

ROSE MARINA RESTAURANT

CITY OF MARCO ISLAND, FLORIDA

PREPARED BY:



PlaceMaker Design Studio, LLC
415 Plaza Drive · Dunedin, Florida 34698
Phone: 727-726-6124
LC26000415

TREE PRESERVATION PLAN LANDSCAPE PLAN IRRIGATION PLAN

LANDSCAPE PERMIT SET

08 JULY 2026 (REVISED)

OWNER:

Rose Marina
951 Bald Eagle Drive
Naples, FL 34145

PREPARED FOR:

Wannemacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
Phone: 727-822-5566



PROJECT LOCATION

N.T.S.



INDEX OF SHEETS

0	COVER SHEET
TP1	TREE PRESERVATION PLAN
TP2	TREE PRESERVATION PLAN
L1	LANDSCAPE PLAN
L2	LANDSCAPE PLAN
L3	LANDSCAPE PLAN
L4	LANDSCAPE PLAN
L5	PLANT SCHEDULE
L6	LANDSCAPE NOTES
L7	LANDSCAPE DETAILS
L8	LANDSCAPE DETAILS
L9	LANDSCAPE SPECIFICATIONS
IR1	IRRIGATION PLAN
IR2	IRRIGATION PLAN
IR3	IRRIGATION PLAN
IR4	IRRIGATION PLAN
IR5	IRRIGATION SCHEDULE
IR6	IRRIGATION NOTES AND DETAILS
IR7	IRRIGATION DETAILS
IR8	IRRIGATION DETAILS
IR9	IRRIGATION SPECIFICATIONS



PROJECT SITE MAP

N.T.S.



Wannemacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA000277

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED. NO PART OF THIS DOCUMENT OR ANY SPECIFICATIONS PRODUCED BY THE ARCHITECT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION OF THE ARCHITECT. ANY UNAUTHORIZED REPRODUCTION OR TRANSMISSION OF THIS DOCUMENT OR ANY SPECIFICATIONS PRODUCED BY THE ARCHITECT SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO THE ARCHITECT. THE ARCHITECT'S LIABILITY IS LIMITED TO THE BEST OF THE ARCHITECT'S KNOWLEDGE AND BELIEF AT THE TIME OF THE ARCHITECT'S PROFESSIONAL SERVICES. THE ARCHITECT'S LIABILITY IS LIMITED TO THE BEST OF THE ARCHITECT'S KNOWLEDGE AND BELIEF AT THE TIME OF THE ARCHITECT'S PROFESSIONAL SERVICES. THE ARCHITECT'S LIABILITY IS LIMITED TO THE BEST OF THE ARCHITECT'S KNOWLEDGE AND BELIEF AT THE TIME OF THE ARCHITECT'S PROFESSIONAL SERVICES. THE ARCHITECT'S LIABILITY IS LIMITED TO THE BEST OF THE ARCHITECT'S KNOWLEDGE AND BELIEF AT THE TIME OF THE ARCHITECT'S PROFESSIONAL SERVICES.

Prepared By:
PlaceMaker Design Studio, LLC
415 Plaza Drive
Dunedin, FL 34698
Phone: 727-726-6124
LA6667069
Contact: Chris Anuszkiewicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024 PlaceMaker Design Studio, LLC

Digitally signed by
Christopher J
Anuszkiewicz
DN: c=US,
o=Placemaker Design
Studio LLC,
dnQualifier=A01410C
00000198A9CD29F60
0119380,
cn=Christopher J
Anuszkiewicz
Date: 2026.07.08
11:33:14 -04'00

ROSE MARINA
RESTAURANT
Marco Island, Florida

Project Number

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

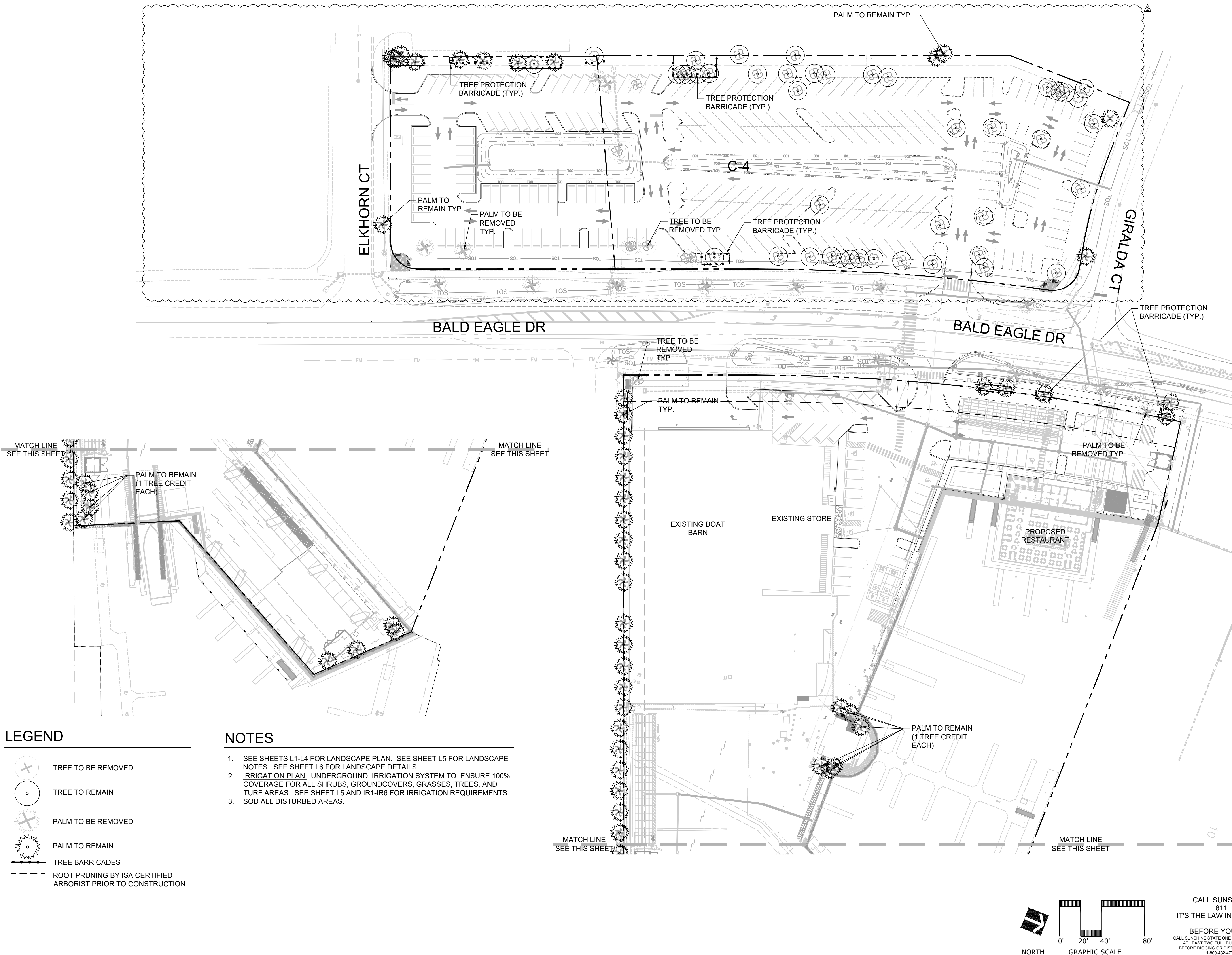
CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

COVER

0

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	09/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026



LEGEND

- TREE TO BE REMOVED
- TREE TO REMAIN
- PALM TO BE REMOVED
- PALM TO REMAIN
- TREE BARRICADES
- ROOT PRUNING BY ISA CERTIFIED ARBORIST PRIOR TO CONSTRUCTION

NOTES

- SEE SHEETS L1-L4 FOR LANDSCAPE PLAN. SEE SHEET L5 FOR LANDSCAPE NOTES. SEE SHEET L6 FOR LANDSCAPE DETAILS.
- IRRIGATION PLAN: UNDERGROUND IRRIGATION SYSTEM TO ENSURE 100% COVERAGE FOR ALL SHRUBS, GROUNDCOVERS, GRASSES, TREES, AND TURF AREAS. SEE SHEET L5 AND IR1-IR6 FOR IRRIGATION REQUIREMENTS.
- SOD ALL DISTURBED AREAS.

CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA
BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

NOTES

1.

PROTECTIVE BARRIERS SHALL BE ERECTED PRIOR TO CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITY IS TERMINATED.

2.

NO SIGNS, BUILDING PERMITS, WIRES OR OTHER ATTACHMENTS OF ANY KIND SHALL BE ATTACHED TO ANY PROTECTED TREE OR PALM.

3.

ALL TRUNKS OF EXISTING TREES AND PALMS TO REMAIN SHALL BE CLEAR OF VINES AND INVASIVE VEGETATION.

4.

RESTORE GRADES TO PRE-REMOVAL CONDITION WHERE EXCAVATION OF ROOTS AND STUMPS RESULT IN DEPRESSIONS AND HOLES. DEPRESSIONS AND HOLES SHALL BE FILLED WITH SOIL SUITABLE FOR PLANTING IN ACCORDANCE WITH LANDSCAPE NOTES, DETAILS, AND SPECIFICATIONS.

5.

USE CAUTION WHEN REMOVING PLANT MATERIAL SO THAT EXISTING IRRIGATION, UTILITIES, AND STRUCTURES TO REMAIN ARE NOT DAMAGED. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING FACILITIES DAMAGED BY DEMOLITION ACTIVITIES.

6.

THE PROJECT SHALL COMPLY WITH ALL **CITY OF MARCO ISLAND** TREE PROTECTION REQUIREMENTS.

7.

WHEN THE CRITICAL ROOT ZONE WILL BE DISTURBED, AFFECTED ROOTS MUST BE SEVERED BY CLEAN PRUNING CUTS AT THE POINT WHERE CONSTRUCTION IMPACTS THE ROOTS. ROOTS CAN BE PRUNED BY UTILIZING TRENCHING EQUIPMENT DESIGNED FOR THIS PURPOSE OR BY HAND DIGGING A TRENCH AND PRUNING ROOTS WITH A PRUNING SAW, CHAIN SAW, OR OTHER EQUIPMENT DESIGNED FOR TREE PRUNING. ROOTS LOCATED WITHIN THE CRITICAL ROOT ZONE THAT WILL BE IMPACTED BY CONSTRUCTION MUST BE PRUNED TO A DEPTH OF 18 INCHES BELOW THE EXISTING GRADE OR TO THE DEPTH OF DISTURBANCE IF LESS THAN 18 INCHES FROM THE EXISTING GRADE. WHEN UNDERGROUND UTILITIES LINES ARE TO BE INSTALLED WITHIN THE CRITICAL ROOT ZONE, THE ROOT PRUNING REQUIREMENTS MAY BE WAIVED IF THE LINES ARE INSTALLED VIA TUNNERLING OR DIRECTIONAL BORING AS OPPOSED TO OPEN TRENCHING.

8.

A TREE REMOVAL PERMIT IS REQUIRED FOR THE REMOVAL OF THE PROTECTED TREES. CONTRACTOR SHALL APPLY FOR ALL TREE REMOVAL PERMITS.

9.

TREE PROTECTION:

9.1.

THE CONTRACTOR WILL BE RESPONSIBLE FOR ADHERING TO ALL TREE PROTECTION MEASURES REQUIRED BY THE **CITY OF MARCO ISLAND CODES**, ORDINANCES AND STANDARD SPECIFICATIONS. THIS WILL INCLUDE ALL TREE BARRICADES, ROOT PRUNING AND TREE TRIMMING/PRUNING ACTIVITIES. THESE REQUIREMENTS WILL APPLY WITHIN THE SPECIFIED "LIMITS OF WORK" AND WILL ALSO BE APPLICABLE IN ALL AREAS WHERE THE CONTRACTOR AND/OR HIS SUBCONTRACTORS STAGE, STORE OR PARK VEHICLES, EQUIPMENT, MATERIALS AND DEBRIS.

9.2.

ALL TREE PRUNING AND/OR ROOT PRUNING ON EXISTING TREES TO BE PRESERVED WILL ONLY BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST. FURTHERMORE, ALL TREE WORK SHALL CONFORM TO THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) 2001, AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS - TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE - STANDARD PRACTICES (PRUNING) ANSI A-300.

9.3.

WHERE CALLED FOR ON THE PLANS, INSTALL TREE BARRICADES, EROSION CONTROL/SILT FENCING OR OTHER APPROVED PROTECTIVE BARRIERS AROUND ALL TREES TO BE PRESERVED, PER CITY REQUIREMENTS.

9.4.

PRIOR TO ANY FIELD CHANGES TAKING PLACE, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE POTENTIAL IMPACTS TO EXISTING TREES WITH HIS CERTIFIED ARBORIST, AND INCLUDE ANY AND ALL RECOMMENDED TREE PROTECTION MEASURES IN HIS PROPOSAL TO MODIFY THE APPROVED DESIGN.

9.5.

THE CONTRACTOR WILL AVOID ANY OPEN EXCAVATIONS, FILL OR OTHER CONSTRUCTION ACTIVITIES WHENEVER POSSIBLE WITHIN THE "CRITICAL ROOT ZONE" OF ANY EXISTING TREE (I.E., UNDER THE DRIP LINE/CANOPY).

9.6.

NO VEHICLES, EQUIPMENT OR MATERIALS SHALL BE PARKED OR STORED UNDER/WITHIN THE DRIP LINE/PROTECTIVE BARRIER AREA OF ANY TREE.

9.7.

WHERE CONSTRUCTION ACTIVITIES ARE ANTICIPATED TO LAST FOR AN EXTENDED PERIOD OF TIME NEAR EXISTING TREES, THE CONTRACTOR SHALL INSTALL AND MAINTAIN CITY APPROVED TREE BARRICADES AS SHOWN IN THE STANDARD DETAILS AND AS APPROVED BY THE CITY.

9.8.

ALL TREE PROTECTION MEASURES SHALL REMAIN IN PLACE AT ALL TIMES DURING CONSTRUCTION UNTIL ALL SITE WORK IS DONE AND FINAL LANDSCAPE MATERIAL IS BEING INSTALLED.

9.9.

THE CONTRACTOR WILL COORDINATE WITH THE PROJECT LANDSCAPE ARCHITECT, TO OBTAIN APPROVAL IN ADVANCE OF ANY AND ALL WORK WITHIN THE CRITICAL ROOT ZONE OF ANY EXISTING TREE.

10.

ROOT PRUNING:

10.1.

ROOT PRUNING SHALL ONLY BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST.

10.2.

ROOT PRUNING SHALL BE PERFORMED AS FAR IN ADVANCE OF OTHER CONSTRUCTION ACTIVITIES AS IS FEASIBLE, BUT AT A MINIMUM SHALL BE PERFORMED PRIOR TO ANY IMPACTS TO THE SOIL. ASSOCIATED TREE PROTECTION MEASURES SHOULD BE IMPLEMENTED UPON COMPLETION OF SAID ROOT PRUNING.

10.3.

IF THERE IS A LIKELIHOOD OF EXCESSIVE WIND AND/OR RAIN, AN EXCEPTIONAL CARE SHALL BE TAKEN ON ANY ROOT PRUNING ACTIVITIES.

10.4.

ROOTS SHALL BE CUT CLEANLY, AS FAR FROM THE TRUNK OF THE TREE AS POSSIBLE. ROOT PRUNING SHALL BE DONE TO A MINIMUM DEPTH OF EIGHTEEN (18) INCHES FROM EXISTING GRADE, OR TO THE DEPTH OF THE DISTURBANCE IF LESS THAN EIGHTEEN (18) INCHES.

10.5.

ROOT PRUNING SHALL BE PERFORMED USING A ROOT CUTTING MACHINE DESIGNED SPECIFICALLY FOR THIS PURPOSE. ALTERNATE EQUIPMENT OR TECHNIQUES MUST BE APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE, PRIOR TO ANY WORK ADJACENT TO TREES TO BE PRESERVED.

10.6.

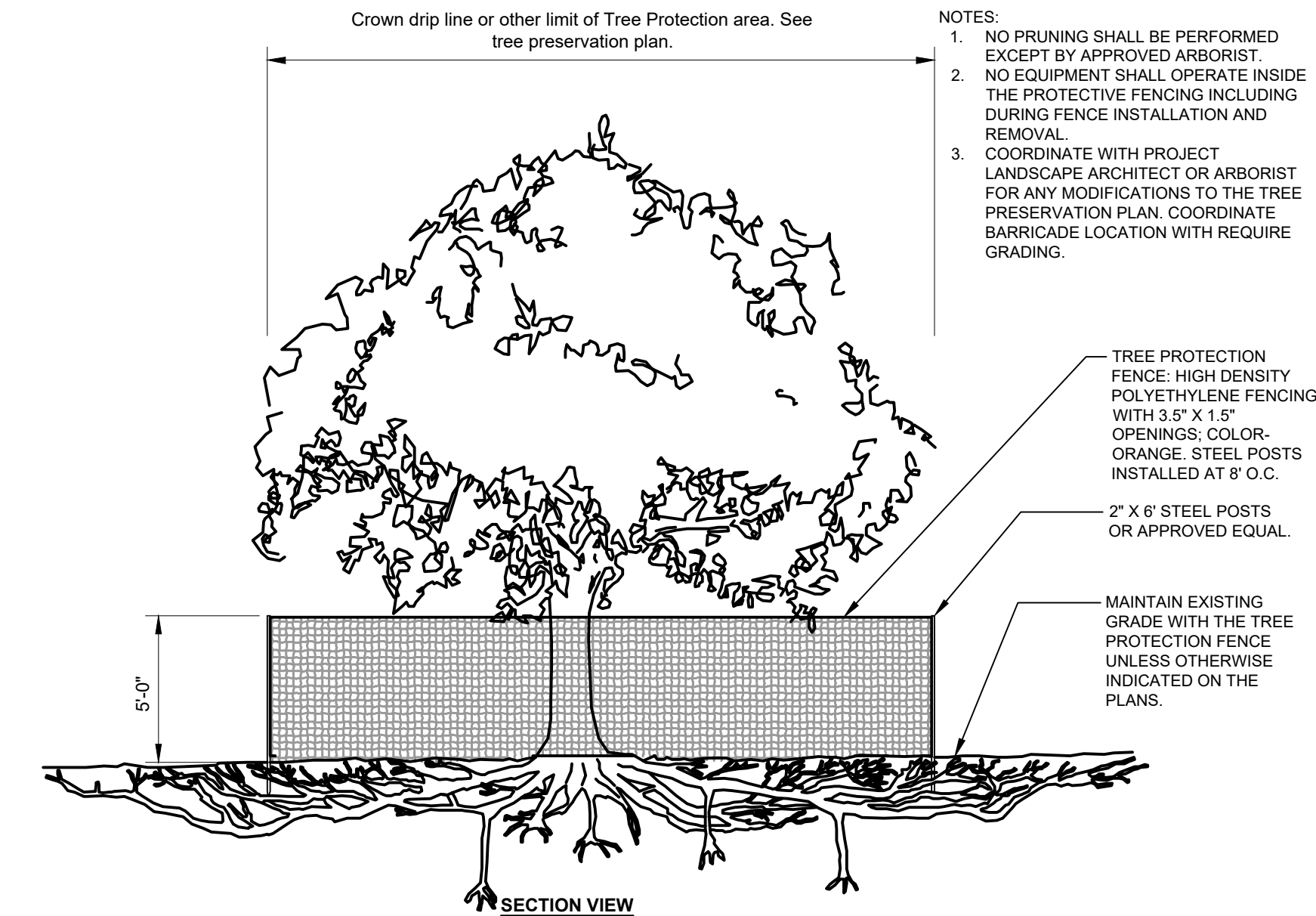
ROOT PRUNING SHALL BE COMPLETED, INSPECTED AND ACCEPTED PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION OR OTHER IMPACTS TO THE CRITICAL ROOT ZONES OF TREES TO BE PROTECTED.

10.7.

EXCAVATIONS IN AN AREA WHERE ROOT ARE PRESENT SHALL NOT CAUSE THE TEARING OR RIPPING OF TREE ROOTS. ROOTS MUST FIRST BE CLEANLY SEVERED PRIOR TO CONTINUING WITH THE EXCAVATION, OR TUNNELED AROUND TO PREVENT DAMAGE TO THE ROOT.

10.8.

TREE ROOTS SHALL NOT BE EXPOSED TO DRYING OUT. ROOT ENDS SHALL BE COVERED WITH NATIVE SOIL OR BURLAP AND KEPT MOIST UNTIL FINAL BACKFILL OR FINAL GRADES HAVE BEEN ESTABLISHED.



1 TREE PROTECTION-MESH

NTS

Wannemacher Jensen Architects, Inc.

180 Miral Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA0002277

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED. NO PART OF THIS DOCUMENT OR ANY SPECIFICATIONS PROVIDED BY THE ARCHITECT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION OF THE ARCHITECT. THIS DOCUMENT IS THE PROPERTY OF THE ARCHITECT AND IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS TO BE RETURNED TO THE ARCHITECT UPON COMPLETION OF THE PROJECT AND NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION OF THE ARCHITECT.

Prepared By:
PlaceMaker Design Studio, LLC
415 Plaza Drive
St. Petersburg, FL 33701
Phone: 727-726-6124
Fax: 727-726-6124
Contact: Chris Anuszkiewicz, RLA
LA6667069
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024, Placemaker Design Studio, LLC



The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

ROSE MARINA
RESTAURANT
Marco Island, Florida

Project Number

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	09/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

TREE
PRESERVATION
PLAN
TP2

CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770



1. SEE SHEETS L1-L5 FOR LANDSCAPE PLAN. SEE SHEET L6 FOR LANDSCAPE NOTES. SEE SHEETS L7-L8 FOR LANDSCAPE DETAILS. SEE SHEET L9 FOR LANDSCAPE SPECIFICATIONS.
2. **IRRIGATION PLAN:** UNDERGROUND IRRIGATION SYSTEM TO ENSURE 100% COVERAGE FOR ALL SHRUBS, GROUNDCOVERS, GRASSES, TREES, AND TURF AREAS. SEE SHEET L6 AND IR1-IR9 FOR IRRIGATION REQUIREMENTS.
3. SOD ALL DISTURBED AREAS.
4. LANDSCAPE CONTRACTOR SHALL ENSURE ADEQUATE DRAINAGE AT ALL PLANTING PITS. SEE DETAIL 4 SHEET L8 TO CORRECT POOR DRAINAGE CONDITIONS. LANDSCAPE CONTRACTOR SHALL ANTICIPATE THAT NEW LANDSCAPE AREAS WHICH WERE PREVIOUSLY HARDCAPE WILL NEED TO HAVE DRAINAGE CORRECTED WITH SOIL PREPARED PER SPECIFICATIONS. IMPORTED BACKFILL MIX SHALL BE PROVIDED BY CONTRACTOR AS REQUIRED TO MEET SPECIFICATIONS.

CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED IN THE IDEAS, DESIGNS, PLANS, DRAWINGS, AND SPECIFICATIONS PRODUCED BY THE ARCHITECT. THESE IDEAS, DESIGNS, PLANS, DRAWINGS, AND SPECIFICATIONS SHALL NOT BE REPRODUCED OR CONVEYED IN ANY MANNER NOR ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION OF THE ARCHITECT. PERMISSION IS HEREBY GRANTED TO GOVERNMENTAL AGENCIES TO REPRODUCE THE CONSTRUCTION DRAWINGS IN ACCORDANCE WITH STATE STATUTES TO THE DEGREE THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE FIRE SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH CHAPTERS 553 AND 553.07 OF THE FLORIDA STATUTES.



The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

Project Number

Distribution	
ISSUE	DATE
SDF SUBMITTAL	06/14/2024
 COMMENTS	09/20/2024
 COMMENTS	05/15/2025
 COMMENTS	07/28/2025
 COMMENTS	08/19/2025
 COMMENTS	10/16/2025
 COMMENTS	03/09/2026
 CIVIL UPDATE	07/08/2026

LANDSCAPE PLAN

L2

MATCHLINE: SEE SHEET L2
MATCHLINE: SEE SHEET L3

MATCHLINE: SEE SHEET L2
MATCHLINE: SEE SHEET L3



Wannenmacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA0002277

OTHER PROPERTY RIGHTS ARE HEREBY RESERVED.
SPECIFICATIONS PRODUCED BY THE ARCHITECT.
NO PART OF THIS DOCUMENT OR ANY
SPECIFICATIONS SHALL NOT BE REPRODUCED OR
TRANSMITTED IN ANY FORM OR BY ANY
MEANS, ELECTRONIC OR MECHANICAL,
INCLUDING PHOTOCOPYING, RECORDING, OR
BY ANY INFORMATION STORAGE AND
RETRIEVAL SYSTEM, WITHOUT THE
WRITTEN PERMISSION OF THE ARCHITECT.
TO THE BEST OF THE ARCHITECT'S KNOWLEDGE
AND BELIEF, THIS DOCUMENT COMPLIES
WITH THE APPLICABLE MINIMUM
STANDARDS AS DETERMINED BY THE
AUTOMATIC REVISIONS TO CHAPTERS 93
AND 100 OF THE CODES.

Prepared By:
PlaceMaker
Design Studio, LLC
415 Plaza Drive
Dunedin, FL 34626
Phone: 727-226-6124
LA6667069
Contact: Chris Anuszkiewicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024 PlaceMaker Design Studio, LLC



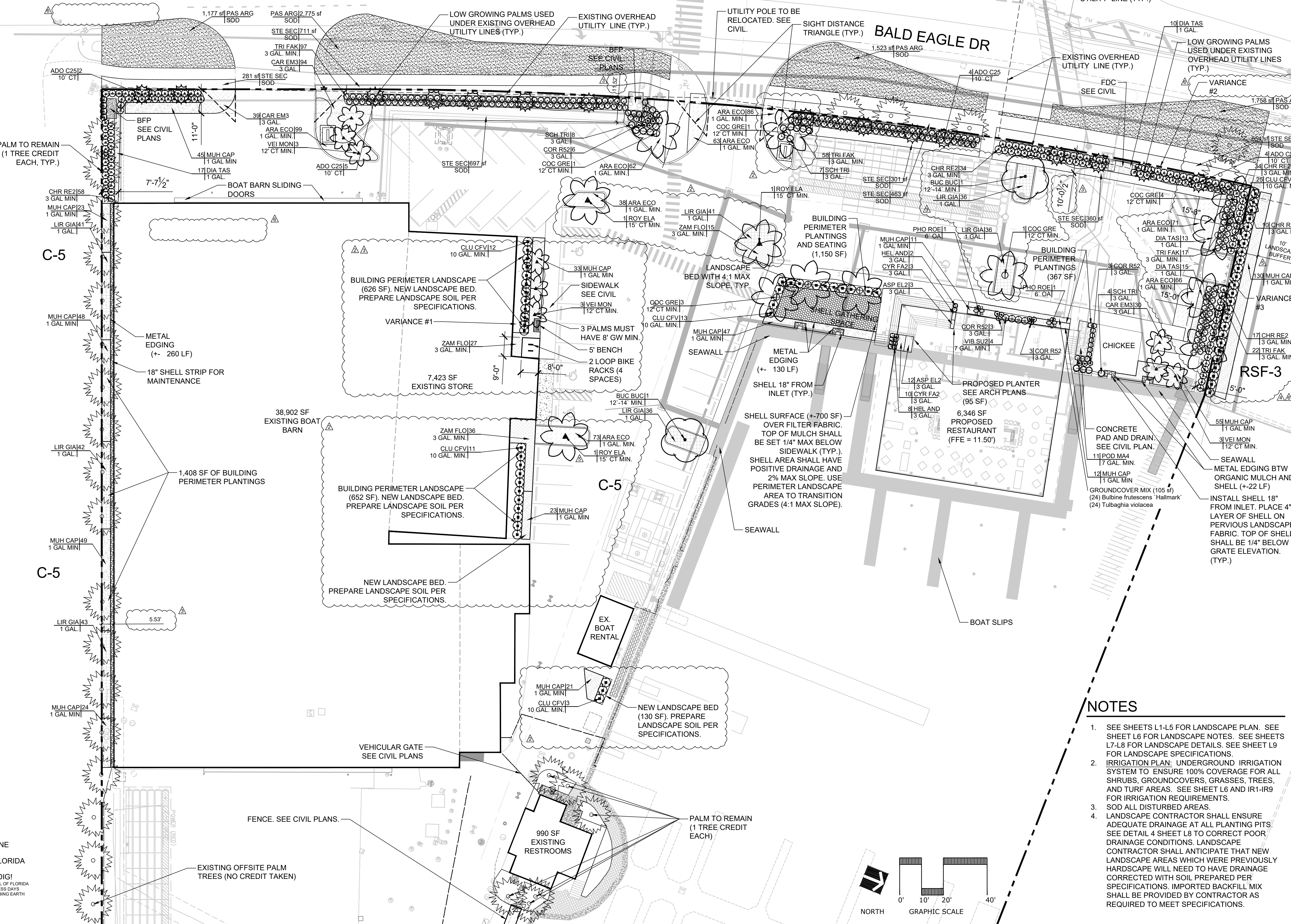
The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, RLA, LA6667069 on 9/19/2025.

ROSE MARINA RESTAURANT
Marco Island, Florida

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	09/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

LANDSCAPE PLAN

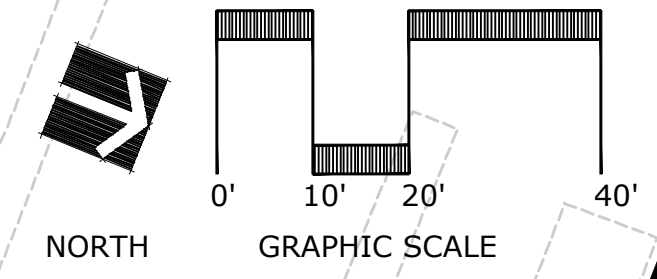
L3



CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA
BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

MATCHLINE: SEE SHEET L3
MATCHLINE: SEE SHEET L4

MATCHLINE: SEE SHEET L3
MATCHLINE: SEE SHEET L4



NOTES

- SEE SHEETS L1-L5 FOR LANDSCAPE PLAN. SEE SHEET L6 FOR LANDSCAPE NOTES. SEE SHEETS L7-L8 FOR LANDSCAPE DETAILS. SEE SHEET L9 FOR LANDSCAPE SPECIFICATIONS.
- IRRIGATION PLAN: UNDERGROUND IRRIGATION SYSTEM TO ENSURE 100% COVERAGE FOR ALL SHRUBS, GROUNDCOVERS, GRASSES, TREES, AND TURF AREAS. SEE SHEET L6 AND IR1-IR9 FOR IRRIGATION REQUIREMENTS.
- SOD ALL DISTURBED AREAS.
- LANDSCAPE CONTRACTOR SHALL ENSURE ADEQUATE DRAINAGE AT ALL PLANTING PITS. SEE DETAIL 4 SHEET L8 TO CORRECT POOR DRAINAGE CONDITIONS. LANDSCAPE CONTRACTOR SHALL ANTICIPATE THAT NEW LANDSCAPE AREAS WHICH WERE PREVIOUSLY HARDSCAPE WILL NEED TO HAVE DRAINAGE CORRECTED WITH SOIL PREPARED PER SPECIFICATIONS. IMPORTED BACKFILL MIX SHALL BE PROVIDED BY CONTRACTOR AS REQUIRED TO MEET SPECIFICATIONS.

MATCHLINE: SEE SHEET L3
MATCHLINE: SEE SHEET L4

MATCHLINE: SEE SHEET L3
MATCHLINE: SEE SHEET L4

C-5

EXISTING OFFSITE PALM
TREES (NO CREDIT TAKEN)

FENCE. SEE CIVIL PLANS.

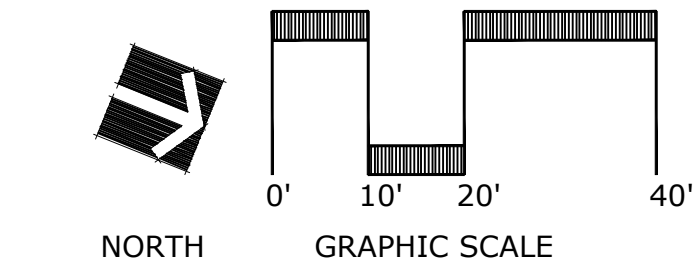
PALM TO REMAIN
(1 TREE CREDIT
EACH)

C-5

EXISTING 4' HIGH VINYL
SCREEN.

PROPOSED
4' HIGH VINYL
SCREEN.

EXISTING
COCONUT TREES
TO REMAIN (4)



CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

NOTES

- SEE SHEETS L1-L5 FOR LANDSCAPE PLAN. SEE SHEET L6 FOR LANDSCAPE NOTES. SEE SHEETS L7-L8 FOR LANDSCAPE DETAILS. SEE SHEET L9 FOR LANDSCAPE SPECIFICATIONS.
- IRRIGATION PLAN: UNDERGROUND IRRIGATION SYSTEM TO ENSURE 100% COVERAGE FOR ALL SHRUBS, GROUNDCOVERS, GRASSES, TREES, AND TURF AREAS. SEE SHEET L6 AND IR1-IR9 FOR IRRIGATION REQUIREMENTS.
- SOD ALL DISTURBED AREAS.
- LANDSCAPE CONTRACTOR SHALL ENSURE ADEQUATE DRAINAGE AT ALL PLANTING PITS. SEE DETAIL 4 SHEET L8 TO CORRECT POOR DRAINAGE CONDITIONS. LANDSCAPE CONTRACTOR SHALL ANTICIPATE THAT NEW LANDSCAPE AREAS WHICH WERE PREVIOUSLY HARDSCAPE WILL NEED TO HAVE DRAINAGE CORRECTED WITH SOIL PREPARED PER SPECIFICATIONS. IMPORTED BACKFILL MIX SHALL BE PROVIDED BY CONTRACTOR AS REQUIRED TO MEET SPECIFICATIONS.

ROSE MARINA
RESTAURANT
Marco Island, Florida

Project Number

Distribution

ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

LANDSCAPE PLAN

L4

Wannemacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA000277

THE ARCHITECTS COMMON LAW COPYRIGHT AND
OTHER PROPERTY RIGHTS ARE HEREBY RESERVED.
NO PART OF THIS DOCUMENT OR ANY
SPECIFICATIONS PRODUCED BY THE ARCHITECT
HEREIN MAY BE REPRODUCED OR TRANSMITTED
IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR
MECHANICAL, WITHOUT FIRST OBTAINING THE
WRITTEN PERMISSION OF THE ARCHITECT.
THIS DOCUMENT IS THE PROPERTY OF THE ARCHITECT
AND IS TO BE USED ONLY FOR THE PROJECT AND
TO THE BEST OF THE ARCHITECTS ONE ENGINEER'S
KNOWLEDGE AND BELIEF, IT COMPLIES WITH THE
APPLICABLE MINIMUM BUILDING STANDARDS AS
ESTABLISHED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH CHAPTERS 903
AND 904 OF THE FLORIDA STATUTES.

