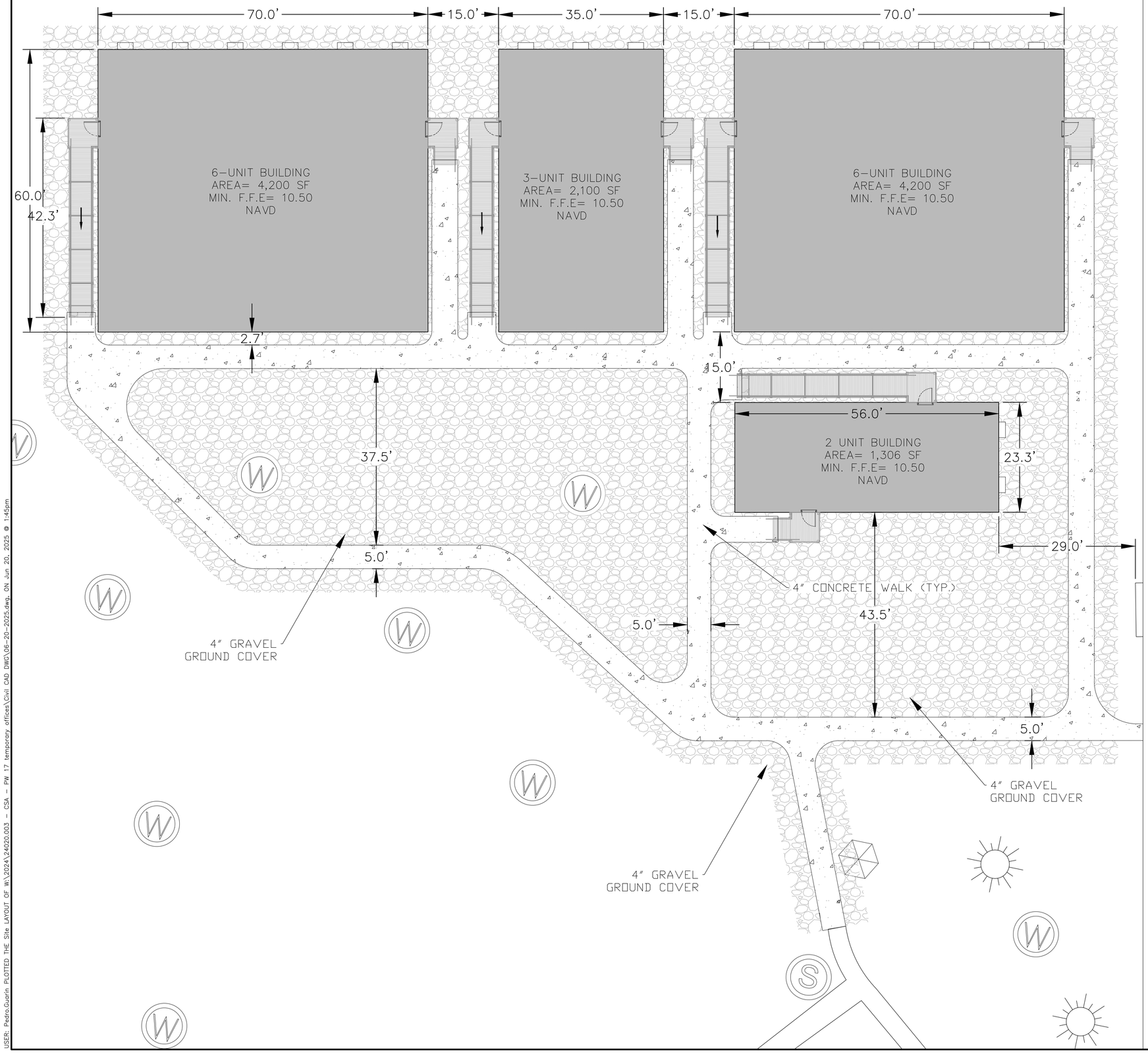

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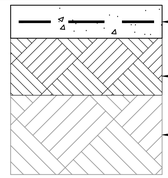

NOTES:

1. CONTROL JOINTS SHALL BE CUT AS SOON AS POSSIBLE BUT NOT LATER THAN 72 HOURS FROM CONCRETE PLACEMENT. SAW CUT CONTROL JOINTS EVERY 5 FT @ 1/8" WIDE & 1-1/4" DEEP, CUT ONLY TOP SURFACE OF THE SLAB, CLEAN AND SEAL ALL CONTROL JOINTS WITH "SIKAFLEX-1C SL" OR ENGINEER APPROVED EQUAL AND INSURE MINIMUM COVER FOR ALL REINFORCEMENT.
2. EXPANSION JOINTS SHALL BE EVENLY SPACED EVERY 100 FT AND FILLED WITH CLOSED CELL BACKER-ROD AND SEALED WITH "SIKAFLEX-1C SL" OR ENGINEER APPROVED EQUAL.
3. PROTECT FRESH CONCRETE FROM ANY AND ALL TRAFFIC FOR A MINIMUM OF 3 DAYS AFTER PLACEMENT.
4. CURE CONCRETE FOR A MINIMUM OF 7 DAYS. USE HOT WEATHER CONCRETING PER ACI-305R-10.
5. MIN. 1.5" CLEARANCE BETWEEN OUTER EDGE OF CONCRETE AND REINFORCEMENT.
6. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF FLORIDA BUILDING CODE 2017, ACCESSIBILITY.
7. CONCRETE FINISH SHALL BE IN ACCORDANCE WITH THE LANDSCAPE PLANS AND APPROVED BY THE OWNER. FOR SALT FINISHES, SALT CRYSTALS SHALL BE A MAXIMUM SIZE OF 1/4" IN ANY DIMENSION TO ENSURE ADA COMPLIANCE. CONTRACTOR SHALL ENSURE MINIMUM COVER FOR REINFORCEMENT IS ACHIEVED.

TYPICAL CONCRETE SIDEWALK SECTION
NOT TO SCALE

SITE GENERAL NOTES :

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF CHARLOTTE COUNTY AND THE STATE OF FLORIDA.
2. THERE SHALL BE NO CHANGE OR DEVIATION OF THESE PLANS OR SPECIFICATIONS UNLESS PRIOR WRITTEN APPROVAL FROM THE ENGINEER IS OBTAINED.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF AND WHEN A POSSIBLE ERROR IS FOUND IN THE PLANS OR STAKED ALIGNMENT AND/OR GRADES. THE ENGINEER MAY ACCEPT, REVISE TO ACCOMMODATE CONDITIONS, OR REJECT THE FACILITY BEING CONSTRUCTED. IT IS IMPERATIVE THAT THE CONTRACTOR NOTIFY THE ENGINEER OF THESE SITUATIONS AS SOON AS POSSIBLE.
4. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO THE BEGINNING OF ANY ON-SITE OR OFF-SITE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND REPORT THE EXACT LOCATION OF ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION LIMITS, WHETHER THEY ARE IDENTIFIED ON THE DRAWINGS OR NOT.
5. CONTRACTOR SHALL INCLUDE IN THE BID PRICE THE COST OF EROSION CONTROL MEASURES AS SHOWN ON THE BMP PLANS. EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND OBSERVED DURING CONSTRUCTION BY THE CONTRACTOR. THE METHODS WHICH SHOULD BE USED INCLUDE BUT ARE NOT LIMITED TO:

5.A. THE CONTRACTOR SHALL UTILIZE SAND BAGS AND BALES AND/OR OTHER EROSION CONTROL METHODS TO CONTROL EROSION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SILTATION ENTERING THE STORM DRAINAGE SYSTEM BOTH ON-SITE AND OFF-SITE.

5.B. CONTRACTOR SHALL PLACE ADEQUATE TEMPORARY PROTECTION AROUND ALL INLETS TO MINIMIZE DAMAGE AND STORM DRAINAGE SILTATION.

5.C. CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AT ALL TIMES DURING CONSTRUCTION BY UTILIZING WATER TRUCKS, ANTI-DRAFT FENCING, AND BY COVERING OPEN BODIED TRUCKS TRANSPORTING DEBRIS.

6. THE CONTRACTOR SHALL USE EXTREME CARE NOT TO DAMAGE THE ROOT SYSTEMS OF TREES AND OTHER LANDSCAPE FEATURES WHICH ARE TO BE SAVED AND/OR SALVAGED FOR RESTORATION PURPOSES. NO EQUIPMENT, SUPPLIES OR VEHICLES SHALL BE STORED OR PARKED WITHIN THE DRIP LINE OF TREES TO REMAIN AND BE PRESERVED.
7. GRADE SITE AS INDICATED. ALL STORMWATER RUN-OFF SHALL BE DIRECTED TO THE STORMWATER MANAGEMENT SYSTEM.
8. THE CONTRACTOR SHALL SOD ALL DRAINAGE RETENTION AND SWALE AREAS. SODDING INCLUDES MAINTAINING SLOPES AND SOD UNTIL, IN THE OPINION OF THE ENGINEER, GROWTH IS FIRMLY ESTABLISHED.
9. AS PART OF CLEARING AND GRUBBING, ALL DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE AND SALVAGED BY THE CONTRACTOR OR TRANSPORTED TO LEGAL DISPOSAL AREAS, AS DIRECTED BY THE OWNER.
10. REFER TO LANDSCAPE DRAWINGS FOR LANDSCAPING BUFFERS, TREE PRESERVATION, PLANT SCHEDULES, IRRIGATION, AND ALL LANDSCAPE WORK.
11. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL SERVICE CONNECTIONS, POWER POLE RELOCATIONS, POWER TRANSFORMER DETAILS AND LOCATIONS, CONDUIT ROUTING, AND ALL ELECTRICAL WORK.
12. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING AND STRUCTURE IMPROVEMENTS, GARAGE LAYOUTS, LIFE SAFETY, PROPERTY SETBACKS, ADA COMPLIANCE, AND ALL ARCHITECTURAL WORK.
13. REFER TO STRUCTURAL DRAWINGS FOR ALL STRUCTURAL WORK.
14. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE APPROPRIATE JURISDICTIONAL AUTHORITY AND COMPLY WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (N.P.D.E.S.) REQUIREMENTS THROUGHOUT CONSTRUCTION.
15. ALL SLOPES SHALL BE 4H:1V MAXIMUM, UNLESS OTHERWISE SPECIFIED.
16. ALL SIGNAGE SHALL CONFORM TO THE CURRENT EDITION OF THE U.S.D.O.T. FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

RIGHT-OF-WAY NOTES:

1. CONTRACTOR SHALL OBTAIN RIGHT-OF-WAY PERMIT FROM CHARLOTTE COUNTY AND/OR FDOT, PRIOR TO COMMENCING ANY WORK WITHIN THE RIGHT-OF-WAY. THE JURISDICTIONAL AUTHORITY SHALL APPROVE ALL RIGHT-OF-WAY IMPROVEMENTS (i.e. Pipe size, Material type, Invert elevation, Swale grades, slopes, Sign locations, etc.) PRIOR TO CONSTRUCTION, DURING THE RIGHT-OF-WAY PERMIT REVIEW PROCESS.
2. ALL IMPROVEMENTS WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO CHARLOTTE COUNTY REQUIREMENTS.
3. ALL AREAS DISTURBED BY CONSTRUCTION IN CITY, COUNTY, OR STATE RIGHT-OF-WAYS SHALL BE REGRADED AND SODDED.
4. CONTRACTOR SHALL COMPLY WITH CHARLOTTE COUNTY TRAFFIC (MOT) POLICY, AND (AS REQUIRED) BE PRE-APPROVED PRIOR TO ANY WORK BEING PERFORMED WITHIN ANY PUBLIC RIGHT-OF-WAY.

MAINTENANCE REQUIREMENTS:

1. REMOVE ANY TRASH OR DEBRIS FROM SWALES, INLET STRUCTURES, AND PIPES. SPECIAL CARE SHOULD BE TAKEN TO INSPECT THE DRAINAGE STRUCTURES ON A REGULAR BASIS TO REMOVE TRASH AND OR GRASS CLIPPINGS WHICH MAY INHIBIT PROPER SURFACE DRAINAGE.
2. INSPECT ANY AREAS SUBJECT TO EROSION AND SEED OR SOD AS NECESSARY.
3. ADHERE TO ALL SPECIAL MAINTENANCE INSTRUCTION AS PROVIDED BY THE VARIOUS MATERIAL SUPPLIERS/MANUFACTURERS, AND MADE AVAILABLE VIA THE GENERAL CONTRACTOR UPON PROJECT COMPLETION.
4. COMPLY WITH ALL MAINTENANCE, INSPECTION AND REPORTING REQUIREMENTS AS SPECIFIED IN ANY REGULATORY AGENCY PERMITS (i.e. SFWMD SURFACE WATER MANAGEMENT PERMIT).
5. ALL WORK IDENTIFIED ON THESE PLANS SHALL COMPLY WITH THE CONTRACT TECHNICAL SPECIFICATIONS AND ALL APPLICABLE REGULATIONS.

Design: . | Drawn: PG | Checked: . | .
Approved By: . | Scale: . | Job No: 24020.003 | Date Issued: 05/27/2025

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SITE PLAN for PUBLIC WORKS TEMPORARY OFFICES

Revisions | Description

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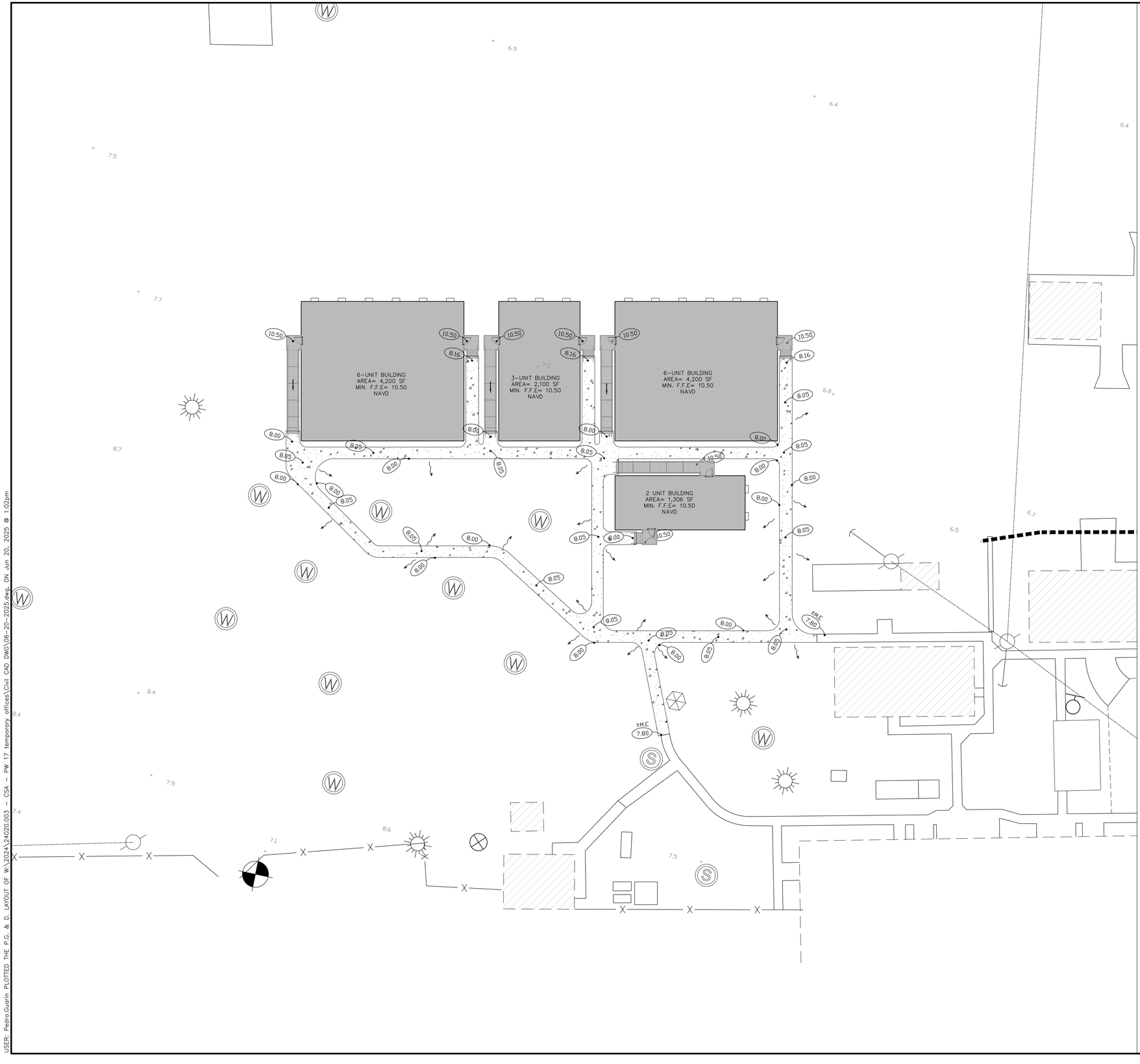

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20 0 10 20 40

(IN FEET)
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PAVING, GRADING, & DRAINAGE PLAN for PUBLIC WORKS TEMPORARY OFFICES

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License No. 90677
This item has been
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Joshua J. Jennings, P.E.
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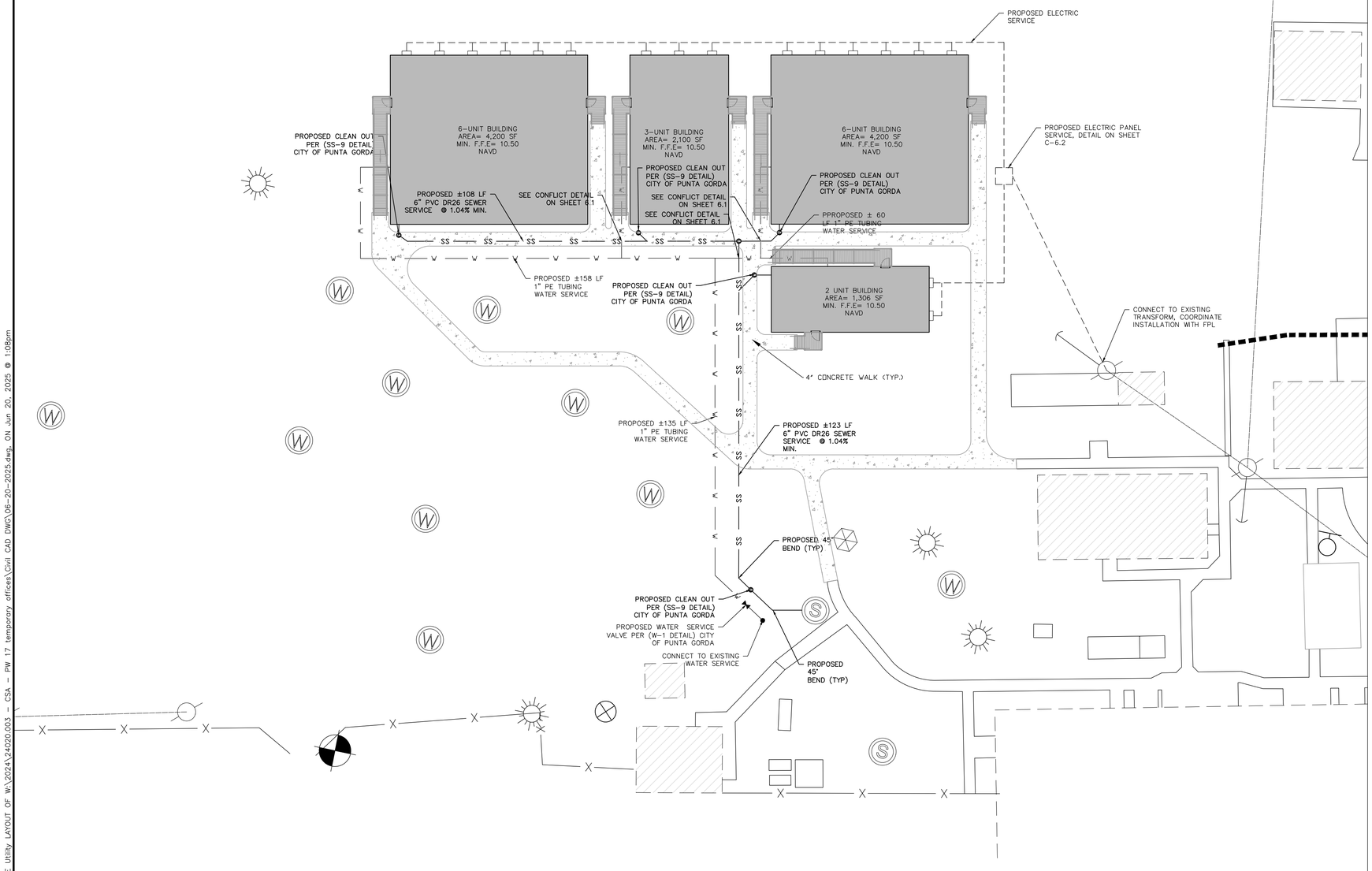
Joshua J. Jennings
Professional Engineer
State of Florida
Registration No. 90677

Sheet No. C-5.0

NOTE:
- EXISTING UTILITIES ARE SHOWN FOR REFERENCE ONLY AND HAVE NOT BEEN FIELD VERIFIED.
- CONTRACTOR TO LOCATE ALL UTILITIES WITHIN CONSTRUCTION AREA.
- ELECTRIC CONNECTIONS ARE SHOWN FOR REFERENCE ONLY, COORDINATE INSTALLATION WITH FPL AND ELECTRICAL CONTRACTOR.



GRAPHIC SCALE
20 0 05 20 40
(IN FEET)
1" = 20'

PROJECT DATA:

PROJECT:	PUBLIC WORKS TEMPORARY OFFICES 1700 FLORIDA STREET PUNTA GORDA, FL 33950
OWNERSHIP:	CHARLOTTE COUNTY 18500 MURDOCK CIRCLE STE B208 PORT CHARLOTTE, FL 33948
ENGINEER:	THE WEILER ENGINEERING CORPORATION JOSHUA J. JENNINGS, P.E. NO. 90677 201 W. MARION AVE, SUITE 1306 PUNTA GORDA, FLORIDA 33950 941.505.1700
SURVEYOR:	BANKS ENGINEERING LICENCE NO.6690 4161 TAMIAMI TRAIL – BLDG 5 UNIT 501 PORT CHARLOTTE, FL 33952 941.625.1165
SEWER UTILITY:	CITY OF PUNTA GORDA UTILITIES
WATER UTILITY:	CITY OF PUNTA GORDA UTILITIES
WASTE COLLECTION:	WASTE MANAGEMENT

GENERAL INFORMATION:

CONSTRUCTION PHASING:	PROJECT TO BE CONSTRUCTED IN # PHASE
DATUM:	NAVD 88
FLOOD ZONE:	ZONE ON SITE: "AE 9" AS SHOWN ON: F.E.M.A. FLOOD INSURANCE RATE MAP: # 12015C0242G COMMUNITY # 12061 | PANEL # 0242 | SUFFIX: G EFFECTIVE DATE : 12/15/2022
EXISTING ZONING:	INDUSTRIAL INTENSIVE II
FUTURE LAND USE:	PUBLIC LANDS & FACILITIES
PARKING REQUIRED:	1 PER 200 SF 11,606 SF / 200 SF = 60 PARKING SPACES
PARKING PROVIDED:	158 EXISTING PARKING SPACES

UTILITY GENERAL NOTES:

1. THE REQUIREMENTS OF BIG COPPITT WASTEWATER STANDARD SPECIFICATIONS AND DETAILS SHALL GOVERN ALL WASTEWATER UTILITIES WORK. THE REQUIREMENTS OF THE CITY OF PUNTA GORDA AUTHORITY MINIMUM DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS SHALL GOVERN ALL WATER UTILITIES WORK. WHERE A CONFLICT EXISTS IN THE REQUIREMENTS OF A REFERENCED MATERIAL, METHOD, OR INSTALLATION STANDARDS, THE MOST STRINGENT REQUIREMENTS SHALL PREVAIL. WHERE THE REQUIREMENTS OF A STATE OR LOCAL AGENCY HAVING JURISDICTION ARE MORE STRINGENT, THOSE REQUIREMENTS SHALL PREVAIL, WITH THE EXCEPTION THAT ALL WORK SHALL BE ACCEPTABLE TO THE AGENCY HAVING JURISDICTION.

2. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE, AT ALL TIMES, AT LEAST ONE COPY OF THE BIG COPPITT WASTEWATER STANDARD SPECIFICATIONS AND STANDARD DETAILS, ONE COPY OF THE CITY OF PUNTA GORDA AUTHORITY'S MINIMUM DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS, ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS, AND COPIES OF ALL REQUIRED CONSTRUCTION PERMITS INCLUDING ALL PROVISIONS AND REQUIREMENTS.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ACTUAL SITE CONDITIONS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD, IN WRITING, AS SOON AS POSSIBLE. THE ENGINEER RESERVES THE RIGHT TO REVISE CONFLICTING INFORMATION FOR CONSISTENCY WITH THE DESIGN INTENT.

4. ANY ERRORS OR OMISSIONS WITHIN THE PLANS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AS SOON AS POSSIBLE. THE ENGINEER RESERVES THE RIGHT TO REVISE CONFLICTING INFORMATION FOR CONSISTENCY WITH THE DESIGN INTENT. NO PAYMENT SHALL BE MADE FOR ACTIONS TAKEN BY THE CONTRACTOR UPON CONFLICTING OR OMITTED INFORMATION.

5. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMMENCING WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL PERMIT CONDITIONS AND GOVERNMENTAL REGULATIONS.

6. THE CONTRACTOR SHALL CONTACT ALL AGENCIES AND COMPANIES WITH UTILITIES IN THE VICINITY OF THE PROJECT AND THE ENGINEER OF RECORD AT LEAST 48 HOURS IN ADVANCE OF ALL CONSTRUCTION OPERATIONS.

7. NO CHANGES OR DEVIATIONS FROM THE PLANS OR SPECIFICATIONS SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER OF RECORD. THE ENGINEER REQUIRES 10 BUSINESS DAYS TO REVIEW AND APPROVE ANY FIELD CHANGE TO UTILITIES.

8. CONTRACTOR SHALL VERIFY AND REPORT THE LOCATIONS OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT THEY ARE IDENTIFIED ON THE PLANS, PRIOR TO CONSTRUCTION, TO THE ENGINEER OR RECORD.

UTILITY CONSTRUCTION IN RIGHT-OF-WAYS

1. OPEN ROAD CUTS REQUIRE PRIOR APPROVAL BY THE CITY, COUNTY, STATE AND/OR ANY OTHER AGENCY WHICH MAY HAVE JURISDICTION.

2. ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS (CURRENT EDITION) OR AS OTHERWISE APPROVED.

3. ALL AREAS WITHIN EXISTING RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS, OR BETTER, AND SODDED AT THE CONTRACTOR'S EXPENSE.

4. STREET OR HIGHWAY RESTORATION SHALL BE PERFORMED IN ACCORDANCE WITH THE AGENCY HAVING JURISDICTION, AND SHALL BE INCLUDED IN THE CONTRACT PRICE DURING THE BIDDING PROCESS.

5. CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF THE STATE, COUNTY AND CITY AUTHORITIES REGARDING CLOSING OR RESTRICTING THE USE OF PUBLIC STREETS OR HIGHWAYS.

6. THE CONTRACTOR SHALL NOTIFY ALL EMERGENCY AGENCIES SERVING THE PROJECT PRIOR TO CONSTRUCTION AND ADHERE TO ALL REQUIREMENTS FOR SITE EMERGENCY ACCESS THROUGHOUT CONSTRUCTION.

7. TRAFFIC CONTROL ON ALL COUNTY AND STATE HIGHWAY RIGHT-OF-WAYS SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION.

8. CONTRACTOR SHALL COMPLY WITH THE TRENCH SAFETY ACT (FL Stat §553.63) AND ITS SUCCESSORS.

9. CONTRACTOR SHALL SUBMIT AND MAINTAIN PRE-APPROVED MOT PLANS FOR ALL REQUIRED TRAFFIC CONFIGURATIONS ON HAND AND AVAILABLE FOR ON-SITE INSPECTION AT ALL TIMES.

10. CONTRACTOR SHALL INSTALL APPROPRIATE EROSION CONTROL DEVICES PRIOR TO CONSTRUCTION AND MAINTAIN EROSION CONTROL THROUGHOUT CONSTRUCTION.

11. RESTORATION OF SODDING AND TURF SHALL BE IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX 570-010.

12. UNDERGROUND UTILITIES SHALL BE INSTALLED WITH AT LEAST 36" COVER IN ROADWAYS AND 30" IN ALL OTHER LOCATIONS IN ACCORDANCE WITH FDOT UAM SECTION 3.16.4.

LEGEND:

PROPOSED WATER SERVICE	W
PROPOSED SEWER SERVICE	SS
PROPOSED ELECTRIC LINE	

Design: - PG
Drawn: -
Checked: -
Approved By: -
Scale: -
Job No: 24020.003
Date Issued: 05/27/2025

WEILER ENGINEERING CORPORATION
30 Years of Service
Excellence in engineering
201 W. MARION AVE, SUITE 1306
PUNTA GORDA, FLORIDA 33950
941.505.1700
EB #6656

UTILITY PLAN for PUBLIC WORKS TEMPORARY OFFICES

Revisions
Description

THIS SHEET IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL SEAL OF A FLORIDA LICENSED ENGINEER.

