



CITY OF SOLANA BEACH

SOLANA BEACH CITY COUNCIL, SUCCESSOR AGENCY TO THE REDEVELOPMENT
AGENCY, PUBLIC FINANCING AUTHORITY, AND HOUSING AUTHORITY

AGENDA

Joint SPECIAL Meeting

Wednesday, December 15, 2021 * 6:00 p.m.

Teleconference Location Only-City Hall/Council Chambers, 635 S. Highway 101, Solana Beach, California

This meeting will be conducted in accordance with California Government Code sections 54953(e) and 54954.3 and other applicable law.

MEETING LOCATION WILL NOT BE OPEN TO THE PUBLIC

Be advised that due to the COVID-19 pandemic in-person participation will not be allowed, there will be no members of the public in attendance at Council Meetings. Alternatives to in-person attendance for viewing and participating in City Council meetings are provided below.

AGENDA MATERIALS

A full City Council agenda packet including relative supporting documentation is posted online www.cityofsolanabeach.org Closed Session Agendas are posted at least 72 hours prior to regular meetings and at least 24 hours prior to special meetings.

WATCH THE MEETING

- Live web-streaming: Meetings web-stream live on the City's website on the City's [Public Meetings](#) webpage. Find the large Live Meeting button.
- Live Broadcast on Local Govt. Channel: Meetings are broadcast live on Cox Communications - Channel 19 / Spectrum (Time Warner)-Channel 24 / AT&T U-verse Channel 99.
- Archived videos online: The video taping of meetings are maintained as a permanent record and contain a detailed account of the proceedings. Council meeting tapings are archived and available for viewing on the City's [Public Meetings](#) webpage.

PUBLIC COMMENTS

- Written correspondence (supplemental items) regarding an agenda item at an open session meeting should be submitted to the City Clerk's Office at clerkoffice@cosb.org with a) Subject line to include the meeting date b) Include the Agenda Item # as listed on the Agenda.
- Correspondence received after the official posting of the agenda, but before 3:00 p.m. (or 3 hrs. prior to the meeting start time) on the meeting day, will be distributed to Council and made available online along with the agenda posting. All submittals received before the start of the meeting will be made part of the record.
- Written submittals will be added to the record and not read out loud.
- The designated location for viewing supplemental documents is on the City's website www.cityofsolanabeach.org on the posted Agenda under the relative Agenda Item.

OR

Verbal Comment Participation: If you wish to provide a live verbal comment during the meeting, attend the virtual meeting via your computer or call in.

Before Meeting

- Alert Clerk's Office. We ask that you alert us that you will joining the meeting to speak. Please email us at clerkoffice@cosb.org to let us know which item you will speak on. This allows our Staff to manage speakers more efficiently.
- Watch the Meeting and Make a Public Comment
You can watch the meeting on the Live Meeting button on the Public Meetings page OR on TV at the stations provided above OR on the zoom event:
Link: <https://cosb-org.zoom.us/j/84240018250>
Webinar ID: 842 4001 8250
If you cannot log on or need to use a phone for audio quality, use one of these call-in numbers:
888 475 4499 (Toll Free) or 833 548 0276 (Toll Free)
- Join/Log-In to the meeting at least 15 minutes prior to the start time so that the City Clerk can verify that you are ready to speak before the meeting begins.
- Audio Accessibility: If your computer does not have a microphone or you have sound issues, you can call-in from a landline or cell phone and use it as your audio (phone # is provided once you log-

in to Zoom, see above). If you call in for better audio, mute your computer's speakers to eliminate feedback so that you do not have two audios when you are speaking.

During Meeting:

- o During each Agenda Item and Oral Communications, attendees will be asked if they would like to speak. Speakers are taken during each agenda item.
- o Speakers will be asked to raise their hand (zoom icon under participants can be clicked or on the phone you can dial *9) if they would like to be called on to speak during each item. We will call on you by your log in name or the last 4 digits of your phone #. When called on by the meeting organizer, we will unmute so you may provide comments for the allotted time. Allotted speaker times are listed under each [Agenda](#) section.
- o Choose Gallery View to see the presentations, when applicable.

SPECIAL ASSISTANCE NEEDED - AMERICAN DISABILITIES ACT TITLE 2

In compliance with the Americans with Disabilities Act of 1990, persons with a disability may request an agenda in appropriate alternative formats as required by Section 202. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to the City Clerk's office (858) 720-2400 clerkoffice@cosb.org at least 72 hours prior to the meeting.

CITY COUNCILMEMBERS			
Lesa Heebner, Mayor			
Kelly Harless Deputy Mayor	Kristi Becker Councilmember	David A. Zito Councilmember District 1	Jewel Edson Councilmember District 3
Gregory Wade City Manager	Johanna Canlas City Attorney	Angela Ivey City Clerk	

SPEAKERS:

See Public Participation on the first page of the Agenda for publication participation options.

READING OF ORDINANCES AND RESOLUTIONS:

Pursuant to [Solana Beach Municipal Code](#) Section 2.04.460, at the time of introduction or adoption of an ordinance or adoption of a resolution, the same shall not be read in full unless after the reading of the title, further reading is requested by a member of the Council. If any Councilmember so requests, the ordinance or resolution shall be read in full. In the absence of such a request, this section shall constitute a waiver by the council of such reading.

CALL TO ORDER AND ROLL CALL:

CLOSED SESSION REPORT:

FLAG SALUTE:

PROCLAMATIONS/CERTIFICATES: *Ceremonial*

None at the posting of this agenda

PRESENTATIONS: *Ceremonial items that do not contain in-depth discussion and no action/direction.*

None at the posting of this agenda

APPROVAL OF AGENDA:

ORAL COMMUNICATIONS:

Note to Public: Refer to [Public Participation](#) for information on how to submit public comment.

This portion of the agenda provides an opportunity for members of the public to address the City Council on items relating to City business and not appearing on today's agenda by having submitted written comments for the record to be filed with the record or by registering to join the virtual meeting online to speak live, per the Public Participation instructions on the Agenda.

Comments relating to items on this evening's agenda are taken at the time the items are heard. Pursuant to the Brown Act, no action shall be taken by the City Council on public comment items. Council may refer items to the City Manager for placement on a future agenda. The maximum time allotted for each speaker is THREE MINUTES (SBMC 2.04.190).

COUNCIL COMMUNITY ANNOUNCEMENTS / COMMENTARY:

An opportunity for City Council to make brief announcements or report on their activities. These items are not agendaized for official City business with no action or substantive discussion.

A. CONSENT CALENDAR: (Action Items) (A.1.- A.2.)

Note to Public: Refer to [Public Participation](#) for information on how to submit public comment.

Items listed on the Consent Calendar are to be acted in a single action of the City Council unless pulled for discussion.

Any member of the public may address the City Council on an item of concern by submitting written correspondence for the record to be filed with the record or by registering to join the virtual meeting online to speak live, per the Public Participation instructions on the Agenda. The maximum time allotted for each speaker is THREE MINUTES (SBMC 2.04.190).

Those items removed from the Consent Calendar by a member of the Council will be trailed to the end of the agenda, while Consent Calendar items removed by the public will be discussed immediately after approval of the Consent Calendar.

A.1. Minutes of the City Council.

Recommendation: That the City Council

1. Approve the Minutes of the October 27, 2021 City Council Meeting.

[Item A.1. Report \(click here\)](#)

Posted Reports & Supplemental Docs contain records up to the cut off time, prior to the start of the meeting, for processing new submittals. The final official record containing handouts, PowerPoints, etc. can be obtained through a Records Request to the City Clerk's Office.

A.2. Local Emergency Teleconferencing. (File 0240-25)

Recommendation: That the City Council

1. Adopt **Resolution 2021-141** authorizing remote teleconference meetings of the legislative bodies of the City for the period of December 15, 2021 through January 14, 2022 pursuant to the new provisions of the Brown Act.

[Item A.2. Report \(click here\)](#)

Posted Reports & Supplemental Docs contain records up to the cut off time, prior to the start of the meeting, for processing new submittals. The final official record containing handouts, PowerPoints, etc. can be obtained through a Records Request to the City Clerk's Office.

B. PUBLIC HEARINGS: (B.1. – B.2.)

Note to Public: Refer to [Public Participation](#) for information on how to submit public comment.

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An applicant or designee(s) for a private development/business project, for which the public hearing is being held, is allotted a total of fifteen minutes to speak, as per SBMC 2.04.210. A portion of the fifteen minutes may be saved to respond to those who speak in opposition. All other speakers have three minutes each.

After considering all of the evidence, including written materials and oral testimony, the City Council must make a decision supported by findings and the findings must be supported by substantial evidence in the record.

B.1. Redistricting Process. (File 0430-60)

Recommendation: That the City Council

1. Receive Staff Report.
2. Approve the public hearing schedule as proposed considering the extensive process conducted just three years ago.
3. Conduct first public hearing.
4. Provide instructions to demographic consultant.

[Item B.1. Report \(click here\)](#)

Posted Reports & Supplemental Docs contain records up to the cut off time, prior to the start of the meeting, for processing new submittals. The final official record containing handouts, PowerPoints, etc. can be obtained through a Records Request to the City Clerk's Office.

B.2. Public Hearing: 550 San Mario Dr., Applicants: Crivello and Barton, Case: DRP21-008/SDP21-009. (File 0600-40)

The proposed project meets the minimum objective requirements under the SBMC, may be found to be consistent with the General Plan and may be found, as conditioned, to meet the discretionary findings required as discussed in this report to approve a DRP and SDP. Therefore, Staff recommends that the City Council:

1. Conduct the Public Hearing: Open the Public Hearing, Report Council Disclosures, Receive Public Testimony, and Close the Public Hearing.
2. Find the project exempt from the California Environmental Quality Act pursuant to Section 15303 of the State CEQA Guidelines; and
3. If the City Council makes the requisite findings and approves the project, adopt **Resolution 2021-140** conditionally approving a DRP and SDP to construct a remodel, a 486 square-foot first-floor addition, and an 804 square-foot new second-floor addition to a 1,721 square-foot single-story single-family residence with a 505 square-foot attached two-car garage and perform associated site improvements at 550 San Mario Drive, Solana Beach.

[Item B.2. Report \(click here\)](#)

Posted Reports & Supplemental Docs contain records up to the cut off time, prior to the start of the meeting, for processing new submittals. The final official record containing handouts, PowerPoints, etc. can be obtained through a Records Request to the City Clerk's Office.

C. STAFF REPORTS: (C.1.)

Note to Public: Refer to [Public Participation](#) for information on how to submit public comment.

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C.1. Solana 101 Final Landscape Plan. (File 0600-40)

Recommendation: That the City Council

1. Adopt **Resolution 2021-138** approving the final landscape plan for the Solana 101 Project.

[Item C.1. Report \(click here\)](#)

Posted Reports & Supplemental Docs contain records up to the cut off time, prior to the start of the meeting, for processing new submittals. The final official record containing handouts, PowerPoints, etc. can be obtained through a Records Request to the City Clerk's Office.

WORK PLAN COMMENTS:

Adopted June 23, 2021

COMPENSATION & REIMBURSEMENT DISCLOSURE:

GC: Article 2.3. Compensation: 53232.3. (a) Reimbursable expenses shall include, but not be limited to, meals, lodging, and travel. 53232.3 (d) Members of a legislative body shall provide brief reports on meetings attended at the expense of the local agency "City" at the next regular meeting of the legislative body.

COUNCIL COMMITTEE REPORTS: [Council Committees](#)

REGIONAL COMMITTEES: (outside agencies, appointed by this Council)

- a. City Selection Committee (meets twice a year) Primary-Heebner, Alternate-Edson
- b. Clean Energy Alliance (CEA) JPA: Primary-Becker, Alternate-Zito
- c. County Service Area 17: Primary- Harless, Alternate-Edson
- d. Escondido Creek Watershed Authority: Becker /Staff (no alternate).
- e. League of Ca. Cities' San Diego County Executive Committee: Primary-Becker, Alternate-Harless. Subcommittees determined by its members.
- f. League of Ca. Cities' Local Legislative Committee: Primary-Harless, Alternate-Becker
- g. League of Ca. Cities' Coastal Cities Issues Group (CCIG): Primary-Becker, Alternate-Harless
- h. North County Dispatch JPA: Primary-Harless, Alternate-Becker
- i. North County Transit District: Primary-Edson, Alternate-Harless
- j. Regional Solid Waste Association (RSWA): Primary-Harless, Alternate-Zito
- k. SANDAG: Primary-Heebner, 1st Alternate-Zito, 2nd Alternate-Edson. Subcommittees determined by its members.
- l. SANDAG Shoreline Preservation Committee: Primary-Becker, Alternate-Zito
- m. San Dieguito River Valley JPA: Primary-Harless, Alternate-Becker
- n. San Elijo JPA: Primary-Zito, Primary-Becker, Alternate-City Manager
- o. 22nd Agricultural District Association Community Relations Committee: Primary-Edson, Primary-Heebner

STANDING COMMITTEES: (All Primary Members) (Permanent Committees)

- a. Business Liaison Committee – Zito, Edson.
- b. Fire Dept. Management Governance & Organizational Evaluation – Harless, Edson
- c. Highway 101 / Cedros Ave. Development Committee – Edson, Heebner

- d. Parks and Recreation Committee – Zito, Harless
- e. Public Arts Committee – Edson, Heebner
- f. School Relations Committee – Becker, Harless
- g. Solana Beach-Del Mar Relations Committee – Heebner, Edson

CITIZEN COMMISSION(S)

- a. Climate Action Commission: Primary-Zito, Alternate-Becker

ADJOURN:

Next Regularly Scheduled Meeting is January 12, 2022

Always refer the City's website Event Calendar for Special Meetings or an updated schedule.

Or Contact City Hall 858-720-2400

www.cityofsolanabeach.org

AFFIDAVIT OF POSTING

STATE OF CALIFORNIA }
 COUNTY OF SAN DIEGO } §
 CITY OF SOLANA BEACH }

I, Angela Ivey, City Clerk of the City of Solana Beach, do hereby certify that this Agenda for the December 15, 2021 Council Meeting was called by City Council, Successor Agency to the Redevelopment Agency, Public Financing Authority, and the Housing Authority of the City of Solana Beach, California, was provided and posted on December 09, 2021 at 5:15 p.m. on the City Bulletin Board at the entrance to the City Council Chambers. Said meeting is held at 6:00 p.m., December 15, 2021, in the Council Chambers, at City Hall, 635 S. Highway 101, Solana Beach, California.

Angela Ivey, City Clerk * City of Solana Beach, CA

CITIZEN CITY COMMISSION AND COMMITTEE MEETINGS:

Regularly Scheduled, or Special Meetings that have been announced, are posted on each Citizen Commission's Agenda webpage. See the [Citizen Commission's Agenda webpages](#) or the City's Events [Calendar](#) for updates.

- **Budget & Finance Commission**
- **Climate Action Commission**
- **Parks & Recreation Commission**
- **Public Arts Commission**
- **View Assessment Commission**



CITY OF SOLANA BEACH

SOLANA BEACH CITY COUNCIL, SUCCESSOR AGENCY TO THE REDEVELOPMENT AGENCY,
PUBLIC FINANCING AUTHORITY, AND HOUSING AUTHORITY

MINUTES

Joint – Closed Session

Wednesday, October 27, 2021 ♦ 5:00 p.m.

Teleconference Location Only-City Hall/Council Chambers, 635 S. Highway 101, Solana Beach, California

This meeting was conducted in accordance with Government Code sections 54953(e) and 54954.3 and other applicable law.

Minutes contain a summary of significant discussions and formal actions taken at a City Council meeting.

CITY COUNCILMEMBERS

Lesa Heebner, Mayor

Kristi Becker
Deputy Mayor

Kelly Harless
Councilmember

David A. Zito
Councilmember
District 1

Jewel Edson
Councilmember
District 3

Gregory Wade
City Manager

Johanna Canlas
City Attorney

Angela Ivey
City Clerk

CALL TO ORDER AND ROLL CALL:

Mayor Heebner called the meeting to order at 5:02 p.m.

Present: Lesa Heebner, Kristi Becker, Kelly Harless, David A. Zito, Jewel Edson
Absent: None
Also: Gregory Wade, City Manager
Present: Johanna Canlas, City Attorney

PUBLIC COMMENT ON CLOSED SESSION ITEMS (ONLY):

Report to Council Chambers and submit speaker slips to the City Clerk before the meeting recesses to closed session.

CLOSED SESSION:

1. CONFERENCE WITH REAL PROPERTY NEGOTIATOR

Pursuant to Government Code section 54956.8
Property: APN: 263-352-03,04,05,06 and 07 and 263-342-02
City Negotiator: City Manager Gregory Wade and City Attorney Johanna Canlas
Negotiating Parties: Matt Tucker, North County Transit District
Under negotiation: Lease Price and Terms

2. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

Pursuant to Government Code Section 54956.9(d)(2)
One (1) Potential case(s).

No reportable action.

AGENDA ITEM # A.1.



CITY OF SOLANA BEACH

SOLANA BEACH CITY COUNCIL, SUCCESSOR AGENCY TO THE REDEVELOPMENT AGENCY, PUBLIC FINANCING AUTHORITY, AND HOUSING AUTHORITY

MINUTES

Joint REGULAR Meeting

Wednesday, October 27, 2021 * 6:00 p.m.

Teleconference Location Only-City Hall/Council Chambers, 635 S. Highway 101, Solana Beach, California

This meeting will be conducted in accordance with Government Code sections 54953(e) and 54954.3 and other applicable law.

CITY COUNCILMEMBERS

Lesa Heebner, Mayor

Kristi Becker
Deputy Mayor

Kelly Harless
Councilmember

David A. Zito
Councilmember
District 1

Jewel Edson
Councilmember
District 3

Gregory Wade
City Manager

Johanna Canlas
City Attorney

Angela Ivey
City Clerk

SPEAKERS:

See Public Participation on the first page of the Agenda for publication participation options.

READING OF ORDINANCES AND RESOLUTIONS:

Pursuant to [Solana Beach Municipal Code](#) Section 2.04.460, at the time of introduction or adoption of an ordinance or adoption of a resolution, the same shall not be read in full unless after the reading of the title, further reading is requested by a member of the Council. If any Councilmember so requests, the ordinance or resolution shall be read in full. In the absence of such a request, this section shall constitute a waiver by the council of such reading.

CALL TO ORDER AND ROLL CALL:

Mayor Heebner called the meeting to order at 6:07pm

Present: Lesa Heebner, Kristi Becker, Kelly Harless, David A. Zito, Jewel Edson

Absent: None

Also Greg Wade, City Manager

Present: Johanna Canlas, City Attorney

Angela Ivey, City Clerk

Dan King, Assistant City Manager

Mo Sammak, City Engineer/Public Works Dir.

Ryan Smith, Finance Dir.

Joseph Lim, Community Development Dir.

CLOSED SESSION REPORT:

FLAG SALUTE:

PROCLAMATIONS/CERTIFICATES: *Ceremonial*

- Honoring Hispanic and Latino Heritage Month
Mayor Heebner presented the proclamation to Lisa Montes who gave a brief presentation.

APPROVAL OF AGENDA:

Motion: Moved by Deputy Mayor Becker and second by Councilmember Zito to approve.
Approved 5/0. Ayes: Heebner, Becker, Harless, Zito, Edson. Noes: None. Motion carried unanimously.

ORAL COMMUNICATIONS:

Note to Public: Refer to [Public Participation](#) for information on how to submit public comment.

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Peggy Walker, spoke about the success of Día de los Muertos event at La Colonia Park, that it provided opportunity for many local youth to take part in community service, that the San Dieguito Alliance booth had about 300 youth sign pledges to stay free of alcohol, marijuana, vape, and tobacco.

Cindy Clemens, on behalf of the Seaweeders Garden Club and Climate Action Commission, spoke about Nissho's weekend efforts planting native narrow leaf milkweed plants in gardens throughout Solana Beach and that they provided handouts regarding the monarch butterfly, the importance of milkweed to their survival, and the dwindling Monarch population in California.

COUNCIL COMMUNITY ANNOUNCEMENTS / COMMENTARY:

An opportunity for City Council to make brief announcements or report on their activities. These items are not agendized for official City business with no action or substantive discussion.

A. CONSENT CALENDAR: (Action Items) (A.1. - A.4.)

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Those items removed from the Consent Calendar by a member of the Council will be trailed to the end of the agenda, while Consent Calendar items removed by the public will be discussed immediately after approval of the Consent Calendar.

A.1. Minutes of the City Council.

Recommendation: That the City Council

1. Approve the Minutes of the September 8, 2021 Council Meeting.

Approved Minutes: https://www.ci.solana-beach.ca.us/index.asp?SEC=F0F1200D-21C6-4A88-8AE1-0BC07C1A81A7&Type=B_BASIC

Motion: Moved by Councilmember Edson and second by Councilmember Harless to approve.
Approved 5/0. Ayes: Heebner, Becker, Harless, Zito, Edson. Noes: None. Motion carried unanimously.

A.2. Register Of Demands. (File 0300-30)

Recommendation: That the City Council

1. Ratify the list of demands for September 25, 2021 – October 08, 2021.

[Item A.2. Report \(click here\)](#)

Posted Reports & Supplemental Docs contain records up to the cut off time, prior to the start of the meeting, for processing new submittals. The final official record containing handouts, PowerPoints, etc. can be obtained through a Records Request to the City Clerk's Office.

Motion: Moved by Councilmember Edson and second by Councilmember Harless to approve.

Approved 5/0. Ayes: Heebner, Becker, Harless, Zito, Edson. Noes: None. Motion carried unanimously.

A.3. General Fund Budget Adjustments for Fiscal Year 2021/2022. (File 0330-30)

Recommendation: That the City Council

1. Receive the report listing changes made to the Fiscal Year 2021/2022 General Fund Adopted Budget.

[Item A.3. Report \(click here\)](#)

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Motion: Moved by Councilmember Edson and second by Councilmember Harless to approve. **Approved 5/0.** Ayes: Heebner, Becker, Harless, Zito, Edson. Noes: None. Motion carried unanimously.

A.4. Destruction of Obsolete Records. (File 170-50)

Recommendation: That the City Council

1. Adopt **Resolution 2021-122** authorizing the destruction of officially obsolete records.

[Item A.4. Report \(click here\)](#)

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Motion: Moved by Councilmember Edson and second by Councilmember Harless to approve. **Approved 5/0.** Ayes: Heebner, Becker, Harless, Zito, Edson. Noes: None. Motion carried unanimously.

C. STAFF REPORTS: (C.1. – C.4.)

Note to Public: Refer to [Public Participation](#) for information on how to submit public comment.

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C.1. Lomas Santa Fe Corridor Improvement Project – Phase III Update. (File 0820-15)

Recommendation: That the City Council

1. Receive the final report and provide input and comments on the Lomas Santa Fe Corridor Improvement Project.

[Item C.1. Report \(click here\)](#)

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Greg Wade, City Manager, introduced the item.

Greg Wade, City Manager, Dawn Baker, Michael Baker International, and Brian Hannegan, RRM Design, presented a Powerpoint (on file).

Council and Staff discussed that the streetlights would have a different look and be relocated, the trees that belong to the HOA that would be moved further up the hill to a spot approved by the HOA, that the path would be wide enough at the pinch point to accommodate a multi-use path, and that it would be made legal for biking.

Council, Staff, and Consultants discussed the heights and aesthetics of the 973 ft. of retaining wall within the corridor and spoke about potential treatment options, having a textured wall with vines or plants, including a variety of different wall designs within the corridor, transitions between designs, looking at potential issues related to wall vegetation related to growth and maintenance, and including seat walls or benches.

They also discussed the continued need for collaboration with Caltrans regarding the freeway interchange, communicating to e-bikers how the path should be used, looking at the underside of the I-5 overpass, safety issues for pedestrians and bicyclists due to lighting, and walking the trail before deciding on final paving design details.

C.2. Oppose New Offshore Oil and Gas Drilling and Support the American Coasts and Oceans Protection Act (HR 3053). (File 0480-60)

Recommendation: That the City Council

1. Adopt **Resolution 2021-123** to oppose new offshore oil and gas drilling and to express support of the American Coasts and Oceans Protection Act (HR 3053).

[Item C.2. Report \(click here\)](#)

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Greg Wade, City Manager, introduced the item.

Dan King, Assistant City Manager, presented a Powerpoint (on file).

Council agreed that health of the beaches is very important to the community and that action needed to be taken to prevent spills from happening in the future.

Motion: Moved by Councilmember Edson and second by Deputy Mayor Becker to approve. **Approved 5/0.** Ayes: Heebner, Becker, Harless, Zito, Edson. Noes: None. Motion carried unanimously.

C.3. General Fund Update (Unaudited) for Fiscal Year (FY) 2020/21. (File 0330-80)

Recommendation: That the City Council

1. Accept and file the General Fund Update for Fiscal Year 2020/21.
2. Provide direction to Staff regarding whether to use an amount of the projected General Fund surplus to fund the PARS Irrevocable Trust for Pensions as part of a budget appropriation to the General Fund Unreserved Fund Balance, and other funds as determined by the Finance Department, in Fiscal Year 2021/22.
3. Approve **Resolution 2021-124** revising appropriations in the Fiscal Year 2020/21 and Fiscal Year 2021/22 budgets.

[Item C.3. Report \(click here\)](#)

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Greg Wade, City Manager, introduced the item.

Ryan Smith, Finance Director, presented a Powerpoint (on file).

Council and Staff discussed that the 5.1 million in the undesignated reserve category does not include the 17% reserve policy funds, that the increase of interest expense and the Transnet extension fund of \$325,000 was a planned and known expense, that a third of the FY 2021 General Fund surplus money be contributed to the PARS pension fund, that a third of the surplus would be about a \$455,000 contribution, and that a small percentage of special service funds also gets calculated into the contribution.

Motion: Moved by Councilmember Zito and second by Mayor Heebner to approve. **Approved 5/0.** Ayes: Heebner, Becker, Harless, Zito, Edson. Noes: None. Motion carried unanimously.

C.4. Introduce (1st Readings) Ordinances Nos. 519 and 520 – Amending Sections 6.36.010, 6.36.040, 17.56.020 and 17.56.080 of the Solana Beach Municipal Code to Comply with State Mandated Organic Waste Disposal Requirements.
(File 1030-50)

Recommendation: That the City Council

1. Introduce (1st readings) **Ordinance 519** and **Ordinance 520** amending Sections 6.36.010, 6.36.040, 17.56.020 and 17.56.080 to the Solana Beach Municipal Code to address State organics recycling mandates.

[Item C.4. Report \(click here\)](#)

Posted Reports & Supplemental Docs contain records up to the cut off time, prior to the start of the meeting, for processing new submittals. The final official record containing handouts, PowerPoints, etc. can be obtained through a Records Request to the City Clerk's Office.

Greg Wade, City Manager, introduced the item.

Rimga Viskanta, Senior Management Analyst, presented a Powerpoint (on file).

Motion: Moved by Councilmember Zito and second by Deputy Mayor Becker to approve.
Approved 5/0. Ayes: Heebner, Becker, Harless, Zito, Edson. Noes: None. Motion carried unanimously.

WORK PLAN COMMENTS:

Adopted June 23, 2021

COMPENSATION & REIMBURSEMENT DISCLOSURE: None

COUNCIL COMMITTEE REPORTS: [Council Committees](#)

REGIONAL COMMITTEES: (outside agencies, appointed by this Council)

STANDING COMMITTEES: (All Primary Members) (*Permanent Committees*)

CITIZEN COMMISSION(S)

ADJOURN:

Mayor Heebner adjourned the meeting at 7:48pm.

Megan Bavin, Deputy City Clerk

Approved: _____

ADJOURN:

Mayor Heebner adjourned the meeting at 5:58 p.m.

Megan Bavin, Deputy City Clerk

Council Approved:



STAFF REPORT

CITY OF SOLANA BEACH

TO: Honorable Mayor and City Councilmembers
FROM: Gregory Wade, City Manager
MEETING DATE: December 15, 2021
ORIGINATING DEPT: City Manager Department/City Attorney's Office
SUBJECT: **Council Consideration and Potential Adoption of Resolution 2021-141 Authorizing Continued Remote Teleconference Meetings of the Legislative Bodies of the City for the Period of December 15, 2021 through January 15, 2022 Pursuant to the Brown Act and Continuing Emergency**

BACKGROUND:

On March 11, 2020, the World Health Organization (WHO) declared COVID-19, the illness caused by the novel coronavirus, a pandemic, pointing at that time to over 118,000 cases of COVID-19 in over 110 countries and territories around the world and the sustained risk of further global spread. This was preceded by declarations of emergency by both the County of San Diego and State of California on February 14, 2020, and March 4, 2020, respectively, followed by a federal emergency declaration on March 13, 2020, as a result of the threat posed by COVID-19. On March 16, 2020, pursuant to Section 2.28.060(A)(1) of the Solana Beach Municipal Code (SBMC), the Director of Emergency Services/City Manager proclaimed a state of local emergency in the City of Solana Beach due to COVID-19, which was ratified by the City Council through adoption of Resolution 2020-036.

Since that time, there have been numerous Orders and Guidance by the California Department of Public Health (CDPH) and the Health Officer of the County of San Diego to curtail the spread of COVID-19. On March 17, 2020, Governor Newsom issued Executive Order No. N-29-20, suspending the Ralph M. Brown Act's requirements for teleconferencing during the COVID-19 pandemic provided that notice and accessibility requirements are met, the public members are allowed to observe and address the legislative body at the meeting, and that a legislative body of a local agency has a procedure for receiving and swiftly resolving requests for reasonable accommodation

COUNCIL ACTION:

for individuals with disabilities, as specified. Pursuant to Executive Order No. N-29-20, the City Council and City Commissions have met by remote teleconferencing following applicable requirements, preserving and nurturing public access and participation in meetings while preserving public health and safety.

On June 11, 2021, Governor Newsom issued Executive Order N-08-21 to roll back certain provisions of his COVID-19-related Executive Orders and to clarify that other provisions remained necessary to help California respond to, recover from and mitigate the impacts of the COVID-19 pandemic. Paragraph 42 of Executive Order N-08-21 waived and set forth certain requirements related to public meetings of local legislative bodies and specified that it would be valid through September 30, 2021.

On September 16, 2021, Governor Newsom signed into law Assembly Bill 361 (AB 361), which pertains to the same subject matter as Paragraph 42 of Executive Order N-08-21, which took effect immediately pursuant to an urgency clause, and which amended the Brown Act, in Government Code section 54953(e)(1)(B), to allow local legislative bodies to continue meeting by teleconference during a gubernatorial proclaimed state of emergency if the local legislative body determines, by majority vote, that as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees.

On October 13, 2021, the City Council adopted Resolution 2021-120 authorizing remote teleconference meetings of the legislative bodies of the City for the period of October 13, 2021 through November 12, 2021 pursuant to the new provisions of the Brown Act. If the state of emergency remains active, or state or local officials have imposed or recommended measures to promote social distancing, in order to continue to remote teleconference, Government Code section 54953(e)(3) requires that every thirty (30) days, the City Council make the following findings by majority vote:

(A) The legislative body has reconsidered the circumstances of the state of emergency.

(B) Any of the following circumstances exist:

(i) The state of emergency continues to directly impact the ability of the members to meet safely in person.

(ii) State or local officials continue to impose or recommend measures to promote social distancing.

On November 10, 2021, the City Council adopted Resolution 2021-127 authorizing continued teleconference meetings of the legislative bodies of the City for the period of November 10, 2021 through December 10, 2021 pursuant to the new provisions of the Brown Act. On December 8, 2021, the City Council adopted Resolution 2021-137 authorizing continued teleconference meetings through January 7, 2022. The next regularly scheduled City Council meeting is January 12, 2022.

The item before the City Council is to consider and adopt Resolution 2021-141 (Attachment 1), reconsidering the circumstances of the state of local emergency and authorizing remote teleconference meetings of the legislative bodies of the City for the period of December 15, 2021, through January 15, 2022, pursuant to the new provisions of the Brown Act and in light of the continuing direct impact on the ability of the members to meet safely in person.

DISCUSSION:

The COVID-19 pandemic continues to spread rapidly throughout the State and County and is impacting the health and welfare of the City of Solana Beach. Updated as of August 13, 2021, the Center for Disease Control and Prevention still recommends staying at least six (6) feet from other people. The California Department of Industrial Relations, Division of Occupational Safety and Health's COVID-19 Prevention Emergency Temporary Standards were updated on June 17, 2021 and are still in effect. Those workplace standards place an ongoing requirement on employers to assess workplace hazards and implement controls to prevent transmission of disease, noting that there may be circumstances in which employers determine that physical distancing is necessary in their workplace.

A strain of COVID-19, known as SARS-CoV-2 Delta Variant (Delta Variant), which is 70% more likely to be spread, has also been identified in the County of San Diego. This strain was originally identified in the United Kingdom. Since persons contracting this strain in the County have had no history of travel, this highly contagious strain is community based. The Delta Variant is highly transmissible in indoor settings, breakthrough cases are becoming more common and hospitalizations have increased throughout San Diego County. On July 28, 2021, the California Department of Public Health issued guidance for the use of face coverings stating that the Delta Variant is two times as contagious as early COVID-19 variants, leading to increasing infections, the Delta Variant accounts for over 80% of cases sequenced, and cases and hospitalizations of COVID-19 are rising throughout the state. In short, COVID-19 continues to threaten the health and lives of City residents.

According to the Center for Disease Control and Prevention (CDC), an even newer strain of COVID-19, known as Omicron, has emerged. On November 24, 2021, this new variant B.1.1.529, was reported to the World Health Organization (WHO). On November 26, 2021, WHO named B.1.1.529 Omicron and classified it as a Variant of Concern (VOC). On November 30, 2021, the United States designated Omicron as a Variant of Concern. On December 1, 2021, the first confirmed U.S. case of Omicron was identified.¹ On Thursday, December 9, 2021, the San Diego County Department of

¹ <https://www.cdc.gov/coronavirus/2019-ncov/variants/omicron-variant.html>

Health and Human Services announced the first Omicron COVID-19 case in San Diego had been identified.²

We are entering the holiday season with attendant increases in indoor gatherings, travel and exposure to COVID-19. The Delta Variant has caused, and will continue to cause, conditions of imminent peril to the health safety of persons within the City that are likely beyond the control of services, personnel, equipment and facilities of the City. On December 9, 2021, the CDC reported that we do not yet know how easily Omicron spreads, the severity of illness it causes, or how well available vaccines and medications work against it. In other words, the local emergency continues and as a result, meeting in person would present imminent risks to the health or safety of attendees.

All meetings of the City's legislative bodies are open and public, as required by the Brown Act (California Government Code §§54950 – 54963), so that any member of the public may attend, participate and watch the City's legislative bodies conduct their business. The recently amended Brown Act, Government Code section 54953(e)(1)(B), allows local legislative bodies to continue meeting by teleconference during a gubernatorial proclaimed state of emergency if the local legislative body determines, by majority vote, that as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees and every thirty (30) days thereafter finds by a majority vote under Government Code section 54953(e)(3) that after reconsidering the circumstances of the state of emergency, it continues to directly impact the ability of the members to meet safely in person.

Resolution 2021-141 (Attachment 1) would make the necessary findings under Government Code section 54953(e)(3) and authorize the City's legislative bodies to meet by remote teleconferencing within the requirements of applicable law. To continue to meet by remote teleconference, Council will be required to revisit the Resolution within thirty (30) days and find that the state of emergency continues to directly impact the ability of the members to meet safely in person pursuant to Government Code section 54953(e)(3).

CEQA COMPLIANCE STATEMENT:

The proposed City Council action is not subject to the California Environmental Quality Act (CEQA) pursuant to the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, Sections: 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment); 15060(c)(3) (the activity is not a project as defined in Section 15378); and 15061(b)(3), because the activity is covered by the general rule that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Because there is no possibility that the

² https://www.countynewscenter.com/first-omicron-variant-case-identified-in-san-diego-county/?utm_source=rss&utm_medium=rss&utm_campaign=first-omicron-variant-case-identified-in-san-diego-county

Resolution may have a significant adverse effect on the environment, the action is exempt from CEQA.

FISCAL IMPACT:

There are no direct fiscal impacts related to the adoption of the Resolution.

WORKPLAN:

N/A

OPTIONS:

- Approve Staff recommendation.
- Approve Staff recommendation with modifications consistent with the Brown Act.
- Do not approve Staff recommendations and resume in person meetings.
- Provide direction / feedback.

DEPARTMENT RECOMMENDATION:

Staff recommends that the City Council adopt Resolution 2021-141, authorizing remote teleconference meetings of the legislative bodies of the City for the period of December 15, 2021, through January 14, 2022, pursuant to the new provisions of the Brown Act.

CITY MANAGER'S RECOMMENDATION:

Approve Department Recommendation.



Gregory Wade, City Manager/Director of Emergency Services

1. Resolution No. 2021-141

RESOLUTION 2021-141

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLANA BEACH, CALIFORNIA, AUTHORIZING CONTINUED REMOTE TELECONFERENCE MEETINGS OF THE LEGISLATIVE BODIES OF THE CITY OF SOLANA BEACH FOR THE PERIOD OF DECEMBER 15, 2021 THROUGH JANUARY 14, 2022 PURSUANT TO THE BROWN ACT AND CONTINUING EMERGENCY

WHEREAS, the City of Solana Beach (“City”) is committed to preserving and nurturing public access and participation in meetings of the City Council and the City’s commissions; and

WHEREAS, all meetings of the City’s legislative bodies are open and public, as required by the Ralph M. Brown Act (California Government Code §§54950 – 54963), so that any member of the public may attend, participate and watch the City’s legislative bodies conduct their business; and

WHEREAS, the Brown Act, Government Code section 54953(e), makes provisions for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, the recently amended Brown Act, Government Code section 54953(e)(1)(B), allows local legislative bodies to continue meeting by teleconference during a gubernatorial proclaimed state of emergency if the local legislative body determines, by majority vote, that as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees; if the state of emergency remains active; and if every thirty (30) days, the local legislative body finds by a majority vote under Government Code section 54953(e)(3) that after reconsidering the circumstances of the state of emergency, it continues to directly impact the ability of the members to meet safely in person; and

WHEREAS, on March 4, 2020, Governor Newsom declared a state of emergency due to the Coronavirus (“COVID-19”) pandemic, which remains in effect; and

WHEREAS, on March 16, 2020, the City Manager, acting as the Director of Emergency Services, did proclaim the existence of a local state of emergency within the City, pursuant to Section 2.28.060(A)(1) of the Solana Beach Municipal Code and Section 8625 of the California Emergency Services Act (California Government Code §§8550 *et. seq.*), as a result of the Coronavirus (COVID-19) pandemic, which was ratified by the City Council on March 19, 2020 through the adoption of Resolution 2020-036; and

WHEREAS, pursuant to Resolution 2020-036, the local emergency was deemed to continue to exist until its termination is proclaimed by the City Council of the City of

Solana Beach and the local emergency does continue to exist; and

WHEREAS, COVID-19 continues to threaten the health and lives of City residents;
and

WHEREAS, the SARS-CoV-2 Delta Variant (Delta Variant) is highly transmissible in indoor settings, breakthrough cases are becoming more common and hospitalizations have increased throughout San Diego County; and

WHEREAS, on July 28, 2021, the California Department of Public Health issued guidance for the use of face coverings stating that the Delta Variant is two times as contagious as early COVID-19 variants, leading to increasing infections, the Delta Variant accounts for over 80% of cases sequenced, and cases and hospitalizations of COVID-19 are rising throughout the state; and

WHEREAS, the Delta Variant has caused, and will continue to cause, conditions of imminent peril to the health safety of persons within the City that are likely beyond the control of services, personnel, equipment and facilities of the City; and

WHEREAS, updated as of August 13, 2021, the Center for Disease Control and Prevention recommends staying at least six (6) feet from other people; and

WHEREAS, the California Department of Industrial Relations, Division of Occupational Safety and Health's COVID-19 Prevention Emergency Temporary Standards were updated on June 17, 2021, are still in effect and place an ongoing requirement on employers to assess workplace hazards and implement controls to prevent transmission of disease, which may include circumstances in which employers determine that physical distancing is necessary in their workplace; and

WHEREAS, on October 13, 2021, the City Council held a regular meeting for the purpose of determining, by majority vote, whether as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees, made such a determination and adopted Resolution 2021-120 authorizing remote teleconference meetings of the legislative bodies of the City for the period of October 13, 2021 through November 12, 2021 pursuant to the new provisions of the Brown Act; and

WHEREAS, on November 10, 2021, the City Council reconsidered the circumstances of the state of emergency and adopted Resolution 2021-127 authorizing continued teleconference meetings of the legislative bodies of the City for the period of November 10, 2021 through December 10, 2021 pursuant to the new provisions of the Brown Act; and

WHEREAS, according to the Center for Disease Control and Prevention (CDC), a new strain of COVID-19, known as Omicron, has emerged; and

WHEREAS, on November 24, 2021, this new variant B.1.1.529, was reported to the World Health Organization (WHO); and

WHEREAS, on November 26, 2021, WHO named B.1.1.529 Omicron and classified it as a Variant of Concern (VOC); and

WHEREAS, on November 30, 2021, the United States designated Omicron as a Variant of Concern; and

WHEREAS, on December 1, 2021, the first confirmed U.S. case of Omicron was identified; and

WHEREAS, on December 8, 2021, the City Council adopted Resolution 2021-137 authorizing continued teleconference meetings through January 7, 2022; and

WHEREAS, on December 9, 2021, the first confirmed San Diego County case of Omicron was identified; and

WHEREAS, we are entering the holiday season with attendant increases in indoor gatherings, travel and exposure to COVID-19; and

WHEREAS, on December 9, 2021, the CDC reported that we do not yet know how easily Omicron spreads, the severity of illness it causes, or how well available vaccines and medications work against it; and

WHEREAS, the state of emergency remains active.