Prepared By:

PlaceMaker
Design Studio, LLC
415 Plaza Drive
Dunedin, FL 34626
Phone: 727-726-6124
LA6667069
Contact: Chris Anuszkiewicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024 PlaceMaker Design Studio, LLC



The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	HT.	SPR.	CALIPER	REMARKS	
TREES								
ADO C25	15	Adonidia merrillii	Christmas Palm Double	10' CT			DOUBLE TRUNK	
BUC BUC	4	Bucida buceras 'Shady Lady'	Shady Lady Black Olive	12'-14' MIN.	6' MIN.	3" MIN.	7' CLEAR TRUNK, 65 GAL. CONTAINER MIN.	
BUR SIM	5	Bursera simaruba	Gumbo Limbo	16'-18' MIN.	7' MIN.	4" MIN.		
COC GRE	13	Cocos nucifera 'Green Malayan'	Coconut Palm	12' CT MIN.				
MAG BLA	3	Magnolia grandiflora 'D.D. Blanchard'	D.D Blanchard Southern Magnolia	12'-14' MIN.	6' MIN.	3" MIN.	7' CLEAR TRUNK, 65 GAL. CONTAINER MIN.	
ROY ELA	13	Roystonea elata	Florida Royal Palm	15' CT MIN.				
SAB SAB	5	Sabal palmetto	Cabbage Palmetto	15' CT MIN.				
SWI MHG	17	Swietenia mahagoni	Mahogany	12'-14' MIN.	6' MIN.	3" MIN.	7' CLEAR TRUNK, 65 GAL. CONTAINER MIN.	
TAX DIS	3	Taxodium distichum	Bald Cypress	16'-18' MIN.	7' MIN.	4" MIN.	7' CLEAR TRUNK, 100 GAL. CONTAINER MIN.	
VEI MON	9	Veitchia montgomeryana	Montgomery Palm	12' CT MIN.			MATCHING	
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	HT.	SPR.	SPACING	REMARKS
SHRUBS								
CHR RE2	402	Chrysobalanus icaco 'Red Tip'	Red Tip Cocoplum	3 GAL MIN	24" MIN.	36" MIN.	36" o.c.	CONTAINER SIZE IS MINIMUM. CONTRACTOR SHALL UPSIZE CONTAINER (AT NO COST TO OWNER) IF NECESSARY TO MEET HEIGHT AND SPREAD SPECS (TYP.) MAINTAIN AT 60" HT.
CLU CFV	64	Clusia guttifera	Small Leaf Clusia	10 GAL. MIN.	48" MIN.	36" MIN.	48" o.c.	
COR R52	15	Cordyline fruticosa 'Red Sister'	Red Sister Ti	3 GAL.	24"	12"	30" o.c.	
HEL AND	10	Heliconia psittacorum 'Andromeda'	Parrot Beak Heliconia	3 GAL.	18"		24" o.c.	
MYR FR2	66	Myrcianthes fragrans	Simpson's Stopper	10 GAL. MIN.	48" MIN.	36" MIN.	48" o.c.	
PHO ROE	2	Phoenix roebelenii	Double Pygmy Date Palm	6' OA			60" o.c.	
POD MA4	11	Podocarpus macrophyllus maki	Shrubby Yew	7 GAL. MIN.	4'	30"	30" o.c.	
SCH TRI	19	Schefflera arboricola 'Trinette'	Schefflera	3 GAL.	18"	18"	36" o.c.	
TRI FAK	194	Tripsacum dactyloides	Fakahatchee Grass	3 GAL. MIN.	24" MIN.	24"	36" o.c.	
VIB SU2	4	Viburnum suspensum	Sandankwa Viburnum	7 GAL. MIN.	24" MIN.	24" MIN.	36" o.c.	
SHRUB AREAS								
MUH CAP	627	Muhlenbergia capillaris	Pink Muhly Grass	1 GAL MIN	14" MIN.	14"	24" o.c.	MAINTAIN AT 60" HEIGHT
ZAM FLO	280	Zamia floridana	Coontie Palm	3 GAL. MIN.	14" MIN	16"	30" o.c.	
GROUND COVERS								
ARA ECO	558	Arachis glabrata 'Ecoturf'	Perennial Peanut	1 GAL. MIN.			20" o.c.	50% @ 18" o.c.
ASP EL2	15	Aspidistra elatior	Cast Iron Plant	3 GAL.	12"	12"	18" o.c.	
CAR EM3	280	Carissa macrocarpa 'Emerald Blanket'	Emerald Blanket Dwarf Natal Plum	3 GAL.	9" MIN.	12"	24" o.c.	
CYR FA2	13	Cyrtomium falcatum	Holly Fern	3 GAL.	18"	18"	20" o.c.	
DIA TAS	55	Dianella tasmanica 'Variegata'	Variegated Flax Lily	1 GAL.	12"	12"	28" o.c.	
LIR GIA	566	Liriope muscari 'Evergreen Giant'	Evergreen Giant Border Grass	1 GAL.	12"	12"	24" o.c.	
	105 sf	GROUND COVER MIX						
BUL HAL	24	Bulbine frutescens 'Hallmark'	Stalked Bulbine	1 GAL.	12"		50% @ 18" o.c.	
TUL VIO	24	Tulbaghia violacea	Society Garlic	1 GAL.	12"		50% @ 18" o.c.	
SOD/SEED								
PAS ARG	28,272 sf	Paspalum notatum 'Argentine'	Bahia Grass	SOD				SOD
STE SEC	12,755 sf	Stenotaphrum secundatum 'CitraBlue'	CitraBlue St. Augustine					

MULCH
ORGANIC MULCH - SHREDDED COCOBROWN MULCH TO BE APPLIED TO ALL PLANTING BEDS, 3 INCH THICK DEPTH. CYPRESS MULCH SHALL NOT BE USED.

METAL EDGING
PROVIDE BETWEEN LANDSCAPE AND SHELL MULCH. PRODUCT: SURE-LOC SURE-EDGE, MILL FINISH, 3/16" X 5.5" X 16' OR APPROVED EQUAL. PHONE: 1 (800) 787-3562. INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

SHELL SURFACE
COMPACTED WASHED COASTAL SHELL (SIZE: 1/2") - TO BE APPLIED AT 4 INCH THICK DEPTH OVER MIRAFI FILTER FABRIC. SEE DETAIL 5 SHEET L7 FOR INSTALLATION DETAIL.

- PLANT SCHEDULE NOTES:
- SOD QUANTITIES ARE SQUARE FOOT ESTIMATE: ANY DISTURBED AREAS ON SITE OR WITHIN THE R.O.W. THAT ARE NOT COVERED WITH LANDSCAPE MATERIAL OR SOD SHALL BE SODDED. SOD QUANTITIES SHOWN IN SCHEDULE ARE ESTIMATES AND FOR REFERENCE ONLY - ADDITIONAL SOD WILL BE REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING AND VERIFYING REQUIRED SOD QUANTITIES PRIOR TO BID.
 - ALL TREES, PALMS, SHRUBS, GROUND COVERS AND OTHER PLANTS SHALL CONFORM TO THE STANDARD OF FLORIDA NO. 1 OR BETTER AS GIVEN IN THE LATEST EDITION OF GRADES AND STANDARDS FOR NURSERY PLANTS BY FLORIDA DEPARTMENT OF AGRICULTURE, PART I AND II. PLANT MATERIAL SHALL ALSO CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. (ANSI) BULLETIN Z 60.1 - 1990 AND AS REVISED. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE. PLANT MATERIAL (TREES, PALMS, SHRUBS, AND GROUNDCOVERS) ACCEPTANCE OCCURS ONCE APPROVED BY LANDSCAPE ARCHITECT AND NOT WHEN MATERIAL IS DELIVERED TO SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE A SCHEDULE WITH LANDSCAPE ARCHITECT TO REVIEW PLANT MATERIAL FOR ACCEPTANCE. LANDSCAPE ARCHITECT AND OWNER RESERVE THE RIGHT TO REJECT PLANT MATERIAL UNTIL FINAL PROJECT ACCEPTANCE.
 - CONTAINER SIZES AND PLANT SIZES LISTED ARE MINIMUMS. IF HEIGHT AND SPREAD SPECIFICATION CANNOT BE FOUND, CONTRACTOR SHALL UPSIZE THE CONTAINER SIZE TO MEET THE SPECIFIED HEIGHT AND SPREAD AT NO COST TO OWNER.

NOTES

- SEE SHEETS L1-L5 FOR LANDSCAPE PLAN. SEE SHEET L6 FOR LANDSCAPE NOTES. SEE SHEETS L7-L8 FOR LANDSCAPE DETAILS. SEE SHEET L9 FOR LANDSCAPE SPECIFICATIONS.
- IRRIGATION PLAN: UNDERGROUND IRRIGATION SYSTEM TO ENSURE 100% COVERAGE FOR ALL SHRUBS, GROUNDCOVERS, GRASSES, TREES, AND TURF AREAS. SEE SHEET L6 AND IR1-IR9 FOR IRRIGATION REQUIREMENTS.
- SOD ALL DISTURBED AREAS.
- LANDSCAPE CONTRACTOR SHALL ENSURE ADEQUATE DRAINAGE AT ALL PLANTING PITS. SEE DETAIL 4 SHEET L8 TO CORRECT POOR DRAINAGE CONDITIONS. LANDSCAPE CONTRACTOR SHALL ANTICIPATE THAT NEW LANDSCAPE AREAS WHICH WERE PREVIOUSLY HARDSCAPE WILL NEED TO HAVE DRAINAGE CORRECTED WITH SOIL PREPARED PER SPECIFICATIONS. IMPORTED BACKFILL MIX SHALL BE PROVIDED BY CONTRACTOR AS REQUIRED TO MEET SPECIFICATIONS.

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED. NO PART OF THIS DOCUMENT OR ANY SPECIFICATIONS PROVIDED BY THE ARCHITECT SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION OF THE ARCHITECT. ANY UNAUTHORIZED REPRODUCTION OR AGENCE TO REPRODUCE THE CONSTRUCTION DOCUMENTS IS STRICTLY PROHIBITED. TO THE BEST OF THE ARCHITECT'S KNOWLEDGE AND BELIEF, THIS DOCUMENT COMPLIES WITH THE APPLICABLE MINIMUM BUILDING STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH CHAPTER 933, PART 10 OF THE FLORIDA STATUTES.

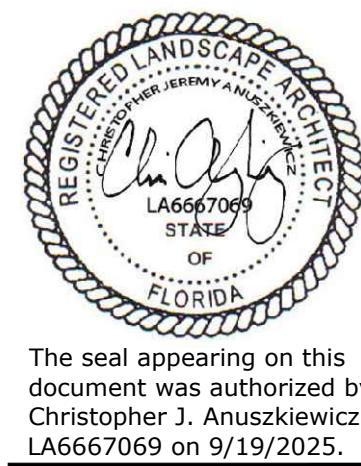
Prepared By:

PlaceMaker
Design Studio, LLC

415 Plaza Drive
Dunedin, FL 34626
Phone: 727-726-6124
LA6667069

Contact: Chris Anuszkiewicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com

© 2024, Placemaker Design Studio, LLC



The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

Project Number

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

PLANT SCHEDULE

CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

LANDSCAPE NOTES

1.

PLANS HAVE BEEN PREPARED ON DATA PROVIDED BY THE PROJECT SURVEY, ENGINEER AND/OR ARCHITECT AND ARE ONLY AS ACCURATE AS THE DATA PROVIDED BY ANOTHER PROFESSIONAL. THE LANDSCAPE ARCHITECT SHALL NOT BE RESPONSIBLE FOR FIELD DISCREPANCIES OCCURRING DUE TO ERRORS, INACCURACIES AND/OR OMISSIONS IN THE BASE INFORMATION PROVIDED BY OTHERS OR CANNOT BE HELD RESPONSIBLE FOR SAME DUE TO DATA NOT PROVIDED PRIOR TO THE PREPARATION OF THE LANDSCAPE ARCHITECTURAL PLANS IN A TIMELY MANNER.
2.

CONTRACTOR SHALL FIELD VERIFY ALL INFORMATION, INCLUDING UNDERGROUND UTILITIES, PRIOR TO INITIATING PLANTING INSTALLATION. REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT IMMEDIATELY. FIELD ADJUST LOCATION OF PLANT MATERIAL AS NECESSARY TO AVOID DAMAGE TO ALL EXISTING UNDERGROUND UTILITIES AND/OR EXISTING ABOVE GROUND ELEMENTS. ALL CHANGES SHALL BE COMPLETED AT THE CONTRACTORS EXPENSE AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.
3.

CONTRACTOR TO VERIFY PROPERTY LINES AND SETBACKS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL STAKE AND LOCATE THE PROPERTY LINES AND SHALL VERIFY PLAN DIMENSIONS AND FIELD CONDITIONS ARE CONSISTENT. CONTRACTOR SHALL VERIFY THESE PLANS ARE THE MOST UP TO DATE AND THAT THEY HAVE BEEN APPROVED AND ACCEPTED BY THE OWNER BEFORE COMMENCING CONSTRUCTION.
4.

ALL CONSTRUCTION SHALL CONFORM TO MEET ALL FEDERAL, STATE, AND LOCAL CODES, REGULATIONS AND ORDINANCES THAT HAVE JURISDICTION OVER THE PROJECT WITHOUT ADDITIONAL COST TO OWNER. CONTRACT SHALL ABIDE BY THE SAFETY STANDARDS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT AND AMENDMENTS. THE OWNER, OWNER'S REPRESENTATIVE, AND LANDSCAPE ARCHITECT SHALL BE HELD HARMLESS FROM ANY ACCIDENT, INJURY OR ANY OTHER INCIDENT RESULTING FROM COMPLIANCE OR NON-COMPLIANCE WITH THESE STANDARDS.
5.

IT SHALL BE THE LANDSCAPE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY "SUNSHINE" AND ANY OTHER INTERESTED AGENCIES OR PARTIES OF HIS INTENT TO EXCAVATE AND TO OBTAIN FROM ALL AGENCIES OR OTHER INTERESTED PARTIES LOCATIONS OF ALL EXISTING UTILITIES OF EVERY KIND IN THE AREAS WHERE HE INTENDS OR PLANS TO EXCAVATE. SUCH LOCATIONS SHALL BE OBTAINED PRIOR TO STARTING CONSTRUCTION AND SHALL BE MAINTAINED DURING CONSTRUCTION.
6.

CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION AND THE COST FOR SUCH ARE TO BE INCLUDED AS PART OF THE BID. UNLESS STIPULATED SPECIFICALLY BY THE OWNER, ANY APPLICABLE FEES OR FINANCIAL REQUIREMENTS ARE TO BE PAID BY THE CONTRACTOR FOR ALL REQUIRED PERMITS FOR ANY INSTALLATION OR CONSTRUCTION WORK DESCRIBED IN THESE DOCUMENTS.
7.

CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE ALL EXISTING GRASSES, GROUNDCOVERS, AND SHRUBS WHERE NEW PLANTINGS ARE PROPOSED. CONTRACTOR SHALL VERIFY ALL PLANT MATERIAL TO BE REMOVED AND/OR PROTECTED ITEMS WITH OWNER'S REPRESENTATIVE PRIOR TO BID. THIS MAY INCLUDED BUT NOT BE LIMITED TO: SOD, SOIL, PLANT MATERIAL, STUMPS, ETC. CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY TREES DAMAGED WITH SAME SPECIES AND SIZE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. THE WORK DESCRIBED IN THESE DRAWINGS INCLUDES THE FURNISHING OF ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY AND INCIDENTAL TO THE INSTALLATION AND PREPARATION OF PLANTING AREAS, SOIL TREATMENT, PLANTS, LAWN AREAS, PROTECTION OF EXISTING AND PROPOSED PLANTS, HAULING AND SPREADING OF TOPSOIL, FINISH GRADING, REMOVAL AND / OR TRANSPLANTING OF EXISTING PLANTS AS INDICATED, WARRANTY, REPLACEMENT OF REJECTED PLANTS AND/OR MATERIALS, AND ALL RELATED ITEMS AS REQUIRED TO COMPLETE THE WORK AS INDICATED ON THE PLANS AND FULLFILLING ALL WARRANTY PROVISIONS DESCRIBED HEREIN.
8.

LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH RELATED CONTRACTORS AND WITH THE GENERAL CONSTRUCTION OF THE PROJECT IN ORDER NOT TO IMPEDE THE PROGRESS OF THE WORK OF OTHERS OR THE CONTRACTOR'S OWN WORK.
9.

THE OWNER OR LANDSCAPE ARCHITECT (AT ANY TIME PRIOR TO FINAL ACCEPTANCE) SHALL HAVE THE RIGHT TO REJECT ANY AND ALL WORK AND MATERIALS WHICH, IN HIS OPINION, DO NOT MEET THE REQUIREMENTS OF THE PLANTING PLAN, DETAILS, AND THESE SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO HAVE PLANT MATERIAL INSPECTED PRIOR TO PLANTING. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT PLANTS AFTER DELIVERY.
10.

THE LANDSCAPE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL WORK AS SHOWN ON THE PLAN AND CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY OF ANY CONFLICTS AND ADJUST AS PER THE LANDSCAPE ARCHITECT'S OR OWNER'S DIRECTION.
11.

THE LANDSCAPE CONTRACTOR SHALL CONTROL RUNOFF AND EROSION DURING CONSTRUCTION THROUGH THE USE OF SEDIMENT BASINS, STRAW OR HAY BALES AS APPROPRIATE. THE LANDSCAPE CONTRACTOR SHALL SPRINKLE OR OTHERWISE MANUALLY APPLY WATER TO AFFECTED CONSTRUCTION AREA TO CONTROL BOTH SIGNIFICANT WIND EROSION AND FUGITIVE DUST.
12.

THE LANDSCAPE CONTRACTOR SHALL ASSURE DRAINAGE AND PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION OF PLANT MATERIAL. CONTRACTOR SHALL FILL ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE THAT PROPER DRAINAGE AND PERCOLATION IS AVAILABLE. CORRECT IF REQUIRED TO ASSURE PERCOLATION. CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ALL PLANTS DUE TO INADEQUATE DRAINAGE CONDITIONS.
13.

EXCEPT FOR PLANTINGS IN SURFACE WATER MANAGEMENT AREAS, THE SPECIFIED DEPTH OF ORGANIC MULCH, MEASURED AFTER WATERING-IN, SHALL BE PLACED AND MAINTAINED AROUND ALL NEWLY INSTALLED CANOPY TREES, ACCENT TREES, PALM TREES, AND SHRUBS. EACH TREE SHALL HAVE ORGANIC MULCH NO LESS THAN 36 INCHES BEYOND ITS TRUNK IN ALL DIRECTIONS; HOWEVER, THE MULCH SHALL BE KEPT AWAY FROM THE TRUNKS AND STEMS OF PLANTS SO AS TO AVOID CONDITIONS THAT MAY BE CONDUCTIVE TO COLLAR ROT, BASAL CANKER OR OTHER FUNGI.
14.

THE LANDSCAPE CONTRACTOR SHALL EXAMINE THE SOILS OF ALL PLANTING AREAS PRIOR TO SUBMITTING BIDS FOR THE SUITABILITY TO SUSTAIN HEALTHY PLANT GROWTH AS CALLED FOR ON THE PLANTING PLAN, DETAILS, AND THESE SPECIFICATIONS. ANY REQUIRED AMENDMENTS AND ADDITIVES SHALL BE INCLUDED AS PART OF THE BID.
15.

NO SUBSTITUTIONS SHALL BE MADE TO THE PLANTING PLAN, DETAILS OR THESE SPECIFICATIONS WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.
16.

GUYING / STAKING PRACTICES SHALL NOT PERMIT NAILS, SCREWS, WIRES, ETC., TO PENETRATE OUTER SURFACE OF TREE OR PALM. TREES OR PALMS REJECTED DUE TO THIS PRACTICE SHALL BE REPLACED WITH INSPECTOR ON SITE.
17.

TREE INSTALLATION: ALL REQUIRED TREES SHALL BE INSTALLED 1"-2" ABOVE FINISHED GRADE. TREES INSTALLED OR BURIED TOO DEEPLY SHALL BE RESET TO THIS STANDARD. REMOVE THE TOP 1/3 OF THE WIRE BASKET ON ALL B&B TREE STOCK.
18.

ALL TREE TRIMMING SHALL BE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
19.

PLANT MATERIAL

19.1.

ALL TREES, PALMS, SHRUBS, GROUND COVERS AND OTHER PLANTS SHALL CONFORM TO THE STANDARD OF FLORIDA NO. 1 OR BETTER AS GIVEN IN THE LATEST EDITION OF GRADES AND STANDARDS FOR NURSERY PLANTS BY FLORIDA DEPARTMENT OF AGRICULTURE, PART I AND II. PLANT MATERIAL SHALL ALSO CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. (ANSI) BULLETIN Z 60.1 - 1990 AND AS REVISED. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE.

19.2.

ALL CONTAINER AND CALIPER SIZES NOTED ON PLANT LIST ARE MINIMUM. CONTRACTOR SHALL PROVIDE LARGER CONTAINER MATERIAL IF NECESSARY TO CONFORM TO PLANT SIZE AND SPECIFICATIONS. BOTH MINIMUM DIMENSIONAL SPECIFICATION AND MINIMUM CONTAINER SPECIFICATION SHALL BE MET.

19.3.

ALL PLANTS SHALL BE CONTAINER GROWN EXCEPT AS NOTED ON PLAN. BARE ROOT TREES ARE NOT ACCEPTABLE. ALL PLANTS SHALL BE HARDY UNDER CLIMATIC AND LIGHT CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT AND THE SITE. TREES GROWN IN GROW BAGS OR GROW BAG TYPE MATERIAL MUST HAVE THE GROW BAG REMOVED ENTIRELY PRIOR TO PLANTING. BALLED AND BURLAPPED MATERIAL SHALL HAVE THE BURLAP REMOVED. WIRE CAGES, STRAPS, ETC. MUST BE CUT AND REMOVED PRIOR TO INSTALLATION.

19.4.

SOD SHALL MEET AMERICAN SOD PRODUCERS ASSOCIATION STANDARDS FOR NURSERY GROWN SOD FOR THICKNESS OF CUT, PAD SIZE, STRENGTH OF SECTIONS, MOISTURE CONTENT AND THATCH. SOD SHALL BE GUARANTEED TO BE UNIFORM IN COLOR, LEAF TEXTURE, AND SHOOT DENSITY AND FREE OF WEEDS, DISEASE, FUNGUS, INSECTS OR OTHER IMPERFECTIONS AND SUFFICIENTLY KNITTED TO SUSTAIN GROWTH. SOD SHALL BE MOWED FOR FINAL ACCEPTANCE.

19.5.

TYPICALLY, SHRUB AND GROUNDCOVER PLANTINGS ARE SHOWN AS MASS PLANTING BEDS. PLANTS SHALL BE PLACED ON A TRIANGULAR SPACING CONFIGURATION (STAGGERED SPACING).
20.

QUANTITIES, LOCATION AND SUBSTITUTIONS: THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANTS AS SHOWN ON THE DRAWINGS, AS SPECIFIED, AND IN THE QUANTITIES LISTED ON THE PLANT SCHEDULE. IN THE EVENT OF A VARIATION BETWEEN THE PLANT SCHEDULE AND THE ACTUAL NUMBER OF PLANTS SHOWN ON THE PLANTING PLAN, THE HIGHER QUANTITY SHALL PREVAIL. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST THE NUMBER AND LOCATIONS OF THE DESIGNATED TYPES AND SPECIES OF PLANTS TO BE USED AT ANY OF THE LOCATIONS SHOWN. THE OWNER SHALL RECEIVE A CREDIT OR DEBIT FOR THE UNIT PRICE OF THE PLANT MATERIAL. NO SUBSTITUTION OF PLANT MATERIAL, TYPES, SPECIFICATIONS OR SIZES WILL BE PERMITTED WITHOUT WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT. THE OWNER AND/OR LANDSCAPE ARCHITECT RESERVES THE RIGHT TO NOT ACCEPT PLANT MATERIAL THAT DOES NOT, IN THE OPINION OF THE OWNER AND/OR LANDSCAPE ARCHITECT, MEET THE SPECIFICATIONS HEREIN.
21.

IRRIGATION: UNLESS SPECIFICALLY NOTED OTHERWISE, ALL EXISTING AND PROPOSED TREES, SHRUBS, AND GROUNDCOVERS SHALL BE IRRIGATED WITH AN AUTOMATIC, UNDERGROUND IRRIGATION SYSTEM. SYSTEM SHALL BE EQUIPPED WITH A RAIN SENSOR DEVICE CONNECTED TO AN IRRIGATION CONTROLLER(S), AS PER STATE OF FLORIDA REGULATIONS. AFTER PLANT ESTABLISHMENT, THE CONTROLLER SHALL BE PROGRAMMED TO OPERATE IN COMPLIANCE WITH APPLICABLE WATERING RESTRICTIONS. IRRIGATION SHALL PROVIDE 100% COVERAGE TO PROPOSED LANDSCAPING AREAS AND SOD AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING, AND PERMITTING THE IRRIGATION SYSTEM IN ACCORDANCE WITH APPLICABLE LOCAL AND STATE BUILDING CODES. THE COST OF INSTALLATION, PERMITTING, AND CREATING AS-BUILT DRAWINGS SHALL BE INCLUDED IN THE BID PRICE FOR IRRIGATION.

21.1.

LANDSCAPE CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING ALL EXISTING AND PROPOSED PLANT MATERIAL AS REQUIRED BY OWNER'S REPRESENTATIVE TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION. CONTRACTOR SHALL TEMPORARILY WATER ANY NON IRRIGATED LAWN AREAS AS REQUIRED FOR ESTABLISHMENT.

21.2.

IRRIGATION LINES SHALL BE HAND DUG AROUND EXISTING TREES AND TUNNELED BENEATH TREE ROOTS OF EXISTING TREES, RATHER THAN TRENCHED.

21.3.

SEE IRRIGATION SHEETS FOR IRRIGATION REQUIREMENTS.
22.

FERTILIZATION: PROVIDE FERTILIZER UNIFORM IN COMPOSITION, DRY, AND IN A FREE FLOWING CONDITION FOR APPLICATION BY SUITABLE EQUIPMENT, AND DELIVER IN UNOPENED BAGS OR CONTAINERS, EACH FULLY LABELED.

22.1.

CONTRACTOR SHALL CONDUCT A SOIL TEST PRIOR TO APPLICATION OF ANY SOIL AMENDMENTS, FERTILIZERS AND BACKFILL MIXTURES. FERTILIZE LANDSCAPE PLANTS AND TURF COMPLYING WITH STATE AND LOCAL FERTILIZER LAWS AND CODES AND AT A RATE AS RECOMMENDED BY THE SOIL TEST.

22.1.

FERTILIZE TREES, SHRUBS, AND GROUND COVERS WITH A COMPLETE, ORGANIC, SLOW-RELEASE, FERTILIZER.

22.2.

FERTILIZE TURF WITH A COMPLETE, ORGANIC, SLOW-RELEASE, FERTILIZER. PROVIDE AT LEAST 50% OF THE PHOSPHORIC ACID FROM NORMAL SUPER PHOSPHATE OR AN EQUIVALENT SOURCE PROVIDING A MINIMUM OF TWO UNITS OF SULFUR. THE AMOUNTS OF SULFUR AND ALL OTHER CHEMICAL SHALL BE INDICATED ON THE QUANTITATIVE ANALYSIS CARD ATTACHED TO THE UNOPENED BAG.
23.

SOIL PREPARATION AND SOIL MIX

23.1.

CONTRACTOR TO ENSURE TOTAL WEED ERADICATION. ANY HERBICIDE APPLIED SHALL BE BY A LICENSED PEST AND CONTROL OPERATOR OF LAWN AND ORNAMENTAL. APPROVED HERBICIDE SHALL BE APPLIED ACCORDING TO MANUFACTURER'S RATE AND SPECIFICATION WITHIN LIMITS OF ALL AREAS TO BE PLANTED. PROTECT EXISTING PLANTS TO REMAIN FROM OVERSPRAY OR SPRAY WITHIN ROOT ZONE.

23.2.

BEFORE PLACING TOPSOIL, RAKE SUBSOIL SURFACE CLEAR OF STONES (1 INCH DIAMETER AND LARGER), DEBRIS, RUBBISH, REMAINS OF REMOVED PLANT MATERIAL, AND ALL REMAINING CONSTRUCTION DEBRIS TO A DEPTH OF 6". CONTAMINATED SOILS SHALL BE REMOVED AND REPLACED TO THEIR FULL DEPTHS AND EXTENTS.

23.3.

SCARIFY SUBSOIL TO A DEPTH OF 3 INCHES.

- 23.4.

A LICENSED PEST AND CONTROL OPERATOR OF LAWN AND ORNAMENTAL SHALL APPLY APPROVED PRE-EMERGENT HERBICIDE IN ACCORDANCE WITH THE MANUFACTURER'S RATE AND SPECIFICATIONS.
- 23.5.

PLANTING LANDSCAPE BEDS (SHRUBS AND GROUNDCOVERS): ALL LANDSCAPE BEDS TO BE MULCHED SHALL BE ROUGH GRADED TO AN ELEVATION OF 16 TO 17 INCHES BELOW THE TOP OF ADJACENT HARDSCAPE OR FINAL FINISHED GRADE TO PROVIDE ROUGH 12 INCHES OF BACKFILL MIXTURE, 3 INCHES OF MULCH WITH A 2 INCH REVEAL ON THE CURB, ADJOINING SIDEWALK, OR OTHER HARDSCAPE FEATURE. SEE LANDSCAPE PLANS FOR LOCATION OF LANDSCAPE BEDS AND SOD AREAS. IF NECESSARY, THE GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR SHALL COORDINATE THE INSTALLATION AND GRADING OF TOPSOIL. SEE SPECIFICATIONS FOR BACKFILL MIXTURE.
- 23.6.

PLANTING LAWNS: REMOVE ANY EXISTING SUB-BASE OR COMPACTED MATERIALS TO EXPOSE A FRIABLE SOIL LAYER. LOOSEN SOIL/TOPSOIL OF LAWN AREAS TO MINIMUM DEPTH OF 8". ADD 3" TOPSOIL OR ORGANIC MATERIAL AS REQUIRED FROM ORGANIC MATTER CHECK. TILL INTO TOP 8" OF EXISTING SOIL. SEE LANDSCAPE PLANS FOR LOCATION OF LANDSCAPE BEDS AND SOD AREAS. IF NECESSARY, THE GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR SHALL COORDINATE THE INSTALLATION AND GRADING OF TOPSOIL. SEE SPECIFICATIONS FOR BACKFILL MIXTURE.
- 23.7.

FINISH GRADE ALL PREPARED TOPSOIL AREAS TO A SMOOTH, EVEN SURFACE ASSURING POSITIVE DRAINAGE AWAY FROM THE STRUCTURES AND ELIMINATE ANY LOW AREAS WHICH MAY COLLECT WATER. SEE CIVIL GRADING PLANS.
24.

BACKFILL MIXTURE:

24.0.1.

TREES, ROYAL PALMS, SHRUBS, GROUNDCOVERS, LAWNS: 45% SAND, 45% TOPSOIL, 10% PEAT HUMUS.

24.0.2.

ALL OTHER PALMS: 3/4 SAND, 1/4 TOPSOIL

24.0.3.

SAND SHALL BE CLEAN, SILICA, SALT-FREE AND CONTAINING NO EXTRANEIOUS MATTER.

24.0.4.

TOPSOIL SHALL BE FREE OF DELETERIOUS MATERIALS THAT WOULD BE HARMFUL TO PLANT GROWTH, SHALL BE FREE OF NEMATODES, SHALL BE OF UNIFORM QUALITY, AND SHALL BE FRIABLE FERTILE SOIL WITH REPRESENTATIVE CHARACTERISTICS OF AREA SOILS. IT SHOULD BE FREE OF HEAVY CLAY, SILT, STONE, EXCESS LIME, SHELL ROCK, PLANT ROOTS, WEEDS, DEBRIS OR OTHER FOREIGN MATTER. IT SHALL NOT CONTAIN NOXIOUS PLANT GROWTH (SUCH AS BERMUDA, TORPEDO OR NUT GRASS). IT SHALL TEST BETWEEN THE PH RANGE OF 5.5 TO 7.0 UNLESS OTHERWISE SPECIFIED AND CONTAIN NO TOXIC RESIDUE OR SUBSTANCES THAT WOULD ENDANGER PLANT GROWTH. OBTAIN TOPSOIL ONLY FROM NATURALLY, WELL-DRAINED SITES WHERE TOPSOIL OCCURS IN A DEPTH NOT LESS THAN 4".

24.0.4.1.

SOIL AMENDMENTS: SOIL TESTING SHALL BE PERFORMED IN ALL PLANTING AREAS (INCLUDING SODDED AREAS) PRIOR TO CONSTRUCTION WITH RESULTS SUBMITTED TO LANDSCAPE ARCHITECT. SOIL AMENDMENTS SHALL BE ADDED AS NECESSARY TO MEET THE FOLLOWING PARAMETERS:

24.0.4.1.1.

PH RANGE: 5.5-7.0

24.0.4.1.2.

ORGANIC MATTER: 2.0-5.0%

24.0.4.1.3.

SOLUBLE SALT LEVEL: LESS THAN 2 MMHO/CM.

24.0.4.1.4.

SOIL CHEMISTRY SUITABLE FOR GROWING THE PLANTS SPECIFIED.

24.0.5.

PEAT HUMUS SHALL BE DECOMPOSED PEAT WITH NO IDENTIFIABLE FIBERS OR IF AVAILABLE, MUCH MAY BE SUBSTITUTED AND SHALL BE FREE FROM STONES, EXCESSIVE PLANT ROOTS, DEBRIS OR OTHER FOREIGN MATTER. MUCK SHALL NOT BE OVERLY SATURATED WITH WATER. HUMUS SHALL BE OF GOOD QUALITY, MATURE, DARK COLOR, OF HUMUS-LIKE QUALITY, AND HAVE PLEASANT SOIL SMELL.

24.0.6.

BACKFILL MIX SAMPLES AND LABORATORY SOIL TESTS SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT OF RECORD FOR APPROVAL. CONTRACTOR SHALL TAKE RESPONSIBILITY FOR PERFORMING PERCOLATION TESTS PRIOR TO BACKFILLING WITH APPROVED PLANTING SOIL.

25.

SOD INSTALLATION: LAY SOD TO FORM A SOLID MASS WITH TIGHTLY-FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS. DO NOT OVERLAY EDGES. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. REMOVE EXCESS SOD TO AVOID SMOTHERING OF ADJACENT GRASS. PROVIDE SOD PAD TOP FLUSH WITH ADJACENT CURBS, SIDEWALKS, DRAINS AND SEED AREAS.

25.1.

DO NOT LAY DORMANT SOD OR INSTALL SOD ON SATURATED SOIL.

25.2.

INSTALL INITIAL ROW OF SOD IN A STRAIGHT LINE, BEGINNING AT BOTTOM OF SLOPES, PERPENDICULAR TO DIRECTION OF THE SLOPED AREA. PLACE SUBSEQUENT ROWS PARALLEL TO AND LIGHTLY AGAINST PREVIOUSLY INSTALLED ROW.

25.3.

PEG SOD ON SLOPES GREATER THAN 3 TO 1 TO PREVENT SLIPPAGE AT A RATE OF 2 STAKES PER YD. OF SOD.

25.4.

WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER LAYING.

25.5.

ROLL WITH LIGHT LAWN ROLLER TO ENSURE CONTACT WITH SUBGRADE.

25.6.

SOD INDICATED AREAS WITHIN CONTRACT LIMITS AND AREAS ADJOINING CONTRACT LIMITS DISTURBED AS A RESULT OF CONSTRUCTION OPERATIONS.

25.7.

TOP DRESS ALL SEAMS OF SODDED AREA WITH SPECIFIED TOPSOIL.

26.

MULCH: ALL MULCH BED QUANTITIES TO BE DETERMINED BY CONTRACTOR. CONTRACTOR SHALL MULCH ALL PLANT MATERIAL THROUGHOUT AND COMPLETELY TO A THREE (3) INCH DEPTH WITH CLEAN, WEED FREE, ORGANIC SHREDDED COCBROWN WOOD MULCH. CYPRESS MULCH SHALL NOT BE USED. PLANT BEDS WITHIN STORMWATER BASINS SHALL BE MULCHED WITH PINE STRAW MULCH, THREE (3) INCH DEPTH.

27.

TREE PROTECTION: PROTECT ALL TREES AND PALMS TO REMAIN WITH TREE BARRICADES. IMMEDIATELY FOLLOWING VEGETATION REMOVAL, EXISTING SLOPES GREATER THAN 3 TO 1 SHALL BE PROTECTED FROM EROSION AS REQUIRED BY LOCAL CODE. THE FOLLOWING ACTIVITIES ARE PROHIBITED WITHIN THE BARRICADED AREA: VEHICULAR AND PEDESTRIAN TRAFFIC; STORAGE OF CONSTRUCTION MATERIALS; PLACEMENT OF EXCAVATED MATERIALS OR TRASH; AND ANY ACTIVITIES THAT MAY DISTURB THE ROOT SYSTEM WITHIN THE BARRICADED AREA.

27.1.

ALL REQUIRED TREE REMOVAL OR RELOCATION PERMITS SHALL BE PROCURED BY CONTRACTOR, PRIOR TO COMMENCEMENT OF WORK.

27.2.

ALL PROTECTED TREES SHALL BE TRIMMED IN A MANNER CONSISTENT WITH THE "AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS, ANSI, A300, CURRENT EDITION."

28.

MAINTENANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLETE MAINTENANCE OF ALL PROPOSED PLANTING AREAS (INCLUDING WATERING, SPRAYING, MULCHING, MOWING, FERTILIZING, ETC.) THROUGHOUT THE ENTIRE COURSE OF THE PROJECT. LANDSCAPE CONTRACTOR SHALL CLEAN THE WORK AREAS AT THE END OF EACH WORKING DAY. RUBBISH AND DEBRIS SHALL BE COLLECTED AND DEPOSITED OFF-SITE DAILY. ALL MATERIALS, PRODUCTS, AND EQUIPMENT SHALL BE STORED IN AN ORGANIZED FASHION AS DIRECTED BY OWNER'S REPRESENTATIVE.

29.

FINAL ACCEPTANCE: CONTRACTOR TO REQUEST INSPECTION OF PROJECT IN WRITING. IF ALL WORK IS SATISFACTORY AND COMPLETE IN ACCORDANCE WITH CONDITIONS OF CONTRACT DOCUMENTS, THEN THE OWNER AND LANDSCAPE ARCHITECT SHALL DECLARE SUBSTANTIALLY COMPLETE. SUBSTANTIAL COMPLETION CONSTITUTES THE BEGINNING OF THE GUARANTEE PERIOD.