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Professional Engineer,
State of Florida,
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Joshua J. Jennings
Professional Engineer
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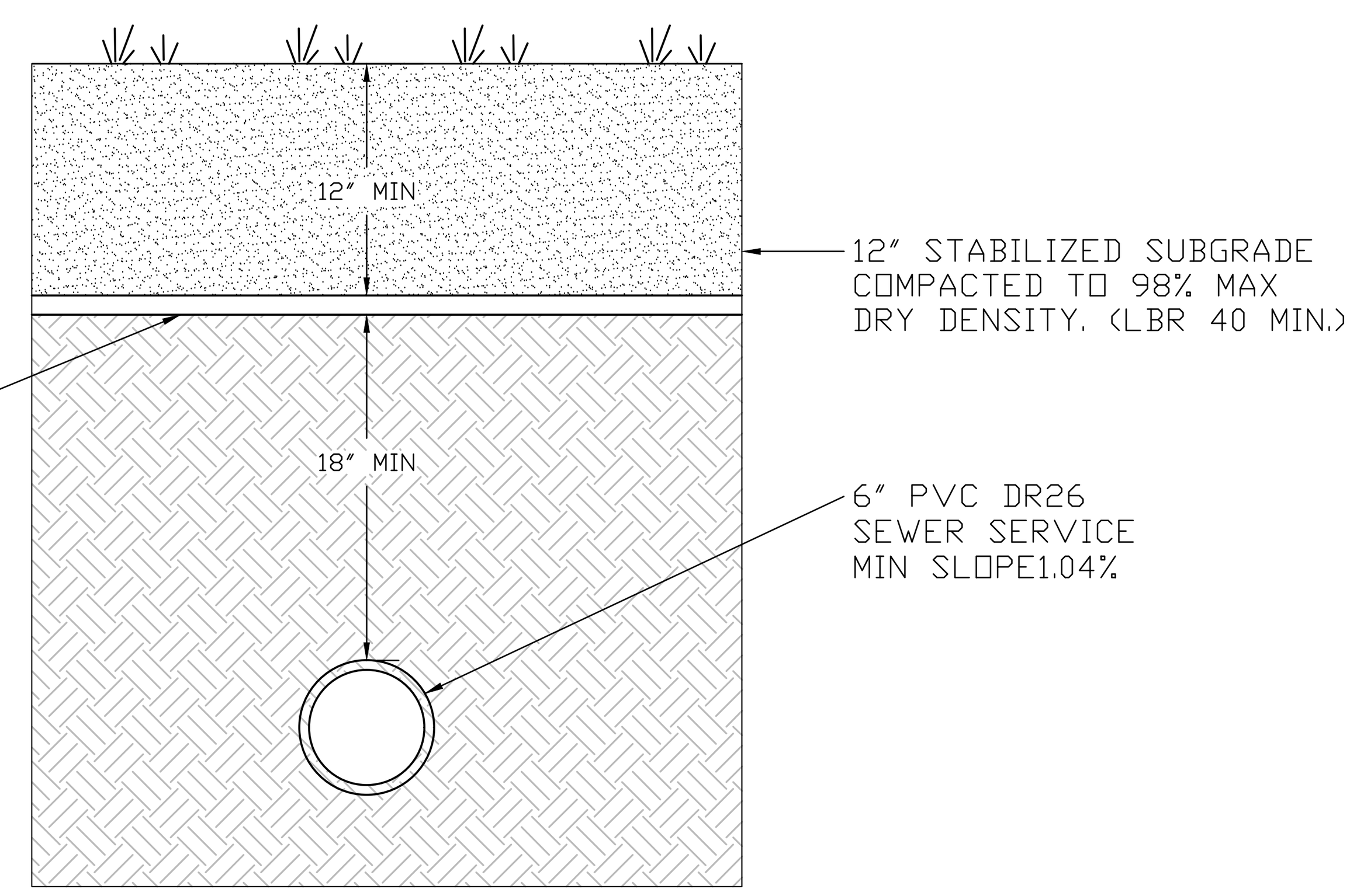
Sheet No. C-6.0



UTILITY CROSSING DETAIL

NOT TO SCALE

GRAVITY SEWER

1. ALL SEWER LINES BETWEEN MANHOLES SHALL BE ABSOLUTELY STRAIGHT AND TRUE. NO CURVATURE SHALL BE TOLERATED. DEVIATION FROM LINE OR GRADE SHALL NOT BE MORE THAN 1/2 INCH FOR LINE AND 1/2 INCH FOR GRADE AT ANY SINGLE POINT.
2. PIPE LAYING SHALL PROCEED UPGRADE WITH SPIGOT ENDS POINTING IN DIRECTION OF FLOW.
3. TRENCH BOTTOM SHALL FORM A CONTINUOUS AND UNIFORM BEARING AND SUPPORT FOR THE PIPES.
4. ALL INSTALLED GRAVITY SEWER PIPE IS TO BE WASHED WITH A HIGH PRESSURE WATER HOSE AND TELEVISED WITH IN-LINE VIDEO CAMERA. A COPY OF THE VIDEO TAPE WILL BE TURNED OVER TO THE ENGINEER OF RECORD FOR APPROVAL, AFTER WHICH IT WILL BE GIVEN TO CITY OF PUNTA GORDA UTILITY DEPARTMENT FOR FINAL APPROVAL. A REPRESENTATIVE FROM CITY OF PUNTA GORDA UTILITY DEPARTMENT MUST BE PRESENT DURING CLEANING AND VIDEO TAPING.
5. ALL GRAVITY SEWER PIPE SHALL BE AIR TESTED AS FOLLOWS:
   A. THE SECTION OF SEWER PIPE TO BE TESTED SHALL BE FLUSHED AND CLEANED AS NECESSARY PRIOR TO AIR TESTING.
   B. SECTION OF PIPE TO BE TESTED SHALL BE ISOLATED WITH AIR FILLED STOPPERS OR PLUGS SUITABLE FOR AIR TESTING.
   C. ADD AIR SLOWLY TO TEST SECTION SO THAT THE TEST PRESSURE EQUALS 5.0 PSIG + 0.43 PSIG FOR EACH FOOT OF GROUNDWATER ABOVE THE PIPE.
   D. MAINTAIN TEST PRESSURE BY REGULATING THE AIR SUPPLY FOR A PERIOD OF 2 MINUTES. THIS WILL ALLOW FOR TEMPERATURE STABILIZATION.
   E. AFTER 2 MINUTES DISCONNECT THE AIR SUPPLY AND ADJUST THE PRESSURE IN THE PIPE TO 5.0 PSIG + 0.43 PSIG FOR EACH FOOT OF GROUNDWATER.
   F. MEASURE, BY MEANS OF A STOPWATCH THE TIME REQUIRED FOR A 1 PSIG DROP IN PRESSURE.
   G. COMPARE THE RECORDED TIME WITH THE ALLOWABLE TIME IN THE FOLLOWING TABLE:

PIPE DIAMETER IN INCHES	MINUTES
8	5.0
10	5.0
12	5.5
16	7.5
18	8.5
24	11.5

   H. IF THE RECORDED TIME IS LESS THAN ALLOWABLE LOSS, THEN REPLACE DEFECTIVE FITTINGS AND PIPE UNTIL A SATISFACTORY TEST IS ACHIEVED.
6. ALL TEES, STUBOUTS AND SERVICE CONNECTIONS ARE TO BE PLUGGED WITH ACCEPTABLE GASKETED CAP OR PLUG CAPABLE OF WITHSTANDING INTERNAL TEST PRESSURES. ALL PLUGS OR CAPS MUST BE REMOVABLE AND THEIR REMOVAL SHALL PROVIDE A SOCKET SUITABLE FOR MAKING A FLEXIBLE JOINTED CONNECTION OR EXTENSION.
7. ALL GRAVITY SEWER PIPE SHALL BE ASTM 3034 SDR 26 GREEN PIPE EXCEPT AS FOLLOWS:
   A. CUTS LESS THAN 4' DEEP OR DEEPER THAN 12' SHALL BE C-900 DR14 PIPE.
   B. PIPE BETWEEN TERMINAL MANHOLE AND WET WELL SHALL BE DR14 PIPE
8. MAXIMUM DISTANCE BETWEEN MANHOES SHALL BE 400 FEET.

CITY OF PUNTA GORDA
UTILITY DEPARTMENT
326 W. MARION AVE.
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(941) 575-3339 (941) 575-5006 FAX
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GENERAL NOTES — GRAVITY SEWER — GN-3

REV BY	DATE
TIM S	03/12/08

TRENCH EXCAVATION AND BACKFILL

1. MATERIAL SUITABLE FOR BACKFILL IN A PROPERLY DEWATERED TRENCH SHALL NOT BE EXPANSIVE NOR HAVE HIGH ORGANIC CONTENT, SHALL BE FREE OF DEBRIS, LUMPS AND CLODS, AND SHALL MEET THE FOLLOWING REQUIREMENTS:
   A. MAXIMUM LIQUID LIMIT SHALL NOT EXCEED 12 AS DETERMINED BY ASTM D423.
   B. MAXIMUM PLASTICITY INDEX SHALL NOT EXCEED 35 AS DETERMINED BY ASTM D424.
   C. NOT MORE THEN 10% OF WEIGHT SHALL BE FINER THAN 74 MICRON (NO. 200) U.S. STANDARD SIEVE.

   BROKEN CONCRETE SHALL NOT BE USED. FILL MATERIAL CONTAINING LIMEROCK SHALL HAVE SUFFICIENT SAND TO FILL THE VOIDS IN THE LIMEROCK. NO STONES OR ROCKS LARGER THAN THREE INCHES IN DIAMETER WILL BE PERMITTED IN ANY BACKFILL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES OR IN THE UPPER SIX INCHES OF ALL BACKFILL AND FILLS SHALL NOT CONTAIN ANY STONES OR ROCKS LARGER THEAN ONE INCH IN DIAMETER.

   BACKFILL MATERIAL EXCAVATED ON SITE MAY BE USED, ONLY IF IT MEETS THE ABOVE-MENTIONED REQUIREMENTS.

2. FOUNDATION MATERIAL OR BEDDING ROCK SHALL BE USED FOR BEDDING OF PIPE AND/OR MANHOLES AS INDICATED ON THE DRAWINGS. CRUSHED STONE SHALL CONSIST OF HARD, DURABLE, SUB-ANGULAR PARTICLES OF PROPER SIZE AND GRADATION, AND SHALL BE FREE FROM ORGANIC MATERIAL, WOOD, TRASH, SAND, LOAM, CLAY, EXCESS FINES AND OTHER DELETERIOUS MATERIALS. THE STONE SHALL CONFORM TO THE REQUIREMENTS OF ASTMC33, SIZE No. 57 (3/4 INCH ROCK) AND BE GRADED WITHIN THE FOLLOWING LIMITS:

U.S. SIEVE SIZE	PERCENT FINER BY WEIGHT
1 1/2 INCH	100
1 INCH	95 - 100
1/2 INCH	25 - 100
No. 4	0 - 10
No. 8	0 - 5

3. FOUNDATION STABILIZATION MATERIAL SHALL BE REQUIRED AS SPECIFIED IN THE PLANS OR AS DIRECTED BY THE ENGINEER OF RECORD. WHEN, IN THE OPINION OF THE ENGINEER OF RECORD, THE EXISTING MATERIAL IN THE BOTTOM OF THE TRENCH IS UNSUITABLE FOR SUPPORTING THE PIPE, EXCAVATE BELOW THE FLOW LINE OF THE PIPE, AS DIRECTED BY THE CITY. BACKFILL THE TRENCH TO SPECIFIED GRADE WITH FOUNDATION STABILIZATION MATERIAL. IF THE TRENCH IS PROPERLY DEWATERED, SUITABLE BACKFILL MATERIAL MAY BE USED FOR STABILIZATION. CRUSHED ROCK SHALL BE USED WHEN A DRY TRENCH CANNOT BE OBTAINED. PLACE THE FOUNDATION STABILIZATION MATERIAL OVER THE FULL WIDTH OF THE TRENCH AND COMPACT IN LAYERS NOT EXCEEDING SIX INCHES DEEP TO THE REQUIRED GRADE.

4. BACKFILLING OF TRENCHES WILL NOT BE ALLOWED UNTIL THE WORK HAS BEEN INSPECTED BY CITY OF PUNTA GORDA UTILITY DEPARTMENT. ANY WORK COVERED UP OR CONCEALED WITHOUT THE KNOWLEDGE OR CONSENT OF CITY OF PUNTA GORDA UTILITY DEPARTMENT MAY BE REQUIRED TO BE UNCOVERED OR EXPOSED AT CONTRACTORS COST.

LOCATION OR USE OF FILL	PERCENTAGE OF MAXIMUM DENSITY
BACKFILL BENEATH PAVED AREAS, ROADWAYS OR DRIVEWAYS.	98% AASHTO T-180
BACKFILL BENEATH STRUCTURES, HYDRAULIC STRUCTURES.	98% AASHTO T-180
BACKFILL NOT BENEATH PAVED AREAS OR STRUCTURES.	95% AASHTO T-180
BACKFILL AROUND STRUCTURES BUT NOT BELOW PAVED AREAS.	95% AASHTO T-180

IF MORE STRINGENT COMPACTION REQUIREMENTS ARE GIVEN IN ANY OTHER DOCUMENTATION APPLICABLE TO THE WORK BEING PERFORMED, THOSE REQUIREMENTS WILL APPLY.

MAGNETIC LOCATION TAPE WITH A MINIMUM WIDTH OF THREE INCHES IS TO BE LAID EIGHTEEN (18) INCHES BELOW THE GROUND SURFACE TAPE IS TO BE OF COLOR AND MARKING TO CORRESPOND TO THE PIPING LAID. TAPE ENDS ARE TO BE SPLICED TOGETHER SO AS TO PRODUCE A CONTINUOUS LENGTH OF LOCATION TAPE.

ALL WELL POINT HOLES THAT WILL BE UNDER PARKING, DRIVING OR ROADWAY SURFACES SHALL BE BACKFILLED WITH CONCRETE IMMEDIATELY AFTER PULLING THE WELL POINTS. ALL OTHER WELL POINT HOLES SHALL BE BACKFILLED WITH FDOT No. 89 STONE IMMMEDIATELY AFTER PULLING THE WELL POINTS UNLESS SPECIFIED OR DIRECTED TO DO OTHERWISE.

CITY OF PUNTA GORDA
UTILITY DEPARTMENT
326 W. MARION AVE.
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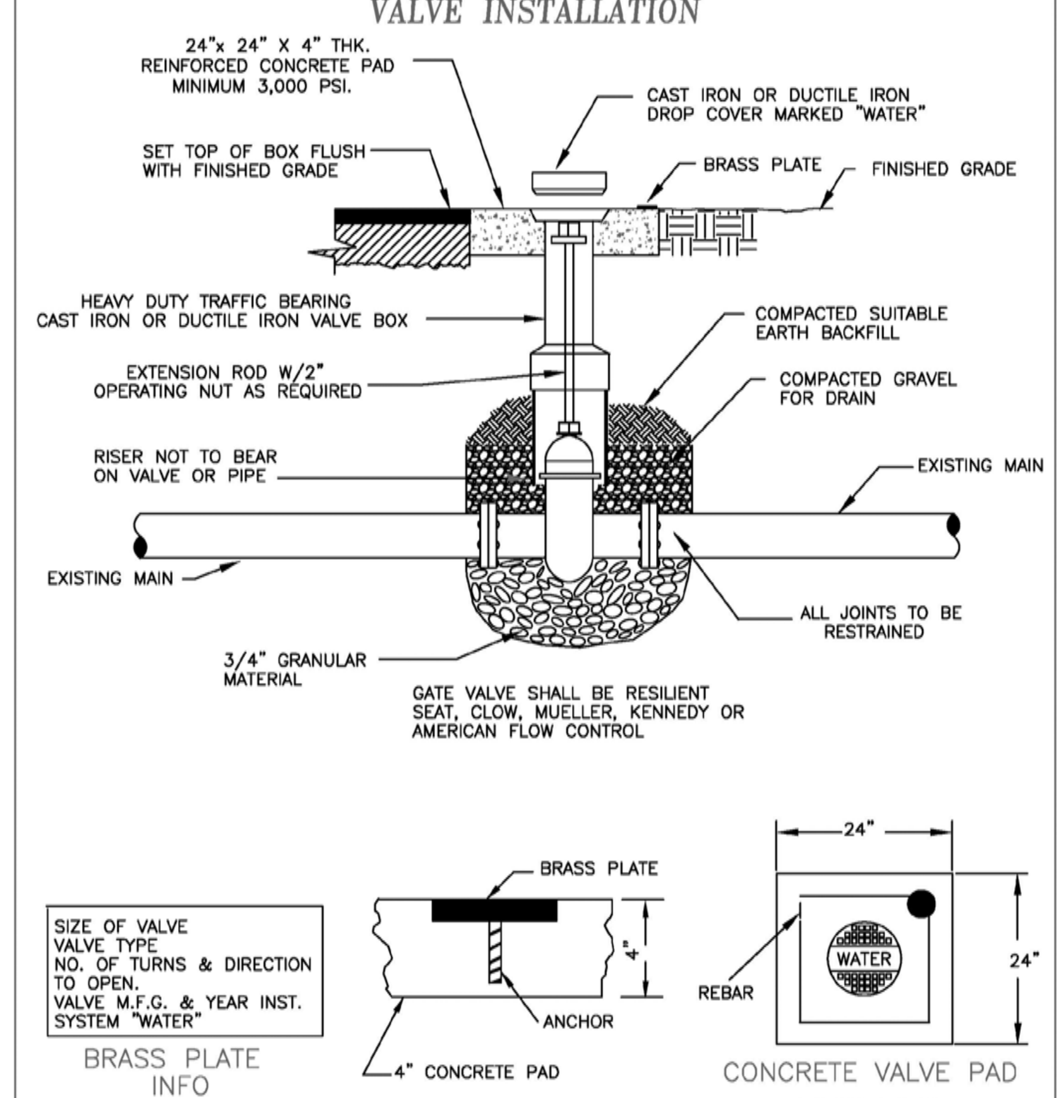
(941) 575-3339 (941) 575-5006 FAX
E-MAIL utility@ci.punta-gorda.fl.us

GENERAL NOTES — EXCAVATION & BACKFILL — GN-4

REV BY	DATE
TIM S	03/12/08

VALVE INSTALLATION



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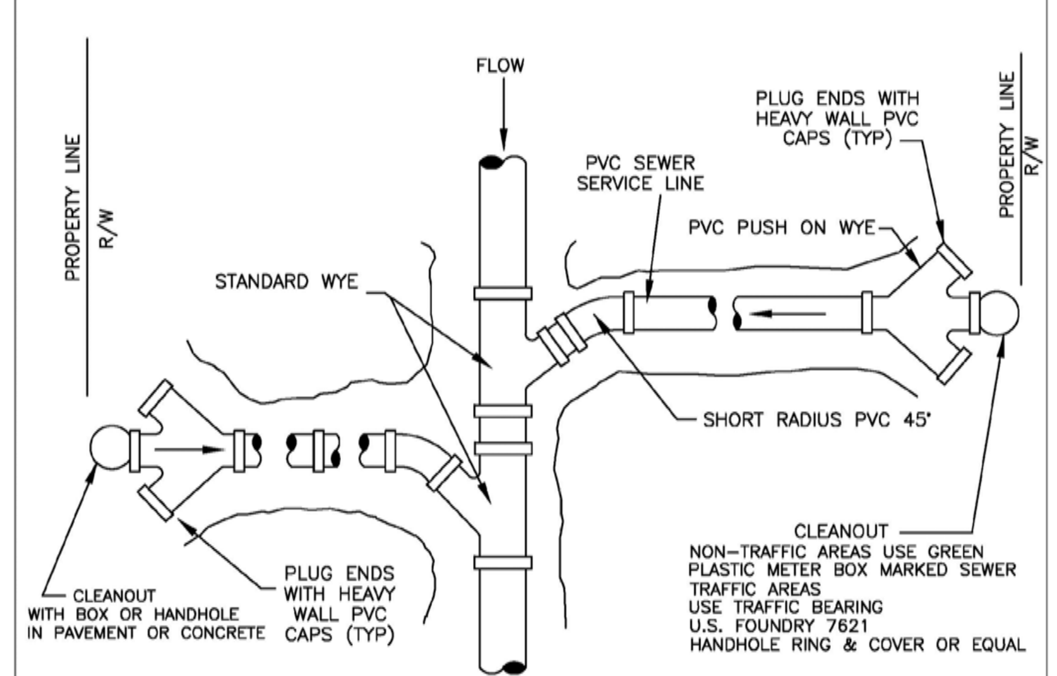
WATER DISTRIBUTION — VALVE INSTALLATION — W-1

REV BY	DATE
TIM S	02/29/08

STANDARD SEWER SERVICE LATERAL
(TYP.PLAN)



NOTE: 1. ALL FITTINGS SHALL BE PVC PUSH ON GASKETED TYPE

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SANITARY SEWER — STANDARD SEWER SERVICE LATERALS — SS-7

REV BY	DATE
TIM S	04/23/08

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2)	WATER MAIN — 3 FT. MIN.	WATER MAIN — 12 INCHES IS THE MIN., EXCEPT FOR STORM SEWER THEN 6" IS THE MIN. AND 12" IS PREFERRED	ALTERNATE 3 FT. MIN. — WATER MAIN
VACUUM SANITARY SEWER	WATER MAIN — 10 FT. PREFERRED 3 FT. MIN.	WATER MAIN — 12 IN. PREFERRED 6 IN. MIN.	ALTERNATE 3 FT. MIN. — WATER MAIN
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (4)	WATER MAIN — 10 FT. PREFERRED 3 FT. MIN. (3)	WATER MAIN — 12 INCHES IS THE MIN., EXCEPT FOR GRAVITY SEWER, THEN 6 IN. IS THE MIN. AND 12 IN. IS PREFERRED	ALTERNATE 6 FT. MIN. — WATER MAIN
SANITARY SEWER FORCE MAIN, RECLAIMED WATER (4)	10 FT. MIN.	-------	-------

(1) WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MIN. SEPARATION IS 12 INCHES.
(2) RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
(3) 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
(4) RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
(5) FOR ALL OTHER UTILITIES, A MINIMUM OF 18" CLEARANCE IS TO BE USED BETWEEN PIPES

DISCLAIMER: PROVIDED FOR INFORMATION ONLY, REFER TO F.A.C. RULE 62-555-314 FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.

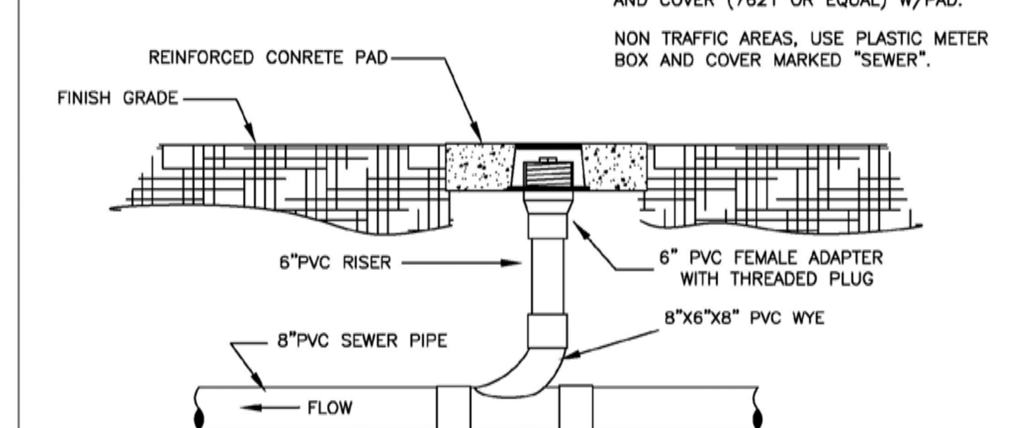
NOT TO SCALE

SEWER CLEAN-OUT COVERS

COMMERCIAL;
ALL AREAS, USE CAST IRON HAND HOLE AND COVER (U.S. FOUNDRY 7621 OR EQUAL) WITH REINFORCED 30" X 30" CONCRETE PAD.

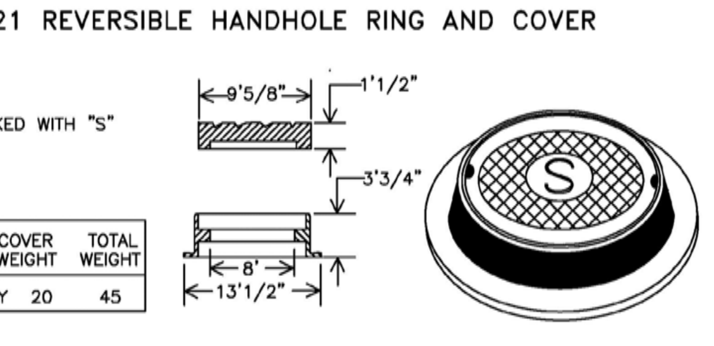
RESIDENTIAL;
TRAFFIC AREAS, USE CAST IRON HAND HOLE AND COVER (7621 OR EQUAL) W/PAD.

NON TRAFFIC AREAS, USE PLASTIC METER BOX AND COVER MARKED "SEWER".



USF 7621 REVERSIBLE HANDHOLE RING AND COVER

COVERS ARE MARKED WITH "S"



COVER TYPE	LOAD RATING	COVER WEIGHT	TOTAL WEIGHT
FE	HEAVY DUTY	20	45

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SANITARY SEWER — SEWER CLEAN-OUT DETAIL — SS-9

REV BY	DATE
TIM S	04/23/08

UTILITY DETAILS
for
PUBLIC WORKS TEMPORARY OFFICES

WEILER ENGINEERING CORPORATION
30 YEARS of Service
WEC Excellence in engineering
201 W. MARION AVE, SUITE 1306
PUNTA GORDA, FLORIDA 33950
941.505.1700
EB #6656

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Date Issued:	05/27/2025
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Description	Revisions
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Sheet No. C-6.1

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

1. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE.
2. IDENTIFICATION DEVICE COLORS; USE THOSE PRESCRIBED BY ANSI A13.1, NFPA 70 AND THESE SPECIFICATIONS.
3. COLORED ADHESIVE MARKING TAPE FOR RACEWAYS, WIRES, AND CABLES; SELF-ADHESIVE VINYL TAPE, NOT LESS THAN 1 INCH WIDE BY 3 MILS THICK (25 MM WIDE BY 0.08 MM THICK.)
4. TAPE MARKERS FOR CONDUCTORS. VINYL OR VINYL-CLOTH, SELF-ADHESIVE, WRAP AROUND TYPE WITH PREPRINTED NUMBERS AND LETTERS.
5. ENGRAVED-PLASTIC LABELS, SIGNS, AND INSTRUCTION PLATES: ENGRAVING STOCK, MELAMINE, PLASTIC LAMINATE PUNCHED OR DRILLED FOR MECHANICAL FASTENERS $\frac{1}{8}$ - INCH (1.6 - MM) MINIMUM THICKNESS FOR SIGNS UP TO 20 SQ. IN. (129 SQ. CM) AND $\frac{1}{2}$ - INCH (3.2 - MM) MINIMUM THICKNESS FOR LARGER SIZES. ENGRAVED LEGEND IN BLACK LETTERS ON WHITE BACKGROUND.
6. PULL STRINGS: PROVIDE PULL STRINGS IN ALL SPARE OR EMPTY CONDUITS AND RACEWAYS.
7. COORDINATE NAMES, ABBREVIATIONS, COLORS, AND OTHER DESIGNATIONS USED FOR ELECTRICAL IDENTIFICATION WITH CORRESPONDING DESIGNATIONS INDICATED IN THE CONTRACT DOCUMENTS OR REQUIRED BY CODES AND STANDARDS. USE CONSISTENT DESIGNATIONS THROUGHOUT PROJECT.
8. CUT, CHANNEL, CHASE, AND DRILL FLOORS, WALLS, PARTITIONS, CEILINGS AND OTHER SURFACES REQUIRED TO PERMIT ELECTRICAL INSTALLATIONS. PERFORM CUTTING BY SKILLED MECHANICS OF TRADES INVOLVED, SLEEVE ALL CABLE PENETRATIONS OF WALLS, SEAL ALL CONDUIT PENETRATIONS.
9. REPAIR, REFINISH AND TOUCH UP DISTURBED FINISH MATERIALS AND OTHER SURFACES TO MATCH ADJACENT UNDISTURBED SURFACES.
10. ALL WORK SHALL COMPLY WITH FLORIDA BUILDING CODE 2023 7TH EDITION, AND N.E.C. 2023 EDITION
11. WITHIN 30 DAYS OF NOTICE TO PROCEED, CONTRACTOR SHALL SCHEDULE AND ATTEND A SITE MEETING WITH UTILITY REPRESENTATIVE TO COORDINATE LOCATION AND REQUIREMENTS FOR NEW ELECTRICAL SERVICE; NOTIFY ENGINEER OF ANY REQUIREMENTS IN EXCESS OF THOSE SHOWN ON THESE PLANS.

SECTION 16060 - GROUNDING AND BONDING

1. EQUIPMENT GROUNDING CONDUCTORS: COMPLY WITH NFPA 70, ARTICLE 250, FOR TYPES, SIZES, AND QUANTITIES OF EQUIPMENT GROUNDING CONDUCTORS, UNLESS SPECIFIED TYPES, LARGER SIZES, OR MORE CONDUCTORS THAN REQUIRED BY NFPA70 ARE INDICATED.
2. INSTALL INSULATED EQUIPMENT GROUNDING CONDUCTORS IN ALL FEEDERS AND BRANCH CIRCUITS.
3. ALL GROUNDING CONDUCTORS SHALL BE COPPER: COMPLY WITH DIVISION 16 SECTION "CONDUCTORS AND CABLES" AND ASTM B, AS APPLICABLE.
4. EQUIPMENT GROUNDING CONDUCTORS: INSULATED WITH GREEN-COLORED INSULATION.
5. GROUNDING ELECTRODE CONDUCTORS: STRANDED COPPER CABLE.
6. UNDERGROUND CONDUCTORS: BARE, TINNED, STRANDED, UNLESS OTHERWISE INDICATED.
7. CONNECTORS: COMPLY WITH IEEE 837 AND UL 467; LISTED FOR USE FOR SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND CONNECTED ITEMS.
8. IN RACEWAYS, USE INSULATED EQUIPMENT GROUNDING CONDUCTORS.
9. EXOTHERMIC-WELDED CONNECTIONS: USE FOR CONNECTIONS TO STRUCTURAL STEEL AND FOR UNDERGROUND CONNECTIONS.
10. GROUNDING CONDUCTORS: ROUTE ALONG SHORTEST AND STRAIGHTEST PATHS POSSIBLE, UNLESS OTHERWISE INDICATED. AVOID OBSTRUCTION ACCESS OR PLACING CONDUCTORS WHERE THEY MAY BE SUBJECTED TO STRAIN, IMPACT, OR DAMAGE.
11. BONDING STRAPS AND JUMPERS: INSTALL SO VIBRATION BY EQUIPMENT MOUNTED ON VIBRATION ISOLATION HANGERS OR SUPPORTS IS NOT TRANSMITTED TO RIGIDLY MOUNTED EQUIPMENT.

SECTION 16120 - CONDUCTORS AND CABLES

1. CONDUCTOR MATERIAL: COPPER COMPLYING WITH NEMA WC 5 OR 7; SOLID CONDUCTOR FOR NO. 10 AWG AND SMALLER, STRANDED FOR NO. 8 AWG AND LARGER.
2. CONDUCTOR INSULATION TYPES: TYPE THHN-THWN COMPLYING WITH NEMA WC 5 OR WC 7.
3. TYPE MC CABLE SHALL BE PERMITTED IN CONCEALED LOCATIONS, WHERE PERMITTED BY CODE.
4. BRANCH CIRCUITS CONCEALED IN CEILING, WALLS, AND PARTITIONS: TYPE THHN-THWN, SINGLE CONDUCTORS IN RACEWAY; TYPE MC CABLE.
5. CONCEAL CABLES AND RACEWAYS IN FINISHED WALLS, CEILINGS, AND FLOORS.
6. CONCEAL CABLES AND RACEWAYS IN FINISHED WALLS, CEILINGS, AND FLOORS.
7. USE MANUFACTURER - APPROVED PULLING COMPOUND OR LUBRICANT WHERE NECESSARY; COMPOUND USED MUST NOT DETERIORATE CONDUCTOR OR INSULATION, DO NOT EXCEED MANUFACTURER'S RECOMMENDED MAXIMUM PULLING TENSIONS AND SIDEWALL PRESSURE VALUES.
8. IN EXPOSED LOCATIONS, ALL CONDUCTORS AND CABLES SHALL BE INSTALLED RACEWAY
9. MAKE SPLICES AND TAPS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL AND THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN UNSPLICED CONDUCTORS.
10. WIRING AT OUTLETS: INSTALL CONDUCTOR AT EACH OUTLET, WITH AT LEAST 6 INCHES (150 MM) OF SLACK.

SECTION 16130 - RACEWAYS AND BOXES

1. PERMANENTLY LABEL ALL RACEWAYS AND JUNCTION/PULL BOX COVERS TO INDICATE PANEL/CIRCUIT NUMBERS CONTAINED.
2. UNLESS OTHERWISE NOTED, PROVIDE NEMA 1 ENCLOSURES IN INDOOR LOCATIONS, NEMA 3R ENCLOSURES IN OUTDOOR LOCATIONS.
3. MINIMUM RACEWAY SIZE: $\frac{1}{2}$" TRADE SIZE.
4. KEEP RACEWAYS AT LEAST 6 INCHES (150 MM) AWAY FROM PARALLEL RUNS OF HOT-WATER PIPES. INSTALL HORIZONTAL RACEWAY RUNS ABOVE WATER PIPING.
5. PROTECT STUB-UPS FROM DAMAGE WHERE CONDUITS RISE THROUGH FLOOR SLABS. ARRANGE SO CURVED PORTIONS OF ENDS ARE NOT VISIBLE ABOVE FINISHED SLAB.
6. MAKE BENDS AND OFFSETS SO ID IS NOT REDUCED. KEEP LEGS OF BENDS IN SAME PLANE, AND KEEP STRAIGHT LEGS OF OFFSETS PARALLEL, UNLESS OTHERWISE INDICATED.
7. CONCEAL CONDUIT AND EMT WITHIN FINISHED WALLS, CEILINGS, AND FLOORS.
8. INSTALL EXPOSED RACEWAYS PARALLEL OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS AND FOLLOW SURFACE CONTOURS AS MUCH AS POSSIBLE.
9. INSTALL RACEWAY SEALING FITTINGS AT SUITABLE, APPROVED AND ACCESSIBLE LOCATIONS AND FILL THEM WITH UL-LISTED SEALING COMPOUND. INSTALL RACEWAY SEALING FITTINGS WHERE CONDUITS PASS FROM WARM TO COLD LOCATIONS, SUCH AS BOUNDARIES OF REFRIGERATED SPACES AND WHERE OTHERWISE REQUIRED BY NFPA 70.
10. FLEXIBLE CONNECTIONS. USE MAXIMUM OF 72 INCHES (1830 MM) OF FLEXIBLE CONDUIT FOR RECESSED AND SEMI-RECESSED LIGHTING FIXTURES; FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT; AND FOR ALL MOTORS. USE LFMC IN DAMP OR WET LOCATIONS. INSTALL SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.