NOW, THEREFORE, the City Council of the City of Solana Beach, California, does find and resolve as follows:

1. That the above recitations are true and correct and incorporated herein as findings.
2. That the City Council has reconsidered the circumstances of the state of emergency.
3. That the state of emergency continues to directly impact the ability of the members of the City's legislative bodies and the public to meet safely in person.

4. That the meetings of the legislative bodies of the City of Solana Beach, including the City Council, standing committees and citizen commissions, shall continue to meet by remote teleconferencing in compliance with applicable law.
5. That the City Manager and Staff are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution including, conducting open and public meetings in accordance with Government Code section 54953(e) and other applicable provisions of the Brown Act.
6. That this Resolution shall take effect on December 15, 2021, and shall be effective until the earlier of (a) January 14, 2022 or (b) such time as the City Council adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the legislative bodies of the City may continue to teleconference without compliance with Government Code section 54953(b)(3).

PASSED AND ADOPTED this 15th day of December, 2021, at a regularly scheduled meeting of the City Council of the City of Solana Beach, California by the following vote:

AYES: Councilmembers
NOES: Councilmembers
ABSTAIN: Councilmembers
ABSENT: Councilmembers

LESA HEEBNER, Mayor

APPROVED AS TO FORM:

ATTEST:

JOHANNA N. CANLAS, City Attorney

ANGELA IVEY, City Clerk



STAFF REPORT CITY OF SOLANA BEACH

TO: Honorable Mayor and City Councilmembers
FROM: Gregory Wade, City Manager
MEETING DATE: December 15, 2021
ORIGINATING DEPT: City Attorney's Office
SUBJECT: **First Public Hearing - Redistricting Process**

BACKGROUND:

On April 11, 2018, the City Council adopted Resolution 2018-042 declaring the City of Solana Beach's (City) intent to change the way the Council members are elected, transitioning from an at-large Councilmember election system to a district-based Councilmember election system with a directly elected Office of Mayor. On July 18, 2018, the City Council adopted Ordinance 488 implementing district-based elections for Councilmembers. The districts were drawn based on the 2010 Census data, the most recent available. The 2018 plan was used in City Council elections in 2020.

Following every federal decennial census, local governments are required to engage in a formal redistricting process as prescribed by the California Elections Code. Elec. Code § 21601 et seq. The California Legislature passed a new law in 2019, amended in 2020 and 2021, called the FAIR MAPS Act which specifies the procedures and mandatory, prioritized criteria under redistricting must occur.

The City has engaged assistance from Special Counsel Marguerite Leoni of Nielsen Merksamer Parrinello Gross & Leoni LLP and Demographers Douglas Johnson/Shannon Kelly from National Demographics Corporation to assist with the redistricting process.

This item is before the City Council to conduct the first of the required public hearings under the law and to establish the schedule for the subsequent public hearings after the publication of the draft maps.

COUNCIL ACTION:

DISCUSSION:

Mandatory Redistricting Criteria

California Elections Code Section 21601 requires the City Council to adopt district boundaries using the following criteria, in the following order of priority:

1. Council districts shall be substantially equal in population based on total population of residents of the city as determined by the most recent federal decennial census with adjustments required by state law pertaining to incarcerated persons. (Changes to state law now require that the California Statewide Database perform certain “adjustments” to the data to reassign incarcerated residents back to their last known place of residence, rather than where they are incarcerated.)
2. Council districts must comply with the United States Constitution, the California Constitution, and the federal Voting Rights Act of 1965.
3. To the extent practicable, council districts shall be geographically contiguous.
4. To the extent practicable, the geographic integrity of any local neighborhood or local community of interest shall be respected in a manner that minimizes its division. (A “community of interest” is a population that shares common social or economic interests that should be included within a single district for purposes of its effective and fair representation. Communities of interest do not include relationships with political parties, incumbents, or political candidates.)
5. District boundaries must be easily identifiable and understandable by residents. To the extent practicable, districts shall be defined by natural and artificial barriers, by streets or by the boundaries of the city.
6. To the extent practicable, boundaries must be drawn to encourage geographical compactness in a manner that nearby areas of population are not bypassed in favor of more distant populations.
7. The Council shall not adopt District boundaries for the purpose of favoring or discrimination against a political party.

State law does not expressly prohibit other good government considerations for redistricting, such as avoiding to the extent possible the deferral of the exercise of the right to vote because of rearrangement of district boundaries, or a minimal change approach provided all statutory criteria are met.

Minimum Process: Public Hearing

Before adopting the revised district boundaries, the City Council must conduct at least four public hearings:

- One before draft maps are released. (In lieu of holding this public hearing, Council may have Staff, or a consultant, conduct one or more public outreach meetings.)
- Two after draft maps are published.

- At discretion when to hold a fourth public hearing but it must be presided over by the City Council.

One of the four public hearings must be conducted on a weekend or on a weekday evening after 6 p.m. (a regular council meeting would fulfill this requirement).

The City has established the following schedule of public hearings for the redistricting process, all presided over by the City Council (note that the City Council conducted an extensive process of public hearings/meetings just three years ago in connection with the establishment of its Council districts). Staff proposes the following three public hearing dates after publication of the draft maps:

- Wednesday, January 12, 2022 at 6 p.m.
- Wednesday, January 26 2022 at 6 p.m.
- Wednesday, February 23, 2022 at 6 p.m.

This evening's public hearing is the first of the four required. At the discretion of the City Council, additional public hearings/workshops may be scheduled. These additional hearings/workshops may be conducted by Staff or the City's consultant.

Mandatory Public Outreach

The Elections Code provisions applicable to the redistricting process require the City to take steps to encourage residents, including those in underrepresented communities and non-English speaking communities, to participate in the redistricting public review process. Elec. Code § 21608(a). These steps include:

- Informing local media outlets, including those who serve language minority communities.
- Informing the public through civic engagement or community groups that are active within the city, including those active in language minority communities.
- Arranging for live translation of a public hearing in an applicable language if a request for translation is made.
- Publishing the date, time, and location for any public hearing or workshop on the internet at least five days before the hearing or workshop.
- For each draft map prepared by the city, publishing information on the total population, citizen voting age population, and racial and ethnic characteristics of the citizen voting age population of each proposed council district.
- Publishing a draft redistricting map online, including population information, for at least seven days before Council's final adoption.
- Receiving public testimony or draft boundary maps in writing and electronically.
- Publishing in required languages procedures for a member of the public to testify during a public hearing or to submit written testimony directly to the City Council.
- Publishing a calendar of all public hearing dates.

- Providing a recording or written summary of all public comments and council deliberations at each public hearing online.
- Maintaining a website dedicated to redistricting for at least 10-years post adoption.

Staff has complied with all these requirements to date.

Deadline for Completion of Redistricting Process.

The statutory deadline for the Council to complete the redistricting process is April 17, 2022, but earlier completion is advised, to ensure that the County Registrar is provided sufficient time to implement the new boundaries considering the statewide and countywide redistricting currently underway in numerous jurisdictions, all with deadlines considering June and/or November 2022 elections. After the deadline, the redistricting must be referred to the superior court for completion.

CEQA COMPLIANCE STATEMENT:

Not a project as defined under CEQA.

FISCAL IMPACT:

The City engaged the services of National Demographics Corporation to facilitate the redistricting process. The base price for the professional demographic services is \$12,500. The total cost is dependent on the level of service requested by the City which may include meeting attendance, public participation mapping kit, etc.

OPTIONS:

- Approve public hearing schedule with or without amendments/modifications as to date or number of hearings.
- Provide instructions to demographic consultant regarding draft redistricting maps including number of drafts and any additional considerations after compliance with statutory mandatory criteria

DEPARTMENT RECOMMENDATION:

Staff recommends that the City Council:

1. Receive Staff Report.
2. Approve the public hearing schedule as proposed considering the extensive process conducted just three years ago.
3. Conduct first public hearing.
4. Provide instructions to demographic consultant.

CITY MANAGER'S RECOMMENDATION:

Approve Department Recommendation.



Gregory Wade, City Manager



STAFF REPORT CITY OF SOLANA BEACH

TO: Honorable Mayor and City Councilmembers
FROM: Gregory Wade, City Manager
MEETING DATE: December 15, 2021
ORIGINATING DEPT: Community Development Department
SUBJECT: **Public Hearing: Request for DRP and SDP to Construct a Remodel and Two-Story Addition to a Single-Story Single-Family Residence with an Attached Garage and Perform Associated Site Improvements at 550 San Mario Drive. (Applicant: Christine Crivello and Dave Barton; Application: DRP21-008/SDP21-009; APN: 263-583-15; Resolution 2021-140)**

BACKGROUND:

The Applicants, Christine Crivello and Dave Barton, are requesting City Council approval of a Development Review Permit (DRP) and Structure Development Permit (SDP) to construct and remodel a 486 square-foot first-floor addition, and an 804 square-foot new second-floor addition to an existing 1,721 square-foot single-story single-family residence with a 505 square-foot attached two-car garage and perform associated site improvements at 550 San Mario Drive. The 15,712 square-foot lot is located within the Low-Medium Residential (LMR) Zone, Hillside Overlay Zone (HOZ), and has mapped Environmentally Sensitive Habitat Area (ESHA) onsite.

The project proposes grading in the amount of approximately 6 cubic yards for footings. The project requires a DRP for a proposed second story in excess of 35 percent of the floor area of the first floor. The maximum building height would be 25 feet above the proposed grade or 286.11 feet above Mean Sea Level (MSL).

The issue before the Council is whether to approve, approve with conditions, or deny the Applicants' request as contained in Resolution 2021-140 (Attachment 1).

DISCUSSION:

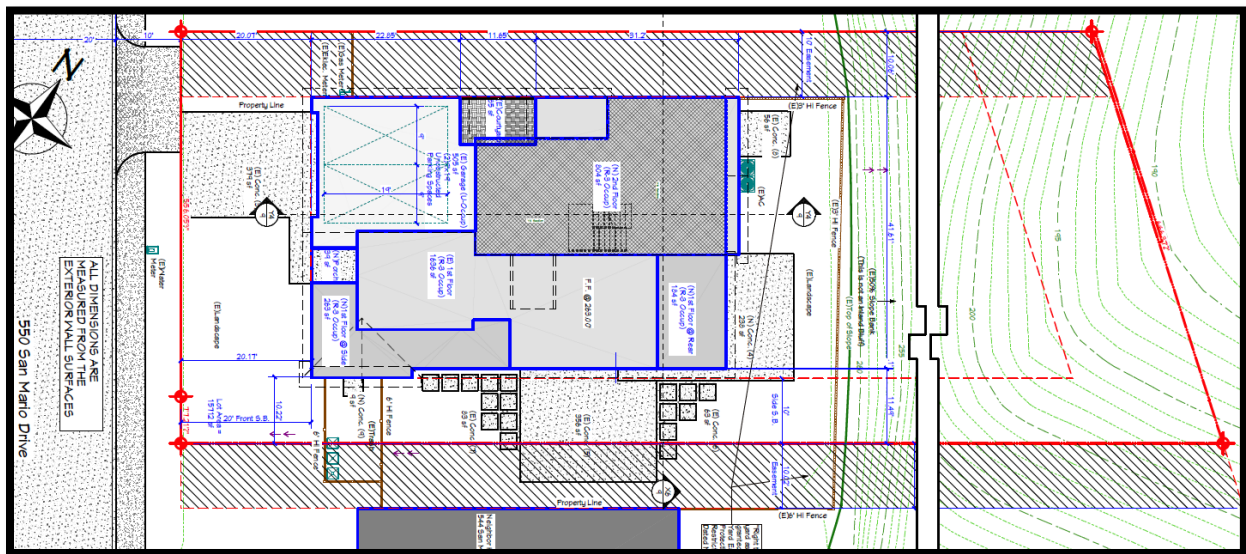
The subject property is located on the east side of San Mario Drive within the San Elijo Hills residential tract development. The rectangular shaped lot includes an approximately 63-foot-long west (front) property line, 240-foot long north and 260-foot south side

CITY COUNCIL ACTION:

property lines, and a 66-foot rear property line. The rear property line is located on the City's boundary with the County of San Diego. The property is currently developed with a single-story single-family residence that was constructed prior to the City's incorporation. The existing residence and yard area are located on a relatively flat pad that is surrounded by fences ranging in height from approximately six to eight feet. The topography of the lot slopes down more than sixty feet beyond the improved/fenced yard area and toward the northeast (rear) portion of the lot.

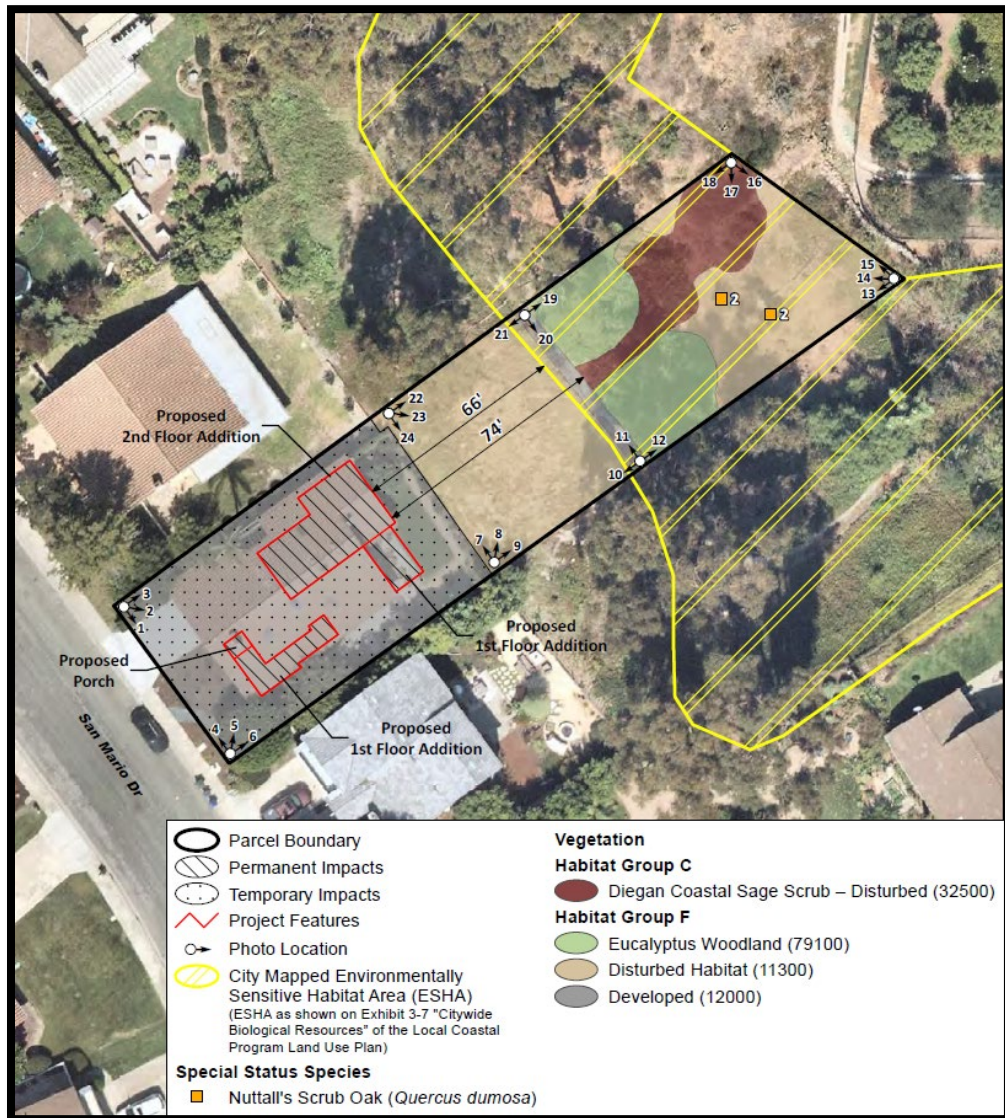
Similar to other properties in the San Elijo Hills development, the side property lines are unique in that each property includes a 10-foot-wide side-yard easement dedicated to the adjacent property owner for yard improvements, which causes the subject property to appear to have a "zero lot line" on the north side of the property. However, the existing residence complies with both required 10-foot side-yard setbacks. The 10-foot-wide southern side yard and the additional 10-foot-wide easement (dedicated toward the subject property from the property to the south at 544 San Mario Drive) consists of a private fenced yard area. The northern side yard is fenced off from the subject property as it overlaps with the easement dedicated to the adjacent property to the north.

The Applicants are proposing to construct a 486 square-foot first-floor addition and a new 804 square-foot second floor. Proposed site improvements include a new concrete patio on the east (rear) side of the residence. The project plans are provided in Attachment 2. This east (rear) portion of the lot consists of undeveloped and vegetated steep slopes that are preserved by the provisions of the HOZ and the City's adopted Local Coastal Program Land Use Plan (LCP/LUP). No building or grading is proposed outside of the existing developed footprint or on slopes that exceed 25 percent, therefore, the project is exempt from the requirements of the HOZ. The proposed Site Plan included in the project plans is provided below for reference.



The property is shown to have mapped ESHA (Southern Maritime Chaparral) located on the rear (eastern) portion of the property according to the City's Local Coastal Plan's

Biological Resources Map Exhibit 3-1. The Applicants provided a Biological Report (included in Attachment 3) for the property, which was prepared by Alden Environmental Group and peer-reviewed by the one of the City’s on-call environmental consultants. The report indicated that there are two Nuttall’s Scrub Oak trees as well as disturbed Diegan Coastal Sage Scrub, Eucalyptus Woodland, and disturbed habitat onsite. However, in compliance with applicable provisions of the LCP/LUP, the proposed project would not reduce the existing buffer maintained between the residence and the ESHA. The exhibit below (Figure 3 of the Report) shows the location of the mapped ESHA and actual ESHA in relation to the existing residence and proposed addition areas.



Analysis of the project’s consistency with the policies of the City’s adopted LCP/LUP is provided later in this report.

Table 1 (on the following page) provides a comparison of the SBMC applicable zoning regulations with the Applicants’ proposed design.

Table 1																			
LOT INFORMATION																			
Property Address: 550 San Mario Dr. Lot Size (Gross): 15,712 ft ² Max. Allowable Floor Area: 6,214 ft ² Proposed Floor Area: 3,116 ft ² Below Max. Floor Area by: 3,098 ft ² Max. Allowable Height: 25 ft. Max. Proposed Height: 23.78 ft. Highest Point/Ridge: 286.11 MSL	Zoning Designation: LMR (4 du/ac) # of Units Allowed: 1 SFR, 1 ADU, 1 JADU # of Units Requested: 1 SFR Setbacks: <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;"></th> <th style="text-align: center;">Required</th> <th style="text-align: center;">Proposed</th> </tr> </thead> <tbody> <tr> <td>Front (W)</td> <td style="text-align: center;">20 ft.</td> <td style="text-align: center;">20 ft.</td> </tr> <tr> <td>Interior Side (N)</td> <td style="text-align: center;">10 ft.</td> <td style="text-align: center;">10 ft.*</td> </tr> <tr> <td>Interior Side (S)</td> <td style="text-align: center;">10 ft.</td> <td style="text-align: center;">10 ft.*</td> </tr> <tr> <td>Rear (E)</td> <td style="text-align: center;">25 ft.</td> <td style="text-align: center;">105 ft.</td> </tr> </tbody> </table>		Required	Proposed	Front (W)	20 ft.	20 ft.	Interior Side (N)	10 ft.	10 ft.*	Interior Side (S)	10 ft.	10 ft.*	Rear (E)	25 ft.	105 ft.	Existing Development: Single-story single-family residence with attached garage Required Parking: attached 2 car garage Accessory Structures: No Fences and Walls: Existing to remain <small>* The northern setback overlaps with the 10-foot easement dedicated to the adjacent properties. ** In addition to the 10-foot setback, there is a 10-foot easement on the southern side.</small>		
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Proposed Grading: 6 yd ³ cut for footings																			

Staff has prepared draft findings for approval of the project in the attached Resolution 2021-140 for Council’s consideration based upon the information in this report. The applicable SBMC sections are provided in italicized text and conditions from the Community Development, Engineering, and Fire Departments are incorporated in the Resolution of Approval. The Council may direct Staff to modify the Resolution to reflect the findings and conditions it deems appropriate as a result of the Public Hearing process. If the Council determines the project is to be denied, Staff will prepare a Resolution of Denial for adoption at a subsequent Council meeting.

The following is a discussion of compliance with the policies of the City’s adopted General Plan and LCP/LUP as well as the Zoning Ordinance (Title 17 of the SBMC) including the findings for a DRP as each applies to the proposed project as well as references to recommended conditions of approval contained in Resolution 2021-140.

General Plan
+ Consistency

The Property is designated as Low-Medium Density Residential in the General Plan Land Use Map (Figure LU-2). The Low-Medium Residential land use category specifies that *“single-family residences are to be developed at a maximum density of four dwelling units per acre. Other compatible uses such as accessory dwelling units, home occupations, religious institutions, educational institutions, parks and recreation facilities, and public utilities are permitted or conditionally permitted”* (Land Use Element V.I Land Use Plan).

The Property is also identified as being located within the boundaries of the HOZ, which is *“intended to restrict the grading of natural slopes with a gradient of 25 percent or higher in order to preserve the natural topography and scenic qualities of Solana Beach, protect native coastal sage/chaparral and grassland habitat, preserve existing watersheds, and reduce potential environmental hazards such as soil erosion”* (Land Use Element V.I Land Use Plan).

Policy LU-5.3: *Except where necessary to prevent the denial of all reasonable economic use of property as determined by the City Council after hearing, grading on natural slopes with an average inclination in excess of 25 percent shall be restricted. This policy shall be used to maintain as much of the natural terrain as possible, while allowing reasonable use of property.*

The Council may find that the proposed project is consistent with the Low-Medium Density Residential land use designation since the project encourages the development and maintenance of healthy residential neighborhoods, the stability of transitional neighborhoods, and the rehabilitation of deteriorated neighborhoods. The project would not include building or grading in slopes exceeding 25 percent slope. Therefore, it is exempt from the provisions on the HOZ.

Local Coastal Program Land Use Plan Consistency

According to the ESHA map from LUP Chapter 3, the property has mapped ESHA on site, which was confirmed by the Applicants’ site-specific Biological Resources Report. There are various policies contained in the LUP which specify resource protection and development policies that the proposed project would comply with. The key relevant LUP policy which applies to this project are listed below in italics for reference followed by an analysis of the how the proposed project is designed in compliance with the respective LUP policy:

Policy 3.22: *Development adjacent to ESHAs shall minimize impacts to habitat values or sensitive species to the maximum extent feasible. Native vegetation buffer areas shall be provided around ESHAs to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the ESHA they are designed to protect.*

All buffers around (non-wetland) ESHA shall be a minimum of 100 feet in width, or a lesser width may be approved by the Planning Department and Fire Marshal as addressed in Policy 3.65. However, in no case can the buffer size be reduced to less than 50 feet.

The proposed site improvements would be located entirely within the existing developed area of the lot and would not reduce the existing 66-foot buffer between the residence and the mapped ESHA. As noted in the Biology Report (Attachment 3), the project is consistent with the policies of the LCP/LUP.

Zoning Ordinance Consistency

The Property is located in the LMR Zone, which intended for residential development in areas characterized primarily by detached single-family homes on both older and newer subdivided lots with a density of four dwelling units per acre. The property is also located in the HOZ, which prohibits development on steep slopes. The project is also located within the Coastal Zone.

The project consists of a remodel and addition to an existing single-family residence. All proposed improvements would be located within the existing developed building pad and would not disturb the steep slopes in the rear (east) portion of the property. As a condition of project approval, the Applicants will be required to obtain a Coastal Development Permit, Waiver, or Exemption from the California Coastal Commission prior to the issuance of building or grading permits.

Development Review Permit Compliance (SBMC Section 17.68.40):

A DRP is required because the proposed development includes a second-floor square footage in excess of 35 percent of the floor area of the first floor. In addition to meeting zoning requirements, the project must also be found in compliance with development review criteria. The following is a list of the development review criteria topics:

1. Relationship with Adjacent Land Uses
2. Building and Structure Placement
3. Landscaping
4. Roads, Pedestrian Walkways, Parking, and Storage Areas
5. Grading
6. Lighting
7. Usable Open Space

The Council may approve, or conditionally approve, a DRP only if all of the findings listed below can be made. Resolution 2021-140 provides the full discussion of the findings.

1. The proposed development is consistent with the general plan and all applicable requirements of the zoning ordinance including special regulations, overlay zones, and specific plans.

2. The proposed development complies with the development review criteria.
3. All required permits and approvals issued by the city, including variances, conditional use permits, comprehensive sign plans, and coastal development permits have been obtained prior to or concurrently with the development review permit.
4. If the development project also requires a permit or approval to be issued by a state or federal agency, the city council may conditionally approve the development review permit upon the Applicants obtaining the required permit or approval from the other agency.

If the above findings cannot be made, the Council shall deny the DRP. The following is a discussion of the applicable development review criteria as they relate to the proposed project.

Relationship with Adjacent Land Uses:

The property is located within the LMR Zone. Surrounding properties on San Mario Drive are also located in the LMR Zone and developed with similar one- and two-story single-family residences that were subdivided and constructed in the mid-1970's. The project, as designed, is consistent with the permitted uses for the LMR Zone as described in SBMC Sections 17.20.010 and 17.12.020. The property located immediately to the east is within in the County of San Diego's jurisdiction and is developed with a single-family residence. The proposed project could be found to be compatible with adjacent development.

Building and Structure Placement:

The Applicants are proposing to remodel the existing single-story residence and construct a 486 square-foot first-floor addition and a new 804 square-foot second floor. The first-floor addition would be located on the southwest and southeast corners of the existing residence. The new second floor would be located over the northeast portion of the existing residence. The proposed addition would be located entirely within the buildable area. Driveway and pedestrian access to the property would not be modified. Proposed yard improvements include a new patio area located on the east side of the residence and within the developed portion of the property.

The SBMC parking regulations require two off-street parking spaces per single-family residence. The Code indicates that when required spaces are provided in a garage, 200 square feet of floor area is exempted for each required space. The existing 505 square-foot attached garage provides two unobstructed parking spaces of 9 feet by 19 feet. Therefore, 400 square feet of the garage is exempt from the calculation of floor area. With the exemption, the total proposed floor area would be 3,116 square feet, which is 3,098 square feet below the maximum allowable floor area for the 15,714 square-foot lot.

The maximum floor area calculation for this project is as follows:

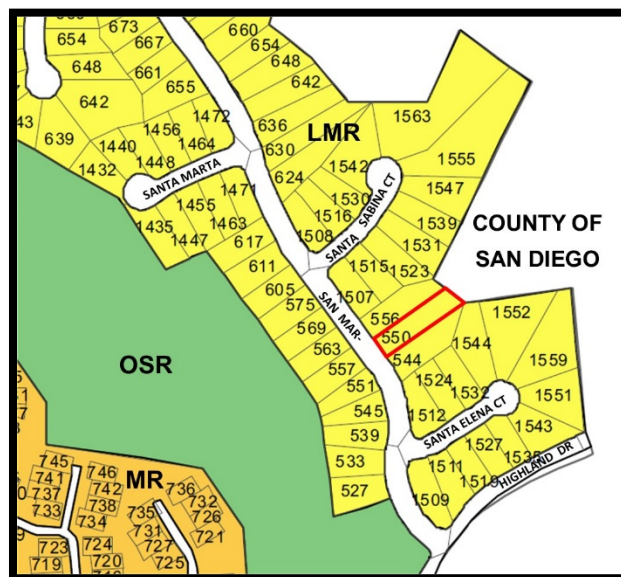
0.60 for first 5,000 SF	3,000 SF
0.30 for 5,000 to 20,000 SF	3,214 SF
<u>Maximum Allowable Floor Area:</u>	<u>6,214 SF</u>

As mentioned previously, the proposed additions would maintain the existing 66-foot buffer between the residence and the ESHA in the rear portion of the property. The residence would maintain a 105-foot setback from the rear property line. The required and proposed front yard setback is 20 feet, which can be reduced from 25 feet given that San Mario Drive is 60 feet wide. The residence would maintain the existing and required 10-foot side-yard setbacks. The northern setback overlaps the 10-foot side yard easement dedicated to the property immediately to the north. A portion of the addition would be located along the southern side-yard setback, whereas the other addition areas and existing residence are setback approximately 12 feet from the southern side property line. Additionally, the southern side-yard includes the 10-foot-wide easement for yard improvements dedicated from the adjacent property.

The maximum building height for the LR Zone is 25 feet. The proposed residence is proposed at 23.78 feet above the pre-existing and proposed grade or 286.11 feet above MSL. As designed, the project will comply with the required off-street parking, maximum allowable floor area, required setbacks, and maximum building height.

Neighborhood Comparison:

Staff compared the proposed project to 34 other properties within the surrounding area. This area includes properties on San Mario Drive, Santa Elena Court and Santa Sabina Court, as shown on the following map:



The properties evaluated in this comparison are also located in the LMR Zone. The existing homes range in size from 1,295 square feet to 4,670 square feet, according to the County Assessor records. It should be noted that the County Assessor does not include the garage or covered exterior areas in the total square footage. Accordingly, the building area of the proposed project has been calculated for comparison purposes by deleting the area of the proposed garage and the outdoor covered area:

Project Gross Building Area:	3,516 SF
Delete Attached Garage:	- 505 SF
Delete Existing Covered Courtyard	- 85 SF
Deleted Proposed Covered Porch	- 39 SF
Project Area for Comparison to Assessor's Data:	2,889 ft ²

Table 2						
#	Property Address	Lot Size in SF (GIS)	Existing SF Onsite (Assessor)	Proposed / Recently Approved SF	Maximum Allowable SF	Zone
1	544 San Mario Dr	15,287	2,832		6,086	LMR
2	550 San Mario Dr	15,712	1,607	2,889	6,214	LMR
3	556 San Mario Dr	15,195	1,295		6,059	LMR
4	527 San Mario Dr	13,366	1,872		5,510	LMR
5	533 San Mario Dr	12,281	1,601		5,184	LMR
6	539 San Mario Dr	11,627	2,246		4,988	LMR
7	545 San Mario Dr	9,728	2,180		4,418	LMR
8	551 San Mario Dr	9,882	2,180		4,465	LMR
9	557 San Mario Dr	11,442	2,496		4,933	LMR
10	563 San Mario Dr	11,374	2,727		4,912	LMR
11	569 San Mario Dr	11,483	2,449		4,945	LMR
12	575 San Mario Dr	11,599	3,213		4,980	LMR
13	605 San Mario Dr	11,716	2,584		5,015	LMR
14	611 San Mario Dr	12,982	2,180		5,395	LMR
15	617 San Mario Dr	13,083	2,006		5,425	LMR
16	1512 Santa Elena Ct	11,986	2,496		5,096	LMR
17	1524 Santa Elena Ct	10,383	1,781		4,615	LMR
18	1532 Santa Elena Ct	10,274	2,372		4,582	LMR
19	1544 Santa Elena Ct	17,203	1,916		6,661	LMR
20	1503 Santa Elena Ct	15,213	1,833		6,064	LMR
21	1511 Santa Elena Ct	11,930	2,006		5,079	LMR
22	1519 Santa Elena Ct	9,966	1,710		4,490	LMR
23	1527 Santa Elena Ct	10,260	2,496		4,578	LMR
24	1535 Santa Elena Ct	10,114	2,290		4,534	LMR
25	1507 Santa Sabina Ct	11,552	2,806		4,966	LMR
26	1515 Santa Sabina Ct	10,639	2,819		4,692	LMR
27	1523 Santa Sabina Ct	13,572	2,156		5,572	LMR

28	1531 Santa Sabina Ct	14,558	1,525		5,867	LMR
29	1539 Santa Sabina Ct	13,247	1,607		5,474	LMR
30	1547 Santa Sabina Ct	17,490	3,301		6,747	LMR
31	1555 Santa Sabina Ct	45,742	4,670		15,223	LMR
32	1563 Santa Sabina Ct	52,455	2,171		17,237	LMR
33	1508 Santa Sabina Ct	11,018	1,525		4,805	LMR
34	1516 Santa Sabina Ct	10,548	2,268		4,664	LMR
35	1530 Santa Sabina Ct	9,600	2,268	3,344	4,380	LMR

Table 2 is based upon the County Assessor’s data and SanGIS data. It contains neighboring lot sizes, the square footage of existing development and the maximum allowable square footage for potential development on each lot.

Fences, Walls and Retaining Walls:

Within the front yard setback area, the SBMC Section 17.20.040(O) allows fences and walls, or any combination thereof, to be no higher than 42 inches in height as measured from existing grade, except for an additional two feet of fence that is at least 80% open to light. Fences, walls and retaining walls located within the rear and interior side yards are allowed to be up to six feet in height with an additional 24 inches that is 50% open to light and air.

The Applicants are proposing to maintain the existing fencing, which encloses the usable yard area of the developed portion of the property and side yard easement. A six-foot tall fence runs from the eastern corner of the proposed addition to the adjacent residence. Another six-foot tall segment runs from the northern corner of the adjacent residence to the easternmost extent of the developed pad. A three-foot tall fence segment runs along the top of the slope and connects to an eight-foot-tall fence that runs along the northern easement line and attaches to the northern corner of the existing residence.

Currently, the plans show fences and walls that comply with the requirements of SBMC 17.20.040(O) and 17.60.070(C). If the Applicants decide to modify any of the proposed fences and walls or construct additional fences and walls on the project site, a condition of project approval indicates that they would be required to be in compliance with the Municipal Code.

Landscape:

The project is not subject to the current water efficient landscaping regulations of SBMC Chapter 17.56. According to SBMC Section 17.56.040, the regulations apply to modified landscape areas that exceed 500 square feet. The Applicants are proposing to modify 375 square feet of landscape area. A condition has been added to require that native or drought-tolerant and non-invasive plant materials and water-conserving irrigation systems are required to be incorporated into the landscaping to the extent feasible.

Parking:

SBMC Section 17.52.040 and the Off-Street Parking Design Manual (OSPDM) require two (2) parking spaces for a single-family residence. The Applicants are proposing to maintain the existing 505 square-foot attached garage and driveway. SBMC Section 17.08.030 indicates that required parking up to 200 square feet per parking space provided in a garage is exempt from the floor area calculation. The proposed garage will provide two 9-foot by 19-foot parking spaces that are clear of obstruction. Therefore, 400 square feet of garage area is exempt from the project's total floor area calculation.

Grading:

The project would include grading in the amount of 6 cubic yards of excavation for footings for the first-floor addition. No other grading, including earthwork located in the steep slopes on the rear portion of the lot, is proposed with the project.

Lighting:

A condition of project approval is that all new exterior lighting fixtures comply with the City-Wide Lighting Regulations of the Zoning Ordinance (SBMC 17.60.060). All light fixtures shall be shielded so that no light or glare is transmitted or reflected in such concentrated quantities or intensities as to be detrimental to the surrounding area.

Usable Open Space:

The project consists of the construction of a remodel and addition to a single-family residence with an attached garage on a developed residential lot, therefore, usable open space and recreational facilities are neither proposed nor required according to SBMC Section 17.20.040. As a condition of approval, the Applicants will be required to pay the City's Park Impact Fee.

Structure Development Permit Compliance:

The proposed structure exceeds 16 feet in height above the pre-existing grade; therefore, the project must comply with all of the View Assessment requirements of SBMC Chapter 17.63 and the Applicants were required to complete the SDP process. The Applicants had story poles erected onsite. A final Story Pole Height Certification was issued by a licensed land surveyor on September 13, 2021, which showed the highest story pole certified at 286.11 feet above MSL and 23.78 feet above the pre-existing and proposed grade. Notices to apply for View Assessment were mailed to property owners and occupants within 300 feet of the project site, which established a deadline to file for View Assessment on December 3, 2021. No applications for View Assessment were received by the City. Therefore, if the Council is able to make the required findings to approve the DRP, the SDP would be approved administratively.

As a condition of approval, a height certificate prepared by a licensed land surveyor will be required prior to the framing inspection certifying that the tallest point of the proposed

residence will not exceed 23.78 feet above the proposed grade and the highest point of the structure will not exceed 286.11 feet above the MSL.

Property Frontage and Public Right-of-Way Improvements

The existing property frontage is improved with concrete 6-inch curb, gutter, and sidewalk. The area between the back of sidewalk and property line consists of landscaping at 2 percent grade. If approved, the driveway approach will be reconstructed as a condition of approval to meet Americans with Disabilities Act (ADA) standards.

Public Hearing Notice:

Notice of the City Council Public Hearing for the project was published in the Union Tribune more than 10 days prior to the public hearing. The same public notice was mailed to property owners and occupants within 300 feet of the proposed project site on December 3, 2021. Staff has not received correspondence about the proposed development.

Conditions from the Planning, Engineering, and Fire Departments have been incorporated into the Resolution of Approval.

In conclusion, the proposed project, as conditioned, could be found to be consistent with the Zoning regulations and the General Plan.

CEQA COMPLIANCE STATEMENT:

The project is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15303 of the State CEQA Guidelines. Class 3 consists of construction and location of limited numbers of new, small facilities or structures. Examples of this exemption include one single-family residence or second dwelling unit in a residential zone. In urbanized areas, up to three-single-family residences may be constructed or converted under this exemption.

FISCAL IMPACT: N/A

WORK PLAN: N/A

OPTIONS:

- Approve Staff recommendation adopting the attached Resolution 2021-140.
- Approve Staff recommendation subject to additional specific conditions necessary for the City Council to make all required findings for the approval of a DRP.
- Deny the project if all required findings for the DRP and cannot be made.

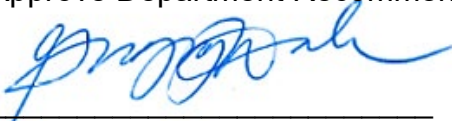
DEPARTMENT RECOMMENDATION:

The proposed project meets the minimum zoning requirements under the SBMC, may be found to be consistent with the General Plan and may be found, as conditioned, to meet the discretionary findings required as discussed in this report to approve a DRP and an administrative SDP. Therefore, Staff recommends that the City Council:

1. Conduct the Public Hearing: Open the Public Hearing, Report Council Disclosures, Receive Public Testimony, and Close the Public Hearing.
2. Find the project exempt from the California Environmental Quality Act pursuant to Section 15303 of the State CEQA Guidelines; and
3. If the City Council makes the requisite findings and approves the project, adopt Resolution 2021-140 conditionally approving a DRP and SDP to construct a remodel, a 486 square-foot first-floor addition, and an 804 square-foot new second-floor addition to a 1,721 square-foot single-story single-family residence with a 505 square-foot attached two-car garage and perform associated site improvements at 550 San Mario Drive, Solana Beach.

CITY MANAGER'S RECOMMENDATION:

Approve Department Recommendation.



Gregory Wade, City Manager

Attachments:

1. Resolution 2021-140
2. Project Plans
3. Biology Report prepared by Alden Environmental, Inc

RESOLUTION 2021-140

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLANA BEACH, CALIFORNIA, CONDITIONALLY APPROVING A DEVELOPMENT REVIEW PERMIT AND STRUCTURE DEVELOPMENT PERMIT TO CONSTRUCT A REMODEL AND TWO-STORY ADDITION TO A SINGLE-STORY SINGLE-FAMILY RESIDENCE WITH AN ATTACHED GARAGE AND PERFORM ASSOCIATED SITE IMPROVEMENTS AT 550 SAN MARIO DRIVE, SOLANA BEACH, APN: 263-583-15

**APPLICANTS: CHRISTINE CRIVELLO AND
DAVE BARTON
APPLICATION: DRP21-008 and SDP21-009**

WHEREAS, Christine Crivello and Dave Barton (hereinafter referred to as “Applicants”), have submitted an application for a Development Review Permit (DRP) and Structure Development Permit (SDP) pursuant to Title 17 (Zoning) of the Solana Beach Municipal Code (SBMC); and

WHEREAS, the Public Hearing was conducted pursuant to the provisions of Solana Beach Municipal Code Section 17.72.030; and

WHEREAS, at the Public Hearing on December 15, 2021, the City Council received and considered evidence concerning the proposed application; and

WHEREAS, the City Council of the City of Solana Beach found the application request exempt from the California Environmental Quality Act pursuant to Section 15303 of the State CEQA Guidelines; and

WHEREAS, this decision is based upon the evidence presented at the hearing, and any information the City Council gathered by viewing the site and the area as disclosed at the hearing.