30.

WARRANTY / GUARANTEE PERIOD: CONTRACTOR TO WARRANT AND GUARANTEE PLANT MATERIAL FOR A ONE (1) YEAR PERIOD FOLLOWING DATE OF SUBSTANTIAL COMPLETION. PRIOR TO ISSUING SUBSTANTIAL COMPLETION NOTICE THE CONTRACTOR SHALL SUBMIT TO THE OWNER COPIES OF AS BUILT PLANS / DOCUMENTS AND COPIES OF AN ANNUALIZED MAINTENANCE AND OPERATION MANUAL DETAILING ALL SCHEDULES, NURSERY PRACTICES, WATERING REQUIREMENTS, FERTILIZATION, TRIMMING, ETC. FOR ALL PLANT MATERIALS AND PLANT AREAS OF THE PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TREE STAKES AND GUY WIRES FROM TREES WHICH ARE ESTABLISHED AT THE END OF ONE (1) YEAR GUARANTEE PERIOD. TREES WHICH HAVE BEEN REPLACED SHALL REMAIN STAKED FOR ONE (1) FULL GROWING SEASON, AND THE OWNER SHALL BE RESPONSIBLE FOR REMOVING TREE STAKES AND GUY WIRES.

CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

Wannemacher Jensen Architects, Inc.

180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA000277

THE ARCHITECT'S COMMON LAW COPYRIGHT AND
OTHER PROPERTY RIGHTS ARE HEREBY RESERVED.
NO PART OF THIS DOCUMENT OR ANY
SPECIFICATIONS PROVIDED BY THE ARCHITECT
HEREIN MAY BE REPRODUCED OR
TRANSMITTED IN ANY FORM OR BY ANY
MEANS, ELECTRONIC OR MECHANICAL,
INCLUDING PHOTOCOPYING, RECORDING, OR
BY ANY INFORMATION STORAGE AND
RETRIEVAL SYSTEM, WITHOUT THE WRITTEN
PERMISSION OF THE ARCHITECT.
THIS DOCUMENT IS THE PROPERTY OF THE ARCHITECT.
IT IS TO BE USED ONLY FOR THE PROJECT
FOR WHICH IT WAS PREPARED. IT IS TO BE
RETURNED TO THE ARCHITECTS ONE MONTH
AFTER THE PROJECT IS COMPLETED.
STANDARDS ARE SET FORTH IN THE LOCAL
AUTOMATICALLY IN ACCORDANCE WITH CHAPTER 933
OF THE FLORIDA STATUTES.

Prepared By:

PlaceMaker
Design Studio, LLC

415 Plaza Drive
St. Petersburg, FL 33701
Phone: 727-726-6124
LA6667069

Contact: Chris Anuszkiewicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024, Placemaker Design Studio, LLC

REGISTERED LANDSCAPE ARCHITECT
Christopher J. Anuszkiewicz
LA6667069
STATE OF FLORIDA

The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

ROSE MARINA
RESTAURANT

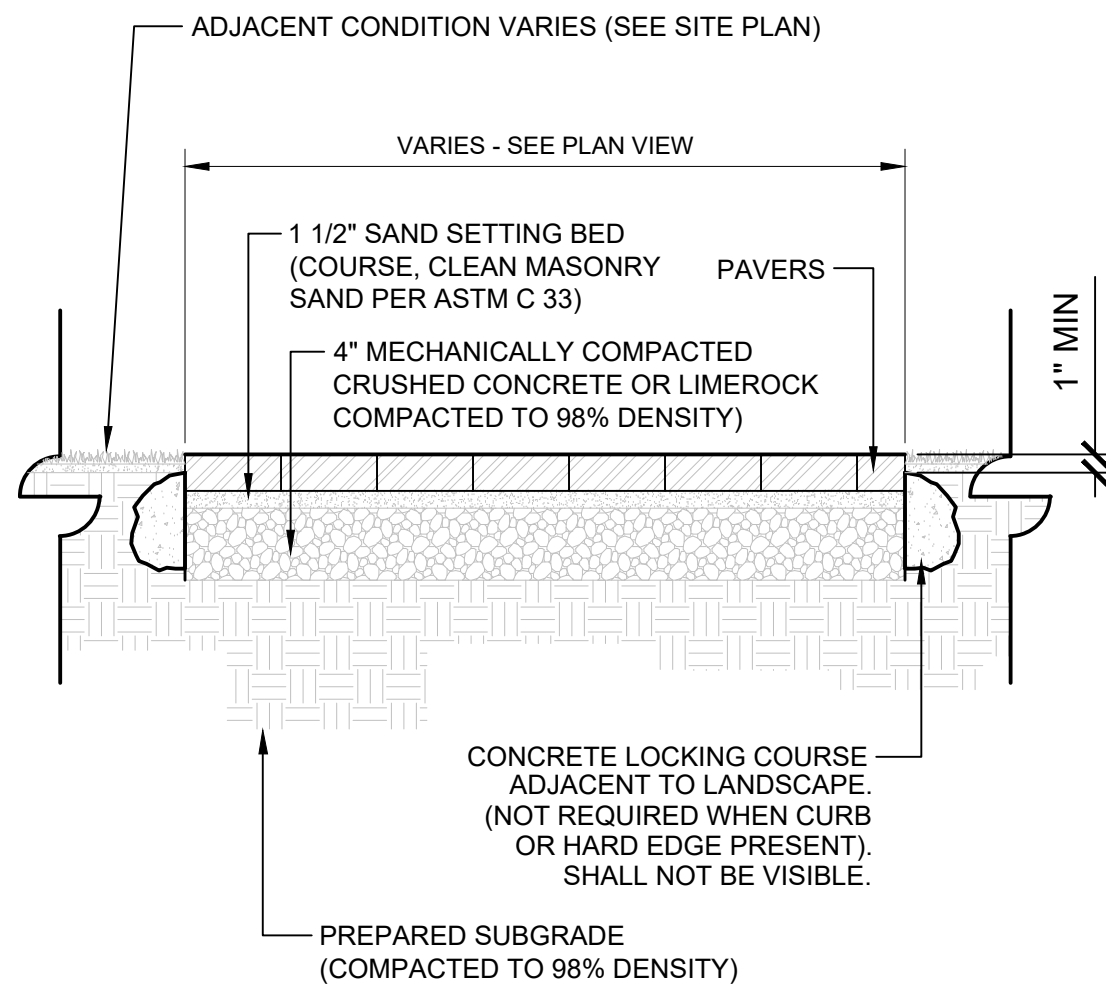
Marco Island, Florida

Project Number	
Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	09/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

LANDSCAPE
NOTES

L6

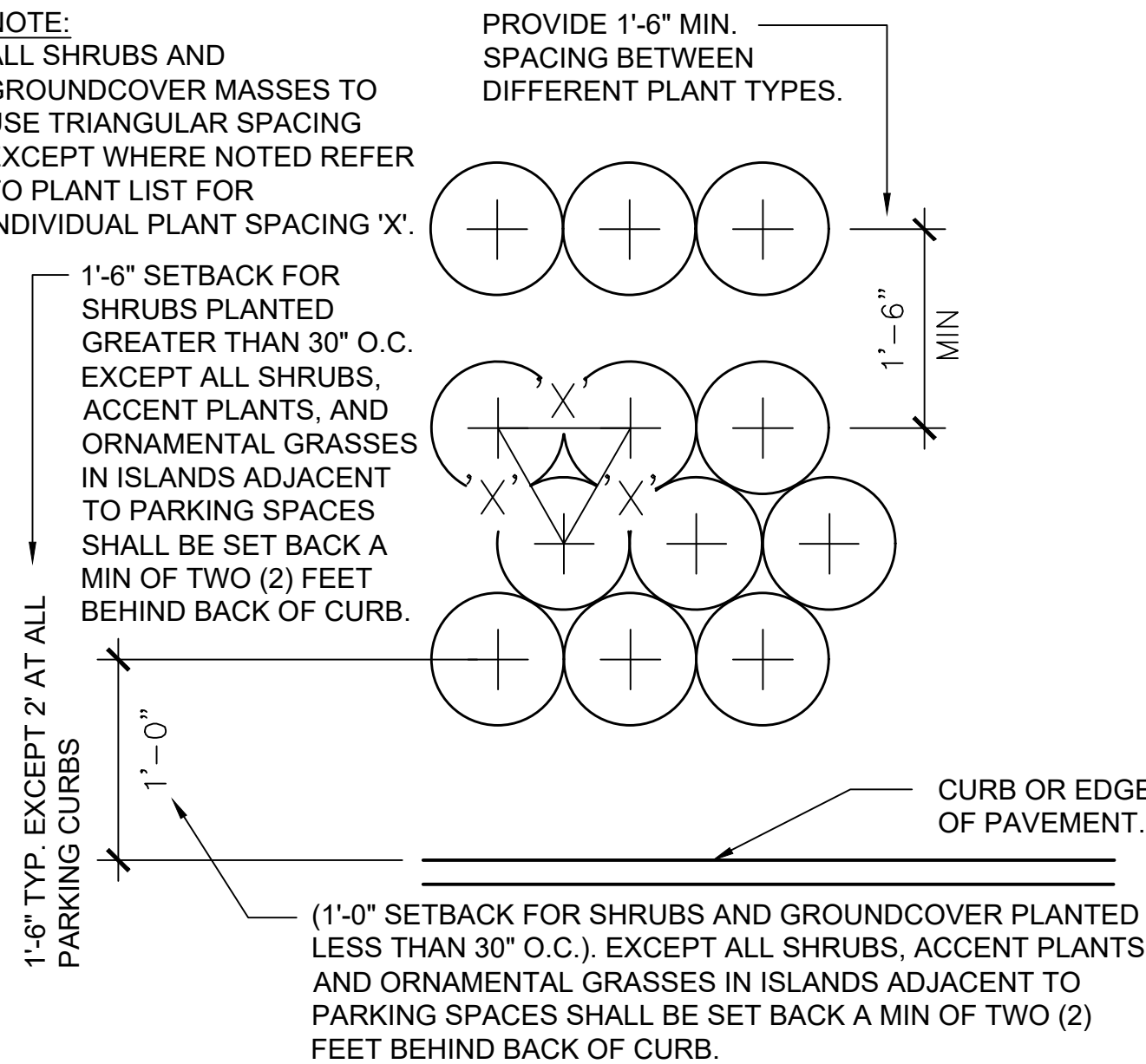
NOTE:
ALL JOINTS TO BE 1/4" SAND SWEEP PER MANUFACTURER'S RECOMMENDATIONS. SEE CIVIL PLANS FOR AGGREGATE BASE PREPARATION IN VEHICULAR AREAS. ALL PEDESTRIAN PAVER APPLICATIONS SHALL HAVE A MIN OF 4" CRUSHED CONCRETE OR 4" LIMEROCK COMPACTED TO 98% FOR THE BASE.



6 PEDESTRIAN PAVER SECTION

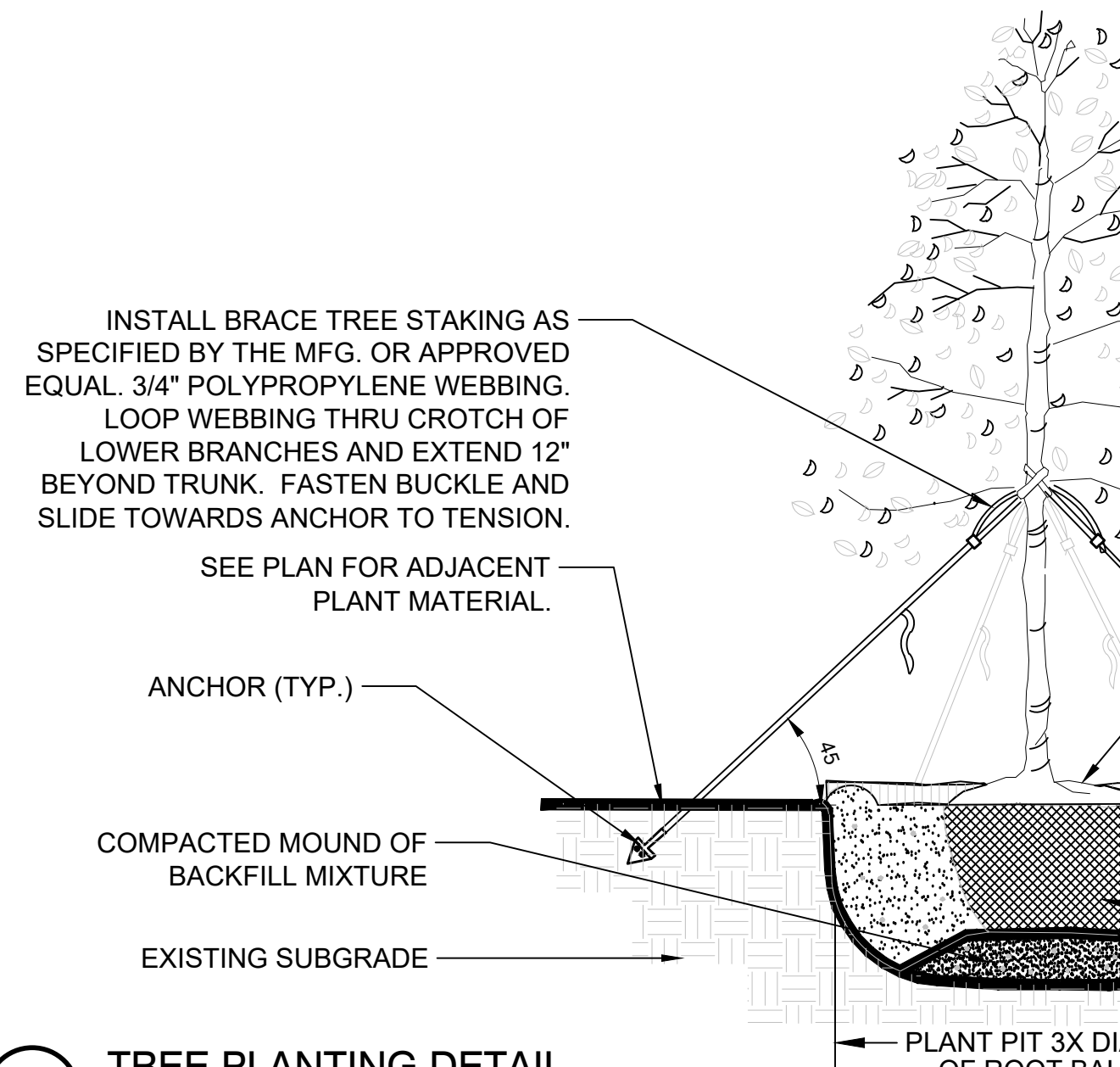
3/4" = 1'-0" P-MA3-22

NOTE:
ALL SHRUBS AND GROUNDCOVER MASSES TO USE TRIANGULAR SPACING EXCEPT WHERE NOTED REFER TO PLANT LIST FOR INDIVIDUAL PLANT SPACING 'X'.



2 TYPICAL PLANT SPACING

1" = 1'-0" P-MA3-01



1 TREE PLANTING DETAIL

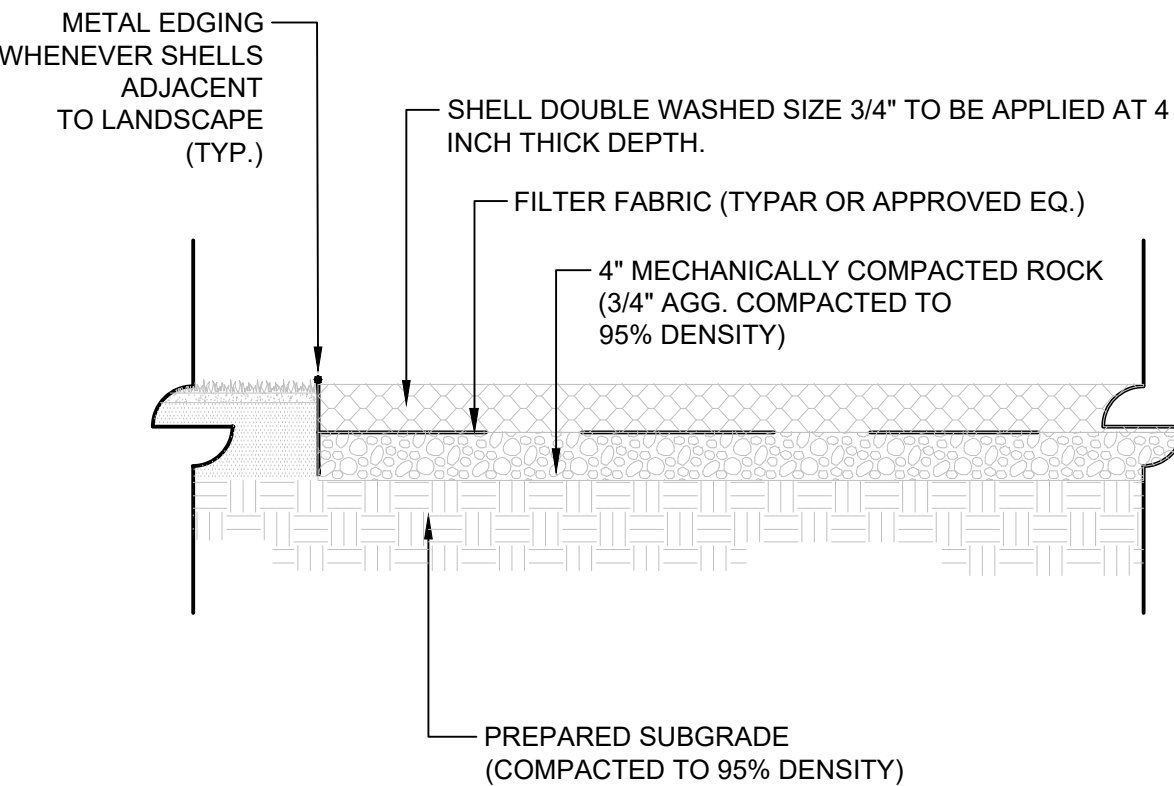
1" = 1'-0" P-MA3-06



7 4' BENCH

1/2" = 1'-0" P-MA3-99

NOTE: WHEN SHELL SURFACE ABUTS AN ADJACENT WALKING SURFACE, THE SHELL SHALL BE SET 1/8" - 1/4" BELOW SIDEWALK. SHELL SURFACE SHALL HAVE A MAX SLOPE OF 2%.



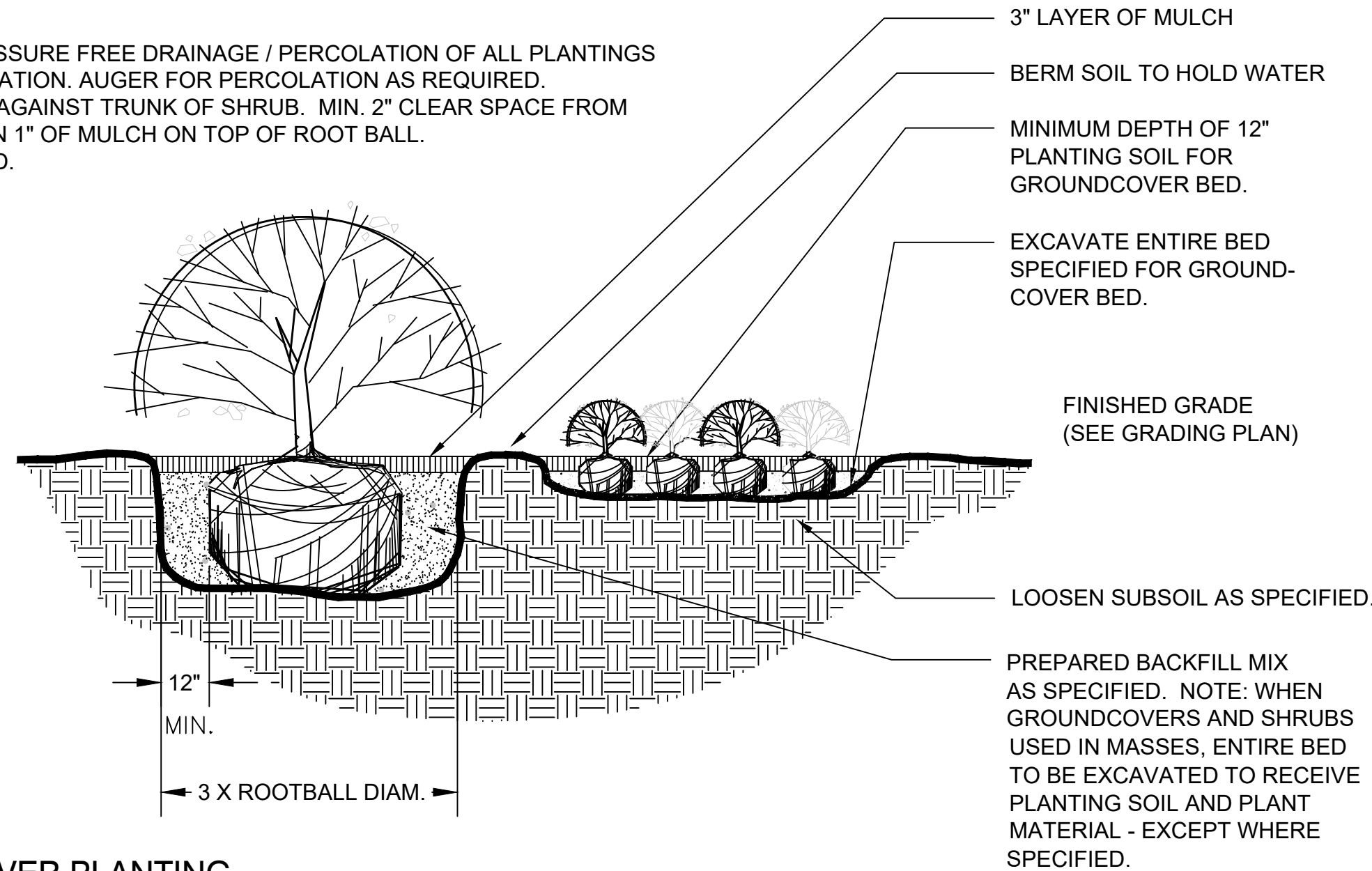
5 SHELL AGGREGATE SURFACE

3/4" = 1'-0" P-MA3-07

NOTES:
1. CONTRACTOR SHALL ASSURE FREE DRAINAGE / PERCOLATION OF ALL PLANTINGS PITS PRIOR TO INSTALLATION. AUGER FOR PERCOLATION AS REQUIRED.
2. CONTRACTOR SHALL STAKE LOCATIONS OF TREES PRIOR TO INSTALLATION FOR APPROVAL BY LANDSCAPE ARCHITECT.
3. TREE CALIPER SIZE SHALL BE MEASURED AT 6" ABOVE GRADE FOR UP TO & INCLUDING 4" CAL. AND 12" ABOVE GRADE FOR LARGER CALIPER TREES.

PROVIDE 4 WEBBING STRAPS
SAFETY FLAGS (TYP.)
ROOT BALL SLIGHTLY ABOVE FINISH GRADE. 10% MAXIMUM.
3" MULCH AS SPECIFIED. MIN. 36" FROM TRUNK. DO NOT PLACE MULCH AGAINST TRUNK OF TREE. MIN. 2" CLEAR SPACE FROM TRUNK. NO MORE THAN 1" OF MULCH ON TOP OF ROOT BALL.
3" EARTH SAUCER
PREPARED BACKFILL MIXTURE AS SPECIFIED.
B&B OR CONTAINER (SEE SPECIFICATIONS FOR ROOT BALL)

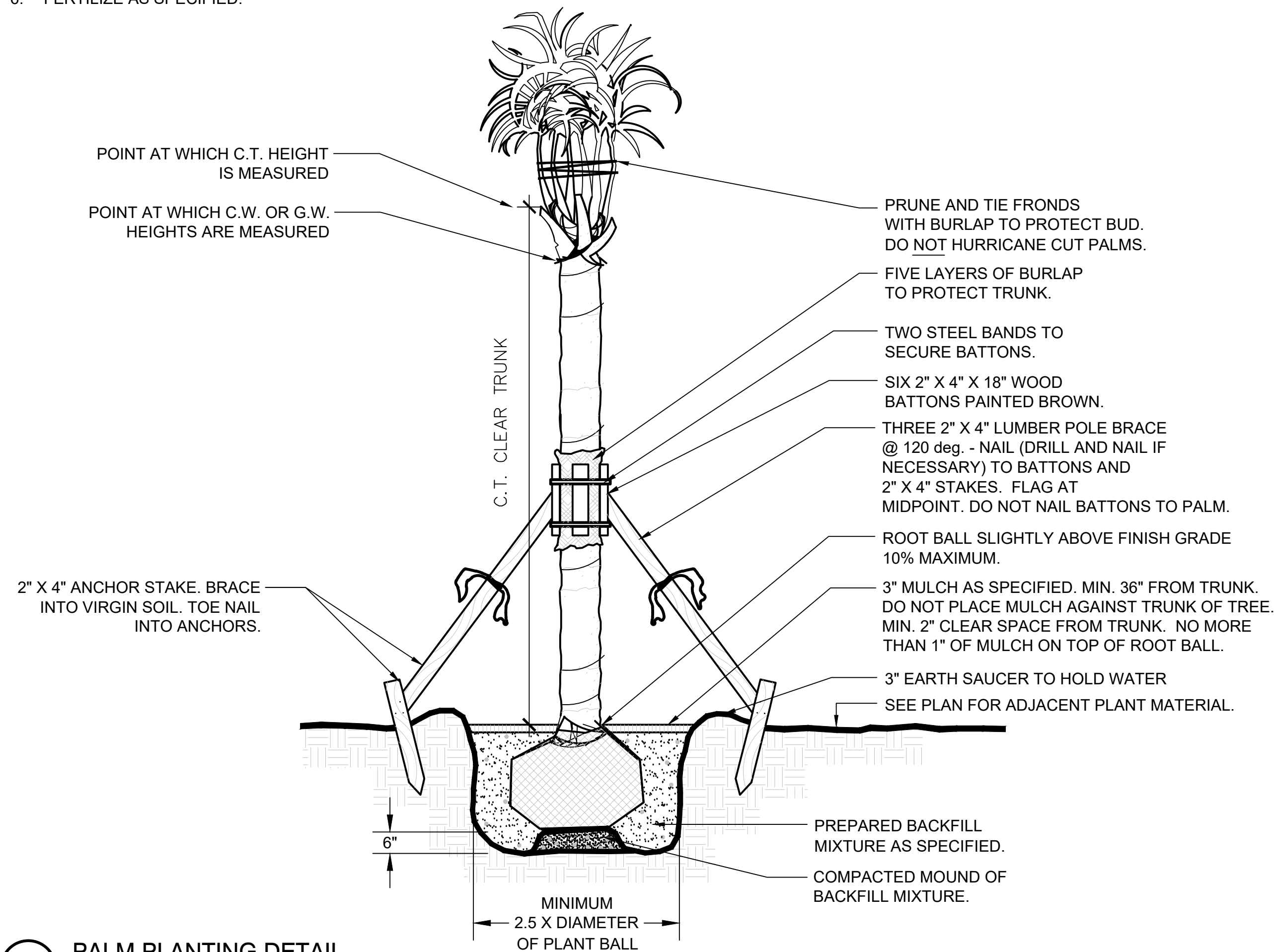
NOTES:
1. CONTRACTOR SHALL ASSURE FREE DRAINAGE / PERCOLATION OF ALL PLANTINGS PITS PRIOR TO INSTALLATION. AUGER FOR PERCOLATION AS REQUIRED.
2. DO NOT PLACE MULCH AGAINST TRUNK OF SHRUB. MIN. 2" CLEAR SPACE FROM TRUNK. NO MORE THAN 1" OF MULCH ON TOP OF ROOT BALL.
3. FERTILIZE AS SPECIFIED.



3 SHRUB AND GROUNDCOVER PLANTING

1" = 1'-0" P-MA3-08

NOTES:
1. FINAL TREE STAKING AND PLACEMENT TO BE APPROVED BY LANDSCAPE ARCHITECT.
2. SABAL PALMS SHALL HAVE BOOTS REMOVED.
3. CONTRACTOR SHALL ASSURE FREE DRAINAGE / PERCOLATION OF ALL PLANTINGS PITS PRIOR TO INSTALLATION. AUGER FOR PERCOLATION AS REQUIRED.
4. NO SCRAPED OR SCARRED TRUNKS ARE PERMITTED.
5. BRACING MAY BE MODIFIED FOR URBAN CONDITIONS. TO BE APPROVED BY LANDSCAPE ARCHITECT.
6. FERTILIZE AS SPECIFIED.



4 PALM PLANTING DETAIL

N.T.S. P-MA3-09

CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

Wannemacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA000277

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED. NO PART OF THIS DOCUMENT OR ANY SPECIFICATIONS PROVIDED BY THE ARCHITECT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT. ANY REUSE OR MODIFICATION OF THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT IS PROHIBITED. TO THE BEST OF THE ARCHITECT'S KNOWLEDGE, THE INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT. THE ARCHITECT MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE, EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION CONTAINED HEREIN. THE ARCHITECT'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR PROPERTY, INCLUDING CONSEQUENTIAL DAMAGES, ARISING OUT OF OR FROM THE USE OF THIS DOCUMENT. THE ARCHITECT'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR PROPERTY, INCLUDING CONSEQUENTIAL DAMAGES, ARISING OUT OF OR FROM THE USE OF THIS DOCUMENT.

Prepared By:
PlaceMaker Design Studio, LLC
415 Plaza Drive
St. Petersburg, FL 33701
Phone: 727-726-6124
Fax: 727-726-6124
Contact: Chris Anuszkiewicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024, Placemaker Design Studio, LLC

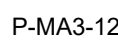
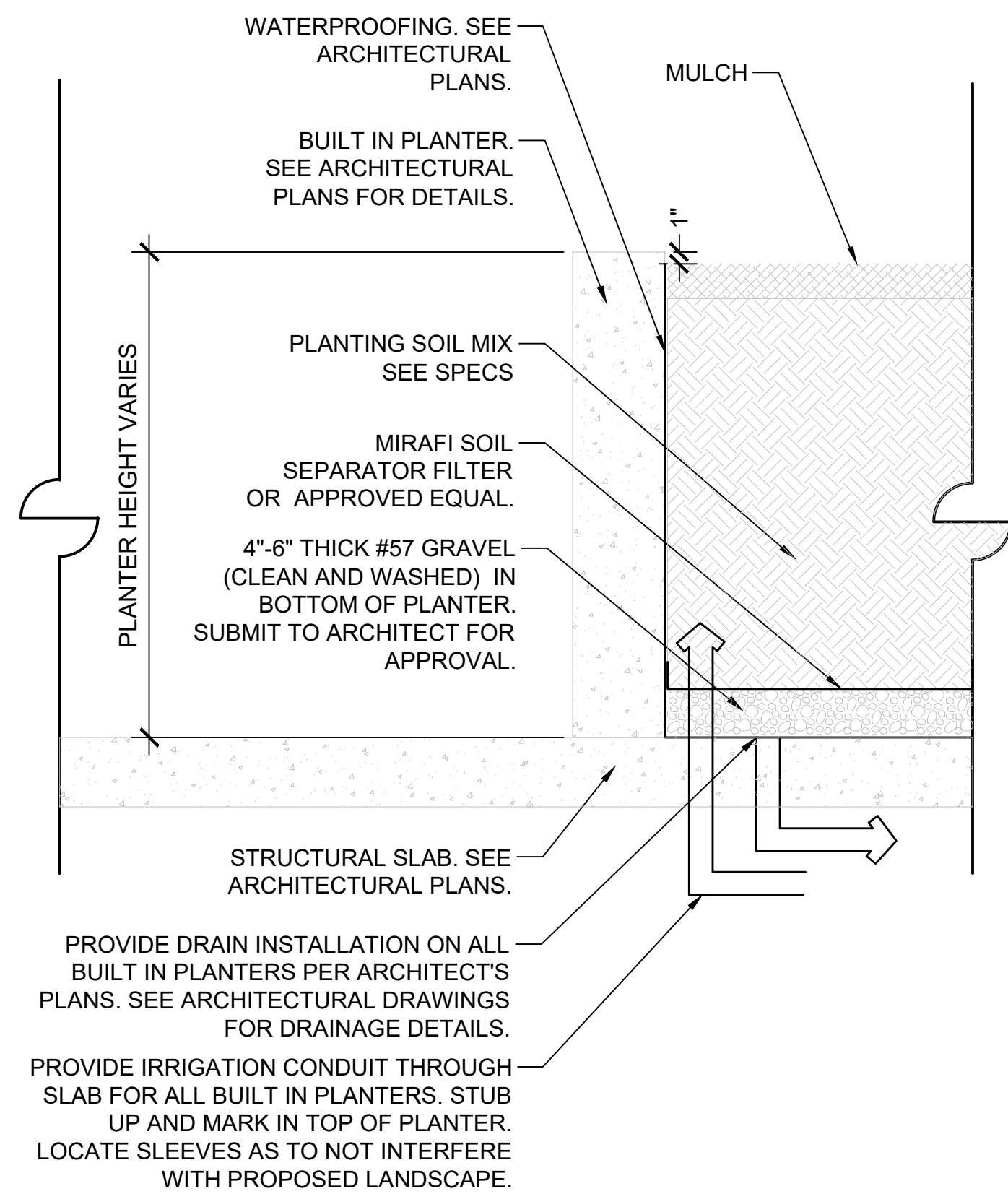
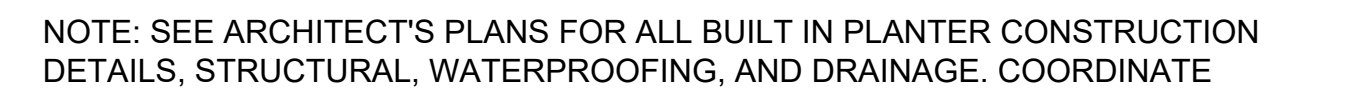
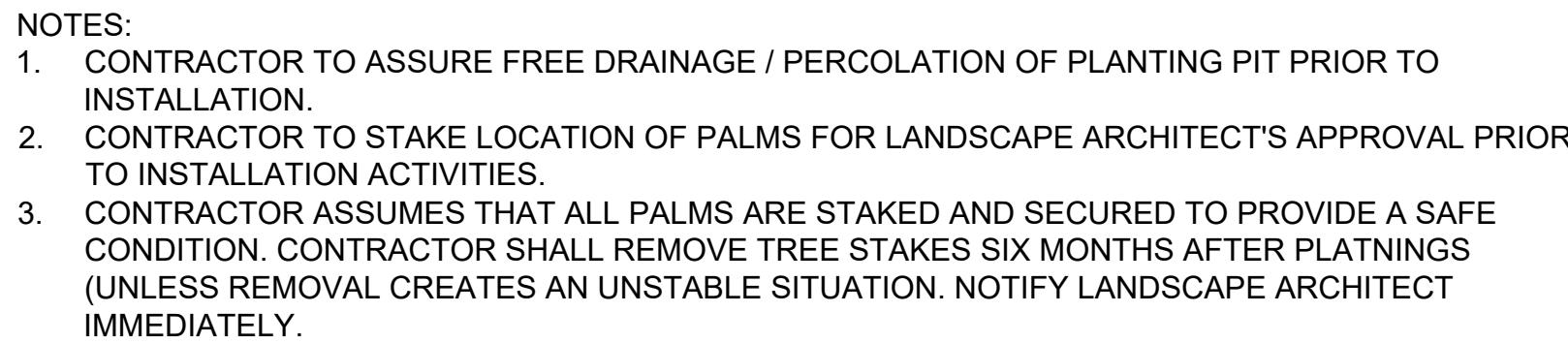
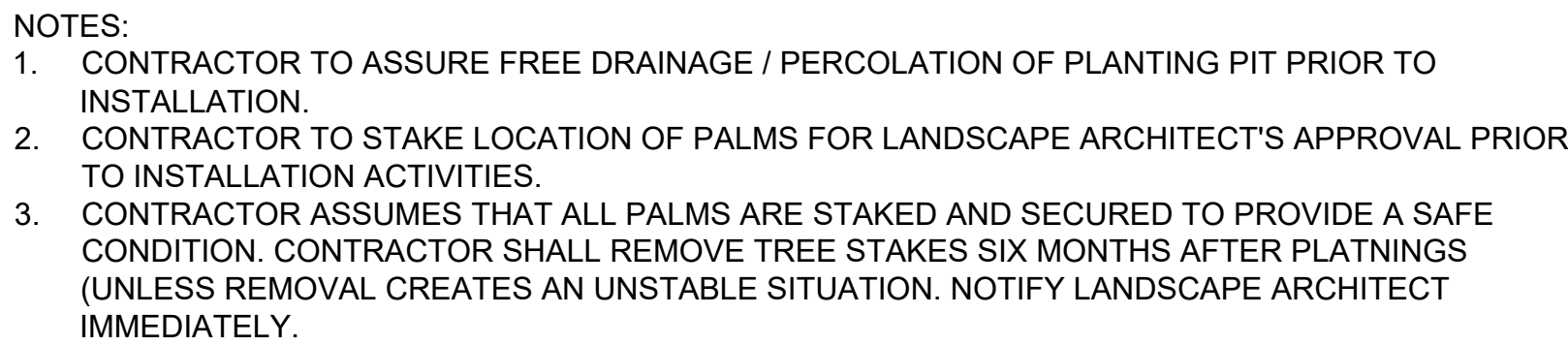
REGISTERED LANDSCAPE ARCHITECT
Christopher J. Anuszkiewicz
LA6667069
STATE OF FLORIDA
The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

ROSE MARINA
RESTAURANT
Marco Island, Florida

Project Number

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

LANDSCAPE
DETAILS
L7



LANDSCAPE SPECIFICATIONS

SECTION - TREES, PLANTS AND GROUNDCOVERS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Furnish all materials, equipment and labor as necessary for preparation of planting areas, soil treatment, planting of trees, shrubs, and groundcovers, protection of plants, maintenance, guarantee and replacement of plants, and related items as required to complete the work as indicated on the drawings and specified herein.