SECTION 16140 - WIRING DEVICES

1. STRAIGHT-BLADE-TYPE RECEPTACLES. COMPLY WITH NEMA WD 1, NEMA WD 6, DSCC W-C-596G, AND UL 498 STRAIGHT-BLADE AND LOCKING RECEPTACLES; HEAVY-DUTY GRADE. ALL 20A/120V RECEPTACLES SHALL BE TAMPER-RESISTANT TYPE.
2. GFCI RECEPTACLES: STRAIGHT BLADE, HEAVY-DUTY GRADE, WITH INTEGRAL NEMA WD 6, CONFIGURATION 5-20R DUPLEX RECEPTACLES; COMPLYING WITH UL 498 AND UL 943.
3. SINGLE- AND DOUBLE-OLE SWITCHES: COMPLY WITH DSCC W-C 896F AND UL 20.
4. SNAP SWITCHES: HEAVE-DUTY GRADE, QUIET TYPE.
5. DIMMERS SHALL BE SLIDE-TYPE. WITH PRESET. DIMMERS SHALL BE RATED FOR THE LOAD TYPE CONTROLLED (E.G., INCANDESCENT, LED, FLUORESCENT.) DIMMERS SHALL BE RATED FOR 500W. MINIMUM; DERATE, AS PER MANUFACTURER'S RECOMMENDATIONS FOR GANG INSTALLATION.
6. DEVICE & COVER PLATE FINISH: PER ARCHITECTS DIRECTION, UNLESS OTHERWISE INDICATED OR REQUIRED BY NFPA 70.
7. INSTALL DEVICES AND ASSEMBLIES LEVEL, PLUMB, AND SQUARE WITH BUILDING LINES.
8. ARRANGEMENT OF DEVICES. UNLESS OTHERWISE INDICATED, MOUNT FLUSH, WITH LONG DIMENSION VERTICAL. GROUP ADJACENT SWITCHES UNDER SINGLE, MULTI-GANG WALL PLATES.
9. REMOVE WALL PLATES AND PROTECT DEVICES AND ASSEMBLIES DURING PAINTING.
10. AFTER INSTALLING WIRING DEVICES AND AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, TEST FOR PROPER POLARITY, GROUND CONTINUITY, AND COMPLIANCE WITH REQUIREMENTS.
11. TEST GFCI OPERATION WITH BOTH LOCAL AND REMOTE FAULT SIMULATIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

SECTION 16410 - ENCLOSED SWITCHES

1. ENCLOSED SWITCHES SHALL BE MANUFACTURED BY SQUARE-D, CUTLER-HAMMER, GE, OR SIEMENS.
2. ALL ENCLOSED SWITCHES SHALL BE LOCKABLE.
3. MOUNT INDIVIDUAL WALL-MOUNTING SWITCHES WITH TOPS AT UNIFORM HEIGHT, UNLESS OTHERWISE INDICATED.
4. ENCLOSED SWITCHES SHALL BE UL LISTED FOR THE APPLICATION USED; ENCLOSURES SHALL BE NEMA-3R UNLESS NOTED OTHERWISE.
5. MOTOR STARTERS SHALL BE NEMA-RATED, WITH OVERLOADS SIZED PER LOAD. COORDINATE COIL VOLTAGE WITH CONTROLS.

SECTION 16511 - INTERIOR LIGHTING

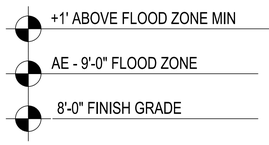
1. LIGHTING FIXTURES: PER FIXTURE SCHEDULE ON PROJECT PLANS.
2. UNLESS OTHERWISE INDICATED, FLUORESCENT BALLASTS SHALL BE ELECTRONIC, SOUND RATING A, THD LESS THAN 20%, CURRENT CREST FACTOR LESS THAN 1.7, OPERATING FREQUENCY GREATER THAN 20KHZ. WHERE DIMMERS ARE USED, PROVIDE COMPATIBLE DIMMABLE BALLASTS.
3. WHERE EXIT SIGNS ARE USED, THEY SHALL BE LED-TYPE.
4. FIXTURES: SET LEVEL, PLUMB, AND SQUARE WITH CEILINGS AND WALLS. INSTALL LAMPS IN EACH FIXTURE.
5. FOR EMERGENCY LIGHTING FIXTURES, PROVIDE UN-SWITCHED HOT CONDUCTOR OF AREA LIGHTING CIRCUIT AS INDICATED ON THE PLANS.
6. PROVIDE ALL BACK-BOXES, SUPPORTS, STEMS, HARDWARE, LAMPS, AND BALLASTS FOR A COMPLETE AND FUNCTIONAL INSTALLATION.

SECTION 16442 - PANEL BOARDS

1. MANUFACTURERS: PANEL BOARDS SHALL BE MANUFACTURED BY SQUARE-D, CUTLER-HAMMER, GE. OR SIEMENS.
2. ENCLOSURES: FLUSH- AND SURFACE-MOUNTED CABINETS, NEMA PB 1, TYPE 1.
3. PHASE AND GROUND BUSES: HARD-DRAWN COPPER, 98 PERCENT CONDUCTIVITY.
4. CONDUCTOR CONNECTORS: SUITABLE FOR USE WITH CONDUCTOR MATERIAL.
5. SERVICE EQUIPMENT LABEL: UL LABELED FOR USE AS SERVICE EQUIPMENT FOR PANEL BOARDS WITH MAIN SERVICE DISCONNECT SWITCHES.
6. FUTURE DEVICES: MOUNTING BRACKETS, BUS CONNECTIONS, AND NECESSARY APPURTENANCES REQUIRED FOR FUTURE INSTALLATION OF DEVICES.
7. PANEL BOARD SHORT-CIRCUIT RATING: SERIES RATED TO INTERRUPT SYMMETRICAL SHORT-CIRCUIT CURRENT AVAILABLE AT TERMINALS.
8. MAIN OVER-CURRENT PROTECTIVE DEVICES: CIRCUIT BREAKER.
9. MOLDED-CASE CIRCUIT BREAKER: UL 489, WITH INTERRUPTING CAPACITY TO MEET AVAILABLE FAULT CURRENTS.
10. MOUNT TOP OF TRIM 74 INCHES (1880 MM) ABOVE FINISHED FLOOR, UNLESS OTHERWISE INDICATED.
11. MOUNT PLUMB AND RIGID WITHOUT DISTORTION OF BOX. MOUNT RECESSED PANEL BOARDS WITH FRONTS UNIFORMLY FLUSH WITH WALL FINISH.
12. INSTALL FILLER PLATES IN UNUSED SPACES.
13. PROVIDE TYPE-WRITTEN PANEL DIRECTORIES, SHOWING ALL CIRCUITS.
14. PANEL BOARD NAMEPLATES: LABEL EACH PANEL BOARD WITH ENGRAVED METAL OR LAMINATED-PLASTIC NAMEPLATE MOUNTED WITH CORROSION-RESISTANT SCREWS.
15. WHERE BREAKER IS SERVING HARD-WIRED APPLIANCE WITHOUT A SEPARATE DISCONNECT (NOT WITHIN SIGHT), PROVIDE A PERMANENTLY INSTALLED PROVISION TO LOCK THE BREAKER IN THE "OFF" POSITION.
16. WHERE SURGE PROTECTIVE DEVICE IS INDICATED, PROVIDE UL-1449 LISTED TYPE 2 SURGE PROTECTIVE DEVICE, 40KA PER MODE MINIMUM.

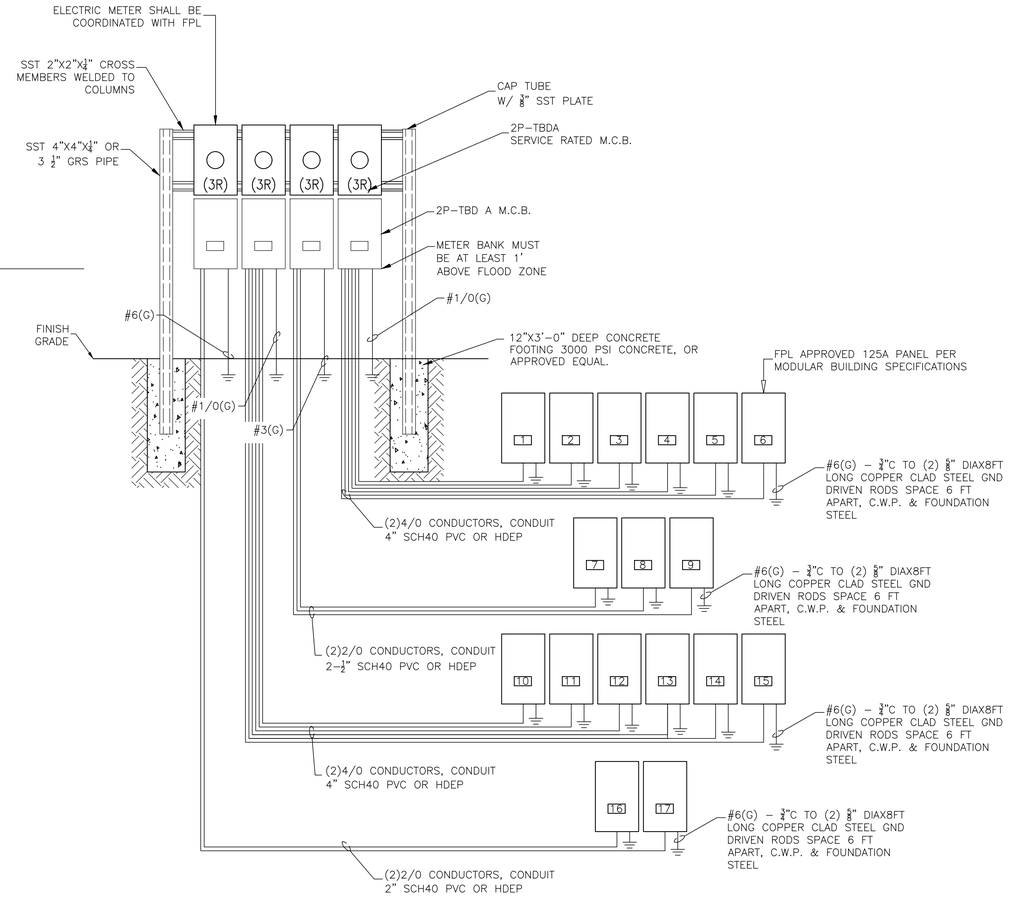
ENERGY CONSERVATION REQUIREMENTS

1. WITHIN 30 DAYS OF SUBSTANTIAL COMPLETION, CONTRACTOR SHALL PROVIDE RECORD DRAWINGS, OPERATING MANUAL, AND MAINTENANCE MANUALS TO THE BUILDING OWNER.
2. RECORD DRAWINGS SHALL INCLUDE: A SINGLE-LINE DIAGRAM OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM; AND FLOOR PLANS INDICATING LOCATION AND AREA SERVED FOR ALL DISTRIBUTION.
3. CONTRACTOR SHALL PROVIDE OPERATION MANUALS AND MAINTENANCE MANUALS TO THE OWNER FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE; REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
4. CONTRACTOR SHALL PROVIDE TO THE OWNER NAMES AND ADDRESSES OF AT LEAST ONE QUALIFIED SERVICE AGENCY,
5. CONTRACTOR SHALL CONFIRM THAT THE PLACEMENT, SENSITIVITY AND TIME-OUT ADJUSTMENTS FOR ALL OCCUPANCY SENSORS YIELD ACCEPTABLE RESULTS.
6. CONTRACTOR SHALL CONFIRM THAT TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF.
7. WHERE DAYLIGHT HARVESTING IS USED, CONTRACTOR SHALL CONFIRM THAT THE PLACEMENT AND SENSITIVITY ADJUSTMENTS FOR PHOTO-SENSOR CONTROLS REDUCE ELECTRIC LIGHT BASED ON THE AMOUNT OF USABLE DAYLIGHT IN THE SPACE AS SPECIFIED.
8. CONTRACTOR SHALL PROGRAM AND ADJUST ALL CONTROLS AS NEEDED TO ACHIEVE PERFORMANCE THAT IS SATISFACTORY TO THE OWNER.



GENERAL ELECTRICAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, FLORIDA BUILDING CODE AND OTHER APPLICABLE CODES AND STANDARDS.
2. HE DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS, BENDS AND BOXES REQUIRED TO MAKE A COMPLETE NEAT INSTALLATION IN ACCORDANCE WITH N.E.C.
3. THE CONTRACTOR IS RESPONSIBLE FOR EVALUATING FIELD CONDITIONS BY VISITING THE SITE PRIOR TO COMMENCING/BIDDING WORK.
4. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS DIRECTED BY OWNER.
5. ALL CONDUCTORS SHALL BE COPPER RUN IN CONDUIT.
6. ALL MATERIALS SHALL BE U.L. APPROVED.
7. ALL BRANCH CIRCUITS SHALL BE PROPERLY PHASE BALANCED.
8. RISERS ARE DIAGRAMMATIC ONLY. THEY DO NOT SHOW EVERY BEND REQUIRED FOR THE INSTALLATION.
9. THIS DRAWING IS A GUIDE FOR THE INSTALLATION OF ELECTRICAL SERVICE. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A FUNCTIONING SYSTEM.
10. ALL CABLES SHALL BE RUN WITHOUT SPLICES EXCEPT OTHERWISE INDICATED.
11. ALL PULL AND JUNCTION BOXES SHALL BE ACCESSIBLE AT ALL TIMES.
12. EXACT POINT AND METHODS OF CONNECTION SHALL BE DETERMINED IN FIELD.
13. ALL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER.
14. SUBMIT SHOP DRAWINGS FOR ALL MATERIAL, FIXTURES, POLES AND MOUNTING DETAILS FOR APPROVAL.



ELECTRICAL EQUIPMENT STAND

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WELLER ENGINEERING CORPORATION
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30 Years of Service
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UTILITY DETAILS for PUBLIC WORKS TEMPORARY OFFICES

Revisions	Description
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THIS SHEET IS NOT VALID WITHOUT THE SIGNATURE, AND ORIGINAL SEAL OF A FLORIDA LICENSED ENGINEER.

Joshua J. Jennings,
Professional Engineer,
State of Florida,
License No. 90677
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digitally signed and sealed by
Joshua J. Jennings, P.E.
on the date indicated here.
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Joshua J. Jennings
Professional Engineer
State of Florida
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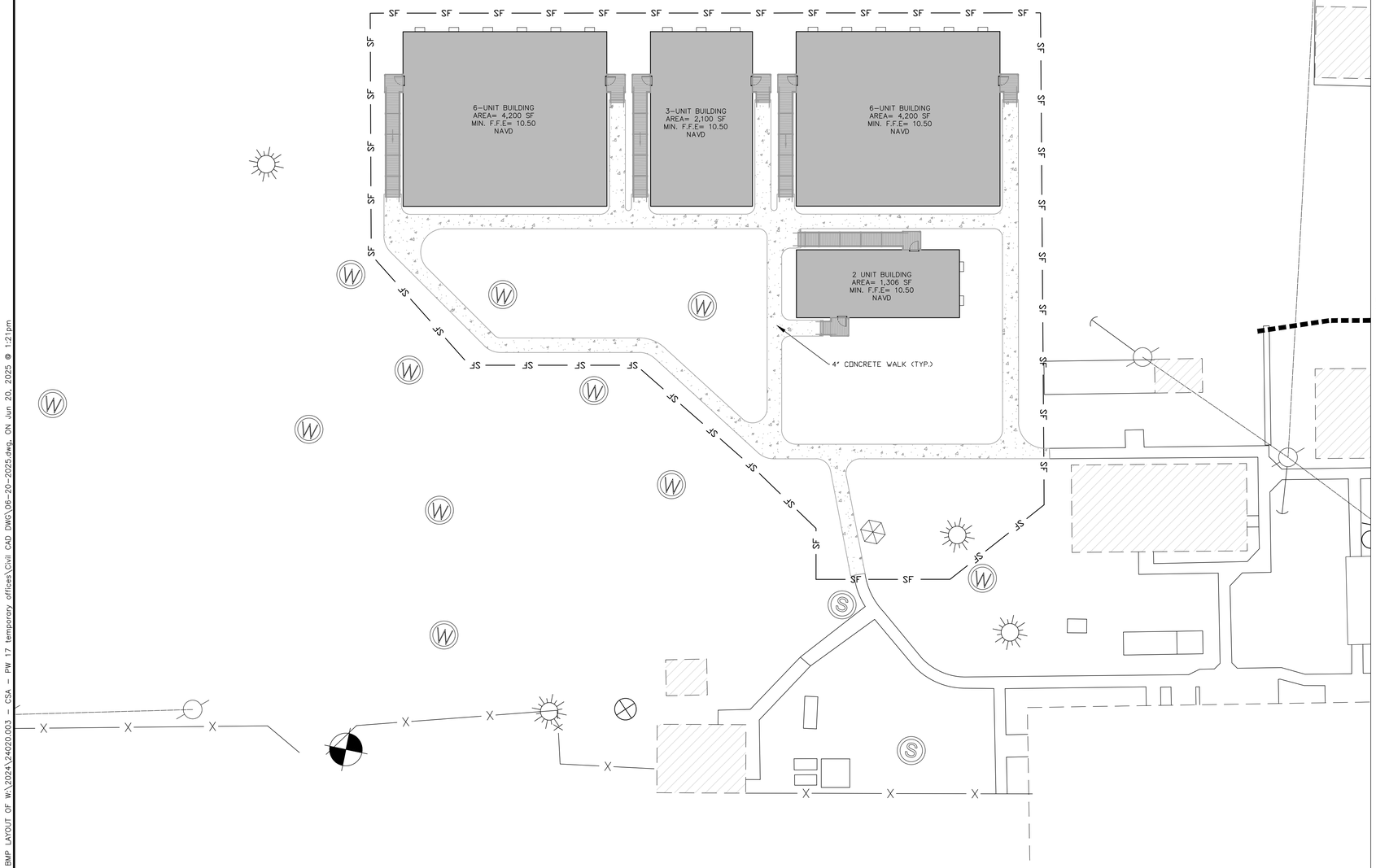
Sheet No. C-6.2



GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1" = 20'

EROSION CONTROL MAINTENANCE SCHEDULE

THE CONTRACTOR SHALL INSTALL SILT FENCE, SYNTHETIC BALES, AND AND OTHER EROSION CONTROL DEVICES AS SHOWN ON THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION. THESE INSTALLATIONS AS SHOWN ON THE DRAWINGS SHALL BE CONSIDERED THE MINIMUM EROSION/SILTATION PROTECTION REQUIRED FOR THE SITE. IN ADDITION THE ENGINEER, OWNER, OR OWNER'S REPRESENTATIVE MAY DEEM IT NECESSARY TO INSTALL PROTECTIVE FACILITIES ELSEWHERE ON THE SITE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION PROTECTION FACILITIES THROUGH COMPLETION OF CONSTRUCTION. THE CONTRACTOR SHALL PERFORM DAILY INSPECTIONS OF THE FACILITIES TO ENSURE THAT THE EROSION PROTECTION FACILITIES ARE MAINTAINING THEIR PROTECTION FUNCTIONS AND INTEGRITY.

IN ADDITION TO THE INSTALLATION OF EROSION PROTECTION FACILITIES, THE ENGINEER, OWNER, OR OWNER'S REPRESENTATIVE MAY DEEM IT NECESSARY, UPON INSPECTION OF THE SITE, THAT TURBIDITY MONITORING BE PERFORMED BY THE CONTRACTOR. THE MONITORING SHALL BE PERFORMED DAILY IF BACKGROUND TURBIDITY LEVELS REACH 25-29 NTU'S. FOR BACKGROUND TURBIDITY LEVELS LESS THAN 25 NTU'S, TURBIDITY MONITORING SHALL BE PERFORMED WEEKLY. IF BACKGROUND TURBIDITY LEVELS ARE GREATER THAN 29 NTU'S, ALL CONSTRUCTION ACTIVITIES SHALL STOP AND THE CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION PROTECTION NECESSARY TO RETURN LEVELS TO 29 NTU'S OR LESS. CONSTRUCTION ACTIVITIES SHALL BEGIN AGAIN ONLY UPON APPROVAL BY THE ENGINEER, OWNER, OR OWNER'S REPRESENTATIVE.

ALL EROSION PROTECTION FACILITIES SHALL BE REMOVED AFTER CONSTRUCTION COMPLETION, AND WHEN A VEGETATIVE COVER HAS BEEN WELL ESTABLISHED OVER THE CONSTRUCTED AREAS. PER THE PLANS: THE CONTRACTOR SHALL REMOVE PROTECTION FACILITIES ONLY UPON APPROVAL BY THE ENGINEER, OWNER, OR OWNER'S REPRESENTATIVE.

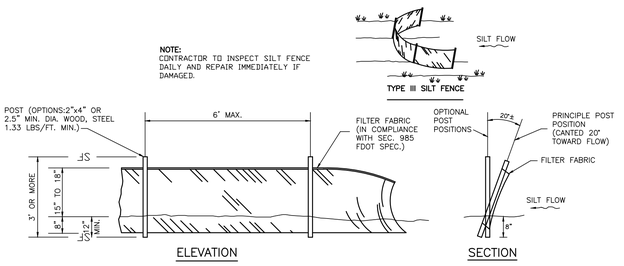
LEGEND

SF —— SF —— SF —— SF ——

1 - BEST MANAGEMENT PRACTICE DETAIL NUMBER AND REFERENCE

—— SF —— SF —— DENOTES SILT FENCE

NOTE:
CONTRACTOR TO INSPECT SILT FENCE DAILY AND REPAIR IMMEDIATELY IF DAMAGED.



1 TYPICAL SILT FENCE
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BEST MANAGEMENT PLAN for PUBLIC WORKS TEMPORARY OFFICES

Revisions

Description

THIS SHEET IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL SEAL OF A FLORIDA LICENSED ENGINEER.

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This item has been
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Joshua J. Jennings, P.E.
on the date indicated here.
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Joshua J. Jennings
Professional Engineer
State of Florida
Registration No. 90677

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PRE-BID SUBMITTAL

THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO BIDDING TO FAMILIARIZE HIMSELF WITH THE CONDITIONS FOR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL OBTAIN FROM THE OWNER A WRITTEN LIST OF ALL PERMITS AND COPIES THEREOF, AND CAREFULLY REVIEW ALL PLANS, SPECIFICATIONS, AND PERMITS PREVIOUSLY SECURED ON BEHALF OF THE OWNER. IN CASE OF ANY DISCREPANCY EITHER IN PERMIT DOCUMENTS, PLANS, DRAWINGS, OR SPECIFICATIONS, THE CONTRACTOR MUST PROMPTLY SUBMIT A "WRITTEN CLARIFICATION REQUEST" TO THE OWNER, WHO WILL PROMPTLY FORWARD SAME TO THE ENGINEER WHO WILL MAKE A DETERMINATION IN WRITING. THE CONTRACTOR MUST VERIFY EXISTING FACILITY INFORMATION, AND ALL DESIGN/PERMIT DATA REQUIRED FOR WORK THAT IS TO CONNECT WITH EXISTING FACILITIES. ANY DISCREPANCIES BETWEEN THE CONTRACT REQUIREMENTS AND THE EXISTING CONDITIONS MUST BE REFERRED TO THE OWNER, IN WRITING, FOR AN ENGINEERING DETERMINATION. ANY FUTURE ADJUSTMENT DUE TO FAILURE BY THE CONTRACTOR TO IDENTIFY THE RELATED DISCREPANCY, WILL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY LICENSES, ADDITIONAL PERMITS, AND FOR COMPLYING WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, CODES, AND REGULATIONS IN CONNECTION WITH THE PERFORMANCE OF THE WORK.

CONSTRUCTION SAFETY AND LIABILITY

THE CONTRACTOR MUST TAKE PROPER SAFETY AND HEALTH PRECAUTIONS TO PROTECT THE WORK, THE WORKERS, THE PUBLIC, AND THE PROPERTY OF OTHERS. THE CONTRACTOR IS RESPONSIBLE ALSO FOR ALL MATERIALS DELIVERED AND WORK PERFORMED UNTIL COMPLETION AND ALL ACCEPTANCES HAVE BEEN OBTAINED. THE CONTRACTOR SHALL MAINTAIN TRAFFIC DURING CONSTRUCTION IN ACCORDANCE WITH THE CURRENT VERSION OF THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO PERSONS OR PROPERTY THAT OCCURS AS A RESULT OF THEIR NEGLIGENCE. THE CONTRACTOR SHALL SAVE HARMLESS AND INDEMNIFY THE OWNER AND THE ENGINEER OF RECORD, ITS OFFICERS, REPRESENTATIVES AND EMPLOYEES FROM ALL CLAIMS, LOSS, DAMAGE, ACTIONS, CAUSES OF ACTION, AND/OR EXPENSES RESULTING FROM, BROUGHT FOR, OR ON ACCOUNT OF ANY PERSONAL INJURY OR PROPERTY DAMAGE RECEIVED OR SUSTAINED BY ANY PERSONS OR PROPERTY GROWING OUT OF OCCURRING, OR ATTRIBUTABLE TO ANY WORK PERFORMED UNDER OR RELATED TO THIS CONTRACT, RESULTING IN WHOLE OR IN PART FROM THE NEGLIGENT ACTS OR OMISSIONS OF THE CONTRACTOR, ANY SUBCONTRACTOR, OR ANY EMPLOYEE, AGENT, OR REPRESENTATIVE OF THE CONTRACTOR OR ANY SUBCONTRACTOR. CONTRACTOR SHALL COMPLY WITH THE TRENCH SAFETY ACT (FL Stat §553.63) AND ITS SUCCESSORS.

PRE-CONSTRUCTION:
THE OWNER SHALL COORDINATE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, SURVEYOR, CONTRACTOR, TESTING LAB, UTILITY COMPANIES, AND APPROPRIATE REGULATORY AGENCIES. THE CONTRACTOR SHALL PROVIDE A SHOP DRAWING SUBMISSION SCHEDULE FOR ALL PROJECT MATERIALS AND COMPONENTS. THE CONTRACTOR SHALL NOT INITIATE CONSTRUCTION OF ANY PORTION OF THE IMPROVEMENTS UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED FOR THAT PORTION BY THE ENGINEER. THE OWNER, CONTRACTOR, ENGINEER AND UTILITY COMPANY SHALL ALSO DISCUSS ALL DOCUMENTATION REQUIRED FOR CONTRIBUTED FACILITIES TRANSFER FROM THE OWNER/DEVELOPER TO THE UTILITY COMPANY UPON PROJECT COMPLETION, UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY,
UNLESS OTHERWISE SPECIFIED BY THE UTILITY, THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENTS OF THE WATER, GAS, SEWER, TELEPHONE, AND POWER COMPANIES, 10 DAYS IN ADVANCE, THAT HE INTENDS TO START WORK IN A SPECIFIC AREA, THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE SUPPORT AND PROTECTION OF SEWERS, DRAINS, WATER LINES, GAS LINES, CONDUITS OF ANY KIND, UTILITIES OR OTHER STRUCTURES OWNED BY THE CITY, COUNTY, STATE OR BY PRIVATE OR PUBLIC UTILITIES LEGALLY OCCUPYING ANY STREET, ALLEY, PUBLIC PLACE, RIGHT-OF-WAY, OR EASEMENT.

PROJECT SIGN: (IF REQUIRED)
THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A CONSTRUCTION PROJECT SIGN AT A LOCATION DIRECTED BY THE OWNER. THE WEILER ENGINEERING CORPORATION SHALL PROVIDE A SEPARATE SIGN FOR INSTALLATION BY THE CONTRACTOR AT THIS LOCATION. THESE SIGNS SHALL BE ERECTED WITHIN 15 DAYS AFTER RECEIVING A NOTICE TO PROCEED. UPON PROJECT COMPLETION, THE CONTRACTOR SHALL REMOVE THESE SIGNS AND RETURN TO WEILER ENGINEERING CORPORATION THEIR SIGN.

ENVIRONMENTAL PROTECTION DURING CONSTRUCTION

PROTECTION OF LAND RESOURCES
EXCEPT IN AREAS IDENTIFIED ON THE PLANS TO BE CLEARED, THE CONTRACTOR MUST NOT DEFACE, INJURE, OR DESTROY TREES OR SHRUBS OR REMOVE OR CUT THEM WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER. IN THE ABSENCE OF A CLEARING PLAN, AREAS SHOWN FOR IMPROVEMENTS SHALL BE CLEARED UNLESS NOTED OTHERWISE.

PROTECTION OF WATER RESOURCES
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE AND COMPLY WITH ALL APPLICABLE FEDERAL, STATE, REGIONAL COUNTY AND MUNICIPAL LAWS CONCERNING POLLUTION OF WATER RESOURCES. ALL WORK MUST BE PERFORMED IN SUCH A MANNER THAT OBJECTIONABLE CONDITIONS WILL NOT BE CREATED IN PUBLIC WATERS RUNNING THROUGH, OR ADJACENT TO THE PROJECT AREA.

1. EROSION AND SEDIMENT CONTROL – ALL PRACTICABLE AND NECESSARY EFFORT SHOULD BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND THE TRANSPORT OF SEDIMENT TO SURFACE DRAINS, SURFACE WATER, OR ONTO OTHER PROPERTY BY ANY OR ALL OF THE FOLLOWING METHODS:
   A. STORMWATER FACILITIES ARE TO BE BUILT AS EARLY IN THE CONSTRUCTION PHASE AS POSSIBLE TO ENSURE THE TREATMENT OF STORMWATER RUNOFF. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, HOWEVER, SUCH AS BERMS, SEDIMENT BASINS, GRASSING, SODDING, SAND BAGGING, BALED HAY OR STRAW, FLOATING SILT, BARRIERS, STACKED SILT BARRIERS, ETC., MUST BE PROVIDED AND MAINTAINED UNTIL THE PERMANENT FACILITIES ARE COMPLETED AND OPERATIONAL.
   B. REVEGETATION AND STABILIZATION OF DISTURBED GROUND SURFACES SHOULD BE ACCOMPLISHED AS SOON AS POSSIBLE.
   C. FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES.
   D. PROHIBIT THE USE OF ANY CONSTRUCTION EQUIPMENT THAT LEAKS EXCESSIVE AMOUNTS OF FUEL OIL, OR HYDRAULIC FLUID.
2. ALL DISTURBED AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE, EXCEPT RETENTION AREAS, AND SHALL BE STABILIZED BY SODDING, EXCEPT WHERE SEEDING AND MULCHING ARE CALLED FOR ON THE PLANS. THE LATEST VERSION OF THE F.D.O.T. ROAD AND BRIDGE SPECIFICATIONS SHALL BE USED UNLESS MORE RESTRICTIVE LOCAL SPECIFICATIONS EXIST.

CONTRACTOR IS RESPONSIBLE FOR STABILIZING AND MAINTAINING SLOPES AND SOD THROUGHOUT CONSTRUCTION UNTIL SUCH TIME AS APPROVED BY THE ENGINEER.

PROTECTION OF FISH AND WILDLIFE

THE CONTRACTOR SHALL AT ALL TIMES PERFORM ALL WORK IN A WAY AND TAKE STEPS AS REQUIRED TO PREVENT ANY INTERFERENCE WITH OR DISTURBANCE TO FISH AND WILDLIFE. THE CONTRACTOR SHALL NOT ALTER WATER FLOWS OR OTHERWISE DISTURB NATIVE HABITATS AND JURISDICTIONAL WETLANDS LOCATED WITHIN AND/OR ADJACENT TO THE PROJECT AREA. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REGARDING THE PROTECTION OF FISH AND WILDLIFE THROUGHOUT CONSTRUCTION.

PROTECTION OF HISTORICAL AND ARCHEOLOGICAL RESOURCES

THE CONTRACTOR SHALL ADHERE TO ALL FEDERAL, STATE, AND LOCAL LAWS REGARDING THE RECORDING, PROTECTING, AND PRESERVING OF HISTORICAL AND ARCHEOLOGICAL RESOURCES. ALL ITEMS HAVING ANY APPARENT HISTORICAL OR ARCHEOLOGICAL INTEREST THAT ARE DISCOVERED IN THE COURSE OF ANY CONSTRUCTION ACTIVITIES CONSTITUTE AN ARCHEOLOGICAL FIND AND SHALL BE CAREFULLY PRESERVED. THE CONTRACTOR SHALL LEAVE THE FIND UNDISTURBED AND IMMEDIATELY REPORT THE FIND TO THE OWNER SO THAT THE PROPER AUTHORITY MAY BE NOTIFIED.