NOW THEREFORE, the City Council of the City of Solana Beach, California, does resolve as follows:

- I. That the foregoing recitations are true and correct.
- II. That the request for a DRP and SDP to construct a remodel, a 486 square-foot first-floor addition, and an 804 square-foot new second-floor addition to an existing 1,721 square-foot single-story single-family residence with a 505 square-foot attached two-car garage and perform associated site improvements at 550 San Mario Drive, Solana Beach, is conditionally approved based upon the following Findings and subject to the following Conditions:

III. FINDINGS

- A. In accordance with Section 17.68.040 (Development Review Permit) of the City of Solana Beach Municipal Code, the City Council finds the following:
- I. *The proposed project is consistent with the General Plan and all applicable requirements of SBMC Title 17 (Zoning Ordinance), including special regulations, overlay zones and specific plans.*

General Plan Consistency: The Property is designated as Low-Medium Density Residential in the General Plan Land Use Map (Figure LU-2). The Low-Medium Residential land use category specifies that “single-family residences are to be developed at a maximum density of four dwelling units per acre. Other compatible uses such as accessory dwelling units, home occupations, religious institutions, educational institutions, parks and recreation facilities, and public utilities are permitted or conditionally permitted” (Land Use Element V.I Land Use Plan).

The Property is also identified as being located within the boundaries of the HOZ, which is “intended to restrict the grading of natural slopes with a gradient of 25 percent or higher in order to preserve the natural topography and scenic qualities of Solana Beach, protect native coastal sage/chaparral and grassland habitat, preserve existing watersheds, and reduce potential environmental hazards such as soil erosion” (Land Use Element V.I Land Use Plan).

Policy LU-5.3: Except where necessary to prevent the denial of all reasonable economic use of property as determined by the City Council after hearing, grading on natural slopes with an average inclination in excess of 25 percent shall be restricted. This policy shall be used to maintain as much of the natural terrain as possible, while allowing reasonable use of property.

The Council finds that the proposed project is consistent with the Low-Medium Density Residential land use designation since the project encourages the development and maintenance of healthy residential neighborhoods, the stability of transitional neighborhoods, and the rehabilitation of deteriorated neighborhoods. The project will not include building or grading in slopes exceeding 25 percent slope. Therefore, it is exempt from the provisions on the Hillside Overlay Zone (HOZ).

Local Coastal Program Land Use Plan Consistency: According to the Environmentally Sensitive Habitat Area (ESHA) map from Chapter 3 of the City’s adopted Local Coastal Program (LCP) Land Use Plan (LUP), the property has mapped ESHA on site, which was confirmed by the Applicants’ site-specific Biology Report. There are various policies contained in the LUP which specify resource protection and development

policies that the proposed project would comply with. The key relevant LUP policy which applies to this project are listed below in italics for reference followed by an analysis of the how the proposed project is designed in compliance with the respective LUP policy:

Policy 3.22: Development adjacent to ESHAs shall minimize impacts to habitat values or sensitive species to the maximum extent feasible. Native vegetation buffer areas shall be provided around ESHAs to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the ESHA they are designed to protect.

All buffers around (non-wetland) ESHA shall be a minimum of 100 feet in width, or a lesser width may be approved by the Planning Department and Fire Marshal as addressed in Policy 3.65. However, in no case can the buffer size be reduced to less than 50 feet.

The proposed site improvements would be located entirely within the existing developed area of the lot and would not reduce the existing 66-foot buffer between the residence and the mapped ESHA. As noted in the Biology Report, the project is consistent with the policies of the LCP/LUP.

Zoning Ordinance Consistency: The Property is located in the LMR Zone, which intended for residential development in areas characterized primarily by detached single-family homes on both older and newer subdivided lots with a density of four dwelling units per acre. The property is also located in the HOZ, which prohibits development on steep slopes. The project is also located within the Coastal Zone.

The project consists of a remodel and addition to an existing single-family residence. The project is consistent with all applicable requirements of the Zoning Ordinance (Title 17) (SBMC 17.20.030 and 17.48.040), which delineates maximum allowable Floor Area Ratio (FAR), Permitted Uses and Structures (SBMC Section 17.20.020) which provides for uses of the property for a single-family residence. Further, the project adheres to all property development regulations established for the Low-Medium Residential (MR) Zone and cited by SBMC Section 17.020.030 including minimum yard dimensions (i.e., setbacks), maximum allowable floor area, maximum building height, and off-street parking requirements.

All proposed improvements would be located within the existing developed building pad and would not disturb the steep slopes in the rear (east) portion of the property. Therefore, the project is exempt from the regulations of the HOZ. As a condition of project approval, the Applicants will be required to obtain a Coastal Development Permit, Waiver, or Exemption from the California Coastal Commission prior to the issuance of building or grading permits.

II. *The proposed development complies with the following development review criteria set forth in Solana Beach Municipal Code Section 17.68.040.F:*

- a. *Relationship with Adjacent Land Uses: The development shall be designed in a manner compatible with and where feasible, complimentary to existing and potential development in the immediate vicinity of the project site. Site planning on the perimeter of the development shall give consideration to the protection of surrounding areas from potential adverse effects, as well as protection of the property from adverse surrounding influences.*

The property is located within the LMR Zone. Surrounding properties on San Mario Drive are also located in the LMR Zone and developed with similar one- and two-story single-family residences that were subdivided and constructed in the mid-1970's. The project, as designed, is consistent with the permitted uses for the LMR Zone as described in SBMC Sections 17.20.010 and 17.12.020. The property located immediately to the east is within in the County of San Diego's jurisdiction and is developed with a single-family residence. The proposed project is found to be compatible with adjacent development.

- b. *Building and Structure Placement: Buildings and structures shall be sited and designed in a manner which visually and functionally enhances their intended use.*

The Applicants are proposing to construct a remodel of the existing single-story residence, a 486 square-foot first-floor addition and a new 804 square-foot second floor. The first-floor addition would be located on the southwest and southeast corners of the existing residence. The new second floor would be located over the northeast portion of the existing residence. The proposed addition would be located entirely within the buildable area. Driveway and pedestrian access to the property would not be modified. Proposed yard improvements include a new patio area located on the east side of the residence and within the developed portion of the property.

The SBMC parking regulations require two off-street parking spaces per single-family residence. The Code indicates that when required spaces are provided in a garage, 200 square feet of floor area is exempted for each required space. The existing 505 square-foot attached garage provides two unobstructed parking spaces of 9 feet by 19 feet. Therefore, 400 square feet of the garage is exempt from the calculation of floor area. With the exemption, the total proposed floor area would be 3,116

square feet, which is 3,098 square feet below the maximum allowable floor area for the 15,714 square-foot lot.

The maximum floor area calculation for this project is as follows:

0.60 for first 5,000 SF	3,000 SF
0.30 for 5,000 to 20,000 SF	3,214 SF
<hr/> Maximum Allowable Floor Area:	<hr/> 6,214 SF

The proposed additions would maintain the existing 66-foot buffer between the residence and the ESHA in the rear portion of the property. The residence will maintain a 105-foot setback from the rear property line. The required and proposed front yard setback is 20 feet, which can be reduced from 25 feet given that San Mario Drive is 60 feet wide. The residence will maintain the existing and required 10-foot side-yard setbacks. The northern setback overlaps the 10-foot side yard easement dedicated to the property immediately to the north. A portion of the addition would be located along the southern side-yard setback, whereas the other addition areas and existing residence are setback approximately 12 feet from the southern side property line. Additionally, the southern side yard includes the 10-foot-wide easement for yard improvements dedicated from the adjacent property.

The maximum building height for the LR Zone is 25 feet. The proposed residence is proposed at 23.78 feet above the pre-existing and proposed grade or 286.11 feet above MSL. As designed, the project will comply with the required off-street parking, maximum allowable floor area, required setbacks, and maximum building height.

- c. Landscaping: The removal of significant native vegetation shall be minimized. Replacement vegetation and landscaping shall be compatible with the vegetation of the surrounding area. Trees and other large plantings shall not obstruct significant views when installed or at maturity.*

The project is not subject to the current water efficient landscaping regulations of SBMC Chapter 17.56. According to SBMC Section 17.56.040, the regulations apply to modified irrigated landscape areas that exceed 500 square feet. The Applicants are proposing to modify 375 square feet of landscape area.

- d. Roads, Pedestrian Walkways, Parking and Storage Areas: Any development involving more than one building or structure shall provide common access roads and pedestrian walkways.*

Parking and outside storage areas, where permitted, shall be screened from view to the extent feasible, by existing topography, by the placement of buildings and structures, or by landscaping and plantings.

SBMC Section 17.52.040 and the Off-Street Parking Design Manual (OSPDM) require two (2) parking spaces for a single-family residence. The Applicants are proposing to maintain the existing 505 square-foot attached garage and driveway. SBMC Section 17.08.030 indicates that required parking up to 200 square feet per parking space provided in a garage is exempt from the floor area calculation. The proposed garage will provide two 9-foot by 19-foot parking spaces that are clear of obstruction. Therefore, 400 square feet of garage area is exempt from the project's total floor area calculation.

- e. *Grading: To the extent feasible, natural topography and scenic features of the site shall be retained and incorporated into the proposed development. Any grading or earth-moving operations in connection with the proposed development shall be planned and executed so as to blend with the existing terrain both on and adjacent to the site. Existing exposed or disturbed slopes shall be landscaped with native or naturalized non-native vegetation and existing erosion problems shall be corrected.*

The project will include grading in the amount of 6 cubic yards of excavation for footings. No other grading, including earthwork located in the steep slopes on the rear portion of the lot, is proposed with the project.

- f. *Lighting: Light fixtures for walkways, parking areas, driveways, and other facilities shall be provided in sufficient number and at proper locations to assure safe and convenient nighttime use. All light fixtures shall be appropriately shielded so that no light or glare is transmitted or reflected in such concentrated quantities or intensities as to be detrimental to the surrounding areas per SBMC 17.60.060 (Exterior Lighting Regulations).*

A condition of project approval includes that all new exterior lighting fixtures comply with the City-Wide Lighting Regulations of the Zoning Ordinance (SBMC 17.60.060). All light fixtures shall be shielded so that no light or glare is transmitted or reflected in such concentrated quantities or intensities as to be detrimental to the surrounding area.

- g. *Usable Open Space: Recreational facilities proposed within required usable open space shall be located and designed to maintain essential open space values.*

The project consists of the construction of a remodel and addition to a single-family residence with an attached garage on a developed residential lot; therefore, usable open space and recreational facilities are neither proposed nor required according to SBMC Section 17.20.040.

- III. All required permits and approvals including variances, conditional use permits, comprehensive sign plans, and coastal development permits have been obtained prior to or concurrently with the development review permit.*

All required permits, including a Structure Development Permit, are being processed concurrently with the Development Review Permit.

- IV. If the development project also requires a permit or approval to be issued by a state or federal agency, the city council may conditionally approve the development review permit upon the Applicant obtaining the required permit or approval from the other agency.*

The Applicants are required to obtain approval from the California Coastal Commission prior to issuance of Building or Grading Permits.

- B. In accordance with Section 17.63.040 (Structure Development Permit) of the Solana Beach Municipal Code, the City Council finds the following:

The proposed structure exceeds 16 feet in height above the pre-existing grade; therefore, the project must comply with all of the View Assessment requirements of SBMC Chapter 17.63 and the Applicants were required to complete the SDP process. The Applicants had story poles erected onsite. A final Story Pole Height Certification was issued by a licensed land surveyor on September 13, 2021, which showed the highest story pole certified at 286.11 feet above MSL and 23.78 feet above the pre-existing and proposed grade. Notices to apply for View Assessment were mailed to property owners and occupants within 300 feet of the project site, which established a deadline to file for View Assessment on December 3, 2021. No applications for View Assessment were received by the City. Therefore, if the Council is able to make the required findings to approve the DRP, the SDP would be approved administratively.

As a condition of approval, a height certificate prepared by a licensed land surveyor will be required prior to the framing inspection certifying that the tallest point of the proposed residence will not exceed 23.78 feet above the proposed grade and the highest point of the structure will not exceed 286.11 feet above the MSL.

IV. CONDITIONS

Prior to use or development of the property in reliance on this permit, the Applicants shall provide for and adhere to the following conditions:

A. Community Development Department Conditions:

- I. The Applicants shall pay required Fire Mitigation, Park Development, Public Use Facilities, and Public Facilities Impact Fees.
- II. Building Permit plans must be in substantial conformance with the architectural plans presented to the City Council on December 15, 2021, and located in the project file with a submittal date of December 6, 2021.
- III. Prior to requesting a framing inspection, the Applicants shall submit a height certificate prepared by a licensed land surveyor prior to the framing inspection certifying that the tallest point of the proposed residence will not exceed 23.78 feet above the proposed grade or 286.11 feet above MSL in conformance with the plans as approved by the City Council on December 15, 2021.
- IV. Any proposed onsite fences, walls and retaining walls and any proposed railing located on top, or any combination thereof, shall comply with applicable regulations of SBMC Section 17.20.040 and 17.60.070 (Fences and Walls).
- V. The Applicants shall obtain required California Coastal Commission (CCC) approval of a Coastal Development Permit, Waiver or Exemption as determined necessary by the CCC, prior to the issuance of Building and Grading Permits.
- VI. Native or drought tolerant and non-invasive plant materials and water conserving irrigation systems shall be incorporated into any proposed landscaping and compatible with the surrounding area to the extent feasible.
- VII. All new exterior lighting fixtures shall be in conformance with the City-wide lighting regulations of the Zoning Ordinance (SBMC 17.60.060). All light fixtures shall be appropriately shielded so that no light or glare is transmitted or reflected in such concentrated quantities or intensities as to be detrimental to the surrounding area.
- VIII. Construction vehicles shall be parked on the subject property at all times feasible. If construction activity prohibits parking on the subject property, the Applicants shall ensure construction vehicles are parked in such a way to allow sufficient vehicular access on the street and

minimize impact to the surrounding neighbors.

- IX. The Applicants shall connect to temporary electrical service as soon as feasible to the satisfaction of the City.

B. Fire Department Conditions:

- I. OBSTRUCTION OF ROADWAYS DURING CONSTRUCTION: All roadways shall be a minimum of 20 feet in width during construction and maintained free and clear, including the parking of vehicles, in accordance with the California Fire Code and the Solana Beach Fire Department.
- II. ADDRESS NUMBERS: STREET NUMBERS: Approved numbers and/or addresses shall be placed on all new and existing buildings and at appropriate additional locations as to be plainly visible and legible from the street or roadway fronting the property from either direction of approach. Said numbers shall contrast with their background and shall meet the following minimum standards as to size: 4" high with a ½" inch stroke width for residential buildings, 8" high with a ½" stroke for commercial and multi-family residential buildings, 12" high with a 1" stroke for industrial buildings. Additional numbers shall be required where deemed necessary by the Fire Marshal, such as rear access doors, building corners, and entrances to commercial centers.
- III. AUTOMATIC FIRE SPRINKLER SYSTEM – ONE- AND TWO-FAMILY DWELLINGS: Structures shall be protected by an automatic fire sprinkler system designed and installed to the satisfaction of the Fire Department. Plans for the automatic fire sprinkler system shall be approved by the Fire Department prior to installation. Sprinklers will be required due to significant modifications and additions being over 50 percent of existing structure.
- IV. CLASS "A" ROOF: All structures shall be provided with a Class "A" Roof covering to the satisfaction of the Solana Beach Fire Department.

C. Engineering Department Conditions:

- I. The Applicants shall provide a study and storm water management plan prepared by a registered civil engineer that analyzes the following storm water issues. An Engineering Permit will be required as a condition of approval for the project.
 - a. A detention area for the added impervious area may be required. This detention area must show the detention location and the outflow characteristics. The detention area shall be sized to accommodate the increase in runoff generated on the property due to the new impervious area.

- b. The study shall indicate the amount of impervious area proposed to be added by the project.
 - c. Construction best management practices (BMPs) and the general drainage pattern of the property need to be shown on the site plan.
 - d. Roof drains need to flow into landscaped areas before being collected and draining to the street. Please show all roof drains (both existing and proposed) for the property on the site plan.
- II. The existing driveway approach on San Mario Drive does not meet the current City standards. As a condition of approval, the Applicants are required to remove the existing driveway approach and construct the driveway approach per modified SDRSD G-14. The proposed driveway shall have 2:1 transitions to the existing concrete sidewalk.
 - III. The Applicants are required to obtain an Encroachment Permit in accordance with SBMC Section 11.20 for the below frontage improvements being done in the public right-of-way. The frontage improvements shall be done to the satisfaction of the City Engineer prior to the occupancy of the proposed project.
 - a. Removal and reconstruction of the existing driveway approach and per modified SDRSD G-14.
 - IV. All construction demolition materials shall be recycled according to the City's Construction and Demolition recycling program and an approved Waste Management Plan shall be submitted.
 - V. Construction fencing shall be located on the subject property unless the Applicants have obtained an Encroachment Permit in accordance with chapter 11.20 of the SBMC which allows otherwise.

I. ENFORCEMENT

Pursuant to SBMC 17.72.120(B) failure to satisfy any and all of the above-mentioned conditions of approval is subject to the imposition of penalties as set forth in SBMC Chapters 1.1.6 and 1.18 in addition to any applicable revocation proceedings.

II. EXPIRATION

The Development Review Permit and Structure Development Permit for the project will expire 24 months from the date of this Resolution, unless the Applicants have obtained building permits and has commenced construction prior to that date, and diligently pursued construction to completion. An extension of the application may be granted by the City Council according to SBMC 17.72.110.

III. INDEMNIFICATION AGREEMENT

The Applicants shall defend, indemnify, and hold harmless the City, its agents, officers, and employees from any and all claims, actions, proceedings, damages, judgments, or costs, including attorney's fees, against the City or its agents, officers, or employees, relating to the issuance of this permit including, but not limited to, any action to attack, set aside, void, challenge, or annul this development approval and any environmental document or decision. The City will promptly notify the Applicants of any claim, action, or proceeding. The City may elect to conduct its own defense, participate in its own defense, or obtain independent legal counsel in defense of any claim related to this indemnification. In the event of such election, the Applicants shall pay all of the costs related thereto, including without limitation reasonable attorney's fees and costs. In the event of a disagreement between the City and Applicants regarding litigation issues, the City shall have the authority to control the litigation and make litigation related decisions, including, but not limited to, settlement or other disposition of the matter. However, the Applicants shall not be required to pay or perform any settlement unless such settlement is approved by the Applicants.

NOTICE TO APPLICANTS: Pursuant to Government Code Section 66020, you are hereby notified that the 90-day period to protest the imposition of the fees, dedications, reservations or other exactions described in this resolution commences on the effective date of this resolution. To protest the imposition of any fee, dedications, reservations or other exactions described in this resolution you must comply with the provisions of Government Code Section 66020. Generally the resolution is effective upon expiration of the tenth day following the date of adoption of this resolution, unless the resolution is appealed or called for review as provided in the Solana Beach Zoning Ordinance.

PASSED AND ADOPTED at a special meeting of the City Council of the City of Solana Beach, California, held on the 15th day of December, 2021, by the following vote:

AYES: Councilmembers –
NOES: Councilmembers –
ABSENT: Councilmembers –
ABSTAIN: Councilmembers –

LESA HEEBNER, MAYOR

APPROVED AS TO FORM:

ATTEST:

JOHANNA N. CANLAS, City Attorney

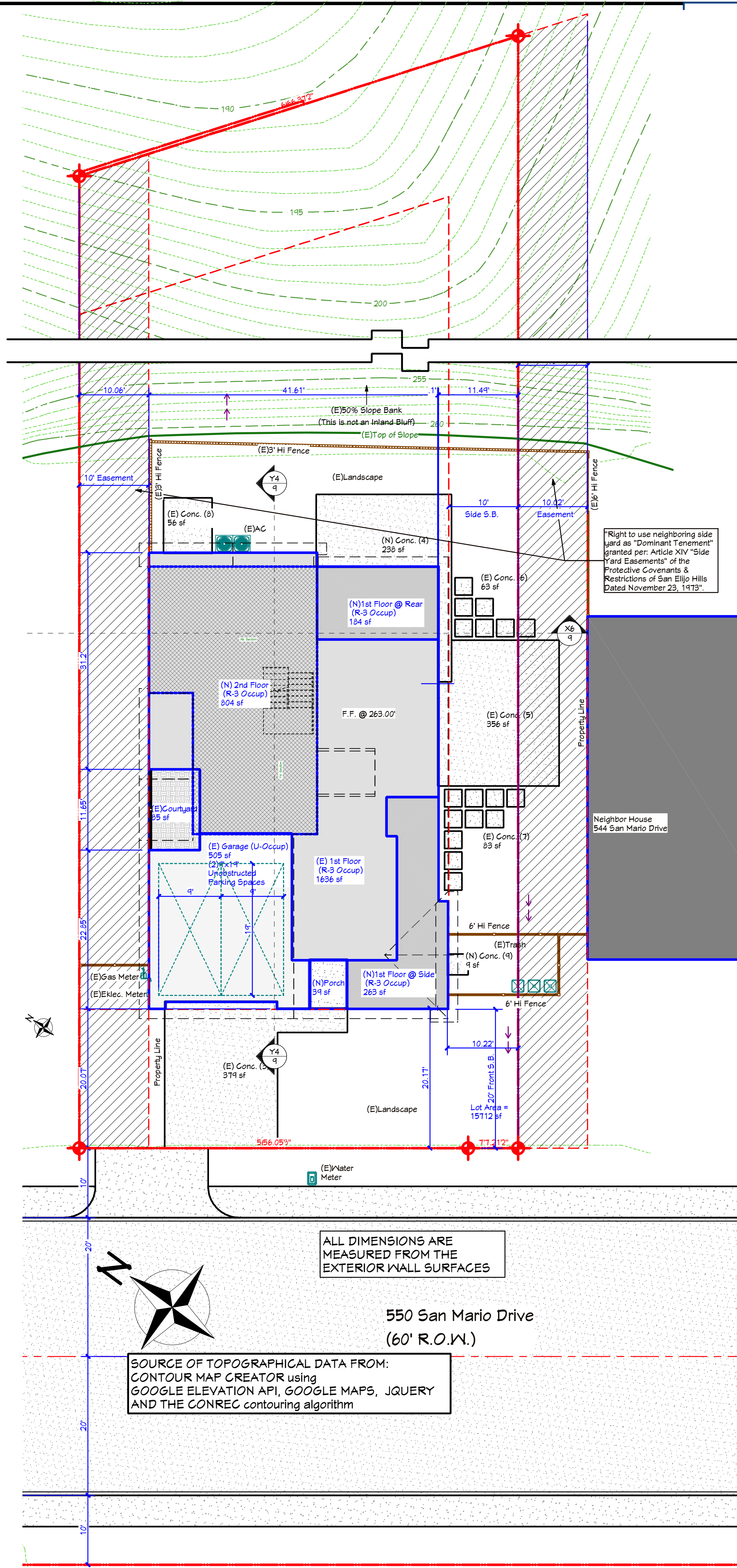
ANGELA IVEY, City Clerk

Fire Sprinklers ARE required

- The current building is NOT sprinklered.

Solana Beach Fire Department Requirements:

- STANDARD CONDITIONS:**
- OBSTRUCTION OF ROADWAYS DURING CONSTRUCTION:**
All roadways shall be a minimum of 20 feet in width during construction and maintained free and clear, including the parking of vehicles, in accordance with the California Fire Code and the Solana Beach Fire Department.
 - ADDRESS NUMBERS: STREET NUMBERS:** Approved numbers and/or addresses shall be placed on all new and existing buildings and at appropriate additional locations as to be plainly visible and legible from the street or roadway fronting the property from either direction of approach. Said numbers shall contrast with their background, and shall meet the following minimum standards as to size: 4" high with a 1/2" inch stroke width for residential buildings, 8" high with a 1/2" stroke for commercial and multi-family residential buildings, 12" high with a 1" stroke for industrial buildings. Additional numbers shall be required where deemed necessary by the Fire Marshal, such as rear access doors, building corners, and entrances to commercial centers.
 - AUTOMATIC FIRE SPRINKLER SYSTEM-ONE AND TWO FAMILY DWELLINGS:** Structures shall be protected by an automatic fire sprinkler system designed and installed to the satisfaction of the Fire Department. Plans for the automatic fire sprinkler system shall be approved by the Fire Department prior to installation. Sprinklers will be required due to significant modifications and additions being over 50% of existing structure.
 - CLASS "A" ROOF:** All structures shall be provided with a Class "A" Roof covering to the satisfaction of the Solana Beach Fire Department.



Site Plan 1 in = 10 ft

FAR Table

Max. Allow. Floor Area Ratio (FAR/Calc. (SR02) (Lot Area=15,112 sf)	
0.600 for first 5,000 sf of lot =	3,000 sf
0.3 for (15,112-5000) =	3,214 sf
Maximum Floor Area Allowed	6,214 sf
60% Development Review Permit Threshold	3728 sf

Total Building Area Summary Table

Floor Area Analysis	
(E) 1st Floor Living Area (R-3 -Occ.)	1,636 sf
(E) Garage (U -Occ.)	505 sf
(E) Courtyard (U -Occ.)	85 sf
(N) 1st Floor Living Area (R-3 -Occ.)	447 sf
(N) 2nd Floor Living Area (R-3 -Occ.)	804 sf
(N) Front Porch (U -Occ.)	94 sf
Subtotal Floor Area for FAR (6214 max.)	3,516 sf
Off-Street Parking Exemption (2 spaces)	-402 sf
Total Propose Floor Area	3,116 sf

(All Dimensions are Measured from the Exterior Wall Surface)

Note that the proposed second story (804 sf) exceeds 35% of the floor area of the existing first floor (1,826 or 1,636+505+95-400), triggering the DRP under 17.68.040.B.1.n.ii (>35%).

**Note: Any new construction, including structural additions to existing development in residential zones, shall require a development review permit if the total of existing square footage plus proposed new square footage of the structure exceeds 60 percent of the maximum floor area allowable under the applicable floor area ratio.

Quantity of Grading:

0.0 C.Y. - Site Grading
5.6 C.Y. - Excavation for the footings
0.0 C.Y. - Removal and Re-Compaction for construction
5.6 C.Y. - Total Grading (N + X + Y)

Note: A Development Review Permit (DRP) is required for any site development or construction that involves an aggregate of more than 100 cubic yards of grading (SBMC 17.68.040(B)).

Excavation Table:

12" x 12" x 150" long footings = 5.6 cu
Removal or Re-Compaction for construction = 0.0 cu

Proposed Landscape Work

	Exist (sf)	Propose Net (sf)
Non-Landscaped Area (a)	3436(sf)	3011(sf)
Non-Irrigated Landscape (b)		4263 (sf)
Irrigated Landscape	3013 (sf)	2638(sf)
Water Features (c)	0 (sf)	0 (sf)
Decorative Hardscape (d)	0 (sf)	0 (sf)
Total Lot Area	15,112 (sf)	15,112 (sf)

	Area of Work (sf)
Irrigated Landscape	315 (sf)
Water Features (c)	0 (sf)
Decorative Hardscape (d)	0 (sf)
Aggregate Landscape Area (e)	315 (sf)

New Development Projects: If aggregate landscape area > 500 sf, a landscape package is required.

- A landscaped area does not include the footprint of a building, decks, patio, sidewalk, driveway, parking lot, or other hardscape that does not meet the criteria in SBMC 17.56.150.
- An area without irrigation designated for nondevelopment such as designated open space area with existing native vegetation.
- A design element where open water performs an aesthetic or recreational function. A water feature includes pond, lake, waterfall, fountain, artificial streams, spa and swimming pool.
- Rock & stone or pervious design features, such as decomposed granite ground cover, that are adjacent to a vegetated area.
- Area of replacement and/or new irrigated landscape, water features, and/or decorative hardscape associated with the project.

Responsible for Preparing Plans:
D. Scott Hall Designers
16885 W. Bernardo Dr. #102 S.D., CA. 92127
(619) 200-1623

Contractor:
Djak Design Build
742 Genevieve Dr. Ste. D
Solana Beach, CA. 92075
(955) 350-6400

Engineer:
Qualls Engineering
4403 Manchester Ave. #205
Encinitas, CA. 92024
(760) 652-4251

Title-24:
Bany Hanes
34255 Winchester Rd. Suite 107-336
Murietta, CA 92563
714-448-4950

Geotechnical Report:
Geotechnical Corporation Inc.

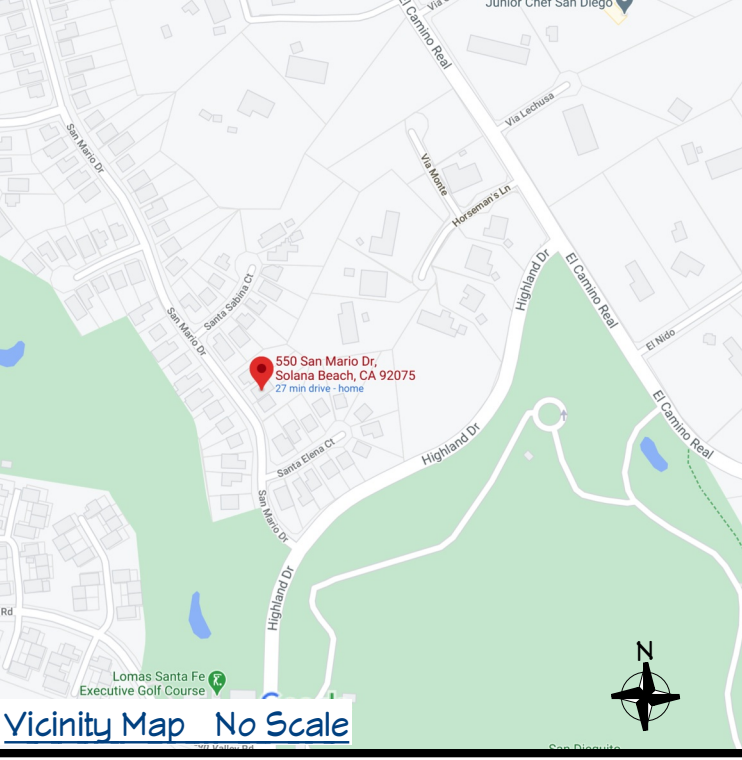
Owner:
Christine Crivello & Dave Barton
550 San Mario Drive
Solana Beach, CA 92075
(310) 844-1504

Site & Building Data
Lot Area: 15,112 sf
Zone: LMR, ESHA, HOZ
Built: 1974
APN: 263-583-15-00
Map 7670 - San Eljio Hills - Lot 15
550 San Mario Drive
15,112 sf Lot Area
R-3 Occupancy - Residence; U1 Occupancy - Garage
Type V-B Construction Non-Sprinklered

Scope of Work
A 194 sf (N) 1st Floor Area @ Rear & (R-3 -Occ.)
263 sf (N) 1st Floor Area @ Front (R-3 -Occ.)
804 sf (N) 2nd Floor Area (R-3 -Occ.) &

Maximum Floor Area-Project in Scale Residential Overlay Zone (LMR)
5000 sf @ 0.6 = 3000 sf
(15,112-5000) @ 0.3 = 3214 sf
Maximum Floor Area = 6214 sf

PARKING INFO:
2 PARKING SPACES REQUIRED
2 PARKING SPACES PROVIDED
2 REGULAR PARKING SPACES PROVIDED
0 HANDICAP SPACES PROVIDED
0 LOADING SPACES PROVIDED



REVISIONS

Plans Prepared by
D. Scott Hall Designers
16885 W. Bernardo Dr. #102 S.D., CA. 92127
Tel (619) 200-1623

DYJAK DDB DESIGN BUILD
742 Genevieve St. #D
Solana Beach, CA 92075 (955) 350-6400

Christine Crivello & Dave Barton
550 San Mario Drive
Solana Beach, CA 92075
(310) 844-1504

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1	Site Plan
1a	Site Photos
2	BMP Plan
3	Demo Plan
4	Proposed 1st Floor
5	Proposed 2nd Floor
6	Elevations/Roof Plan
7	Elevations/Roof Plan
8	Story Pole Plan
9	Story Pole Plan
10	Story Pole Certification
11	Sections

Printed 9/20/21
Scale Per Plan
Drawn dsh
JOB Crivello PLAN 7c
SHEET NO. 1

DRP Set

Site Plan

v. Crivello LAYOUT 1

Approved: _____ Date: _____
Approved: _____ Date: _____



Photo 1



Photo 2



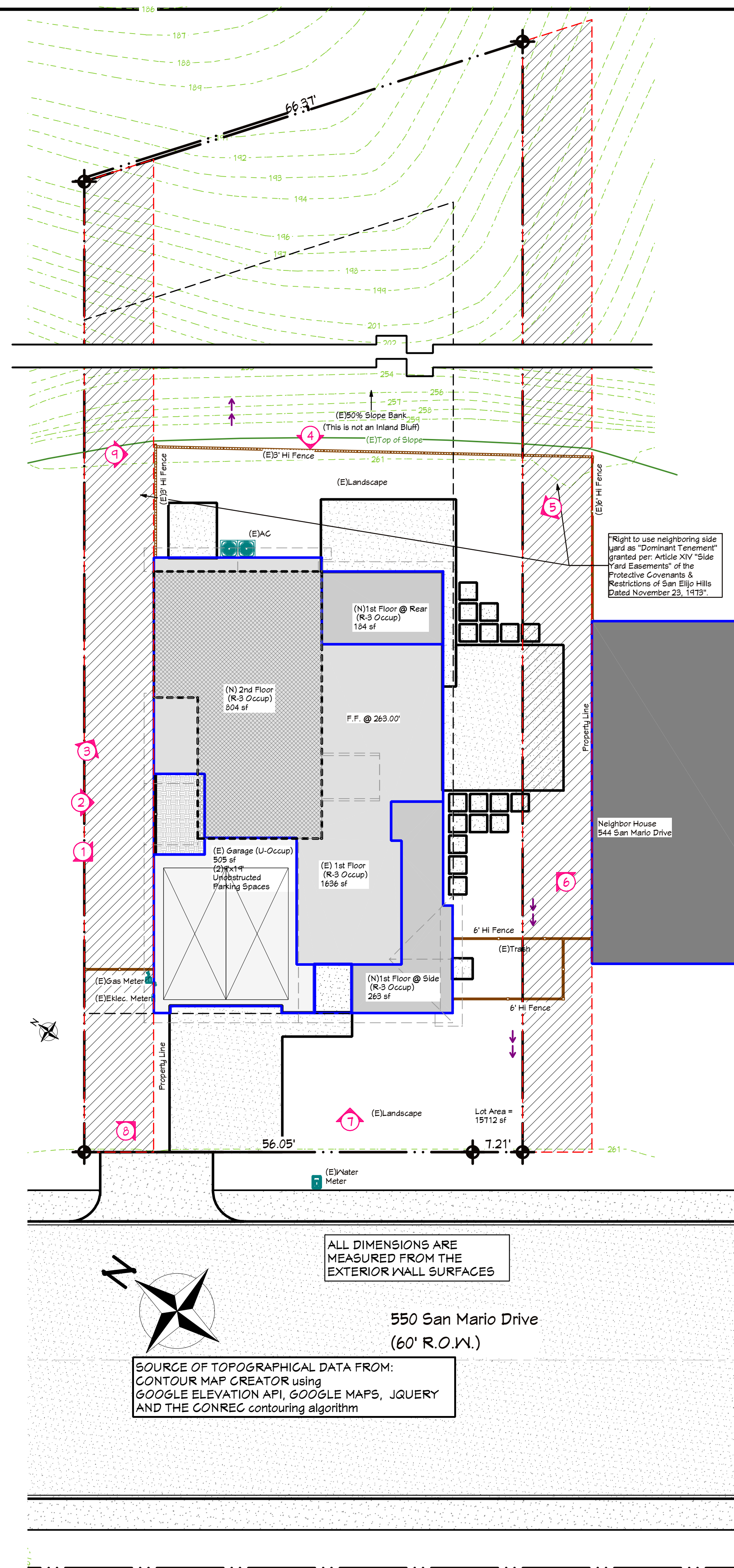
Photo 3



Photo 4



Photo 5



Site Plan 1 in = 10 ft



Photo 6



Photo 7



Photo 8



Photo 9

REVISIONS

Plans Prepared by
D. Scott Hall Designers
16685 N. Bernardo Dr. #102 S.D., Ca. 92127
Tel (619) 200-1623

A Home Remodel for
Christine Crivello & Dave Barton
550 San Mario Drive
Solana Beach, CA 92075
(910) 841-1504

CONTRACTORS TO FIELD VERIFY ALL CONDITIONS PRIOR TO BEGINNING CONSTRUCTION AND CONSULT WITH DESIGNER IF THERE ARE ANY INCONSISTENCIES WITH EXISTING CONDITIONS AND THE PLANS

1	SHEET INDEX
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10	Story Pole Certification
11	Sections

Printed	9/20/21
Scale	Per Plan
Drawn	dsh
JOB	Crivello PLAN 7c
SHEET NO.	1a

Site Photos

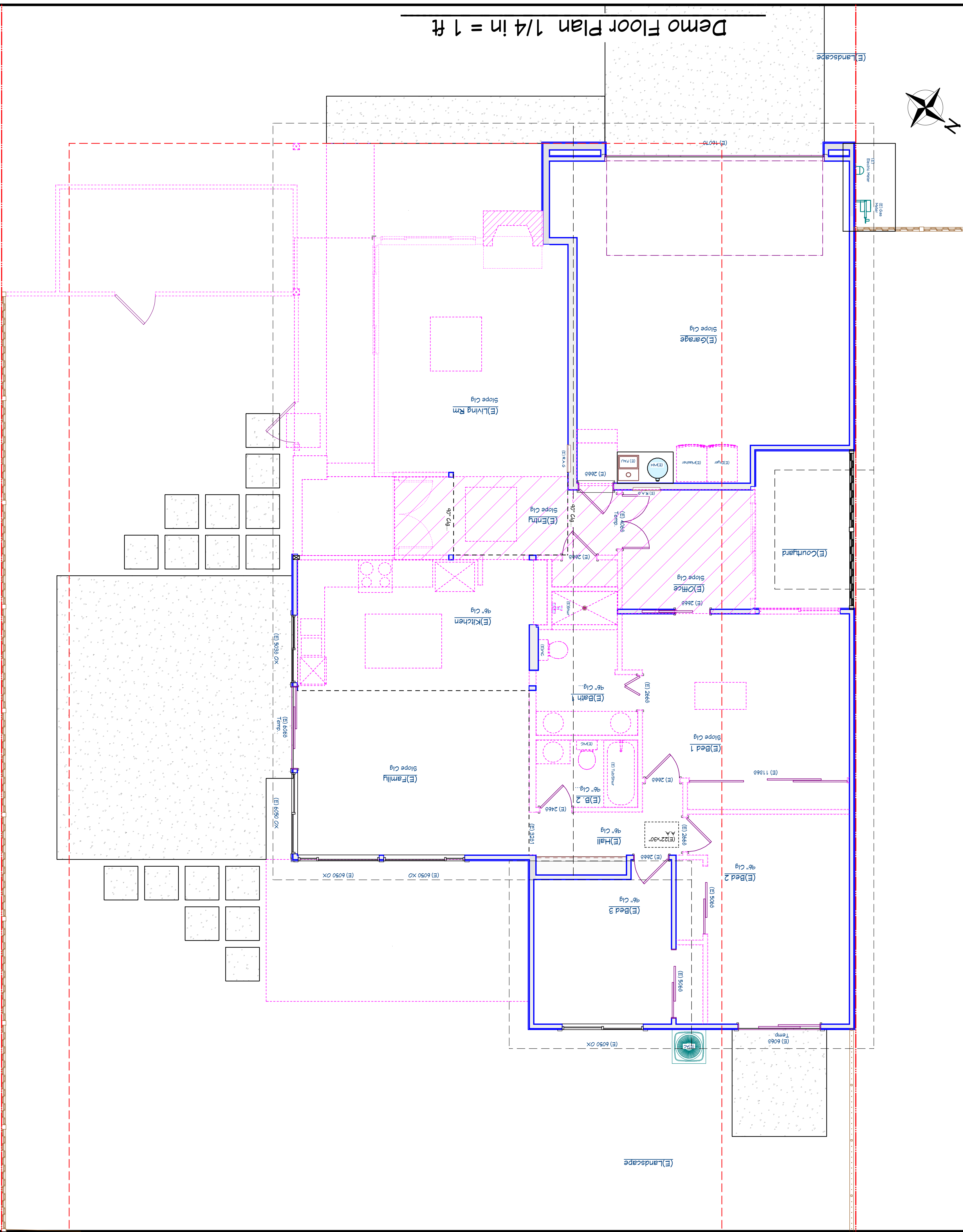
ATTACHMENT 2

Approved: _____ Date: _____
Approved: _____ Date: _____

DRP Set

D. Scott Hall
Date 9/20/21

v. Crivello LAYOUT 1



WALL LEGEND

	Removed Wall
	Existing 2x @ 16 Wood Studs
	New 2x @ 16 Wood Studs
	Existing 8" CMU Wall
	New 8" CMU Wall
	Existing Concrete Wall
	New Concrete Wall

CONTRACTORS TO FIELD VERIFY ALL CONDITIONS PRIOR TO BEGINNING CONSTRUCTION AND CONSULT WITH DESIGNER IF THERE ARE ANY INCONSISTENCIES WITH EXISTING CONDITIONS AND THE PLANS.