1.2 RELATED DOCUMENTS

- A. Section: Planting Irrigation
B. Section: Sodding

1.3 DEFINITIONS

The following words and terms or pronouns used instead shall wherever they appear in these specifications, be construed as follows, unless a different meaning is clear from the context:

"Final Acceptance" shall mean that point in time when all requirements of project drawings and specifications are completed, including any punchlist items, to the satisfaction of the Landscape Architect. The contractor shall be notified in writing of final acceptance by Owner's representative.

"Warranty Period" shall be a one year period beginning at Final Acceptance.

"Maintenance Period" shall begin when plant material is installed and continue for ninety (90) days after notification of Final Acceptance.

"Final Maintenance Inspection" shall occur at the end of the ninety (90) day maintenance period.

1.4 QUALITY ASSURANCE

- A. The landscape installation shall be executed by a single firm specializing in landscape work.
B. Plant names indicated shall comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed shall conform generally with names accepted by the nursery trade. Provide stock true to botanical name and legibly tagged.
C. Comply with sizing and grading standards of the latest edition of "American Standard for

Nursery Stock" (ANSI Z60 1) and, sizing and grading standards of the latest edition of "Grades and Standards for Nursery Plants: Part I and II" by the Florida Department of Agriculture and Consumer Services. All plant material shall be "Florida No. 1" or better.

1. Caliber measurement shall be taken six (6) inches above ground level if four (4) inches or less. If greater than 4 (four) inches, caliber measurement will be taken at twelve (12) inches above ground level.

D. Do not make substitutions. If specified landscape material is not obtainable submit to Owner's representative in writing, proof of non-availability and proposal for use of equivalent material. When authorized, adjustment of contract amount will be made.

E. All plants shall be nursery grown and 100% acclimatized to local planting conditions.

F. Stock furnished shall be at least the minimum size indicated. Larger stock is acceptable, at no additional cost, providing that the larger plants will not be cut back to size indicated or rootbound in pots. Provide plants indicated by two measurements so that only a maximum of 25% are of the minimum size indicated and 75% are of the maximum size indicated.

G. All trees shall be inspected and approved by Owner's representative for compliance with specification requirements for quality, size, and variety. When trees cannot be obtained locally, provide sufficient photographs of the proposed plants for approval.

1. Such approval shall not impair the right of inspection and rejection during the progress of the work.

H. Soil Testing / Amendments: Contractor shall conduct a soil test prior to application of any soil amendments, fertilizers and backfill mixtures. The results of the soil test shall be submitted to the owner's representative and landscape architect for review prior to the application of said material. Contractor shall examine the soils of all planting areas prior to submitting bids for the suitability to sustain healthy plant growth as called for on the planting plan, details, and these specifications. The contractor shall bear all costs of testing soils, amendments, etc. associated with the work and included in the specifications.

Submit certificates of inspection, as required by governmental authorities, and manufacturers or vendors certified analysis for soil amendments, herbicides, insecticides and fertilizer materials, submit other data substantiating that materials comply with specified requirements.

1.5 SUBMITTALS

- A. Submit planting schedule showing scheduled dates for each type of planting in each area of site two weeks prior to beginning work.
B. Submit certificates of inspection, as required by governmental authorities, and manufacturers or vendors certified analysis for soil amendments, herbicides, insecticides and fertilizer materials, submit other data substantiating that materials comply with specified requirements.
C. Submit the following material samples:

- Mulch
- Topsoil with verification of sterilization and source.
- One typical sample of each shrub and groundcover material as specified, prior to planting for approval.
 - Such approval shall not impair the right of inspection and rejection upon delivery at the site or during the progress of the work.
- Soil Test and Recommended Amendments

D. Upon final acceptance of plant material, submit two (2) written maintenance instructions recommending procedures for maintenance of plant materials for a one year period.

E. Provide landscape planting as-built drawings:

- Legibly mark drawings to record actual installation.
- Identify field changes of dimension and detail and changes made by approving authority.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver fertilizer materials in original, unopened, and undamaged containers showing weight, analysis, and name of manufacturer. Store in manner to prevent wetting and deterioration.
B. B&B Trees must be held and fully acclimatized over a period not less than eight (8) weeks prior to delivery to site.
C. Take all precautions customary in good trade practice in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. Dig, pack, transport, and handle plants with care to ensure protection against injury. Inspection certificates required by law shall accompany each shipment invoice or order. Upon arrival the certificate shall be filed with the Owner's representative.
D. Protect all plants from drying out. If plants cannot be planted immediately upon delivery, properly protect them with soil, wet peat moss, or in a manner acceptable to the Owner's representative. Water heeled-in plantings daily. No plant shall be bound with rope or wire in a manner that could damage or break the branches.
E. Plant material that is stored improperly shall receive a special review of acceptance/rejection, established on a case by case basis.
F. Cover plants transported on open vehicles with a protective covering to prevent wind burn.
G. Topsoil shall be kept dry and loose for planting bed mixes.
H. Label at least one (1) tree and one (1) shrub of each variety with a securely attached waterproof tag bearing legible designation of botanical and common name.
I. Backfill mixture and topsoil shall be kept dry and loose for planting bed mixes.

1.7 JOB CONDITIONS

- A. Work notification: Notify Owner's representative and landscape architect at least seven (7) working days prior to installation of plant material. All plant samples to be reviewed for approval prior to notification.
B. Protect existing utilities, paving, and other facilities from damage caused by landscaping operations. Notify any affected utilities 48 hours prior to beginning work.
C. A complete list of plants, including a schedule of sizes, quantities, and other requirements are shown on the drawings. In the event that quantity discrepancies or material omission occur in the plant materials list, the planting plans shall govern.
D. Examine the subgrade, verify the elevations, observe the conditions under which work is to be performed, and examine unsatisfactory conditions before proceeding with the work.
 - When conditions detrimental to plant growth are encountered such as rubble fill, adverse drainage conditions or obstructions, notify Owner's representative before planting to determine alternative action.
 - Contractor shall be responsible for the removal of existing vegetation deemed necessary by Owner's representative to carry out scope of project.
E. The irrigation system shall be installed prior to planting, if applicable. Locate, protect and maintain the irrigation system during planting operations. Repair irrigation system components, new and existing, damaged during planting operations with like materials. Test system prior to installation of plant material.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Plants: Provide plants typical of their species or variety; with normal, densely developed branches and vigorous, fibrous root systems. Provide only sound, healthy vigorous plants free from defects, disfiguring knots, sunscald injuries, frost cracks, abrasion of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces.
 - All plant material shall be "Florida No.1", or better.
 - Dig balled and burlapped plants with firm, natural balls of earth of diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock". Cracked or mushroomed balls are not acceptable.
 - Container-grown stock: Grown in container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole.
 - No plants shall be loose in the container.

- Container stock shall not be pot bound.
4. Trees with included bark will not be accepted. Trees shall have a minimum of five (5) feet of trunk free from branching, unless otherwise specified.
5. Sanding of palm tree trunks will not be accepted. Palm tree fronds shall be tied up to protect bud from stress and damage. Fronds shall be tied with a material that will decompose naturally. DO NOT HURRICANE CUT PALMS. TRIM FRONDS ONLY.
6. Plants planted in rows shall be matched in form.
7. Plants larger than those specified in the plant list may be used when acceptable to the Owner's representative.
- If the use of larger plants is acceptable, increase the spread of roots or root ball in proportion to the size of the plant.
8. The height of the trees, measured from the crown of the roots to the average height of the top of the tree, shall not be less than the minimum size designated in the plant list. Container size designated, if any, shall be minimum size required.
9. No pruning wounds shall be present with a diameter of more than 1" and such wounds must show vigorous bark on all edges.
10. Height and spread requirements, of shrub and groundcover material, indicated in the plant list are minimum specifications, unless otherwise specified. Container size designated, if any, shall be minimum size required.
11. Shrubs and small plants shall conform to the following standards:
- The measurements for height shall be taken from the ground level to the average height of the top of the plant and not the longest branch.
 - Single stemmed or thin plants will not be accepted.
 - Side branches shall be generous, well-twigged, and the plant as a whole well-bushed to the ground, unless otherwise specified.
 - Plants shall be in a vigorous condition, free from dead wood, bruises, or other root or branch injuries.
 - Any plant material showing signs of shock will be judged on a case by case basis for acceptance or rejection.

2.2 ACCESSORIES

A. Refer to drawings and other portions of specifications for accessories specifically used on this project.

B. Backfill Mixture:

- Trees, Royal Palms, Shrubs, and Groundcovers: 40-45% Coarse Sand, 45-50% Topsoil, 10% Peat
- All Other Palms: 3/4 Sand, 1/4 Topsoil

C. Sand: Clean, silica, salt-free and containing to extraneous matter.

D. Topsoil: Free of deleterious materials that would be harmful to plant growth, shall be free of nematodes, shall be of uniform quality, and shall be friable fertile soil with representative characteristics of area soils. It shall be free of heavy clay, silt, stone, excess time, shell rock, plant roots, weeds, debris or other foreign matter. It shall not contain noxious plant growth (such as Bermuda, Torpedo or Nut Grass). It shall test between the pH Range of 5.5 and 7.0 unless otherwise specified and contain no toxic residue or substances that would endanger plant growth. Obtain topsoil only from naturally, well-drained sites where topsoil occurs in a depth not less than 4".

- Expressly identify source location of topsoil and/or peat proposed for use on the project.
- Provide topsoil free of substances harmful to the plant material. Topsoil shall be sterilized.

E. Peat: Decomposed peat with no identifiable fibers, brown to black in color, sterile, weed and seed free, containing not more than 9% mineral on a dry basis, mature and shall be of good quality.

F. Soil Amendments: Soil testing shall be performed in all planting areas (including sodded areas) prior to construction with results submitted to landscape architect. Soil amendments shall be added as necessary to meet the following parameters:

- pH Range 5.5-7.0
- Organic Matter 2.0-5.0%
- Soluble Salt Level Less than 2 mmho/cm
- Soil chemistry suitable for growing the plants specified.

G. Fertilizer: Soil testing shall be performed in all planting areas (including sodded areas) prior to construction with results submitted to landscape architect. Provide fertilizer uniform in composition, dry, and in a free flowing condition for application by suitable equipment, and deliver in unopened bags or containers, each fully labeled. Fertilizer shall be complete with the following source compounds and applied at a rate as recommended by the soil test:

- Nitrogen derived from ammonium nitrate.
- Phosphorus derived from super phosphate.
- Potassium derived from potassium sulfate.
- Magnesium derived from magnesium sulfate.
- The fertilizer shall be neutral and contain the essential micro-nutrients (Chelated Fe, Mn, Zn, Mo, Bo, Cu) in sulfates unless otherwise indicated in ppm. Fertilizer shall be organic and slow release.

H. Mulch shall be weed-free sterilized organic shredded coccobrown wood mulch as listed on plant schedule. Mulch shall be clean, bright and free from moss, sticks and other debris. Mulch shall be spread at minimum of three (3) inches deep and maximum of four (4) inches deep or as otherwise noted. Cypress mulch shall not be used.

I. Water: Free of substances harmful to plant growth. Water shall contain less than 300 ppm soluble salts and less than 10 ppm chlorine, fluoride and sodium. Hoses or other methods of transportation furnished by Contractor. Contractor shall furnish water supply from an acceptable source. Acceptable sources: deep wells, municipal potable supply and treated wastewater.

J. Guys: Guy and stake trees, less than 3.5" in Caliper, in four directions with nylon tree guying kit with hardened nylon anchor and 3/4" 800 LB. Polyprop UV webbing, model or approved equal. For trees 3.5" in caliper and over, trees must be staked with wood 2x4 method. Follow palm staking detail for requirements. Attach fluorescent flagging to guys, minimum 18" length.

K. Pre-emergent weed killer: Apply approved herbicide or equal according to manufacturer's rate and specification within limits of areas to be planted. Protect existing plants and trees to remain from overspray or spray within root zone. Contractor to ensure total weed eradication.

PART 3 - EXECUTION

3.1 INSPECTION

A. Contractor shall examine proposed planting areas and conditions for installation. Do not start planting work until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Planting shall be performed only by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.
B. Layout of individual tree locations shall be approved by the Owner's representative prior to starting work. Give 48 hour notice of need for inspection. If obstructions are encountered that are not shown on the drawings, do not proceed with planting operations until alternate plant locations have been selected. Verify locations of existing utilities.
C. Excavate circular plant pits with 1:1 sides, except for plants specifically indicated to be planted in beds. Provide shrub pits at least 3 times greater than the diameter of the root system and 3 times greater than diameter of rootball for trees. Depth of pit shall accommodate the root system. When groundcovers and shrubs used in masses, entire bed to be excavated to receive planting soil and plant material, except where specified. Remove excavated materials from the site, as indicated under Site Clearing Section.
D. Provide pre-mixed planting backfill mixture for use around the balls and roots of the plants consisting of backfill mixture and plant fertilizer as specified, at a rate as recommended by the soil test.
E. Provide pre-mixed ground cover bed planting backfill mixture and plant fertilizer as specified, at a rate as recommended by the soil test. Prepare planting bed as specified on drawings.
F. Palm trees with clear trunk greater than six (6) feet in height shall be backfilled with soil indigenous to site.
G. Care of Existing Trees:
 - All existing trees, if any, shall be protected and cared for through the duration of this project as outlined by local code.
H. Tree Removal and Protection:
 - Prior to clearing of vegetation or grubbing, all trees shown as existing to remain shall be barricaded and protected as required. Immediately following vegetation removal, existing slopes greater than 3 to 1 shall be protected from erosion as required by local code. In areas where space limitations do not permit barricade construction per detail, contractor shall submit shop drawings indicating proposed alternative protection method to the landscape architect for approval prior to construction. The following activities are prohibited within the barricaded area: vehicular and pedestrian traffic; storage of construction materials; placement of excavated materials; and any activities that may disturb the root system within the barricaded area.
 - All required tree removal or relocation permits shall be procured by contractor prior to commencement of work.
 - Drainage easement, swales and inlets shall be maintained so their function is not impaired through plant growth or debris.

I. Utilities:

- Above and below ground utilities, easements, right-of-way, ownership, structures, and/or other survey data shall be verified and located by the landscape contractor prior to commencing work in the project area. If the utility plans are available, the contractor shall examine them and bring any and all conflicts to the attention of the owner and/or landscape architect. When working in the areas where known utilities exist, utility locations may need to be staked and field verified by a surveyor or the utility companies. It shall be the landscape contractor's sole responsibility to notify "Sunshine" and any other interested agencies or parties of his intent to excavate and to obtain from all agencies or other interested parties locations of all existing utilities of every kind in the areas where he intends or plans to excavate. Such locations shall be obtained prior to starting construction and shall be maintained during construction. Should the contractor cause damage to any utilities, structures or other features, necessary repairs shall be made as quickly as practical at the contractor's expense, under supervision of the owner's representative.

3.3 INSTALLATION

- A. Set plant material in the planting pit to proper grade and alignment. Set plants upright, plumb, and faced to give the best appearance or relationship to each other or adjacent structure. Set plant material 2"-3" above the finish grade. No filling will be permitted around trunks of stems. Backfill the pit with planting mixture until approximately 2/3 full, then water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Do not use muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.
After balled and burlapped plants are set, place soil mixture around bases of balls and fill all voids. Remove all burlap, ropes, and wires from the tops of balls.
B. Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 4" of the trunks of trees and shrubs within planting bed and to within 1" of edge of bed.

C. Mulch:

- Mulch tree, shrub planting pits and shrub beds with required mulching material 3" deep or as otherwise noted immediately after planting. Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface.
- Staking/Guying:
 - Guy and stake trees, less than 3.5" in Caliper, in four directions with nylon tree guying kit with hardened nylon anchor and 3/4" 800 LB. Polyprop UV webbing, model or approved equal. Stake trees immediately after planting. For multi-trunk trees plant material, attach guys to four (4) largest limbs, care must be taken not to make guys too tight. For trees 3.5" in caliper and over, trees must be staked with wood 2x4 method. Follow palm staking detail for requirements. Contractor shall remove bracing in one year. Attach fluorescent flagging to guys, minimum 18" length.
 - When high winds or other conditions which may effect tree survival or appearance occur, the Owner's representative may require immediate staking/guying.
 - Brace all palm trees. Wrap with 5 layers burlap approximately 1/3 of the way up trunk. Attach lumber with cleats and hammer braces to lumber. Secure to ground with stake.
 - All work shall be acceptable to the Owner's representative.

E. Pruning:

- Prune branches of B&B stock, prior to transplanting, to balance the loss of roots and preserve the natural character appropriate to the particular plant requirements. In general, remove 1/4 to 1/3 of the leaf bearing buds, proportion shall in all cases be acceptable to the Owner's representative. Remove or cut back broken, damaged, and unsymmetrical growth of new wood. Prune trees to retain required height and spread. Do not cut structural branches. Required sizes are the size after pruning.
- Multiple leader plants: Preserve the leader which will best promote the symmetry of the plant. Cut branches at branch collars.

F. Care of Existing Trees:

- All existing trees, if any, shall be protected and cared for through the duration of this project as outlined by local code.
- Existing Tree Pruning: Prune existing trees as directed. All existing trees shall be pruned in accordance with standards established by The International Society of Arboriculture.

3.4 MAINTENANCE

A. Begin maintenance immediately after planting. Maintain all plant material until final acceptance and for a Maintenance Period of 45 days after final acceptance.

B. Maintenance shall include but is not limited to pruning, cultivating, mowing, weeding, fertilizing, watering, and application of appropriate insecticides and fungicides necessary to maintain plants free of insects and disease.

- Re-set settled plants to proper grade and position. Restore planting saucer and adjacent material and remove dead material.
- Tighten and repair guys and stakes as required.
- Correct defective work immediately after deficiencies become apparent and weather permits.
- In addition to irrigation system or if no system exists, water trees every other day saturating the soil to depth of three (3) feet for the first two (2) weeks. If no irrigation system exists (or not functioning properly), water plant material per the following schedule:
 - 1-30 days - water every other day, saturating the soil to a depth of 3 feet.
 - 30-90 days - water twice a week, saturating the soil to a depth of three (3) feet. Quantity of water applied should be adjusted in accordance to rainfall.

3.5 ACCEPTANCE

A. Inspection to determine acceptance of planted areas will be made by the Landscape Architect upon Contractor's request. Provide notification at least 5 working days before requested inspection date. Planted areas will be accepted provided all requirements, including maintenance, have been complied with and plant materials are alive and in a healthy, vigorous condition.

B. The Landscape Architect will prepare a "punch list" of those items which must be corrected before reinspection for final acceptance. The Landscape Architect will determine an appropriate time period in which punchlist items must be corrected. Provide 48 hour notification of need for reinspection.

C. The owner will assume plant maintenance 45 days after final acceptance, at which time, the contractor shall request a final maintenance inspection for acceptance, where requirements as stated in 3.5 apply.

3.6 WARRANTY

- A. Warrant plant material to remain alive and be in healthy, vigorous condition for a period of 1 year after completion and final acceptance of entire project.
B. Replace, in accordance with the drawings and specifications, all plants that are dead or as determined by the Owner's representative to be in an unhealthy or unsightly condition, and have lost their natural shape due to contractor's negligence. The cost of such replacement(s) is at Contractor's expense. Warrant all replacement plants for six months after final acceptance.
C. Warranty shall not include damage or loss of trees, plants, or ground covers caused by fires, floods, freezing, rains, lightning storms or winds over 75 miles per hour, winter kill caused by extreme cold and severe winter conditions not typical of planting area; acts of vandalism or negligence on the part of the owner.
D. Remove and replace immediately all plants found to be dead or in unhealthy condition as determined by Owner's representative at any time during warranty period. Make replacements within four (4) weeks of notification.
 - An inspection will be conducted at the end of the warranty period. Contractor will replace any plants found to be dead or in poor condition at this time within four (4) weeks of inspection. Contractor will also remove any tree bracing or guying determined by the owner's representative to be unnecessary at this point in the trees development.

3.7 CLEANING

A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, soil, debris, and equipment. Do not leave on site over night, unless arrangements have been made to do so with the Owner's representative. Coordinate with Owner's Representative on site storage of debris and/or trash. Repair damage resulting from planting operations.

END OF SECTION - TREES, PLANTS AND GROUNDCOVERS

SECTION - SODDING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide sodded lawn as shown and specified. The work includes:
- Soil preparation.
 - Sodding lawns
 - Maintenance.
 - Sodding disturbed areas in areas adjoining contract limits disturbed as a result of construction operations.

1.2 RELATED WORK

- Section: Trees, Plants, and Ground Covers (Sheet L-4)

1.3 QUALITY ASSURANCE

- A. Sod: Comply with American Sod Producers Association (ASPA) classes of sod material. Sod must be certified sod of type specified in the project Plant Schedule, grown and maintained on a well drained sandy root zone soil. The sod must be weed and insect free.
B. Provide and pay for materials testing. Testing agency shall be acceptable to the Engineer and/or Landscape Architect. Provide the following date:
 - Test representative materials samples proposed for use.
 - Soil analysis of existing conditions.
 - Soil pH and recommendations for correction.
 - Nematode infestation check and recommendation for eradication.
 - Organic matter check and recommendation.
 - Starter fertilizer check and recommendations.

C. SUBMITTALS

- Submit sod growers certification of grass species. Identify source location.
- Submit the following material samples:
 - Topsoil.
- Submit the following material certification:
 - Submit certificates of inspection as required by governmental authorities and manufacturers or vendors certified analysis for soil amendments, herbicides, insecticides and fertilizer materials; submit other data substantiating that materials comply with specified requirements.
 - Submit soil analysis report.

1.4 DELIVERY, STORAGE AND HANDLING

A. Cut, deliver and install sod within a 24-hour period.

- Do not harvest or transport sod when moisture content may adversely affect Sod survival.
- Protect sod from sun, wind, and dehydration prior to installation.
- Do not tear, stretch, or drop sod during handling and installation.

1.5 PROJECT CONDITIONS

- A. Work notification: Notify Owner's representative at least 7 working days prior to start of sodding operations.
B. Protect existing utilities, paving and other facilities from damage caused by sodding operations.
C. Perform sodding work only after planting and other work affecting ground surface has been completed.
D. Existing soil to be amended as determined necessary from soil analysis, including: soil pH, nematode infestation, organic matter check and starter fertilizer check.

E. Restrict traffic from lawn areas until grass is established.

F. Provide hose and lawn watering equipment as required.

G. The irrigation system will be installed prior to sodding. Locate, protect and maintain the irrigation system during sodding operations. Repair irrigation system components damaged during sodding operations at this contractor's expense.

1.6 WARRANTY

- A. Warrant sodded lawns to remain alive and be in healthy, vigorous condition for a period of 60 days after completion and final acceptance of entire project.
B. Replace, in accordance with the drawings and specifications, all sodded lawns that are dead or as determined by the Owner's representative to be in an unhealthy or unsightly condition, and have lost their natural shape due to contractor's negligence. The cost of such replacement(s) is at Contractor's expense.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Sod: An "approved" nursery grown sod composed of certified sod of type specified in the project Plant Schedule grown on a well drained sandy root zone soil.
 - Provide well-rooted, healthy sod, free of diseases, nematodes and soil borne insects. Provide sod uniform in color, leaf texture, density, and free of weeds, undesirable grasses, stones, roots, thatch, and extraneous material; viable and capable of growth and development when planted.
 - Furnish sod, machine stripped, and of supplier's standard width, length, and thickness: Uniformly 1-1/4" to 1-1/2" thick with clean cut edges. Mow sod before stripping.
B. Fertilizer:
 - Granular, non-burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer.
 - Type A: Starter fertilizer containing nitrogen, phosphoric acid, and potash. Fertilizer shall be complete and applied at a rate as recommended by the soil test. Provide at least 50% of the phosphoric acid from normal super phosphate or an equivalent source providing a minimum of two units of sulfur. The amounts of sulfur and all other chemical shall be indicated on the quantitative analysis card attached to the unopened bag.
 - Type B: Top dressing fertilizer containing 31% nitrogen, 3% phosphoric acid, and 10% potash by weight or similar approved composition.
 - Ground Limestone: ASTM C 602, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent and as follows:
 - Class: Class T, with a minimum 99 percent passing through No. 8 (2.36-mm) sieve and a minimum 75 percent passing through No. 60 (0.25-mm) sieve.
 - Provide lime in form of dolomitic limestone.
C. Stakes
 - Steel, tee shaped pins, 4" x 8" x 8" leg.
D. Water: Free of substance harmful to sod growth. Hoses or other methods of transportation furnished by contractor.
E. Topsoil: Fertile, friable, natural topsoil of loamy character, without admixture of subsoil material, reasonably free from clay lumps, coarse sand stones, plants, roots and other foreign materials with an acidity level as specified by type of sod.
 - Identify source location of topsoil.
 - Topsoil shall be fertilized.

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine finish surfaces, grades, topsoil quality, and depth. Do not start sodding work until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Apply approved herbicide or equal according to manufacturer's rate and specification within limits of areas to be planted. Protect existing plants and trees to remain from overspray or spray within root zone. Contractor to ensure total weed eradication.
B. Remove any existing sub-base or compacted materials to expose a friable soil layer.
C. Loosen soil/topsoil of lawn areas to minimum depth of 8". Remove stones over 1" in any dimension and sticks, roots, rubbish, and extraneous matter.
D. Add 3" topsoil or organic material as required from organic matter check. Till into top 8" of existing soil.
E. Grade lawn areas to smooth, free draining and even surface with a loose, uniformly fine texture. Roll and rake, remove ridges and fill depressions as required to drain.
F. Apply limestone at rate determined by the soil test, to adjust pH of topsoil as specified. Distribute evenly by machine and incorporate thoroughly into topsoil.
G. Apply "Type A" fertilizer as specified by manufacturer and at a rate as recommended by the soil test. Apply fertilizer by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with the soil to a depth of 3" by discing or other approved methods. Fertilize areas inaccessible to power equipment with hand tools and incorporate it into soil.
H. Dampen dry soil prior to sodding.
I. Restore prepared areas to specified condition if eroded, settled or otherwise distributed after fine grading and prior to sodding.

3.3 INSTALLATION

- A. Lay sod to form a solid mass with tightly-fitted joints. Butt ends and sides of sod strips. Do not overlay edges. Stagger strips to offset joints in adjacent courses. Remove excess sod to avoid smothering of adjacent grass. Provide sod pad top flush with adjacent curbs, sidewalks, drains and seed areas.
B. Do not lay dormant sod or install sod on saturated soil.
C. Install initial row of sod in a straight line, beginning at bottom of slopes, perpendicular to direction of the sloped area. Place subsequent rows parallel to and lightly against previously installed row.
D. Peg sod on slopes greater than 3 to 1 to prevent slippage at a rate of 2 stakes per yd. of sod.
E. Water sod thoroughly with a fine spray immediately after laying.
F. Roll with light lawn roller to ensure contact with subgrade.
G. Sod indicated areas within contract limits and areas adjoining contract limits disturbed as a result of construction operations.
H. Top dress all seams of sodded area with specified topsoil.

3.4 MAINTENANCE

- A. Maintain sodded lawns for a period of at least 45 days after completion and acceptance of sodding operations.
B. Maintain sodded lawn areas, including watering, spot weeding, mowing, application of herbicides, fungicides, insecticides and insect free, and as determined by the Owner's representative.
 - Water sod thoroughly every 2 to 3 days, as required to establish proper rooting.
 - Repair, rework, and resod all areas that have washed out or are eroded. Replace undesirable or dead areas with new sod.
 - Mow lawn areas as soon as lawn top growth reaches a 3" height. Cut back to 2" height. Repeat mowing as required to maintain specified height. Not more than 40 percent of grass leaf shall be removed at any single mowing.
 - Apply "Type B" fertilizer to lawns approximately 30 days after sodding at a rate as determined by the soil test and as specified by the manufacturer. Apply with a mechanical rotary or drop type distributor. Thoroughly water into soil.
 - Apply herbicides as required to control weed growth or undesirable grass species.
 - Apply fungicides and insecticides as required to control disease and insects.

3.5 ACCEPTANCE

- A. Inspection to determine acceptance of sodded lawns will be made by the Owner's representative and the Landscape Architect, upon contractor's request. Provide notification at least five working days before requested inspection date.
 - Sodded areas will be acceptable provided all requirements, including maintenance, have been complied with, and a healthy, even colored viable lawn is established, free of weeds, undesirable grass species, disease, and insects.
B. Upon acceptance contractor shall maintain area for 45 days. At the end of this period contractor shall request a final maintenance inspection for acceptance.
C. Upon acceptance at end of maintenance period the Owner will assume lawn maintenance.

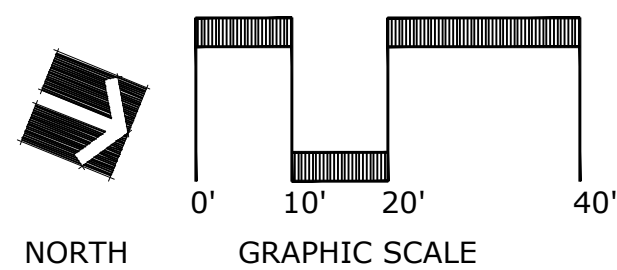
3.6 CLEANING

A. Perform cleaning during installation of the work and upon completion of the Work. Remove from site all excess materials, debris, and equipment. Repair damage resulting from sodding operations.

END OF SECTION - SODDING

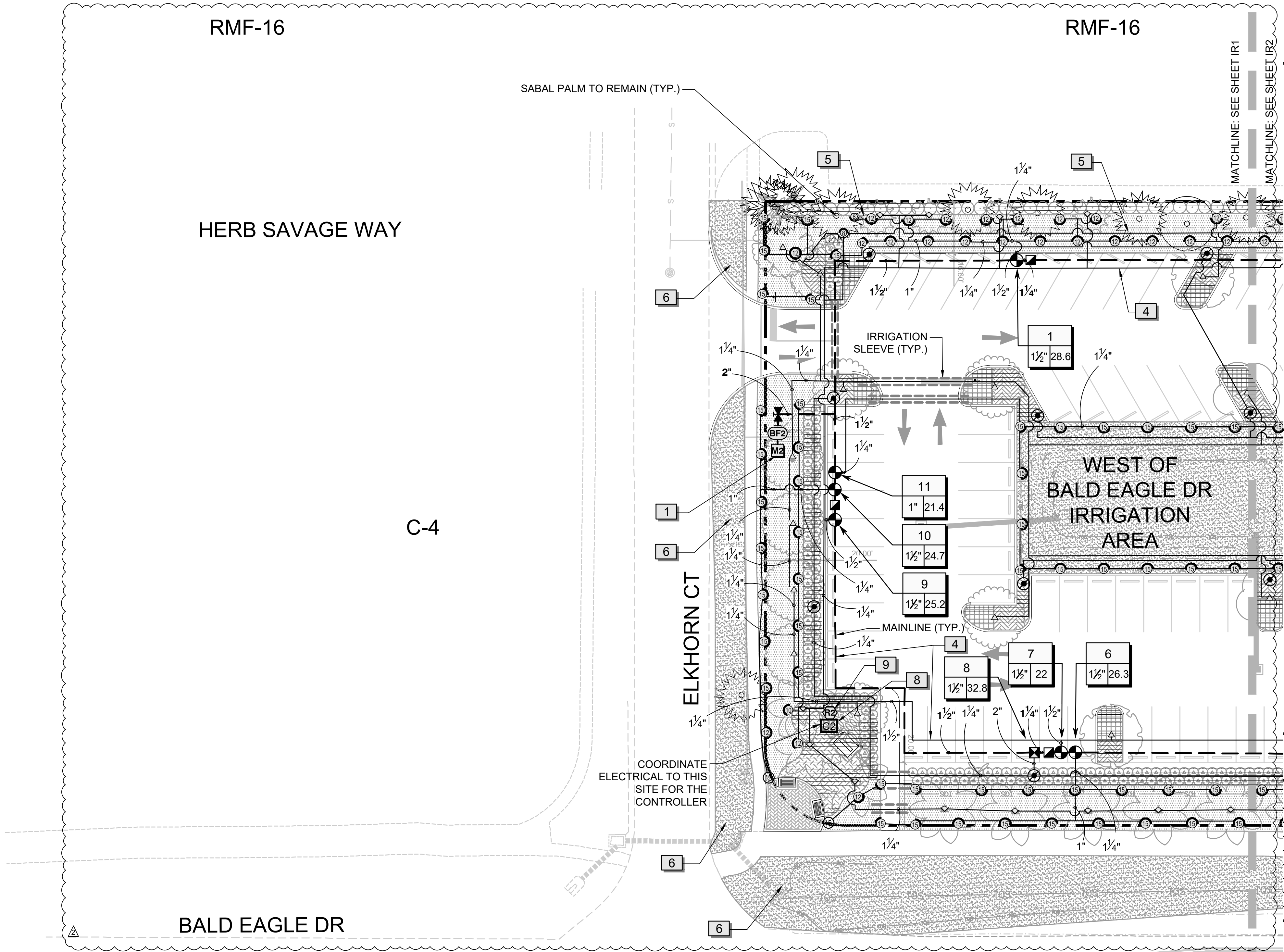
Wannemacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 Fax (727) 822-5475
AA000277

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED. NO PART OF THIS DOCUMENT OR THE SPECIFICATIONS INCLUDED BY THE ARCHITECT MAY BE



CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770



NOTES

- SEE SHEETS L1-L5 FOR LANDSCAPE PLAN. SEE SHEET L6 FOR LANDSCAPE NOTES. SEE SHEETS L7-L8 FOR LANDSCAPE DETAILS. SEE SHEET L9 FOR LANDSCAPE SPECIFICATIONS.
- IRRIGATION PLAN: UNDERGROUND IRRIGATION SYSTEM TO ENSURE 100% COVERAGE FOR ALL SHRUBS, GROUNDCOVERS, GRASSES, TREES, AND TURF AREAS. SEE SHEET L6 AND IR1-IR9 FOR IRRIGATION REQUIREMENTS.
- VERIFY ALL SYSTEM REQUIREMENTS PRIOR TO BID. IRRIGATION ZONE AREAS ARE AN ESTIMATE. CONTRACTOR SHALL VERIFY TOTAL AREA REQUIRED PRIOR TO BID.
- IRRIGATION SLEEVES MAY NOT BE SHOWN TO ENSURE CLARITY OF LINE WORK. CONTRACTOR TO INSTALL ALL IRRIGATION PIPE AND CONTROL WIRES IN SLEEVES BELOW ALL PAVED SURFACES. SLEEVE SIZE SHALL BE TWO (2) TIMES THE DIAMETER OF PIPE(S) TO BE SLEEVED.
- TREE BUBBLERS, TURF ZONES AND SHRUB ZONES SHALL BE ON SEPARATE ZONES. PROVIDE RAIN BIRD CONTROL VALVES.
- IRRIGATION HEADS, CONTROLLERS, CONTROL VALVES, QUICK COUPLERS, AND ACCESSORIES SHALL BE HUNTER OR RAIN BIRD NEW COMMERCIAL GRADE PRODUCTS.
- IRRIGATION LINES SHALL BE TUNNELED BENEATH TREE ROOTS OF EXISTING TREES, RATHER THAN TRENCHED.

Wannemacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA000277

Prepared By:
PlaceMaker
Design Studio, LLC
415 Plaza Drive
Dunedin, FL 34626
Phone: 727-726-6124
LA6667069
Contact: Chris Anuszkiewicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024 PlaceMaker Design Studio, LLC



The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

ROSE MARINA RESTAURANT
Marco Island, Florida

Project Number

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

IRRIGATION PLAN

IR1

1. SEE SHEETS L1-4.5 FOR LANDSCAPE PLAN. SEE SHEET L6 FOR LANDSCAPE NOTES. SEE SHEETS L7-4.8 FOR LANDSCAPE DETAILS. SEE SHEET L9 FOR LANDSCAPE SPECIFICATIONS.
2. IRRIGATION PLAN: UNDERGROUND IRRIGATION SYSTEM TO ENSURE 100% COVERAGE FOR ALL SHRUBS, GROUNDCOVERS, GRASSES, TREES, AND TURF AREAS. SEE SHEET L6 AND IR1-IR9 FOR IRRIGATION REQUIREMENTS.
3. VERIFY ALL SYSTEM REQUIREMENTS PRIOR TO BID. IRRIGATION ZONE AREAS ARE AN ESTIMATE. CONTRACTOR SHALL VERIFY TOTAL AREA REQUIRED PRIOR TO BID.
4. IRRIGATION SLEEVES MAY NOT BE SHOWN TO ENSURE CLARITY OF LINE WORK. CONTRACTOR TO INSTALL ALL IRRIGATION PIPE AND CONTROL WIRES IN SLEEVES BELOW ALL PAVED SURFACES. SLEEVE SIZE SHALL BE TWO (2) TIMES THEDIAMETER OF PIPE(S) TO BE SLEEVED.
5. TREE BUBBLERS, TURF ZONES AND SHRUB ZONES SHALL BE ON SEPARATE ZONES PROVIDE RAIN BIRD CONTROL VALVES.
6. IRRIGATION HEADS, CONTROLLERS, CONTROL VALVES, QUICK COUPLERS, AND ACCESSORIES SHALL BE HUNTER OR RAIN BIRD NEW COMMERCIAL GRADE PRODUCTS.
7. IRRIGATION LINES SHALL BE TUNNELED BENEATH TREE ROOTS OF EXISTING TREES, RATHER THAN TRENCHED.

Wannemacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA0002277

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED AND WILL REMAIN THE PROPERTY OF THE ARCHITECT. THE ARCHITECT'S DESIGN, CONCEPTS AND SPECIFICATIONS PRODUCED BY THE ARCHITECT, THESE IDEAS, DESIGNS, PLANS, DRAWINGS, AND SPECIFICATIONS SHALL NOT BE REPRODUCED OR CONVEYED IN ANY MANNER NOR ASSIGNED TO ANY OTHER PARTY WITHOUT THE ARCHITECT'S EXPRESS WRITTEN PERMISSION OF THE ARCHITECT. NO PART OF THE ARCHITECT'S DESIGN OR CONCEPTS ARE HEREBY GRANTED TO GOVERNMENTAL AGENCIES TO REPRODUCE THE CONSTRUCTION DOCUMENTS OR ANY OF THE DESIGN ELEMENTS OR CONCEPTS OF THE ARCHITECT WITHOUT THE ARCHITECT'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES WITH THE APPLICABLE FIRE SAFETY REQUIREMENTS AND THE APPLICABLE ELECTRICAL REQUIREMENTS OF THE FLORIDA STATUTES, AND §33 OF THE FLORIDA STATUTES.

Prepared By:

PlaceMaker
Design Studio, LLC

PlaceMaker Design Studio, LLC
415 Plaza Drive
Dunedin, Florida 34698
Phone: 727-726-6124
LA6667069

Contact: Chris Anuszkiewicz, RLA

Email: chris@placemakerdesignstudio.com
Web-Site: www.placemakerdesignstudio.com
© 2024 PlaceMaker Design Studio, LLC



The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

ROSE MARINA RESTAURANT

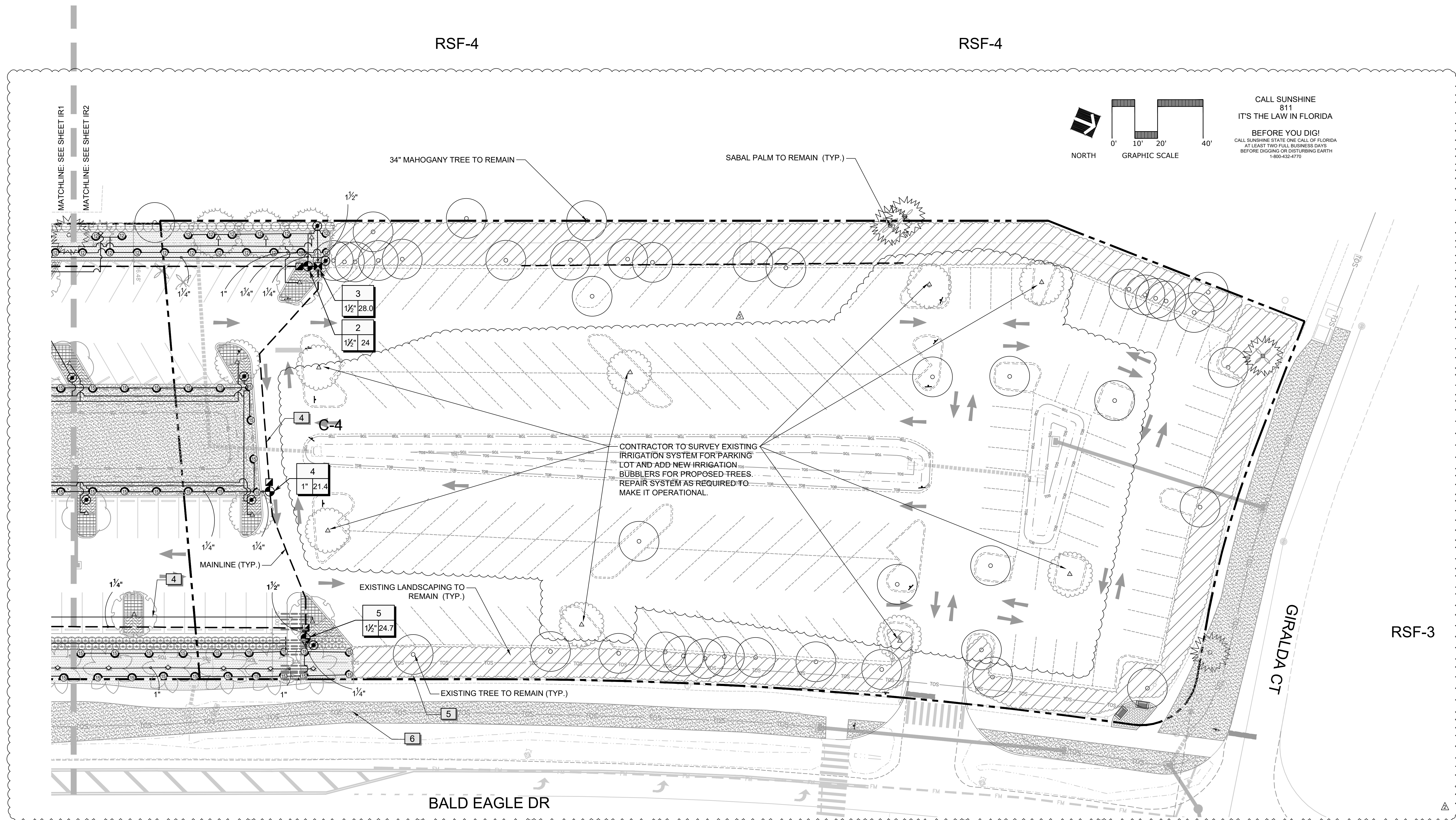
Marco Island, Florida

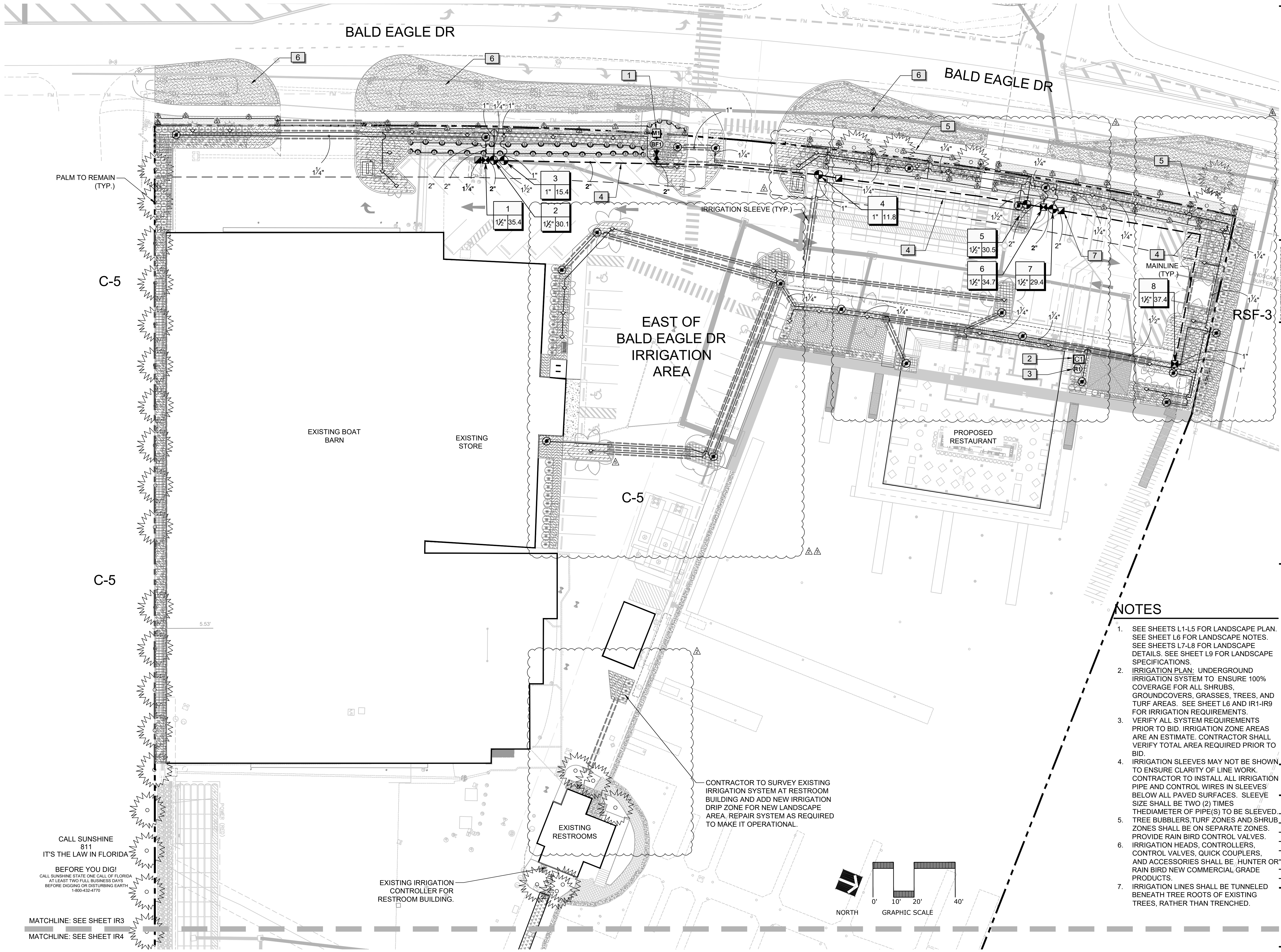
Project Number

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
⚠️ COMMENTS	09/20/2024
⚠️ COMMENTS	05/15/2025
⚠️ COMMENTS	07/28/2025
⚠️ COMMENTS	08/19/2025
⚠️ COMMENTS	10/16/2025
⚠️ COMMENTS	03/09/2026
⚠️ CIVIL UPDATE	07/08/2026

IRRIGATION PLAN

IR2





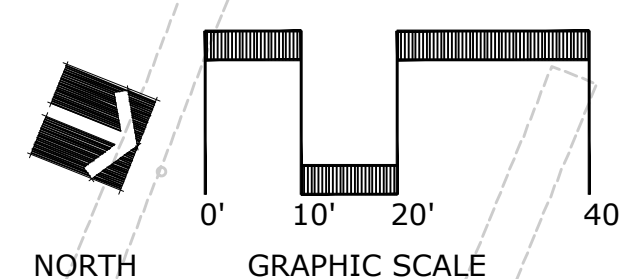
CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

MATCHLINE: SEE SHEET IR3
MATCHLINE: SEE SHEET IR4

EXISTING IRRIGATION
CONTROLLER FOR
RESTROOM BUILDING.

CONTRACTOR TO SURVEY EXISTING
IRRIGATION SYSTEM AT RESTROOM
BUILDING AND ADD NEW IRRIGATION
DRIP ZONE FOR NEW LANDSCAPE
AREA. REPAIR SYSTEM AS REQUIRED
TO MAKE IT OPERATIONAL.



NOTES

- SEE SHEETS L1-L5 FOR LANDSCAPE PLAN.
SEE SHEET L6 FOR LANDSCAPE NOTES.
SEE SHEETS L7-L8 FOR LANDSCAPE
DETAILS. SEE SHEET L9 FOR LANDSCAPE
SPECIFICATIONS.
- IRRIGATION PLAN: UNDERGROUND
IRRIGATION SYSTEM TO ENSURE 100%
COVERAGE FOR ALL SHRUBS,
GROUNDCOVERS, GRASSES, TREES, AND
TURF AREAS. SEE SHEET L6 AND IR1-IR9
FOR IRRIGATION REQUIREMENTS.
- VERIFY ALL SYSTEM REQUIREMENTS
PRIOR TO BID. IRRIGATION ZONE AREAS
ARE AN ESTIMATE. CONTRACTOR SHALL
VERIFY TOTAL AREA REQUIRED PRIOR TO
BID.
- IRRIGATION SLEEVES MAY NOT BE SHOWN
TO ENSURE CLARITY OF LINE WORK.
CONTRACTOR TO INSTALL ALL IRRIGATION
PIPE AND CONTROL WIRES IN SLEEVES
BELOW ALL PAVED SURFACES. SLEEVE
SIZE SHALL BE TWO (2) TIMES
THE DIAMETER OF PIPE(S) TO BE SLEEVED.
- TREE BUBBLERS, TURF ZONES AND SHRUB
ZONES SHALL BE ON SEPARATE ZONES.
PROVIDE RAIN BIRD CONTROL VALVES.
- IRRIGATION HEADS, CONTROLLERS,
CONTROL VALVES, QUICK COUPLERS,
AND ACCESSORIES SHALL BE HUNTER OR
RAIN BIRD NEW COMMERCIAL GRADE
PRODUCTS.
- IRRIGATION LINES SHALL BE TUNNELED
BENEATH TREE ROOTS OF EXISTING
TREES, RATHER THAN TRENCHED.

Wannemacher Jensen Architects, Inc.
180 Miral Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA0002277

THE ARCHITECTS' COMMON LAW COPYRIGHT AND
OTHER PROPERTY RIGHTS ARE HEREBY RESERVED.
NO PART OF THIS DOCUMENT OR ANY
SPECIFICATIONS PRODUCED BY THE ARCHITECT
SHALL BE REPRODUCED OR TRANSMITTED IN ANY
FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL,
INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY
INFORMATION STORAGE AND RETRIEVAL SYSTEM,
WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT.
THIS DOCUMENT IS THE PROPERTY OF THE ARCHITECT.
IT IS TO BE USED ONLY FOR THE PROJECT AND SITE
SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE
REPRODUCED OR TRANSMITTED IN ANY FORM OR BY
ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT
THE WRITTEN PERMISSION OF THE ARCHITECT. THE
ARCHITECT'S LIABILITY IS LIMITED TO THE DESIGN
AND CONSTRUCTION OF THE PROJECT AND SHALL NOT
EXCEED THE AMOUNT OF THE FEE RECEIVED BY THE
ARCHITECT FOR THE PROJECT. THE ARCHITECT'S
LIABILITY SHALL NOT BE DETERMINED BY THE LOCAL
AUTHORITY IN ACCORDANCE WITH CHAPTER 933,
ARTICLE 10, OF THE FLORIDA STATUTES.

Prepared By:
PlaceMaker
Design Studio, LLC
415 Plaza Drive
St. Petersburg, FL 33701
Phone: 727-726-6124
Contact: Chris Anuszkiewicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024 PlaceMaker Design Studio, LLC

REGISTERED LANDSCAPE ARCHITECT
Christopher J. Anuszkiewicz
LA6667069
STATE OF FLORIDA

The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

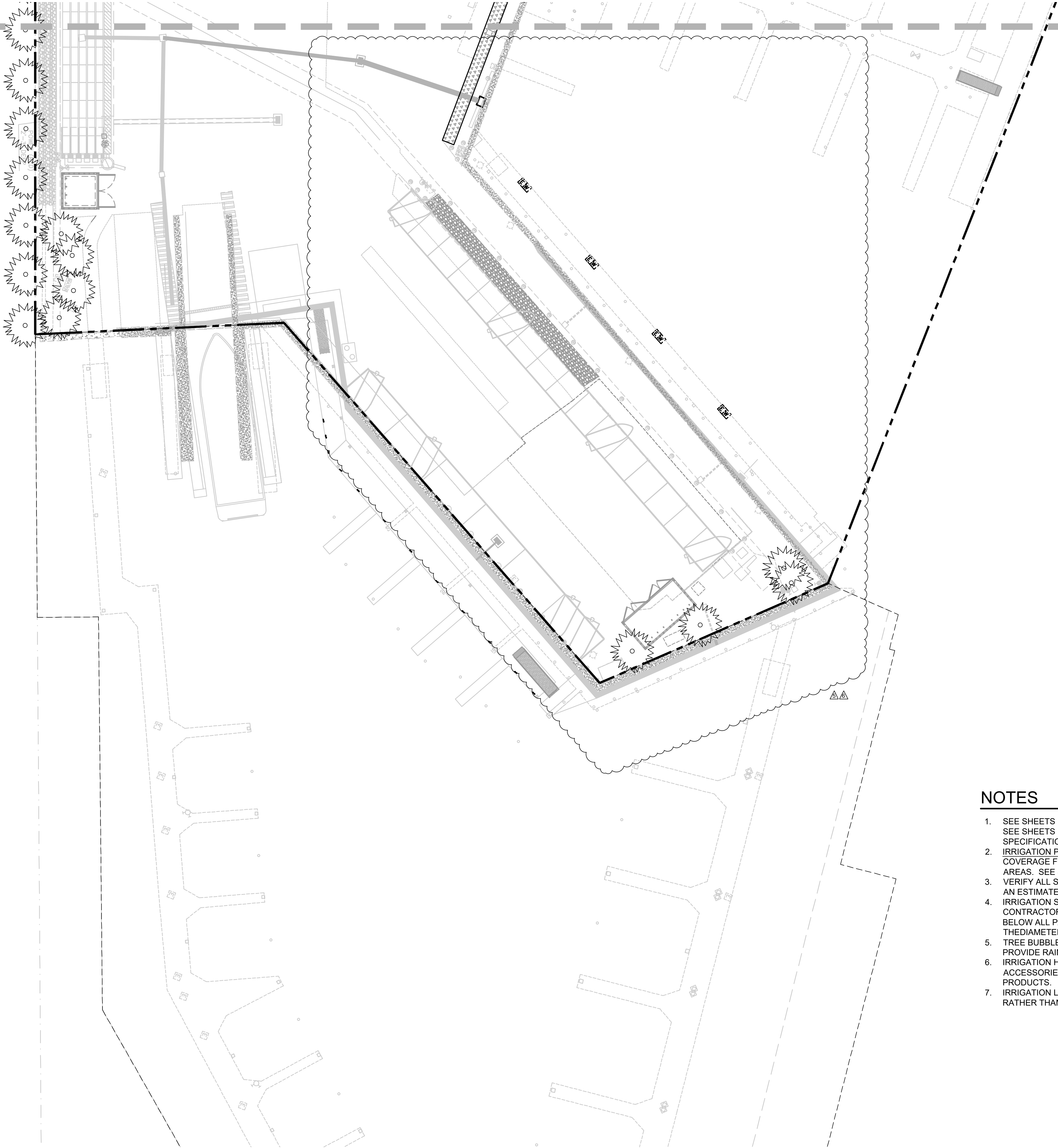
**ROSE MARINA
RESTAURANT**
Marco Island, Florida

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

IRRIGATION PLAN

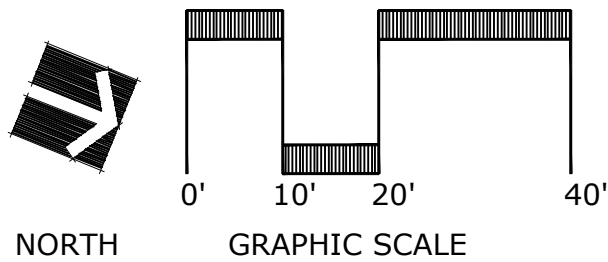
IR3

MATCHLINE: SEE SHEET IR3
MATCHLINE: SEE SHEET IR4



NOTES

1. SEE SHEETS L1-L5 FOR LANDSCAPE PLAN. SEE SHEET L6 FOR LANDSCAPE NOTES. SEE SHEETS L7-L8 FOR LANDSCAPE DETAILS. SEE SHEET L9 FOR LANDSCAPE SPECIFICATIONS.
2. IRRIGATION PLAN: UNDERGROUND IRRIGATION SYSTEM TO ENSURE 100% COVERAGE FOR ALL SHRUBS, GROUNDCOVERS, GRASSES, TREES, AND TURF AREAS. SEE SHEET L6 AND IR1-IR9 FOR IRRIGATION REQUIREMENTS.
3. VERIFY ALL SYSTEM REQUIREMENTS PRIOR TO BID. IRRIGATION ZONE AREAS ARE AN ESTIMATE. CONTRACTOR SHALL VERIFY TOTAL AREA REQUIRED PRIOR TO BID.
4. IRRIGATION SLEEVES MAY NOT BE SHOWN TO ENSURE CLARITY OF LINE WORK. CONTRACTOR TO INSTALL ALL IRRIGATION PIPE AND CONTROL WIRES IN SLEEVES BELOW ALL PAVED SURFACES. SLEEVE SIZE SHALL BE TWO (2) TIMES THE DIAMETER OF PIPE(S) TO BE SLEEVED.
5. TREE BUBBLERS, TURF ZONES AND SHRUB ZONES SHALL BE ON SEPARATE ZONES. PROVIDE RAIN BIRD CONTROL VALVES.
6. IRRIGATION HEADS, CONTROLLERS, CONTROL VALVES, QUICK COUPLERS, AND ACCESSORIES SHALL BE HUNTER OR RAIN BIRD NEW COMMERCIAL GRADE PRODUCTS.
7. IRRIGATION LINES SHALL BE TUNNELED BENEATH TREE ROOTS OF EXISTING TREES, RATHER THAN TRENCHED.



CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

ROSE MARINA RESTAURANT

Marco Island, Florida

Project Number

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

IRRIGATION PLAN

IR4

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED. NO PART OF THIS DOCUMENT OR ANY SPECIFICATIONS PROVIDED BY THE ARCHITECT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT WRITTEN PERMISSION OF THE ARCHITECT. ANY REUSE OR MODIFICATION OF THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT IS PROHIBITED. THE ARCHITECT'S LIABILITY TO THE BEST OF THE ARCHITECT'S ONE ENGINEER'S KNOWLEDGE AND BELIEF IS LIMITED TO THE STANDARDS AS SET FORTH BY THE LOCAL AUTHORITY IN ACCORDANCE WITH CHAPTERS 93 AND 120 OF THE FLORIDA STATUTES.

Prepared By:
PlaceMaker
Design Studio, LLC
415 Plaza Drive
St. Petersburg, FL 33701-3214
Phone: 727-726-6124
LA6667069
Contact: Chris Anuszkiewicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024 PlaceMaker Design Studio, LLC

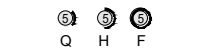


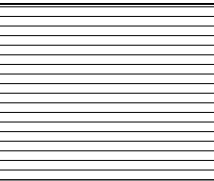
The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

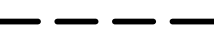
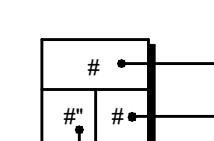
Wannemacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA000277



IRR SCHEDULE EAST OF BALD EAGLE DR

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird 1806-PRS 15 Strip Series Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	55	25
	Rain Bird 1806-PRS 5 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	5	25
	Rain Bird 1806-PRS 8 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	33	25
	Rain Bird 1804-PRS-1300AF Flood Flood Bubbler 4in. pop-up, with a PA-80 adapter. With pressure regulator.	38	20
	Rain Bird 1804-PRS-1400 Flood Flood Bubbler 4in. popup with pressure regulating device.	2	20

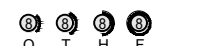
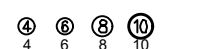
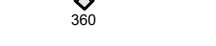
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird XCZ-150-LCS High Flow Control Zone Kit, for Large Commercial Drip Zones. 1-1/2in. PEB Globe Valve with single 1-1/2in. Pressure Regulating 40psi Quick-Check Basket Filter. Flow range: 15-62 GPM.	3	
	Pipe Transition Point in Drip Box Pipe transition point from PVC lateral to drip tubing with riser in 6in. drip box.	20	
	Area to Receive Dripline Rain Bird XFD-09-18 XFD On-Surface Pressure Compensating Landscape Dripline. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 18" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	9,238 sf	20

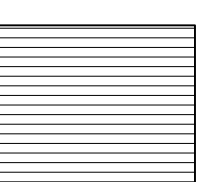
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PEB 1in., 1-1/2in., 2in., 3in. Plastic Industrial Remote Control Valve. Low Flow Operating Capability, Globe Configuration.	5
	Rain Bird 44-LRC 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.	3
	Landscape Products Inc. CWV Threaded 1/2in., 3/4in., 1in., 1-1/4in., 1-1/2in., 2in. Threaded Plastic Ball Valve. Quarter-turn shutoff designed for irrigation, spas, pools and other general cold water applications. 125 psi rating. Same size as mainline.	1
	Backflow Preventer Device 1" Approved backflow preventer device per industry standards and applicable codes.	1
	Hunter PHC-1200 Wi-Fi enabled, full-functioning controller with touchscreen, 12-Station fixed controller, 120 VAC, Outdoor model.	1
	Hunter WRF-CLIK Rain/freeze Sensor, install within 1000 ft of controller, in line of sight. 22-28 VAC/VDC 100 mA power from timer transformer. Mount as noted. Includes Gutter Mount.	1
	Water Meter 1" Irrigation system is designed based on an assumed maximum of 37 GPM available and assumed static water pressure of 65 PSI at the point of connection. Verify pressure and flow rate prior to bid.	1
	Irrigation Lateral Line: PVC Class 200 SDR 21 All lateral lines shall be a minimum of one (1) inch unless otherwise indicated on the plans.	
	Irrigation Mainline: PVC Schedule 40	
	Pipe Sleeve: PVC Schedule 40 Sleeve size shall be two (2) times the diameter of pipe(s) to be sleeved below all paved surfaces. Extend sleeves 12 inches beyond edges of paving.	
	Valve Callout # Valve Number # Valve Flow # Valve Size	

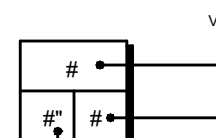
VALVE SCHEDULE EAST OF BALD EAGLE DR

NUMBER	MODEL	SIZE	TYPE	GPM	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	Rain Bird XCZ-150-LCS	1-1/2"	Area for Dripline	35.43	20	27.9	46.9	0.96 in/h
2	Rain Bird PEB	1-1/2"	Turf Spray	30.1	25	29.9	46.5	1.46 in/h
3	Rain Bird PEB	1"	Bubbler	15.4	20	23.7	36.5	4.77 in/h
4	Rain Bird PEB	1"	Bubbler	10.4	20	23.3	36.4	4.43 in/h
5	Rain Bird PEB	1-1/2"	Turf Spray	30.51	25	30.1	47.7	1.5 in/h
6	Rain Bird XCZ-150-LCS	1-1/2"	Area for Dripline	34.7	20	28.6	48.3	0.96 in/h
7	Rain Bird PEB	1-1/2"	Bubbler	29.4	20	27.2	44.4	4.77 in/h
8	Rain Bird XCZ-150-LCS	1-1/2"	Area for Dripline	37.29	20	28.7	51.6	0.96 in/h

IRRIGATION SCHEDULE WEST OF BALD EAGLE DR

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird 1806-PRS 8 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	2	25
	Rain Bird 1806-PRS 10 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	1	25
	Rain Bird 1806-PRS 12 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	41	25
	Rain Bird 1806-PRS 15 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	83	25
	Rain Bird 1806-PRS ADJ Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	2	25
	Rain Bird 1804-PRS-1300AF Flood Flood Bubbler 4in. pop-up, with a PA-80 adapter. With pressure regulator.	18	20
	Rain Bird 1804-PRS-1400 Flood Flood Bubbler 4in. popup with pressure regulating device.	22	20

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird XCZ-150-LCS High Flow Control Zone Kit, for Large Commercial Drip Zones. 1-1/2in. PEB Globe Valve with single 1-1/2in. Pressure Regulating 40psi Quick-Check Basket Filter. Flow range: 15-62 GPM.	2
	Pipe Transition Point in Drip Box Pipe transition point from PVC lateral to drip tubing with riser in 6in. drip box.	14
	Area to Receive Dripline Rain Bird XFD-09-18 XFD On-Surface Pressure Compensating Landscape Dripline. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 18" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	6,079 sf

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PEB 1in., 1-1/2in., 2in., 3in. Plastic Industrial Remote Control Valve. Low Flow Operating Capability, Globe Configuration.	9
	Rain Bird 44-LRC 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.	6
	Landscape Products Inc. CWV Threaded 1/2in., 3/4in., 1in., 1-1/4in., 1-1/2in., 2in. Threaded Plastic Ball Valve. Quarter-turn shutoff designed for irrigation, spas, pools and other general cold water applications. 125 psi rating. Same size as mainline.	1
	Backflow Preventer Device 1" Approved backflow preventer device per industry standards and applicable codes.	1
	Hunter I2C-2400-M/ICC-PED-SS 24 Station Outdoor Modular Controller. With two ICM-800 Module. Commercial Use. Stainless Steel Pedestal.	1
	Hunter WRF-CLIK Rain/freeze Sensor, install within 1000 ft of controller, in line of sight. 22-28 VAC/VDC 100 mA power from timer transformer. Mount as noted. Includes Gutter Mount.	1
	Water Meter 1" Irrigation system is designed based on an assumed maximum of 37 GPM available and assumed static water pressure of 65 PSI at the point of connection. Verify pressure and flow rate prior to bid.	1
	Irrigation Lateral Line: PVC Class 200 SDR 21 All lateral lines shall be a minimum of one (1) inch unless otherwise indicated on the plans.	
	Irrigation Mainline: PVC Schedule 40	
	Pipe Sleeve: PVC Schedule 40 Sleeve size shall be two (2) times the diameter of pipe(s) to be sleeved below all paved surfaces. Extend sleeves 12 inches beyond edges of paving.	
	Valve Callout # Valve Number # Valve Flow # Valve Size	

VALVE SCHEDULE WEST OF BALD EAGLE DR

NUMBER	MODEL	SIZE	TYPE	GPM	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	Rain Bird PEB	1-1/2"	Turf Spray	28.56	25	30.2	47.7	1.5 in/h
2	Rain Bird PEB	1-1/2"	Turf Spray	24	25	31.0	48.9	1.49 in/h
3	Rain Bird XCZ-150-LCS	1-1/2"	Area for Dripline	28.04	20	28.5	48.8	0.96 in/h
4	Rain Bird PEB	1"	Turf Spray	21.44	25	30.8	47.5	0.78 in/h
5	Rain Bird PEB	1-1/2"	Turf Spray	24.72	25	29.8	47.8	1.38 in/h
6	Rain Bird PEB	1-1/2"	Turf Spray	26.34	25	29.5	46.8	1.36 in/h
7	Rain Bird PEB	1-1/2"	Bubbler	22	20	27.3	42.9	3.4 in/h
8	Rain Bird XCZ-150-LCS	1-1/2"	Area for Dripline	32.78	20	26.4	46.9	0.96 in/h
9	Rain Bird PEB	1-1/2"	Bubbler	25.2	20	27.5	42.6	4.77 in/h
10	Rain Bird PEB	1-1/2"	Turf Spray	24.67	25	29.8	44.6	1.38 in/h
11	Rain Bird PEB	1"	Turf Spray	21.44	25	32.5	46.5	0.83 in/h

CRITICAL ANALYSIS

Generated: 2025-08-19 09:09

P.O.C. NUMBER: 01
Water Source Information: Irrigation system is designed based on an assumed maximum of 37 GPM available and assumed static water pressure of 65 PSI at the point of connection. Verify pressure and flow rate prior to bid.

FLOW AVAILABLE
Water Meter Size: 1"
Flow Available: 37.5 GPM

PRESSURE AVAILABLE
Static Pressure at POC: 65 PSI
Elevation Change: 5.00 ft
Service Line Size: 2"
Length of Service Line: 20 ft
Pressure Available: 63 PSI

DESIGN ANALYSIS
Maximum Station Flow: 37.29 GPM
Flow Available at POC: 37.5 GPM
Residual Flow Available: 0.21 GPM

Critical Station: 8
Design Pressure: 20 PSI
Friction Loss: 3.39 PSI
Fittings Loss: 0.34 PSI
Elevation Loss: 0 PSI
Loss through Valve: 5 PSI
Pressure Req. at Critical Station: 28.7 PSI
Loss for Fittings: 0.37 PSI
Loss for Main Line: 3.65 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 10.5 PSI
Loss for Water Meter: 8.38 PSI
Critical Station Pressure at POC: 51.6 PSI
Pressure Available: 63 PSI
Residual Pressure Available: 11.4 PSI

REFERENCE NOTES SCHEDULE

- | SYMBOL | DESCRIPTION |
|--------|---|
| 1 | INSTALL NEW IRRIGATION POINT OF CONNECTION AT POTABLE WATER SUPPLY. COORDINATE INSTALLATION OF 1" CITY IRRIGATION WATER METER AND 2" SERVICE LINE PER CITY REQUIREMENTS. SEE CIVIL SHEETS FOR POINT OF CONNECTION. |
| 2 | IRRIGATION CONTROLLER TO BE MOUNTED ON WALL. VERIFY FINAL LOCATION OF CONTROLLER AND RAIN SENSOR WITH OWNER'S REPRESENTATIVE. COORDINATE ELECTRICAL CONNECTION AS REQUIRED. |
| 3 | RAIN SENSOR TO BE INSTALLED ON ROOF AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. CONTRACTOR SHALL ENSURE RAINFALL IS NOT OBSTRUCTED BY ARCHITECTURAL OR MECHANICAL FEATURES. |
| 4 | IRRIGATION MAINLINE AND/OR LATERAL LINE SHOWN OUTSIDE LANDSCAPE AREA FOR GRAPHIC CLARITY. ALL MAINLINE PIPES, LATERAL PIPES, AND VALVE BOXES TO BE INSTALLED WITHIN LANDSCAPE AREA. ALL IRRIGATION PIPES TO BE SLEEVED UNDER PAVEMENT AND WALKWAYS (TYP.). |
| 5 | DO NOT TRENCH WITHIN THE DRIPLINE OF EXISTING TREES TO REMAIN. LOCATE IRRIGATION LINES TO AVOID INSTALLATION WITHIN THE DRIPLINE OF ANY EXISTING TREES TO REMAIN. TUNNELING BY AIR SPADE OR HAND DIGGING, RATHER THAN TRENCHING, SHALL BE USED WITHIN THE DRIPLINE OF EXISTING TREES TO REMAIN WHERE UNDERGROUND INSTALLATIONS ARE REQUIRED (TYP.). |
| 6 | HAND WATER BAHIA SOD FOR ESTABLISHMENT (TYP.) |
| 7 | QUICK COUPLERS PROVIDED FOR HAND WATERING BAHIA TURF IN R.O.W.FOR ESTABLISHMENT (TYP.) |
| 8 | IRRIGATION CONTROLLER TO BE MOUNTED IN STAINLESS STEEL PEDESTAL. VERIFY FINAL LOCATION OF CONTROLLER AND RAIN SENSOR WITH OWNER'S REPRESENTATIVE. COORDINATE ELECTRICAL CONNECTION AS REQUIRED. |
| 9 | RAIN SENSOR TO BE MOUNTED ON CONTROLLER PEDESTAL AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. CONTRACTOR SHALL ENSURE RAINFALL IS NOT OBSTRUCTED BY ARCHITECTURAL OR MECHANICAL FEATURES. |

NOTES

- SEE SHEETS L1-L5 FOR LANDSCAPE PLAN. SEE SHEET L6 FOR LANDSCAPE NOTES. SEE SHEETS L7-L8 FOR LANDSCAPE DETAILS. SEE SHEET L9 FOR LANDSCAPE SPECIFICATIONS.
- IRRIGATION PLAN: UNDERGROUND IRRIGATION SYSTEM TO ENSURE 100% COVERAGE FOR ALL SHRUBS, GROUNDCOVERS, GRASSES, TREES, AND TURF AREAS. SEE SHEET L6 AND IR1-IR9 FOR IRRIGATION REQUIREMENTS.
- VERIFY ALL SYSTEM REQUIREMENTS PRIOR TO BID. IRRIGATION ZONE AREAS ARE AN ESTIMATE. CONTRACTOR SHALL VERIFY TOTAL AREA REQUIRED PRIOR TO BID.
- IRRIGATION SLEEVES MAY NOT BE SHOWN TO ENSURE CLARITY OF LINE WORK. CONTRACTOR TO INSTALL ALL IRRIGATION PIPE AND CONTROL WIRES IN SLEEVES BELOW ALL PAVED SURFACES. SLEEVE SIZE SHALL BE TWO (2) TIMES THEDIAMETER OF PIPE(S) TO BE SLEEVED.
- TREE BUBBLERS, TURF ZONES AND SHRUB ZONES SHALL BE ON SEPARATE ZONES. PROVIDE RAIN BIRD CONTROL VALVES.
- IRRIGATION HEADS, CONTROLLERS, CONTROL VALVES, QUICK COUPLERS, AND ACCESSORIES SHALL BE HUNTER OR RAIN BIRD NEW COMMERCIAL GRADE PRODUCTS.
- IRRIGATION LINES SHALL BE TUNNELED BENEATH TREE ROOTS OF EXISTING TREES, RATHER THAN TRENCHED.