EARTHWORK

I. GENERAL

1-01 SUBMITTALS
- A. EROSION AND CONTROL MEASURES
- B. COMPACTION TESTS
- C. SOIL CLASSIFICATION TESTS
- D. PRESERVATION PLANS

1-02 SITE EXAMINATION
- A. CONTRACTORS, BEFORE SUBMITTING BIDS, SHALL INFORM THEMSELVES AS TO LOCATION AND NATURE OF THE WORK, CHARACTER OF EQUIPMENT AND FACILITIES NEEDED FOR PERFORMANCE OF THE WORK, GENERAL AND LOCAL CONDITIONS PREVAILING AT THE SITE, AND OTHER MATTERS WHICH MAY IN ANY WAY, AFFECT THE WORK UNDER CONTRACT.
- B. EXAMINE SOURCES OF INFORMATION CONCERNING GROUND WATER LEVEL, WHETHER SURFACE OR SUBSURFACE. EACH BIDDER TO DRAW HIS OWN CONCLUSION CONCERNING GROUND WATER LEVELS AND HOW WATER AFFECTS HIS WORK.

1-03 SUBSURFACE INVESTIGATIONS
- A. SUBSURFACE DATA, INCLUDING GROUND WATER ELEVATIONS OR CONDITIONS, IF SHOWN ON THE DRAWINGS OR ATTACHED TO THESE SPECIFICATIONS, ARE PRESENTED ONLY AS INFORMATION THAT IS AVAILABLE WHICH INDICATED CERTAIN CONDITIONS FOUND AND LIMITED TO THE EXACT LOCATIONS, SHALL NOT BE INTERPRETED AS AN INDICATION OF CONDITIONS THAT MAY ACTUALLY BE DEVELOPED THROUGH THE PERIOD OF CONSTRUCTION. BIDDERS SHALL EXAMINE THE SITE OF THE WORK AND MAKE THEIR OWN DETERMINATION OF THE CHARACTER OF MATERIALS AND THE CONDITIONS TO BE ENCOUNTERED ON THE WORK, AND THEIR PROPOSAL SHALL BE BASED UPON THEIR OWN INVESTIGATIONS. THE OWNER AND ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR VARIATIONS FOUND TO EXIST BETWEEN THE ATTACHED DATA ABOVE REFERRED TO AND ACTUAL FIELD CONDITIONS THAT DEVELOP THROUGH THE PERIOD OF CONSTRUCTION.
- B. WHERE EXISTING GRADES, UTILITY LINES AND SUBSTRUCTURES ARE SHOWN ON THE DRAWINGS, THE OWNER AND ENGINEER ASSUME NO RESPONSIBILITY FOR CORRECTNESS OF EXISTING CONDITIONS INDICATED. THE CONTRACTOR SHALL ASCERTAIN EXACT LOCATIONS OF UTILITIES AND SUBSTRUCTURES THAT MAY BE AFFECTED BY THIS PROJECT, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY THAT MAY RESULT FROM WORKING ON OR NEAR THOSE UTILITIES, SUBSTRUCTURES WHICH ARE NOT TO BE REMOVED OR DEMOLISHED.
- C. THE CONTRACTOR SHALL MAKE HIS OWN DEDUCTIONS OF THE SUBSURFACE CONDITIONS WHICH MAY AFFECT METHODS OR COST OF CONSTRUCTION AND HE AGREES THAT HE WILL MAKE NO CLAIM FOR DAMAGES OR OTHER COMPENSATION EXCEPT SUCH AS ARE PROVIDED FOR IN THE AGREEMENT, SHOULD HE FIND CONDITIONS DURING THE PROGRESS OF THE WORK DIFFERENT FROM THOSE AS CALCULATED OR ANTICIPATED BY HIM.

1-04 BENCH MARKS AND MONUMENTS
- A. MAINTAIN CAREFULLY EXISTING BENCH MARKS, MONUMENTS, AND OTHER REFERENCE POINTS IF DISTURBED OR DESTROYED, REPLACE AS DIRECTED.

1-05 JOB CONDITIONS
- A. CONDITION OF PREMISES: ACCEPT SITE AS FOUND AND EXCAVATE, FILL, COMPACT, AND BACKFILL SITE AS HEREINAFTER SPECIFIED.
- B. PROTECTION
  1. EXISTING STRUCTURES AND PROPERTY: TAKE PRECAUTIONS TO GUARD AGAINST MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES AND FACILITIES; PROVIDE AND PLACE BRACING OR SHORING AS NECESSARY OR PROPER IN CONNECTION THEREWITH; BE RESPONSIBLE FOR SAFETY AND SUPPORT OF SUCH STRUCTURES; BE LIABLE FOR ANY MOVEMENT OR SETTLEMENT, ANY DAMAGE OR INJURY CAUSED THEREBY OR RESULTING THEREFROM. IF AT ANY TIME SAFETY OR ANY ADJACENT STRUCTURES APPEARS TO BE ENDANGERED, CEASE OPERATION, TAKE PRECAUTIONS TO SUPPORT SUCH STRUCTURES AND NOTIFY THE OWNER. RESUME OPERATIONS ONLY AFTER PERMISSION HAS BEEN CHANGED BY THE OWNER.
  2. SIDEWALKS AND STREETS: TAKE PRECAUTIONS TO GUARD AGAINST MOVEMENT, SETTLEMENT OR COLLAPSE OF ANY SIDEWALKS, CURBS OR STREET PASSAGES ON ADJOINING SITE; BE LIABLE FOR ANY SUCH MOVEMENT, SETTLEMENT OR COLLAPSE; REPAIR PROMPTLY SUCH DAMAGE WHEN SO ORDERED; INSTALL SUCH SHORING, INCLUDING SHEET PILING, AS MAY BE REQUIRED DURING EXCAVATION, TO PROTECT BANKS, ADJACENT PAVING, STRUCTURES AND UTILITIES.
  3. RESPONSIBILITY: BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING TRUCTURES OR TO EQUIPMENT AND FURNISHINGS HOUSED THEREIN WHICH ARE DUE DIRECTLY OR INDIRECTLY TO CONSTRUCTION OPERATIONS, EXCEPT WHERE REMOVAL IS NECESSITATED BY SITE GRADING OR LOCATION OF NEW BUILDING. USE EVERY POSSIBLE PRECAUTION TO PREVENT INJURIES TO LANDSCAPING, DRIVES, CURBS AND WALKS ON OR ADJACENT TO SITE OF THE WORK AND REPLACE, AT NO EXPENSE TO OWNER, ANY OF SUCH DESTROYED.

II. EXECUTION

2-01 GENERAL
- A. IN A MANNER THAT PROVIDES FOR THE SAFETY OF THE PUBLIC AND WORKMEN AND PROVIDE FOR THE PROTECTION OF ALL PROPERTY.
- B. CONSTRUCTION: DO NOT CLOSE, OBSTRUCT OR STORE MATERIAL OR EQUIPMENT IN STREETS, SIDEWALKS, ALLEYS OR PASSAGEWAYS WITHOUT A PERMIT IN ACCORDANCE WITH LOCAL ORDINANCES, REGULATIONS AND CODES.
- C. INTERFERENCE: CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE WITH ROADS, STREETS, DRIVEWAYS, ALLEYS, SIDEWALKS AND OTHER FACILITIES.
- D. PNEUMATIC TOOLS: WORK WITH PNEUMATIC OR VIBRATORY TOOLS WILL BE PERMITTED ONLY IN A MANNER WHICH CAUSES NO RELATED DAMAGES.
- E. REMOVAL: UNLESS OTHERWISE NOTED OR SPECIFIED TO BE RELOCATED OR STORED, ALL MATERIALS REMOVED BECOME THE PROPERTY OF THE CONTRACTOR AND ARE TO BE REMOVED COMPLETELY AWAY FROM THE SITE BY HIM. DO NOT STORE OR PERMIT DEBRIS TO ACCUMULATE ON THE SITE.
- F. TEMPORARY STRUCTURES: REMOVE ALL TEMPORARY STRUCTURES WHEN THEY ARE NO LONGER REQUIRED.
- G. REPAIR: CLEAN UP, REPAIR OR REPLACE AT NO COST TO OWNER ALL PROPERTY DAMAGED BY REASON OF REQUIRED WORK. ALL PATCHWORK SHALL MATCH EXISTING AND BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER BY CRAFTSMEN SKILLED IN THE TRADE INVOLVED. IN NEWLY GRADED AREAS TAKE EVERY PRECAUTION AND TEMPORARY MEASURE NECESSARY, TO PREVENT DAMAGE FROM EROSION OF FRESHLY GRADED AREA, WHERE ANY SETTLEMENT OR WASHING MAY OCCUR PRIOR TO ACCEPTANCE OF THE WORK, REPAIR AND RE-ESTABLISH GRADES TO THE REQUIRED ELEVATIONS AND SLOPES AT NO ADDITIONAL COST TO THE OWNER. THIS APPLIES TO DAMAGE TO THE NEWLY GRADED AREAS WITHIN THE CONSTRUCTION LIMITS AND DAMAGE TO ADJACENT PROPERTIES BY ERODED MATERIAL.

2-02 LOCATIONS AND ELEVATIONS
- A. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEYS, MEASUREMENTS AND LAYOUTS REQUIRED FOR PROPER EXECUTION OF THE WORK. LAY OUT LINES AND GRADES FROM EXISTING SURVEY CONTROL SYSTEM AND AS SHOWN ON DRAWINGS.

2-03 CLEARING AND GRUBBING
- A. WITHIN LIMITS OF AREAS DESIGNATED FOR GRADING AND SITE CONSTRUCTION WORK, REMOVE TREES, BRUSH, STUMPS, WOOD, DEBRIS AND OTHER DELETERIOUS MATERIALS NOT REQUIRED TO REMAIN AS PART OF FINISHED WORK.
- B. REMOVE ALL GRASS, PLANTS, VEGETATION AND ORGANIC MATERIAL FROM SAME AREA.

2-04 STRIPPING
- A. STRIP ALL TOPSOIL ORGANIC MATERIAL SURFACE LITTER, RUBBLE, AND OVERBURDEN FOR ENTIRE DEPTH OF ROOT SYSTEM OF GRASS OR OTHER VEGETATION OVER THE LIMITS OF CONSTRUCTION.
- B. STOCKPILE TOPSOIL ON SITE WHERE DIRECTED.

2-05 EXCAVATION
- A. BEGIN EXCAVATION AFTER STRIPPING, CLEARING AND GRUBBING WHERE APPLICABLE, HAS BEEN COMPLETED.
- B. EXCAVATE TO GRADES REQUIRED TO ACCOMMODATE THE PROPOSED CONSTRUCTION. DEWATER AS NEEDED.
- C. REMOVE "UNSATISFACTORY MATERIALS" ENCOUNTERED FROM THE BUILDING AREAS, AND OTHER NON-LANDSCAPED AREAS.
- D. EXCAVATE IN SUCH A MANNER THAT QUICK AND EFFICIENT DRAINAGE OF STORMWATER WILL BE AFFECTED.
- E. CLASSIFY EXCAVATED MATERIALS AND STOCKPILE SEPARATELY SUITABLE SOILS FOR USE AS BACKFILL MATERIALS. IF SUFFICIENT QUANTITIES OF EXCAVATED MATERIALS MEETING REQUIREMENTS FOR BACKFILL ARE NOT AVAILABLE ON SITE, PROVIDE MATERIALS MEETING THESE REQUIREMENTS.
- F. STOCKPILE EXCAVATED MATERIAL SUITABLE FOR USE AS FILL AND BACKFILL.

2-06 FILLING, BACKFILLING AND COMPACTING.
- A. THE WORK CONSISTS OF COMPACTION OF EXISTING EARTH (EXCLUDE ROCK), SURFACES AFTER EXCAVATION, FILLING AND COMPACTION OF SAID AREA TO LEVELS REQUIRED WITH SUITABLE BACKFILL MATERIAL.
- B. MATERIALS: "SATISFACTORY FILL MATERIALS" AASHTO CLASSIFICATION A-3 OR BETTER SHALL BE USED IN FILLS AND BACKFILLS.
- C. FILLING AND BACKFILLING: PLACE "SATISFACTORY FILL MATERIAL" IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH. COMPACT AS SPECIFIED HEREIN NO MATERIAL SHALL BE PLACED ON SURFACES THAT ARE MUDDY.
- D. COMPACTION: COMPACTION SHALL BE WITH EQUIPMENT SUITED TO SOIL BEING COMPACTED. MOISTEN OR AERATE MATERIAL AS NECESSARY TO PROVIDE MOISTURE CONTENT THAT WILL READILY FACILITATE OBTAINING SPECIFIED COMPACTION WITH EQUIPMENT USED. COMPACT EACH LAYER TO NOT LESS THAN PERCENTAGE OF MAXIMUM DENSITY SPECIFIED BELOW DETERMINED IN ACCORDANCE WITH AASHTO T-180. INSURE THAT THE COMPACTION OF PREVIOUSLY PREPARED FILL AREAS HAS BEEN MAINTAINED PRIOR TO PLACING NEW LAYERS.
- E. RECONDITIONING OF SUBGRADE: WHERE APPROVED COMPACTED SUBGRADES ARE DISTURBED BY THE CONTRACTOR'S SUBSEQUENT OPERATIONS OR ADVERSE WEATHER SUBGRADE SHALL BE SCARIFIED AND COMPACTED AS SPECIFIED HEREIN BEFORE TO REQUIRED DENSITY PRIOR TO FURTHER CONSTRUCTION THEREON. RE-COMPACTION OVER UNDERGROUND UTILITIES SHALL BE BY POWER-DRIVEN HAND TAMPERS.
- F. COMPACTION REQUIREMENTS
  1. FILL UNDER LAWNS AND PLANTED: 95%

2-07 TESTING
- A. THE CONTRACTOR WILL PROVIDE THE SERVICES OF A TESTING LABORATORY TO PERFORM SPECIFIED TESTS, INSPECTIONS, INSTRUMENTATION AND INSPECTION OF THE WORK.
- B. TESTS OF MATERIALS SHALL BE AS FOLLOWS:
  1. SOIL CLASSIFICATION: ONE TEST FROM EACH TYPE OF MATERIAL ENCOUNTERED AND OR PROPOSED TO BE USED.
  2. LABORATORY TESTS FOR MOISTURE-CONTEST AND DENSITY ACCORDING TO AASHTO T-180: ONE TEST FOR EACH MATERIAL ENCOUNTERED AND/OR PROPOSED TO BE USED.
  3. FIELD TESTS FOR MOISTURE CONTEST AND DENSITY: ONE TEST PER LAYER OF FILL PER 5,000 SQUARE FEET OF AREA.

DEWATERING

1.01 GENERAL

- A. DEWATERING CONSISTS OF PERFORMING ALL WORK NECESSARY TO REMOVE SURFACE WATER AND/OR CONTROL THE GROUND WATER LEVELS AND HYDROSTATIC PRESSURES IN ORDER TO PERMIT ALL EXCAVATION AND CONSTRUCTION UNDER THIS CONTRAST TO BE PERFORMED IN THE DRY.
- B. WORK OF THIS SECTION INCLUDES INSTALLATION, OPERATIONS, MAINTENANCE, SUPERVISION, SUPPLY, DISMANTLING, AND REMOVAL FROM THESITE OF THE DEWATERING EQUIPMENT.
- C. THE CONTRACTOR MUST FAMILIARIZE HIMSELF WITH THE POTENTIAL FOR EXCESSIVE RAINFALL, THE GROUND CONDITIONS, AND THE GROUND WATER CONDITIONS, GROUND WATER ELEVATION CAN FLUCTUATE. IT IS ANTICIPATED THAT ANY EXCAVATIONS MAY ENCOUNTER THE GROUND WATER TABLE.
- D. DRAINAGE OF THE SITE: AT ALL TIMES THE CONTRACTOR SHALL MAINTAIN AND OPERATE ADEQUATE SURFACE AND SUBSURFACE DRAINAGE METHODS IN ORDER TO KEEP THE CONSTRUCTION SITE DRY AND IN SUCH CONDITION THAT PLACEMENT AND COMPACTION OF FILL MAY PROCEED UNHINDERED BY SATURATION OF THE AREA DURING CONSTRUCTION, THE SURFACE OF THE BACKFILL AREA SHALL BE LEFT IN SUCH CONDITION THAT PRECIPITATION AND/OR SURFACE WATER WILL RUN OFF WITHOUT PONDING.

1.02 METHOD

- A. THE CONTROL OF ALL SURFACE AND SUBSURFACE WATER IS PART OF THE DEWATERING REQUIREMENTS, MAINTAIN ADEQUATE CONTROL SO THAT THE STABILITY OF EXCAVATED AND CONSTRUCTION SLOPES IS NOT ADVERSELY AFFECTED BY WATER, THAT EROSION IS CONTROLLED, AND THE FLOODING OF EXCAVATIONS OR DAMAGE TO STRUCTURES DOES NOT OCCUR, DRAIN SURFACE WATER AWAY FROM THE EXCAVATION.
- B. DISPOSE OF ALL WATER REMOVED FROM THE EXCAVATION IN A MANNER THAT WILL NOT ENDANGER PUBLIC HEALTH, PROPERTY, OR PORTIONS OF THE WORK UNDER CONSTRUCTION OR COMPLETED. DISPOSE OF WATER IN A MANNER THAT WILL CAUSE NO INCONVENIENCE WHATSOEVER TO THE OWNER OR TO OTHERS ENGAGED IN WORK AT THE SITE.
- C. DISPOSE OF WATER RESULTING FROM DEWATERING OPERATIONS IN ACCORDANCE WITH CITY, COUNTY, STATE AND FEDERAL REGULATIONS.
- D. CONDUCT OPERATIONS SO THAT STORMWATER RUNOFF, SEDIMENT IS NOT DISCHARGED TO THE ADJACENT WATER BODIES, SEWERS, STREETS AND ADJACENT PROPERTIES.
- E. DEWATERING SYSTEM SHALL BE SO DESIGNED AS TO PREVENT REMOVAL OF SOIL FINES FROM THE SITE DURING THE DEWATERING OPERATION.

PORTLAND CEMENT CONCRETE PAVING

1-01 QUALITY ASSURANCE
- A.COMPLY WITH ACI STANDARDS RECOMMENDED PRACTICES FOR CONSTRUCTION OF CONCRETE PAVEMENTS AND CONCRETE BASES (ACI316, LATEST EDITION)

1-02 REFERENCE STANDARDS
- A.THE FOLLOWING REFERENCE STANDARDS OF THE ISSUES LISTED BELOW BUT REFERRED TO THEREAFTER BY BASIC DESIGNATION ONLY, FORM A PART OF THIS SPECIFICATION TO THE EXTENT INDICATED BY THE REFERENCES THERETO. TESTS SHALL BE PERFORMED IN ACCORDANCE WITH HEREINAFTER SPECIFIED STANDARDS.
  1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) (CURRENT VERSION)
  2. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) STANDARD (CURRENT VERSION).
  3. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 350 "CEMENT CONCRETE PAVEMENT" (CURRENT VERSION).
  4. T-180 MOISTURE-DENSITY RELATIONS OF SOILS.

1-03 SUBMITTALS
- A.THE CONTRACTOR SHALL SUBMIT TWO COPIES OF TEST REPORTS PREPARED BY N INDEPENDENT TESTING LABORATORY AND CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE STATE OF FLORIDA. THESE REPORTS SHALL INDICATE ALL TESTS PERFORMED AND SHALL INCLUDE A CERTIFICATION STATEMENT OF COMPLIANCE WITH THE PROJECT SPECIFICATIONS. TESTS SHALL BE PERFORMED AS SPECIFIED UNDER THIS SECTION.
  1. SUBMIT FOR REVIEW THE FOLLOWING;
     - A. CONCRETE DESIGN MIX AND PROVING FLEXURAL STRENGTH (MODULUS OF RUPTURE) TESTS
     - B. EXPANSION JOINT FILLER DATE
     - C. JOINT SEALER DATE
     - D. PROPOSED PAVING CONSTRUCTION PLAN WHICH SHALL SHOW THE CONCRETE PAVING JOINT TYPES AND LOCATIONS ANDSHALL INCLUDE A STATEMENT OF PROPOSED SEQUENCE AND SCHEDULE OF PAVING OPERATIONS
     - E. RESULTS OF CONCRETE TESTS
     - F. RESULTS OF FIELD TESTS OF LBR AND COMPACTION OF STABILIZED SUBGRADE.

1-04 MATERIALS
- A.STABILIZED SUBGRADE: PROVIDE 12 INCH STABILIZED SUBGRADE (LBR 40 MIN) COMPACTED TO A MINIMUM DENSITY OF 98% AS DETERMINED BY AASHTO T-180
- B.CONCRETE: CONCRETE FOR CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. A SLUMP RANGE BETWEEN 2 TO 4 INCHES AND A 28 DAY MODULES OR RUPTURE OF 650 PSI AS DETERMINED BY THE REQUIREMENTS OF PARAGRAPH TESTING SPECIFIED HEREINAFTER.
- C.JOINT SEALER: JOINT SEALING SHALL CONFORM TO FEDERAL SPECIFICATIONS SS-S401 OR SS-S-2009 (COLD APPLIED)
- D.PREMOLDED EXPANSION JOINT FILLER: PREMOLDED EXPANSION JOINT FILLER SHALL CONFORM TO ASTM D1751-73

1-05 EXECUTION
- A.COMPLY WITH AC STANDARD 316-74 AND SECTION 350, FDOT STANDARDS AND SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED HEREIN.
- B.FINAL GRADING: ALL CONCRETE PAVEMENT SHALL HAVE A MAXIMUM DEVIATION OF 1/8 INCH (PLUS/MINUS) FROM THE SPECIFIED SURFACE PLANE AND PLAN GRADES.
- C.THE SURFACE FINISH SHALL BE APPROVED BY THE OWNER OR HIS REPRESENTATIVE, IN GENERAL THE TEXTURE IS OF A MEDIUM BROOM FINISH AFTER FLOATING.
- D.JOINTS
  1. CONTRACTION JOINTS INDICATED ON DRAWINGS, OR AS REQUIRED, SHALL BE PLACED PERPENDICULAR TO THE FINISH GRADE OF THE CONCRETE. JOINTS SHALL BE CUT TO A DEPTH OF 1/4 OF THE SLAB THICKNESS BY CUTTING WITH AN EDGING TOOL HAVING A 1/4 INCH RADIUS OR BY SAWING WITH A BLADE PRODUCING A CUT NOT LESS THAN 1/8 INCH IN WIDTH. SAW JOINTS WITHIN 4 TO 6 HOURS OF CONCRETE PLACEMENT.
  2. EXPANSION JOINTS SHALL BE PLACED WHERE INDICATED ON DRAWINGS, OR AS REQUIRED, USING 1/2 INCH THICK PREFORMED EXPANSION JOINT MATERIAL ANCHOR WITH APPROVED DEVICES TO PREVENT DISPLACEMENT DURING PLACEMENT AND FINISHING. EDGES SHALL BE ROUNDED WITH AN EDGING TOOL. JOINTS SHALL BE FULL DEPTH OF CONCRETE EXCEPT THAT TOP EDGES SHALL BE 1/2 INCH BELOW THE FINISH CONCRETE SURFACE. EXPANSION JOINTS SHALL BE SEALED TO THE SURFACE BY FILLING WITH JOINT SEALING COMPOUND. JOINTS SHALL BE CLEAN AND DRY BEFORE SEALING COMPOUND IS PUT IN PLACE.
  3. CONSTRUCTION JOINTS ARE TO BE USED AT CONTRACTION JOINT LOCATIONS TO STOP CONCRETE POURS.
- E.CURING: CONCRETE SHALL BE CURED BY PROTECTING IT AGAINST LOSS OF MOISTURE AND MECHANICAL INJURY FOR AT LEAST THREE DAYS AFTER PLACEMENT. A PIGMENTED LIQUID CURING MEMBRANE SHALL BE APPLIED IMMEDIATELY AFTER FINISHING; OPERATION AT THE RATE OF ONE GALLON TO NOT MORE THAN 200 SQUARE FEET.
- F.CLEANING AND SEALING JOINTS: JOINTS SHALL BE FILLED WITH JOINT-SEALING MATERIAL NO LESS THAN 8 HOURS AND WITHIN 2 WEEKS AFTER JOINTS ARE BUT. JUST PRIOR TO SEALING, EACH JOINT SHALL BE THOROUGHLY CLEANED OF ALL FOREIGN MATERIAL INCLUDING ANY MEMBRANE CURING COMPOUND.
- G.TESTING: LABORATORY AND FIELD TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE. IN ADDITION, ALL RETESTING SHALL BE DONE AT CONTRACTOR'S EXPENSE.
  1. DESIGN MIXES AND TESTING REQUIREMENTS FOR THE CONCRETE PAVEMENT SHALL BE AS FOLLOWS;
     - A. FLEXURAL STRENGTH TESTS OF CONCRETE AS BASIS FOR DESIGN
     - B. SLUMP, MODULES OF RUPTURE AND 7-AND 20 DAY COMPRESSIVE STRENGTH TESTS SHALL BE PERFORMED ON SAMPLES TAKEN AT THE SITE AT A FREQUENCY OF TWO PER ACRE.
  2. WHERE THE FLEXURAL STRENGTH OF THE CONCRETE IS SPECIFIED, MAKE ONE STRENGTH TEST AND ONE FLEXURAL TEST FOLLOWING (ASTM C192 AND ASTM C78) FOR EACH 100 CUBIC YARDS OR FRACTION THEREOF PLACED PER DAY. NUMBER OF CYLINDERS SHALL BE THREE FOR STRENGTH TEST AND THREE FOR FLEXURAL TEST. TEST ONE AT THREE DAYS, ONE AT SEVEN DAYS AND ONE AT 28 DAYS

DISCLAIMER

1. THIS WORK IS INTENDED SOLELY FOR THE REFERENCED PROJECT AND CLIENT ONLY AND IS NOT APPLICABLE TO ANY OTHER PROJECT OR CLIENT WITHOUT EXPRESS WRITTEN PERMISSION OF THE ENGINEER OF RECORD.
   1.1. ANY USE, RELIANCE UPON, OR DECISIONS, BY THIRD PARTIES BASED ON THIS WORK ARE THE RESPONSIBILITY OF SUCH THIRD PARTIES.
2. NO INFORMATION PROVIDED IN THIS PLAN SET SHALL RELIEVE THE CONTRACTOR OR ANY THIRD PARTY OF THEIR RESPONSIBILITIES.
3. THE CONTRACTOR(S) SHALL CONFORM TO ALL CONTRACT PLANS, TECHNICAL SPECIFICATIONS, UPFRONT DOCUMENTS, REQUIRED PERMITS, AND APPLICABLE GOVERNMENTAL REGULATIONS.
4. THE CONTRACTOR AND ANY THIRD-PARTY IS RESPONSIBLE FOR THEIR OWN DUE DILIGENCE IN RESEARCHING ALL REFERENCED PRODUCTS, MATERIALS, SPECIFICATIONS, PERMITS, REQUIREMENTS, AND METHODS FOR THEIR USABILITY, APPLICABILITY, AND AVAILABILITY, FOR THE PURPOSES SPECIFIED.
   4.1. IF THE CONTRACTOR DISCOVERS CONFLICTING INFORMATION WITHIN THE CONTRACT DOCUMENTS, AS SOON AS POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CLARIFICATION. THE ENGINEER RESERVES THE RIGHT TO REVISE CONFLICTING INFORMATION TO THE MOST STRINGENT REQUIREMENTS FOR CONSISTENCY WITH THE DESIGN INTENT.

PAVEMENT MARKINGS

1-01 QUALITY ASSURANCE
- A. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS IN A NEAT AND ACCURATE MANNER.
- B. ALL EQUIPMENT SHALL BE OF A TYPE AND DESIGN WHICH WILL READILY OBTAIN THE REQUIRED UNIFORMITY OF APPLICATION OF THE PAVEMENT MARKINGS BOTH AS TO THICKNESS OF COATING AND AS TO ALIGNMENT.

1-02 REFERENCE STANDARDS
- A. THE FOLLOWING PUBLICATIONS OF THE ISSUE LISTED BELOW, BUT REFERRED TO THEREAFTER BY BASIC DESIGNATION ONLY, FORM A PART OF THIS SPECIFICATION TO THE EXTENT INDICATED BY THE REFERENCES THERETO;
- A.1. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (CURRENT VERSION)
- A.1.1. SECTION 710 PAINTED PAVEMENT MARKINGS
- A.1.2. SECTION 7.1 – LEGAL REQUIREMENTS AND RESPONSIBILITY OF THE PUBLIC
- A.2. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, CURRENT VERSION.

1-03 SUBMITTALS
- A. SUBMIT PAINT TESTS, AS SPECIFIED IN SECTION 971 OF FDOT SPECIFICATIONS AND AS APPLICABLE TO HEREINAFTER SPECIFIED MATERIAL

1-04 MATERIALS AND COLORS
- A. THERMOPLASTIC: IN ACCORDANCE WITH REQUIREMENTS AS SPECIFIED IN SECTION 711 OF THE FDOT SPECIFICATIONS.
- B. PAINT: IN ACCORDANCE WITH REQUIREMENTS AS SPECIFIED IN SECTION 971 OF THE FDOT SPECIFICATIONS. (LATEX PAINT ONLY.)
- C. COLORS: YELLOW AND WHITE PER FDOT, OR AS INDICATED ON DRAWINGS.

1-05 EXECUTION
- A. TIME OF APPLICATION: PAINTING SHALL BE DONE ONLY DURING DAYLIGHT HOURS AND AS FAR AS PRACTICAL, SHALL BE TERMINATED IN TIME TO PERMIT SUFFICIENT DRYING BY SUNSET.
- B. WEATHER LIMITATIONS: NO PAINT SHALL BE APPLIED WHEN ANY MOISTURE IS PRESENT ON THE SURFACE TO BE PAINTED OR WHEN THE AIR TEMPERATURE IS BELOW 40 DEGREES
- C. PREPARATION OF SURFACE TO BE PAINTED: THE SURFACE WHICH IS TO BE PAINTED SHALL BE CLEANED, BY COMPRESSED AIR OR OTHER EFFECTIVE MEANS, IMMEDIATELY BEFORE THE START OF PAINTING AND SHALL BE CLEAN AND DRY WHEN THE PAINT IS APPLIED. ANY VEGETATION OR LOOSE SOIL SHALL BE REMOVED FROM THE PAVEMENT BEFORE STRIPING IS BEGUN.
- D. MIXING PAINT: THE PAINT SHALL BE THOROUGHLY MIXED BEFORE IT IS POURED INTO THE PAINTING MACHINE AND NO THINNING OF THE PAINT IN THE MACHINE WILL BE ALLOWED AT ANY TIME. BEFORE THE START OF EACH DAY'S WORK THE PAINT CONTAINER, THE CONNECTIONS AND THE SPRAY NOZZLES ON THE MACHINE SHALL BE THOROUGHLY CLEANED WITH PAINT THINNER OR OTHER SUITABLE CLEANER.
- E. PAINT APPLICATION: THE TRAFFIC MARKINGS SHALL BE OF THE SPECIFIED DIMENSIONS WITH CLEAN, TRUE EDGES AND WITHOUT SHARP BREAKS IN THE ALIGNMENT. A UNIFORM COATING OF PAINT SHALL BE OBTAINED AND THE FINISHED MARKINGS SHALL CONTAIN NO LIGHT SPOTS OR PAINT SKIPS. ANY STRIPES WHICH DO NOT HAVE A UNIFORM, SATISFACTORY APPEARANCE, BOTH DAY AND NIGHT, SHALL BE CORRECTED.
- F. RATE OF PAINT APPLICATION: THE MINIMUM RATE OF APPLICATION FOR PAINT SHALL BE AS FOLLOWS;
- F.1. FOUR INCH SOLID: 20 GALLONS PER MILE.
- F.2. ANY OTHER WIDTH STRIPE OR MARKINGS: A DIRECT PROPORTION OF THE ABOVE
- F.3. HANDICAP LOGO: IN CONFORMANCE TO THE REQUIREMENTS OF THIS SECTION AND LOCAL CODES.
- G. REQUIRED FILM THICKNESS: THE MINIMUM WET FILM THICKNESS FOR ALL PAINTED AREAS SHALL BE 15 MILS.
- H. ALIGNMENT OF STRIPS: WHERE A STRIPE DEVIATES FROM THE CORRECT ALIGNMENT, AS INDICATED BY THE STRING LINE, BY MORE THAN ONE INCH IN ANY 20 FOOT LENGTH, IT SHALL BE OBLITERATED AND THE STRIPE CORRECTED HEREINAFTER AS SPECIFIED IN PARAGRAPH "CORRECTIVE MEASURES"

1-06 PROTECTION OF PAINTED MARKINGS
- A. PROTECTION OF STRIPES: ALL NEWLY PAINTED STRIPES, OR OTHER MARKINGS, SHALL BE PROTECTED UNTIL THE PAINT IS SUFFICIENTLY DRY TO PERMIT VEHICLES TO CROSS THE MARKING WITHOUT DAMAGE FROM THE TIRES.
- B. REPAIR OF DAMAGED AREAS: ANY PORTIONS OF THE STRIPES DAMAGED BY PASSING TRAFFIC, OR FROM ANY OTHER CAUSE, SHALL BE REPAINTED AT THE CONTRACTOR'S EXPENSE.