Printed	9/20/21
Scale	Per Plan
Drawn	dsh
Job	Crivello PLAN 7C
SHEET NO.	3

Demo Plan

SHEET INDEX

1	Site Plan
2	Site Photos
3	BMP Plan
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5	Proposed 1st Floor
6	Proposed 2nd Floor
7	Elevations/Roof Plan
8	Divisions/Roof Plan
9	Stone Pave Plan
10	Sections

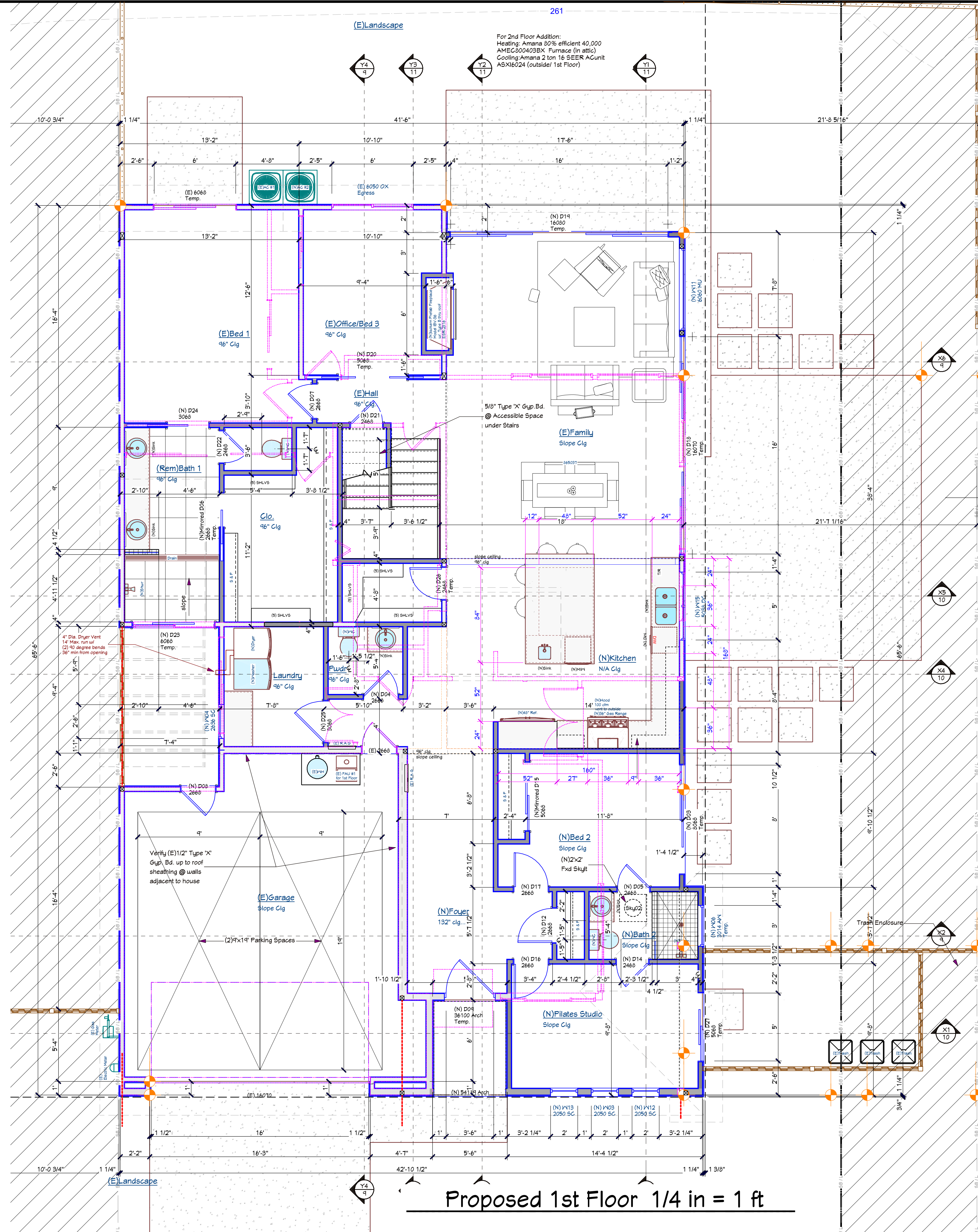
A Home Remodel for
Christine Crivello & Dave Barton
 550 San Mario Drive
 Solana Beach, CA 92075
 (310) 544-1504

DDE DESIGN BUILD
 142 Genesieve St. #D
 Solana Beach, CA 92075 (959) 350-6400

Plans Prepared by
D. Scott Hall Designers
 16885 N. Bernardo Dr. #102 S.D., Ca 92121
 Tel (619) 200-1623

REVISIONS

D. Scott Hall
 Date 9/20/21



Proposed 1st Floor 1/4 in = 1 ft

WALL LEGEND

	Existing 2x @ 16 Wood Studs
	New 2x @ 16 Wood Studs
	Existing 8" CMU Wall
	New 8" CMU Wall
	Existing Concrete Wall
	New Concrete Wall
	Removed Wall

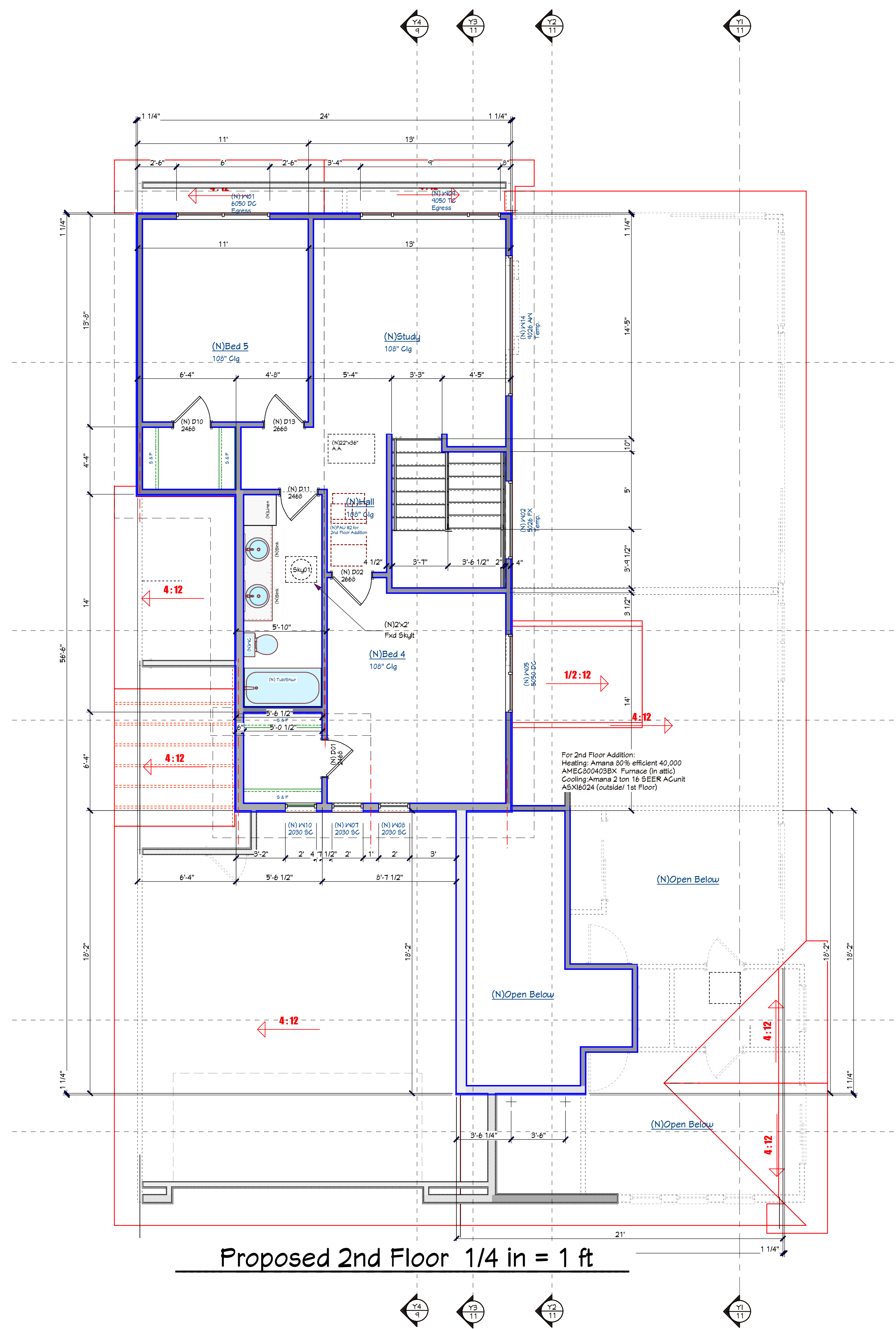
Approved: _____ Date: _____
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<p>REVISIONS</p> <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>																							
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10	Sections																						
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<p>SHEET NO. 4</p>	<p>Proposed 1st Floor</p>																						

DRP Set

D. Scott Hall Date 9/20/21

v. Crivello LAYOUT 1



Proposed 2nd Floor 1/4 in = 1 ft

WALL LEGEND

	Existing 2x @ 16 Wood Studs
	New 2x @ 16 Wood Studs
	Existing 8" CMU Wall
	New 8" CMU Wall
	Existing Concrete Wall
	New Concrete Wall
	Removed Wall

Approved: _____ Date: _____
 Approved: _____ Date: _____

<p>REVISIONS</p> <table border="1" style="width: 100%; height: 40px;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>							<p>Plans Prepared by D. Scott Hall Designers 16685 N. Bernardo Dr. #102 S.D., Ca. 92121 Tel (619) 200-1623</p>	<p>DDE DYJAK DESIGN BUILD 742 Genevieve St. #D Solana Beach, CA 92075 (952) 350-6400</p>																
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<p>Printed: 9/20/21 Scale: Per Plan Drawn: dsh JOB: Crivello PLAN 7c SHEET NO. 5</p>																								

v. Crivello LAYOUT 1

Symbol	Elevation & Roof Notes
(E) 1/8" Stucco of 16 Ga. Galv. Line Pipe Staple to Top & Bottom Plates @ 6" o.c. (1/16" Legs) of (2) Layers of Grade "D" Building Paper	
(E) Wood Siding over (2) Layers of Grade "D" Building Paper	
(E) Class "A" Roof Composition Shingles of 15# Felt	
(N) 1/8" Stucco of 16 Ga. Galv. Line Pipe Staple to Top & Bottom Plates @ 6" o.c. (1/16" Legs) of (2) Layers of Grade "D" Building Paper	
(N) Class "A" Roof Composition Shingles of 15# Felt	
(E) Glass "A" Roof Assembly Concrete Tile ESR 1400 of 3/8" Felt	
(E) Exposed Rafter	
(N) Class "A" Roof Assembly Concrete Tile ESR 1400 of 3/8" Felt	
(E) Exposed Rafter	
(N) Class "A" Built Up Roof ESR 1388	
(E) High Fire & Ice Roof Vents (17.0 & 1. NVA)	

REVISIONS

Plans Prepared by
D. Scott Hall Designers
 16685 N. Bernardo Dr. #102 S.D., Ca. 92121
 Tel (619) 200-1623

DDE DYJAK DESIGN BUILD
 742 Genesieve St. #D
 Solana Beach, CA 92075 (955) 350-6400

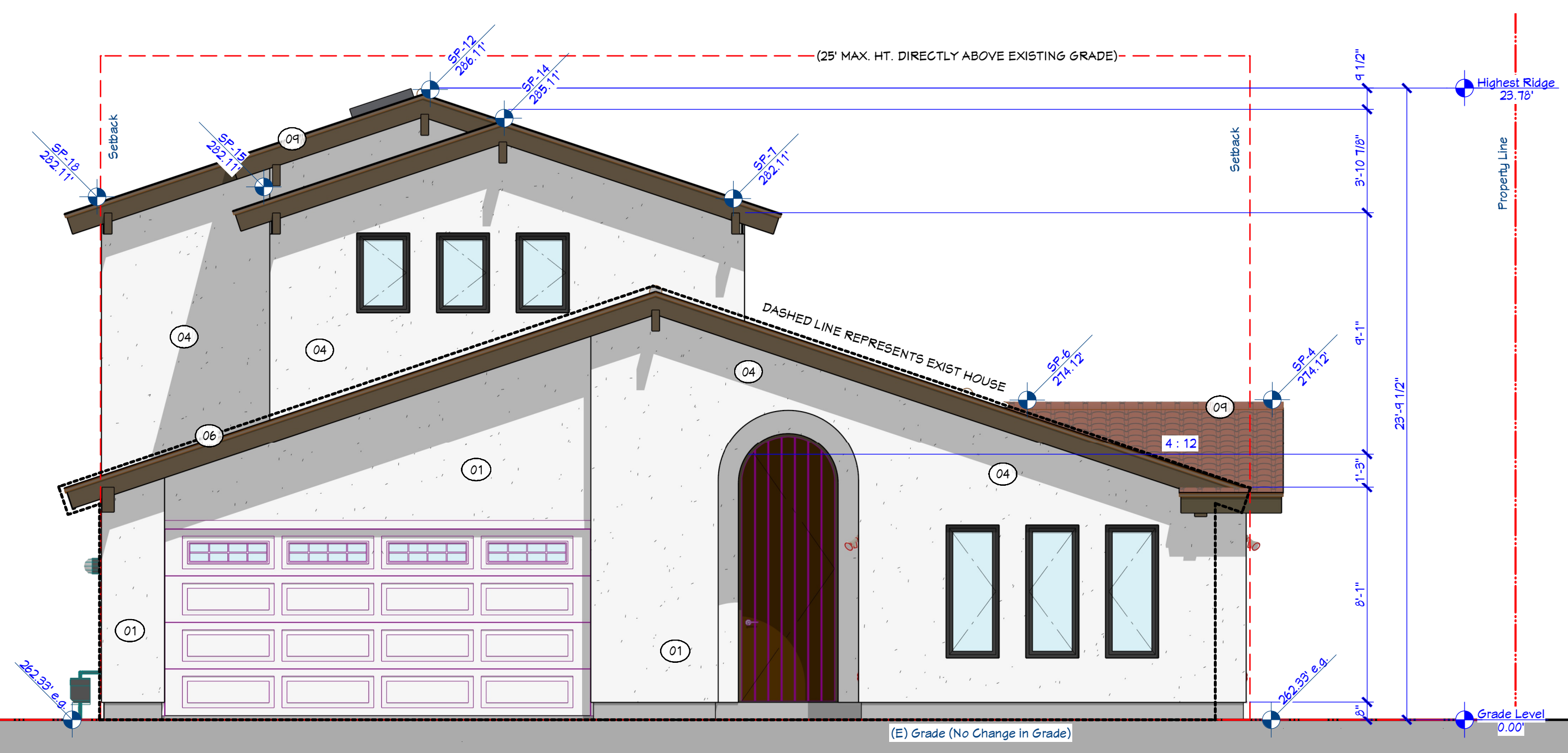
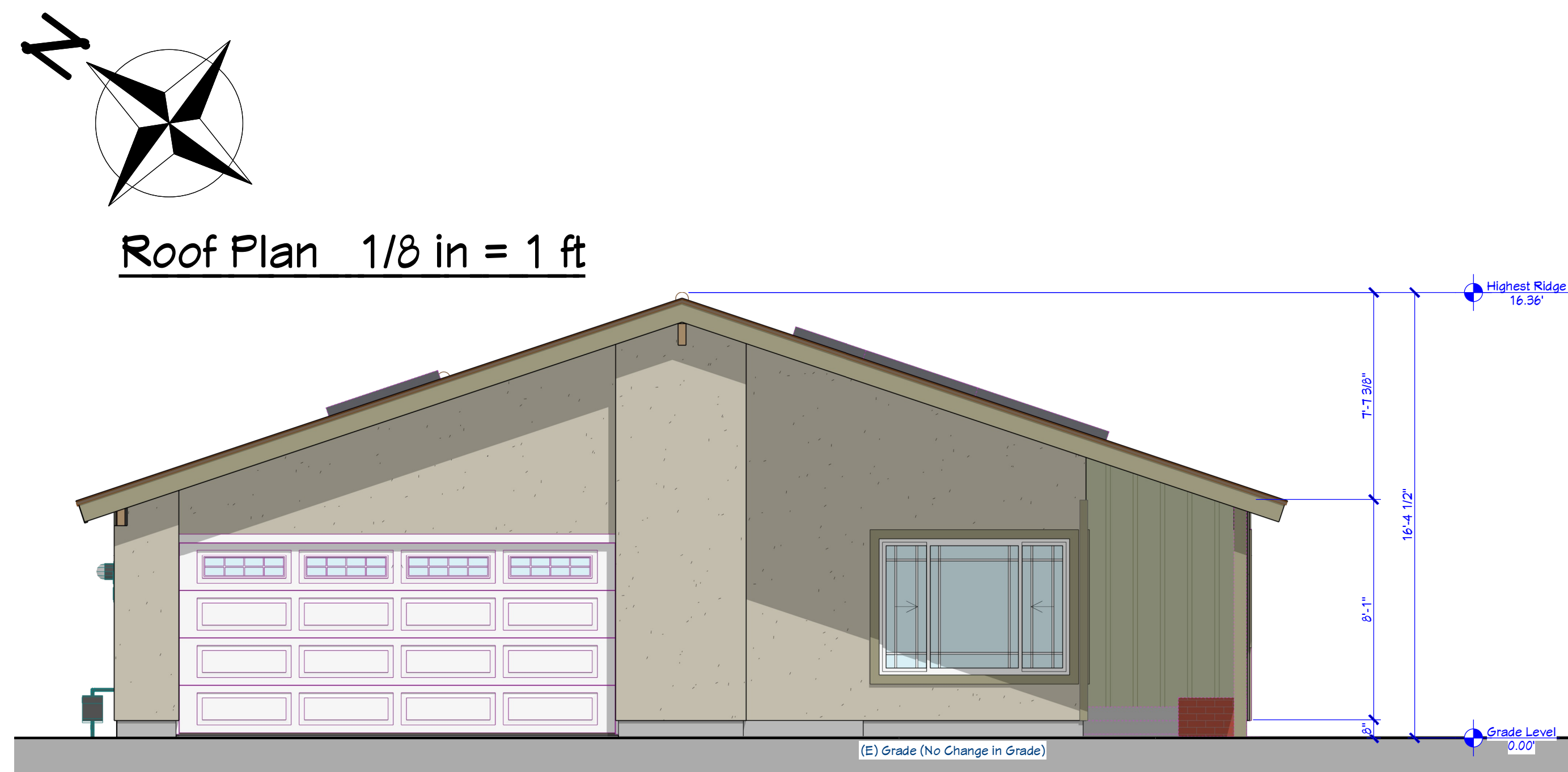
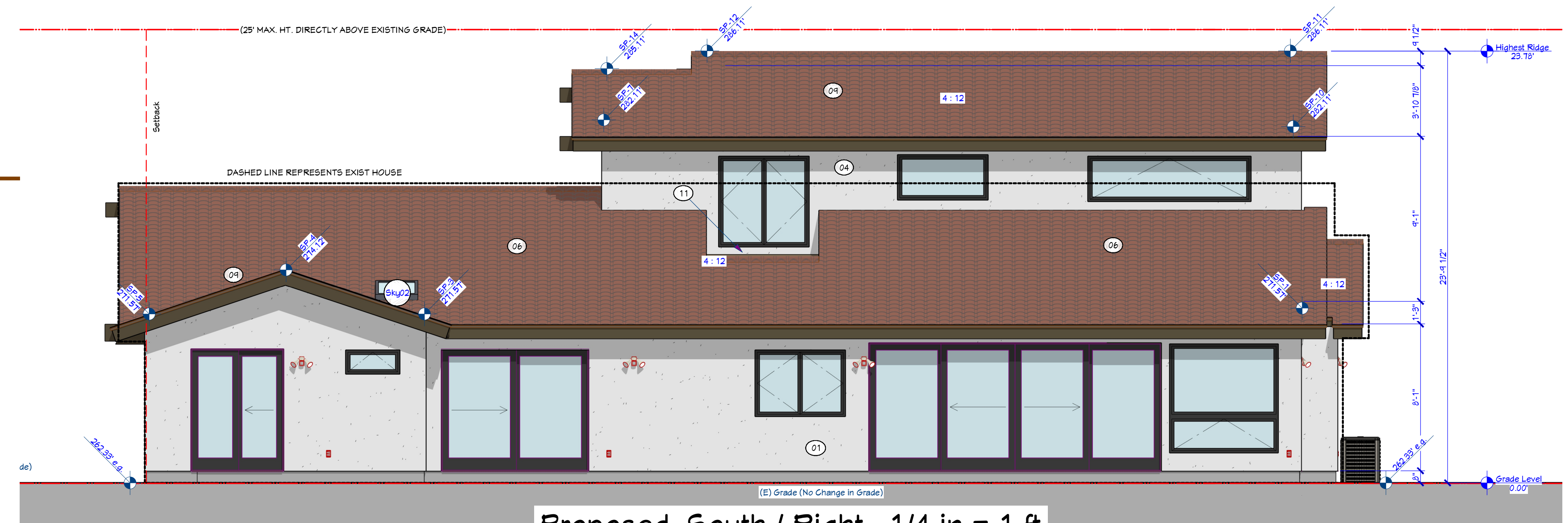
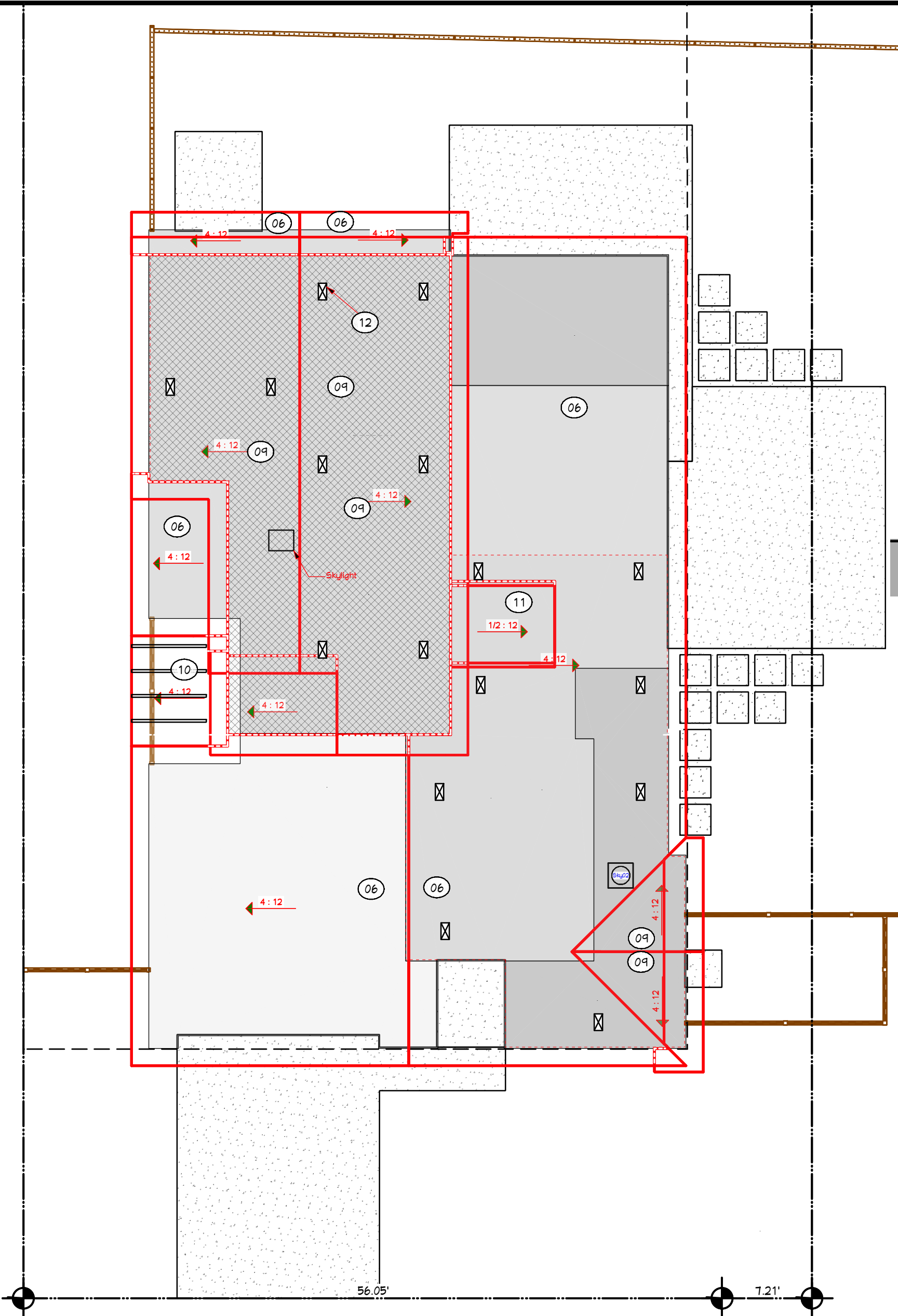
A Home Remodel for
Christine Crivello & Dave Barton
 550 San Mario Drive
 Solana Beach, CA 92075
 (910) 844-1504

SHEET INDEX

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Printed 9/20/21
 Scale Per Plan
 Drawn dsh
 JOB Crivello PLAN Tc
 SHEET NO. 6

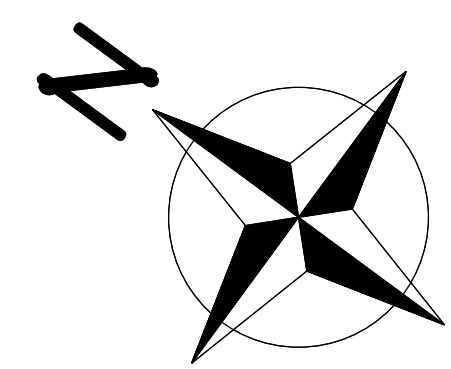
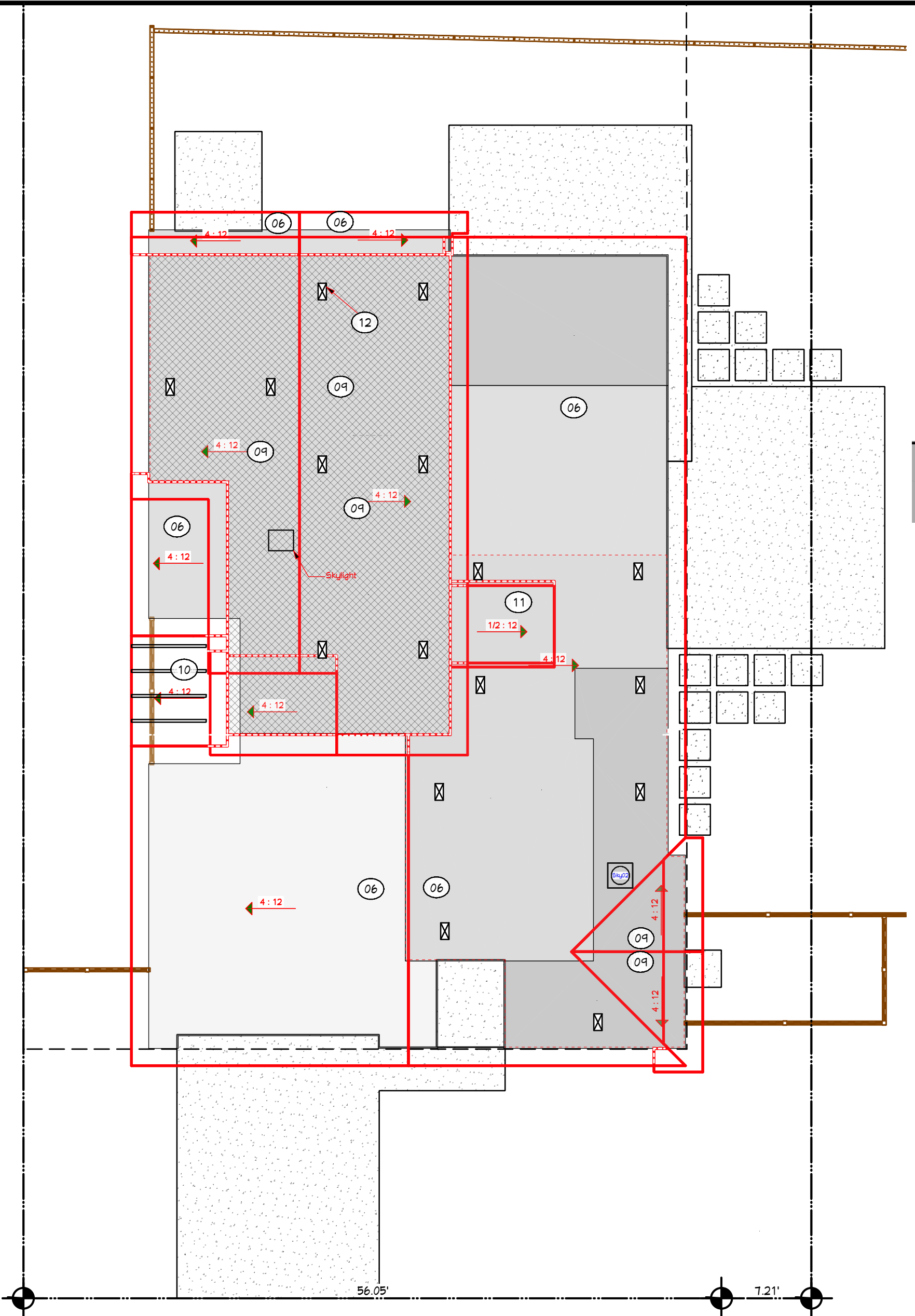
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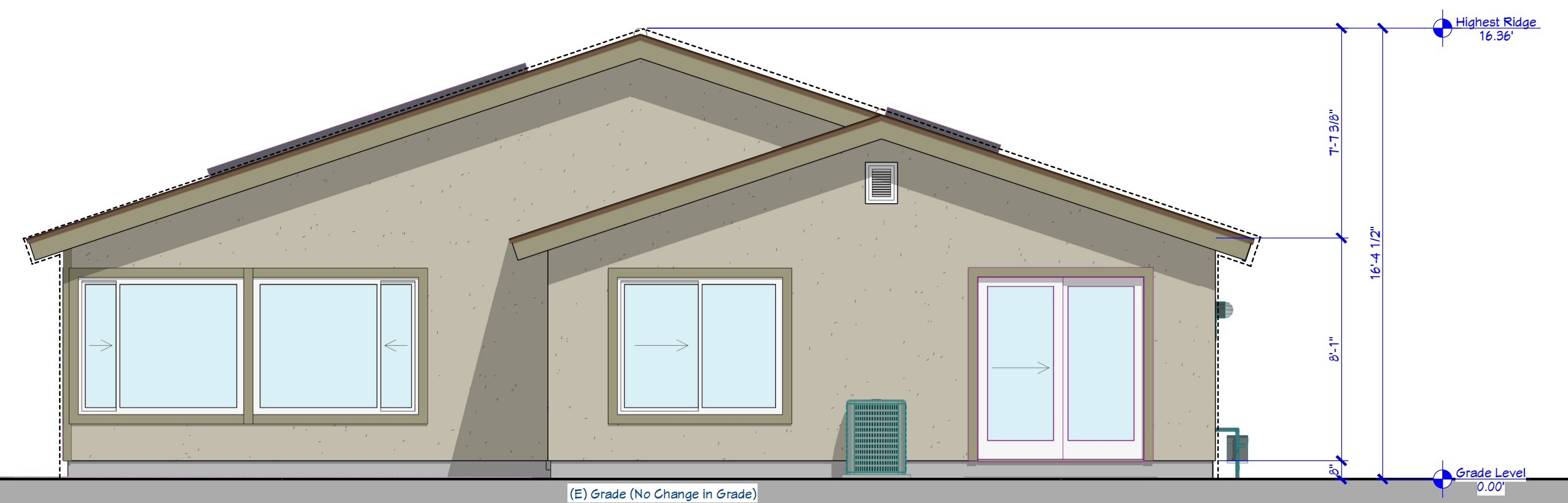
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Elevations / Roof Plan

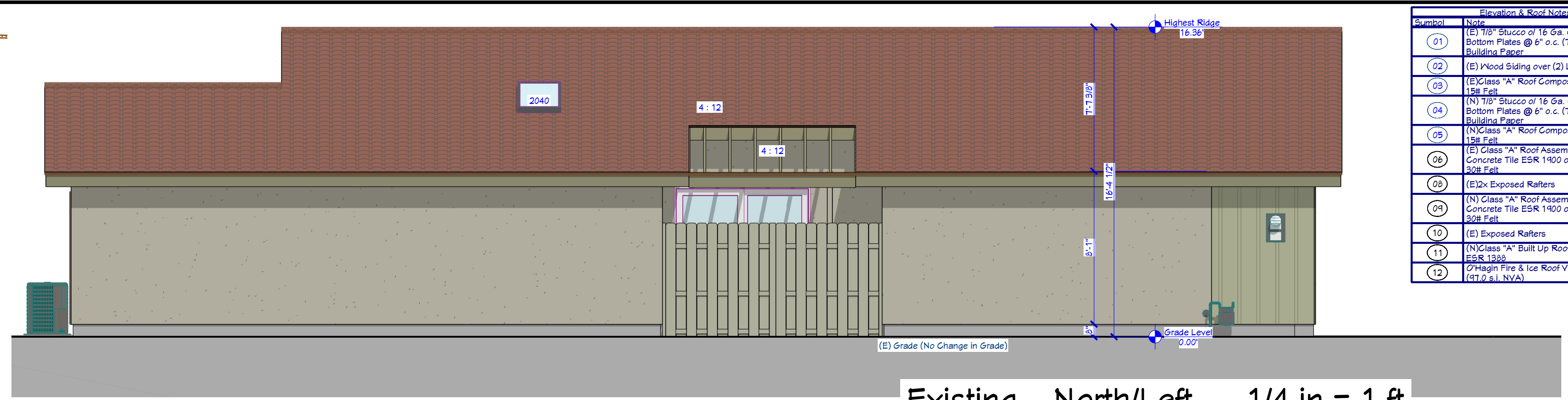
V. Crivello LAYOUT 1



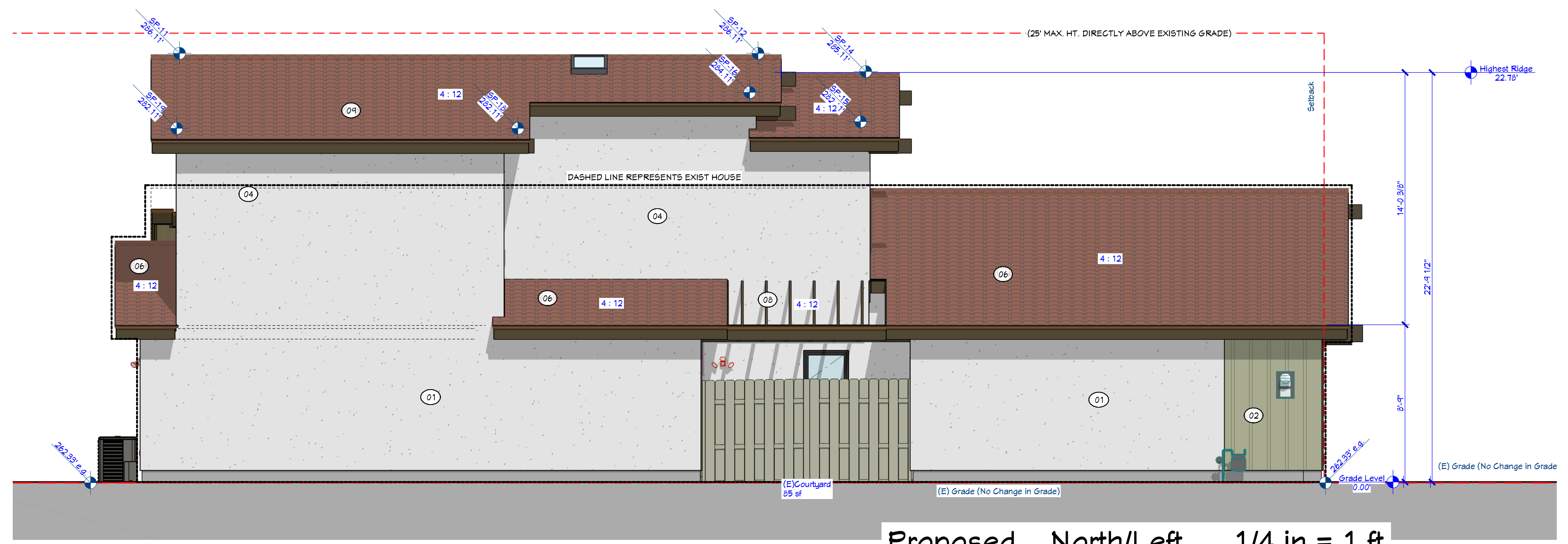
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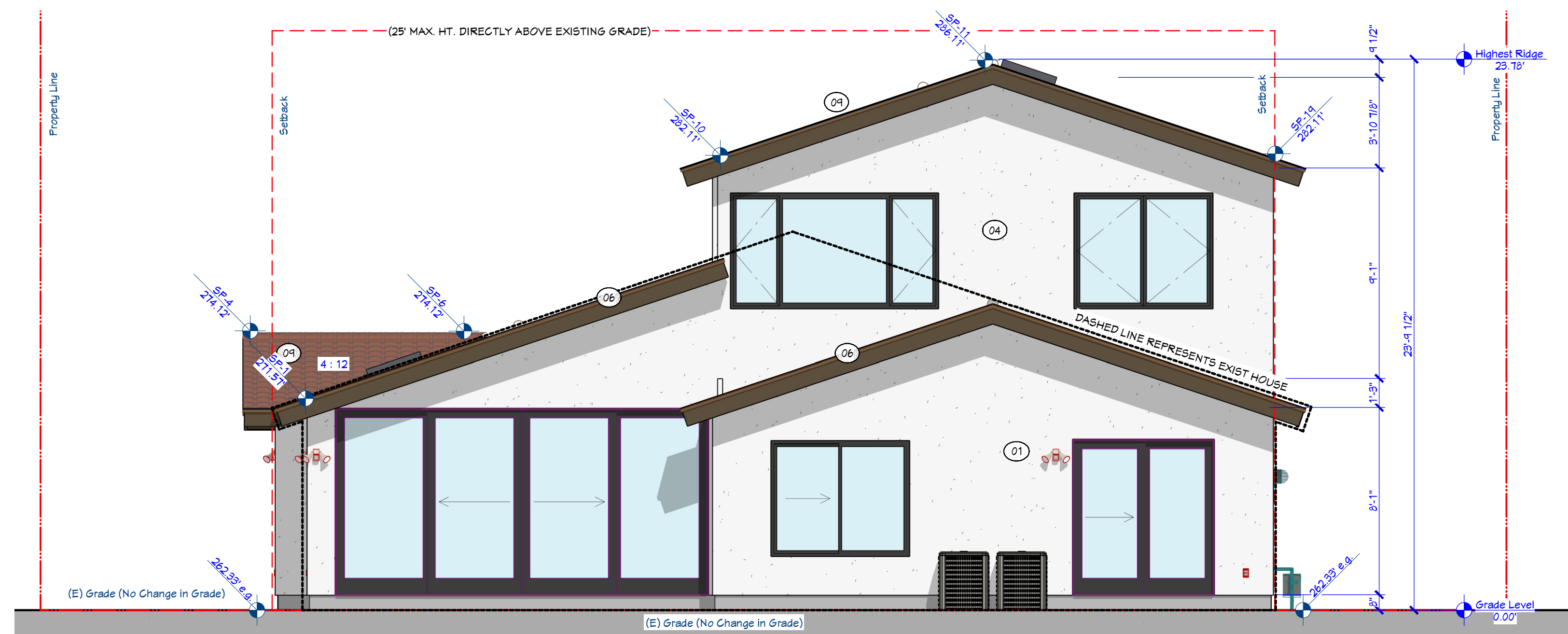
Existing East / Rear 1/4 in = 1 ft



Existing North/Left 1/4 in = 1 ft



Proposed North/Left 1/4 in = 1 ft



Proposed East / Rear 1/4 in = 1 ft

Symbol	Note
01	(E) 1/8" Stucco of 16 Ga. Galv. Line Wire Staple to Top & Bottom Plates @ 6" o.c. (1/8" Legs) of (2) Layers of Grade "D" Building Paper
02	(E) Wood Sliding over (2) Layers of Grade "D" Building Paper
03	(E) Class "A" Roof Composition Shingles of 15# Felt
04	(N) 1/8" Stucco of 16 Ga. Galv. Line Wire Staple to Top & Bottom Plates @ 6" o.c. (1/8" Legs) of (2) Layers of Grade "D" Building Paper
05	(N) Class "A" Roof Composition Shingles of 15# Felt
06	(E) Glass "A" Roof Assembly Concrete Tile ESR 1400 of 3/8" Felt
07	(E) 2x Exposed Rafter
08	(N) Class "A" Roof Assembly Concrete Tile ESR 1400 of 3/8" Felt
09	(E) Exposed Rafter
10	(N) Class "A" Built Up Roof BSR 1338
11	Orange Fire & Ice Roof Vents (17.0 & 1. NVA)
12	