CRITICAL ANALYSIS

Generated: 2025-04-17 11:37

P.O.C. NUMBER: 02
Water Source Information: Irrigation system is designed based on an assumed maximum of 37 GPM available and assumed static water pressure of 65 PSI at the point of connection. Verify pressure and flow rate prior to bid.

FLOW AVAILABLE
Water Meter Size: 1"
Flow Available: 37.5 GPM

PRESSURE AVAILABLE
Static Pressure at POC: 65 PSI
Elevation Change: 5.00 ft
Service Line Size: 2"
Length of Service Line: 20 ft
Pressure Available: 63 PSI

DESIGN ANALYSIS
Maximum Station Flow: 32.78 GPM
Flow Available at POC: 37.5 GPM
Residual Flow Available: 4.73 GPM

Critical Station: 2
Design Pressure: 25 PSI
Friction Loss: 1.97 PSI
Fittings Loss: 0.2 PSI
Elevation Loss: 0 PSI
Loss through Valve: 3.78 PSI
Pressure Req. at Critical Station: 31.0 PSI
Loss for Fittings: 0.35 PSI
Loss for Main Line: 3.49 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 10.7 PSI
Loss for Water Meter: 3.4 PSI
Critical Station Pressure at POC: 48.9 PSI
Pressure Available: 63 PSI
Residual Pressure Available: 14.1 PSI

Wannemacher Jensen Architects, Inc.

180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA000277

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED. NO PART OF THIS DOCUMENT OR ANY SPECIFICATIONS PROVIDED BY THE ARCHITECT OR ANY OTHER PARTY TO THIS DOCUMENT OR ANY SPECIFICATIONS SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION OF THE ARCHITECT. ANY UNAUTHORIZED REPRODUCTION OR TRANSMISSION OF THIS DOCUMENT IS PROHIBITED. THE ARCHITECT ASSUMES NO LIABILITY FOR THE CONSTRUCTION OF THIS DOCUMENT OR FOR THE CONSTRUCTION OF THE PROJECT TO THE BEST OF THE ARCHITECT'S ONE HUNDRED PER CENT KNOWLEDGE AND BELIEF. THE ARCHITECT'S STANDARDS OF CARE ARE GOVERNED BY THE LOCAL, STATE, AND FEDERAL PROFESSIONAL BOARD OF ARCHITECTS. THIS DOCUMENT IS NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT.

Prepared By:

PlaceMaker Design Studio, LLC

415 Plaza Drive
St. Petersburg, FL 33701
Phone: 727-726-6124
LA6667069

Contact: Chris Anuszkiewicz, RLA

Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024, Placemaker Design Studio, LLC

REGISTERED LANDSCAPE ARCHITECT
Christopher J. Anuszkiewicz
STATE OF FLORIDA
LA6667069

The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

ROSE MARINA RESTAURANT

Marco Island, Florida

Project Number

Distribution

ISSUE DATE

SDP SUBMITTAL 06/14/2024

COMMENTS 09/20/2024

COMMENTS 05/15/2025

COMMENTS 07/28/2025

COMMENTS 08/19/2025

COMMENTS 10/16/2025

COMMENTS 03/09/2026

CIVIL UPDATE 07/08/2026

IRRIGATION SCHEDULE

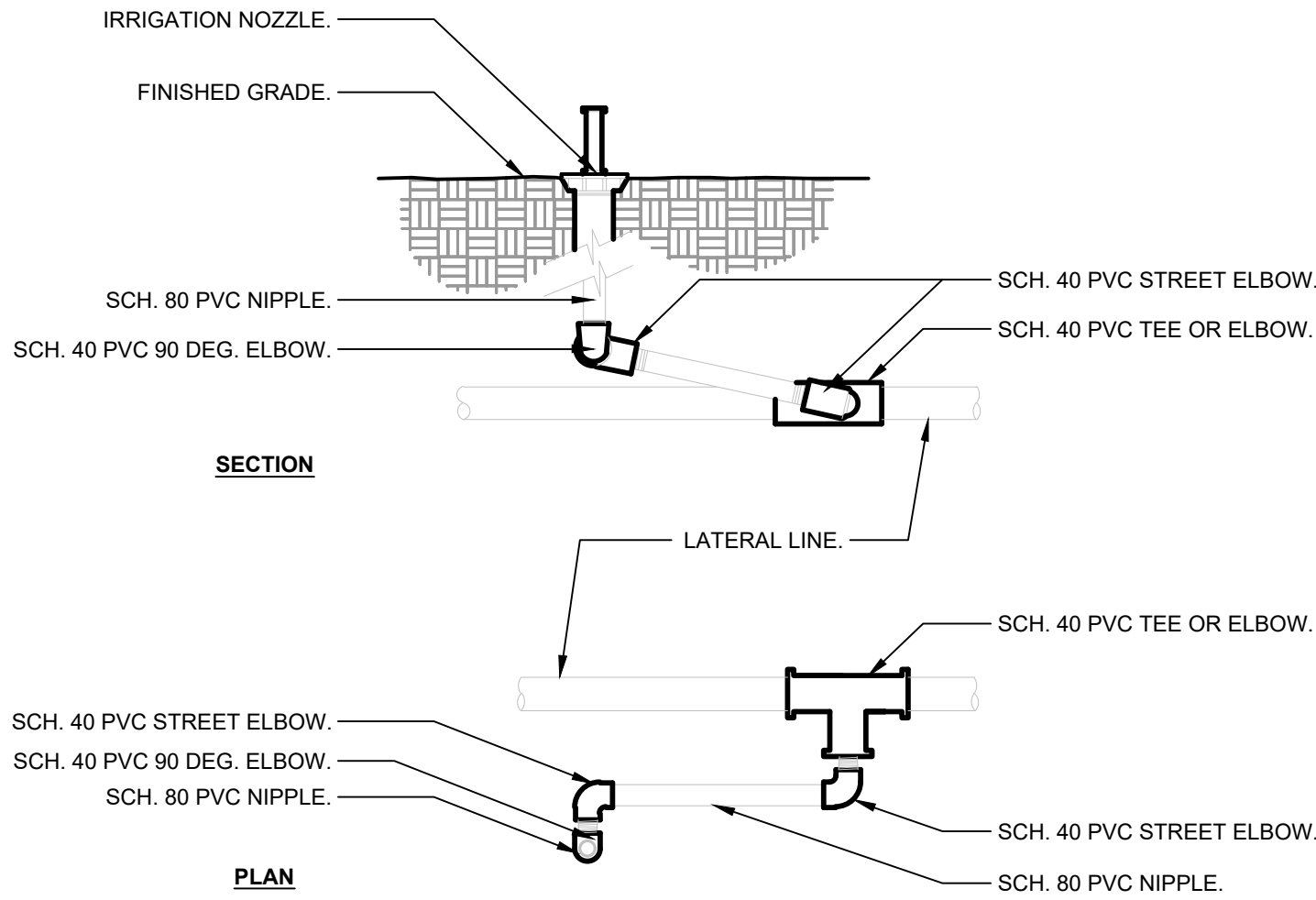
IR5

CALL SUNSHINE 811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

IRRIGATION NOTES

1. ALL WORK SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL REGULATIONS AND CODES FOR THE LOCATION OF WORK. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED TO COMPLETE WORK.
2. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION AND THE COST FOR SUCH ARE TO BE INCLUDED AS PART OF THE BID. THE CONTRACTOR SHALL INSPECT THE SITE AND VERIFY CONDITIONS AND DIMENSIONS PRIOR TO DESIGN AND CONSTRUCTION. ESTIMATED LINEAR FEET AND SQUARE FEET QUANTITIES IN IRRIGATION SCHEDULE DO NOT TAKE GRADE CHANGES INTO ACCOUNT. CONTRACTOR SHALL VERIFY ALL TOTAL QUANTITIES REQUIRED FOR COMPLETION OF WORK PRIOR TO BID.
4. THE IRRIGATION CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS AND MATERIAL CUT SHEET UPON INSTALLATION COMPLETION AS AS A TERM OF FINAL ACCEPTANCE. THIS COST SHALL BE ACCOMMODATED IN THE BID.
5. IRRIGATION PLANS ARE SCHEMATIC REPRESENTATIONS ONLY. FIELD ADJUST LINES TO AVOID CONFLICT WITH UTILITIES.
6. IRRIGATION SYSTEM IS DESIGNED BASED ON ASSUMED WATER PRESSURE OF 65 PSI AT POINT OF CONNECTION. VERIFY ACTUAL PRESSURE AND FLOW RATE PRIOR TO BID SUBMISSION AND NOTIFY OWNER'S REPRESENTATIVE IF DIFFERENCES ARISE BETWEEN ACTUAL PRESSURE AND DESIGN PRESSURE. CONTRACTOR SHALL PROVIDE A BOOSTER PUMP IF REQUIRED.
7. IRRIGATION IS COORDINATED WITH THE PLANTING PLAN AND SITE IMPROVEMENTS AND IS DESIGNED WITH TRIANGULAR SPACING GIVING HEAD TO HEAD COVERAGE. COORDINATE IRRIGATION HEAD LAYOUT WITH NEW PLANT MATERIALS. LOCATE SPRAY HEADS 30" FROM BASE OF TREE. DO NOT ALTER HEAD LOCATION, PIPE LAYOUT, OR VALVE LOCATION WITHOUT APPROVAL FROM THE CONSTRUCTION MANAGER. NOTIFY OWNER'S REPRESENTATIVE IF DISCREPANCIES OCCUR BETWEEN THE PLANS AND FIELD CONDITIONS.
8. COORDINATE IRRIGATION POINTS OF CONNECTION AND LOCATION OF AUTOMATIC CONTROL VALVES WITH PROJECT MANAGER. COORDINATE ALL WORK WITH OTHER TRADES, I.E. ELECTRICAL, MASONRY, ETC.
9. USE 45 ELLS INSTEAD OF 90 ELLS ON ALL MAINLINES 2-1/2" AND LARGER. INSTALL CONCRETE THRUST BLOCKS AT ALL MAINLINE CHANGES IN DIRECTION. POUR MINIMUM OF 1 CUBIC FOOT OF CONCRETE ON UNDISTURBED SOIL. WRAP PIPE IN PLASTIC WRAP PRIOR TO COVERING WITH CONCRETE.
10. THIS SYSTEM SHALL BE AUTOMATED AND SHALL AVOID THE APPLICATION (OR INDIRECT RUNOFF) OF WATER IN IMPERVIOUS AREAS AND EXISTING NATIVE VEGETATION.
11. ALL COMPONENTS OF IRRIGATION SYSTEM SHALL BE INSTALLED AND PROPERLY ADJUSTED TO PROVIDE ADEQUATE COVERAGE AND MINIMIZATION OF OVER SPRAY ONTO WALKS, BUILDINGS, PARKING AREAS, ETC.
12. IRRIGATION HEADS IN PLANTING BEDS SHALL BE 12" POP-UP MINIMUM AND 6" POP-UP MINIMUM IN SOD AREAS. RISERS, IF INSTALLED, SHALL BE PVC CONSISTENT WITH LATERAL PIPING. INSTALL QUICK COUPLERS AS REQUIRED OR AS NOTED.
13. INSTALL ALL IRRIGATION PIPE AND CONTROL WIRES IN SLEEVE BELOW ALL PAVED SURFACES UNLESS OTHERWISE INDICATED ON THE PLANS. SLEEVE SIZE WILL BE TWO (2) TIMES THE DIAMETER OF PIPE(S) TO BE SLEEVED. INSTALL SLEEVES PRIOR TO PLACEMENT OF PAVEMENTS AND PAVEMENT SUB-BASE.
14. PROVIDE POSITIVE DRAINAGE OF MAINLINE. PLACE MANUAL DRAIN AT LOW POINTS IN MAINLINE. IDENTIFY LOCATIONS ON AS-BUILTS.
15. ALL VALVE BOXES AND COVERS SHALL HAVE LOCKING LIDS AND A WATERPROOF, FADE-RESISTANT TAG. ALL QUICK COUPLERS SHALL BE INSTALLED IN VALVE BOXES. VALVE BOXES AND COVERS SHALL BE GREEN.
16. CONTRACTOR TO INSTALL CONTROLLER, PUMP EQUIPMENT, AND ALL IRRIGATION ACCESSORIES AS REQUIRED. CONTRACTOR TO FURNISH CONTROL WIRES FROM VALVES TO CONTROLLER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING 110 VOLT SERVICE FROM BUILDING AND CONNECTION TO CONTROLLER SERVICE.
17. INSTALL ONE (1) ADDITIONAL RED CONTROL WIRE AND ONE (1) ADDITIONAL WHITE CONTROL WIRE FROM CONTROLLER TO END OF MAINLINE.
18. CONTROLLER GROUNDING: ALL GROUNDING AND INSTALLATION OF EQUIPMENT SPECIFIED, SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTROLLER SHALL BE GROUNDED TO GROUND RODS WITH LESS THAN 10 OHMS RESISTANCE. PROVIDE 5/8" DIAMETER X 8' LONG COPPER CLAD STEEL GROUND RODS WITH 15' PRE-WELDED #6 AWG INSULATED GREEN-YELLOW WIRE (PAIGE ELECTRIC PART # 18200071C6). THE RODS ARE TO BE DRIVEN INTO THE GROUND IN A VERTICAL POSITION OR AN OBLIQUE ANGLE NOT TO EXCEED 45 DEGREES AT A LOCATION 10 FEET FROM THE ELECTRONIC EQUIPMENT, THE GROUND PLATE, OR THE WIRES AND CABLES CONNECTED TO SAID EQUIPMENT. THE GROUNDING RODS SHALL BE COVERED BY A VALVE BOX. INSTALL ALL GROUNDING CIRCUIT COMPONENTS IN STRAIGHT LINES. REFERENCE THE GROUNDING DETAILS AND/OR PAIGE ELECTRIC WIRING GUIDE [HTTPS://WWW.PAIGEWIRE.COM](https://www.paigewire.com).
19. THE RAIN SHUTOFF DEVICE SHALL BE INSTALLED TO MEET LOCAL CODES AND/OR MINIMUM MANUFACTURER'S RECOMMENDATIONS. OBSTRUCTIONS, VANDALISM AND EASE OF SERVICE SHALL BE CONSIDERED IN LOCATING THE DEVICE. ALL WIRING BETWEEN THE RAIN SWITCH AND THE IRRIGATION CONTROLLER SHALL BE ENCLOSED IN 1/2" PVC ELECTRICAL CONDUIT. VERIFY FINAL LOCATION WITH OWNER'S REPRESENTATIVE.
20. IRRIGATION SLEEVING TO BE A MINIMUM OF SCHEDULE 40 PVC AND SHALL BE COORDINATED BY THE GENERAL CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SLEEVING INSTALLATION UNLESS THIS WORK IS IN THE IRRIGATION SCOPE OF WORK. SLEEVING SHALL BE CLEARLY MARKED, FLAGGED, OR OTHERWISE DELINEATED ABOVE GRADE TO AVOID DAMAGE AND PROVIDE EASE OF LOCATION FOR FUTURE WORK. SLEEVES SHALL BE INSTALLED AT THE FOLLOWING DEPTHS: 24 INCHES, EXCEPT SLEEVES BENEATH VEHICULAR TRAFFIC SHALL BE INSTALLED AT 36 INCHES.
21. PIPE SIZING SHALL BE DETERMINED BY THE FRICTION LOSS METHOD AND WATER VELOCITY SHALL NOT EXCEED 5 CUBIC FEET PER SECOND. CONSTANT PRESSURE PIPING SHALL BE SCH 40 PVC. ALL PIPE SIZES INDICATED ARE MINIMUMS. CONTRACTOR MAY NOT DECREASE PIPE SIZE. LARGER PIPES MAY BE USED AT NO ADDITIONAL COST TO OWNER.
22. BACKFLOW PREVENTER AS REQUIRED PER INDUSTRY STANDARDS AND APPLICABLE CODES.
23. THE IRRIGATION SYSTEM SHALL BE PROPERLY MAINTAINED AND CONTRACTOR TO PROGRAM AUTOMATIC CONTROLLER CONSISTENT WITH WATER SCHEDULES ESTABLISHED BY THE PREVAILING WATER MANAGEMENT DISTRICT, OR THE MUNICIPALITY, WHICHEVER IS MORE RESTRICTIVE.
24. VERIFY INSTALLATION AND PARTS WARRANTY PRIOR TO CONTRACT EXECUTION.
25. THESE PLANS DO NOT EXPRESS OR IMPLY IN ANY WAY ANY TYPE OF TRADE WARRANTY OR MATERIAL GUARANTEE FROM THE MANUFACTURER AND NEITHER OFFERS ANY TYPE OF INSTALLATION WARRANTY NOR GUARANTEE OF ANY TYPE FOR THE FINISHED WORK. STARTING FROM THE DAY THE CONTRACTOR SIGNS CONTRACT CONTINUING IN PERPETUITY THE LANDSCAPE ARCHITECT HAVING NEITHER AFFILIATION WITH NOR CONTROL OVER EITHER THE CONTRACTOR OR HIS STAFF WILL BE HELD HARMLESS FOR ACTIONS OF THE CONTRACTOR AND HIS STAFF THAT MAY DAMAGE PROPERTY OR CAUSE PERSONAL BODILY INJURY. BY ACCEPTING THIS CONTRACT THE CONTRACTOR ACKNOWLEDGES HIS LIABILITY TO PAY THE FULL AMOUNT OF ANY AND ALL DAMAGE CLAIMS FILED AGAINST THE OWNERS PROPERTY, PROPERTY ADJACENT TO THE OWNER'S PROPERTY OR FOR ANY AND ALL PERSONAL INJURIES THAT RESULT DURING OR FROM THE INSTALLATION OF OR SUBSEQUENT OPERATION OF THIS SPRINKLER SYSTEM. CONTRACTOR SHALL INDEMNIFY THE LANDSCAPE ARCHITECT AND PAY ALL LEGAL FEES, FINES, COURT SETTLEMENTS, ANY AND ALL OTHER COSTS MENTIONED OR NOT MENTIONED HEREIN THAT MAY HAVE RESULTED FROM PROPERTY DAMAGE, PERSONAL BODILY INJURY OR ANY OTHER DAMAGE OR INJURY CAUSED DURING THE INSTALLATION OR OPERATION OF THIS SPRINKLER SYSTEM.
26. THE PURPOSE OF THIS IRRIGATION PLAN IS TO PROVIDE A PHYSICAL LAYOUT OF IRRIGATION EQUIPMENT TO ASSIST THE CONTRACTOR IN ACCURATELY ESTIMATING THE MATERIAL COST TO BID THE SPRINKLER SYSTEM. THE DESIGN INTENT IS TO PROVIDE THE CONTRACTOR WITH A DIAGRAMMATIC LAYOUT OF SPRINKLER EQUIPMENT, WHICH WILL PROVIDE ADEQUATE WATER COVERAGE FOR THE LANDSCAPE MATERIALS WITHIN THE SCOPE OF WORK UNDER THIS CONTRACT. THESE PLANS AND THE MATERIALS SPECIFIED ARE SUBJECT TO CHANGE WITHOUT NOTICE. PRIOR TO BIDDING THIS CONTRACT THE CONTRACTOR WILL VERIFY ALL IRRIGATION MATERIAL MODEL NUMBERS, DIMENSIONS, COMPATIBILITY OF COMPONENT ASSEMBLIES, MAINLINE AND ZONE HYDRAULICS, ELECTRICAL COMPONENTS, WIRING, ALL SLEEVES, WATER AND ELECTRICAL SOURCES, WATER PRESSURE AND G.P.M. AVAILABLE AND APPLICABLE SITE CONDITIONS, WHICH MAY ADVERSELY AFFECT EITHER THE COST OR PERFORMANCE OF THIS SPRINKLER SYSTEM. IF A CONFLICT IS FOUND THE CONTRACTOR WILL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING AND WILL NOT START THE WORK UNTIL THE OWNER HAS RESOLVED THE CONFLICT AND ISSUED IN WRITING A "NOTICE TO PROCEED". IF A CONFLICT IS FOUND AFTER THE CONTRACT HAS BEEN SIGNED THE CONTRACTOR WILL RESOLVE THE CONFLICT AT HIS OWN EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER. SLEEVING UNDER SIDEWALKS MAY NOT BE SHOWN OR CALLED OUT DUE TO LACK OF SPACE ON PLANS. ONCE A BID HAS BEEN GIVEN TO THE OWNER FROM THE CONTRACTOR CHANGE ORDERS FOR EITHER ADDITIONAL MATERIALS OR TO CHANGE TO MATERIALS THAT ARE NOT FOUND ON THIS PLAN IS NOT ACCEPTABLE AND WILL NOT BE ALLOWED.
27. GUARANTEE: LANDSCAPE CONTRACTOR SHALL WARRANTY LAWNS AFTER INSTALLATION FOR 45 DAYS FOLLOWING ACCEPTANCE OF SITE BY OWNER'S REPRESENTATIVE. WARRANTY TREES AND SHRUBS FOR ONE YEAR FOLLOWING ACCEPTANCE OF SITE BY OWNER'S REPRESENTATIVE. MAINTAIN MATERIALS AFTER INSTALLATION FOR 45 DAYS FOLLOWING ACCEPTANCE OF SITE BY OWNER'S REPRESENTATIVE. REPLACE ALL UNHEALTHY OR DEAD PLANT MATERIAL FOUND DURING WARRANTY PERIOD. WARRANTY IRRIGATION SYSTEM MATERIALS AND LABOR FOR ONE YEAR FOLLOWING ACCEPTANCE OF SITE BY OWNER'S REPRESENTATIVE.
28. TEMPORARY IRRIGATION FOR LANDSCAPE MATERIAL WITHOUT IRRIGATION: CONTRACTOR SHALL COORDINATE AND PROVIDE PROVISIONS FOR TEMPORARY IRRIGATION. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING ALL EXISTING AND PROPOSED PLANT MATERIAL TO SUPPLEMENT RAINFALL AS REQUIRED DURING CONSTRUCTION AND 90 DAY PLANT ESTABLISHMENT PERIOD (90 DAYS AFTER FINAL ACCEPTANCE). LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS UNTIL PLANT MATERIAL IS FULLY ESTABLISHED. CONTRACTOR SHALL REPLACE ANY PLANT MATERIAL LOST FROM INADEQUATE WATERING DURING 90 DAY ESTABLISHMENT PERIOD.

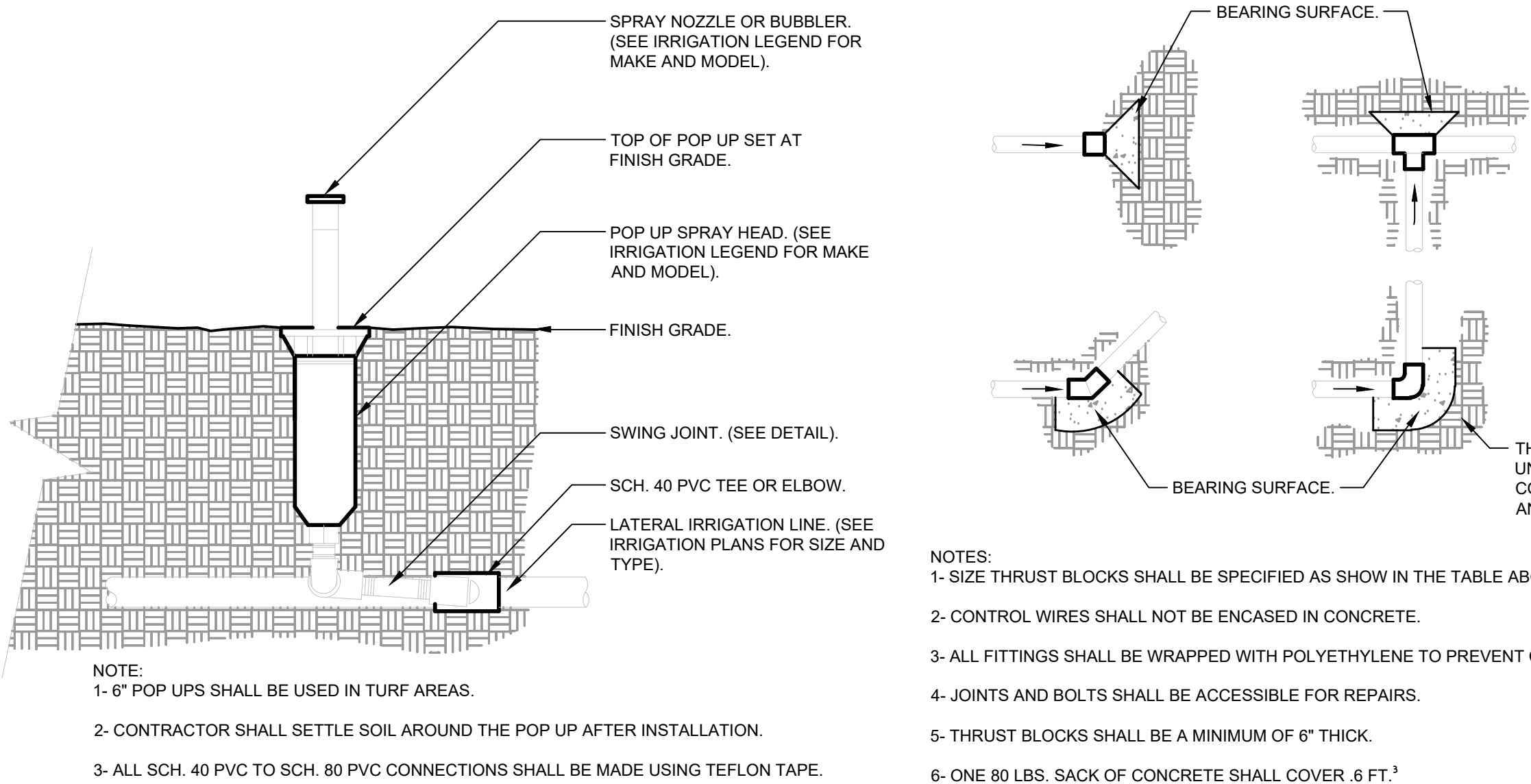


- NOTE:
- 1- ALL THREADED CONNECTIONS FROM SCH. 40 PVC TO SCH. 80 PVC SHALL BE MADE USING TEFLON TAPE.
- 2- RAINBIRD TSJ SERIES OR HUNTER SWING JOINTS OR APPROVED EQUAL SHALL BE USED PER APPROVAL BY THE OWNER'S REPRESENTATIVE.

4 SWING JOINT

3" = 1'-0"

P-MA3-26



MINIMUM BEARING SURFACE AREA			
PIPE SIZE	TEE AND PLUG	90° BEND	45° BEND
1-1/2"	0.45 FEET ²	0.63 FEET ²	0.34 FEET ²
2"	0.69 FEET ²	0.97 FEET ²	0.53 FEET ²
2-1/2"	1.0 FEET ²	1.41 FEET ²	0.77 FEET ²
3"	1.48 FEET ²	2.10 FEET ²	1.14 FEET ²
4"	2.43 FEET ²	3.45 FEET ²	1.87 FEET ²
6"	5.25 FEET ²	7.41 FEET ²	4.02 FEET ²
8"	9.08 FEET ²	12.83 FEET ²	6.96 FEET ²
10"	14.93 FEET ²	21.07 FEET ²	11.44 FEET ²

1 POP-UP SPRAY HEAD

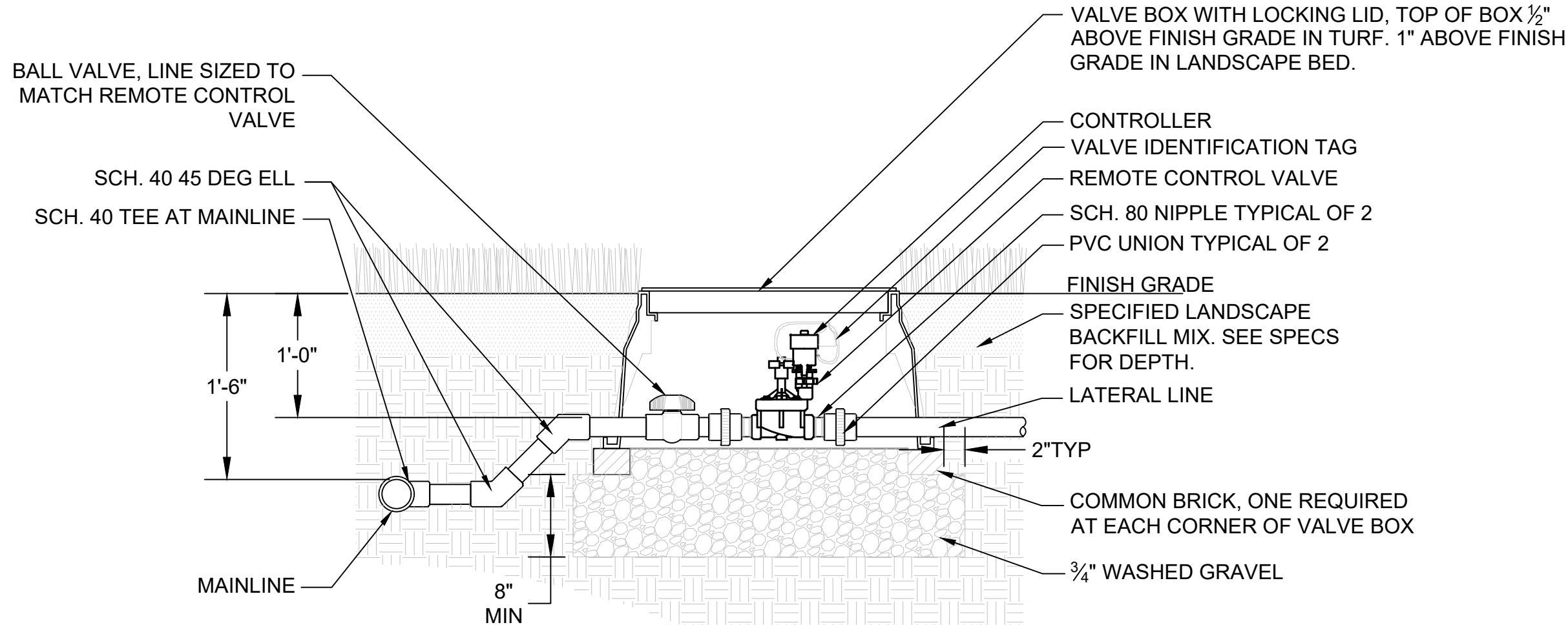
1 1/2" = 1'-0"

P-MA3-27

2 THRUST BLOCK

1 1/2" = 1'-0"

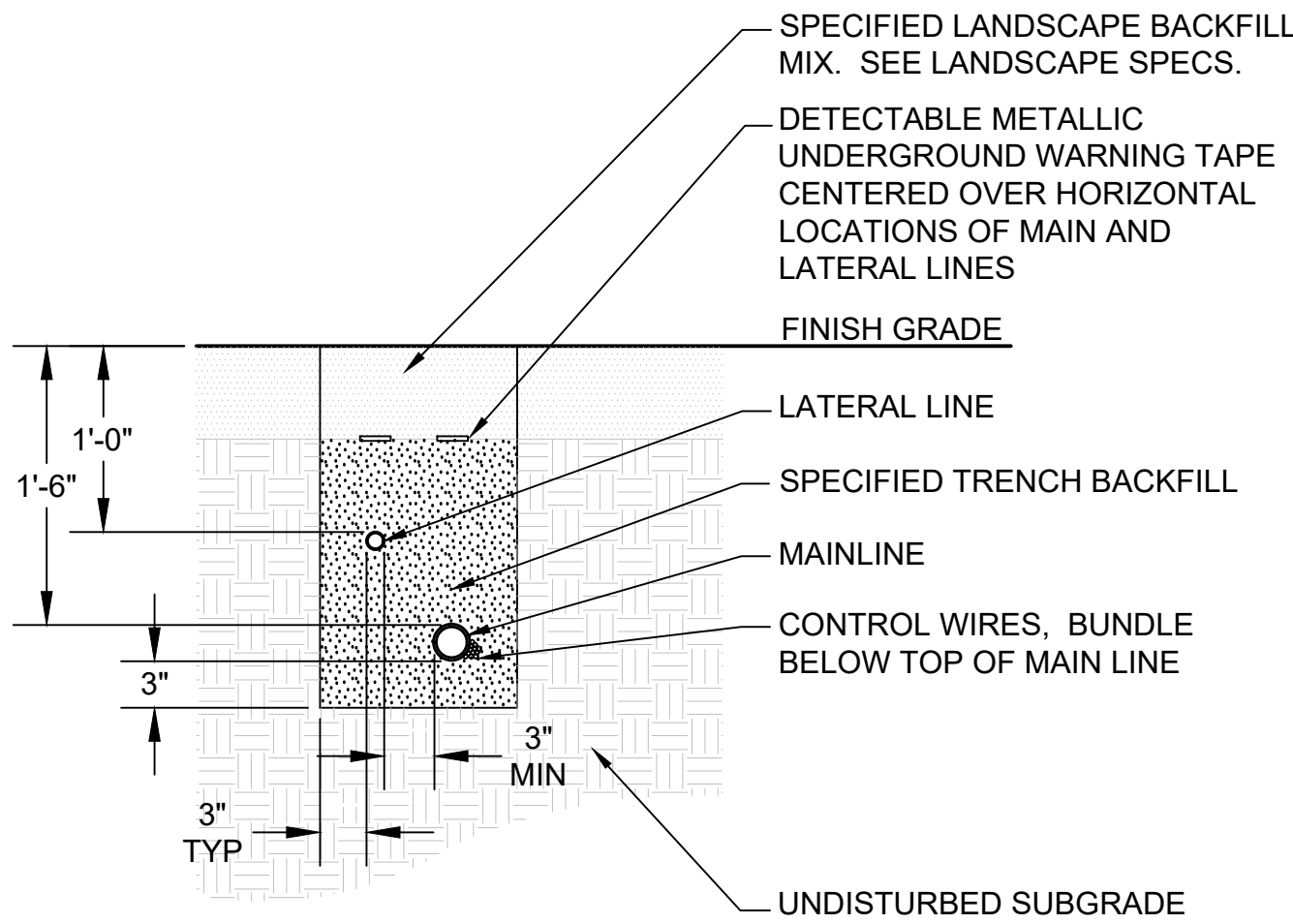
P-MA3-69



3 REMOTE CONTROL VALVE

N.T.S.