1-07 DIMENSION AND ALIGNMENT TOLERANCE
- A. DIMENSIONS: NO MARKING SHALL BE LESS THAN THE SPECIFIED WIDTH. NO MARKINGS SHALL EXCEED THE SPECIFIED WIDTH BY MORE THAN 1/2 INCH. ALIGNMENT TOLERANCES SHALL BE AS SPECIFIED IN PARAGRAPH 1-05 H.
- B. CORRECTION RATES: ANY CORRECTIONS OF VARIATION IN THE WIDTH OF OR IN THE ALIGNMENT OF STRIPES SHALL NOT BE MADE ABRUPTLY BUT THE STRIPES SHALL BE RETURNED TO THE DESIGN WIDTH AT THE RATE OF AT LEAST 10 FEET FOR EACH 1/2 INCH OF CORRECTION.

1-08 CORRECTIVE MEASURES
- A. ALL PAINTED MARKINGS WHICH FAIL TO MEET THE SPECIFICATIONS, INCLUDING THE PERMISSIBLE TOLERANCES AND THE APPEARANCE REQUIREMENTS, OR ARE MARRED OR DAMAGED BY TRAFFIC OR FROM OTHER CAUSES, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. ALL DRIP AND SPATTERED PAINT SHALL BE REMOVED. WHENEVER IT IS NECESSARY TO REMOVE PAINT IT SHALL BE DONE BY MEANS WHICH WILL NOT DAMAGE THE UNDERLYING SURFACE OF THE PAVEMENT. WHEN NECESSARY TO CORRECT A DEVIATION WHICH EXCEEDS THE PERMISSIBLE TOLERANCE IN ALIGNMENT, THAT PORTION OF THE STRIPE AFFECTED SHALL BE REMOVED AND REPAINTED IN ACCORDANCE WITH THESE SPECIFICATIONS.
- B. CORRECTIVE DEVICES: MISALIGNMENT, DEFECTIVE SURFACES, ETC., SHALL BE CORRECTED BY CHEMICAL AGENTS, OR BY ANY OTHER TYPE OF MECHANICAL DEVICE WHICH WILL EFFECTIVELY REMOVE THE PAINT WITHOUT DAMAGE TO THE PAVEMENT SURFACE, OR PREVENT THE REAPPLICATION OF MARKINGS.

1-09 SPARE PAINT
- A. PROVIDE THE OWNER WITH A MINIMUM OF FIVE GALLONS OF TRAFFIC PAINT FROM THE SAME BATCH USED IN APPLICATION OF PAVEMENT MARKINGS. ALSO PROVIDE PAINT SPECIFICATIONS AND THE MANUFACTURER'S IDENTIFICATION NUMBER OF THE PAINT USED.

1-10 MARKING TYPE
- A. ANY PAVEMENT MARKINGS LOCATED WITHIN PUBLIC RIGHTS-OF-WAY SHALL BE THERMOPLASTIC UNLESS OTHERWISE INDICATED.
- B. ANY PAVEMENT MARKINGS LOCATED ON-SITE SHALL BE PAINT UNLESS OTHERWISE INDICATED.

CONSTRUCTION TOLERANCES

THE FOLLOWING ARE THE ALLOWABLE DEVIATIONS FROM PROJECT DESIGN GRADES AND GRADIENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM AND DOCUMENT COMPLIANCE WITH THESE TOLERANCES PRIOR TO PROCEEDING FROM ONE PHASE OF CONSTRUCTION TO THE NEXT:

1. STORMWATER MANAGEMENT/DRAINAGE FACILITIES
   - A. PERIMETER CONTAINMENT BERM:
     - MINIMUM ELEVATION = DESIGN GRADE
     - MAXIMUM ELEVATION = DESIGN GRADE + 0.10 FEET
   - B. WATER CONTROL STRUCTURE:
     1. MINIMUM GRATE ELEVATION = DESIGN GRADE
        MAXIMUM GRATE ELEVATION = DESIGN GRADE + 0.10 FEET
     2. MINIMUM CREST ELEVATION = DESIGN GRADE
        MAXIMUM CREST ELEVATION = DESIGN GRADE + 0.05 FEET
     3. MINIMUM BLEEDER ELEVATION = DESIGN GRADE
        MAXIMUM BLEEDER ELEVATION = DESIGN GRADE + 0.05 FEET
     4. MINIMUM TOP OF FILTER ELEVATION = DESIGN GRADE
        MAXIMUM TOP OF FILTER ELEVATION = DESIGN GRADE + 0.05 FEET
   - C. CATCH BASINS/INLETS/PIPE INVERTS:
     - MINIMUM ELEVATION = DESIGN GRADE – 0.05 FEET
     - MAXIMUM ELEVATION = DESIGN GRADE + 0.05 FEET
   - D. SWALE GRADES/GRADIENTS:
     1. MINIMUM ELEVATION = DESIGN GRADE – 0.10 FEET
        MAXIMUM ELEVATION = DESIGN GRADE + 0.10 FEET
     2. MINIMUM FLOWLINE GRADIENT = 90% OF DESIGN GRADIENT
   - E. PAVEMENT GRADES/GRADIENTS:
     1. FLEXIBLE PAVEMENT GRADE:
        MINIMUM ELEVATION = DESIGN GRADE – 0.10 FEET
        MAXIMUM ELEVATION = DESIGN GRADE + 0.10 FEET
     2. FLEXIBLE PAVEMENT GRADIENTS:
        MINIMUM GRADIENTS = 90% DESIGN GRADIENT
        (CROSS SLOPE AND LONGITUDINAL SLOPE)
     3. RIGID (CONCRETE) PAVEMENT GRADE:
        MINIMUM ELEVATION = DESIGN GRADE – 0.05 FEET
        MAXIMUM ELEVATION = DESIGN GRADE + 0.05 FEET
     4. RIGID PAVEMENT GRADIENTS:
        A) MINIMUM GRADIENTS = 90% OF DESIGN GRADIENT
        (CROSS SLOPE AND LONGITUDINAL SLOPE)
        B) MAXIMUM HANDICAP RAMP = 15:1
        (GRADIENT UNLESS OTHERWISE SPECIFIED BY LOCAL CODES)
2. WATER DISTRIBUTION/WASTEWATER COLLECTION FACILITIES
   UNLESS OTHERWISE SPECIFIED BY THE LOCAL UTILITY COMPANIES, THE FOLLOWING ARE THE ALLOWABLE TOLERANCES FOR THESE ACTIVITIES:
   - A. MANHOLES AND PIPE INVERTS:
     1. MINIMUM ELEVATION = DESIGN GRADE – 0.05 FEET
        MAXIMUM ELEVATION = DESIGN GRADE + 0.05 FEET
     2. MINIMUM LINE GRADIENT = 90% OF DESIGN GRADIENT
   - B. ALIGNMENT/LOCATION OF APPURTENANCES:
     AS ALLOWED BY THE APPLICABLE UTILITY AND/OR LOCAL GOVERNMENTAL ENTITY. CONTRACTOR SHALL CONFIRM AND DOCUMENT THIS PRIOR TO CONSTRUCTION.
3. ACCESSIBLE PEDESTRIAN AREAS
   - A. SIDEWALKS
     1. MAXIMUM CROSS SLOPE = 2% OR LESS, NO DEVIATIONS ALLOWED
     2. MAXIMUM RUNNING SLOPE = 5% OR LESS, NO DEVIATIONS ALLOWED

SUPPLEMENTAL SPECIFICATIONS

GENERAL

THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND ADHERE TO THE SPECIFICATIONS AND STANDARDS OF THE UTILITY COMPANIES WHICH ARE SERVING THE PROJECT SITE. THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH ALL SITE DEVELOPMENT STANDARDS AND CODES OF THE REGULATORY AGENCIES ASSOCIATED WITH THIS PROJECT. THE LATEST VERSION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE CONSTRUCTION STANDARD SPECIFICATIONS AND THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS SHALL BE INCLUDED WITHIN THE PROJECT SPECIFICATIONS. UNLESS OTHERWISE NOTED, EITHER ON THE PLANS OR WITHIN THE SPECIFICATIONS, THE APPLICABLE SECTIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS SHALL APPLY INCLUDING REFERENCES THEREIN. THE GENERAL DESCRIPTION OF THE NATURE OF THE WORK SHALL BE SUFFICIENT CORRELATION TO THE FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, EXACT ITEM DESCRIPTION IS NOT REQUIRED. IN THE EVENT THERE ARE CONFLICTS BETWEEN SPECIFICATIONS OR REQUIREMENTS, THE MOST RESTRICTIVE (CONSERVATIVE) SPECIFICATION OR REQUIREMENT SHALL BE USED.

POTABLE WATER DISTRIBUTION/WASTEWATER COLLECTION INSTALLATION
UNLESS OTHERWISE NOTED ON THE PLANS, THE STANDARDS AND SPECIFICATIONS OF THE ASSOCIATED UTILITY COMPANY SERVING THE PROJECT SITE SHALL BE ADHERED TO FOR ALL MATERIALS, INSTALLATION, TESTING, AND CERTIFICATION ACTIVITIES FOR ALL PUMP STATIONS, MAIN LINES, SERVICES, AND APPURTENANCES. IF STANDARDS AND SPECIFICATIONS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CONFORM WITH THE LATEST STANDARDS AND SPECIFICATIONS ADOPTED BY COUNTY OR CITY UTILITIES, LOCAL GOVERNMENTAL REGULATIONS, OR THE MANUFACTURERS RECOMMENDED INSTALLATION PROCEDURES, WHICHEVER IS SPECIFICALLY THE MOST RESTRICTIVE. A COPY OF THE COUNTY OR CITY UTILITIES SPECIFICATIONS CAN BE REVIEWED AT THE OFFICE OF THE WEILER ENGINEERING CORPORATION.

STORMWATER PIPE INSTALLATION AND MISCELLANEOUS EXCAVATIONS
UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM THE EXCAVATION, BEDDING, JOINTS, AND BACKFILLING OPERATIONS IN ACCORDANCE WITH THE POTABLE WATER/WASTEWATER INSTALLATION SPECIFICATIONS, LOCAL GOVERNMENTAL REGULATIONS OR STANDARDS, F.D.O.T. STANDARDS AND SPECIFICATIONS OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES, WHICHEVER IS SPECIFICALLY THE MOST RESTRICTIVE.

UNSUITABLE MATERIALS
IF UNSUITABLE MATERIAL IS ENCOUNTERED WITHIN THE ROADWAY AREA AND/OR UTILITY AREAS IT SHALL BE REMOVED TO A DEPTH OF THREE (3) FEET BELOW THE SUB-BASE OR TRENCH BOTTOM AND SHALL BE BACKFILLED WITH THE A-3 MATERIAL OR BETTER WITH PLACEMENT AND COMPACTION METHODS IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS OR AS OTHERWISE NOTED ON THE PLANS. UNSUITABLE MATERIALS SHALL BE REMOVED FROM SITE, UNLESS THE ENGINEER APPROVES USE WITHIN LANDSCAPED AREAS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING, COORDINATING, DOCUMENTING, AND PROVIDING THE FOLLOWING MINIMUM TESTING:
WATER DISTRIBUTION
UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, THE LINES SHALL BE PRESSURE TESTED TO THE RATING OF THE PIPE. THE LINES SHALL BE TESTED IN SEGMENTS BETWEEN MAINLINE VALVES. BACTERIOLOGICAL TEST SAMPLES SHALL BE TAKEN AT ALL BRANCH LINE TERMINATION POINTS OR CONNECTION POINTS. AND ALONG THE MAIN LINES AT DISTANCES NOT TO EXCEED 2,640 FEET. ALL HYDRANTS AND VALVES SHALL BE OPERATED TO TEST PERFORMANCE.
WASTEWATER COLLECTION
UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, THE FORCE MAIN SHALL BE PRESSURE TESTED TO THE RATING OF THE PIPE VALVES SHALL BE OPERATED TO TEST PERFORMANCE. DEPENDING UPON WATER TABLE CONDITIONS DETERMINED BY THE ENGINEER, THE GRAVITY LINES SHALL BE TESTED FOR EITHER INFILTRATION OR EXFILTRATION AND INFLOW. THERE SHALL BE NO INFILTRATION/EXFILTRATION OR INFLOW ALLOWED. THE CONTRACTOR SHALL SEAL ANY PIPE, FITTING OR MANHOLE AS REQUIRED. THE CONTRACTOR SHALL PROVIDE A VIDEO TAPE OF ALL MAIN GRAVITY LINES – ALONG WITH A LOG OF LATERAL LOCATIONS. ALL ELECTRICAL AND MECHANICAL DEVICES AT LIFT STATIONS SHALL BE TESTED TO VERIFY PROPER OPERATIONAL STATUS. MAINTENANCE MANUALS SHALL BE PROVIDED.
PRIVATE ROADWAY/PARKING SUBGRADE
THE SUBGRADE SHALL BE TESTED FOR THE LBR VALUE AT A FREQUENCY OF ONE PER 10,000 SF, DENSITY TESTS SHALL BE PERFORMED AT A FREQUENCY OF TWO PER 20,000 SF THICKNESS SHALL BE MEASURED AT EACH DENSITY TEST LOCATION. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.
PRIVATE ROADWAY/PARKING BASE
THE BASE SHALL BE TESTED FOR THE LBR VALUE AT A FREQUENCY OF ONE PER 10,000 SF. DENSITY TESTS SHALL BE PERFORMED AT A FREQUENCY OF TWO PER 10,000 SF. A SIEVE ANALYSIS SHALL BE PERFORMED AT A FREQUENCY OF ONE PER ACRE. THICKNESS SHALL BE MEASURED AT EACH DENSITY TEST LOCATION. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.
PRIVATE ASPHALT PAVING
ASPHALTIC CONCRETE SHALL BE TESTED FOR THE FOLLOWING PARAMETERS: THICKNESS, SIEVE ANALYSIS, MIX TYPE, STABILITY % BITUMEN, AND DENSITY. THE ASPHALT SHALL BE TESTED AT A FREQUENCY OF TWO PER ACRE. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.
PUBLIC ROADWAYS
AS REQUIRED BY THE ENTITY HAVING JURISDICTION, BUT NOT LESS THAN REQUIRED FOR PRIVATE ROADWAYS AS OUTLINED ABOVE.
PORTLAND CEMENT CONCRETE
CONCRETE SHALL BE TESTED FOR THE FOLLOWING PARAMETERS: SLUMP, MODULES OF RUPTURE, AND 7 AND 28 DAY COMPRESSIVE STRENGTH TESTS SHALL BE PERFORMED ON SAMPLES TAKEN AT THE SITE AT A FREQUENCY OF TWO PER ACRE. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.
RETENTION/DETENTION FACILITIES
IF INCLUDED WITHIN THE PROJECT, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND PERFORM A DRAW DOWN AND CAPACITY TEST OF THE FACILITIES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT WATER AND ACCEPTABLE MEANS TO MEASURE THE WATER VOLUMES PROVIDED, IF REQUIRED BY THE ENGINEER, IF A FILTRATION SYSTEM IS INCLUDED WITHIN THE PROJECT, THE FILTER MEDIA SHALL BE TESTED FOR COMPLIANCE WITH ALL CURRENT SPECIFICATIONS OF THE WATER MANAGEMENT DISTRICT. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.

IN ADDITION TO THE ENVIRONMENTAL PROTECTION DURING CONSTRUCTION SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM THE FOLLOWING IN THE ORDER LISTED:
1. PRIOR TO COMMENCEMENT, PROVIDE NOTIFICATION TO THE LOCAL WATER MANAGEMENT DISTRICT AND LOCAL GOVERNMENT OFFICES.
2. ERECT A TURBIDITY SCREEN ON ANY DOWNSTREAM SYSTEM WHICH RECEIVES RUNOFF FROM THE PROJECT. INSTALL OUTFALL CONTROL STRUCTURE AND FILTRATION SYSTEM IF INCLUDED
3. PROVIDE A TEMPORARY FILTER CLOTH COVERED WITH GRAVEL OVER ANY PROPOSED FILTERS.
4. INSTALL A TEMPORARY TURBIDITY SCREEN AT ALL CONTROL STRUCTURES.
5. CONSTRUCT A TEMPORARY PERIMETER BERM AS NECESSARY TO DIRECT ALL RUNOFF WITHIN ANY AREA PLANNED FOR CLEARING.
6. MAINTAIN FILTER DURING CONSTRUCTION TO PROVIDE CONTINUOUS OPERATION.
7. UPON PERFORMING FINAL GRADING, THE CONTRACTOR SHALL REMOVE ALL SILTS, CLAYS AND OTHER DELETERIOUS MATERIAL FROM THE BOTTOM OF ALL STORMWATER MANAGEMENT AREAS PRIOR TO GRASSING.
8. AFTER ACHIEVING A NON-ERODIBLE COVER OF GRASS, REMOVE TEMPORARY FILTER CLOTH AND GRAVEL OVER FILTERS AND REPLACE WITH NEW FILTER CLOTH AND COVER MATERIAL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
9. NOTIFY THE OWNER FOR FINAL INSPECTION.
10. UPON FINAL APPROVAL FROM OWNER, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES.

Design:	.
Drawn:	PG
Checked:	.
Approved By:	.
Scale:	.
Job No:	24020.003
Date Issued:	05/27/2025

WEILER ENGINEERING CORPORATION
30 YEARS of Service
WEC Excellence in engineering
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PUNTA GORDA, FLORIDA 33950
941.505.1700
EB #6656

GENERAL NOTES & SPECIFICATIONS
for
PUBLIC WORKS TEMPORARY OFFICES

Revisions		
Description		

Joshua J. Jennings
Professional Engineer
State of Florida
Registration No. 90677

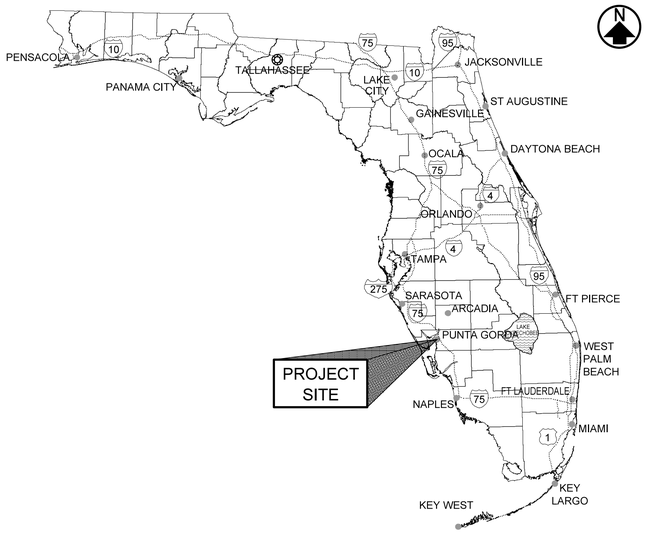
Sheet No. C-8.0

MODULAR UNIT FOUNDATION & BOARDWALK PLANS

FOR

PUBLIC WORKS TEMPORARY OFFICES

SECTION 09, TOWNSHIP 41 S, RANGE 23 E
COUNTY, FLORIDA



STATE OF FLORIDA LOCATION MAP

NOT TO SCALE

LOCATION MAP

NOT TO SCALE

OWNER

CHARLOTTE COUNTY
18500 MURDOCK CIRCLE STE B208
PORT CHARLOTTE, FL 33948

PREPARED BY

THE WEILER ENGINEERING CORPORATION
201 W. MARION AVE, SUITE 1306
PUNTA GORDA, FLORIDA 33950
(941) 505-1700
WEILER ENGINEERING CORPORATION 30 YEARS of Service
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EB # 6656

INDEX OF DRAWINGS

Digitally signed by Max Morgan
Date: 2025.05.27 12:34:28 -04'00'

THE WEILER ENGINEERING CORPORATION
These plans are in Compliance with Florida Building Code 2023 (FBC) for the parameters indicated.

WIND PARAMETERS
Method of Design: ASCE 7-22
Building Risk Category: RISK II
Design Wind Speed: Ultimate V_{ult}=160 MPH / Nominal V_{asd} = 124 MPH
Wind Importance Factor: 1.0 / Wind Exposure: C
Internal Pressure Coefficient: ±0.00
Component & Cladding Wind Pressure: per Calcs

FLOOD PARAMETERS
FEMA FIRM Map Number: 12015C0242G
Base Flood Elevation: AE-09
100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)

GEOTECHNICAL PARAMETERS
Data Source: Presumptive Load-Bearing Values of Soils, FBC 2023 1806.2
Vertical Bearing Capacity: 1,500 psf (FBC 2023 Table 1806.2)
Lateral Bearing Pressure: 100 psf/ft (FBC 2023 Table 1806.2)

FOUNDATION SOIL AND TREATMENT
Soil Bearing Capacity Listed & the resultant foundation design assumes the soil type noted as per USGS web soil survey (or geotechnical engineering if provided). If inadequate substrate is discovered during site preparation the engineer shall be notified prior to placement of foundations.

Project Information

Approved By:	-	Design:	TWP
Scale: N.T.S.		Drawn:	TWP
Job No.: 24020.003		Checked:	BTC
Date Issued: 05/27/2025			

WEILER ENGINEERING CORPORATION
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201 WEST MARION AVENUE EB# 6656
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PHONE: (941) 505-1700 FAX: (941) 505-1702

COVER SHEET

PUBLIC WORKS TEMPORARY OFFICES
CHARLOTTE COUNTY
7000 FLORIDA ST.
PUNTA GORDA, FL 33950

Revisions

Description

THIS SHEET IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE OF A FLORIDA LICENSED ENGINEER.

Max Morgan,
Professional Engineer,
State of Florida,
License No. 94877
This item has been digitally signed and sealed by Max Morgan, P.E. on the date indicated here.
05-27-2025
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Max Morgan
Professional Engineer
State of Florida
Registration No. 94877

Sheet No. C1.0

GENERAL REQUIREMENTS

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND DETAILS AND SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY ERRORS, OMISSIONS OR DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.
2. ALL MATERIALS, EQUIPMENT, CONNECTORS, AND WORK SHALL MEET OR EXCEED THE DESIGN DATA AND COMPLIANCE CODE CITED.
3. ENGINEER IS NOT RESPONSIBLE FOR ANY SUPERVISION DURING CONSTRUCTION.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR MAINTAINS THE RESPONSIBILITY FOR ALL CONSTRUCTION MEANS, METHODS AND TECHNIQUES REQUIRED FOR THE CONNECTIONS OF ALL PILINGS, DECK SYSTEMS AND STRUCTURES. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER.
6. THE STRUCTURAL INTEGRITY OF THE STRUCTURES SHOWN ON THESE PLANS IS DEPENDENT UPON COMPLETION ACCORDING TO PLANS AND SPECIFICATIONS. STRUCTURAL MEMBERS ARE NOT SELF SUPPORTING DURING CONSTRUCTION AND REQUIRE TEMPORARY BRACING UNTIL PERMANENTLY APPLIED TO STRUCTURE AS DIRECTED. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION UNLESS THE CONSTRUCTION METHOD AND BRACING ARE INCLUDED IN THE PLANS AND SPECIFICATIONS, OR ARE SUPERVISED BY THE STRUCTURAL ENGINEER DURING CONSTRUCTION.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISION / AUTHORITY OR ACTUAL AND/ OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/ OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
8. IN ADDITION TO THE DEMOLITION WORK INDICATED ON THE DRAWINGS, MINOR LOCAL DEMOLITION OF EXISTING ELEMENTS MAY BE REQUIRED TO PERFORM THE STRUCTURAL WORK AS INDICATED ON THE PLANS, SECTIONS, AND DETAILS.
9. DISCHARGE ALL DRAIN LINES, CONDENSATE LINES, DOWN SPOUT, ETC. AT LEAST 1'-0" FROM STRUCTURES
10. ANY CHANGES OR SUBSTITUTIONS SHALL BE APPROVED BY THE ENGINEER.
11. DISSIMILAR METALS SHALL BE ISOLATED TO PREVENT GALVANIC ACTION.
12. THE ENTIRE SCOPE OF WORK SHALL MEET THE 75 FOOT RULE AND SQUARE FOOTAGE REQUIREMENTS OF NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 10 FOR NUMBER, TYPE AND PLACEMENT OF EXTINGUISHERS.
13. FIELD VERIFY ALL EXISTING ABOVE AND BELOW GROUND CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION.
14. THE STRUCTURAL DESIGN OF DOCKS AND BOARDWALKS IS BASED ON THE FULL INTERACTION OF ALL ITS COMPONENT PARTS, WITH NO PROVISION FOR CONDITION OCCURRING DURING CONSTRUCTION. THEREFORE, CONTRACTOR SHALL PROVIDE ADEQUATE BRACING DURING CONSTRUCTION.
15. STRUCTURAL DRAWINGS INDICATE TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH SPECIFIED STANDARDS AND SPECIFIC REQUIREMENTS OF THIS PROJECT AS INDICATED ON THE DRAWINGS.
16. CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL NECESSARY PERMITS FROM ALL GOVERNING JURISDICTIONS INCLUDING CHARLOTTE COUNTY, FLORIDA, FOR STRUCTURAL, ELECTRICAL, PLUMBING, AND ALL OTHERS REQUIRED TO COMPLETE THE JOB.

GENERAL STRUCTURAL SPECIFICATIONS

1. GOVERNING BUILDING CODE: 2023 FLORIDA BUILDING CODE 8TH EDITION (FBC)
2. DESIGN LOADS:

STRUCTURAL LOADS (LOADS PER FBC TABLE 1607.1)
LIVE LOAD .... 100 PSF
DEAD LOAD .... 20 PSF

STAIR DESIGN LOADS
LIVE LOAD: .... 60 PSF
CONCENTRATED LIVE LOAD: .... 300 LB

HANDRAIL AND GUARDRAIL DESIGN LOADS
CONCENTRATED LOAD: .... 200 LB
UNIFORM LINEAR LOAD: .... 50 PLF

GRAB BARS DESIGN LOADS (FBC, SECTION 1607.7)
SINGLE CONCENTRATED LOAD AT ANY POINT AND IN ANY DIRECTION APPLIED AT TOP OF GUARDRAIL: .... 250 LB

WIND LOADS (PER ASCE 7-22)
BUILDING RISK CATEGORY (TABLE 1.5-1) II
BASIC WIND SPEED (FIG. 26.5-1A)
Ultimate (V_{ult}) (THREE SECOND GUST) .... 160 MPH
Nominal (V_{asd}) .... 124 MPH
IMPORTANCE FACTOR (TABLE 1.5-2) 1.00
EXPOSURE CATEGORY (26.7.3) .... EXPOSURE C
INTERNAL PRESSURE COEFFICIENT (TABLE 26.13-1) .... ±0.00
COMPONENTS & CLADDING WIND PRESSURES .... PER PLAN

GEOTECHNICAL DESIGN DATA (PER FBC 1806)
DATA SOURCE: PRESUMPTIVE LOAD-BEARING VALUES OF SOIL (FBC)
VERTICAL BEARING CAPACITY (TABLE 1806.2) .... 1,500 PSF
LATERAL BEARING CAPACITY(TABLE 1806.2) .... 100 PSF/FT

RAIN DESIGN DATA (PER FBC 1611)
DESIGN RAIN EVENT 100-YEAR, 1-HR
DESIGN RAINFALL (FIG. 1611.1) 4.5-IN

FLOOD DESIGN DATA (PER FBC 1612)
FEMA FIRM MAP 12015C0242G
BASE FLOOD ELEVATION .... AE-09 COASTAL

3. MATERIALS
CONCRETE (NORMAL WEIGHT - 28 DAY COMPRESSIVE STRENGTH):
SLAB ON GRADE AND FOOTINGS: .... 3,000 PSI
COLUMNS: .... 3,000 PSI
REINFORCING STEEL FOR: CONCRETE MASONRY UNITS (CMU) WALLS, FOOTINGS, BEAMS, ETC .... ASTM A615, GRADE 60, FY = 60,000 PSI
WELDED WIRE MESH: .... ASTM A185
ANCHOR BOLTS: .... ASTM A193, GRADE B8M, CLASS-1, TYPE 316 SS
HIGH STRENGTH BOLTS: .... ASTM A193, GRADE B8M, CLASS-2, TYPE 316 SS
ANCHORS OR POWER ACTUATED FASTENERS:. HILTI OR APPROVED EQUAL, TYPE 316 SS
VAPOR BARRIER: .... 6 MILS POLYETHYLENE
GROUT: .... 3,000 PSI, NON SHRINK

APPLICABLE CODES

FLORIDA BUILDING CODE, BUILDING (FBC-B)	2023 8th Edition
FLORIDA BUILDING CODE, FUEL GAS (FBC-FG)	2023 Edition
FLORIDA BUILDING CODE, MECHANICAL (FBC-M)	2023 Edition
FLORIDA BUILDING CODE, PLUMBING (FBC-P)	2023 Edition
FLORIDA BUILDING CODE, EXISTING BUILDING (FBC-EB)	2023 Edition
FLORIDA BUILDING CODE, RESIDENTIAL (FBC-R)	2023 Edition
FLORIDA FIRE PREVENTION CODE (FFPC)	2023 8th Edition
NATIONAL ELECTRICAL CODE (NEC)	2020 Edition
FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONST.	Latest Edition
FDOT DESIGN STANDARDS	Latest Edition
FLORIDA ACCESSIBILITY CODE	2023 Edition

SHOP DRAWINGS

1. SHOP DRAWINGS AND TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. NO MODIFICATIONS OR SUBSTITUTION OF DRAWINGS AND SPECIFICATIONS WILL BE ACCEPTED VIA SHOP DRAWINGS REVIEW. ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO THE ENGINEER OF RECORD, AND ONE COPY TO THE COUNTY. THE FOLLOWING SHOP DRAWINGS AND TEST RESULTS SHALL BE SUBMITTED;
   - 1.1. SUBMIT PROPOSED CONCRETE MIX DESIGN PRIOR TO CONSTRUCTION, INCLUDING BACK UP DATA IN ACCORDANCE WITH ACI 301 CHAPTER 4, SECTION 4.2.3, EXCLUDING SECTION 4.2.3.4B.
   - 1.2. SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZES, AND LOCATION. INCLUDE BAR LISTS AND BEND DIAGRAMS.
   - 1.3. SUBMIT TEST RESULTS PERFORMED BY A QUALIFIED TESTING LABORATORY FOR THE FOLLOWING CONCRETE TEST ON SITE;
     - 1.3.1. CYLINDER STRENGTH TESTS - ASTM C39/C39M-23.
     - 1.3.2. SLUMP TESTS - ASTM C143/C143M-20.
   - 1.4. SUBMIT SOIL DENSITY TEST
     - 1.4.1. 98% COMPACTION SHALL BE ACHIEVED AT ALL LOCATIONS WHERE NEW CONCRETE IS TO BE POURED, INCLUDING ALL SLABS AND FOUNDATIONS. REQUIRE 1 DENSITY TEST PER CONCRETE APPROACH SLAB AND 1 DENSITY TEST FOR KIOSK LOCATIONS
     - 1.4.2. USING MODIFIED PROCTOR (AASHTO T-180)
     - 1.4.3. PROCTOR TEST TO BE SUPPLIED BY CONTRACTOR (NO ADDITIONAL PAYMENT)
     - 1.4.4. CONTRACTOR TO SUPPLY SIGN & SEALED DENSITY TEST REPORT BY FLORIDA REGISTERED PROFESSIONAL ENGINEER..
2. CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS.
3. SUBMIT SHOP DRAWINGS TO THE STRUCTURAL ENGINEER AS INDICATED OR SPECIFIED FOR REVIEW PRIOR TO FABRICATION. REVIEW WILL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT CONVEYED IN CONTRACT DOCUMENTS.
4. WHEN ENGINEER IS REQUIRED TO SIGN AND STAMP SHOP DRAWINGS AND CALCULATIONS, ENSURE SEAL INDICATES ENGINEER AS REGISTERED IN THE STATE WHERE PROJECT SITE OCCURS.
5. SHOP DRAWINGS ARE NOT PART OF CONTRACT DOCUMENTS. THEREFORE, ENGINEER'S REVIEW DOES NOT CONSTITUTE ON AUTHORIZATION TO DEVIATE FROM THE TERMS AND CONDITIONS OF THE CONTRACT.
6. SHOP DRAWINGS WILL BE REJECTED FOR INCOMPLETENESS, LACK OF COORDINATION WITH OTHER PORTIONS OF CONTRACT DOCUMENTS, LACK OF CALCULATIONS (IF REQUIRED), OR WHERE MODIFICATIONS OR SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR REVIEW. SUBMIT SHOP DRAWINGS AND CALCULATIONS TO GOVERNING CODE AUTHORITY WHEN SPECIFICALLY INDICATED OR REQUESTED.
7. STRUCTURAL ENGINEER REQUIRES 10 WORKING DAYS AFTER RECEIPT OF SHOP DRAWINGS AND CALCULATIONS FOR PROCESSING.
8. MAINTAIN A COPY OF ALL SHOP DRAWINGS ACCEPTED BY THE STRUCTURAL ENGINEER AT SITE DURING CONSTRUCTION PERIOD.
9. SUBMITTALS SHALL BE SUBMITTED TO ENGINEER OF RECORD FOR ANY PROPOSED ALTERNATIVES TO PRODUCTS SPECIFIED IN PLANS.