REVISIONS

Plans Prepared by
D. Scott Hall Designers
 16685 N. Bernardo Dr. #102 S.D., Ca. 92121
 Tel (619) 200-1623

DYJAK
 DDB DESIGN BUILD
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 Solana Beach, CA 92075 (952) 350-6400

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DRP Set

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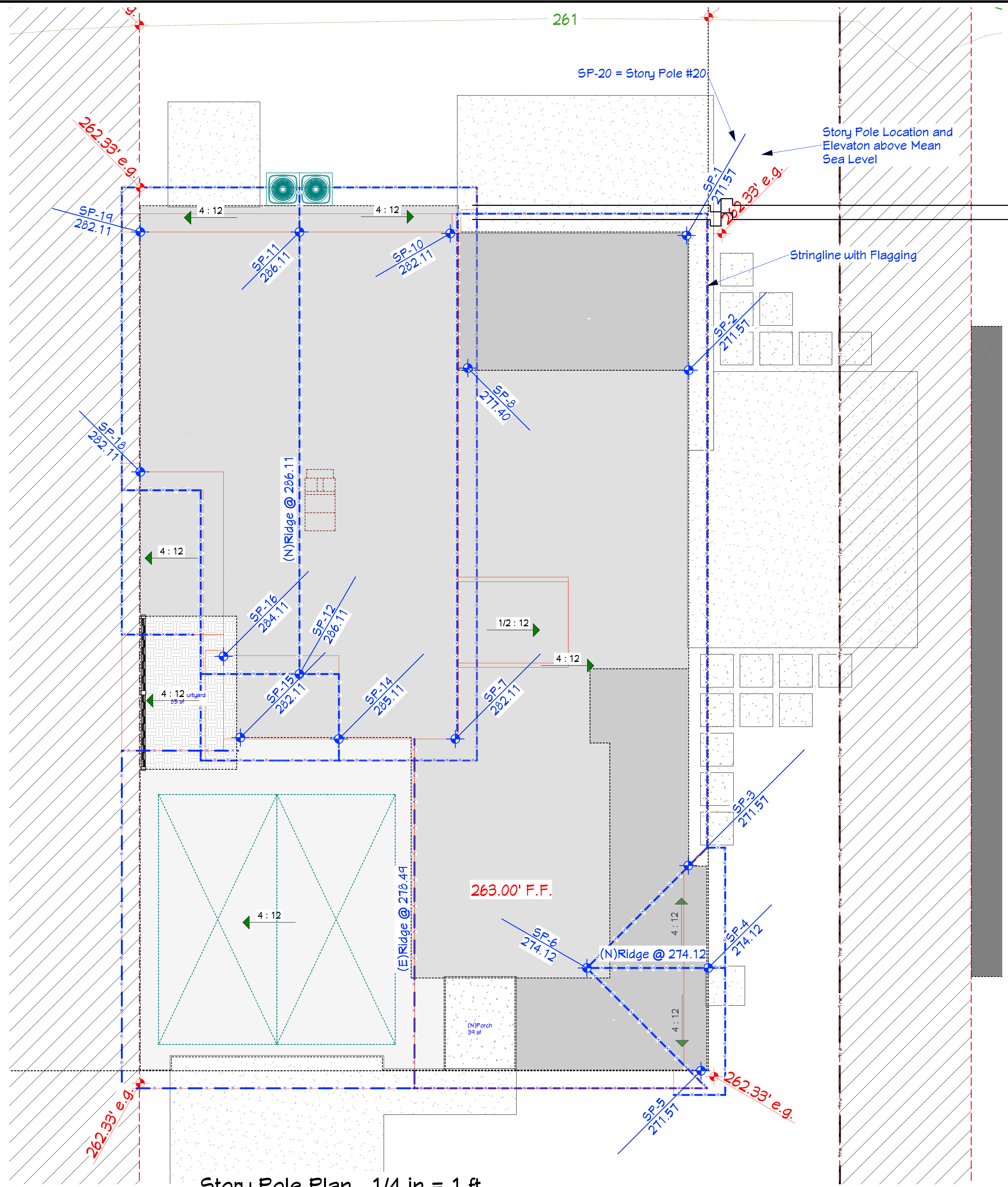
Printed: 9/20/21
 Scale: Per Plan
 Drawn: dsh
 JOB: Crivello PLAN 7c
 SHEET NO.: 7

Elevations / Roof Plan

Approved: _____ Date: _____
 Approved: _____ Date: _____

Elevations / Roof Plan

v. Crivello LAYOUT 1



Story Pole Plan 1/4 in = 1 ft

Approved: _____ Date: _____
 Approved: _____ Date: _____

REVISIONS 1 2 3 4 5 6 7 8 9 10	
Plans Prepared by D. Scott Hall Designers 16685 N. Bernardo Dr. #102 S.D., Ca. 92121 Tel (619) 200-1623	Prepared for Christine Crivello & Dave Barton 550 San Mario Drive Solana Beach, CA 92075 (910) 844-1504
DDE DYJAK DESIGN BUILD 742 Genevieve St. #D Solana Beach, CA 92075 (952) 350-6400	DRP Set
SHEET INDEX 1 Site Plan 1a Site Photos 2 BMP Plan 3 Demo Plan 4 Proposed 1st Floor 5 Proposed 2nd Floor 6 Elevations/Roof Plan 7 Elevations/Roof Plan 8 Story Pole Plan 9 Story Pole Certification 10 Sections	
Printed 9/20/21 Scale Per Plan Drawn dsh JOB Crivello PLAN 7c SHEET NO. 8	Story Pole Plan

CONTRACTORS TO FIELD VERIFY ALL CONDITIONS PRIOR TO BEGINNING CONSTRUCTION AND CONSULT WITH DESIGNER IF THERE ARE ANY INCONSISTENCIES WITH EXISTING CONDITIONS AND THE PLANS.

D. Scott Hall
 Date 9/20/21



CITY OF SOLANA BEACH
536 SOUTH HIGHWAY 101 • SOLANA BEACH • CALIFORNIA 92075 • (858) 720-2400 • FAX (858) 756-1782

STORY POLE HEIGHT CERTIFICATION

Date: SEPT. 13, 2021

Assessor's Parcel No.: 263-583-15
Site Address: 550 SAN MARIO DR.
Owner's Name: CRIVELLO - BARTON

This is to certify that on SEPTEMBER 13, 2021 the story poles located on the above referenced site were surveyed by the undersigned, and found to be in conformance with the attached story pole plot plan. In addition, the following measurements were found:

Highest point of the story poles: 286.11' (M.S.L.)*
Pre-existing grade: 262.33' (M.S.L.)*
Finished grade elevation: 262.33' (M.S.L.)*
Finished floor elevation: 263.00' (M.S.L.)*

TOTAL MAXIMUM HEIGHT: 23.78'

PLEASE NOTE: The story poles must show and include the total height must include roofing materials. At framing inspection, a Height Certification will be required which must be in exact conformance with the maximum height shown on Story Pole Height Certification.

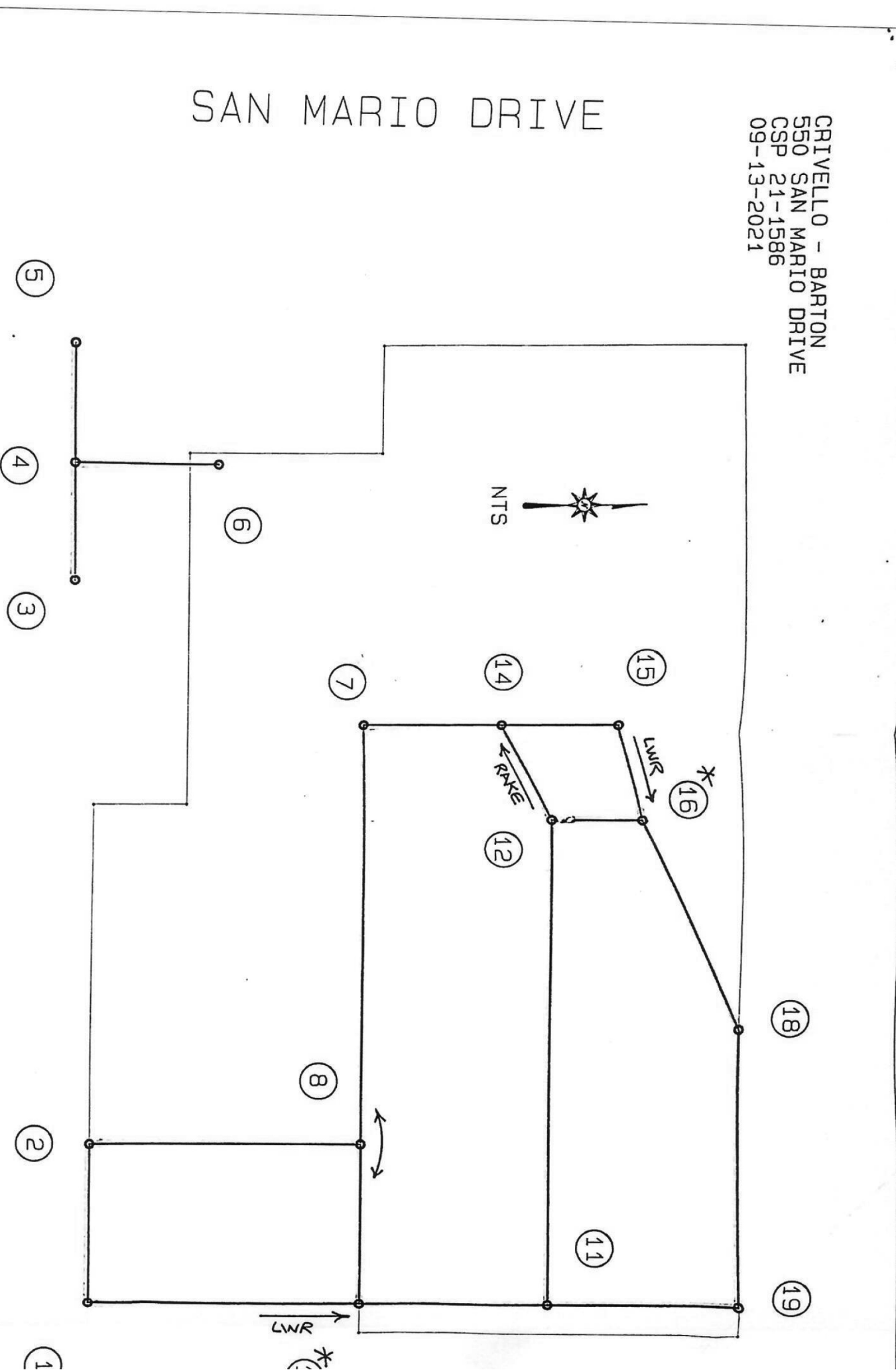
For additional information, please contact me at 760-224-7653 (phone) or 760-224-7653 (text).

Christopher B. Collins
Licensed Land Surveyor



Seal of Registration:

*Mean Sea Level (MSL) — all measurements must utilize an established benchmark that does not change over the course of the project. EXIST. FIN. FLR TO REMAIN, ELEV. = 263.00'



C-Story Poles, Inc.
Chris Collins
Cal 760 224-7653

NAME: CRIVELLO - BARTON
SITE: 550 SAN MARIO DR.
DATE: 09-13-21 NO. 21-1586 7500 PSMW

PG 1 OF 1

B.S. PT.	T. PT.	ES. PT.	POINT ELEV.	PLAN ELEV.	C/E LENGTH	DESCRIPTION
		1	267.80	271.57	F. 9.07	TE CONC PATIO
		2	271.96	271.57	C-0.39 ↓	ROOF
		3	271.61	271.57	C-0.04 ↓	ROOF
		4	271.63	274.12	F. 2.49	ROOF
		5	271.66	271.57	C-0.09 ↓	ROOF
		6	274.12	274.12	F. 0.00	ROOF
		7	278.03	282.11	F. 3.28	ROOF
OMIT 9 SEE 10		8	278.70	277.40	C-1.30 ↓	ROOF
	*	10	272.16	282.11	F. 9.95	UPR ROOF
		-	-	277.40	F. 5.24	LWR -
		11	276.47	286.11	F. 9.64	ROOF
OMIT 13 SEE 12		12	276.48	286.11	F. 9.63	ROOF
		14	277.74	285.11	F. 7.37	ROOF
		15	274.93	282.11	F. 7.16	ROOF
	*	16	274.54	284.11	F. 9.57	UPR ROOF
OMIT 17 SEE 18		-	-	282.11	F. 7.57	LWR -
		18	272.22	282.11	F. 9.89	ROOF
		19	272.22	282.11	F. 9.89	ROOF

REVISIONS

NO.	DATE	DESCRIPTION

Plans Prepared by
D. Scott Hall Designers
16685 N. Bernardo Dr. #102 S.D., Ca. 92127
Tel (619) 200-1623

DYJAK
DESIGN BUILD
742 Grenville St. #D
Solana Beach, CA 92075 (956) 350-6400

A Home Remodeler for
Christine Crivello & Dave Barton
550 San Mario Drive
Solana Beach, CA 92075
(916) 844-1504

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Printed: 9/20/21
Scale: Per Plan
Drawn: dsh
JOB: Crivello PLAN 7c
SHEET NO.: 8a

Story Pole Certification

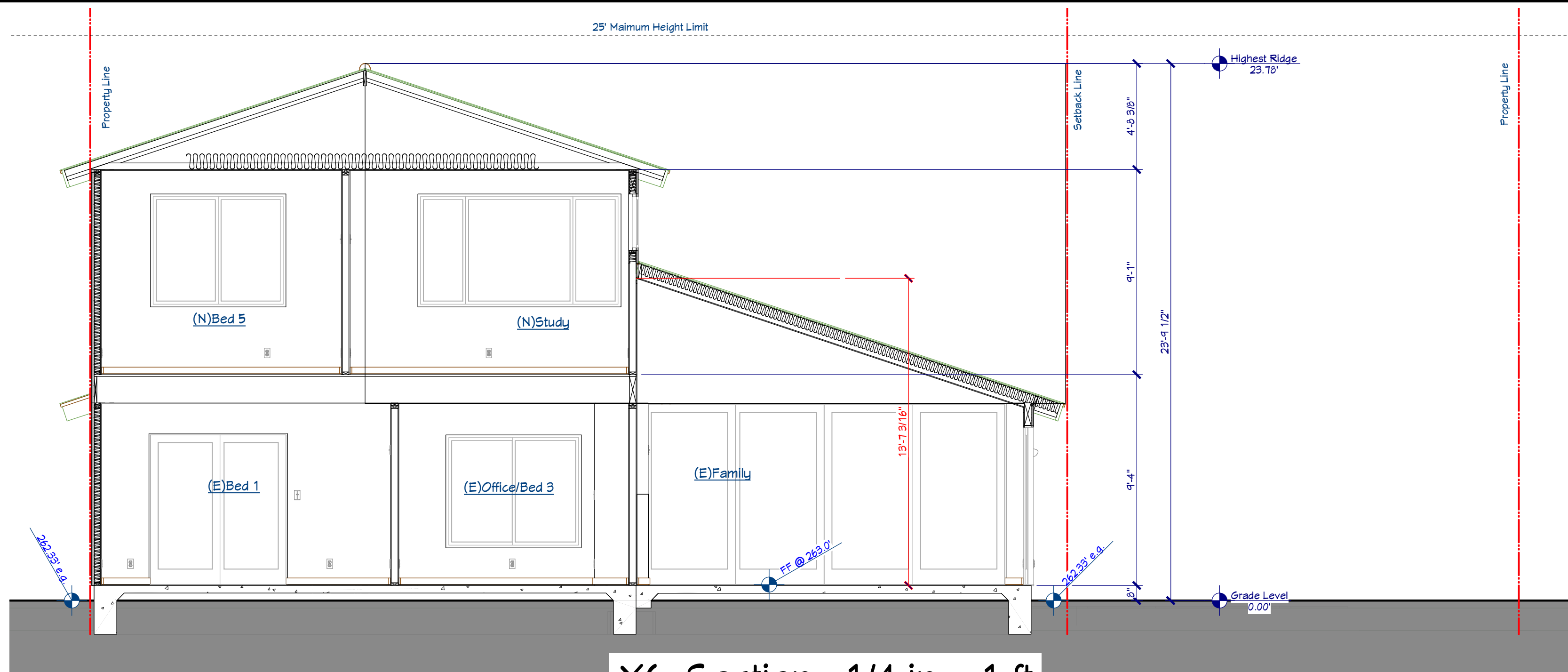
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Story Pole Certification

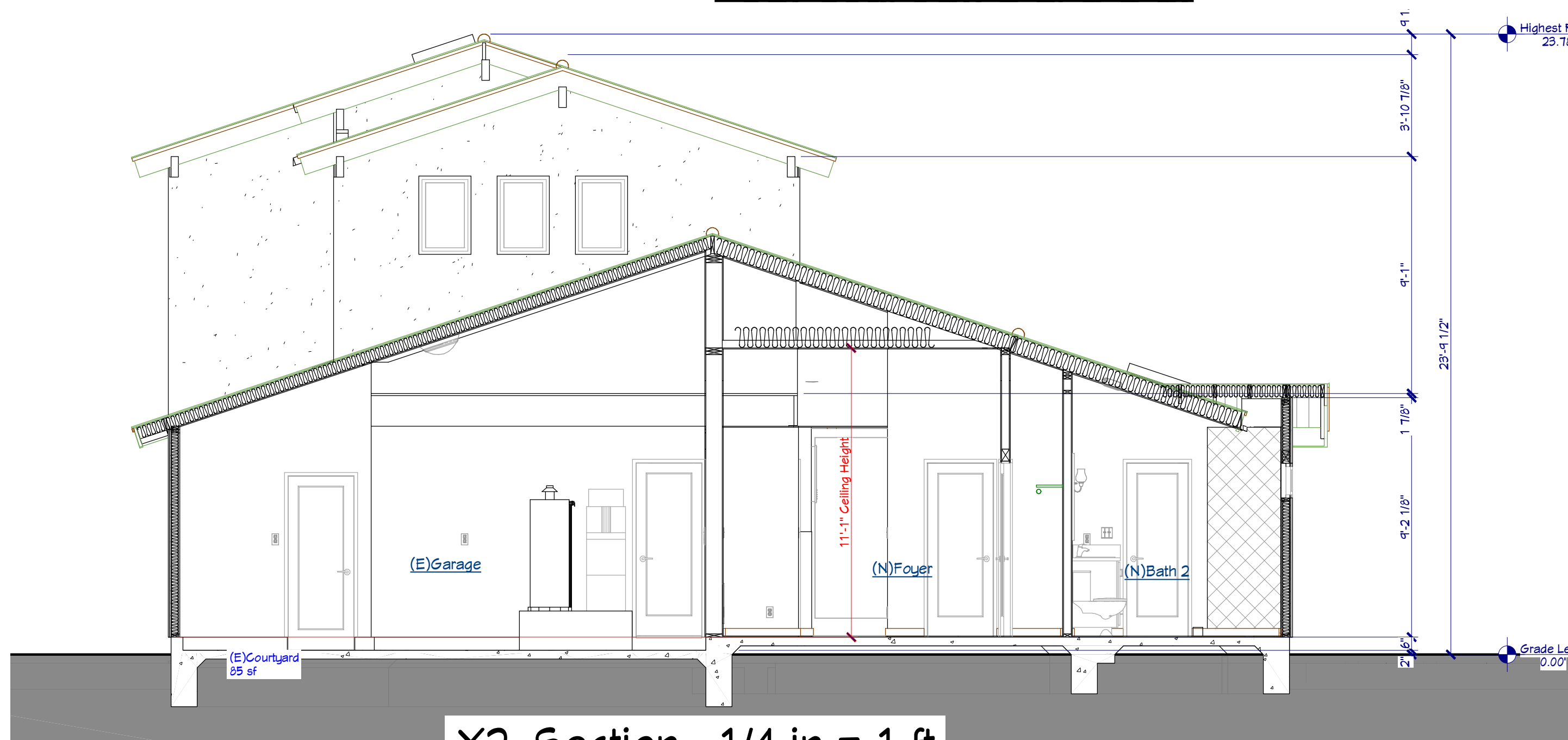
v. Crivello LAYOUT 1

DRP Set

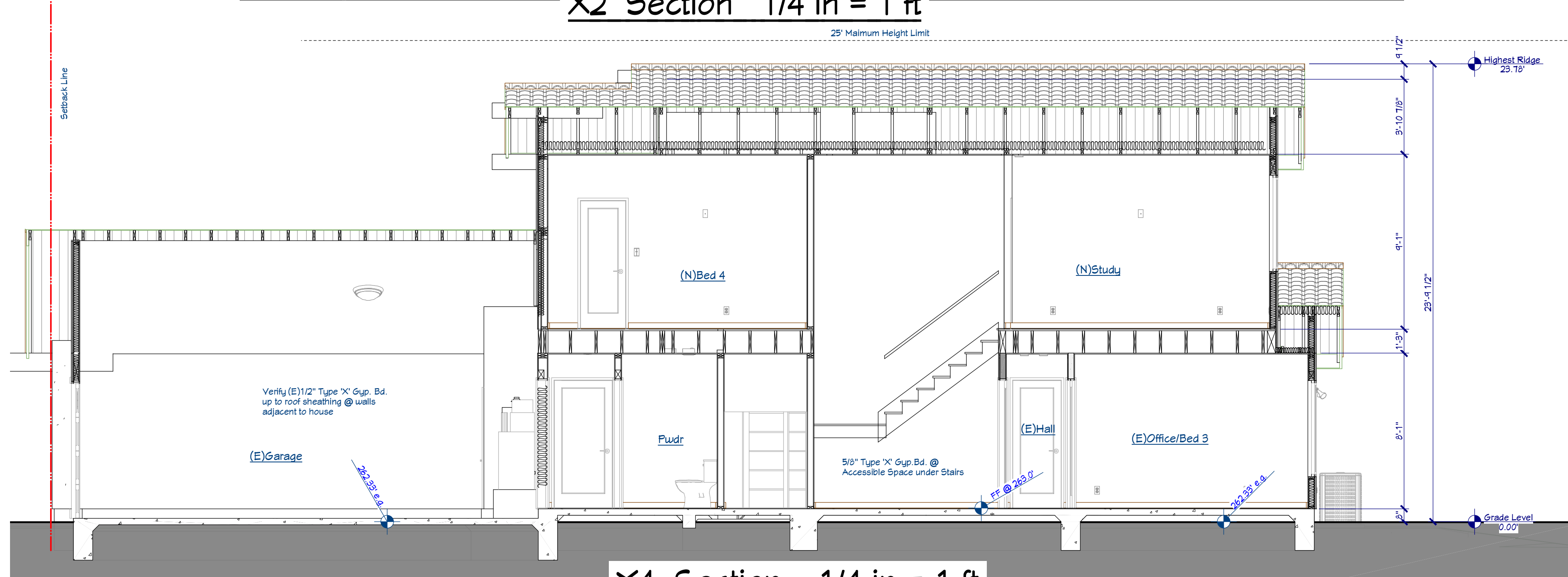
V. Crivello LAYOUT 1



X6 Section 1/4 in = 1 ft



X2 Section 1/4 in = 1 ft



Y4 Section 1/4 in = 1 ft

REVISIONS	
Plans Prepared by D. Scott Hall Designers 16685 W. Bernardo Dr. #102 S.D., Ca. 92121 Tel (619)200-1623	
DDE DYJAK DESIGN BUILD 742 Genevieve St. #D Solana Beach, CA 92075 (952) 350-6400	
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Printed	9/20/21
Scale	Per Plan
Drawn	dsh
JOB	Crivello PLAN 7c
SHEET NO.	9

Approved: _____ Date: _____
 Approved: _____ Date: _____

Sections

DRP Set

D. Scott Hall Date 9/20/21

September 13, 2021

Mr. Jim Dyjak
Dyjak Design Build
742 Genevieve Street, Suite D
Solana Beach, CA 92075

Subject: 550 San Mario Drive Biology Letter-Revised

Dear Mr. Dyjak:

This letter report describes the existing biological resources for a proposed single family home remodel project and evaluates the potential impacts to those resources that may occur as a result of project implementation. This report is intended to provide the City of Solana Beach (City) with information necessary to assess significant impacts to biological resources under the California Environmental Quality Act (CEQA) and the Local Coastal Plan and Land Use Plan (LCP/LUP). The approximately 0.36 acre (15,712 square feet) parcel (APN 263-583-15) is located at 550 San Mario Drive, in the City of Solana Beach (Figures 1 and 2).

PROJECT DESCRIPTION

The proposed project is the remodel of an existing single family home located on an approximately 0.36 acre parcel. The project would occur within the developed limits of the existing home and yard and includes a 2-story home, garage, driveway, and porch. The project does not involve grading or significant earthwork beyond excavation for footings. The house and yard area also would be surrounded by a fence. Access to the house will continue to be via San Mario Drive. No activities are proposed down the slope to the east of the home.

ENVIRONMENTAL SETTING

The majority (0.29 acres) of the parcel is developed/disturbed and supports the existing house, associated structures, pavement, and landscaping. The eastern end of the parcel drops into a canyon that supports some native vegetation beyond the limits of the existing landscaping. The elevations on the parcel range from approximately 200 to 260 feet above mean sea level (AMSL). Soil on site is mapped as loamy alluvial land-Huerhuero complex, 9 to 50 percent slopes (Bowman 1973).

The site is located in a developed portion of the City with single family homes located to all sides. There also is an intervening undeveloped slope area in the canyon to the east of the existing house. Other uses in the vicinity include the Lomas Santa Fe Executive Golf Course.

METHODS

Vegetation Mapping

Prior to visiting the site, available maps, air photos, and existing conditions material for the site were reviewed. A California Native Diversity Database (CNDDDB) search was conducted to identify previously mapped resources on the site and in the vicinity. The National Wetlands Inventory (NWI) and National Hydrological Dataset (NHD) also were reviewed to determine if potentially jurisdictional resources had been previously identified on the site. Finally, available citywide environmentally sensitive habitat mapping provided in the LCP/LUP was reviewed for the site. Biologist Greg Mason then conducted a site visit on May 27, 2021 to identify and map existing biological resources on site.

The site was walked and plant and animal species were recorded. Plant species names followed the Jepson Manual (Baldwin 2012). Vegetation communities were mapped according to Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as updated (Oberbauer 2008). Representative photographs also were taken and are included in Attachment A.

Jurisdictional Resources

While a formal jurisdictional delineation was not conducted, the site was assessed for features that could be considered jurisdictional by the U.S. Army Corps of Engineers (Corps), California Department of Fish & Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), and the California Coastal Commission (Commission).

Sensitive Plant Species

The site visit was conducted during the spring flowering season and a sensitive plant survey was conducted during the visit.

Sensitive Animal Species

No focused sensitive animal species were conducted; however, sensitive animal species were searched for opportunistically during the site visit.

Tree Survey

The City's LCP/LUP includes policies for protection of native trees; therefore, the site also was searched for native tree species that could be affected by the project.

REGULATORY CONTEXT

Federal Government

Administered by the USFWS, the federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a take under the ESA. Section 9(a) of the ESA defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” “Harm” and “harass” are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species’ behavioral patterns.

All migratory bird species that are native to the U.S. or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is intended to protect migratory birds but it does not mandate specific protections. Typically, protection of migratory birds through the MBTA is provided through restrictions on disturbance of active bird nests during the nesting season. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the Clean Water Act. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of all Waters of the U.S. Permitting for projects filling Waters of the U.S. (including wetlands) is overseen by the Corps under Section 404 of the Clean Water Act. Projects could be permitted on an individual basis or be covered under one of several approved nationwide permits. Individual permits are assessed individually based on the type of action, amount of fill, etc. Individual permits typically require substantial time (often longer than 6 months) to review and approve, while nationwide permits are pre-approved if a project meets appropriate conditions. A Section 404 Permit would be required for the proposed project if impacts occur to Corps jurisdictional areas.

State of California

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (or impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

The California ESA is similar to the federal ESA in that it contains a process for listing of species and regulating potential impacts to listed species. Section 2081 of the California ESA authorizes CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes.

The California Fish and Game Code (Sections 1602) requires a CDFW agreement for projects affecting riparian and wetland habitats through issuance of a Streambed Alteration Agreement. A 1602 Streambed Alteration Agreement would be required for the proposed project if impacts occur to CDFW jurisdictional areas. In addition, any project that requires a Section 404 Permit also would require a Water Quality Certification by the California Regional Water Quality Control Board (RWQCB) under Section 401 of the Clean Water Act. CEQA and its implementing guidelines (CEQA Guidelines) require discretionary projects with potentially significant effects (or impacts) on the environment to be submitted for environmental review. Mitigation for significant impacts to the environment is determined through the environmental review process in accordance with existing laws and regulations.

The California Coastal Act was passed in 1976 to protect land located within the California Coastal Zone. The Coastal Act established policies, coastal boundary lines, and permitting procedures. Further, it provides for the transfer of permitting authority to local governments through adoption and certification of Local Coastal Plans (LCP), via the California Coastal Commission (CCC).

Multiple Habitat Conservation Plan

The Multiple Habitat Conservation Program (MHCP; AMEC Earth & Environmental, Inc. and Conservation Biology Institute 2003) is a comprehensive, multi-jurisdictional planning program designed to develop an ecosystem preserve in the northwestern portion of the San Diego County. It is one of several large, multiple jurisdictional habitat planning efforts in San Diego County, each of which constitutes a “subregional” plan under the State’s Natural Community Conservation Planning (NCCP) Act of 1991. The MHCP preserve system is intended to protect viable populations of native plant and animal species and their habitats in perpetuity, while accommodating continued economic development and quality of life for residents of North County.

The MHCP subregion encompasses the seven incorporated cities of northwestern San Diego County (Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista). It is intended that these jurisdictions will implement their portions of the MHCP through citywide “subarea” plans, which describe the specific policies each city will institute for the MHCP. While within the limits of the MHCP, the City of Solana Beach has elected to not create a Subarea Plan; therefore, is not subject to the provisions of the MHCP.

City of Solana Beach General Plan – Conservation and Open Space Easement

The Conservation and Open Space Element of the City’s General Plan is a combined element which describes existing conditions and issues related to water resources, floricultural resources, air resources, cultural resources, energy resources, and open space/visual resources. This element also contains goals, objectives, and policies established to ensure that natural resources within the City are managed wisely. The proposed project is within a built out portion of the City and would not affect air, energy, paleontological, cultural/scientific, historic, open space/visual, or biological resources. The site is not located within/adjacent to a General Plan identified view corridor or scenic roadway. Additionally, the project would not result in changes to air quality, water supply/drainage patterns, scenic views, open space, park & recreational facilities, trails, or other resources identified in the Element. As such, the project would be in conformance with the goals, objectives, and policies

of this Element and no specific actions or compliance measures would be required of the project during planning and construction.

City of Solana Beach LCP/LUP

The City's adopted LCP/LUP covers the entire City and is intended to implement the State's goals for the coastal zone, which are to:

- a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.
- b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.
- c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.
- d) Assure priority for coastal-dependent and coastal-related development over other development on the coast.
- e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.

Chapter 3 of the LCP/LUP (Marine and Land Resources) identifies sensitive biological resources within the City limits and established the Environmentally Sensitive Habitat Area (ESHA). This chapter also identifies specific policies for the identification and protection of ESHAs. LCP/LUP Policy 3.1 indicates that areas considered ESHAs are generally shown in Exhibits 3-6 through 3-10 of the LCP/LUP. According to LCP/LUP Exhibit 3-7, the ESHA (approximately 0.13 acre) occurs on the far eastern of the project parcel (Figure 3). A consistency analysis for applicable LCP/LUP policies has been conducted and is provided in Table 1 below.

Table 1 LCP/LUP Applicable Policy Consistency Analysis			
Number	Policy	Consistency Analysis	Consistency Determination
3.1	Areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments are ESHAs and are generally shown on the LUP ESHA Maps. The ESHAs in the City of Solana Beach are shown in Exhibits 3-6 through 3-10. Regardless of whether streams and wetlands are designated as ESHA the policies and standards in the LCP applicable to streams and wetlands shall apply.	LCP/LUP Exhibit 3-7 shows a small area of ESHA on the far eastern end of the subject property. Site specific biological mapping identified Diegan coastal sage scrub habitat in roughly the same location. The current biological resources mapping shows the vegetation communities and corresponding ESHA occurring in this area (Figure 3). There is no ESHA within or adjacent to the proposed project footprint.	The proposed project is consistent with this policy.
3.2	Any Areas of Special Biological Significance and Marine Protected Areas (as designated by the California Department of Fish and Wildlife), shall be considered ESHA and shall be accorded all protection provided for ESHA in the LCP.	The Diegan coastal sage scrub habitat in the far eastern end of the property has been mapped as ESHA, in conjunction with LCP Exhibit 3-7.	The proposed project is consistent with this policy.
3.7	If a site-specific biological study contains substantial evidence that an area previously mapped as ESHA does not contain habitat that meets the definition of ESHA, the City Community Development Director shall review all available site-specific information to determine if the area in question should no longer be considered ESHA and not subject to the ESHA protection policies of the LUP. If the area is determined to be adjacent to ESHA, LUP ESHA buffer policies shall apply. The Community Development Director shall provide recommendations to the City Council as to the ESHA status of the area in question. If the City Council finds that an area previously mapped as ESHA does not meet the definition of ESHA, a modification shall be made to the LUP ESHA Maps, as part of an LCP map update and LCP Amendment. If an area is not ESHA or ESHA buffer, LCP policies and standards for protection of ESHA and ESHA buffer shall not apply and development may be allowed	The area of Diegan coastal sage scrub habitat is in the area shown as ESHA on Exhibit 3-7. The ESHA mapping for the site showed southern maritime chaparral habitat as being present; however, the actual species present support mapping as Diegan coastal sage scrub (disturbed). In addition, 4 Nuttall's scrub oaks were identified in an area mapped as disturbed habitat. The biological report for the project updated the vegetation mapping and no changes or removal of ESHA are proposed, given it would be entirely avoided with no changes to the pre-existing buffer area.	The proposed project is consistent with this policy.

Table 1			
LCP/LUP Applicable Policy Consistency Analysis			
Number	Policy	Consistency Analysis	Consistency Determination
	(consistent with other LCP requirements) after the ESHA map and LCP has been amended.		
3.8	ESHA shall be protected against significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.	The proposed project is not within or adjacent to the ESHA and would not alter habitat values within the ESHA. Additionally, the project would maintain the existing buffer between the ESHA and the developed area.	The proposed project is consistent with this policy.
3.9	Public access-ways and trails are considered resource dependent uses. New access-ways and trails located within or adjacent to ESHA shall be sited to minimize impacts to ESHA to the maximum extent feasible. Measures, including but not limited to signage, placement of boardwalks, and limited fencing shall be implemented as necessary to protect ESHA.	The project is a remodel of an existing home and does not propose any trails or access-ways within or adjacent to the ESHA. Additionally, the existing chain link fence at the border of the existing home will remain in place and help restrict access to the ESHA.	The proposed project is consistent with this policy.
3.11	New development shall be sited and designed to avoid impacts to ESHA. For development permitted pursuant to Policy 3.10, if there is no feasible alternative that can eliminate all impacts, then the alternative that would result in the fewest or least significant impacts shall be selected. Impacts to ESHA that cannot be avoided through the implementation of siting and design alternatives shall be fully mitigated, with priority given to on-site mitigation. Off-site mitigation measures shall only be approved when it is not feasible to fully mitigate impacts on-site or where off-site mitigation is more protective. Mitigation shall not substitute for implementation of the project alternative that would avoid impacts to ESHA. Mitigation for impacts to ESHA shall be provided at a 3:1 ratio.	The project is not “New development;” therefore, this policy does not specifically apply. Regardless, the proposed project will completely avoid the ESHA (and its sensitive habitat and species) and maintain the existing buffer from the existing home. As such, there will be no impacts to the ESHA and no subsequent mitigation required.	The proposed project is consistent with this policy.

Table 1			
LCP/LUP Applicable Policy Consistency Analysis			
Number	Policy	Consistency Analysis	Consistency Determination
3.13	ESHA shall be protected and, where feasible, enhanced. Where pedestrian access through ESHA is permitted, well-defined footpaths or other means of directing use and minimizing adverse impacts shall be used. Nesting and roosting areas for sensitive birds such as Western snowy plovers and least terns shall be protected by means, which may include, but are not limited to, fencing, signing, or seasonal access restrictions.	The ESHA and the resources within it will be avoided and the project does not include any access to the ESHA. Additionally, potential bird nesting resources within the ESHA will remain undisturbed by the proposed project.	The proposed project is consistent with this policy.
3.22	Development adjacent to ESHAs shall minimize impacts to habitat values or sensitive species to the maximum extent feasible. Native vegetation buffer areas shall be provided around ESHAs to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the ESHA they are designed to protect. All buffers around (non-wetland) ESHA shall be a minimum of 100 feet in width, or a lesser width may be approved by the Planning Department and Fire Marshal as addressed in Policy 3.65. However, in no case can the buffer size be reduced to less than 50 feet.	The ESHA mapping for the site was conducted long after the existing residence was constructed. As such, the buffer between the existing home and the ESHA was set at approximately 66 feet. Additionally, the actual native habitat within the ESHA is approximately 74 feet from the existing home. The proposed project is a home remodel that would occur entirely within the developed footprint of the existing home. The project would not expand development or reduce the amount of the existing ESHA buffer. As such, the proposed project would not result in a decrease to the ESHA buffer.	The proposed project is consistent with this policy.
3.31	If located in, or adjacent to, ESHA new development shall include an inventory conducted by a qualified biologist of the plant and animal species present on the project site. If the initial inventory indicates the presence or potential for sensitive species or habitat on the project site, a detailed biological study shall be required. Sensitive species are those listed in any of three categories: federally listed, state listed, and California Native Plant Society (CNPS) categories 1B and 2.	The proposed project is a home remodel and is not new development. Regardless, a biological study was conducted for the project footprint as well as the ESHA located on the subject property.	The proposed project is consistent with this policy.

Table 1			
LCP/LUP Applicable Policy Consistency Analysis			
Number	Policy	Consistency Analysis	Consistency Determination
3.32	<p>For development in locations known, or determined by environmental review, to potentially have breeding or nesting sensitive birds species, two weeks prior to any scheduled development, a qualified biological monitor shall conduct a pre-construction survey of the site and within 500 feet of the project site. Sensitive bird species are those species designated “threatened” or “endangered” by state or federal agencies, California Species of Special Concern, California Fully Protected Species, raptors, and large wading birds. In addition, surveys must be conducted every two weeks for sensitive nesting birds during the breeding season. If nesting sensitive birds are detected at any time during the breeding season, the California Department of Fish and Wildlife shall be notified and an appropriate disturbance set-back will be determined and imposed until the young-of-the year are no longer reliant upon the nest. The set-back or buffer shall be no less than 100 feet.</p>	<p>The proposed project footprint is within the limits of the existing home and developed area; therefore, it would not result in direct impacts to nesting bird species. There are trees and shrubs located within the ESHA that could be indirectly impacted by noise during construction. While this is considered to be unlikely, given the relatively low noise of typical home remodel construction work, the project will incorporate the pre-construction surveys identified in Policy 3.32, should work be conducted during the breeding season. If work is conducted outside of the breeding season then no surveys will be required.</p>	<p>The proposed project is consistent with this policy.</p>
3.51	<p>New development shall be sited and designed to preserve oak, sycamore, alder, willow, toyon, or other native trees that are not otherwise protected as ESHA. Removal of native trees shall be prohibited except where no other feasible alternative exists. Structures, including roads or driveways, shall be sited to prevent any encroachment into the root zone and to provide an adequate buffer outside of the root zone of individual native trees in order to allow for future growth.</p>	<p>The proposed project is a remodel of an existing home and is not “New Development.” Regardless, the 4 Nuttall’s scrub oaks identified on the eastern portion of the site, within the mapped ESHA will be avoided and preserved on site.</p>	<p>The proposed project is consistent with this policy.</p>

BIOLOGICAL RESOURCES

Vegetation Communities

The portion of the parcel where the proposed project would occur is entirely developed (existing home). Outside of this developed area the site supports native Diegan coastal sage scrub habitat, eucalyptus woodland, and developed/disturbed area (Table 2; Figure 3). Each of these vegetation community/land cover types is described below.