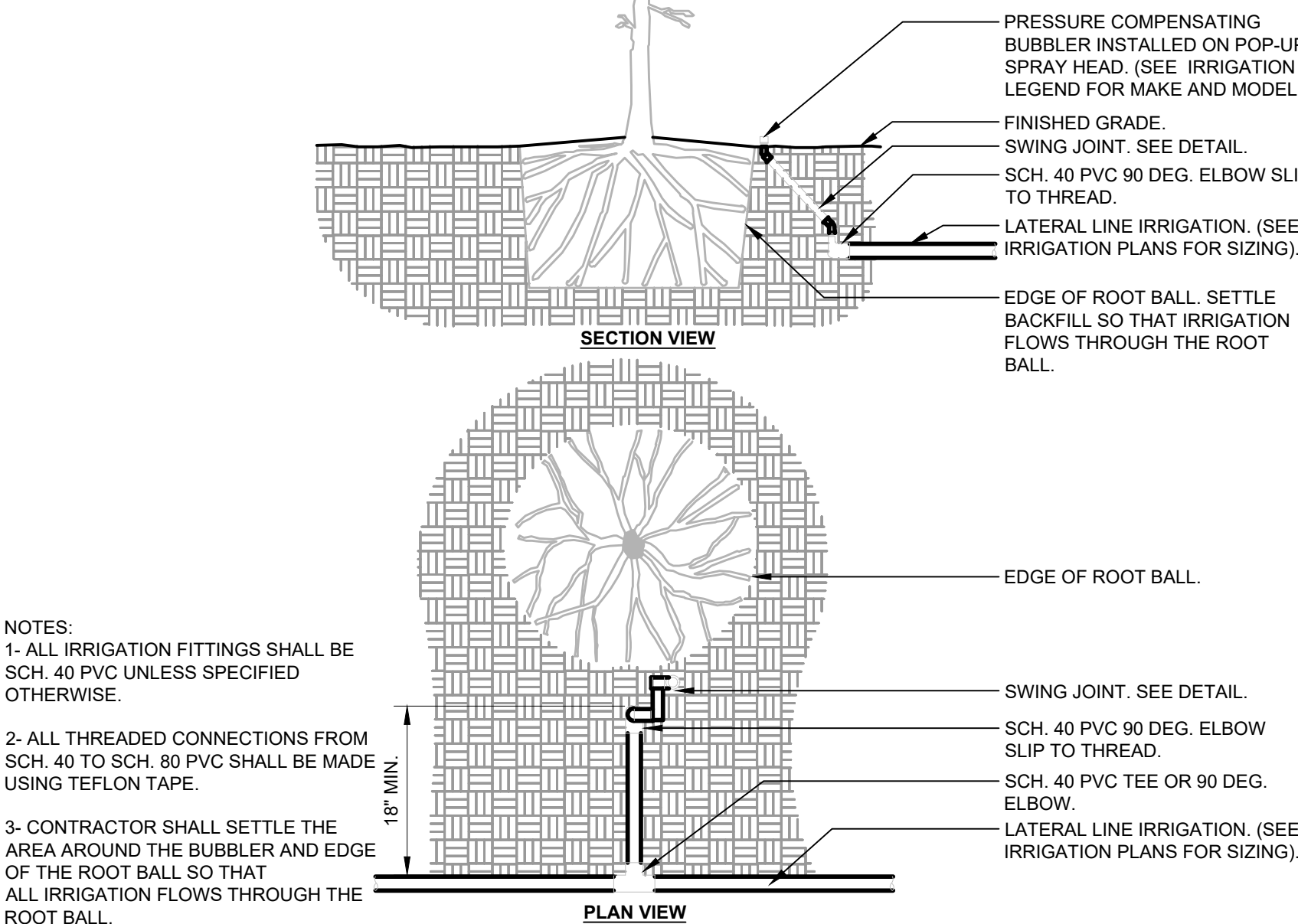
P-MA3-84



5 TYPICAL TRENCHING

N.T.S.

P-MA3-85



- NOTES:
- 1- ALL IRRIGATION FITTINGS SHALL BE SCH. 40 PVC UNLESS SPECIFIED OTHERWISE.
- 2- ALL THREADED CONNECTIONS FROM SCH. 40 TO SCH. 80 PVC SHALL BE MADE USING TEFLON TAPE.
- 3- CONTRACTOR SHALL SETTLE THE AREA AROUND THE BUBBLER AND EDGE OF THE ROOT BALL SO THAT ALL IRRIGATION FLOWS THROUGH THE ROOT BALL.

6 IRRIGATION BUBBLER WITH LAYOUT

3/4" = 1'-0"

P-MA3-29

CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770

Wannemacher Jensen Architects, Inc.
180 Mirror Lake Drive North
St. Petersburg, Florida 33701-3214
(727) 822-5566 fax (727) 822-5475
AA000277

THE ARCHITECT'S COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS ARE HEREBY RESERVED. NO PART OF THIS DOCUMENT OR ANY SPECIFICATIONS PROVIDED BY THE ARCHITECT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT. THE ARCHITECT'S DESIGN SHALL BE USED TO THE BEST OF THE ARCHITECT'S ONE ENGINEER'S KNOWLEDGE AND BELIEF, AND THE ARCHITECT'S STANDARDS AND PRACTICES SHALL BE DETERMINED BY THE LOCAL STANDARDS AND PRACTICES WITH CHAPTER 893, PART 10 OF THE FLORIDA STATUTES.

Prepared By:
PlaceMaker
Design Studio, LLC
415 Plaza Drive
St. Petersburg, FL 33701
Phone: 727-726-6168
Fax: 727-726-6124
LA6667069
Contact: Chris Anuszkievicz, RLA
Email: chris@placemakerdesignstudio.com
Website: www.placemakerdesignstudio.com
© 2024 PlaceMaker Design Studio, LLC

REGISTERED LANDSCAPE ARCHITECT
Christopher J. Anuszkievicz
LA6667069
STATE OF FLORIDA
The seal appearing on this document was authorized by Christopher J. Anuszkievicz, LA6667069 on 9/19/2025.

ROSE MARINA
RESTAURANT
Marco Island, Florida

Project Number

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

IRRIGATION NOTES
AND DETAILS

IR6



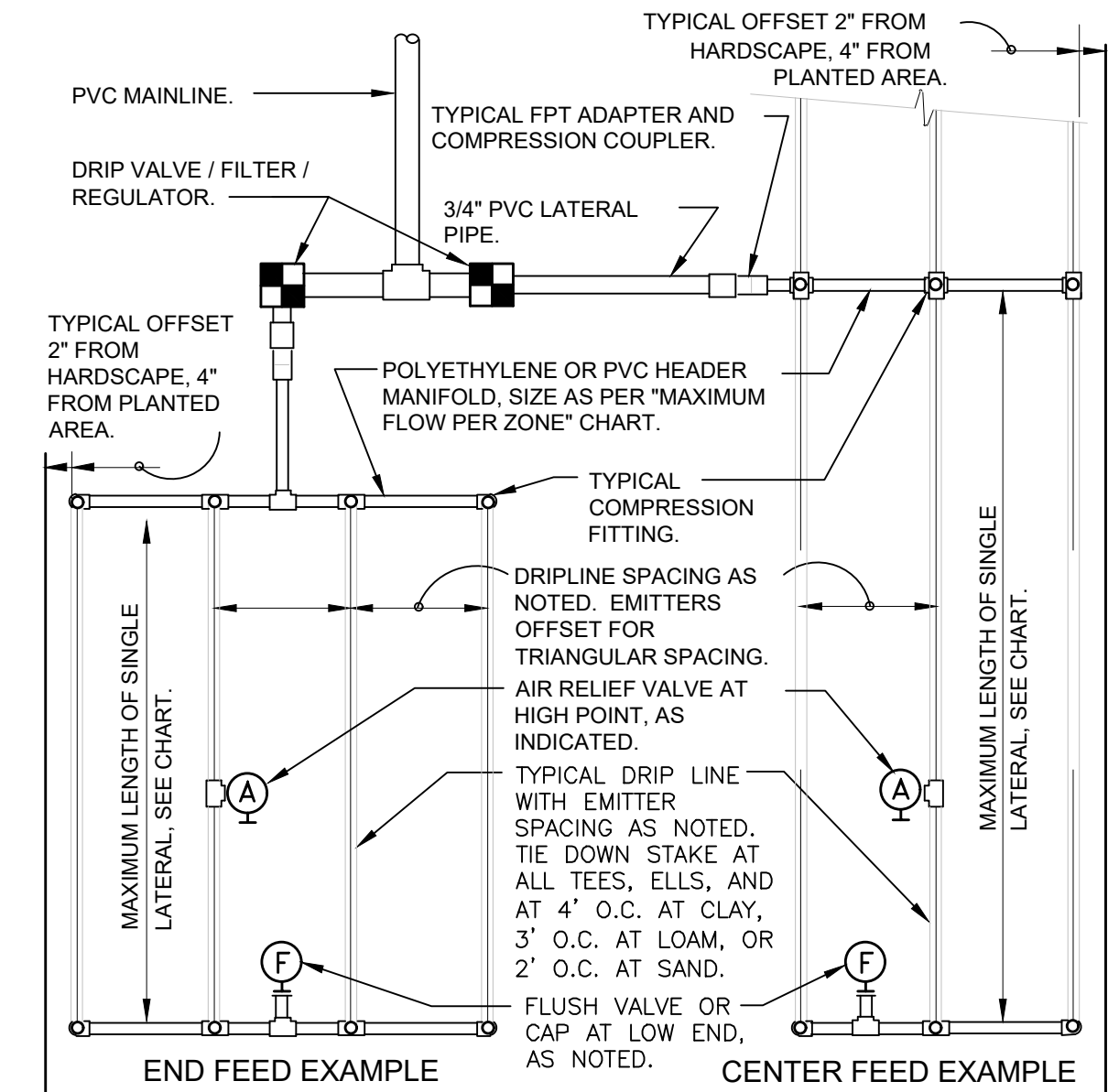
The seal appearing on this document was authorized by Christopher J. Anuszkiewicz, LA6667069 on 9/19/2025.

Project Number

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

CALL SUNSHINE
811
IT'S THE LAW IN FLORIDA

BEFORE YOU DIG!
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
1-800-432-4770



1 TYPICAL RAIN BIRD DRIPLINE REQUIREMENTS

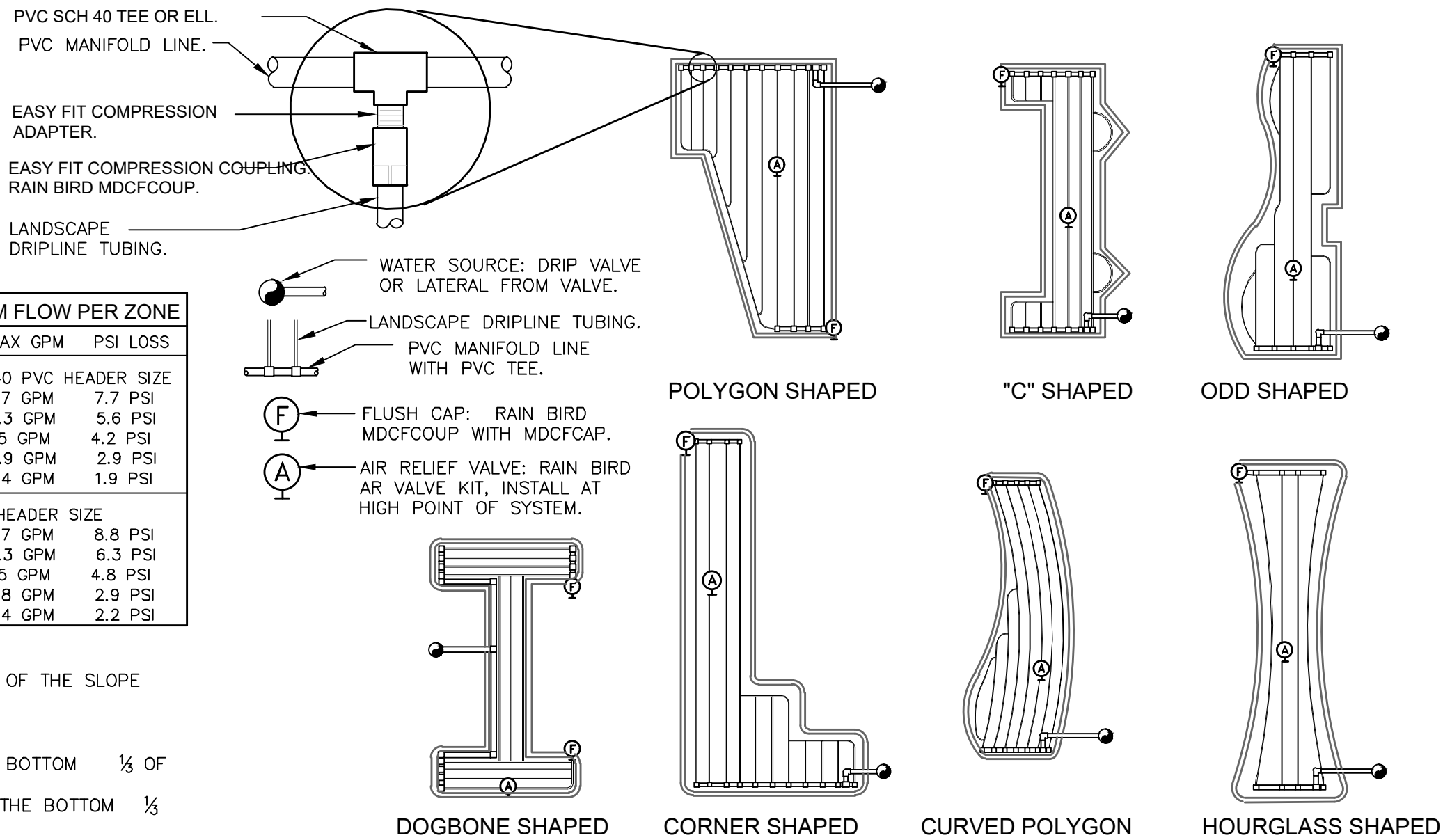
N.T.S.

PSI	MAXIMUM LATERAL LENGTH (FEET)					
	12" SPACING		18" SPACING		24" SPACING	
10	125	96	175	135	218	171
20	249	191	350	171	442	340
30	307	236	434	333	550	422
40	350	268	495	380	627	171
50	125	96	175	135	218	171
60	125	96	175	135	218	171

GRID PRECIPITATION RATES (IN/HR)			
EMITTER SPACING	LATERAL SPACING	EMITTER FLOW RATE	
		0.6	0.9
12	12	0.96	1.44
18	18	0.69	1.03
24	24	0.28	0.41

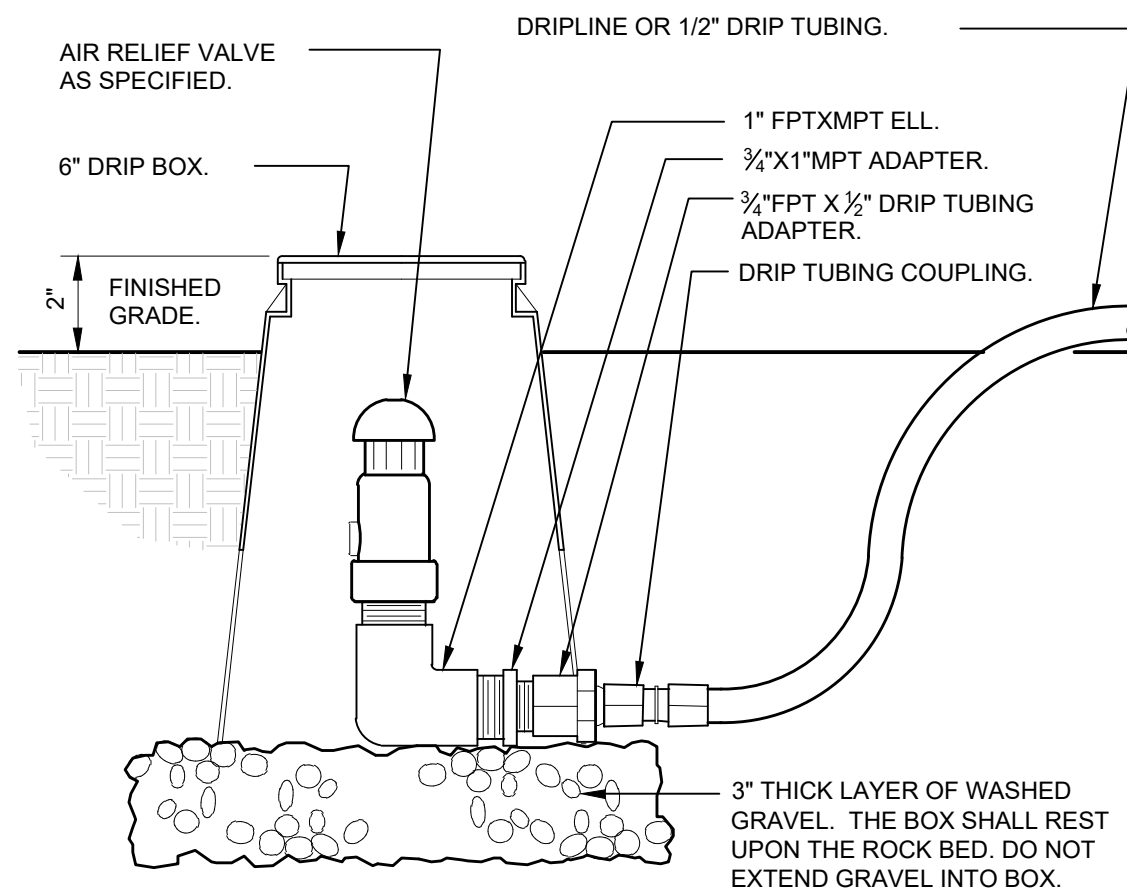
LATERAL FLOW PER 100 FT (GPM)			
EMITTER FLOW	12" SPACING	18" SPACING	24" SPACING
0.6 GPH	1.0 GPM	0.67 GPM	0.50 GPM
0.9 GPH	1.5 GPM	1.0 GPM	0.75 GPM

- SLOPED CONDITION NOTE:
1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE WHENEVER POSSIBLE.
 2. INSTALL AIR RELIEF VALVE AT HIGHEST POINT.
 3. NORMAL SPACING WITHIN THE TOP 1/4 OF SLOPE.
 4. INSTALL DRIPLINE AT 25% GREATER SPACING AT THE BOTTOM 1/4 OF THE SLOPE.
 5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM 1/4 ON A SEPARATE VALVE.



2 ZONE CONTROL

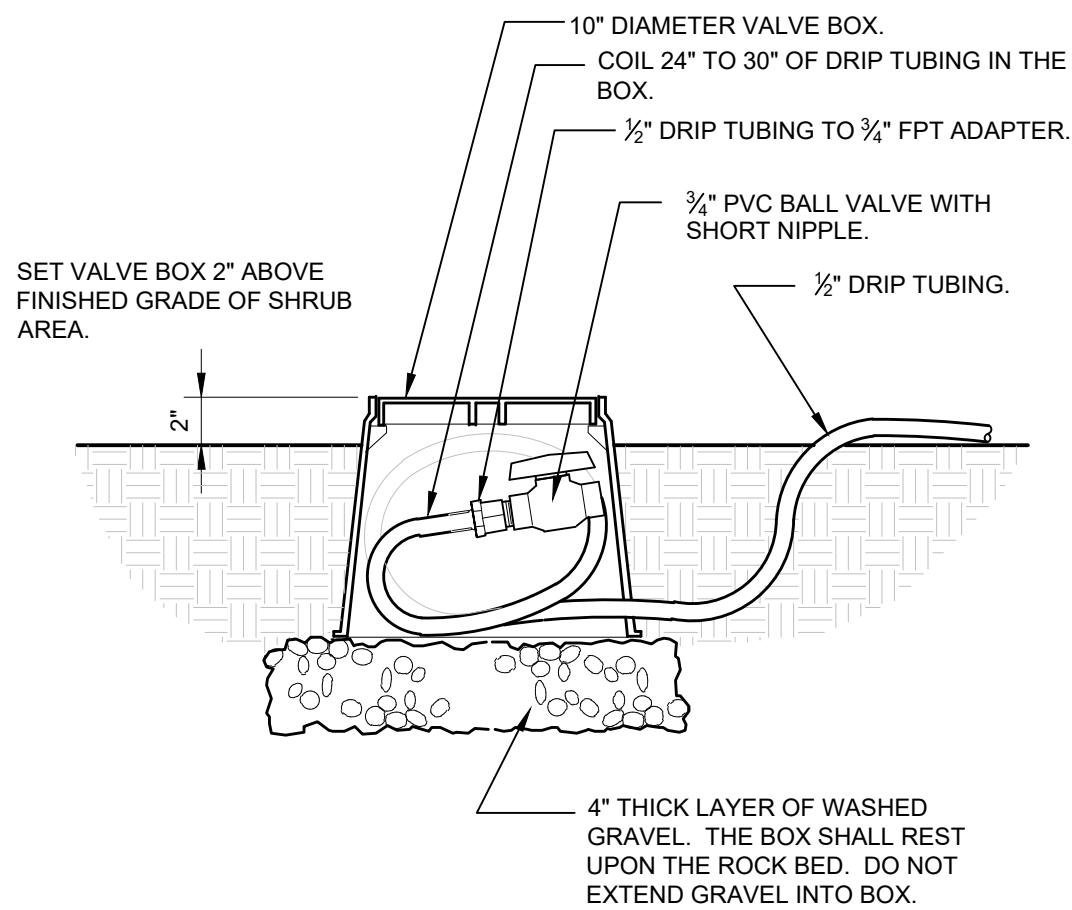
3" = 1'-0"



3 DRIP AIR RELIEF VALVE IN BOX

3" = 1'-0"

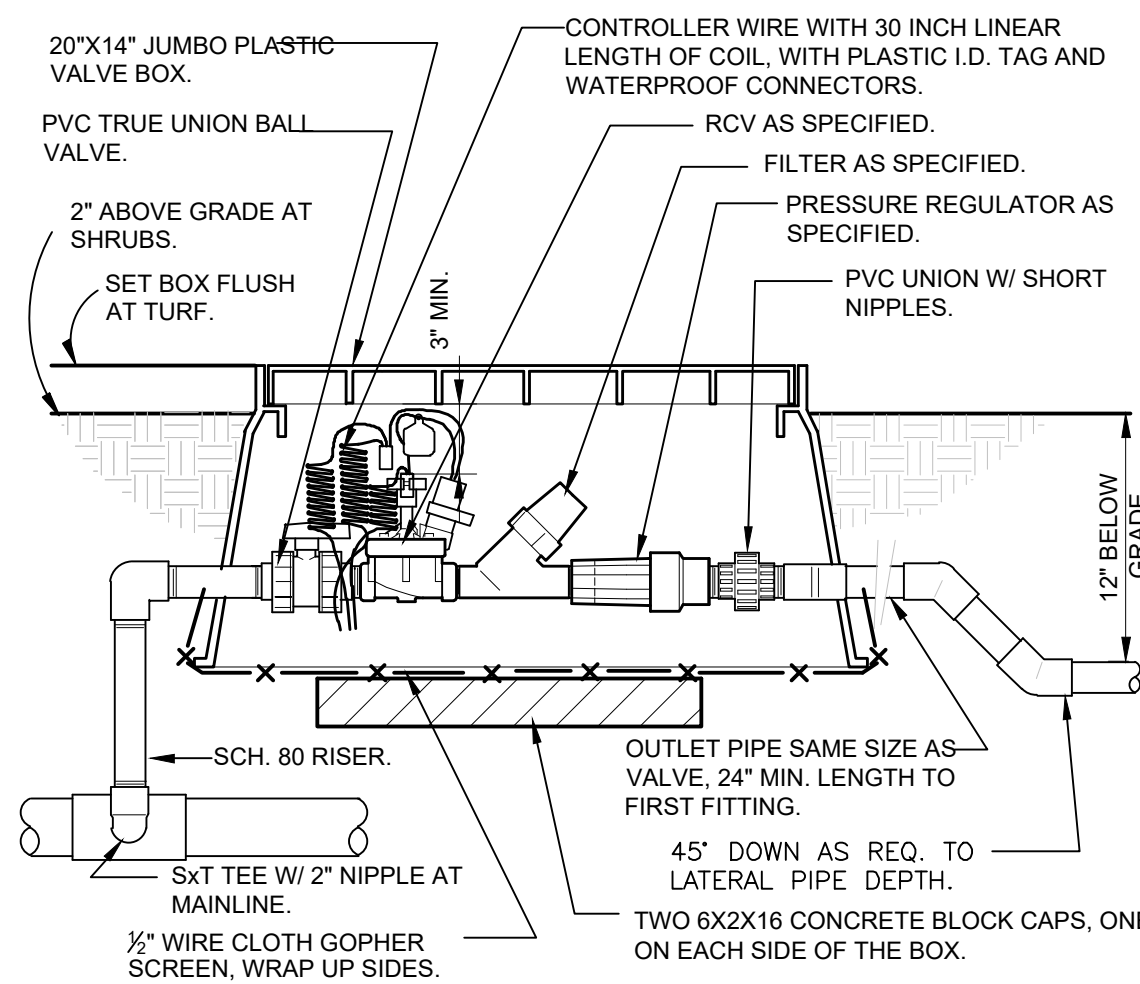
P-MA3-11



4 DRIP FLUSH VALVE

1 1/2" = 1'-0"

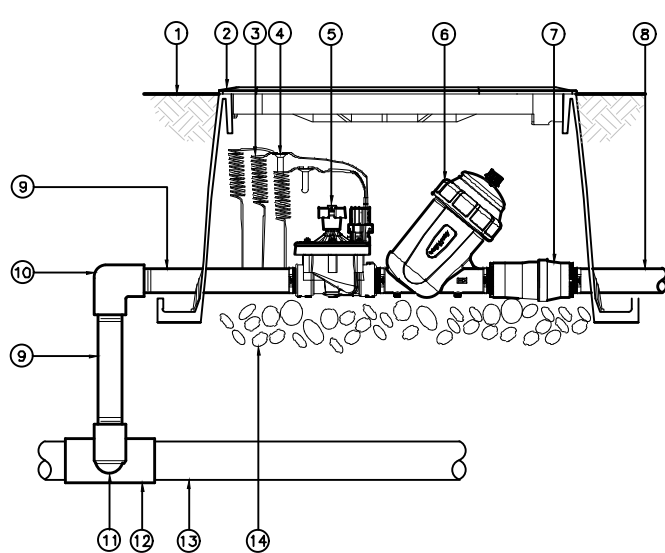
P-MA3-19



5 1" DRIP VALVE/FILTER/REGULATOR

1 1/2" = 1'-0"

P-MA3-23



6 1.5" COMMERCIAL DRIP CONTROL ZONE KIT

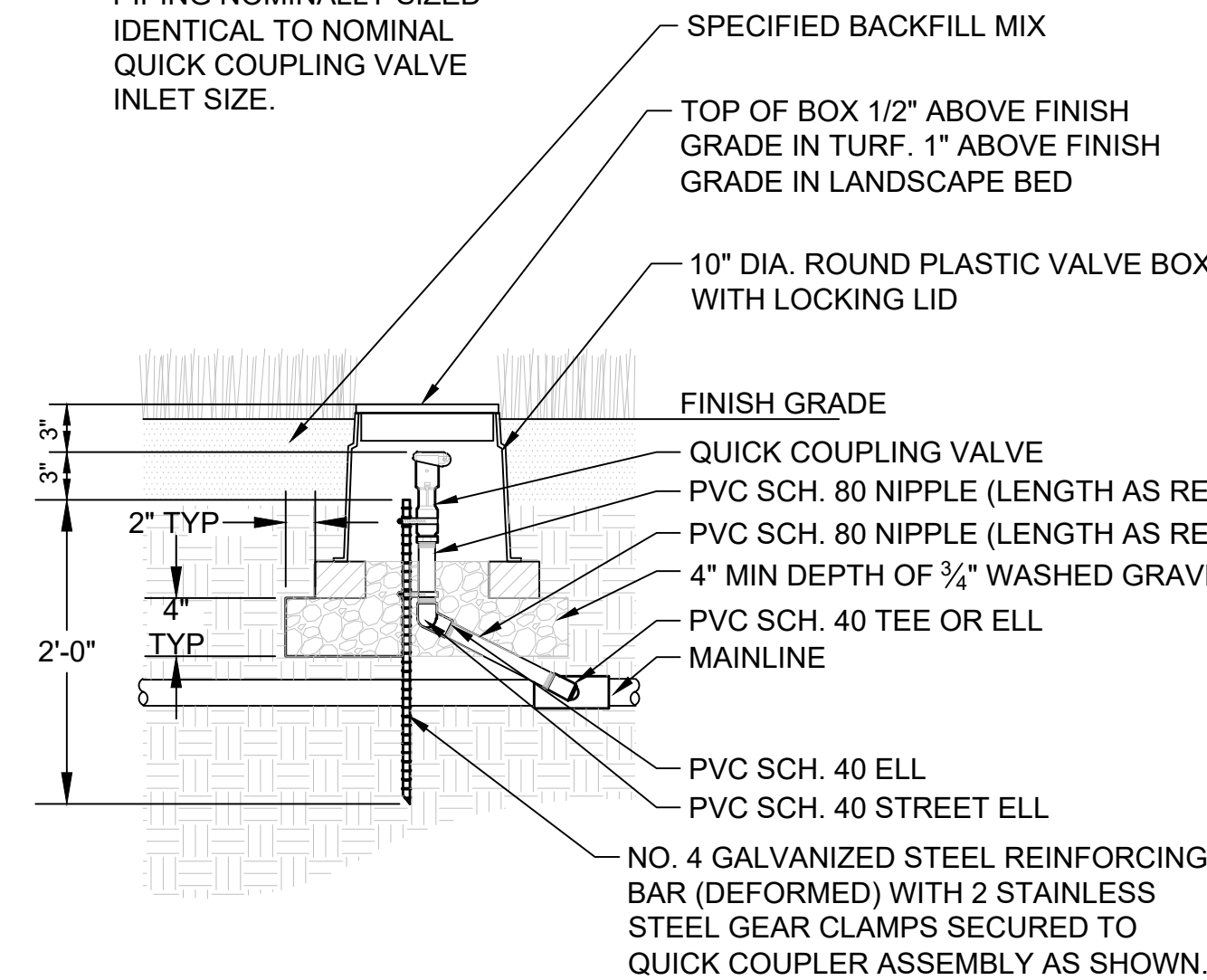
N.T.S.

P-MA3-33

- 1 FINISH GRADE/TOP OF MULCH
- 2 JUMBO VALVE BOX WITH COVER: RAIN BIRD VB-JUMBO
- 3 30-INCH LINEAR LENGTH OF WIRE, COILED
- 4 WATERPROOF CONNECTION: RAIN BIRD DB SERIES
- 5 1 1/2" PEB VALVE (INCLUDED IN XCZ-150-LCS KIT)
- 6 1 1/2" FILTER - RAIN BIRD LARGE CAPACITY SCREEN FILTER (INCLUDED IN XCZ-150-LCS KIT)
- 7 1 1/2" HIGH FLOW PRESSURE REGULATOR (INCLUDED IN XCZ-150-LCS KIT)
- 8 LATERAL PIPE
- 9 PVC SCH 80 NIPPLE 1 1/2"
- 10 PVC SCH 40 ELBOW
- 11 PVC SCH 80 NIPPLE (2" LENGTH, HIDDEN) AND PVC 40 ELBOW
- 12 PVC SCH 40 TEE OR ELBOW
- 13 MAINLINE PIPE
- 14 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL

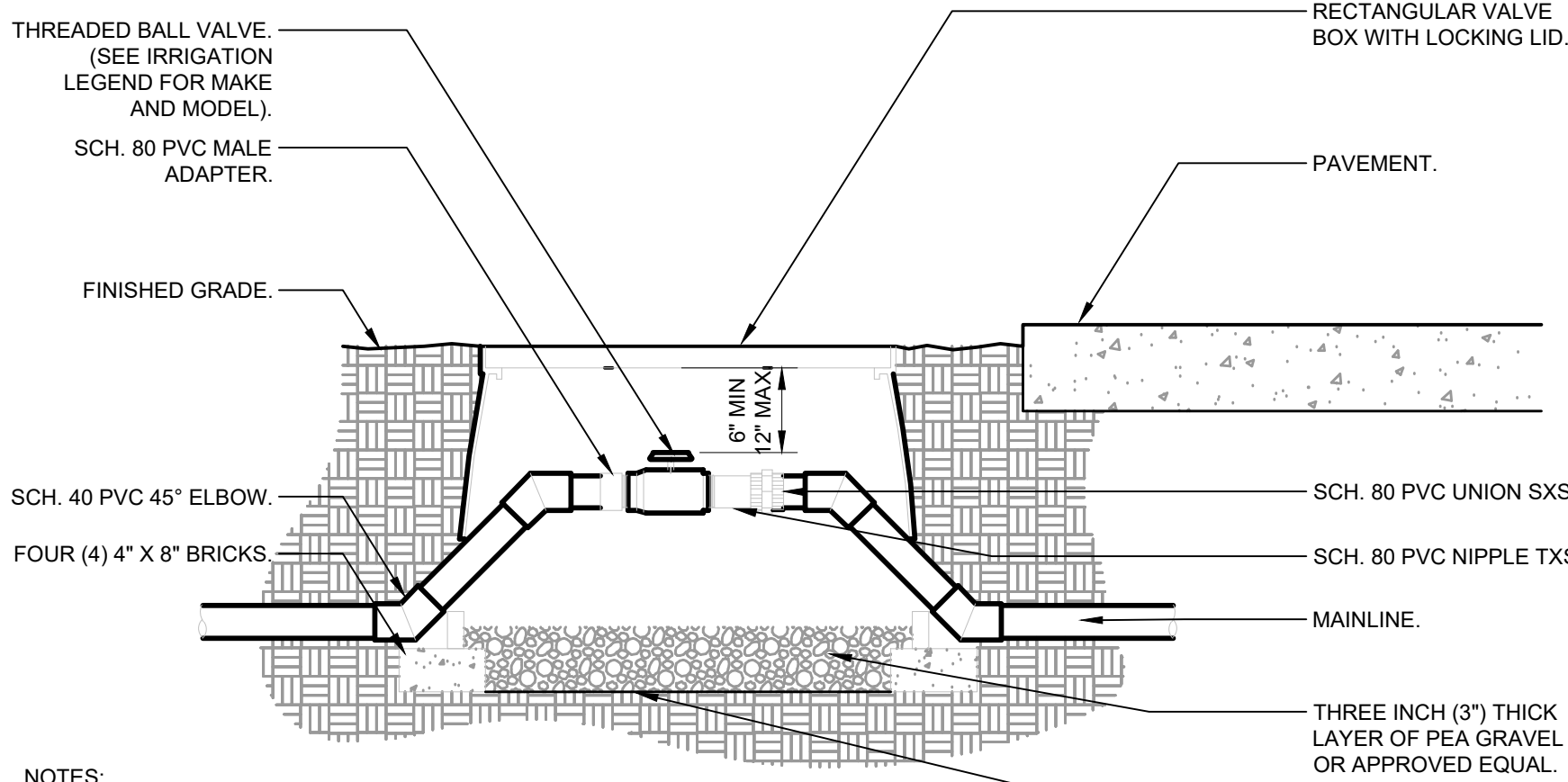
NOTE:

1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.



1 QUICK COUPLER
N.T.S.

P-MA3-03

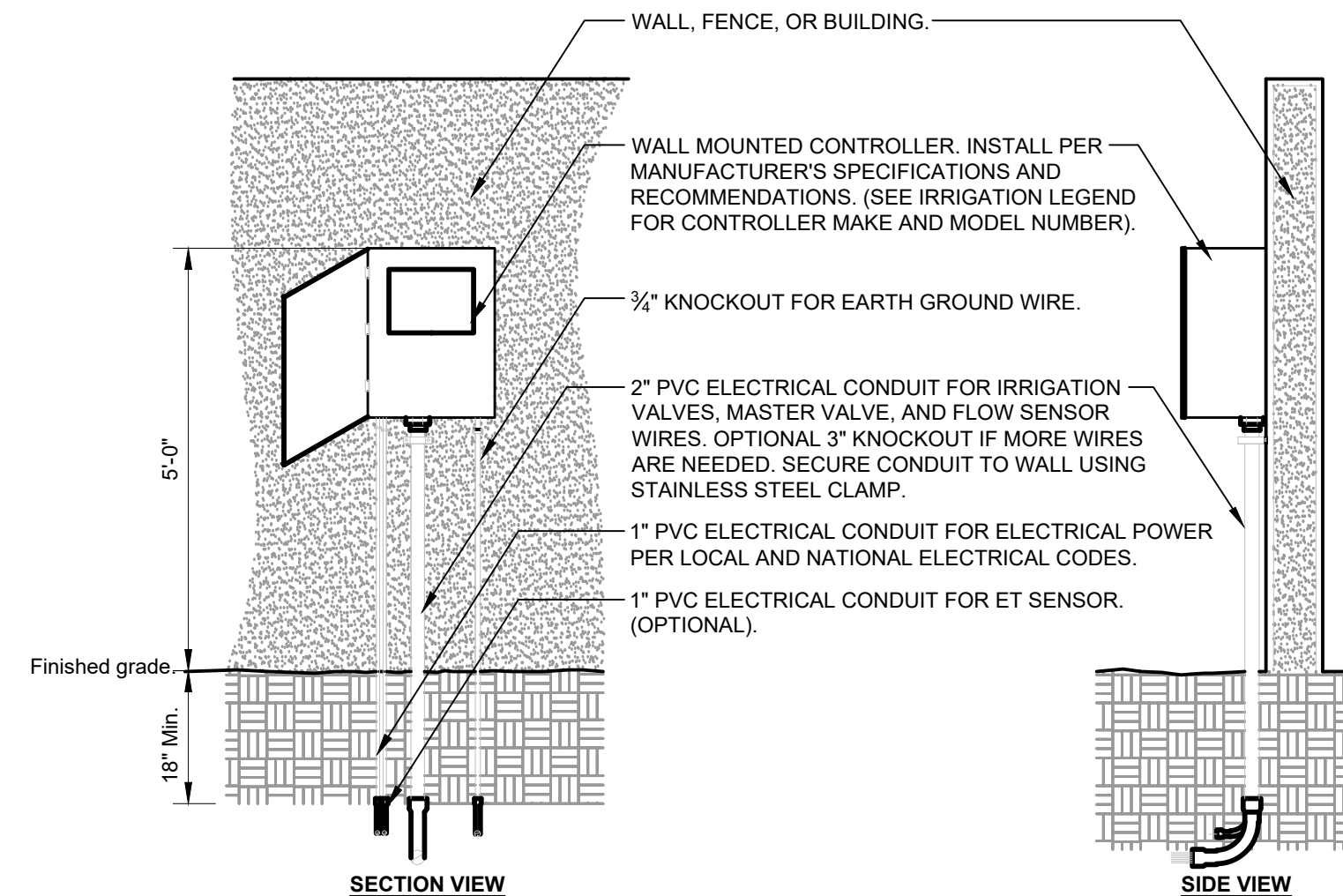


NOTES:

- 1- LOCATE VALVE BOXES IN PLANTING AREAS.
2- WRAP VALVE BOX WITH A MINIMUM OF 3 MIL THICK PLASTIC AND SECURE IT USING DUCT TAPE OR ELECTRICAL TAPE.
3- ALL THREADED CONNECTION TO BE MADE USING TEFLON TAPE.
4- ALL CHANGES IN ELEVATION SHALL BE MADE USING SCH. 40 PVC 45° ELBOWS.