FOUNDATIONS

1. THIS FOUNDATION PLAN IS PROVIDED AS A REFERENCE FOR A TYPICAL STANDARD. ACTUAL FOUNDATION CONDITIONS MUST BE EVALUATED FOR APPLICABILITY IF THIS PLAN IS TO BE USED. ALTERNATE FOUNDATION PLANS MAY BE DESIGNED BY OTHERS IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTION HAVING AUTHORITY. IF FOUNDATION PLANS ARE DESIGNED BY OTHERS, THE ENGINEER OF THE BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND THE CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURE'S STRUCTURAL COMPONENTS AND SYSTEMS RELATED THERETO.
2. ALL FOUNDATION CONSTRUCTION MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.
3. ALL FILL SHALL BE CLEAN SELECT MATERIAL FREE OF DELETERIOUS MATERIALS SUCH AS WOOD, ROOTS, TRASH, OR OTHER EXTRANEOUS MATERIALS. PLACE FILL IN 8" LIFTS, MEASURED LOOSE, AND COMPACT EACH LIFT TO 95% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS MEASURED BY ASTM D698-12 (2021)
4. THE AREA UNDER FOOTINGS AND FOUNDATIONS SHALL HAVE ALL VEGETATION, STUMPS, ROOTS AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.
5. COMPACT ALL BACKFILL, AND FILL 5'-0" OUT FROM THE STRUCTURE.
6. FOUNDATION CONCRETE SHALL BE PLACED BEFORE DETERIORATION OF THE SUB-GRADE DUE TO WEATHER, GROUND WATER SEEPAGE, FOOT TRAFFIC, OR CONSTRUCTION OPERATIONS. ANY PORTIONS OF THE SUB-GRADE PERMITTED TO DETERIORATE SHALL BE REMOVED AND REPLACED WITH AN APPROVED COMPACTED BACKFILL OR LEAN CONCRETE FLOWABLE FILL WITHOUT ADDITIONAL COMPENSATION TO THE CONTRACTOR.
7. CONCRETE SHALL BE STANDARD WEIGHT (150PCF) WITH A MINIMUM COMPRESSIVE STRENGTH 3000 PSI AT 28 DAYS. MORTAR SHALL COMPLY WITH ASTM C270-24. GROUT SHALL COMPLY WITH ASTM C476-23 AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI. SOIL BEARING CAPACITY SHOWN ON THIS PLAN IS ASSUMED. IF THE ACTUAL SOIL BEARING CAPACITY IS LESS THAN 1500 PSF THE ENGINEER MUST BE CONSULTED FOR REQUIRED ALTERNATE FOUNDATION DESIGN. FOOTINGS SHALL BE PLACED ON NON-EXPANSIVE SOILS ONLY.
8. ALL FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) WITH TOP OF FOOTER 12" BELOW ADJACENT GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY. THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD AND WITH THE TESTING LAB SOILS ENGINEER.
9. EXCAVATE AN ADDITIONAL 1 TO 2 INCHES FROM THE BOTTOM AND SIDES OF ALL FOOTINGS THAT ARE TO BE POURED DIRECTLY AGAINST EARTH.
10. THE PERIMETER GRADE SHALL BE SLOPED AWAY FROM THE STRUCTURE TO PROVIDE POSITIVE DRAINAGE. THE GRADE OF THE GROUND UNDER THE STRUCTURE SHALL NOT BE LOWER THAN THE LOWEST SURROUNDING FINISHED GRADE IN ORDER TO PREVENT THE ACCUMULATION AND STANDING OF WATER UNDER THE STRUCTURE.
11. ALL REINFORCEMENT BARS SHALL COMPLY WITH ASTM A615/A615M-22, GRADE 60. REINFORCEMENT BARS SHALL BE UNCOATED DEFORMED BARS (NO EPOXY). REINFORCEMENT BARS SHALL BE EQUALLY SPACED AND PLACED WITH 3" CLEARANCE FROM BOTTOM AND SIDES OF THE FOOTING. ALL SPLICES AND LAPS SHALL CONFORM TO "TENSION LAP SPLICE SCHEDULE (CLASS B)" THIS PAGE.
12. ALL PIERS SHALL BE CONSTRUCTED OF 8"X8"X16" NOMINAL STANDARD WEIGHT CONCRETE MASONRY UNITS CONFORMING TO ASTM C90-24, WITH A UNIT COMPRESSIVE STRENGTH OF 1900 PSI (F'M = 1500 PSI). MASONRY UNITS SHALL BE FULLY LAID IN TYPE M OR S MORTAR OR COVERED WITH SURFACE BONDING CEMENT COMPLYING WITH ASTM C887-20 AND APPLIED IN STRICT ACCORDANCE WITH THE CEMENT MANUFACTURER'S INSTRUCTIONS. THE BOTTOM COURSE SHALL BE FULLY LAID IN TYPE M OR S MORTAR. REINFORCEMENT BARS AND PIER FOOTING SHALL BE AS DESCRIBED IN THE PIER DETAILS.
13. ALL PIERS SHALL BE CAPPED WITH 4 INCHES OF SOLID MASONRY OR CONCRETE, OR THE CAVITIES OF THE TOP COURSE SHALL BE FILLED WITH CONCRETE OR GROUT. PIERS SHALL PROVIDE A TRUE AND EVEN BEARING SURFACE.
14. THE CENTERLINE OF EACH PIER SHALL BE LOCATED DIRECTLY BELOW THE I-BEAM CENTERLINE WITH 1 INCH MAXIMUM TOLERANCE.
15. WHEN CONTINUOUS PERIMETER SUPPORT IS NOT PROVIDED, INSTALL A TYPICAL I-BEAM TYPE PIER ON EACH SIDE OF ALL EXTERIOR DOOR OPENINGS. (MANUFACTURER'S RECOMMENDATION ONLY - OPTIONAL WHEN NOT SHOWN) SLIGHT ADJUSTMENT MAY BE REQUIRED TO ENSURE OPERABILITY AFTER THE INSTALLATION OF THE STRUCTURE IS COMPLETE.
16. TIE-DOWN STRAPS SHALL BE 1-1/4" X .035" TYPE-1, FINISH B, GRADE 1 ZINC-COATED STEEL STRAPPING, CERTIFIED BY A REGISTERED ENGINEER OR ARCHITECT AS CONFORMING WITH ASTM D3953-91. TIE-DOWN STRAPS AND CONNECTING HARDWARE SHALL HAVE A 3150# MINIMUM WORKING CAPACITY.
17. EACH GROUND ANCHOR SHALL HAVE A WORKING CAPACITY NO LESS THAN THE SUM OF THE REQUIRED WORKING CAPACITIES OF ALL TIE-DOWN STRAPS CONNECTED TO THE GROUND ANCHOR AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE DESIGN OF GROUND ANCHORS, INCLUDING SHAFT LENGTH, NUMBER AND DIAMETER OF HELICES, ETC., SHALL BE AS SPECIFIED BY THE GROUND ANCHOR MANUFACTURER FOR THE ACTUAL SOIL TYPE ENCOUNTERED. IF THE HOLDING OR PULLOUT CAPACITIES OF GROUND ANCHORS ARE BELOW THE ASSUMED DESIGN VALUES, THE ARCHITECT/ENGINEER MUST BE CONSULTED FOR AN ALTERNATE ANCHORAGE DESIGN.
18. PROVIDE FOUNDATION ENCLOSURE FOR THE STRUCTURE AND THE ASSOCIATED STEPS, DECK, AND RAMPS. ENCLOSURE SHALL HAVE A MINIMUM NET VENT AREA OF VENTILATION OPENINGS OF NOT LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OR CRAWL SPACE AREA. LOCATE OPENINGS TO PROVIDE CROSS VENTILATION OF ENTIRE CRAWL SPACE. INSTALL AN 18" X 24" MINIMUM OPENING FOR CRAWL SPACE ACCESS
19. THE FOUNDATION DIMENSIONS SHOWN ARE EXPECTED ACTUAL MODULE WIDTHS FROM THE FACTORY. TYPICALLY, A TWO-INCH GAP AT EACH MATE LINE WHERE THERE IS A SMART PANEL, AND A ONE-INCH GAP ELSEWHERE IS NEEDED TO ACCOUNT FOR MODULE EXPANSION, SETTING TOLERANCES, ETC. THE FOUNDATION CONTRACTOR SHOULD CONSULT WITH THE MANUFACTURER OF THE MODULES PRIOR TO CONSTRUCTION OF THE FOUNDATION TO DETERMINE THE EXACT AMOUNT OF INCREASED WIDTH TO BE ADDED AT EACH MATE LINE. TAKE CAUTION AS THIS WILL AFFECT THE OVERALL DIMENSIONS OF THE FOUNDATION.
20. SITE WORK NOT SHOWN ON THESE DRAWINGS ARE DESIGNED BY OTHERS AND SUBJECT TO THE APPROVAL OF THE JURISDICTION HAVING AUTHORITY.

TERMITE PROTECTION

3. TERMITE PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH ALL APPLICABLE GOVERNING AUTHORITIES CODES.
4. INITIAL TERMITE TREATMENT SHALL BE DONE AFTER ALL EXCAVATION AND BACKFILL IS COMPLETED.
5. SOIL DISTURBED AFTER INITIAL TREATMENT SHALL BE RETREATED INCLUDING SPACES BOXED OR FORMED.
6. SOIL TREATMENT MUST BE APPLIED UNDER ALL EXTERIOR CONCRETE OR GRADE WITHIN 12 INCHES (12") OF THE STRUCTURES SIDEWALLS.
7. AN EXTERIOR VERTICAL CHEMICAL BARRIER MUST BE INSTALLED AFTER CONSTRUCTION IS COMPLETED INCLUDING LANDSCAPING AND IRRIGATION. ANY SOIL DISTURBED AFTER VERTICAL BARRIER IS APPLIED SHALL BE RETREATED.
8. ALL STRUCTURES SHALL HAVE PRE-CONSTRUCTION TREATMENT.
9. A CERTIFICATE OF COMPLIANCE MUST BE ISSUED TO THE BUILDING DEPARTMENT BY A LICENSED PEST CONTROL COMPANY BEFORE ANY FINAL INSPECTIONS WILL BE ISSUED. THE CERTIFICATE OF COMPLIANCE SHALL STATE: "THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR PREVENTION OF SUBTERRANEAN TERMITES. THE TREATMENT IS IN ACCORDANCE WITH THE RULES AND LAWS OF THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES."
10. ALL CONDENSATE AND ROOF DOWNSPOUTS SHALL DISCHARGE AT LEAST 12" FROM STRUCTURE AND SIDEWALLS.
11. IRRIGATION / SPRINKLER SYSTEMS INCLUDING ALL RISERS AND SPRAY HEADS SHALL BE INSTALLED WITHIN 1'-0" (12 INCHES / 12") OF THE STRUCTURES SIDEWALLS.
12. AFTER ALL WORK IS COMPLETED, LOOSE WOOD, AND FILL MUST BE REMOVED FROM BELOW AND WITHIN 12" OF THE STRUCTURE. THIS INCLUDES ALL GRADE STAKES, FORMS, SHORING OR OTHER CELLULOSE CONTAINING MATERIAL.
13. NO WOOD, VEGETATION, STUMPS, CARDBOARD, TRASH, ETC. SHALL BE BURIED WITHIN 15 FEET OF ANY STRUCTURE OR PROPOSED STRUCTURE.

CAST IN PLACE CONCRETE

1) CONCRETE TO BE NORMAL WEIGHT WITH THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS:
   A) FOOTINGS, SLABS & SLABS-ON-GRADE, ... 3,000 PSI
   B) COLUMNS, WALLS, BEAMS, TOP-COAT CONCRETE, ... 3,000 PSI
2) CONCRETE SHALL BE READYMIX PER ASTM C94:
   A) PORTLAND CEMENT - ASTM C150
   B) AGGREGATES - ASTM C33 (3/4" MAX.)
   C) NO CALCIUM CHLORIDE
   D) AIR ENTRAINING - ASTM C260
   E) WATER REDUCING - ASTM C494
   F) FLYASH -ASTM C618 CLASS F (20% MAXIMUM BY WEIGHT)
   G) WATER - CLEAN AND POTABLE
3) REINFORCING STEEL:
   A) FOUNDATION SLABS, FOOTINGS, CMU WALLS & TIE-BEAMS.......... ASTM A615, GRADE 60, fy = 60,000 psi
4) REQUIRED SLUMP RANGE: = 3" TO 5".
5) WELDED WIRE FABRIC: ....ASTM A-1064. FURNISH SHEETS (NOT ROLLS) OR FIBERMESH
6) MOISTURE BARRIER: ....6 MIL POLYETHYLENE. LAP 6" AND TAPE ALL JOINTS
7) CODES AND STANDARDS: AMERICAN CONCRETE INSTITUTE (ACI) CURRENT EDITIONS
   - ACI 301-20 "SPEC FOR STRUCTURAL CONCRETE FOR BUILDINGS."
   - ACI PRC-305-20 "RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING."
   - ACI 318-19(22) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY."
   - ACI 315R-18 "GUIDE TO PRESENTING REINFORCING STEEL DESIGN DETAILS"
   - ACI SP66-04 "ACI DETAILING MANUAL - 2004."
8) MINIMUM LAP SPLICES = 40 BAR DIAMETERS UNLESS NOTED OTHERWISE (REFER TO TABLE BELOW).

TENSION LAP SPLICE SCHEDULE (CLASS B)

f'_C=3000 psi. f_y=60,000 psi.

BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11
TOP BAR	28"	28"	47"	56"	81"	93"	105"	116"	128"
OTHER BAR	22"	29"	36"	43"	63"	72"	81"	90"	98"

1. LAP SPLICES ARE IN ACCORDANCE WITH ACI 318-19(22).
2. CLEAR SPACING OF BARS IS 2db AND CLEAR COVER IS NOT LESS THAN db OR CLEARANCES AND TIES PER ACI 318-19(22), SECTION 12.2.2
3. TOP BAR SPLICE IS REQUIRED WHERE MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW HORIZONTAL REINFORCEMENT

9) PROVIDE PROPERLY TIED SPACERS, CHAIRS, BOLSTERS, ETC., AS REQUIRED AND NECESSARY TO ASSEMBLE, PLACE, AND SUPPORT ALL REINFORCING IN PLACE. USE WIRE BAR-TYPE SUPPORTS COMPLYING WITH CONCRETE REINFORCING STEEL INSTITUTE (CRSI), 30TH EDITION, RECOMMENDATIONS. USE PLASTIC TIP LEGS ON ALL EXPOSED SURFACES.
10) ALL BEAMS AND SLABS SHALL BE POURED MONOLITHICALLY, EXCEPT FOR REQUIRED CONSTRUCTION JOINTS. PROPOSED CONSTRUCTION JOINT LOCATION SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.
11) CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, AND SLAB RECESSES AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED. NO SLEEVE, OPENING, OR INSERT MAY BE PLACED IN BEAMS, JOISTS, OR COLUMNS UNLESS APPROVED BY THE ENGINEER.
12) CONTRACTOR SHALL VERIFY EMBEDDED ITEMS, INCLUDING BUT NOT LIMITED TO ANCHOR BOLTS, BOLT CLUSTERS, WELD PLATES, ETC..., BEFORE PLACING CONCRETE. NOTIFY ENGINEER OF ANY CONFLICTS WITH REBAR.
13) SEE PROJECT PLANS AND SPECIFICATIONS FOR REQUIRED CONCRETE FINISHES. ALL FINISHES TO BE APPROVED BY OWNER PRIOR TO FINISHING.
14) ALL CONCRETE SHALL BE CURED IMMEDIATELY AFTER FINISHING OPERATIONS IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS:
   A) APPLY A LIQUID MEMBRANE FORMING CHEMICAL CURING COMPOUND IN ACCORDANCE WITH ASTM C309-19 "STANDARD SPECIFICATION FOR LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE."
   B) PROVIDE CONTINUOUS MOISTURE TO CONCRETE IN ACCORDANCE WITH ACI 301-20.
15) GENERAL CONTRACTOR IS RESPONSIBLE FOR THE PROPER DESIGN AND CONSTRUCTION OF ALL FORM WORK, SHORING, AND RESHORING. DESIGN SHALL BE PERFORMED BY A LICENSED FLORIDA ENGINEER.
16) A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO PERFORM THE FOLLOWING CONCRETE TESTS ON SITE:
   A) CYLINDER STRENGTH TESTS - ASTM C39/C39M-23 "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS;" ONE SET OF FOUR CYLINDERS FOR EACH 50 CUBIC YARDS OR FRACTION THEREOF. TEST ONE CYLINDER AT 7 DAYS AND TWO AT 28 DAYS. HOLD THE FINAL CYLINDER IN RESERVE.
   B) SLUMP TESTS - ASTM C143/C143M-20 "STANDARD TEST METHOD FOR SLUMP OF HYDRAULIC-CEMENT CONCRETE."
17) CONTRACTOR SHALL PROVIDE THE FOLLOWING SUBMITTALS:
   - 1.1. SUBMIT TEST RESULTS FOR CYLINDER STRENGTH TEST RESULTS AND SLUMP TESTS
   - 1.2. SUBMIT PROPOSED CONCRETE MIX DESIGN PRIOR TO CONSTRUCTION, INCLUDING BACK UP DATA IN ACCORDANCE WITH ACI 301, "SPECIFICATIONS FOR CONCRETE CONSTRUCTION," CHAPTER 4, SECTION 4.2.3, EXCLUDING SECTION 4.2.3.4B.
   - 1.3. SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZES, AND LOCATION. INCLUDE BAR LISTS AND BEND DIAGRAMS.
18) RESTRICT THE ADDITION OF MIX WATER AT THE JOB SITE. DO NOT ADD WATER WITHOUT THE APPROVAL OF THE GENERAL CONTRACTOR AND DO NOT EXCEED SLUMP LIMITATIONS OR TOTAL ALLOWABLE WATER TO CEMENT RATIO. USE COLD WATER FROM THE TRUCK TANK AND RE-MIX TO ACHIEVE CONSISTENCY, TEST REPORTS SHALL INDICATE QUANTITY OF WATER ADDED AT THE JOB SITE. ALL TESTS SHALL BE PREPARED AFTER THE ADDITION OF WATER TO THE MIX.
19) MAXIMUM WATER TO CEMENT RATIO WHEN NO BACK UP DATA IS AVAILABLE:
   A) 5,000 PSI, 28-DAY COMPRESSIVE STRENGTH; W / C RATIO, 0.40 MAXIMUM (NON-AIR-ENTRAINED), 0.34 MAXIMUM (AIR ENTRAINED)
   B) 4,000 PSI, 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.47 MAXIMUM (NON-AIR-ENTRAINED), 0.39 MAXIMUM (AIR-ENTRAINED)
   C) 3,000 PSI, 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.54 MAXIMUM (NON-AIR-ENTRAINED), 0.45 MAXIMUM (AIR-ENTRAINED)
20) REINFORCING BAR COVER:
   A) FOOTINGS = 3"
   B) COLUMNS =1-1/2"
   C) BEAMS = 1-1/2"
   D) SLABS = 3/4" (INTERIOR) 1-1/2" (EXTERIOR)
21) CONCRETE SHALL BE PLACED WITHIN 90 MINUTES OF BATCH TIME.
22) WHERE BAR LENGTHS ARE GIVEN ON DRAWINGS, LENGTH OF HOOK, IF REQUIRED IS NOT INCLUDED.
23) PROVIDE COMMERCIAL FORM COATING COMPOUNDS THAT WILL NOT BOND, STAIN, OR ADVERSELY AFFECT CONCRETE SURFACES. WET FORMS BEFORE PLACING CONCRETE.
24) ALL CONCRETE SHALL BE CONSOLIDATED IN PLACE USING INTERNAL VIBRATORS.
25) REPAIR AND PATCH DEFECTIVE AREAS WITH CEMENT MORTAR IMMEDIATELY AFTER REMOVAL OF FORMS, EXCEPT WHERE REINFORCING IS VISIBLE. CONTACT STRUCTURAL ENGINEER FOR EVALUATION OF EXPOSED REINFORCING.
26) PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS, AND WALLS UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATIONS.
27) PROVIDE CORNER BARS AT ALL BEAM AND WALL FOOTING CORNERS TO MATCH HORIZONTAL BARS.
28) SUBMITTALS:
   A) SUBMIT PROPOSED CONCRETE MIX DESIGN PRIOR TO CONSTRUCTION, INCLUDING BACK UP DATA IN ACCORDANCE WITH ACI 301, "SPECIFICATIONS FOR CONCRETE CONSTRUCTION," CHAPTER 4, SECTION 4.2.3, EXCLUDING SECTION 4.2.3.4B.
   B) SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZES, AND LOCATION. INCLUDE BAR LISTS AND BEND DIAGRAMS.

MASONRY

1. CODES AND STANDARDS:
   - 1.1. TMS 402/602-16 "BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES"
2. HOLLOW LOAD BEARING UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, TYPE II. MINIMUM NET COMPRESSIVE STRENGTH = 1,900 PSI. (NET AREA COMPRESSIVE STRENGTH F'_M = 1,500 PSI.).
3. MORTAR SHALL BE TYPE M OR S AND CONFORM TO ASTM C270 (PROPORTION OR PROPERTY SPECIFICATION).
4. COARSE GROUT SHALL CONFORM TO ASTM C476:
   - 4.1. 3,000 PSI AT 28-DAYS.
   - 4.2. 1/4" MAXIMUM AGGREGATE.
   - 4.3. 8" - 11" SLUMP.
5. CONCRETE MASONRY UNITS SHALL BE PLUMB, TRUE, WITH LEVEL COURSES ACCURATELY SPACED AND BUILT TO THE THICKNESS AND IN A RUNNING BOND AS INDICATED AND CONFORMING TO THE TOLERANCES SPECIFIED IN TMS 402/602-16. CONCRETE UNITS SHALL BE STORED OFF THE GROUND SURFACE AND COVERED TO PROTECT THEM FROM ABSORBING RAIN OR BEING CONTAMINATED WITH OTHER FOREIGN MATTER. CONCRETE UNITS SHALL BE DRY WHEN LAID. EACH UNIT SHALL BE ADJUSTED TO FINAL POSITION IN THE WALL WHILE THE MORTAR IS STILL SOFT AND PLASTIC. ANY UNIT DISTURBED AFTER THE MORTAR HAS STIFFENED SHALL BE REMOVED AND RE-LAID WITH FRESH MORTAR. VERTICAL CELLS SHALL BE ALIGNED TO PROVIDE A CONTINUOUS, UNOBSTRUCTED OPENING. ALL ANCHORS, ACCESSORIES, FLASHING, AND OTHER ITEMS TO BE BUILT-IN SHALL BE INSTALLED AS THE MASONRY WORK PROGRESSES. ALL CUTTING AND FITTING OF MASONRY, INCLUDING THAT REQUIRED TO ACCOMMODATE THE WORK OF OTHERS SHALL BE DONE BY MASONRY CRAFTSMEN WITH MASONRY SAWS. LOCATE CONTROL JOINTS AT 20 FEET ON CENTER MAXIMUM AT ALL COLUMNS, AND AT CHANGES IN DIRECTION. CAULK THE EXPOSED SIDE OF ALL JOINTS WITH BACKER ROD AND SEALANT. COLOR OF SEALANT TO MATCH WALL COLOR.
6. HOLLOW UNITS SHALL BE LAID WITH FULL HEAD AND BED JOINTS TO THE THICKNESS OF THE FACE SHELL AS A MINIMUM THE WEBS SHALL ALSO BE BEDDED IN ALL COURSES STARTING AT THE FOUNDATION, ADJACENT TO CELLS TO BE REINFORCED AND/ OR FILLED WITH GROUT OR CONCRETE. MORTAR JOINTS SHALL BE TOOLED WHEN THE MORTAR ID "THUMBPRINT" HARD, BOTH ON THE INSIDE AND OUTSIDE SURFACES OF THE BUILDING WALL, WITH A TOOL PRODUCING A CONCAVE SURFACE BED JOINTS SHALL BE 3/8" IN THICKNESS AND HEAD JOINTS SHALL BE 3/8" IN THICKNESS.
7. ALL REINFORCING STEEL TO BE GRADE 60 PER ASTM A615, REINFORCING BARS SHALL BE PLACED IN THE MIDDLE OF THE CELLS AND TIED OR OTHERWISE SECURELY SUPPORTED AT THE TOP AND BOTTOM TO ENSURE THE BAR DOES NOT MOVE DURING GROUTING. MINIMUM LAP AT ALL SPLICES OR DOWELS SHALL BE 30 INCHES UNLESS OTHERWISE NOTED ON THE DRAWINGS.
8. GROUTING SHALL BE ACCOMPLISHED IN 4 FOOT LIFTS FOR CONCRETE MASONRY AND 2 FOOT LIFTS FOR BRICK MASONRY. EACH LIFT SHALL BE MECHANICALLY CONSOLIDATED INTO THE PREVIOUS LIFT WHEN PLACED, SO AS TO PREVENT COLD JOINTS. RECONSOLIDATE AS REQUIRED FOR CONCRETE MASONRY A 12" SQUARE INCH CLEANOUT OPENING SHALL BE PLACED AT THE BOTTOM OF EACH CELL. FOR BRICK MASONRY, PUDDLE GROUT DURING AND AFTER PLACEMENT TO ENSURE COMPLETE FILLING OF THE CELL. GROUT PLACEMENT STOPPED FOR MORE THAN ONE HOUR SHALL BE STOPPED BELOW THE TOP OF THE MASONRY UNIT 1-1/2" TO PROVIDE A KEY FOR SUBSEQUENT GROUTING.
9. THE MINIMUM CONTINUOUS UNOBSTRUCTED CELL AREA TO RECEIVE GROUT MUST NOT BE LESS THAN 2"X3". MORTAR FINS MUST BE REMOVED AS BLOCK PLACEMENT PROCEEDS. MORTAR DROPPING MUST BE KEPT OUT OF CELLS WHICH ARE TO BE GROUTED.
10. UNLESS SPECIFICALLY SHOWN OTHERWISE, PROVIDE #9 GA. "DUR-O-WALL" TRUSS TYPE REINFORCING IN EVERY OTHER OF CONTINUOUS WALLS FOR CONCRETE MASONRY, AND EVERY FOURTH COURSE FOR BRICK MASONRY. DO NOT LAY JOINT REINFORCEMENT ACROSS EXPANSION JOINTS.
11. TEMPORARY BRACING AND SHORING OF ALL CONCRETE MASONRY CONSTRUCTION TO PROVIDE STABILITY DURING CONSTRUCTION UNTIL CONSTRUCTION ACHIEVES IT'S PROPER STRENGTH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
12. UNLESS SPECIFICALLY SHOWN OTHERWISE, PROVIDE #9 GA. "DUR-O-WALL" TRUSS TYPE REINFORCING IN EVERY OTHER OF CONTINUOUS WALLS FOR CONCRETE MASONRY, AND EVERY FOURTH COURSE FOR BRICK MASONRY. DO NOT LAY JOINT REINFORCEMENT ACROSS EXPANSION JOINTS.
13. TEMPORARY BRACING AND SHORING OF ALL CONCRETE MASONRY CONSTRUCTION TO PROVIDE STABILITY DURING CONSTRUCTION UNTIL CONSTRUCTION ACHIEVES IT'S PROPER STRENGTH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

CHEMICAL (ADHESIVE) ANCHORS

SHALL BE AN EQUAL TWO PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS RED-HEAD EPCON, SIMPSON SET EPOXY, OR HILTI HSE2411 EPOXY DOWELING SYSTEM, OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE. MINIMUM EMBEDMENT SHALL BE TWELVE (12) TIMES FASTENER DIAMETER UNLESS NOTED OTHERWISE.

CONSTRUCTION OBSERVATION

THE STRUCTURAL ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM CONSTRUCTION OBSERVATION SERVICES FOR THIS PROJECT. THEREFORE, ANY AS-BUILT CONSTRUCTION OR CHANGES MADE TO THE STRUCTURE OR TO THESE PLANS WITHOUT THE ENGINEER'S WRITTEN CONSENT SHALL RENDER THE DESIGN AND THE ENGINEERS SEAL ON THESE PLANS NULL AND VOID

ALUMINUM SPECIFICATIONS

1. WHERE OTHERWISE NOT SPECIFIED, ALUMINUM HANDRAIL FOR VERTICAL AND HORIZONTAL MEMBERS SHALL BE SEAMLESS, 1-1/2 INCH (IPS), SCHEDULE 40, 6063-T832 OR 6063-T6 ALUMINUM ALLOY PIPE. ALUMINUM FITTINGS SHALL BE OF WROUGHT MATERIAL OF THE SAME COMPOSITION AS RAILS AND POSTS OR CAST ALUMINUM OF ALUMINUM ALLOY NO. 214. ALUMINUM FITTINGS SHALL HAVE A MINIMUM THICKNESS OF 1/4-INCH. ALL SCREW CONNECTORS AND BOLTS SHALL BE OF STAINLESS STEEL OR 2024-T4 ALUMINUM ALLOY.
2. ALL OTHER ALUMINUM COMPONENTS SHALL BE AS NOTED.