Vegetation Communities	Habitat Group	Total (acre)
Diegan coastal sage scrub-disturbed (32500)	C	0.03
Eucalyptus Woodland (79100)	F	0.04
Disturbed Habitat (11300)	F	0.14
Develped (12000)	F	0.15
	TOTAL	0.36

Diegan Coastal Sage Scrub (disturbed)

Diegan coastal sage scrub occupies xeric sites with shallow soils and may be dominated by a variety of species depending upon soil type, slope, and aspect. The dominant species found within Diegan coastal sage scrub on site include laurel sumac (*Malosma laurina*) and lemonadeberry. Associated species include California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*). This habitat shows evidence of previous disturbance and also supports an evident component of non-native species such as ripgut brome (*Bromus diandrus*). Diegan coastal sage scrub is considered a sensitive vegetation community and is located within the City’s mapped ESHA on site (Figure 3).

Eucalyptus Woodland

Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* spp.), an introduced genus that has been planted for wind blocking, ornamental, and hardwood production purposes. The understory is sparse and offers only limited wildlife habitat; however, as a wildlife habitat, these woodlands can provide nesting sites for raptors. Eucalyptus woodland is not a sensitive community and is located within the City’s mapped ESHA on site (Figure 3).

Disturbed Habitat

Disturbed habitat includes land cleared of vegetation, land containing a preponderance of non-native plant species, or land showing signs of past or present usage that no longer provides viable wildlife habitat. Disturbed habitat on site is occurs on the slopes east of the developed area. Some of the non-native species present include Hottentot’s fig (*Carpobrotus edulis*) and ripgut grass. Disturbed habitat is not a sensitive community and occurs both within and outside of the mapped ESHA on site (Figure 3).

Developed

Developed area includes buildings, structures, paved areas, and landscaping associated with the existing house to be remodeled. Developed area is not considered a sensitive biological resource. Developed area on site consists of the existing home and surrounding pavement/yard area as well as a concrete lined brow ditch located down the slope, within the mapped ESHA (Figure 3).

Sensitive Plant Species

A single sensitive plant species, Nuttall's scrub oak (*Quercus dumosa*), was found within the disturbed area in the far eastern portion of the site, approximately 140 feet away from the limits of the proposed project and within the City's mapped ESHA (Figure 3). This species has a California Native Plant Society (CNPS) rare plant rank of 1B.1 (seriously threatened in California); however, it is not State or Federal listed as Threatened or Endangered.

No other sensitive plant species were observed or are anticipated to occur within the project footprint as it is entirely developed and surrounded by development. A list of plant species observed on the parcel is included as Attachment B.

Sensitive Animal Species

No sensitive animal species were observed or are anticipated to occur as the project is entirely within the existing developed area. A list of animal species observed is included as Attachment C.

Nesting Birds

The federal Migratory Bird Treaty Act (MBTA), which restricts the killing, taking, collecting, selling, or purchasing of native bird species or their parts, nests, or eggs, also provides legal protection for almost all breeding bird species occurring in the United States. Additionally, the LCP/LUP addresses potential impacts to sensitive bird species which include species designated "threatened" or "endangered" by state or federal agencies, California Species of Special Concern, California Fully Protected Species, raptors, and large wading birds. The site supports numerous eucalyptus trees and shrubs with the potential to support nesting bird species within the ESHA.

Jurisdictional Features

During the visit the site was assessed for features that could be considered jurisdictional by the Corps, CDFW, RWQCB, and the CCCC. Features searched for included wetland vegetation, drainages, bed and bank, tidal evidence (rack lines), soils, and other features indicative of the presence of jurisdictional features. No jurisdictional or wetland/riparian features occur on site.

Tree Survey

No protected native tree species were detected within the project footprint. The 4 Nuttall's scrub oaks identified are within the ESHA (Figure 3), far from the footprint and would not be affected by the proposed project. As such, the project would not impact any protected native tree species.

PROJECT IMPACTS

For purposes of analysis, the actual additions to the home were considered to be permanent impacts and the remainder of the developed area was considered to be temporarily impacted by the remodeling effort. These temporary impacts would not expand beyond the developed portion of the parcel and would include activities such as materials preparation, equipment storage, and other ancillary tasks.

Environmentally Sensitive Habitat Area (ESHA)

As noted above, the project would entirely avoid the mapped ESHA located in the eastern portion of the site (Figure 3). In addition, the project would maintain the ESHA buffer from the existing home (66 feet) as well as the buffer between the home and the sensitive Diegan coastal sage scrub habitat on site (74 feet). Given this, along with the project's consistency with the applicable policies in the LCP/LUP (Table 1), there would be no impacts to the ESHA.

Vegetation Communities

For the impact analysis, the approximately 0.15 acre developed area where the existing house is located was considered to be impacted with 0.03 acre of permanent impacts (home remodel) and 0.11 acre of temporary impacts (ancillary construction related activities). The only sensitive habitat on site is the disturbed coastal sage scrub habitat that is located within the ESHA in the eastern portion of the site, well outside of the analyzed impact footprint. As such, the project would not impact any sensitive vegetation community.

Sensitive Plant Species

No sensitive plant species were observed within the project footprint and none are anticipated. The 4 Nuttall's scrub oaks are located downslope and approximately 140 feet away from the project limits (developed house area) within the avoided ESHA; therefore, impacts to sensitive plant species would not occur.

Sensitive Animal Species

No sensitive animal species were observed within the proposed project footprint and none are anticipated; therefore, impacts to sensitive animal species would not occur.

Jurisdictional Features

The project would not impact any area that would be considered jurisdictional by the Corps, CDFW, RWQCB, and CCC; therefore, no permits would be required.

Wildlife Corridors

The project would not impact the ESHA or any local or regional wildlife corridors; therefore, no permanent or temporary direct impacts to wildlife corridors would occur.

Nesting Birds

The project is a remodel of an existing home and would not result in the removal of vegetation (trees and shrubs) with the potential to support nesting birds if conducted during the avian breeding season (January 15 through August 31). As such, no direct impacts to nesting bird species would occur.

There are trees and shrubs located within the ESHA that could be used for nesting by MBTA and LCP/LUP protected and sensitive bird species. Should construction occur during the breeding season there is a potential for indirect noise impacts to nesting bird species. This is considered to unlikely, given the relatively low noise of typical home remodel construction work and the distance from the home to the ESHA.

Cumulative Impacts

The project is small and would only impact 0.15 acre (permanent and temporary) of the 0.36 acre parcel. Additionally, impacts are limited to already developed area and would not significantly impact sensitive biological resources; therefore, the project would not contribute to significant, cumulative, biological resource impacts.

MITIGATION MEASURES

The only potential impact to sensitive biological resources identified for the project is the potential for indirect noise to nesting birds, should construction occur during the breeding season. In order to ensure that this does not occur and to remain in compliance with the LCP/LUP, the project will incorporate the pre-construction survey measure identified in Policy 3.32, should construction occur during the breeding season (January 15 through August 31). Specifically, two weeks prior to any scheduled development, a qualified biological monitor shall conduct a pre-construction survey of the site and within 500 feet of the project site for active bird nests. In addition, surveys must be conducted every two weeks for sensitive nesting birds during the breeding season. If nesting sensitive birds are detected at any time during the breeding season, the CDFW shall be notified and an appropriate disturbance set-back will be determined and imposed until the young-of-the year are no longer reliant upon the nest. The set-back or buffer shall be no less than 100 feet. If no nests are detected then no additional measures will be required.

CONCLUSION

The proposed project area (single family home) is developed and surrounded by development. Impacts (permanent and temporary) are limited to the approximately 0.15 acre developed area where the existing home, yard area, and associated hardscape/landscaping occurs. All impacts would occur outside of the mapped ESHA and the existing ESHA buffers would be maintained. The project would not impact sensitive vegetation communities, sensitive plant or animal species, jurisdictional resources, protected tree species, or wildlife corridors. Additionally, the project would be in conformance with the goals, objectives, and policies of the Conservation and Open Space Element of the City's General Plan. Finally, the project would not result in any significant cumulative impact to biological resources.

The project does have a potential, but unlikely, indirect noise impact to nesting bird species should construction occur during the breeding season (January 15 through August 31). This potential impact would be reduced to less than significant through incorporation of the pre-construction survey requirement and active nest avoidance measures identified in Policy 3.32 of the LCP/LUP. Given that there are no other significant impacts to biological resources, no additional mitigation measures would be required.

Please contact me if you have any questions regarding this letter report.

Sincerely,



Greg Mason
Principal/Senior Biologist

Enclosures:

- Figure 1 Regional Location
- Figure 2 Project Location
- Figure 3 Biological Resources
- Attachment A Representative Photographs
- Attachment B Plant Species Observed
- Attachment C Animal Species Observed

References:

- AMEC Earth & Environmental, Inc. and Conservation Biology Institute. 2003. Final Multiple Habitat Conservation Program. March. URL: <http://www.sandag.org/?projectid=97&fuseaction=projects.detail>
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- Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency. 156 pp.
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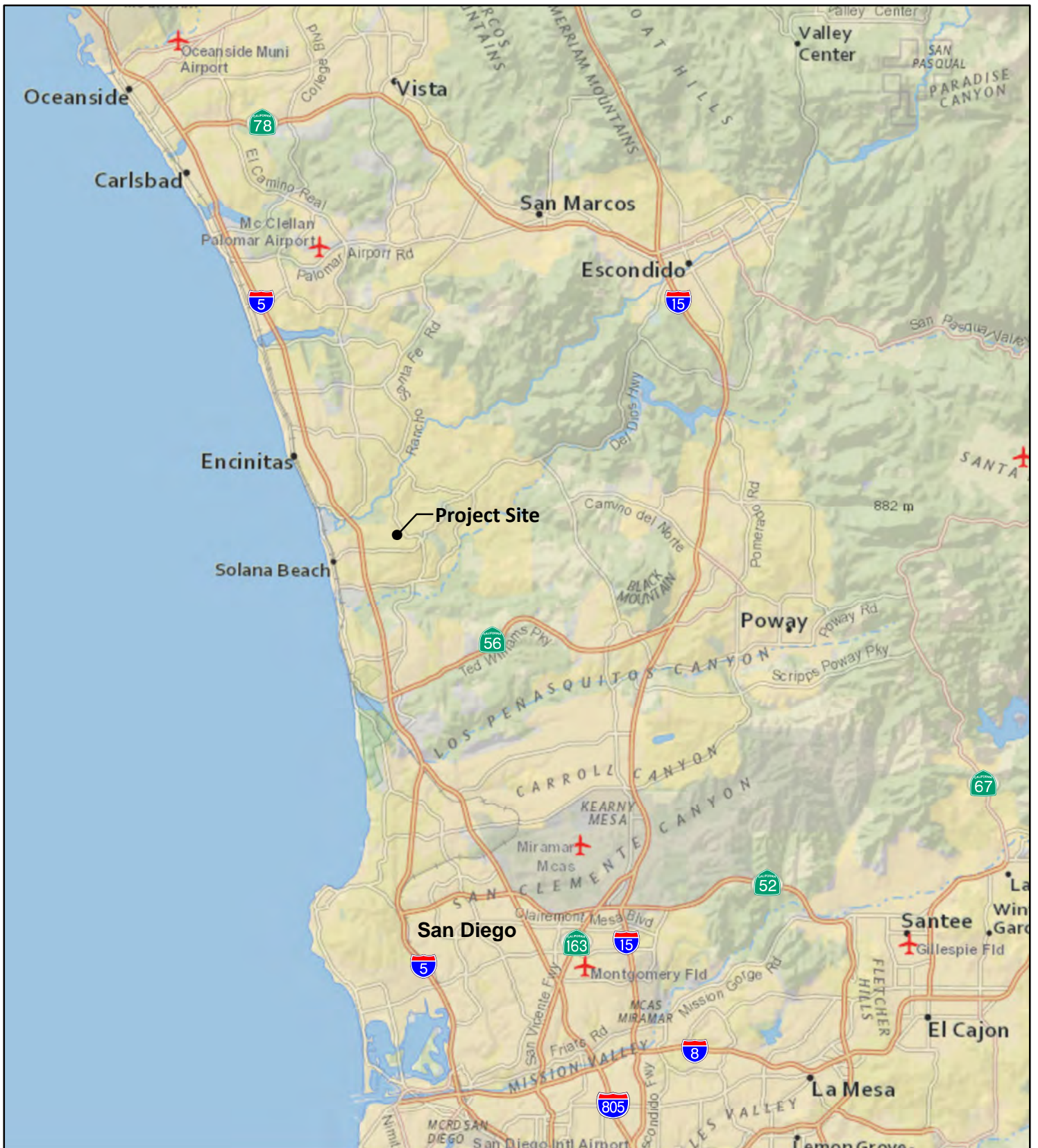


Figure 1

Regional Location

550 SAN MARIO DRIVE
SOLANA BEACH, CA



0 2 4
Miles

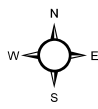




Figure 2

Project Location

550 SAN MARIO DRIVE
SOLANA BEACH, CA



0 1,000 2,000
Feet



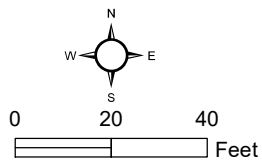


<ul style="list-style-type: none"> Parcel Boundary Permanent Impacts Temporary Impacts Project Features Photo Location City Mapped Environmentally Sensitive Habitat Area (ESHA) (ESHA as shown on Exhibit 3-7 "Citywide Biological Resources" of the Local Coastal Program Land Use Plan) 	<p>Vegetation</p> <p>Habitat Group C</p> <ul style="list-style-type: none"> Diegan Coastal Sage Scrub – Disturbed (32500) <p>Habitat Group F</p> <ul style="list-style-type: none"> Eucalyptus Woodland (79100) Disturbed Habitat (11300) Developed (12000)
<p>Special Status Species</p> <ul style="list-style-type: none"> Nuttall's Scrub Oak (<i>Quercus dumosa</i>) 	

Figure 3

Biological Resources

550 SAN MARIO DRIVE
SOLANA BEACH, CA



**ATTACHMENT A
REPRESENTATIVE PHOTOGRAPHS**



Photo Point 1. 05/27/21



Photo Point 2. 05/27/21



Photo Point 3. 05/27/21



Photo Point 4. 05/27/21



Photo Point 5. 05/27/21



Photo Point 6. 05/27/21



Photo Point 7. 05/27/21



Photo Point 8. 05/27/21



Photo Point 9. 05/27/21



Photo Point 10. 05/27/21



Photo Point 11. 05/27/21



Photo Point 12. 05/27/21



Photo Point 13. 05/27/21



Photo Point 14. 05/27/21



Photo Point 15. 05/27/21



Photo Point 16. 05/27/21



Photo Point 17. 05/27/21



Photo Point 18. 05/27/21



Photo Point 19. 05/27/21



Photo Point 20. 05/27/21



Photo Point 21. 05/27/21



Photo Point 22. 05/27/21



Photo Point 23. 05/27/21



Photo Point 24. 05/27/21

**ATTACHMENT B
PLANT SPECIES OBSERVED**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>VEGETATION¹</u>
Agavaceae – Agave Family <i>Agave americana</i> ²	Century plant	DH
Aizoaceae – Ice Plant Family <i>Aptenia cordifolia</i> ²	red apple iceplant	DH/DEV
<i>Carpobrotus edulis</i> ²	Hottentot's fig	DH/DEV
<i>Malephora crocea</i> ²	coppery mesembryanthemum	DH/DEV
<i>Mesembryanthemum crystallinum</i> ²	crystalline iceplant	DH/DEV
Anacardiaceae – Sumac Family <i>Rhus integrifolia</i>	lemonadeberry	CSS-d
Aracaceae – Palm Family <i>Washingtonia robusta</i> ²	Mexican fan palm	DEV
<i>Syagrus romanzoffiana</i> ²	queen palm	DEV
Asteraceae - Sunflower Family <i>Artemisia californica</i>	California sagebrush	CSS-d
<i>Glebionis coronaria</i> ²	garland daisy	DH
<i>Hypochoeris glabra</i> ²	smooth cat's-ear	DH
Brassicaceae – Mustard Family <i>Brassica nigra</i> ²	black mustard	DH/DEV
Cactaceae – Cactus Family <i>Opuntia ficus-indica</i> ²	Barbary fig	DH
<i>Opuntia littoralis</i>	beavertail cactus	CSS-d
Crassulaceae – Stonecrop Family <i>Crassula ovata</i> ²	jade plant	DH/DEV
Cucurbitaceae – Gourd Family <i>Marah macrocarpa</i>	wild cucumber	CSS-d
Convolvulaceae – Morning Glory Family <i>Cuscuta californica</i>		
Fabaceae – Pea Family <i>Acmispon glaber</i>	deerweed	CSS-d
<i>Melilotus indicus</i> ²	Indian sweet clover	DH

Fagaceae – Oak Family <i>Quercus dumosa</i> ³	Nuttall’s scrub oak	DH
Geraniaceae – Geranium Family <i>Erodium botrys</i> ²	storksbill	DH
Grossulariaceae – Gooseberry Family <i>Ribes speciosum</i>	fuschia-flowered gooseberry	CSS-d
Lamiaceae – Mint Family <i>Mentha</i> sp. ² <i>Salvia mellifera</i>	mint black sage	DH/DEV CSS-d
Mimosaceae – Acacia Family <i>Acacia redolens</i> ²	prostrate acacia	DH
Myrtaceae – Myrtle Family <i>Eucalyptus</i> sp. ²	eucalyptus	EW
Myrsinaceae – Myrsine Family <i>Lysimachia arvensis</i> ²	scarlet pimpernel	DH
Orobanchaceae – Broomrape Family <i>Castilleja affinis</i>	Indian paintbrush	CSS-d
Pinaceae – Pine Family <i>Pinus</i> sp. ²	ornamental pine	DH/DEV
Poaceae – Grass Family <i>Avena fatua</i> ² <i>Bromus diandrus</i> ² <i>Cynodon dactylon</i> ² <i>Cortaderia jubata</i> ² <i>Pennisetum setaceum</i> ²	wild oats ripgut grass Bermuda grass Pampas grass fountain grass	DH DH/DEV DH/DEV DH DH/DEV
Polygonaceae – Buckwheat Family <i>Eriogonum fasciculatum</i>	California buckwheat	CSS-d
Primulaceae – Primrose Family <i>Anagallis arvensis</i> ²	scarlet pimpernel	DH/DEV
Rosaceae – Rose Family <i>Heteromeles arbutifolia</i>	toyon	CSS-d

Rutaceae – Lemon Family

*Citrus limon*²

lemon

DEV

Solanaceae – Nightshade Family

*Nicotiana glauca*²

tree tobacco

DH

Strelitziaceae – Bird of Paradise Family

*Strelitzia reginae*²

bird of paradise

DEV

¹ Vegetation community acronyms: CSS-d = disturbed coastal sage scrub; DH = disturbed habitat; DEV = developed

² Non-native species

³ Sensitive species

ATTACHMENT C
ANIMAL SPECIES OBSERVED/DETECTED

SCIENTIFIC NAME	COMMON NAME
Invertebrates	
<i>Apis mellifera</i>	European honeybee
Reptiles	
<i>Sceloporus occidentalis</i>	western fence lizard
Birds	
<i>Calypte anna</i>	Anna's hummingbird
<i>Carpodacus mexicanus</i>	house finch
<i>Buteo jamaicensis</i>	red tailed hawk (flyover)
<i>Melospiza melodia</i>	song sparrow
<i>Mimus polyglottos</i>	northern mockingbird
<i>Zenaida macroura</i>	mourning dove
Mammals	
<i>Sylvilagus audubonii</i>	Cottontail rabbit
<i>Thomomys bottae</i>	San Diego pocket gopher



STAFF REPORT CITY OF SOLANA BEACH

TO: Honorable Mayor and City Councilmembers
FROM: Gregory Wade, City Manager
MEETING DATE: December 15, 2021
ORIGINATING DEPT: Engineering Department
SUBJECT: **City Council Consideration of Resolution No. 2021-138 – Approving Solana 101 Final Landscape Plan**

BACKGROUND:

At the July 10, 2018 City Council Meeting, the City Council conditionally approved a tentative map for a condominium ownership of a maximum of 26 commercial units and one undivided multifamily residential unit for 25 rental apartments located at the north west corner of Highway 101 and Dahlia Drive (Solana 101 Project). This item was rescheduled for consideration from December 8, 2021 to December 15, 2021 due to an error in the plans that were originally submitted for consideration.

This item is presented to City Council to review and consider Resolution 2021-138 (Attachment 1) approving of the final landscape plan as conditioned by Resolutions 2018-098 and 2018-099.

DISCUSSION:

As outlined in Resolution 2018-099, the City Council approved the conceptual landscape plan and required submittal of the final landscape plan to City Council for review and approval. The Applicant has submitted the final landscape plans which are included as Attachment 2. The final landscape plans contain information related to the landscape buffer, mix of trees and landscape vegetation as conditioned in Resolution 2018-099. The City's landscape architect, Pamela Elliott, has reviewed the final landscape plans and determined that the plans conform to the City's water efficient landscape requirements. While the proposed landscape trees are different from the conceptual landscape plan previously reviewed by City Council, the Applicant has worked with the community to provide a variety of trees that are consistent with the existing tree species that currently exist along the Highway 101 and Sierra Avenue corridor.

CITY COUNCIL ACTION:

The landscape plans that were routed for review by City Council on December 8, 2021 was an older version of the final landscape plan for on-site improvements. The applicant has since delivered an updated final landscape plan for on-site improvements. The changes between the plans were to trees, primarily on the northside of the property adjacent to the CVS site. The following is a bulleted outline of the difference in the final landscape plan:

- Sheet L-16
 - Northside of office from West to East
 - Three (3) Melaleuca (ML) changed to three (3) Magnolias 'Little Gem' (MG)
 - One (1) Catalina Ironwood (LF) changed to two (2) Melaleucas (ML)
 - One (1) Weeping Bottlebrush (CV) changed to two (2) Melaleucas (ML)
 - One (1) Catalina Ironwood (LF) changed to two (2) Melaleucas (ML)
 - Westside of office North most tree
 - One (1) Melaleuca (ML) changed to one (1) Banksia (BI)
- Sheet L-17
 - Northside of office from West to East
 - Two (2) Weeping Bottlebrush (CV) change to four (4) Shoestring Acacia (AS)
 - Eastside of retail (Hwy 101) from North to South
 - NO CHANGE
- Sheet L-18
 - Westside of Residential – Southwest Corner
 - Two (2) New Zealand Christmas Multi-Trunk (MM) changed to two (2) Banksia (BI)
 - Southside of Residential (Dahlia) from West to East
 - NO CHANGE
- Sheet L-19
 - Southside of Residential (Dahlia) from West to East
 - NO CHANGE
 - Eastside of retail (Hwy 101) from North to South
 - NO CHANGE

If the City Council determines that the final landscape plan is consistent with the conditions of approval in Resolution 2018-099, adoption of Resolution 2021-138 would allow the Applicant to proceed with issuance of building permits for the approved project.

CEQA COMPLIANCE STATEMENT:

At the July 10, 2018 City Council Meeting, the City Council adopted and certified the Final Environmental Impact Report (FEIR) and the Mitigation Monitoring and Reporting Program prepared for the project in compliance with CEQA. The final landscape plan is

consistent with the project approvals and environmental analysis conducted as part of the FEIR, therefore, no further environmental analysis is required.

FISCAL IMPACT:

There is no fiscal impact as a result of the action recommended in this Staff Report.

WORK PLAN:

N/A

OPTIONS:

- Adopt Staff recommendation approving the final landscape plan by adopting Resolution 2021-138.
- Adopt Staff recommendation subject to additional specific conditions.
- Provide direction to Staff.

DEPARTMENT RECOMMENDATION:

Staff recommends that the City Council adopt Resolution 2021-138 approving the final landscape plan for the Solana 101 Project.

CITY MANAGER'S RECOMMENDATION:

Approve Department Recommendation.



Gregory Wade, City Manager

Attachments:

1. Resolution 2021-138
2. Final Landscape Plan

RESOLUTION 2021-138

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLANA BEACH, CALIFORNIA, APPROVING THE SOLANA 101 FINAL LANDSCAPE PLAN

WHEREAS, at the July 10, 2018 City Council Meeting, the City Council conditionally approved a tentative map for condominium ownership of a maximum of 26 commercial units and one undivided multifamily residential unit for 25 rental apartments located at the northwest corner of Highway 101 and Dahlia Drive (Solana 101 Project); and

WHEREAS, the final landscape plan was prepared in conformance with the Resolution No 2018-099; and

WHEREAS, a condition of Resolution No. 2018-099 required that the City Council shall review and approve the final landscape plan.

NOW, THEREFORE, the City Council of the City of Solana Beach does resolve as follows:

1. That the foregoing recitations are true and correct.
2. That the proposed final landscape plan is consistent with the conditions of Resolution 2018-099.
3. That the City Council approves the Solana 101 Project final landscape plan.

PASSED AND ADOPTED this 15th day of December, 2021, at a regularly scheduled meeting of the City Council of the City of Solana Beach, California by the following vote:

AYES: Councilmembers –
NOES: Councilmembers –
ABSTAIN: Councilmembers –
ABSENT: Councilmembers –

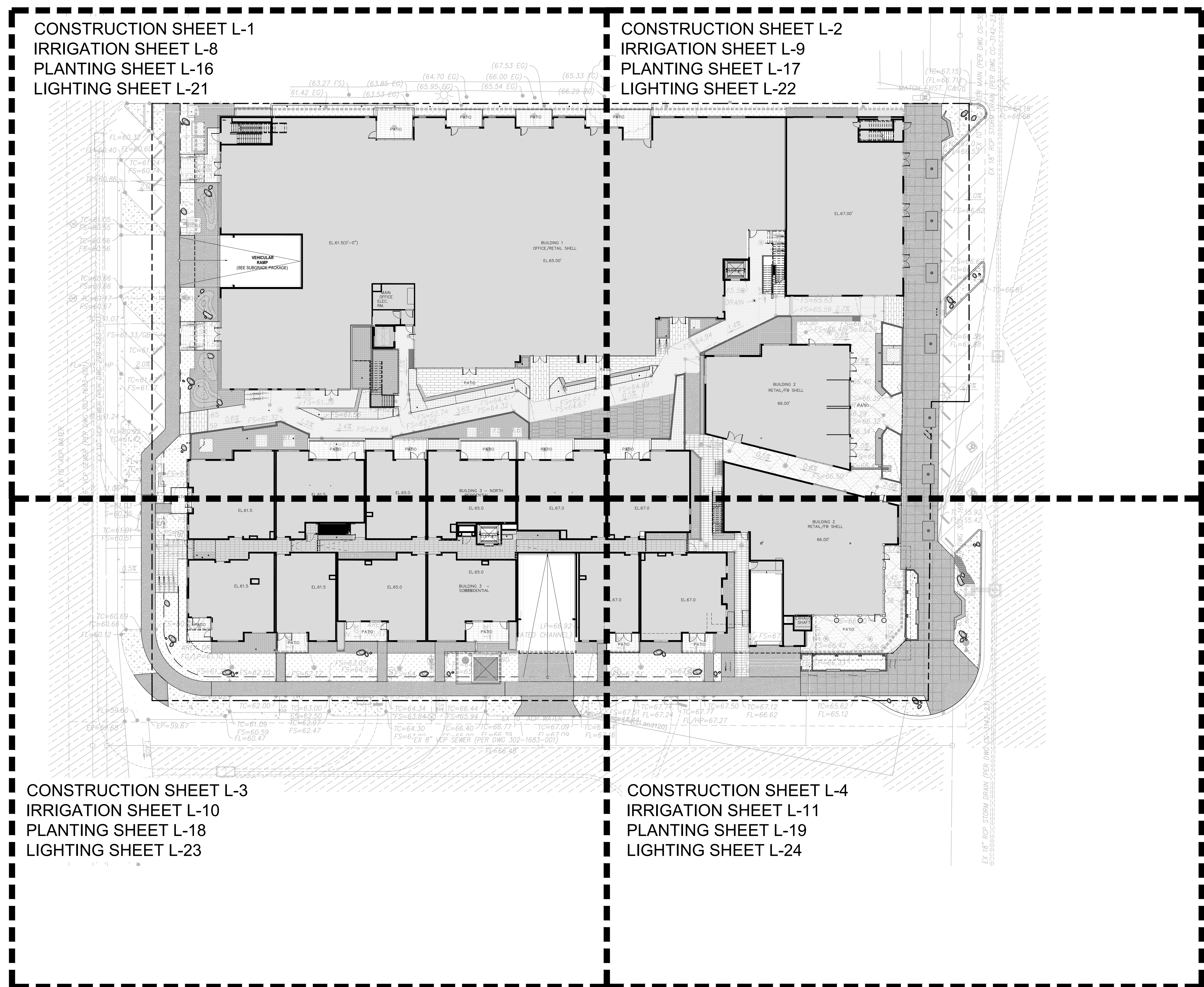
LESA HEEBNER, Mayor

APPROVED AS TO FORM:

ATTEST:

JOHANNA N. CANLAS, City Attorney

ANGELA IVEY, City Clerk



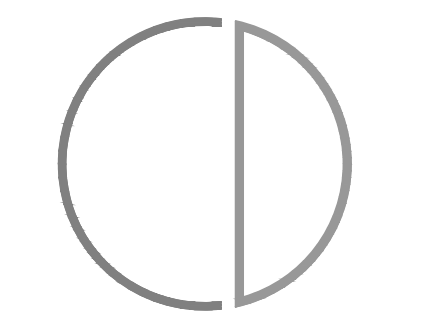
CONSTRUCTION SHEET L-1
IRRIGATION SHEET L-8
PLANTING SHEET L-16
LIGHTING SHEET L-21

CONSTRUCTION SHEET L-2
IRRIGATION SHEET L-9
PLANTING SHEET L-17
LIGHTING SHEET L-22

CONSTRUCTION SHEET L-3
IRRIGATION SHEET L-10
PLANTING SHEET L-18
LIGHTING SHEET L-23

CONSTRUCTION SHEET L-4
IRRIGATION SHEET L-11
PLANTING SHEET L-19
LIGHTING SHEET L-24

KEYMAP FOR SHEET LAYOUT REFERENCE ONLY



Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
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2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.8.23	BULLETIN 1

Seal/Signature



Project Name

Solana 101

Project Number

16-036

Description

LANDSCAPE SHEET INDEX

Scale

N.T.S.



TWO WORKING DAYS BEFORE YOU DIG
CAUTION Remember that the USA Center reflects only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.

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- S3 PROPOSED BUILDING FOOTPRINT PER ARCHITECTURAL PLANS
- S4 DRAIN LINES & INLETS PER CIVIL ENGINEERING PLANS
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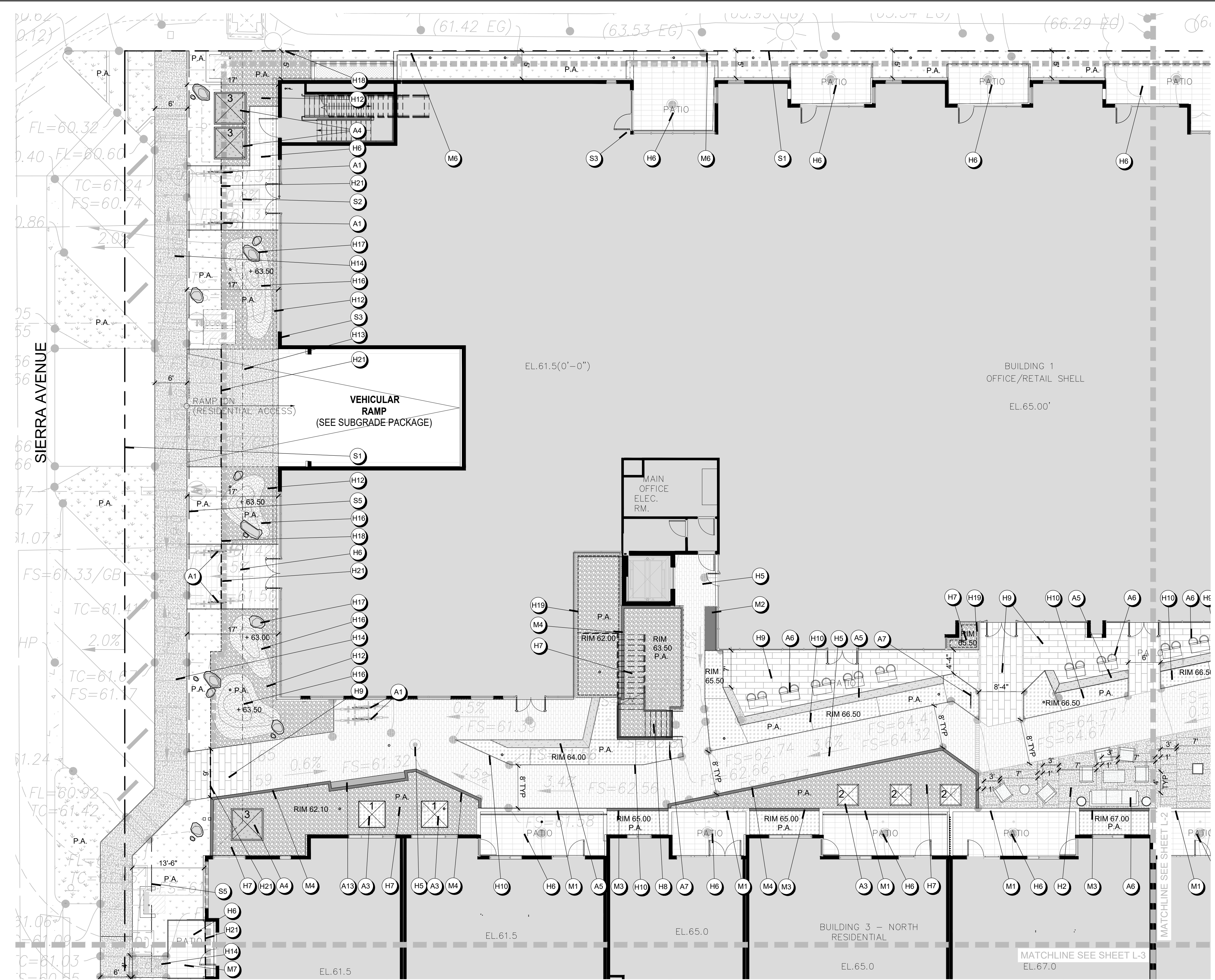
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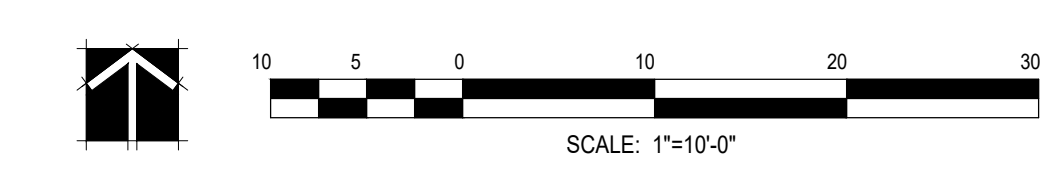
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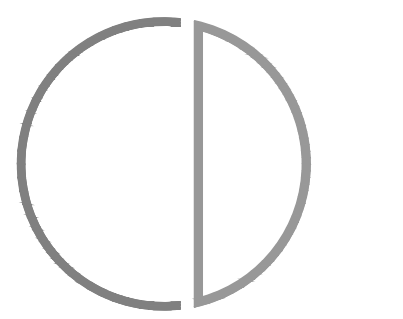
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 - 6 60"X20"X24"HT CUSTOM FORM AND FIBER BOARDFORM SERIES PLANTER - 6" BOARD W/ MEDIUM JOINTS & 2" DRAINS. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS
 - 7 60"X24"X24" MODERN RECTANGLE PLANTER FROM PLANTERS UNLIMITED COLOR WHITE MATTE - ORDER W/ PRE-DRILLED DRAIN HOLES. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS.
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GENERAL PLANTER NOTES: ALL PLANTERS SHALL BE PROVIDED W/ IRRIGATION CONNECTIONS PER IRRIGATION PLAN. REFER TO LIGHTING PLAN FOR LIGHTING REQUIREMENTS IN PLANTERS. SET ALL PLANTERS LEVEL AND ENSURE PROPER DRAINAGE. FILL PLANTERS W/ SOIL MEDIA PER SOIL SPECIFICATIONS. ALL PLANTERS SHALL BE FINISHED W/ 2" LAYER OF DECORATIVE ROCK AS DESCRIBED IN THE SCHEDULE ABOVE. FINISH COBBLE LEVEL SHALL BE NO MORE THAN 2" BELOW PLANTER RIM AFTER SETTLING.



225 Broadway Suite 1600 San Diego, CA 92101 United States
 Tel 619.557.2500 Fax 619.557.2520



Carson Douglas Landscape Architecture
 4407 Orchard Ave
 San Diego, CA 92107
 619.995.1306
 cd-la.com

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2021.8.23	BULLETIN 1

Seal/Signature



Project Name
 Solana 101

Project Number
 16-036

Description
 LANDSCAPE CONSTRUCTION PLAN

Scale
 1"=10'

CONSTRUCTION LEGEND

SITE FEATURES

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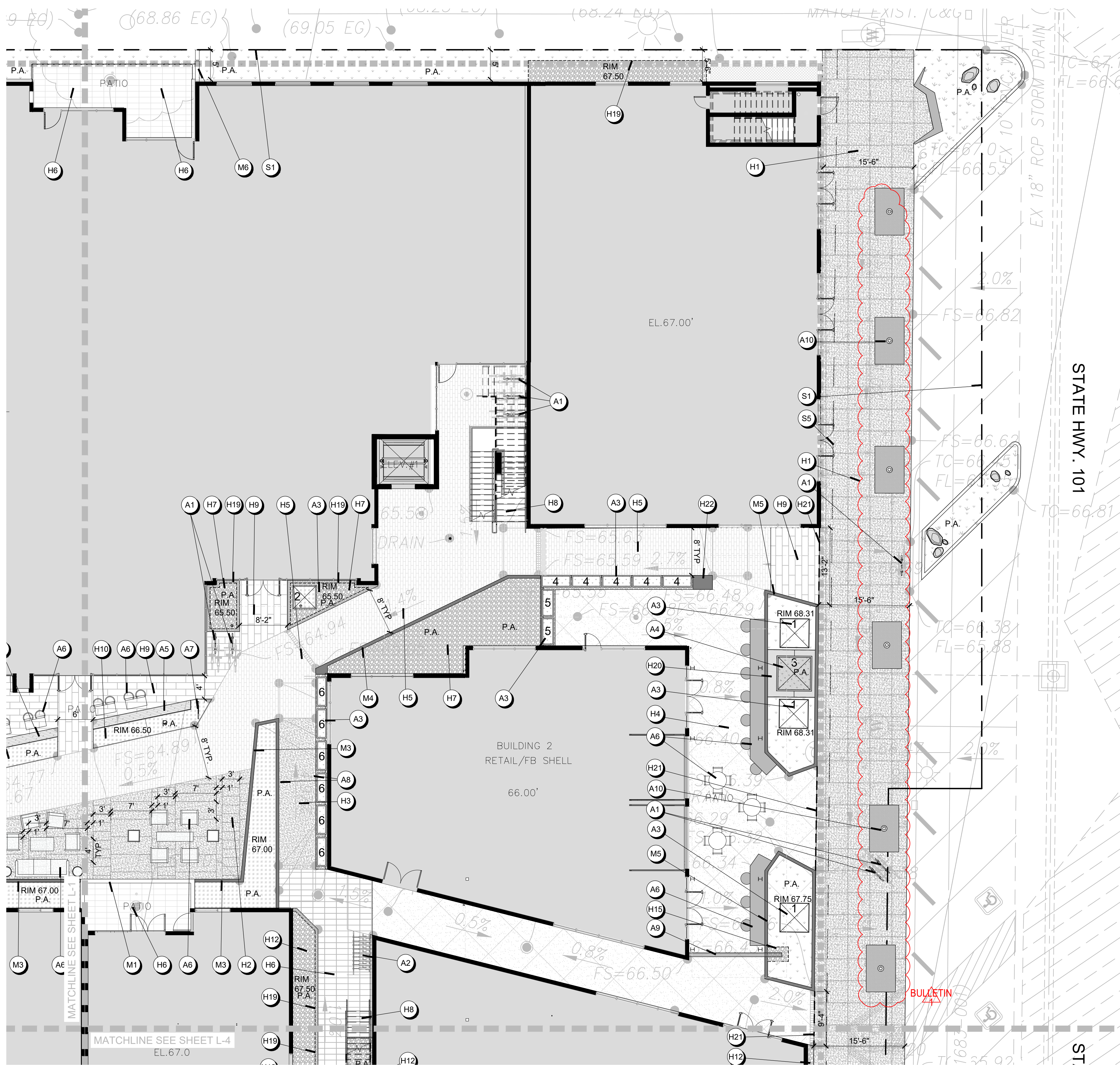
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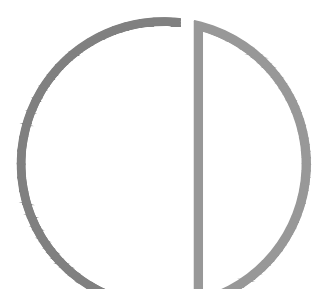
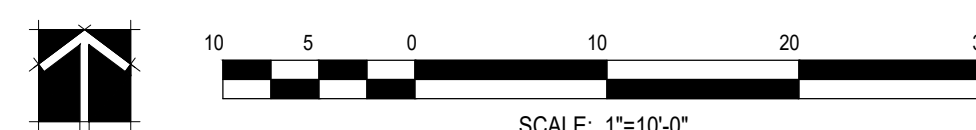
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 - 4 60"X24"X30"HT CUSTOM FORM AND FIBER BOARDFORM SERIES PLANTER - 6" BOARD W/ MEDIUM JOINTS & 2" DRAINS. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS
 - 5 55"X24"X30"HT CUSTOM FORM AND FIBER BOARDFORM SERIES PLANTER - 6" BOARD W/ MEDIUM JOINTS & 2" DRAINS. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS
 - 6 60"X20"X24"HT CUSTOM FORM AND FIBER BOARDFORM SERIES PLANTER - 6" BOARD W/ MEDIUM JOINTS & 2" DRAINS. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS
 - 7 60"X24"X24" MODERN RECTANGLE PLANTER FROM PLANTERS UNLIMITED COLOR WHITE MATTE - ORDER W/ PRE-DRILLED DRAIN HOLES. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS.
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 - 9 60"X18"X24" MADERA PLANTER FROM PLANTERS UNLIMITED COLOR WASHED PINE - ORDER W/ PRE-DRILLED DRAIN HOLES. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS.