2 BALL VALVE - 3" AND SMALLER
1 1/2" = 1'-0"

P-MA3-38

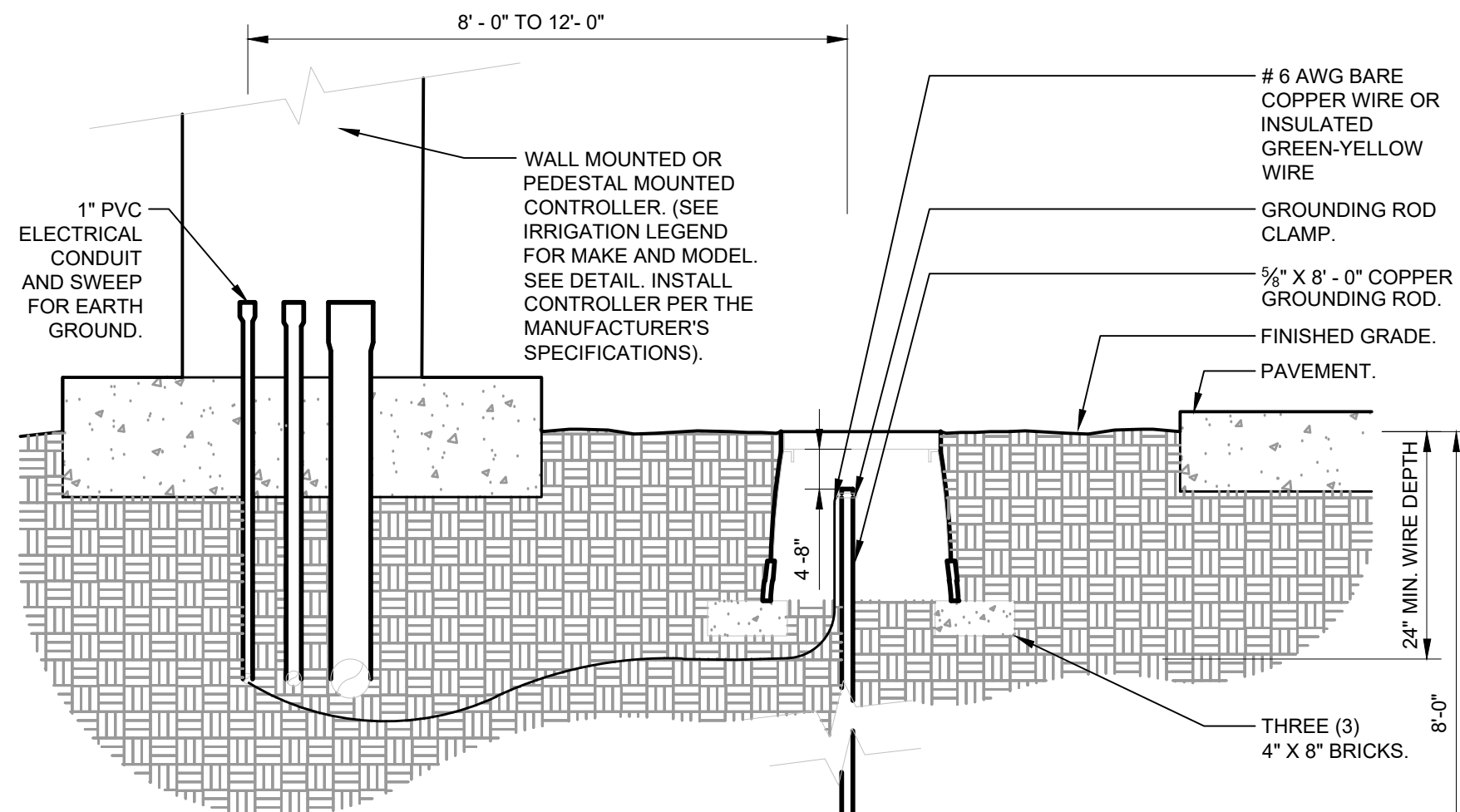


NOTES:

- 1- COMMON AND CONTROLLER WIRE TO BE BUNDLED USING ELECTRICAL TAPE AT 10'-0" ON CENTER.
2- GROUNDING RODS SHALL BE LOCATED BETWEEN 8'-0" TO 12'-0" AWAY FROM THE CONTROLLER. GROUNDING RODS SHALL BE 3/8" IN DIAMETER X 8' IN LENGTH. CONNECT THE GROUNDING ROD TO THE CONTROLLER USING 6 GAUGE BARE COPPER WIRE OR PER THE MANUFACTURER'S SPECIFICATIONS SEE GROUNDING ROD DETAIL.
3- WHEN AN ET STATION IS SPECIFIED, ET STATION SHALL BE INSTALLED NO FURTHER THAN 90' AWAY FROM THE CONTROLLER AND A MINIMUM OF 15' OFF OF THE GROUND, OUT FROM UNDER ANY OVERHEAD OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO, BUILDING OVERHANGS, TREES, OR UTILITIES.

3 WALL MOUNTED CONTROLLER
1/2" = 1'-0"

P-MA3-37

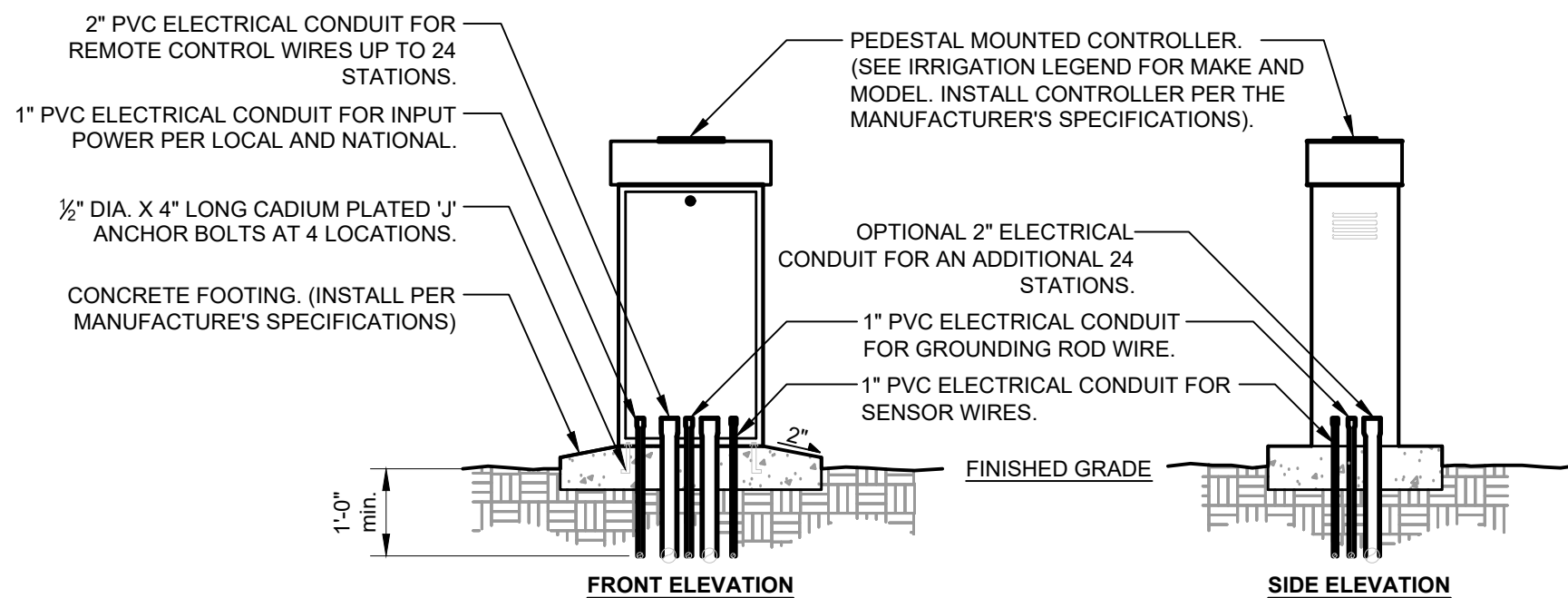


NOTES:

- 1- ALL GROUNDING REQUIREMENTS FOR CONTROLLERS SHALL CONFORM TO LOCAL ELECTRIC CODES.
2- GROUNDING ROD SHALL NOT BE LOCATED IN THE SAME TRENCH AS THE IRRIGATION MAINLINES OR LATERAL LINES.
3- VALVE BOX SHALL BE WRAPPED WITH A MINIMUM 3 MIL THICK PLASTIC AND SECURED TO THE VALVE BOX USING DUCT TAPE OR ELECTRICAL TAPE.
4- INSTALL GROUNDING ROD PER THE CONTROLLER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

4 GROUNDING ROD
1 1/2" = 1'-0"

P-MA3-28



NOTES:

- 1- COMMON AND CONTROLLER WIRE TO BE BUNDLED USING ELECTRICAL TAPE AT 10'-0" ON CENTER.
2- GROUNDING RODS SHALL BE LOCATED BETWEEN 8'-0" AND 12'-0" AWAY FROM THE CONTROLLER. GROUNDING RODS SHALL BE 3/8" IN DIAMETER X 8' IN LENGTH. CONNECT THE GROUNDING ROD TO THE CONTROLLER USING 6 GAUGE BARE COPPER WIRE OR PER THE MANUFACTURER'S SPECIFICATIONS. SEE GROUNDING ROD DETAIL.
3- ET STATION TO BE INSTALLED NO FURTHER THAN 90' AWAY FROM THE CONTROLLER AND A MINIMUM OF 15' OFF OF THE GROUND, OUT FROM UNDER ANY OVERHEAD OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO BUILDING OVERHANGS, TREES, OR UTILITIES.

5 PEDESTAL MOUNTED CONTROLLER
1/2" = 1'-0"

P-MA3-46

Distribution	
ISSUE	DATE
SDP SUBMITTAL	06/14/2024
COMMENTS	09/20/2024
COMMENTS	05/15/2025
COMMENTS	07/28/2025
COMMENTS	08/19/2025
COMMENTS	10/16/2025
COMMENTS	03/09/2026
CIVIL UPDATE	07/08/2026

IRRIGATION SPECIFICATIONS

PLANTING IRRIGATION

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A.Scope:

- The Work specified in this Section consists of the furnishing of all labor, drawings, transportation, materials and equipment necessary to install fully operational underground irrigation systems in proposed sod and landscape areas.
- Obtain all permits and pay all required fees to any regulatory agency having jurisdiction over the work. Inspections required by local ordinances during the course of construction shall be scheduled as required. On completion of the work, satisfactory evidence shall be furnished to the Landscape Architect to show that all work has been installed in accordance with the ordinances and code requirements.
- Submit unit price breakdowns as required for all irrigation components in the event additional areas will be added or deleted. This submittal shall be included with the Bid.
- If any error or discrepancy is found in the Plans and Specifications, the Contractor shall refer the same to the Landscape Architect for an interpretation and decision. In resolving conflicts between the Plans and Specifications, THE PLANS SHALL GOVERN over the Specifications. The Owner's representative shall have the right to correct apparent errors or omissions in the Plans and Specifications and to make such interpretations as deemed necessary for the proper fulfillment of the intent of the Plans and Specifications.
- Contractor to verify the required meters, water supply, water pressure, development fees, point of connection installation fees, and local code requirements prior to bidding. Contractor shall pay all fees required for installation of the point of connection and shall coordinate installation with the regulatory agency which has jurisdiction over the work.

B.Related Work

- Trees, Plants and Groundcovers
- Sodding

1.2 DRAWINGS

A.The Drawings indicate areas of proposed landscaping. All landscaped areas including sod areas and proposed landscaping will be irrigated, unless otherwise noted on the plans. See limit of work on the plan sheets. The work shall be installed in such a manner as to avoid conflicts between irrigation systems, proposed planting, and existing trees to remain. Deviations shall be brought to the Landscape Architect's attention.

B.The Contractor shall carefully investigate the structural and finished conditions affecting all of this work and plan his operations accordingly, furnishing all offsets, fittings and sleeves which may be required.

C.The Contractor shall coordinate with all other trades to preclude any potential conflicts and to coordinate construction scheduling.

D.All materials and methods called for on the Drawings by notes and/or details, and/or as required to form a complete operational system shall be furnished and installed whether or not specifically mentioned in these specifications.

E.Any obstructions, grade differences or discrepancies must be brought to the attention of the Engineer prior to construction. In the event that notification is not performed, the Contractor shall assume full responsibility for any and all revisions necessary.

F.Irrigation plans are schematic only. Contractor shall submit shop drawings for any changes proposed to the plans as provided.

G.Contractor to provide as-built plans of all newly installed material, including bubblers, sprayheads, rotors, valves, pipes, meters and controllers at 20 scale on standard 24x36 plan sheets

1.3 PERFORMANCE REQUIREMENTS

A.Irrigation zone control shall be automatic operation with controller and automatic control valves.

B.Location of Sprinklers and Specialties: Design is approximate. Make minor adjustments necessary to avoid plantings and obstructions such as signs and light standards.

1.4 SUBMITTALS

A.General:

- Forward submittals in sufficient time to permit proper consideration and approval action. Time submissions to assure adequate lead time for procurement required items. Delays attributed to untimely and rejected submittals will not serve as a basis for extending contract time for completion.
 - Materials, fabricated articles and the like shall match those of approved submittals.
 - Wherever the terms "approve," "approval" or "approved" are used in this Specification, they shall mean the approval of the Landscape Architect of record in writing, and that the product or products apparently meet the requirements of the drawings and specifications on the basis of the product data, shop drawings, project record documents, samples, or operations and maintenance manuals submitted.
- B.Product Data:
- Submit three (3) copies of all items herein specified for review and approval by the Landscape Architect. Include information sufficient to evidence full compliance with specification requirements. After item has been approved, no change in brand or make will be permitted. The submittals shall include the following:
 - Each type of pipe and size (lateral, electrical conduit, sleeving and other).
 - Each type of fitting and size (lateral, electrical conduit and other).
 - Each wire type (power, communication, control valve).
 - Each controller, required components (grounding, lightning protection) and accessories.
 - Irrigation Controller(s) and accessories (decoders, surge protection, and other)
 - Each type of nozzle, sprayhead, and rotor
 - Each valve type and size (control).
 - Each type and size valve box.
 - PVC cement, primer and Teflon tape.
 - Quick coupler, key and hose connetor.
 - Detector tape.
 - Rain Sensor.

C.Record Copy Drawings: During the course of installation, carefully show all field changes in red line on a print of the irrigation system as installed. This drawing shall be labeled "Record Copy", and shall be made available for inspection.

D.Upon completion of the work of this section and as a condition of its acceptance, the Contractor shall deliver to the Owner's Representative the following:

- As-Built Drawings: Submit three prints and one reproducible and electronic file (PDF) of as-built drawings. As-built drawings shall clearly show all original components of the Record Copy and all changes documented in the Record Copy. Main lines, drain valves, valve boxes, and valve markers and other buried equipment shall be positively located by a minimum of two dimensions each from fixed reference points. In addition, the following information shall be included for any Drip or Low Volume Irrigation systems:
 - Emitter schedule (number of emitters per plant type)
 - Emitter layout chars.
- Operations and Maintenance Manual: Prepare and deliver to the Landscape Architect within fourteen (14) calendar days prior to completion of construction, a minimum of three (3) hard cover binders with three rings containing the following:
 - Contractor's name, address and telephone number.
 - Catalog cuts of all irrigation materials installed.
 - The duration of the guarantee period.
 - The name and address of the local manufacturer's representative.
 - List and description of complete operating instructions and routine maintenance procedures, start-up, and recommended schedule of operation including average application rates, with seasonal adjustments for each zone.
 - Provide maintenance personnel with instruction for major equipment and provide evidence this service has been rendered in writing to the Landscape Architect at conclusion of project construction.
 - Troubleshooting guide.
 - Letter of warranty, dated as of the Final Inspection, shall be included in the Operations and Maintenance Manual.
- Controller Reference Chart: Submit one chart for each controller installed on site showing the area covered by each sprinkler zone. The chart shall be a reduced copy of the as-built drawings, color coded to differentiate zone areas, sized to fit the controller door, and hermetically sealed between 20 mil. plastic sheets.
- Supplemental Equipment: Submit two each of keys to the following: quick coupling valves, quick coupling valve lids, valve markers, manual drain valves, valve boxes, and controller cabinets.

1.5 QUALITY ASSURANCE

A.Other manufacturers than those specified may only be substituted if approved by the Landscape Architect. Any deviations from the specifications or design changes must be shown to comply with the system design intent and identify any necessary performance changes that are resultant from the deviation.

B.The Contractor shall store all PVC pipe and fittings out of direct sunlight and protect from physical damage.

C.The Contractor shall store and protect all specified components from adverse weather conditions until installation is complete.

D.The Contractor shall handle all components as directed by the manufacturer's handling and installation instructions. Damage from transportation or other handling of materials shall be the responsibility of the Contractor.

E.All local, municipal and state laws and rules and regulations governing or relating to any poition of this work are hereby incorporated into and made part of these specifications and the Contractor shall carry out their provisions. Any

specifications herein contained, shall not be construed to conflict with the above rules, regulations or requirements.

F.Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.6 PROJECT CONDITIONS

A.Inspection of the site: The Contractor shall inspect the site prior to construction and verify the extent of work required. Commencement of construction by the Contractor designates acceptance of the site conditions apparent at outset.

B.The Contractor shall verify the locations of all existing utilities, structures, and services before commencing work. The location of utilities, structures and services shown on these plans are approximate only. Any discrepancies between these plans and the actual field conditions shall be reported to the Owner's Representative immediately.

C.Weather Limitations: Soil work shall be performed only when weather conditions do not detrimentally affect the quality of work.

D.Project Limits: Areas, as specified within which work is to be performed.

E.The Contractor shall protect all areas of work defined on the drawings and any existing on-site vegetation, structures, utilities, etc. All damage as a result of work under this contract shall be repaired at not cost to the Owner. The Contractor shall be responsible for the provision of traffic control, barricades, safety guards, and any other structures or improvements necessary for the complete protection of the public.

F.The Contractor shall verify, locate and protect all existing utilities, vegetation, and features on and adjacent to the project site during construction and shall repair, at their own expense, all damage as a result of construction activities.

G.The Contractor shall, at all times, take adequate precautions to keep rock, dirt, gravel, debris, and all other foreign materials from entering piping, valves and other irrigation equipment.

H.All trenching or other work under the limb spread of any and all trees shall be performed by hand or by other methods so that no limbs or branches are damaged in any way. Trenching around existing plant material shall be performed by hand so as to minimize root disturbance. Buildings, walks, walls and other property shall be protected from damage. Open ditches left exposed shall be flared and barricaded by the Contractor.

I.The Contractor shall verify the "Point of Connection" for the irrigation system with the Owner's representative prior to design of the system.

1.7 COORDINATION

A.Coordinate with other trades affecting or affected by work of this section.

B.Verify that sleeving and other conduits, of sizes and types specified, are installed as required.

1.8 GUARANTEE

A.The Contractor guarantees that all new irrigation components installed, as part of this work shall be free from defects in materials, design and workmanship for a period of one year from the Date of Substantial Completion.

B.Upon notice from the Owner's Representative of failure on any part of this equipment during the guarantee period, due to faulty installation procedures, new replacement parts shall be promptly furnished and installed by the Contractor at no additional cost to the Owner. Damages to property or site improvements resulting from the failure of specified components shall be repaired promptly, at no additional cost to the Owner.

C.The Contractor shall be responsible for grade settlement, and / or erosion of soil surfaces resulting from defects in irrigation installation throughout the specified warranty period.

PART 2 - PRODUCTS

2.1 GENERAL PRODUCT REQUIREMENTS

A.Materials and equipment shall be new, delivered to site in original factory condition, and as specified in the plans and this section.

2.2 GALVANIZED PIPE

A.Galvanized pipe shall be threaded and hot dip galvanized standard steel pipe Schedule 30 standard weight.

2.3 GALVANIZED FITTINGS

A.Galvanized fittings shall be threaded and hot dip galvanized standard steel schedule 40 standard weight.

2.4 PLASTIC PIPE

A.All plastic pipe shall be polyvinyl chloride (PVC) continuously bearing the seal of the National Sanitation Foundation, with the exception of polyethylene pipe specified as follows.

- Poly Chloride (PVC) pipe
 - Lateral Lines: PVC Class 200, Type 1, NSF approved, solvent weld pipe meeting requirements of ASTM D2241-00.
 - Main Lines: PVC Pipe: ASTM D 1785, PVC 1120 compound, Schedule 40.
 - Sleeves: PVC Pipe: ASTM D 1785, PVC 1120 compound, Schedule 40.

B.Risers and Nipples: PVC, Type, Schedule 80 one piece, standard weight with molded threads, both ends, ASTM D1784-99a, D2464-99

C.Electrical Conduit: PVC Schedule 40 electrical conduit, standard weight, minimum 1-1/2 inch nominal diameter unless otherwise required.

D.Polyethylene Pipe and fittings: flexible, thick walled designed to withstand 400 psi burst pressure test. Quality and wall thickness equivalent to RainBird SP Series, or approved equal. Sized per manufacturer's specified velocity tolerances.

E.Drip Tubing: Provide model and manufacturer shown on plans.

2.5 PLASTIC FITTINGS

A.For Polyethylene Pipe: As specified by manufacturer of polyethylene pipe.

B.For PVC Class 200 Pipe: PVC Schedule 40 meeting the requirements of ASTM D2466-01.

C.For PVC Schedule 40 Pipe: Schedule 80 meeting the requirements of ASTM D2464-99 PVC.

D.Manufactured Swing Joints 3/4 inch (or greater in size shall be RanBird TSJ series or approved equal).

2.6 PIPE JOINING COMPOUNDS

A.Cement and Primer for Solvent Weld Joints: As recommended by manufacturer of PVC pipe.

B.Teflon Tape for Threaded Joints (PVC or galvanized): DuPont or approved equal.

2.7 ELECTRICAL CONTROL WIRE AND CONNECTORS

A.Wire: Single strand copper, UL approved for direct burial. Sized in accordance with manufacturer's specifications. Control (hot) wire shall be red and common (ground) wire shall be white. Spare wire shall be black.

B.Wire Connectors and Sealant: UL approved for direct burial. A valve box shall be used for all underground wire splices.

C.Install all above-ground wire runs and wire entries into buildings in conduit.

D.Power to controller is by contractor.

2.8 AUTOMATIC CONTROLLER

A.Automatic Controller: Provide models and product types shown on plans. Controller shall have ability for all zones to fully operate and meet both normal and specified low volume system requirements and as required by site conditions.

- Controller shall be capable of a minimum of 2 start times per station per day and be equipped with a minimum 7-day watering cycle
- Controller must be suitable either indoor or outdoor mounting. The Contractor shall coordinate with the Owner's Representative to identify location for Controller mount and provide appropriate, lockable cabinet for location
- Mount in metal pedestal.

2.9 VALVES, FILTERS, PRESSURE REGULATORS

A.Electric Valves: Provide models and product types shown on plans.

B.Master Valve: Provide models and product types shown on plans.

C.Gate Valves: Bronze fully guided flexible wedge with renewable seat rings and non-rising stem with cross or hand-wheel type handle. Champion, Hammond, Buckner or approved equal.

D.Manual Valves: Manufactured as follows: PVC Schedule 40 ball valves unless otherwise indicated.

E.Remote Control Valve(s): Normally closed 24 VAC solenoid actuated globe pattern, spring-loaded diaphragm type. The valve shall be pressure rated up to 200 psi at 150 degrees F.

- Provide models and product types shown on plans.

F.Manual Drain Valve: 3/4 inch size bronze angle valve with rising stem and cross type handle. Hammond, Buckner or approved equal.

G.Quick Coupling Valve: Provide models and product types shown on plans. Locking-Top Option: Vandal-resistant locking feature. Include one matching key(s).

H.Backflow Prevention Device: Verify local code requirements. Double check type, as manufactured by the following:

- Watts Water Technologies
- Wilkins Water Control Products
- Or approved equal

2.10 VALVE BOXES

A.Plastic valve box with locking green lid, sized to provide a minimum of 3 inches clear on all sides of the valve to facilitate access, maintenance, repair or removal. Ametek, Carson, or approved equal.

B.Wire splices not made at sprinkler valves shall be placed in a Carson 920-12B 10" round valve box with a Carson green lid or approved equal.

2.11 PIPING JOINING MATERIALS

A.Pipe-Flange Gasket Materials: AWWA C110, rubber, flat face, 1/8 inch thick unless otherwise indicated; full-face or ring type unless otherwise indicated.

B.Metal, Pipe-Flange Bolts and Nuts: ASME B18.2.1, carbon steel unless otherwise indicated.

C.Brazing Filler Metals: AWS A5.8/A5.8M, BCuP Series, copper-phosphorus alloys for general-duty brazing unless otherwise indicated.

D.Solder Filler Metals: ASTM B 32, lead-free alloys. Include water-flushable flux according to ASTM B 813.

E.Solvent Cements for Joining PVC Piping: ASTM D 2564. Include primer according to ASTM F 656.

F.Plastic, Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer unless otherwise indicated.

2.12 RAIN SHUTOFF DEVICE

A.Manufacturer: Provide model and manufacturer shown on the plans.

- The unit shall be mounted on an aluminum bracket with a thermoplastic housing and weather proof switch. Location and placement of this device shall be approved by the owner's representative prior to installation.
- Rainfall shutoff device shall meet State Code (FS373.62).

2.13 IRRIGATION HEADS

A.General Requirements: Designed for uniform coverage over entire spray area indicated at available water pressure.

B.Plastic, Pop-up, Gear-Drive Rotary Sprinklers:

- Manufacturers: Heads shall be the size and type noted on the plans.

C.Plastic, Pop-up Spray Sprinklers:

- Manufacturers: Heads shall be the size and type noted on the plans.

2.14 OTHER MATERIALS

A.Rain Sensor: Provide model and manufacturer shown on plans and details.

B.Drainage Backfill: Cleaned gravel or crushed stone, graded from 3/4 inch minimum to 3 inches maximum.

C.Valve Marker: Locking type RainBird, Weathermatic, Buckner or approved equal.

D.Manual Drain Valve key: Minimum length 30 inches

E.Tracer Wire: Alarmtape or approved equal.

F.Pipe Backfill: Clean, dry friable topsoil void of stones larger than 1" in diameter and other material deleterious to specified pipe. Soil shall be suitable for compaction to eliminate settlement conditions of specified finish grades.

G.All other materials, not specifically described, but required for a complete and proper irrigation system installation, shall be new and of first quality and must be approved by the Owner's Representative prior to installation on site.

- H. Water Source:
- Existing Potable Water Line
 - Water Meter - Per City's Standards and Specs

PART 3 - EXECUTION

3.1 PREPARATION

K.Prior to all work of this section, the Contractor shall carefully inspect all previous installed work and verify that all such work is complete to the point where specified installation may properly commence.

L.Verify that the irrigation system may be installed in accordance with all pertinent codes, regulations, the referenced standards and manufacturer's specifications.

3.2 TRENCHING

A.Stake out the location of each run of pipe, sprinkler heads, sprinkler valves and isolation valves prior to trenching. Excavation shall be open vertical construction sufficiently wide to provide free working space around the work installed and to provide ample space for backfilling and tamping. Trenches for pipe shall be cut to required grade lines and compacted to provide accurate grade and uniform bearing for the full length of the line. The bottom of trenches shall be free of rock or other sharp- edged objects.

B.Minimum cover shall be 18" for mainline pipe and 12" for lateral line pipe. All pipe lines shall have a 6" minimum clearance from each other and from lines of other crafts. Minimum clearances shall conform with all applicable municipal and agency requirements. Backfill shall be compacted to undisturbed soils, and shall conform to adjacent grades without dips, sunken areas, lumps or other irregularities.

C.Hand Trench Work: Conduct under limb spread of trees or use other method so that no limbs or 'branches are damaged in any way. Maintain the trenching or excavation a minimum of twenty feet from the trunk of any existing tree or shrub.

D.Pavement/ Sidewalk Minor Sleeving: PVC sleeves shall be utilized beneath all sidewalk crossings. PVC laterals pipe sleeving shall be installed a minimum of 12" Depth. Mainlines shall be a minimum of 18" and sleeves will be 24" below finish grade (36" below vehicular surfaces), and shall extend a minimum of 12" beyond edge of sidewalk.

3.3 PIPE INSTALLATION

A.Provide minimum cover over top of underground piping according to the following:

- Irrigation Mainline Piping: 18 inches.
- Lateral line Piping: 12 inches.
- Sleeves: 24 inches.
- Steeves beneath vehicular traffic: 36 inches

B.Install thrust blocks and other bracing at all change in pipe directions and as necessary on all mainline piping.

C.Install piping free of sags and bends.

3.4 PIPING CONNECTIONS

A.Solvent weld PVC pipe only during non- freeze weather. Solvent weld PVC pipes only under cover in rainy weather. Do not allow flooding of welded piping until manufacturer's cure time has elapsed.

B.Air temperature of PVC mating surfaces for plastic pipe and fittings shall be between 40 degrees F and 100 degrees F.

C.Do not use solvent cement on threaded joints. Wrap with minimum of three wraps of Teflon tape in accordance with manufacturer's specifications.

D.Follow manufacturer's instructions for solvent welding of PVC pipe and fittings to achieve tight and inseparable joints.

E.Cementing plastic pipe:

- Cut all ends squarely with approved pipe cutting tool. Bevel ends with deburring tool.
- Clean all pipe ends prior to assembly.
- Clear all pipe lengths of dirt and debris. Protect from contamination.
- Do not use excess primer and solvent when joining pipe ends.
- Insert pipe ends to full depth of fitting, hold tightly as necessary to insure full depth bonding.
- Allow 15 minutes curing time following joint assembly prior to moving or handling jointed pipe.
- Install slip and/or barbed fittings for drip system components per manufacturer's specifications.

F.Allow joints to cure at least 24 hours at temperatures above 40 deg F before testing.

3.5 BACKFILLING

A.Initial backfill on PVC lines shall be pulverized native soil, free of foreign matter. Within radius of 4" of the pipe shall be clean soil or sand. Plant locations shall take precedence over sprinkler and pipe locations. Coordinate the placing of specimen trees and shrubs with the routing of lines and final head locations.

B.Leave trenches slightly mounded to allow for settlement after the backfilling is completed. Clean the site of the work continuously of excess waste materials as the backfilling progresses, and leave in a neat condition. No trenches shall be left open for a period of more than 48 hours. Protect open trenches as required. Conform with all applicable code requirements.

C.Carefully backfill excavated materials approved for back-filling, consisting of earth, loam, sandy clay, sand and other approved materials, free of rock and debris over 1" in size. Backfill within all landscape beds shall be Prepared Topsoil.

D.Conform to the requirements of Earthwork Specifications for methods and required compacting percentages, for roads

and paving. See Civil plans and specifications.

E. Hand place the first 6" of backfill or to top of pipe and mechanically compact so as to secure the position of the pipe and wire.

F.No wheel rolling will be allowed. Remove rock or debris extracted from backfill material and dispose of off site. Fill all voids left in backfill with approved backfill material.

3.6 BACKFLOW PREVENTION DEVICE INSTALLATION

A.Comply with state and local codes. Conceal in planting beds where possible.

3.7 AUTOMATIC IRRIGATION CONTROLLER INSTALLATION

A.Install controller in accordance with manufacturer's specifications, and respective State and Local codes. Coordinate controller location with owner prior to installation.

3.8 WIRING INSTALLATION

A.Tracer Wires

- Install tracer wire on all nonmetallic (plastic) irrigation mainline.
- Place tracer wire on the bottom of the trench under the vertical position of the pipe. Splice and solder joints and cover them with insulation type tape.
- Tracer wire shall follow the mainline pipe and branch lines and terminate in the valve box with the control wires.

B.Remote Control Wiring:

- Provide one control wire and one common ground wire to service each valve in system. Provide 3o inch minimum expansion loop at each valve to permit removal and maintenance of valves
- Install control wires and irrigation piping in common trench wherever possible.
- Control wire splices shall not be permitted on wire runs of less than 300 feet. All splicing shall occur within valve or junction boxes. Splices shall be made waterproof by following manufacturer's instructions for wire connections and sealant.
- Numbering and tagging; Identify direct burial control wires from remote control valves to terminal strips of controller at terminal strip by tagging wire with number of connected valve.

3.9 VALVE INSTALLATION

A.Install as shown on drawings. Valve and valve box locations shall be located in a manner so as not to interrupt plant massing or groups, hedge lines or otherwise alter the character of the proposed plantings.

- Place valves and valve boxes in low growing ground cover areas offset from adjacent paving by a minimum of 2 times the specified groundcover spacing.
- In public areas where valve boxes may be readily visible to the public, verify their location with Owner's Representative prior to installation.

B.Install quick coupling valve as shown on drawings. Quick coupling valves shall be installed along mainline at intervals not exceeding 100 feet as to allow manual watering of landscape area with a 50 foot hose.

C.Drain Valves: Install one manual drain valve at all low points in mainline to allow for complete drainage of mainline.

D.Gate Valve: Install as shown on drawings and details.

3.10 SPRINKLER INSTALLATION

A.Install in accordance with manufacturer's specifications.

B.Install sprinklers after hydrostatic test is completed.

C.Install all sprinklers on flexible risers, using flexible polyethylene pipe or PVC swing joints.

D.Sprinklers located on slopes which are less than three percent shall be installed plumb. Those that are located on slopes greater than three percent shall be installed at an angle midway between plumb and perpendicular to the slope.

3.11 RAINFALL SHUTOFF DEVICE

A.Install per manufacturer's recommendations near the control equipment. Rain sensor shall be installed on building fascia or parapet if at all practical. The rain sensor can also be placed on a wall but must extend out a minimum of 18 inches from the wall. Sensors can also be place on other stationary structures, such as posts or fences. The vertical area directly above the rain sensor shall be unobstructed to the sky and shall be installed above the height of sprinkler spray. Verify installation location with owner's representative.

B.In systems pressurized by a pump, provisions shall be made to ensure shutoff device does not allow pump to activate.

3.12 IDENTIFICATION

A.Identify system components.

B.Equipment Nameplates and Signs: Install engraved plastic-laminate equipment nameplates and signs on each automatic controller. Text: In addition to identifying unit, distinguish between multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations.

C.Warning Tapes: Arrange for installation of continuous, underground, detectable warning tapes over underground piping during backfilling of trenches.

3.13 PRESSURE TESTING

A.Conduct test in presence of Owner's Representative.

B.Test shall be conducted with backflow prevention, quick couplers, control valves and manual drain valves in place and prior to backfilling. Laterals will be visually inspected for proper solvent welds and leaks prior to backfilling but no pressure test will be required.

C.Correct defects and retest until Owner's Representative approves.

D.Notify Owner's Representative a minimum of 24 hours in advance when requesting inspection of pressure test.

3.14 ADJUSTING

A.Adjust settings of controllers. Contractor shall calculate three irrigation programs: Spring / Early Summer, Summer, Late Summer / Early Fall. System operation requirements shall be based on annual precipitation rates, plant material maturation requirements, solar exposure and topography and soil conditions. Submit seasonal controller program with as-built record drawings and include a laminated copy of program at controller location in controller cabinet. Include total application quantities in inches per week for all zones, for establishment and normal operation.

B.Adjust automatic control valves to provide flow rate at rated operating pressure