LUMBER

1. CODES AND STANDARDS (CURRENT EDITIONS)
   - 1.1. AMERICAN WOOD COUNCIL (AWC)
   - 1.2. AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)
   - 1.3. 2024 NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION
2. DIMENSIONAL LUMBER SHALL BE SOUTHERN PINE WITH THE MINIMUM NOMINAL DESIGN VALUES PER AWC NDS.
3. WHERE SPECIFIED, ENGINEERED LUMBER PRODUCTS SHALL BE PER MANUFACTURER PROVIDED DESIGN VALUES. CONTRACTOR SHALL PROVIDE SUBMITTAL FOR ALL ENGINEERED LUMBER PRODUCTS.
4. ALL WOOD IN CONTACT WITH CONCRETE, MASONRY, OR SOIL, EXPOSED TO WEATHER, OR AT OTHER LOCATIONS AS SHOWN ON STRUCTURAL DRAWINGS, SHALL BE PROTECTED OR PRESSURE TREATED IN ACCORDANCE WITH AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) REQUIREMENTS. PRESSURE TREATMENT APPROPRIATE FOR LUMBER IN CONTACT WITH SOIL SHALL BE PROVIDED WHERE APPLICABLE

WOOD PRESERVATION TREATMENT

APPLICATION	AWPA USE CATEGORY	TREATMENT (LBS/CU FT.)
IN CONTACT WITH METAL ROOFING	UC2	0.018 PCF PTI OR EQUAL ± (0.019 PCF EL2, 0.14 PCF UCA-C, 0.15 PCF MCA, OR 0.17 PCF SBX)
ABOVE GROUND USE	UC3B	ACQ 0.25
CONCRETE OR GROUND CONTACT, IN-GROUND USE, DECKING, ROOF COMPONENTS	UC4A	0.40 PCF ACQ OR EQUAL ± (0.14 PCF UCA-C , 0.15 PCF MCA, OR 0.15 PCF CA)
STRINGERS & BENTS 2X6-2X10, ROOF POSTS 6X6-10X10	UC4A/B	0.60 PCF ACQ OR 0.31 PCF CA OR 0.23 PCF OF UCA-C OR MCA
SPLIT PILE CAP 3X10, STRINGERS & BENTS 2X8-3X10	UC4B	0.60 PCF CCA
UPLAND PILES IN-GROUND OR FRESHWATER PILES	UC4C	0.80 PCF CCA OR 0.41 CA
SALTWATER EXPOSURE PILES, CROSS BRACING, AND WALERS	UC5C	DUAL TREATMENT AS PHOLADS OR SPHAEROMA TEREBRANS ARE PRESENT: FIRST CCA 1.00 SECOND: CR OR CR-S 20.00

PRIMARY PROJECT WOOD PRESERVATION TREATMENT

5. NAILING, JOIST BLOCKING, AND RAFTER BLOCKING SHALL MEET THE MINIMUM REQUIREMENTS OF CHAPTER 23 OF THE FLORIDA BUILDING CODE UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED ON THE PLANS.
6. ALL CONNECTORS SHALL BE GALVANIZED STEEL. CONNECTOR MODEL NUMBERS SHOWN ARE STRONG-TIE CONNECTORS AS MANUFACTURED BY SIMPSON STRONG-TIE CO, PO BOX 10789, PLEASANTON, CA 94588 OR USP CONNECTORS AS MANUFACTURED BY MITEK, INC, 16023 SWINGLEY RIDGE RD, CHESTERFIELD, MO 63017. SUBSTITUTIONS ARE ACCEPTABLE WITH THE APPROVAL OF THE STRUCTURAL ENGINEER. UNLESS SHOWN OTHERWISE, INSTALL SIZE AND NUMBER OF FASTENERS PER MANUFACTURER INSTALLATION INSTRUCTIONS. ALL CONNECTORS TO PRESSURE TREATED LUMBER SHALL BE GALVANIZED STEEL.
7. ANY NOTE REQUIRING A RING SHANK MAY BE SCREW SHANK FOR AUTOMATIC NAILING

WIND BORNE DEBRIS REGION REQUIREMENTS

1. DESIGN WIND PRESSURES ARE BASED ON STRUCTURE CLASSIFICATION INDICATED IN GENERAL STRUCTURAL SPECIFICATIONS.
2. ALL COMPONENTS AND CLADDING AS REQUIRED SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH SECTION 1609 OF THE FLORIDA BUILDING CODE FOR DESIGN PRESSURES GENERATED BY AN ULTIMATE DESIGN WIND VELOCITY AS INDICATED IN GENERAL STRUCTURAL SPECIFICATIONS.
3. THE ENGINEER OF RECORD DOES NOT CERTIFY THE STRUCTURAL INTEGRITY OF THESE ITEMS.
4. THE BUILDER SHALL PROVIDE NECESSARY COPIES OF DETAILS, CERTIFICATIONS, ETC... TO THE BUILDING DEPARTMENT TO SHOW COMPLIANCE WITH THIS PARAGRAPH.

WIND LOADING INFO

REFER TO SHEET S4.0 FOR WIND LOADING

STRUCTURAL ABBREVIATIONS

#	NUMBER OR POUND
Ø	ROUND OR DIAMETER
□	SQUARE
&	AND
@	AT
db	DIAMETER OF REINFORCEMENT BAR
ACI	AMERICAN CONCRETE INSTITUTE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISH FLOOR
AH	AIR HANDLER
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AR	ANCHOR ROD
ARCH	ARCHITECTURE
ASD	ALLOWABLE STRESS DESIGN
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWC	AMERICAN WOOD COUNCIL
AWPA	AMERICAN WOOD PROTECTION ASSOCIATION
AWS	AMERICAN WELDING SOCIETY
B/	BOTTOM OF
BETWN	BETWEEN
BOT	BOTTOM
BTM	BOTTOM
BM	BEAM
BLDG	BUILDING
BPL	BASE PLATE
BRG	BEARING
C TO C	CENTER TO CENTER
CANT	CANTILEVER
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
C.O.	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTION
CTR	CENTER
CTRD	CENTERED
CU	CONDENSING UNIT
DBA	DEFORMED BAR ANCHOR
DEFL	DEFLECTION
DET	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DIFF	DIFFERENT
DIM	DIMENSION
DO	DITTO
DWG	DRAWING
EA	EACH
EF	EACH FACE
EF	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENGR	ENGINEER
EOR	ENGINEER OF RECORD
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
EW	EACH WAY
FB	FLAT BAR
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FLR	FLOOR
FS	FAR SIDE
FTG	FOOTING
GA	GAGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GT	GIRDER TRUSS
HB	HOSE BIB
HDPE	HIGH DENSITY POLY ETHYLENE
HGT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HT	HEIGHT
HS	HIGH STRENGTH
IF	INSIDE FACE
INFO	INFORMATION
INT	INTERIOR
IPS	IRON PIPE SIZE
JNT	JOINT
JST	JOIST
LB	POUND
LG	LONG
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LRFD	LOAD AND RESISTANCE FACTOR DESIGN
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
MANUF	MANUFACTURER
MAT'L	MATERIAL
MAX	MAXIMUM
MHWL	MEAN HIGH WATER LINE
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MM	MILLIMETERS
NAVD	NORTH AMERICAN VERTICAL DATUM
NDS	NATIONAL DESIGN SPECIFICATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OHWL	ORDINARY HIGH WATER LEVEL
O/O	OUT TO OUT
OPNG	OPENING
OPP	OPPOSITE
PCF	POUNDS PER CUBIC FOOT
PED	PEDESTRIAN
PERP	PERPENDICULAR
PL	PLATE
PNL	PANEL
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
QTY	QUANTITY
R	RISER
R OR RA	RADIUS
RD	ROUND
REF	REFERENCE
REINF	REINFORCE(MENT)
REQ	REQUIRE
REQ'D	REQUIRED
RET	RETAINING
REV	REVISION
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FOOT
SH/DH	SINGLE/DOUBLE HUNG
SIM	SIMILAR
SOG	SLAB ON GRADE
SPA	SPACE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STR	STRAIGHT
STRUCT	STRUCTURAL
SYM	SYMMETRICAL
T	TREAD
T&B	TOP & BOTTOM
T/	TOP OF
T/U PAN	TILT-UP PANEL
TD	TRAVEL DISTANCE
TE	THICKENED EDGE
THK	THICK
THRD	THREADED
TMS	THE MASONRY SOCIETY
TPI	TRUSS PLATE INSTITUTE
TRANSV	TRANSVERSE
TS	THICKENED SLAB
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VER	VERIFY
VERT	VERTICAL
VTR	VENT THRU ROOF
W/	WITH
WH	WATER HEATER
WIN	WINDOW
W/O	WITHOUT
WP	WORK POINT
WS	WATERSTOP
WWF	WELDED WIRE FABRIC

GENERAL SYMBOLS

SYMBOL	MEANING
(circle with line)	PLAN, SECTION OR DETAIL NO. / SHEET NUMBER
N (arrow)	NORTH ARROW
1 (diamond)	KEYED NOTE TO PLAN
1 (hexagon)	FOUNDATION TYPE
1 (triangle)	REVISION NUMBER
S	FOOTING STEP

THE WEILER ENGINEERING CORPORATION

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Building Risk Category: RISK II
Design Wind Speed: Ultimate V_{ult}=160 MPH / Nominal V_{asd} = 124 MPH
Wind Importance Factor: 1.0 / Wind Exposure: C
Internal Pressure Coefficient: ±0.00
Component & Cladding Wind Pressure: per Calcs

FLOOD PARAMETERS
FEMA FIRM Map Number: 12015C0242G
Base Flood Elevation: AE-09
100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)

GEOTECHNICAL PARAMETERS
Data Source: Presumptive Load-Bearing Values of Soils, FBC 2023 1806.2
Vertical Bearing Capacity: 1,500 psf (FBC 2023 Table 1806.2)
Lateral Bearing Pressure: 100 psf/ft (FBC 2023 Table 1806.2)

FOUNDATION SOIL AND TREATMENT
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Project Information
Design: TWP
Drawn: TWP
Checked: BTC
Approved By: -
Scale: N.T.S.
Job No.: 24020.003
Date Issued: 05/27/2025

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STRUCTURAL GENERAL NOTES

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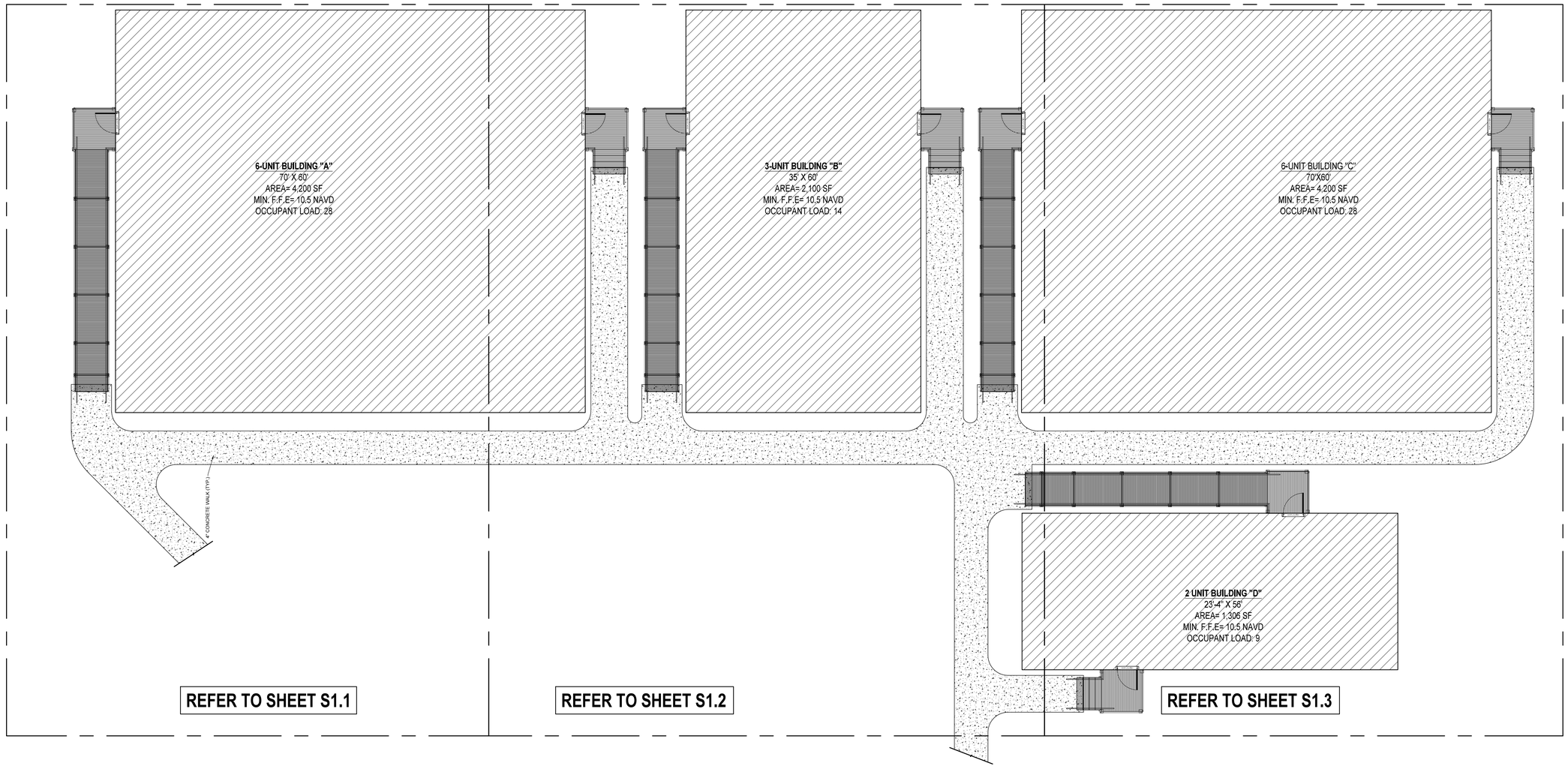
Revisions

Description

Max Morgan
Professional Engineer
State of Florida
Registration No. 94877

Sheet No. G1.0



BOARDWALK FOUNDATION INDEX PLAN 1/8"=1'-0"

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BOARDWALK PLAN INDEX

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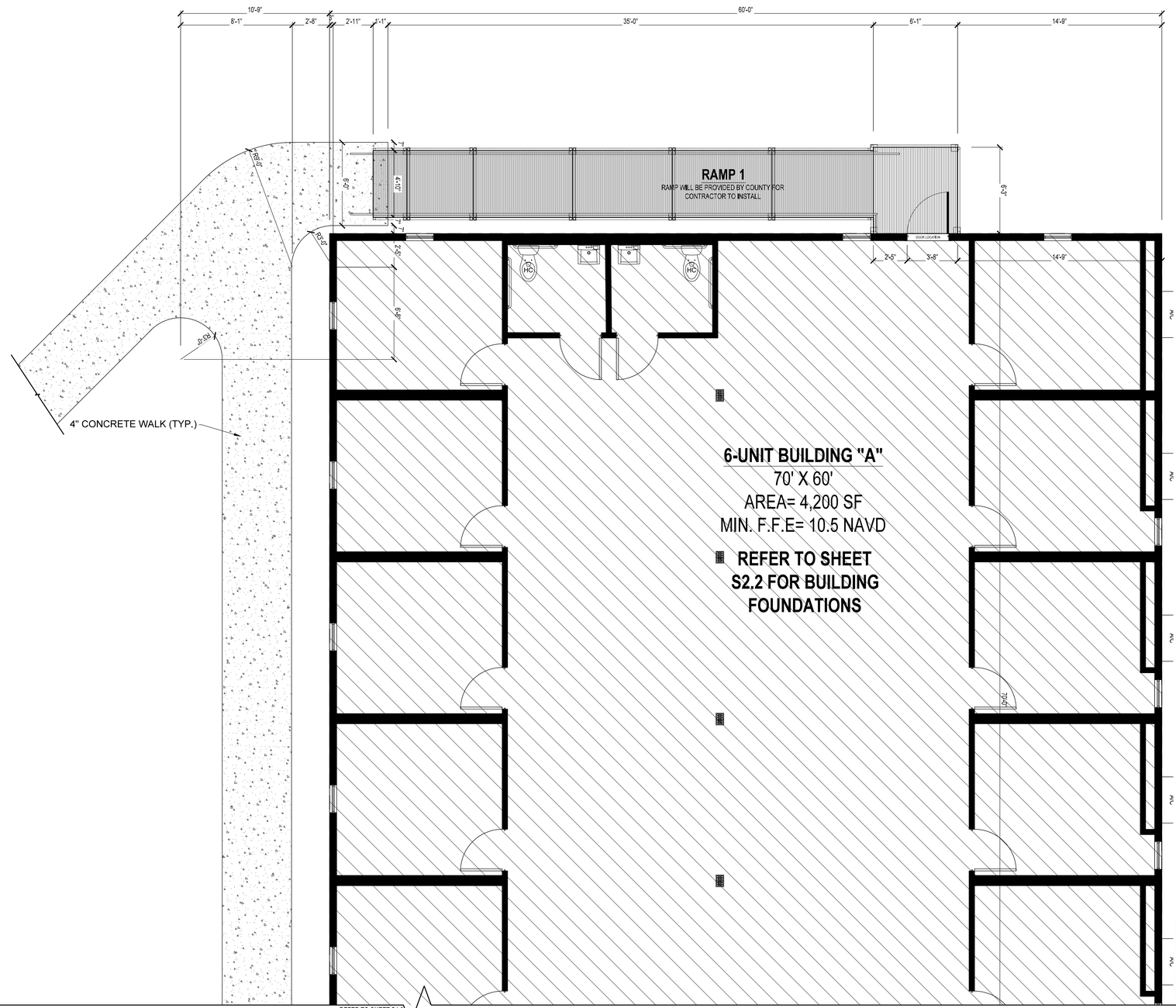

BOARDWALK PLAN

¼"=1'-0"

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BOARDWALK PLAN

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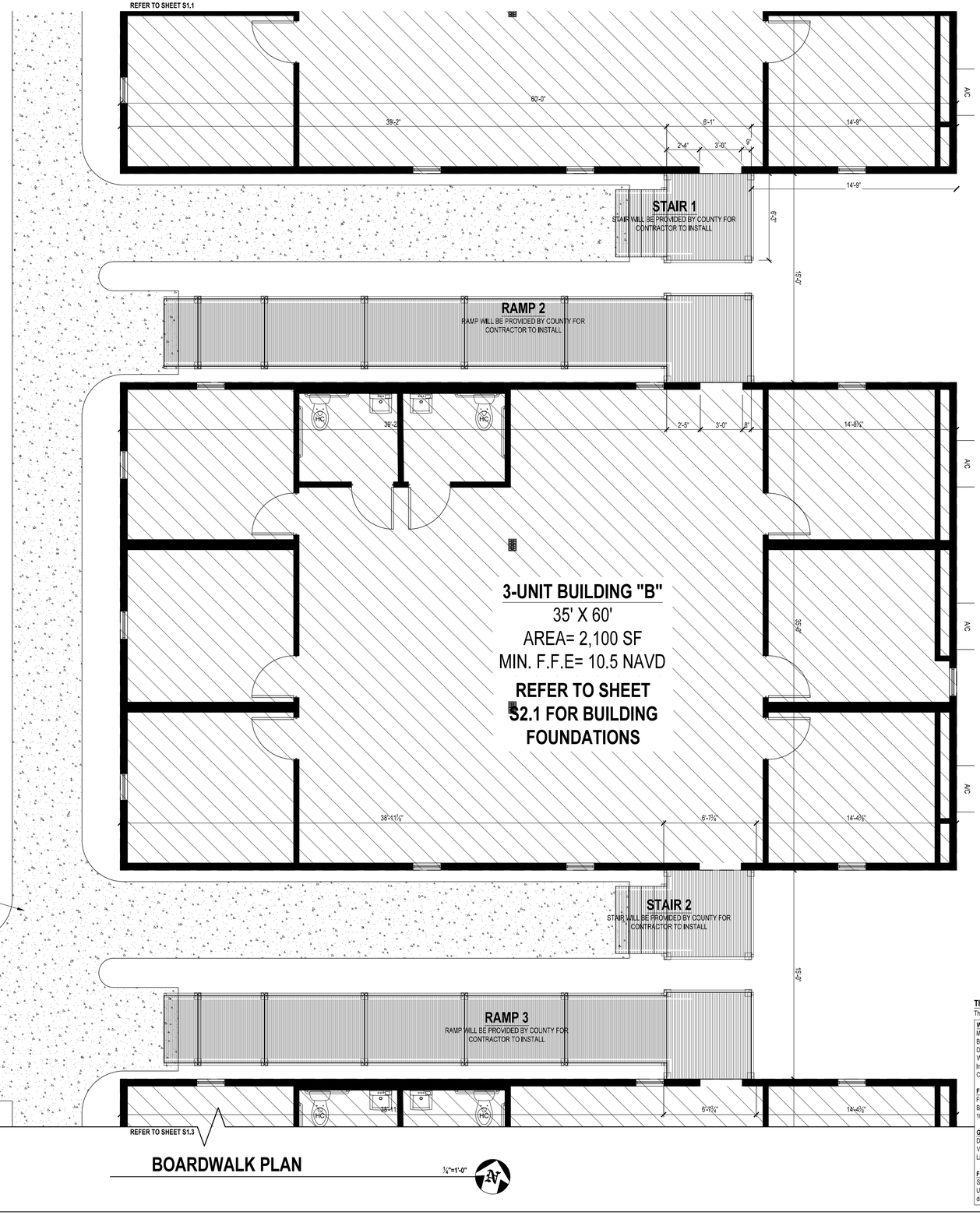
Sheet No. S1.1

REFER TO SHEET S1.1



REFER TO SHEET S1.3

BOARDWALK PLAN

1/4"=1'-0"

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BOARDWALK PLAN

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Sheet No. S1.2

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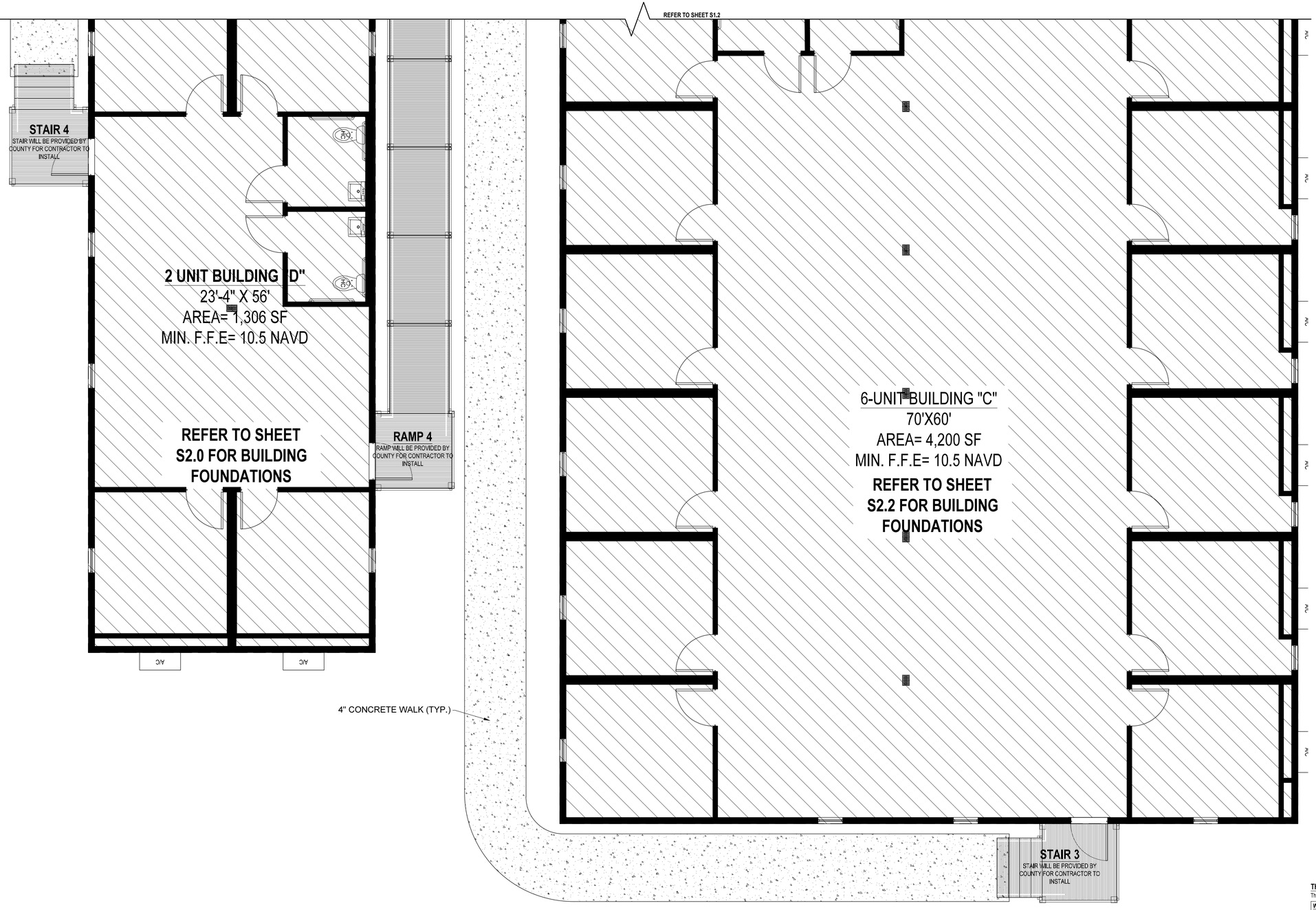

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1/4"=1'-0"

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BOARDWALK PLAN

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Sheet No. S1.3

LIFE SAFETY PLAN

3/32"=1'-0"

NOTE:

1. REFER TO MODULAR MANUFACTURES PLANS FOR ADA COMPLIANCE OPENINGS AND MOUNTING HGTS.
2. REFER TO MODULAR MANUFACTURES PLANS FOR EMERGENCY LIGHTING AND FIRE SUPPRESSION EQUIPMENT AND LOCATION.
3. ANY LIP OR CHANGE IN ELEVATION OF WALKING SURFACE GREATER THAN 1/4" SHALL BE BEVELED TO MEET ADA REQUIREMENTS. NO LIP OR UNEVENNESS IN THE WALKING SURFACE GREATER THAN 1/2" SHALL BE PERMITTED

DESIGN CRITERIA

1. FLORIDA BUILDING CODE (FBC) 8TH EDITION (2023)
2. FLORIDA FIRE PREVENTION CODE (FFPC) 8TH EDITION
3. OCCUPANCY CLASSIFICATION = BUSINESS GROUP B
4. BUILDING CONSTRUCTION IS TYPE VB
5. STRUCTURAL FIRE-RESISTANT RATING REQUIREMENTS = 0 HOURS
6. FIRE SPRINKLER SYSTEM IS NOT REQUIRED OR PROVIDED
7. BUILDING AREA:
   - 7.1. 6 UNIT BUILDING A: 4,200 SQ. FT,
   - 7.2. 3 UNIT BUILDING B: 2,100 SQ. FT,
   - 7.3. 6 UNIT BUILDING C: 4,200 SQ. FT,
   - 7.4. 2 UNIT BUILDING D: 1,306 SQ. FT,
   - 7.4.1. TOTAL FOR ALL BUILDING AREA: 11,806 SQ. FT.
8. BUILDING HEIGHT = ONE STORY
9. EGRESS CALCULATIONS
   - 9.1. 6 UNIT BUILDING A: 4,200 SQ. FT. / 150 GROSS = 28 OCCUPANTS X 0.2" EGRESS WIDTH FACTOR = 5.6" EGRESS WIDTH REQUIRED
     - 9.1.1. 34" EGRESS WIDTH PROVIDED PER EACH DOOR MIN.
   - 9.2. 3 UNIT BUILDING B: 2,100 SQ. FT. / 150 GROSS = 14 OCCUPANTS X 0.2" EGRESS WIDTH FACTOR = 2.8" EGRESS WIDTH REQUIRED
     - 9.2.1. 34" EGRESS WIDTH PROVIDED PER EACH DOOR MIN.
   - 9.3. 6 UNIT BUILDING C: 4,200 SQ. / 150 GROSS = 28 OCCUPANTS X 0.2" EGRESS WIDTH FACTOR = 5.6" EGRESS WIDTH REQUIRED
     - 9.3.1. 34" EGRESS WIDTH PROVIDED PER EACH DOOR MIN.
   - 9.4. 2 UNIT BUILDING D: 1,306 SQ. FT. / 150 GROSS = 9 OCCUPANTS X 0.2" EGRESS WIDTH FACTOR = 1.8" EGRESS WIDTH REQUIRED
     - 9.4.1. 34" EGRESS WIDTH PROVIDED PER EACH DOOR
10. MINIMUM NUMBER OF EXISTS PROVIDED FOR EACH BUILDING: 2 EXITS WITH A MINIMUM WIDTH OF 34"
11. MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE TO EXIT = OCCUPANT LOAD LESS THAN 30: 100'-0" AND MAXIMUM DISTANCE PROVIDED = 97'-0"

THE WEILER ENGINEERING CORPORATION

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PUNTA GORDA, FLORIDA 33950
EB# 6656
PHONE: (941) 505-1700 FAX: (941) 505-1702

LIFE SAFETY & CONCRETE WALK PLAN

PUBLIC WORKS TEMPORARY OFFICES
CHARLOTTE COUNTY
7000 FLORIDA ST.
PUNTA GORDA, FL 33950

Revisions

Description

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Professional Engineer,
State of Florida,
License No. 94877
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on the date indicated here.
05-27-2025
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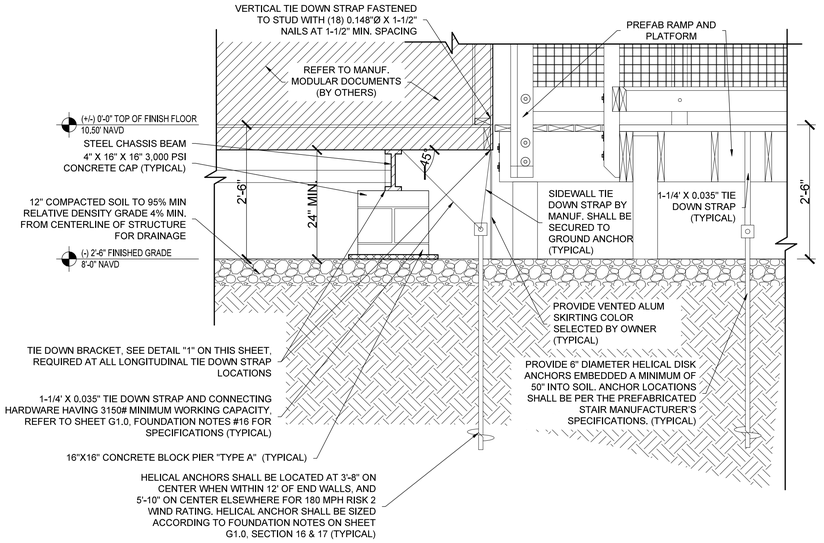
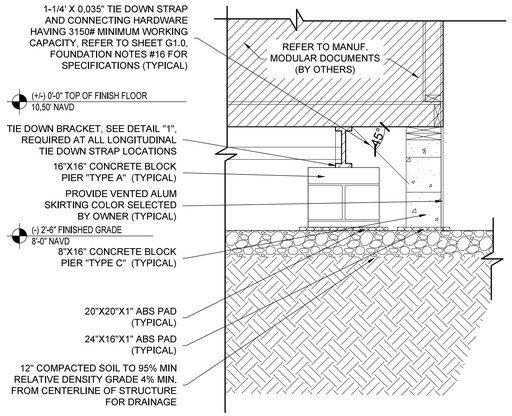
Max Morgan
Professional Engineer
State of Florida
Registration No. 94877

Sheet No. S1.4



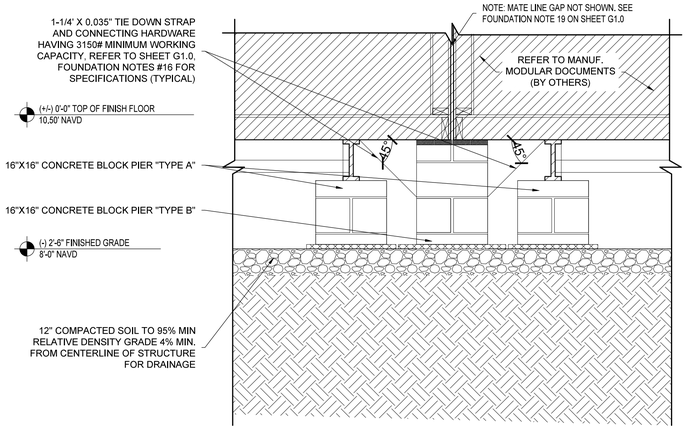
A TYP. FOUNDATION DETAIL

3/4" = 1'-0"



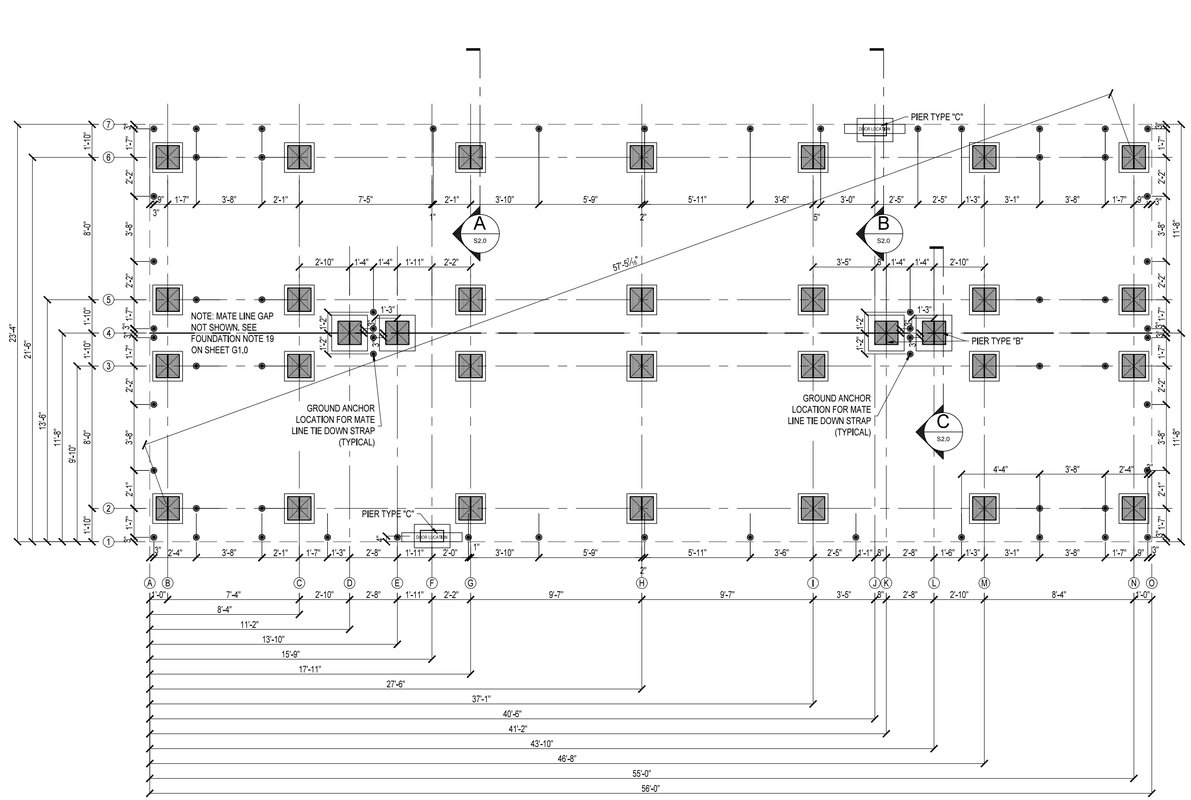
B FOUNDATION DETAIL

3/4" = 1'-0"



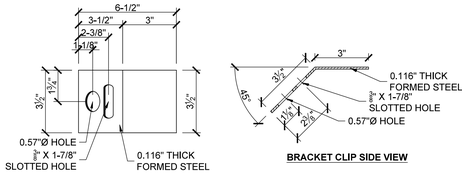
C FOUNDATION DETAIL

3/4" = 1'-0"



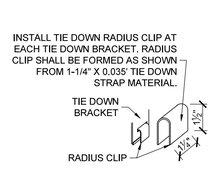
2 UNIT MODULAR FOUNDATION PLAN

1/4"=1'-0"

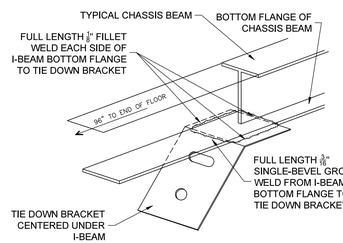


BRACKET CLIP PLAN VIEW

BRACKET CLIP SIDE VIEW



TIE DOWN RADIUS CLIP



STRUCTURAL NOTES:

1. HOT ROLLED STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI IN ACCORDANCE WITH ASTM A36/A36M-19
2. WELDS ON BASE METALS LESS THAN ¼" THICK SHALL BE IN ACCORDANCE WITH ANSI/AWS D1.3, ALL OTHER WELDS SHALL BE IN ACCORDANCE WITH ANSI/AWS D1.1.
3. WELDS ON HOT ROLLED STEEL SHALL BE SMAW WITH E7014 ELECTRODES OR WELDS SHALL BE GMAW WITH ER70S-6 FILLER METAL.
4. ALL WELDS SHALL BE PROTECTED WITH EXTERIOR GRADE ZINC RICH PAINT PROVIDING NOT LESS THAN 0.30 OUNCES OF ZINC COATING PER SQUARE FOOT OF SURFACE AREA.