GENERAL PLANTER NOTES: ALL PLANTERS SHALL BE PROVIDED W/ IRRIGATION CONNECTIONS PER IRRIGATION PLAN. REFER TO LIGHTING PLAN FOR LIGHTING REQUIREMENTS IN PLANTERS. SET ALL PLANTERS LEVEL AND ENSURE PROPER DRAINAGE. FILL PLANTERS W/ SOIL MEDIA PER SOIL SPECIFICATIONS. ALL PLANTERS SHALL BE FINISHED W/ 2" LAYER OF DECORATIVE ROCK AS DESCRIBED IN THE SCHEDULE ABOVE. FINISH COBBLE LEVEL SHALL BE NO MORE THAN 2" BELOW PLANTER RIM AFTER SETTLING.

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 Call: TOLL FREE
 1-800
 227-2600

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Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
2019.07.26	SUBTERRANEAN BLDG PERMIT
2019.08.23	GMP ISSUE
2019.08.29	BALANCE OF WORK PERMIT - CITY SUBMITTAL 1
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2020.3.25	BALANCE OF WORK PERMIT - SUBMITTAL 2
2020.3.30	ADDENDUM PE - BALANCE OF WORK
2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.8.23	BULLETIN 1

Seal/Signature



Project Name

Solana 101

Project Number

16-036

Description

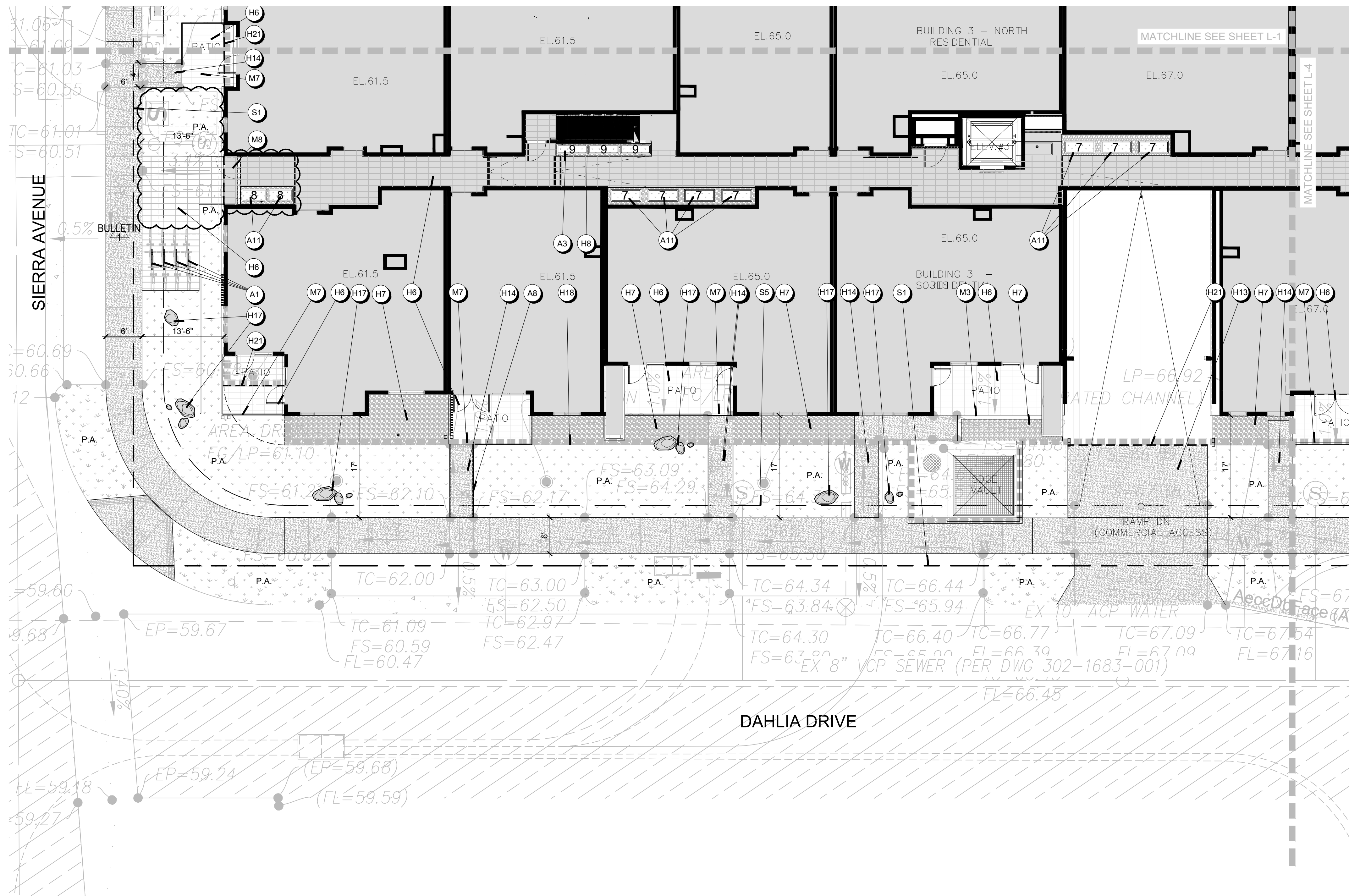
LANDSCAPE CONSTRUCTION PLAN

Scale

1"=10'

CONSTRUCTION LEGEND

- SITE FEATURES**
- S1 PROPERTY LINE TO BE FIELD VERIFIED BY SURVEYOR
- S2 BUILDING SETBACK
- S3 PROPOSED BUILDING FOOTPRINT PER ARCHITECTURAL PLANS
- S4 DRAIN LINES & INLETS PER CIVIL ENGINEERING PLANS
- S5 RIGHT OF WAY - FOR ALL AREAS IN RIGHT OF WAY REFER TO SEPARATE RIGHT OF WAY IMPROVEMENT PLANS
- HARDSCAPE & PAVING**
- H1 PIP INTEGRAL COLOR CONCRETE PAVING SHALL BE INSTALLED TO MATCH THE EXISTING 101 SIDEWALK CORRIDOR IN COLOR FINISH AND SQUARE JOINT PATTERN SEE DETAIL A&B/L-5
- H2 PIP CONCRETE COURTYARD AREA - INTEGRAL COLOR DAVIS COLOR PEWTER - MEDIUM ACID ETCH FINISH, CONTROL JOINTS PER PLAN
- H3 PIP CONCRETE PAVING, INTEGRAL COLOR DAVIS PEWTER W/ MEDIUM ACID ETCH FINISH, CONTROL JOINTS PER PLAN, REFER TO CIVIL PLANS FOR PRECISE GRADES
- H4 PIP CONCRETE PAVING - INTEGRAL COLOR DAVIS PEWTER - ALTERNATING LIGHT & HEAVY ACID ETCH PATTERN - 6'X6' SQUARE CONTROL JOINTS PER PLAN. SEE DETAIL A & B / L-5
- H5 STEPSTONE 6"X18"X2.5" STEPSTONE CALARC LARGE SCALE MODULAR PAVERS IN RANDOMIZED MIX OF 40% GRANADA WHITE 30% PORCELAIN 30% FRENCH GRAY ALL W/ LIGHT SANDBLAST FINISH - SEE DETAIL C/L-5
- H6 MORTAR SET TILE OVER SLAB 'PIETRA ITALIA' GREY 12"X24" - STACKED BOND PATTERN AS SHOWN - GROUT TO MATCH TILE - SEE DETAIL SEE DETAIL G/L-5
- H7 PODIUM PLANTER AREAS WITH 2" LAYER OF KRC ROCK SAN JOAQUIN TAN 1" - 1 1/2". USE SOIL MEDIA PER SOIL SPECS
- H8 ARCHITECTURAL STAIRS PER ARCHITECTURE PLANS
- H9 BELGARD SUNDECK PORCELAIN TILE - 11.73"X47.17"X3/4" - COLOR 'SPIRIT', INSTALL OVER CONC. SLAB PER MANUFACTURER'S SPECIFICATIONS
- H10 STEEL PLANTERS PER DETAIL K/L-5
- H11 PARKING GARAGE RAMP NATURAL GRAY, MEDIUM ACID WASH
- H12 OVER PODIUM PLANTER BEDS WITH FINISH GRADE -1" FROM ADJACENT HARDSCAPE FINISH WITH 3" LAYER OF KRC ROCK SAN JOAQUIN TAN 1" - 1 1/2"
- H13 PIP NATURAL GRAY DRIVEWAY CONCRETE PAVING WITH MEDIUM ACID ETCH FINISH - SEE DETAIL A&B/L-2
- H14 PIP NATURAL GRAY SIDEWALK CONCRETE PAVING WITH MEDIUM ACID ETCH FINISH - SEE DETAIL A&B/L-2
- H15 OVERHEAD RUNNEL SPLASH DISSIPATION AREA - INSTALL 2"-3" DIA. BEACH PEBBLE BLACK COBBLE TO A DEPTH OF 6" W/ CRUSHED GRAVEL THE REMAINING DEPTH OF PLANTER - CONNECT TO DEDICATED SUB-DRAIN PER ARCHITECTURAL PLANS - INSTALL .25" CORTEN STEEL DIVIDER WHERE SHOWN TO SEPARATE ROCK FROM PLANTER
- H16 EARTH MOUNDS SHALL BE INSTALLED AS SHOWN - REFER TO CONTOURS AND HIGH POINT ELEVATIONS PER PLAN - CONTRACTOR SHALL SMOOTH TRANSITIONS W/ 2:1 MAX. SLOPES - FINISH WITH 3" LAYER OF KRC CRUSHED WHITE 3/4" - SEE DETAIL C/L-6
- H17 BOULDERS RANGING IN SIZE FROM 2'-4" SHALL BE SELECTED AND PLACED AT THE DIRECTION OF THE LANDSCAPE ARCHITECT. BOULDERS SHALL BE OF THE TYPE 'DESERT SELECT' AVAILABLE FROM KRC ROCK SEE DETAIL H/L-5
- H18 PERMALOC CLEANLINE XL 6" BLACK LANDSCAPE HEADER TO SEPARATE COBBLE AREAS FROM MULCHED PLANTING AREAS
- H19 8" CORTEN STEEL FABRICATED HEADER TO ACHIEVE 6" RETAINED SOIL DEPTH - SEE DETAIL M/L-5
- H20 101 NORTH PLANTER @ RETAIL SEE DETAIL A/L-6
- H21 INSTALL EXPANSION JOINT AT PODIUM SLAB CONNECTION TO GRADE
- H22 2" HT CONCRETE PEDESTAL SEE DETAIL N/L-5
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- M1 ARCHITECTURAL PATIO WALL - REFER TO ARCHITECT'S PLANS
- M2 EXPOSED PODIUM CONCRETE LEDGE PER ARCHITECT'S PLANS
- M3 RAISED CMU PLANTER WALL ON PODIUM - SEE DETAIL F/L-5 - CMU PLANTERS SHALL FEATURE 3" LAYER OF KRC ROCK SAN JOAQUIN TAN 1" - 1 1/2"
- M4 RAISED PIP CONC. CURB EDGE PLANTERS OVER PODIUM SEE DETAIL J/L-5
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- AMENITIES**
- A1 BIKE RACK 1 'DERO' 'ARC' RACK - HOLDS 2 BIKES - STAINLESS FINISH, IN GROUND
- A2 BIKE RACK 2: 'DERO' 'ULTRA SPACE SAVER SQUARED' - WALL MOUNTED
- A3 MODULAR PLANTERS - SEE DETAILED PLANTER SCHEDULE AT RIGHT
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- A5 IPE WOOD BENCH - SEE DETAIL D/L-5
- A6 FURNISHINGS BY OWNER - AT LEAST 5% OF SEATING & STANDING SPACES AT DINING AND WORK SURFACES SHALL COMPLY WITH 11B-902
- A7 SIGNAGE PER ARCHITECT'S PLANS
- A8 ADA RAMP RAILINGS PER ARCHITECT'S PLANS
- A9 OVERHEAD RUNNEL FEATURE PER ARCHITECT'S PLANS - INSTALL SEO RAIN CHAIN MODEL TOH-L COLOR BLACK FROM RAINCHAINSJP.COM
- A10 5x8' IRONSMITH 'OLYMPIAN' METAL TREE GRATE - #9636 W/ M13 TREE GUARD - CAST IRON FINISH - SEE DETAIL B/L-6
- A11 RESIDENTIAL PLANTERS ON ARCHITECTURAL LEDGE - REFER TO DETAIL I/L-5
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- A13 HEAVY TIMBER BENCH FROM SD URBAN TIMBER - 12"X16"X16"



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PLANTER SCHEDULE

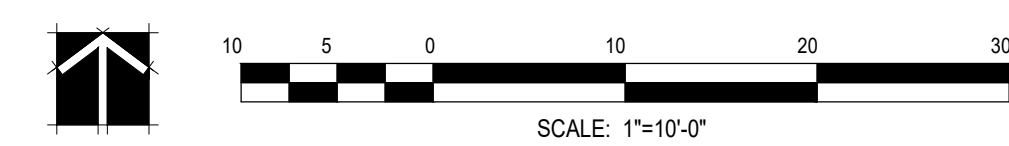
SYM. DESC.

1	60"X80"X48" MODERN RECTANGLE PLANTER FROM PLANTERS UNLIMITED COLOR BLACK FOX MATTE - ORDER W/ PRE-DRILLED DRAIN HOLES. FINISH W/ 2" LAYER OF KRC ROCK CRUSHED WHITE 3/4"
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ZEPHYR

Gensler

225 Broadway Suite 1600 San Diego, CA 92101 United States
 Tel 619.557.2500 Fax 619.557.2520

Carson Douglas Landscape Architecture
 4407 Orchard Ave San Diego, CA 92107 619.995.1306 cd-la.com

Date	Description
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2019.05.31	SUBTERRANEAN BLDG PERMIT
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2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.8.23	BULLETIN 1

Seal/Signature

Project Name: Solana 101

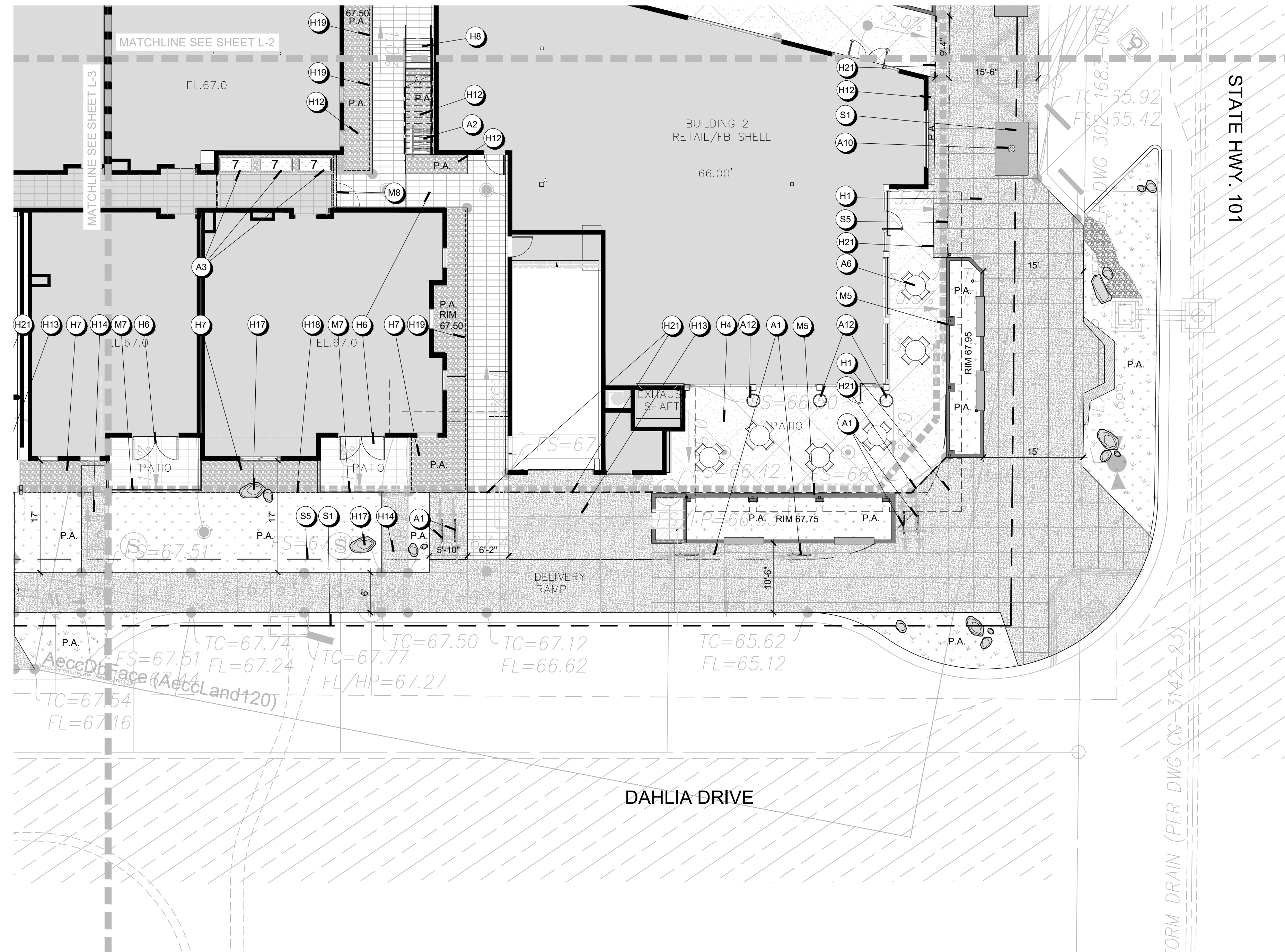
Project Number: 16-036

Description: LANDSCAPE CONSTRUCTION PLAN

Scale: 1"=10'

CONSTRUCTION LEGEND

- SITE FEATURES**
- (S1) PROPERTY LINE TO BE FIELD VERIFIED BY SURVEYOR
 - (S2) BUILDING SETBACK
 - (S3) PROPOSED BUILDING FOOTPRINT PER ARCHITECTURAL PLANS
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 - (H2) PIP CONCRETE COURTYARD AREA - INTEGRAL COLOR DAVIS COLOR PEWTER - MEDIUM ACID ETCH FINISH, CONTROL JOINTS PER PLAN
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 - (H6) MORTAR SET TILE OVER SLAB 'PIETRA ITALIA' GREY 12"X24" - STACKED BOND PATTERN AS SHOWN - GROUT TO MATCH TILE - SEE DETAIL SEE DETAIL G/L-5
 - (H7) PODIUM PLANTER AREAS WITH 2" LAYER OF KRC ROCK SAN JOAQUIN TAN 1" - 1 1/2". USE SOIL MEDIA PER SOIL SPECS
 - (H8) ARCHITECTURAL STAIRS PER ARCHITECTURE PLANS
 - (H9) BELGARD SUNDECK PORCELAIN TILE - 11.73"X47.17"X3/4" - COLOR 'SPIRIT', INSTALL OVER CONC. SLAB PER MANUFACTURER'S SPECIFICATIONS
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- (M1) ARCHITECTURAL PATIO WALL - REFER TO ARCHITECT'S PLANS
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 - (A12) DECORATIVE PLANTERS (SELF WATERING) TBD
 - (A13) HEAVY TIMBER BENCH FROM SD URBAN TIMBER - 12'X16"X16"



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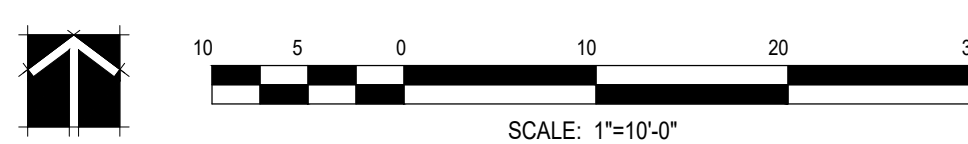
PLANTER SCHEDULE

SYM. DESC.

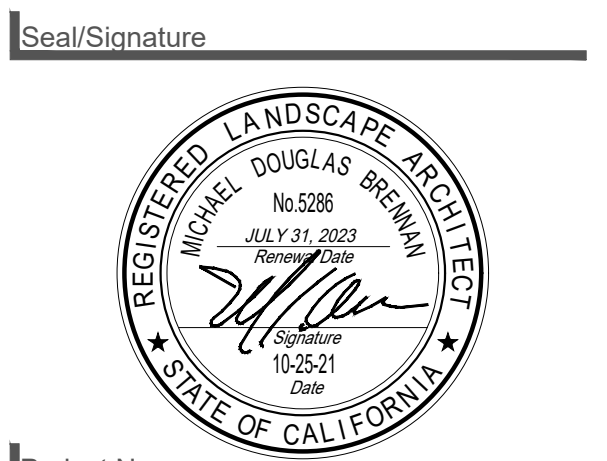
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7	60"X24"X24" MODERN RECTANGLE PLANTER FROM PLANTERS UNLIMITED COLOR WHITE MATTE - ORDER W/ PRE-DRILLED DRAIN HOLES. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS.
8	48"X24"X24" MODERN RECTANGLE PLANTER FROM PLANTERS UNLIMITED COLOR WHITE MATTE - ORDER W/ PRE-DRILLED DRAIN HOLES. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS.
9	60"X18"X24" MADERA PLANTER FROM PLANTERS UNLIMITED COLOR WASHED PINE - ORDER W/ PRE-DRILLED DRAIN HOLES. FINISH W/ 2" LAYER OF KRC ROCK BEACH PEBBLE BUTTONS.

GENERAL PLANTER NOTES: ALL PLANTERS SHALL BE PROVIDED W/ IRRIGATION CONNECTIONS PER IRRIGATION PLAN. REFER TO LIGHTING PLAN FOR LIGHTING REQUIREMENTS IN PLANTERS. SET ALL PLANTERS LEVEL AND ENSURE PROPER DRAINAGE. FILL PLANTERS W/ SOIL MEDIA PER SOIL SPECIFICATIONS. ALL PLANTERS SHALL BE FINISHED W/ 2" LAYER OF DECORATIVE ROCK AS DESCRIBED IN THE SCHEDULE ABOVE. FINISH COBBLE LEVEL SHALL BE NO MORE THAN 2" BELOW PLANTER RIM AFTER SETTLING.

Underground Service Alert
 Call: TOLL FREE
 1-800
 227-2600

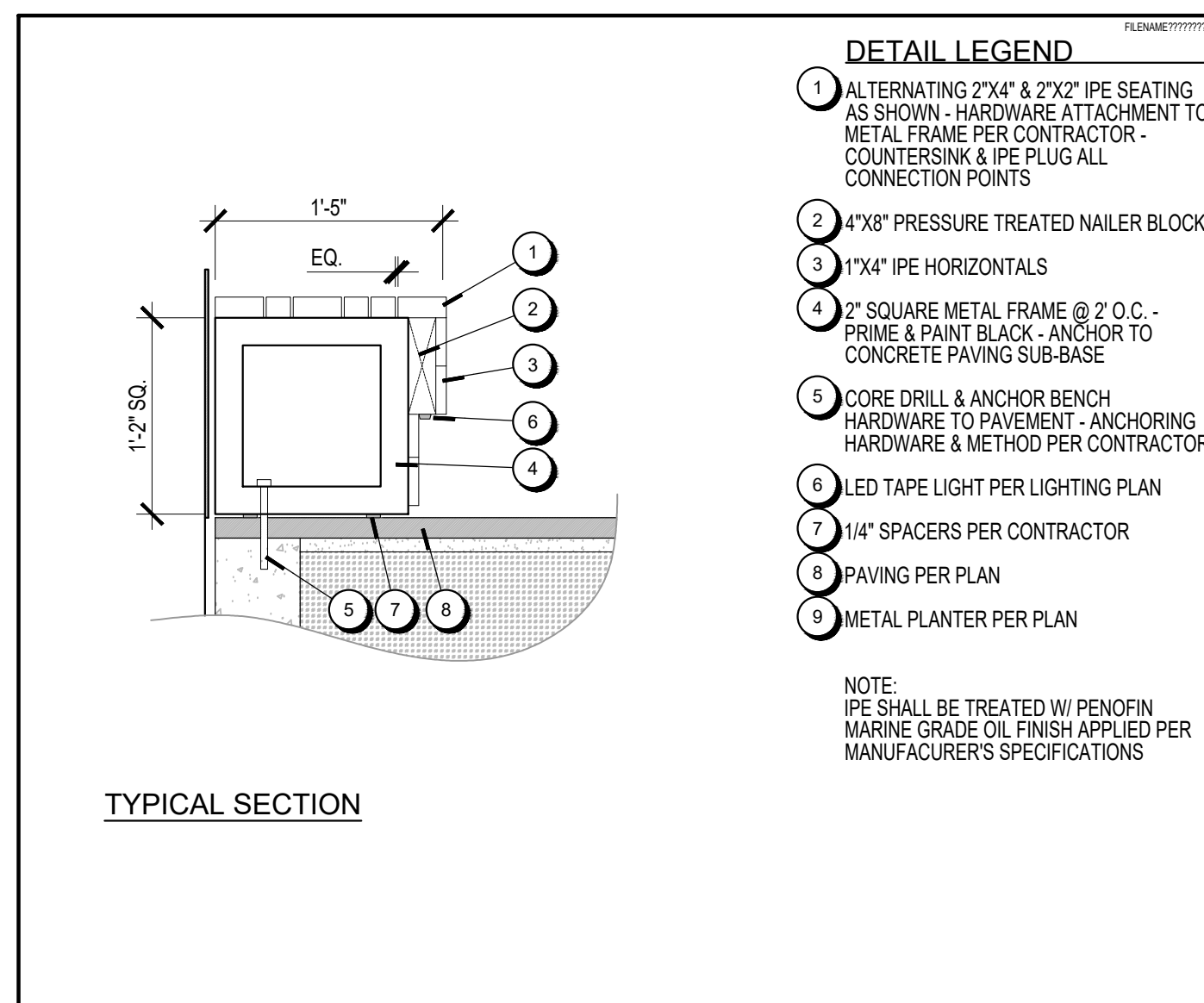


Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
2019.07.26	SUBTERRANEAN BLDG PERMIT
2019.08.23	GMP ISSUE
2019.08.29	BALANCE OF WORK PERMIT - CITY SUBMITTAL 1
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2020.3.30	ADDENDUM PE - BALANCE OF WORK
2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.8.23	BULLETIN 1

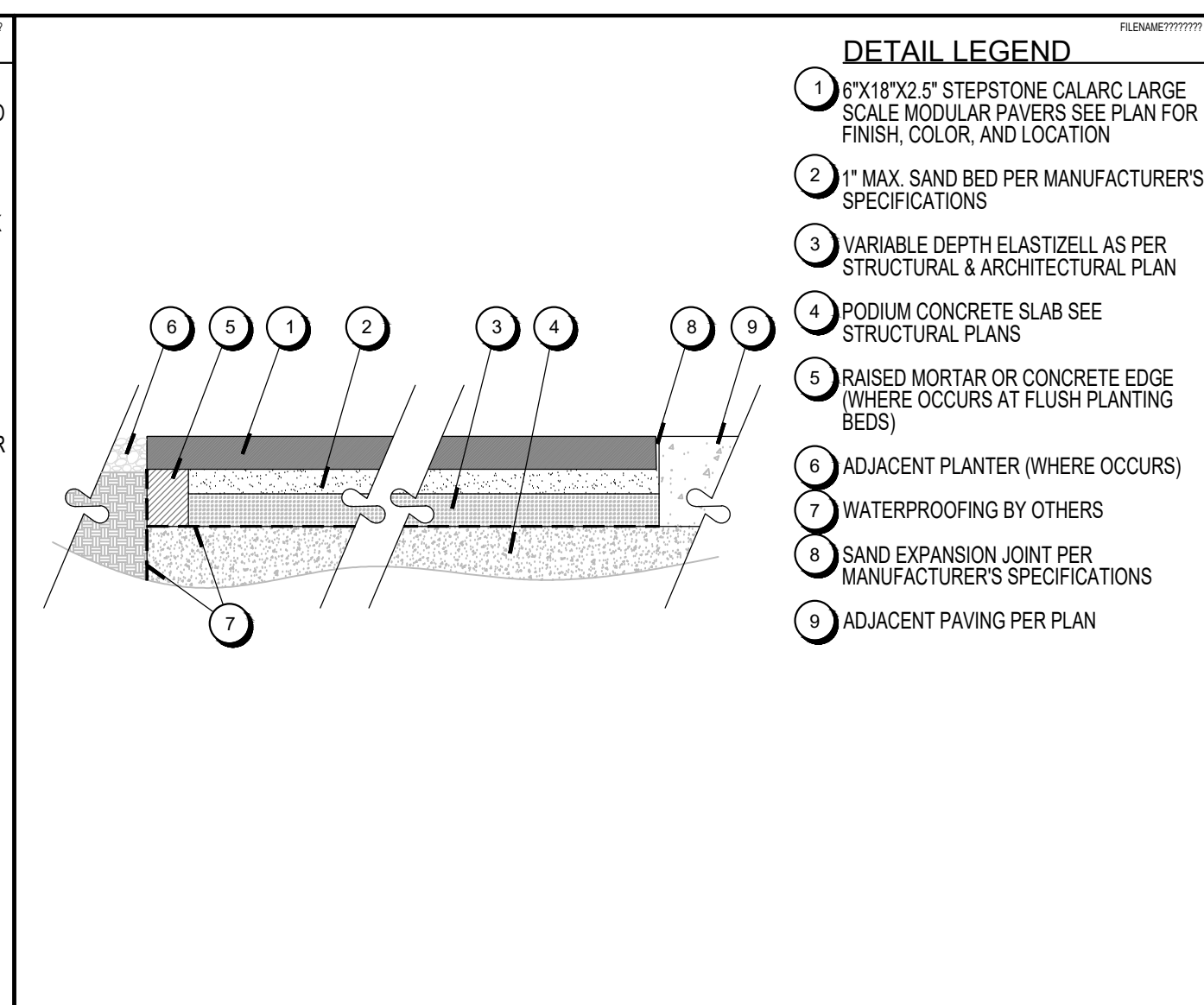


Project Name: Solana 101
 Project Number: 16-036
 Description: LANDSCAPE CONSTRUCTION PLAN

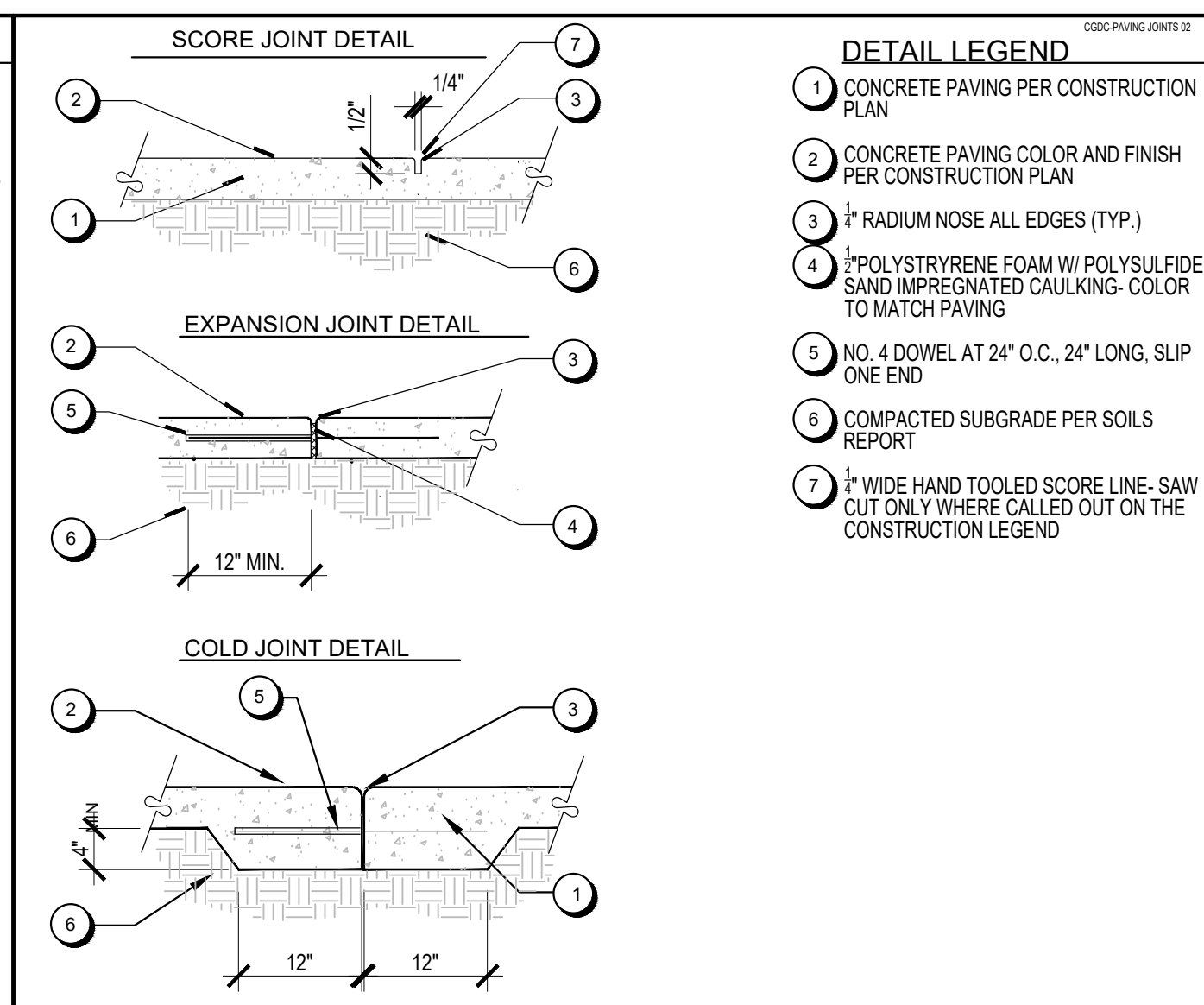
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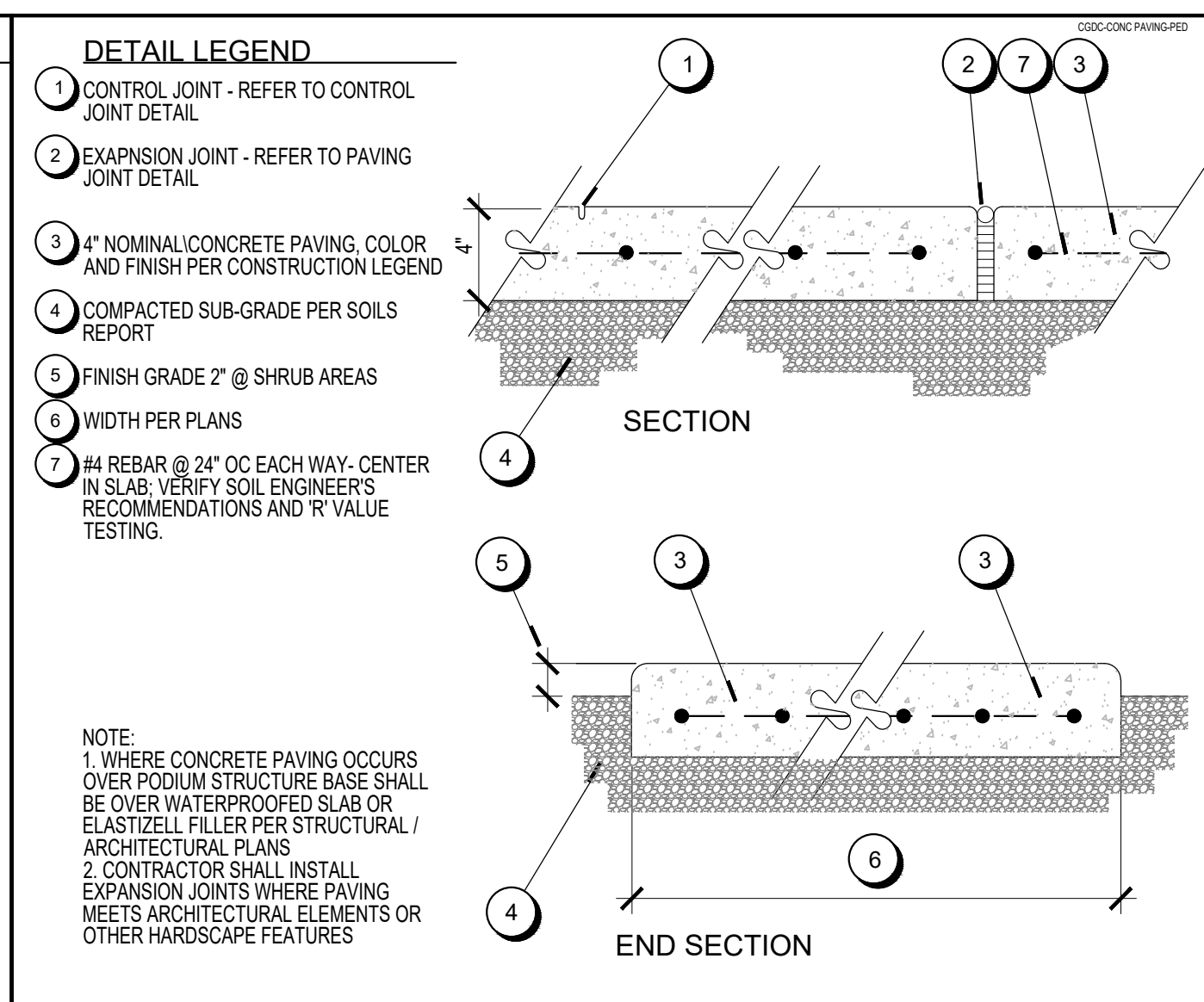
(D) IPE BENCH SEATING REVISED: 10/25/2021 N.T.S.



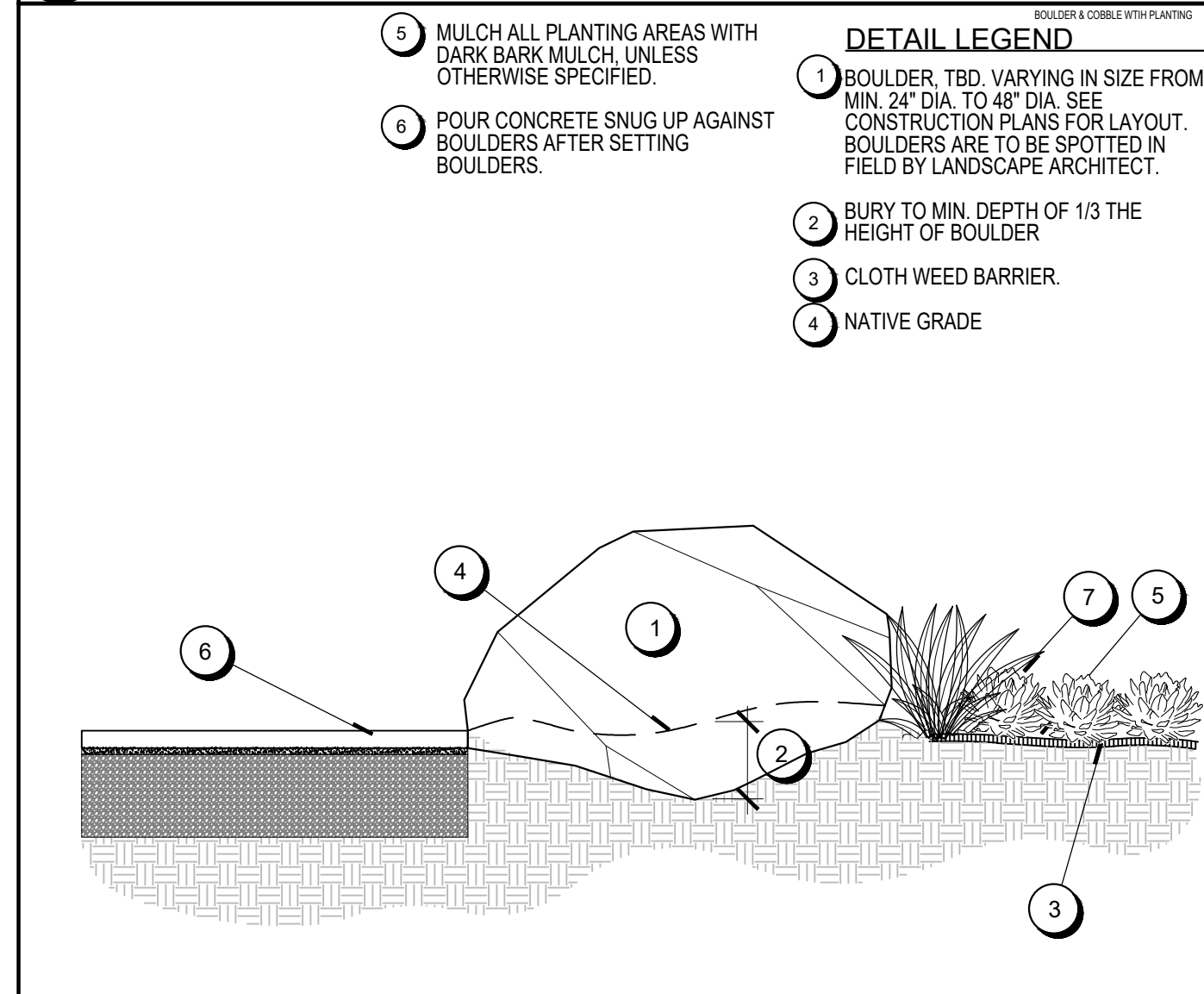
(C) STEPSTONE PAVERS ON PODIUM REVISED: 10/01/2020 N.T.S.