1 TYP. TIE DOWN BRACKET DETAIL

3" = 1'-0"

NOTE

1. MONITORING WELL LOCATIONS ARE APPROXMATE. CONTRACTOR SHALL FIELD VERIFY LOCATION PRIOR TO BIDDING
2. CONTRACTOR SHALL PROVIDE FOUNDATIONS IN ACCORDANCE WITH MODULAR MANUFACTURER'S ENGINEERED DRAWINGS
3. STAIRS AND RAMPS WILL BE PROVIDED BY COUNTY

PIER TYPE "A" ON 20"X20"X1" ABS PAD

PIER TYPE "B" 24"X24"X1" ABS PAD

PIER TYPE "C" 24"X16"1" ABS PAD HELICAL ANCHORS AND TIE DOWN STRAP

FOUNDATION LEGEND

1/4" = 1'-0"

THE WEILER ENGINEERING CORPORATION

These plans are in Compliance with Florida Building Code 2023 (FBC) for the parameters indicated.

WIND PARAMETERS
Method of Design: ASCE 7-22
Building Risk Category: RISK II
Design Wind Speed: Ultimate V_{ult}=160 MPH / Nominal V_{asd} = 124 MPH
Wind Importance Factor: 1.0 / Wind Exposure: C
Internal Pressure Coefficient: ±0.00
Component & Cladding Wind Pressure: per Calcs

FLOOD PARAMETERS
FEMA FIRM Map Number: 12015C0242G
Base Flood Elevation: AE-09
100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)

GEOTECHNICAL PARAMETERS
Data Source: Presumptive Load-Bearing Values of Soils, FBC 2023 1806.2
Vertical Bearing Capacity: 1,500 psf (FBC 2023 Table 1806.2)
Lateral Bearing Pressure: 100 psf/ft (FBC 2023 Table 1806.2)

FOUNDATION SOIL AND TREATMENT
Soil Bearing Capacity Listed & the resultant foundation design assumes the soil type noted as per USGS web soil survey (or geotechnical engineering if provided), if inadequate substrate is discovered during site preparation the engineer shall be notified prior to placement of foundations.

Project Information

Approved By:	Design: TWP
Scale: N.T.S.	Drawn: TWP
Job No.: 24020.003	Checked: BTC
Date Issued: 05/27/2025	

WEILER ENGINEERING CORPORATION
WEC excellence in engineering
--- An Apex Company ---
201 WEST MARION AVENUE SUITE 105
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2 UNIT MODULAR FOUNDATION PLAN

PUBLIC WORKS TEMPORARY OFFICES

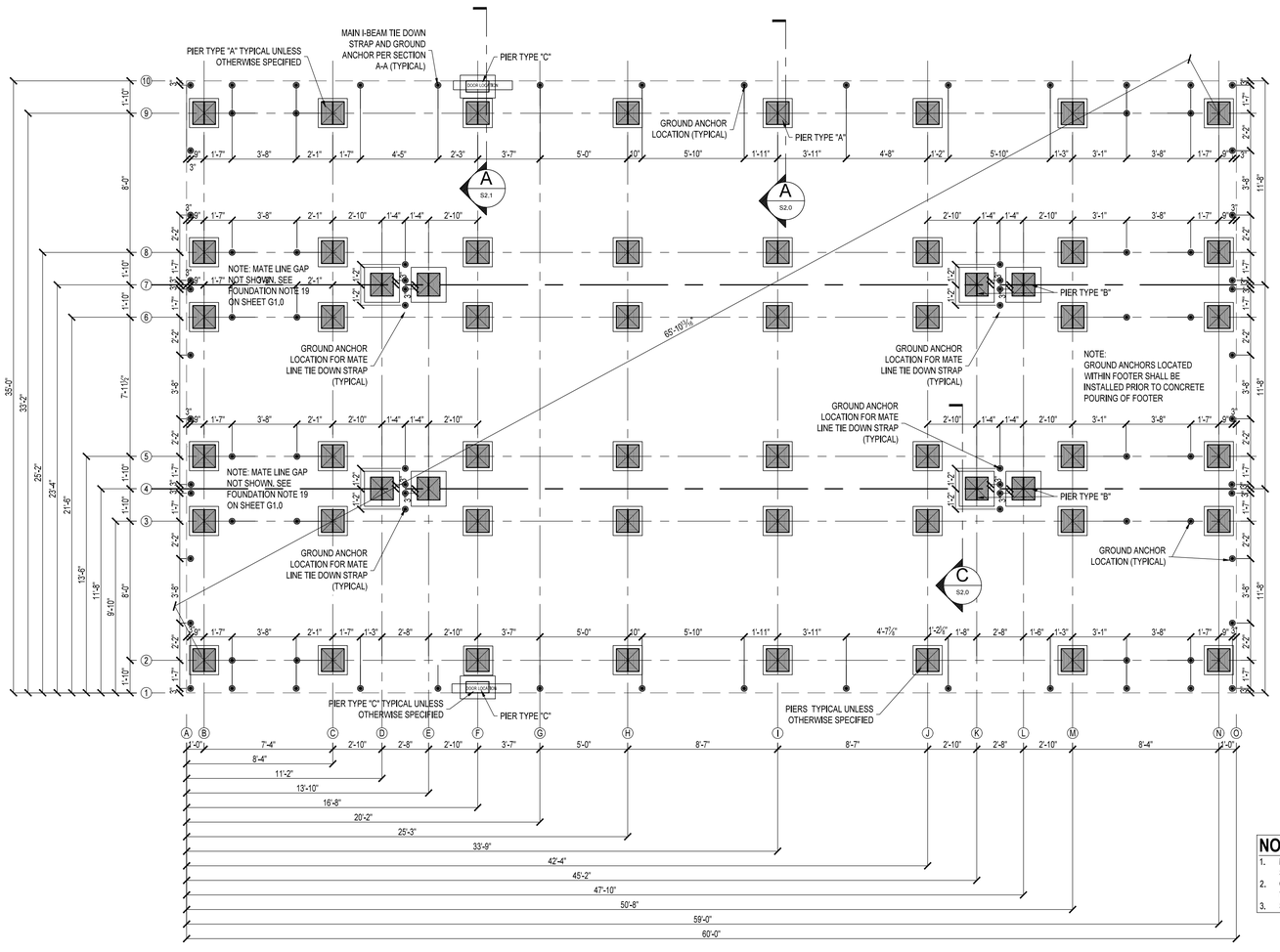
CHARLOTTE COUNTY

7000 FLORIDA ST.
PUNTA GORDA, FL 33950

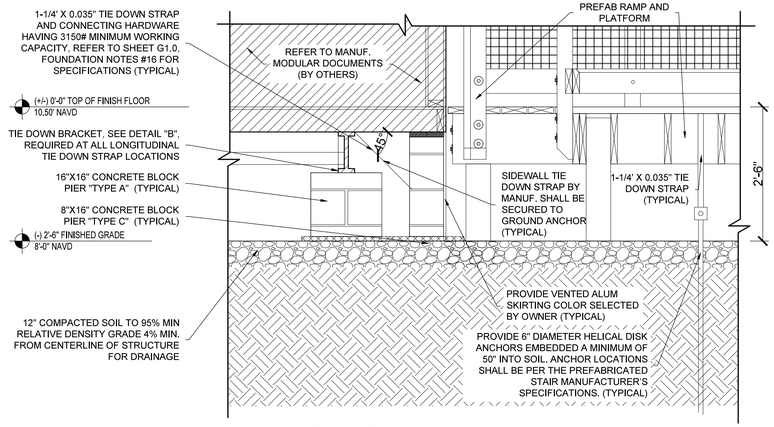
Revisions

Description

Sheet No. S2.0



3 UNIT MODULAR FOUNDATION PLAN
1/4"=1'-0"



FOUNDATION DETAIL
A — 3/4" = 1'-0"

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FOUNDATION LEGEND
1/4" = 1'-0"

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100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)

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3 UNIT MODULAR FOUNDATION PLAN
PUBLIC WORKS TEMPORARY OFFICES
CHARLOTTE COUNTY
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PUNTA GORDA, FL 33950

Revisions

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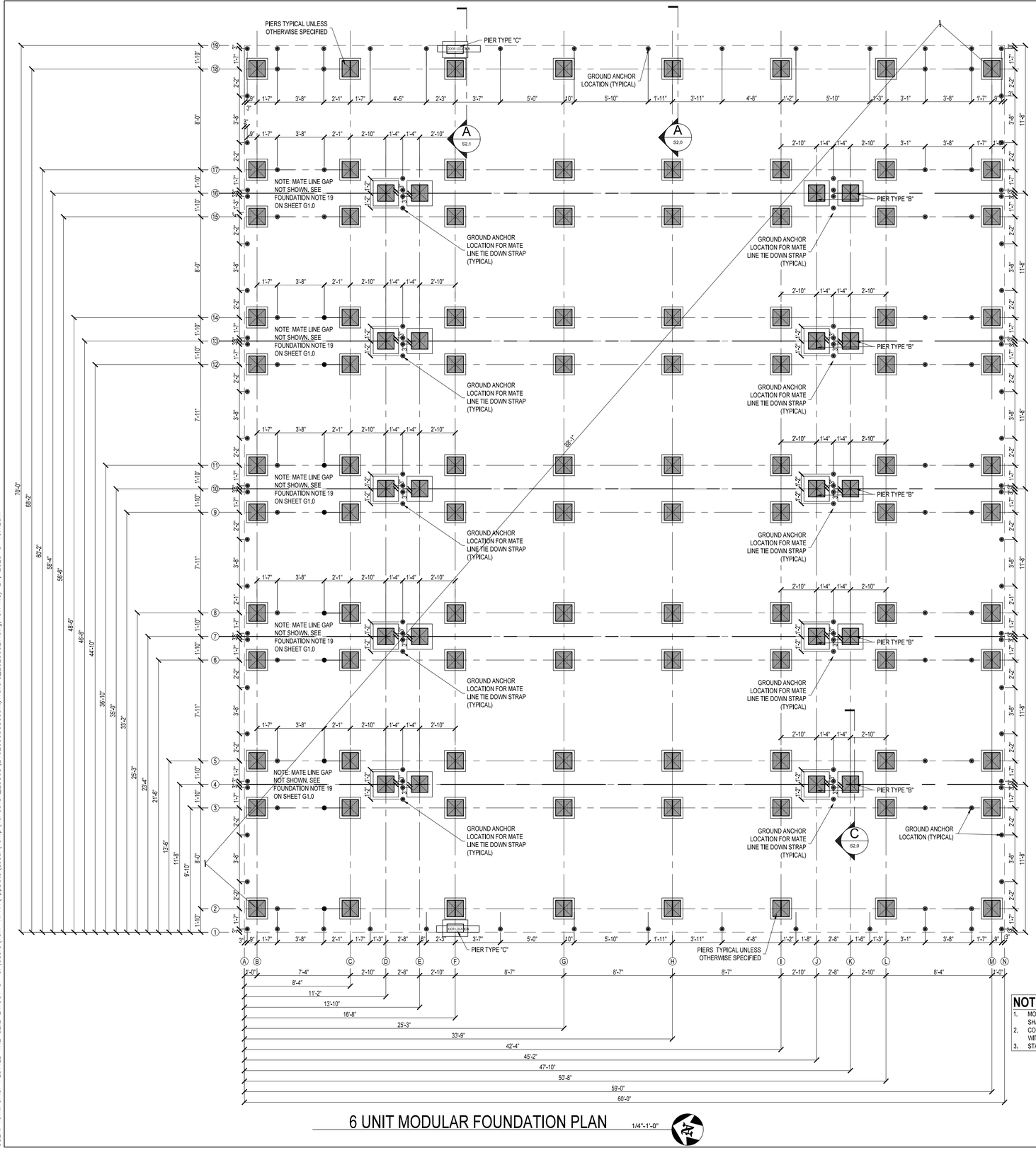
Sheet No. S2.1



6 UNIT MODULAR FOUNDATION PLAN 1/4"=1'-0"

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DOOR LOCATION PIER TYPE "C" 24"X16"1" ABS PAD HELICAL ANCHORS AND TIE DOWN STRAP

FOUNDATION LEGEND 1/4" = 1'-0"

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Project Information

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6 UNIT MODULAR FOUNDATION PLAN

PUBLIC WORKS TEMPORARY OFFICES

CHARLOTTE COUNTY

7000 FLORIDA ST.
PUNTA GORDA, FL 33950

Revisions

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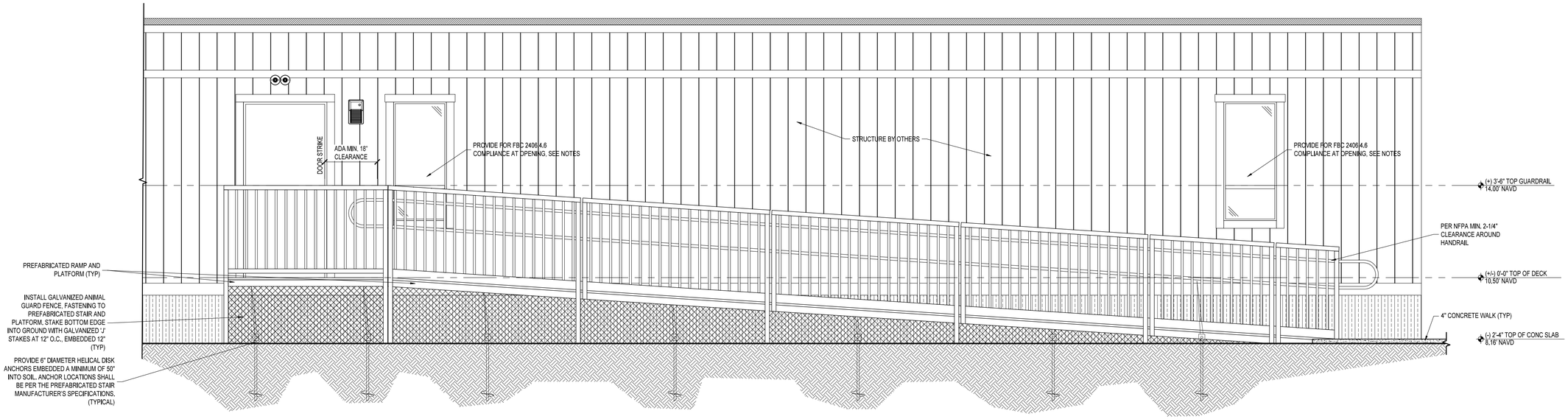
Sheet No. S2.2

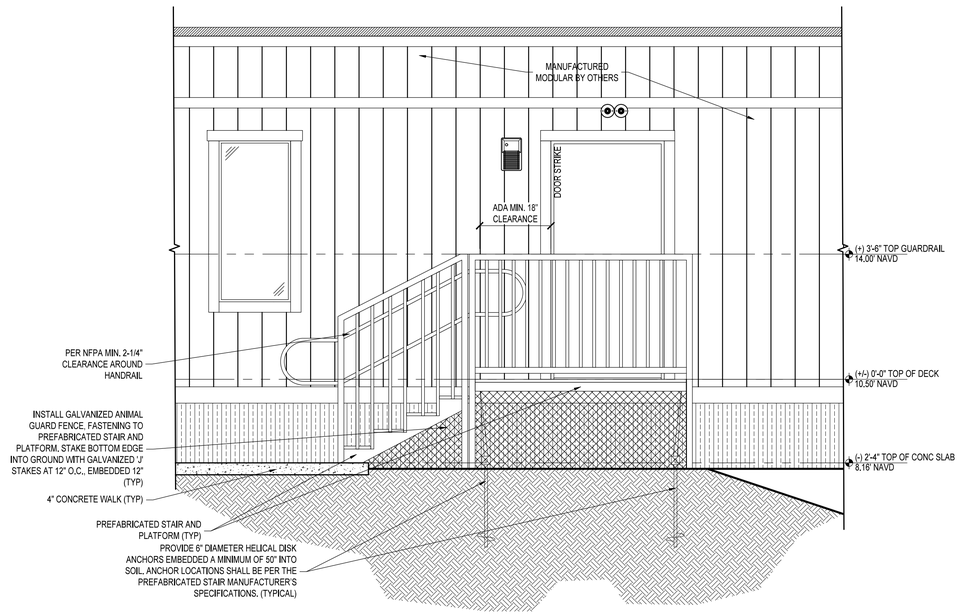


2 PREFABRICATED RAMP & PLATFORM

1/2" = 1'-0"

NOTES:

1. ANY LIP OR CHANGE IN ELEVATION GREATER THAN 1/4" SHALL BE BEVELED TO MEET ADA REQUIREMENTS. NO LIP OR UNEVENNESS IN THE WALKING SURFACE GREATER THAN 1/2" SHALL BE PERMITTED
2. CONTRACTOR TO VERIFY MODULAR UNIT'S GLAZING IS COMPLIANT WITH FBC 2406.4.6 GLAZING ADJACENT TO STAIRWAYS AND RAMPS, OR PROVIDE WINDOW TREATMENT TO ENSURE COMPLIANCE. IF WINDOW COMPONENT IS NON-COMPLIANT A COMPLIANT COVERING SHALL BE PROVIDED SUCH AS POLYCARBONATE. CONTRACTOR SHALL PROVIDE A SUBMITTAL TO OWNER FOR REVIEW PRIOR TO ORDERING.
3. STAIRS AND RAMPS WILL BE PROVIDED BY COUNTY



1 PREFABRICATED STAIR & PLATFORM

1/2" = 1'-0"

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Component & Cladding Wind Pressure: per Calcs

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Base Flood Elevation: AE=09
100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)

GEOTECHNICAL PARAMETERS
Data Source: Presumptive Load-Bearing Values of Soils, FBC 2023 1806.2
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Job No.: 24020.003		Checked:	BTC
Date Issued: 05/27/2025			

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PUNTA GORDA, FLORIDA 33950
PHONE: (941) 505-1700 FAX: (941) 505-1702
EB# 6656

STAIR FRAMING PLAN, SECTION & ELEVATIONS

PUBLIC WORKS TEMPORARY OFFICES

CHARLOTTE COUNTY

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PUNTA GORDA, FL 33950

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Sheet No. S3.0

MecaWindv2518

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CalculationsPreparedby:
WEC
201WMarionAve#1306
PuntaGorda,FL,33950
Date:Mar27,2025
Designer:MM
FileLocation:W:\2024\24020.003-CSA-PW17temporaryoffices\CALCS\
24020.003PW17RampRevised.wnd

CalculationsPreparedFor:
Client: CSA
Project#: 24020.003
Location: CharlotteCounty
Description: PW17TemporaryOffices

General:

ReferenceAbbreviations:T:Table,F:Figure,E:Equation,§:Section

WindLoadStandard	=	ASCE7-22	BasicWindSpeed	=	160.0mph
ExposureClassification	=	C	RiskCategory	=	II
StructureType	=	Building	BasisforWindPressures	=	LRFD
MWFRSAnalysisMethod	=	Ch27	C&CAnalysisMethod	=	None
DynamicTypeofStructure	=	Rigid	AdvancedOptions	=	True
SimpleDiaphragmBuilding	=	False	MWFRSPressureElevations	=	MeanHt
TopographicEffects	=	None	OverrideDirectionalityFactor	=	False
OverrideGustFactor	=	False	OverrideMinimumPressure	=	False

Building:

RoofType			Open Monoslope	EnclosureClassification	=	Open
Help	=	HelponRoofType	= Help	Pitch= PitchofRoof	=	0.1:12
θ	=	Thecalculatedslopeofroof	= 0.48°	HtEnt= HeightEntryType	=	Highest
EHt	=	LowestheightofRoof	= 2.948ft	H = MeanRoofHeight	=	2.974ft
RHt	=	RoofHighestHeight	= 3.000ft	L = WidthNormaltoRidge	=	6.2500ft
D	=	LengthAlongRidge	= 42.1670ft	Flow = WindFlowMethod	=	Obstructed
IsCol=		IncludeSupportingColumns	= False	IsFascia= IncludeFascia	=	False

ExposureConstants[T:26.11-1]:

α=3-sGust-speedexponent	=	9.800	Zg=NominalHtofBoundaryLayer	=	2460.000ft
â=Reciprocalofα	=	0.102	b=3secgustspeedfactor	=	1.000
α_m =MeanhourlyWind-SpeedExponent	=	0.156	bm=MeanhourlyWindspeedExponent	=	0.660
c=TurbulenceIntensityFactor	=	0.200	ε=IntegralLengthScaleExponent	=	0.2000

GustFactorCalculationforWind:[WindDir0Deg]

GustFactorCategoryIRigidStructures-SimplifiedMethod

G1 = Simplified:ForRigidStructurescanuse0.85 = 0.85

GustFactorCategoryIIRigidStructures-CompleteAnalysis

Zm	=	EquivStrucHeight:Max(0.6•h,Zmin)	= 15.000ft
Izm	=	TurbulenceIntensity:c•(33/Zm) $^{1/6}$ [E:26.11-7]	= 0.228
Lzm	=	TurbulenceIntegralLengthScale:ℓ•(Z $_{m}$/33)$^{\varepsilon}$ [E:26.11-9]	= 427.057ft
B	=	BuildingWidthWidthNormaltoWindDirection	= 42.167ft
Q	=	[1/(1+0.63•[(B+h)/Lzm]$^{0.63}$)]$^{0.5}$ [E:26.11-8]	= 0.931
G2	=	Detailed:0.925•[(1+1.7•gq•Izm•Q)/(1+1.7•gv•Izm)][E:26.11-6]	= 0.889

GustFactorUsedinAnalysis

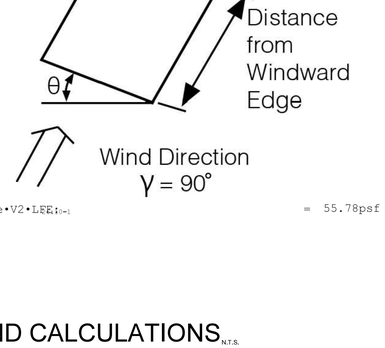
G = GustFactor:Min(G1,G2) = 0.850

MainWindForceResistingSystem(MWFRS)WindCalculationsperCh27:

h=Meanstructureheight	=	2.974ft	Kh=2.41•(15/Zg) $^{2/\alpha}$ T:26.10-1	=	0.851
Kzt=NoTopographicFeature	=	1.000	Kd=DirectionalityFactor T:26.6-1	=	0.85
GCpi=±InternalPressCoef T:26.13-1	=	±0.00	LF=STRENGTHLoadFactor	=	1.00
Ke=GroundElevFactor T:26.10-1	=	1.000	qh=.00256•Kh•Kzt•Ke•V2•LF E:26.10-1	=	55.78psf

WindonRoof

WindPressuresonOpenBuildingOpenMonoslopeFreeRoofperF:27.3-4-WindDir0Deg:



qh = .00256•Kh•Kzt•Ke•V2•LF $_{E:26.10-1}$ = 55.78psf

MWFRSWindPressuresperF:27.3-4onOpenMonoslopeFreeRoof-WindDir0Deg
AllwindpressuresincludeaLoadFactor(LF)of1.0

LoadCase	Cnw	Cnl	Pnw psf	Pnl psf
LoadCaseA	-0.500	-1.200	-20.15	-48.36
LoadCaseB	-1.100	-0.600	-44.33	-24.18

Notes:
Pnw =Pressureonwindwardportionofroof: qh•Kd•(G•Cnw)[E:27.3-2]
Pnl =PressureOnLeewardportionOfroof: qh•Kd•(G•Cnl)[E:27.3-2]
Allwindpressuresincludea LoadFactor(LF)of1.0
•PositivePressuresActTOWARDSurfaceandNegativePressuresActAWAYfromSurface

WindPressuresonOpenBuildingOpenMonoslopeFreeRoofperF:27.3-7-WindDir90Deg:

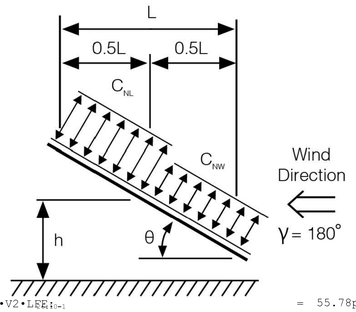
qh = .00256•Kh•Kzt•Ke•V2•LF $_{E:26.10-1}$ = 55.78psf

MWFRSWindPressuresperF:27.3-7-Wind90Deg
AllwindpressuresincludeaLoadFactor(LF)of1.0

RoofVar	Start Dist ft	End Dist ft	CnA	CnB	Pressure PnA psf	Pressure PnB psf
Roof	5.948	274.086	-0.600	0.300	-24.18	12.09

NotesRoofPressures:
Start =StartDistfromWindwardEdge
CnA =CnforLoadCaseA
PnA =qh•Kd•(G•CnA)[E:27.3-2]
End =EndDistfromWindwardEdge
CnB =CnforLoadCaseB
PnB =qh•Kd•(G•CnB)[E:27.3-2]
•PositivePressuresActTOWARDSurfaceandNegativePressuresActAWAYfromSurface

WindPressuresonOpenBuildingOpenMonoslopeFreeRoofperF:27.3-4-WindDir180Deg:



qh = .00256•Kh•Kzt•Ke•V2•LF $_{E:26.10-1}$ = 55.78psf

MWFRSWindPressuresperF:27.3-4onOpenMonoslopeFreeRoof-WindDir180Deg
AllwindpressuresincludeaLoadFactor(LF)of1.0

LoadCase	Cnw	Cnl	Pnw psf	Pnl psf
LoadCaseA	-0.500	-1.200	-20.15	-48.36
LoadCaseB	-1.100	-0.600	-44.33	-24.18

Notes:
Pnw =Pressureonwindwardportionofroof: qh•Kd•(G•Cnw)[E:27.3-2]
Pnl =PressureOnLeewardportionOfroof: qh•Kd•(G•Cnl)[E:27.3-2]
Allwindpressuresincludea LoadFactor(LF)of1.0
•PositivePressuresActTOWARDSurfaceandNegativePressuresActAWAYfromSurface

BOARDWALK WIND CALCULATIONS N.T.S.

NOTE:
FOR MODULAR BUILDING WIND LOADING, REFER
TO BUILDING PLANS PROVIDED BY MANUFACTURE

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Building Risk Category: RISK II
Design Wind Speed: Ultimate V_{ult}=160 MPH / Nominal V_{asd} = 124 MPH
Wind Importance Factor: 1.0 / Wind Exposure: C
Internal Pressure Coefficient: ±0.00
Component & Cladding Wind Pressure: per Calcs

FLOOD PARAMETERS
FEMA FIRM Map Number: 12015C0242G
Base Flood Elevation: AE-09
100-year, 1-hour Design Rainfall: 4.5 in (FBC 2023 Fig. 1611.1)

GEOTECHNICAL PARAMETERS
Data Source: Presumptive Load-Bearing Values of Soils, FBC 2023 1806.2
Vertical Bearing Capacity: 1,500 psf (FBC 2023 Table 1806.2)
Lateral Bearing Pressure: 100 psf/ft (FBC 2023 Table 1806.2)

FOUNDATION SOIL AND TREATMENT
Soil Bearing Capacity Listed & the resultant foundation design assumes the soil type noted as per USGS web soil survey (or geotechnical engineering if provided). if inadequate substrate is discovered during site preparation the engineer shall be notified prior to placement of foundations.

Project Information

Approved By:	-	Design:	TWP
Scale: N.T.S.		Drawn:	TWP
Job No.: 24020.003		Checked:	BTC
Date Issued: 05/27/2025			

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BOARDWALK WIND CALCULATIONS

PUBLIC WORKS TEMPORARY OFFICES
CHARLOTTE COUNTY

7000 FLORIDA ST.
PUNTA GORDA, FL 33950

Revisions

Description

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Professional Engineer,
State of Florida,
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This item has been
digitally signed and sealed by
Max Morgan, P.E.
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05-27-2025
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Max Morgan
Professional Engineer
State of Florida
Registration No. 94877

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