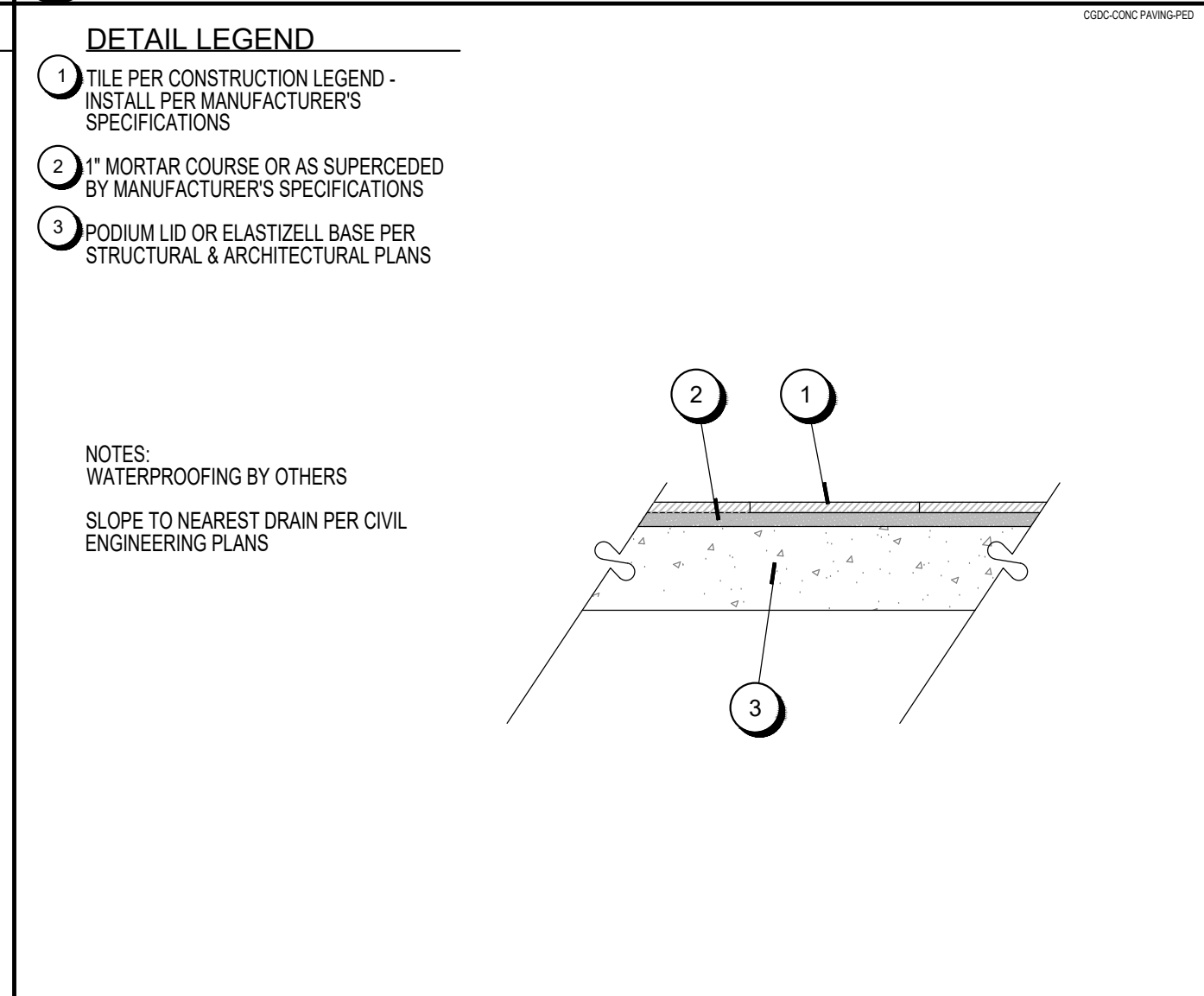
(B) PAVING JOINTS REVISED: 10/5/10 N.T.S.



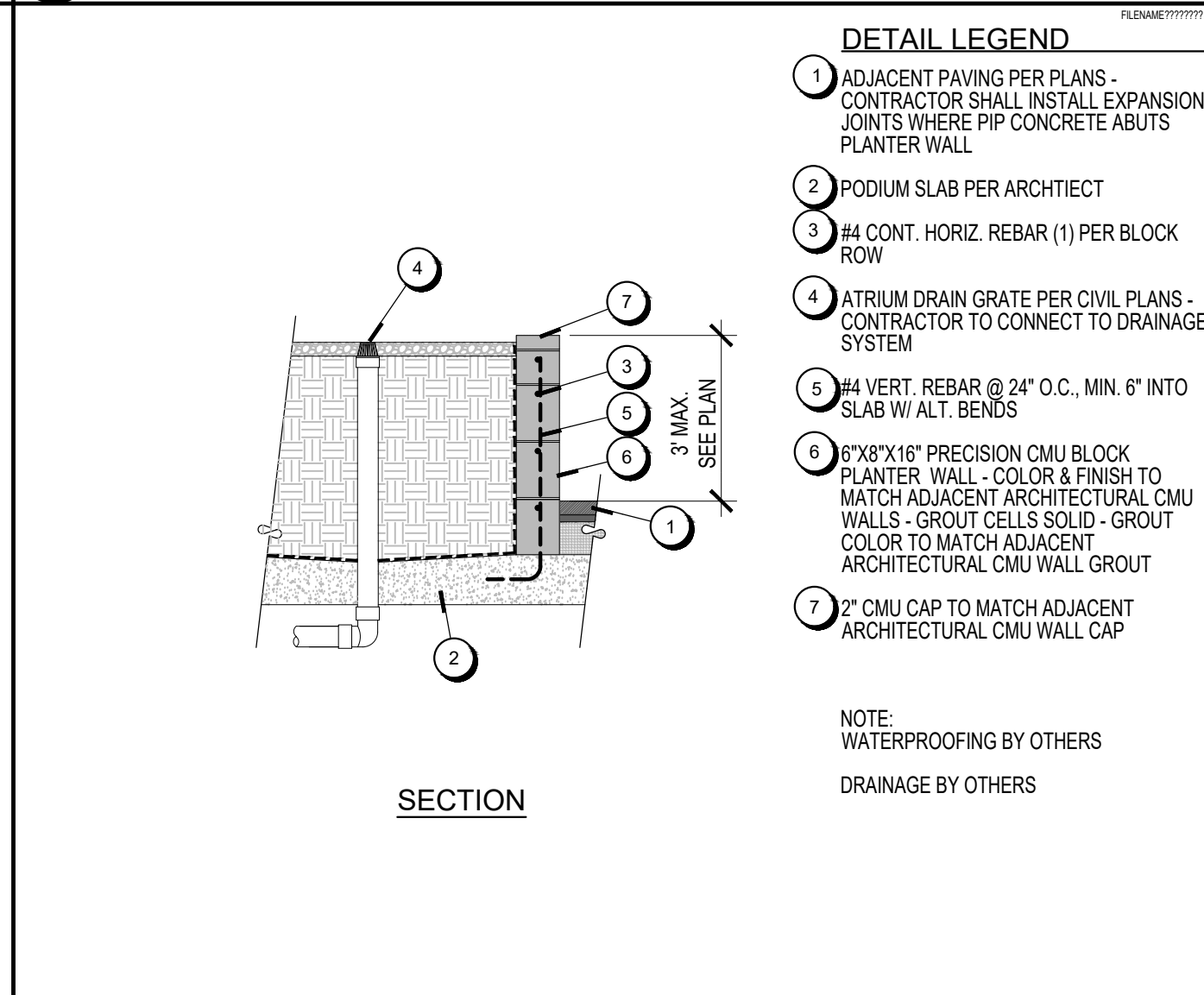
(A) CONCRETE PAVING REVISED: 6/15/10 N.T.S.



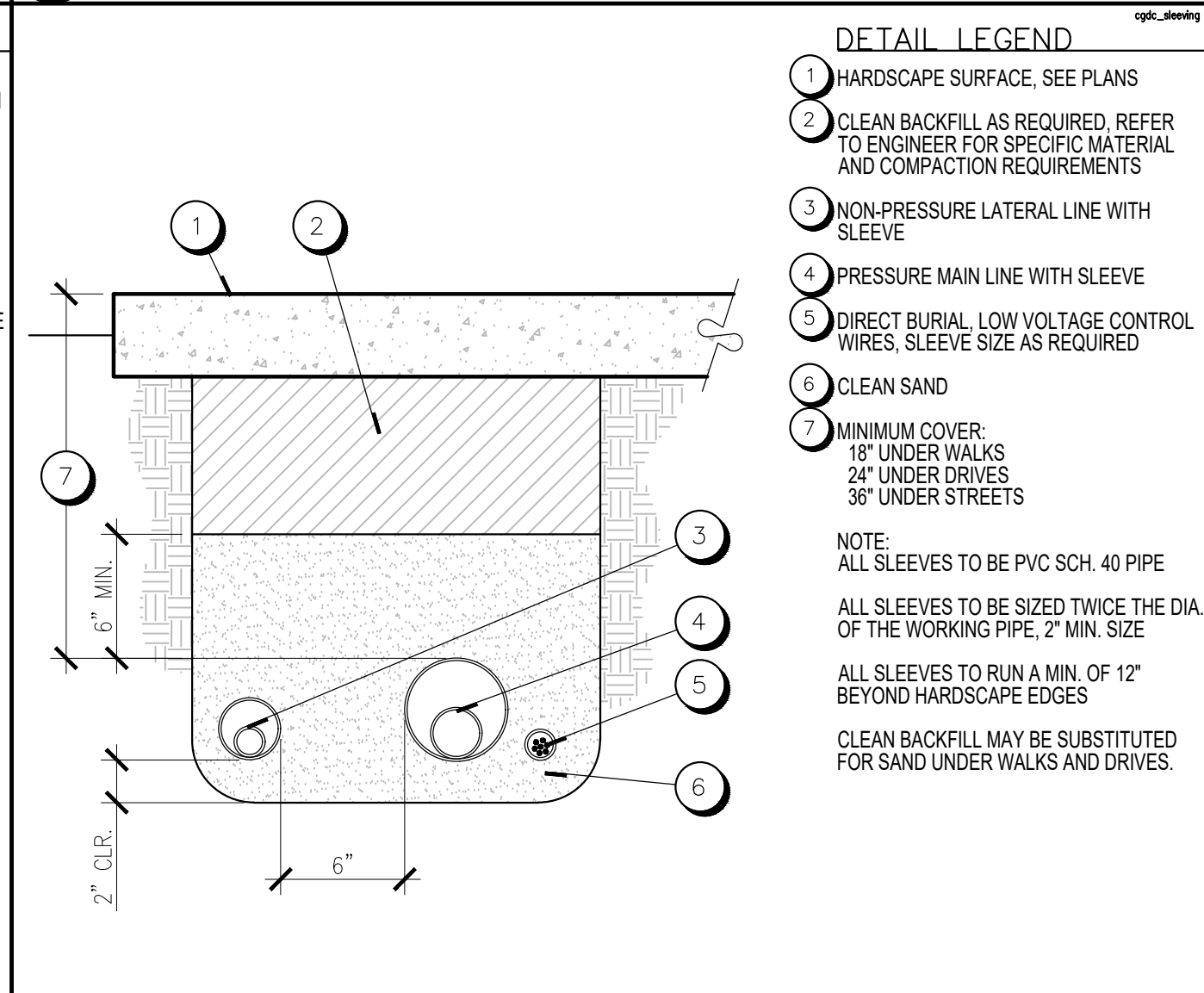
(H) BOULDER SETTING REVISED: 11/18/2010 N.T.S.



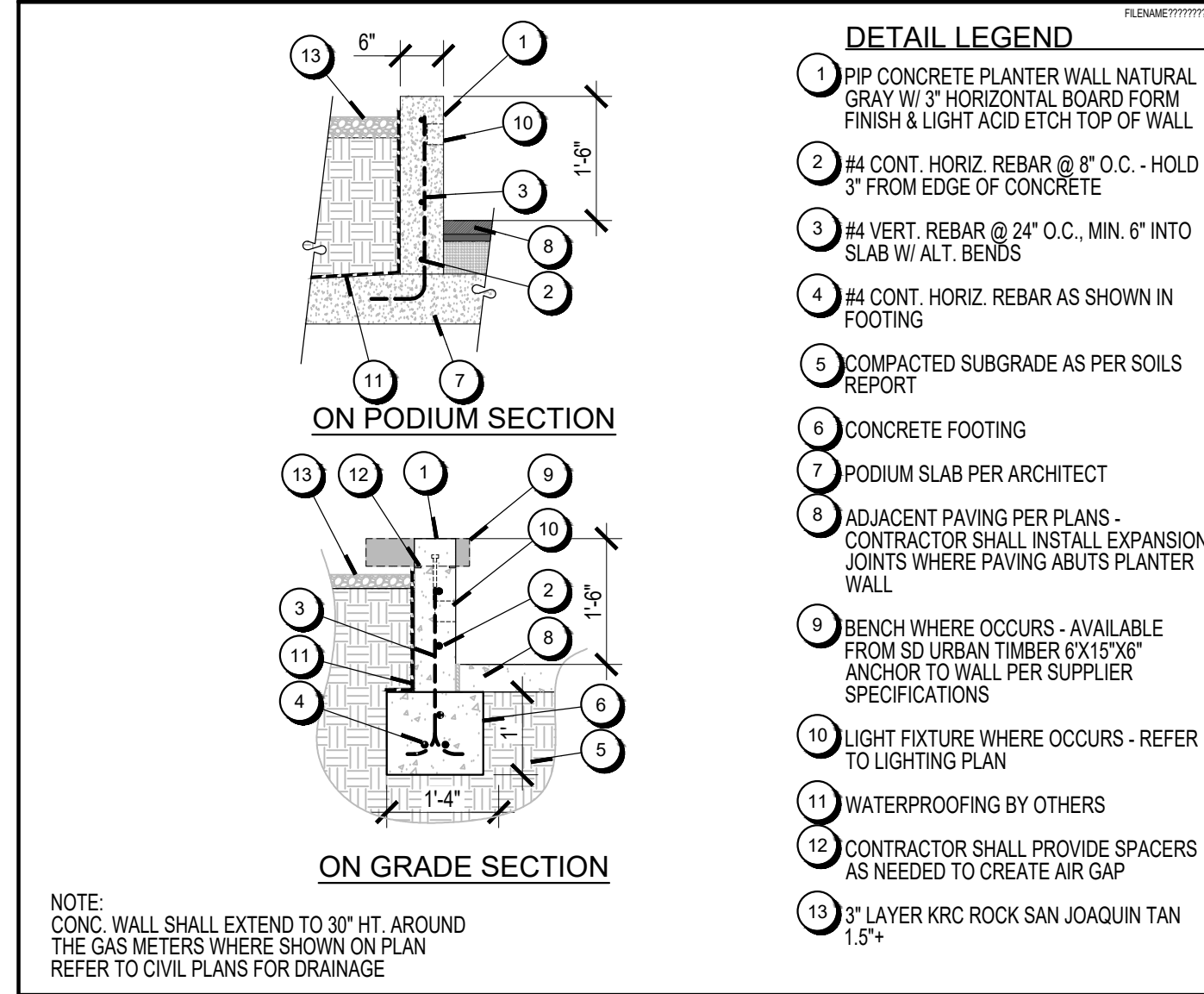
(G) TILE PAVING REVISED: 0/15/10 N.T.S.



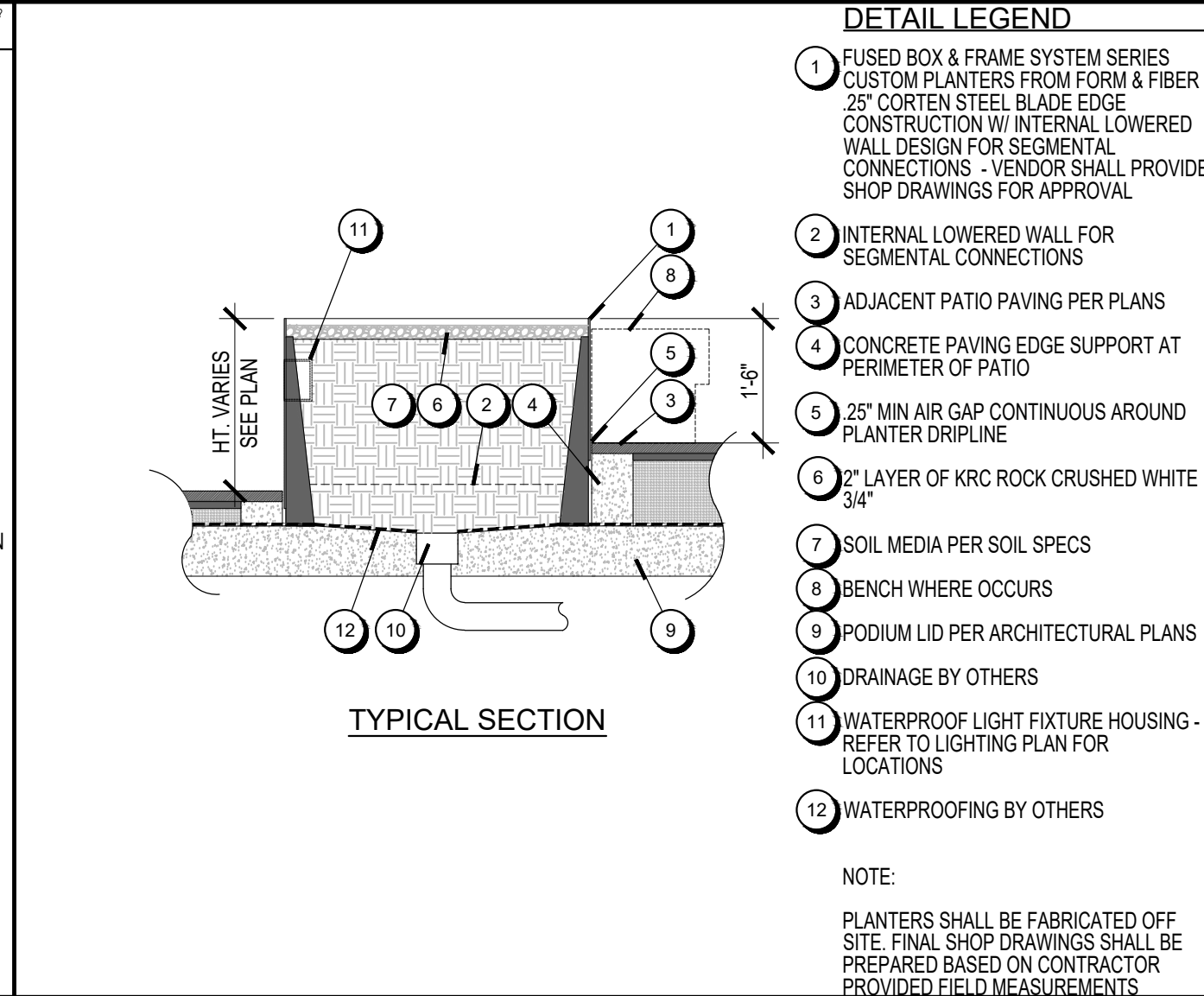
(F) CMU RAISED PLANTER REVISED: 10/25/2021 N.T.S.



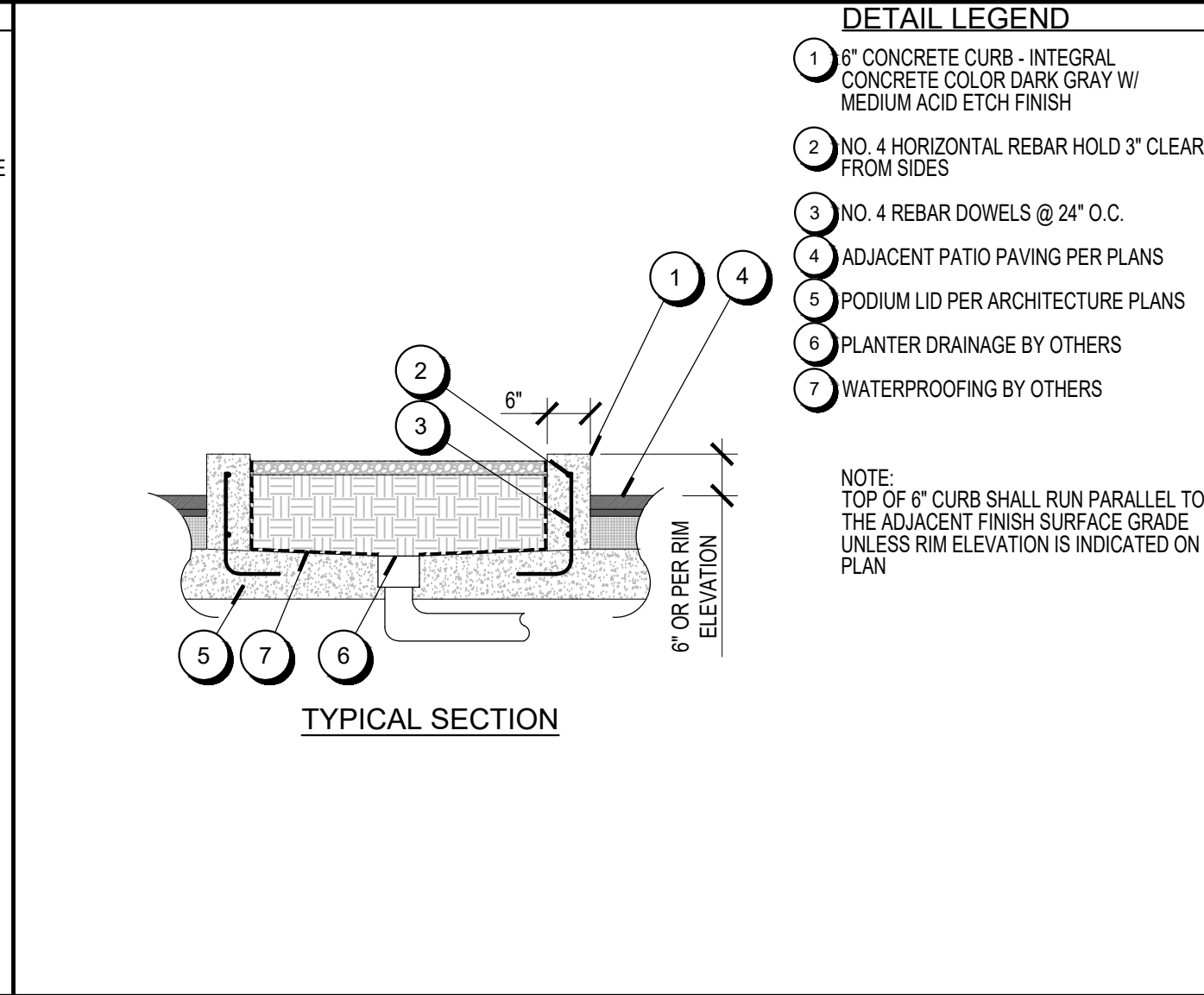
(E) SLEEVING REVISED: 04/17/10 N.T.S.



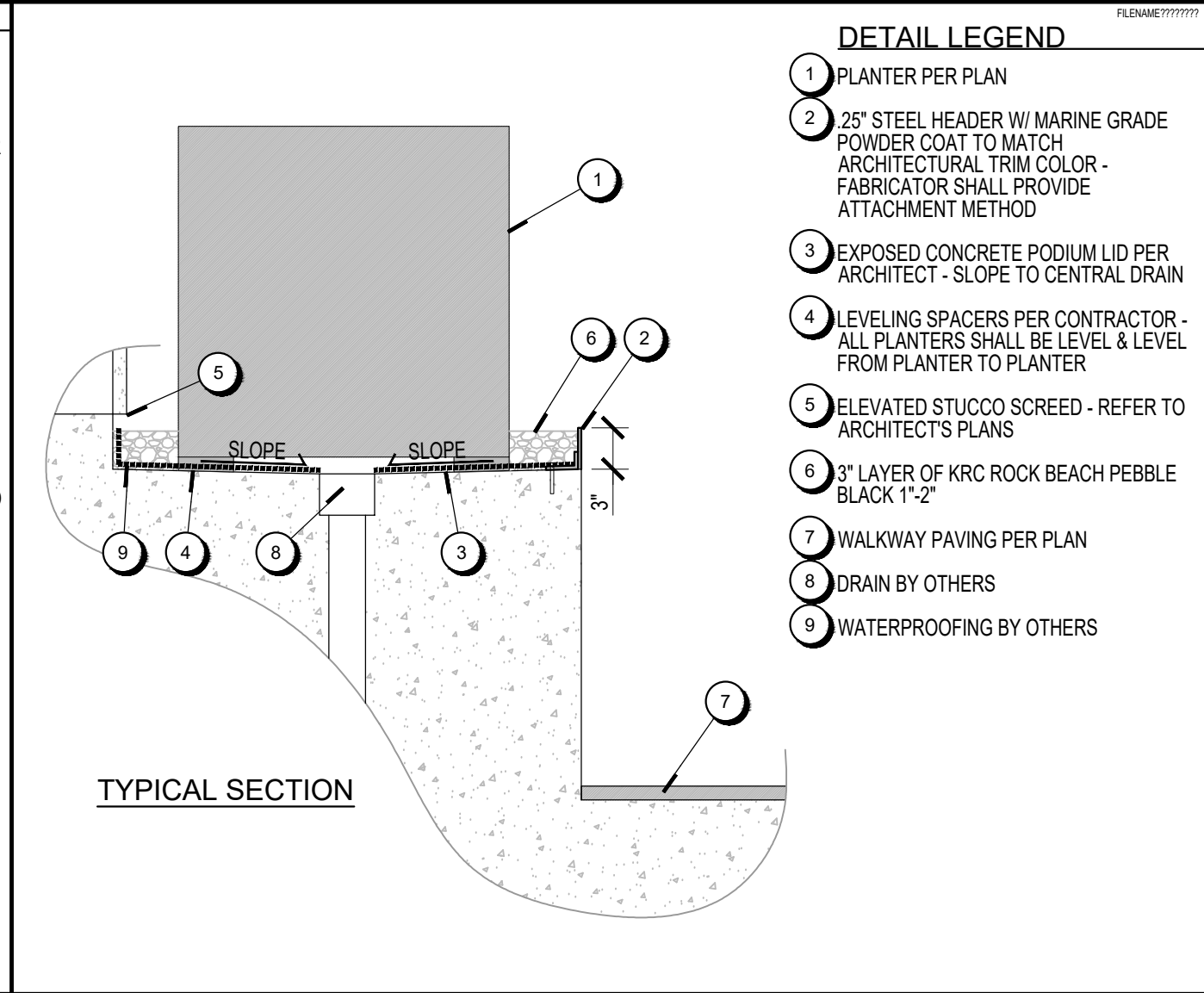
(L) PIP CONCRETE RAISED PLANTER REVISED: 10/25/2021 N.T.S.



(K) METAL FABRICATION PLANTERS REVISED: 10/01/2020 N.T.S.



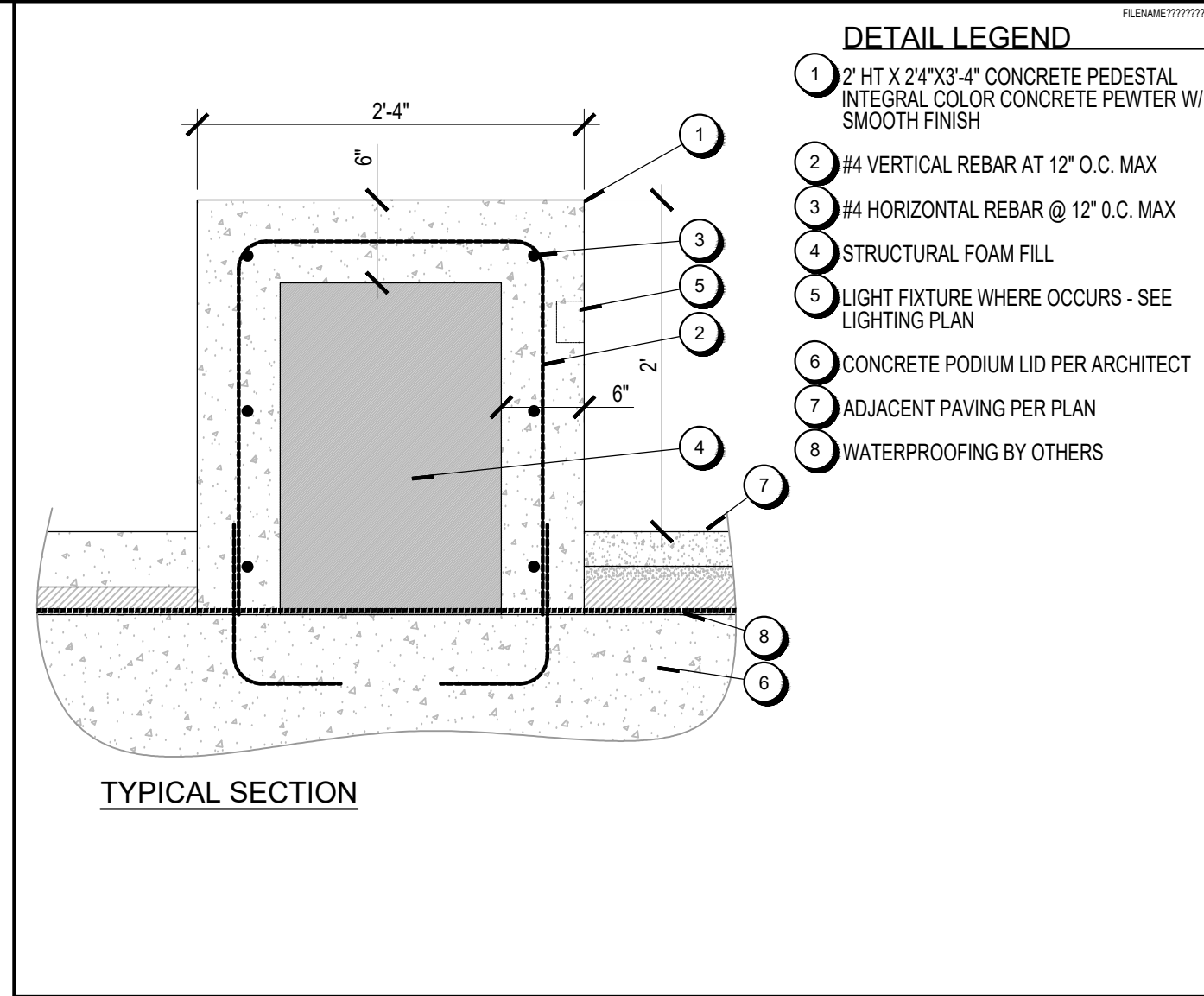
(J) CURB EDGE PODIUM PLANTERS REVISED: 00/00/00 N.T.S.



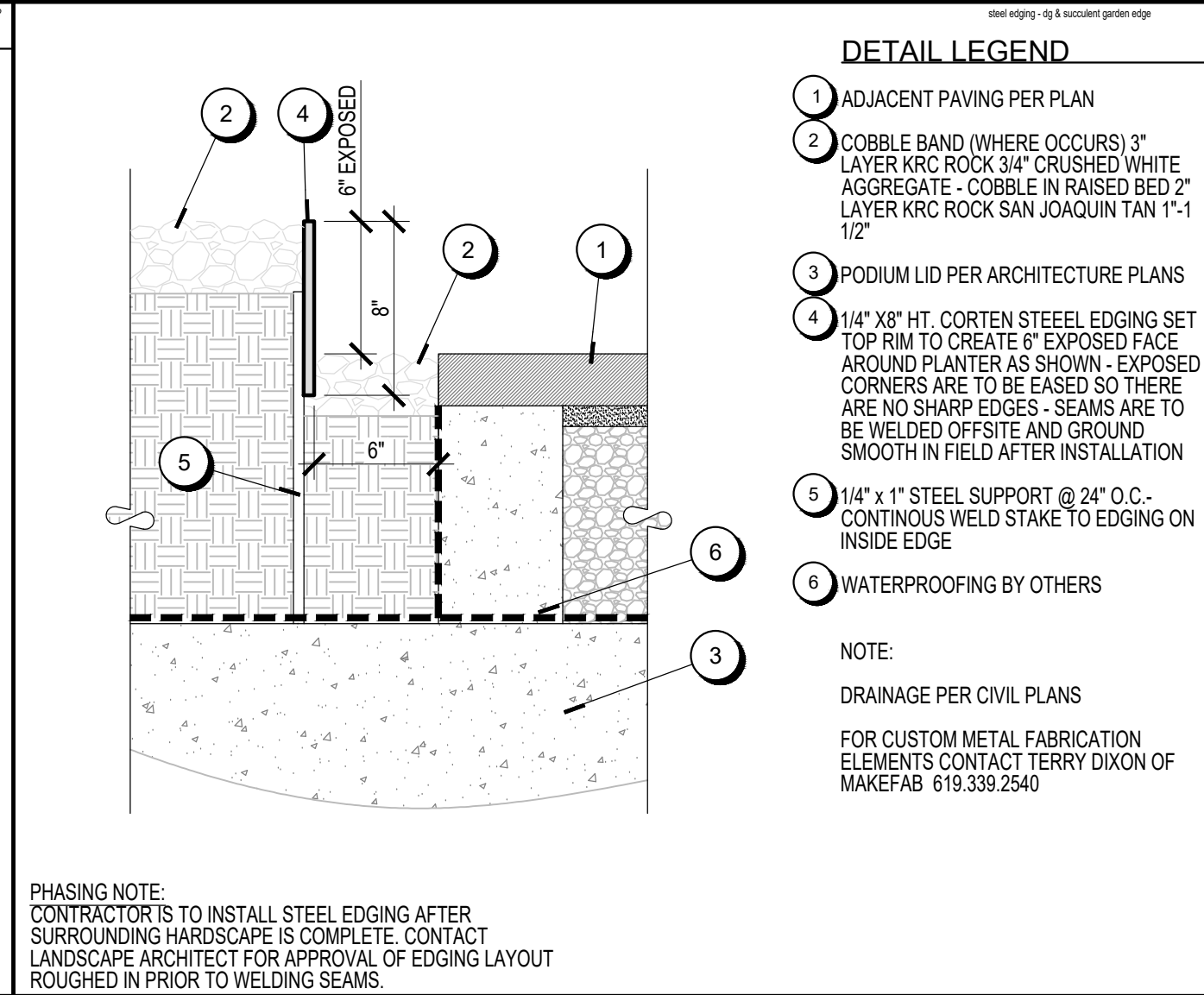
(I) RESIDENTIAL CORRIDOR PLANTERS REVISED: 10/25/2021 N.T.S.



(N) CONCRETE PEDESTAL REVISED: 10/25/2021 N.T.S.

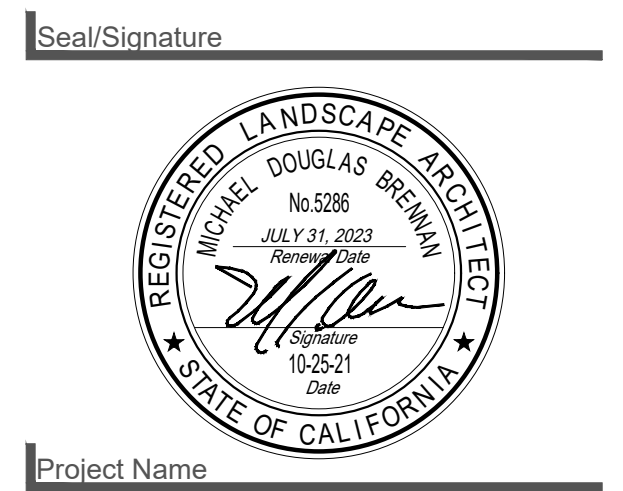


(M) STEEL EDGING REVISED: 10/25/2021 N.T.S.



(O) CONCRETE PEDESTAL REVISED: 10/25/2021 N.T.S.

Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
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2021.6.11	IFC / DELTA 10
2021.8.23	BULLETIN 1



Project Name: Solana 101

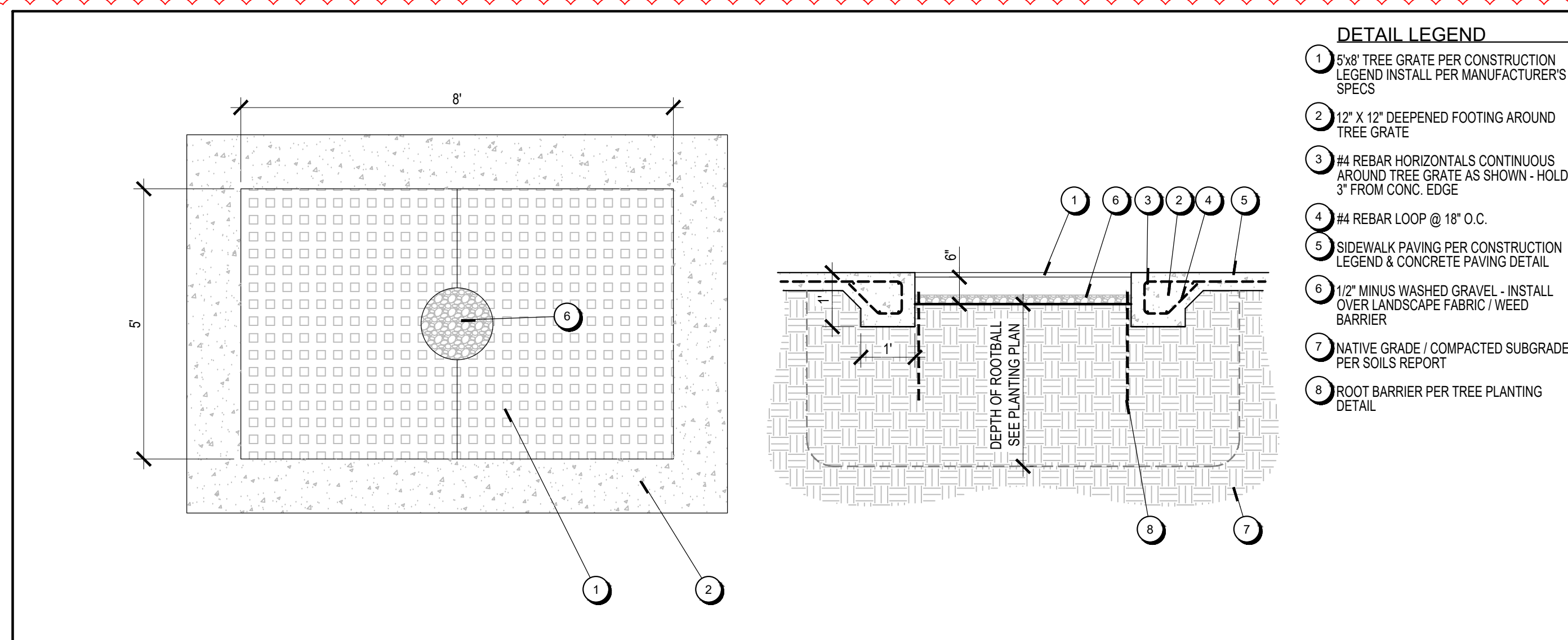
Project Number: 16-036

Description: CONSTRUCTION DETAILS

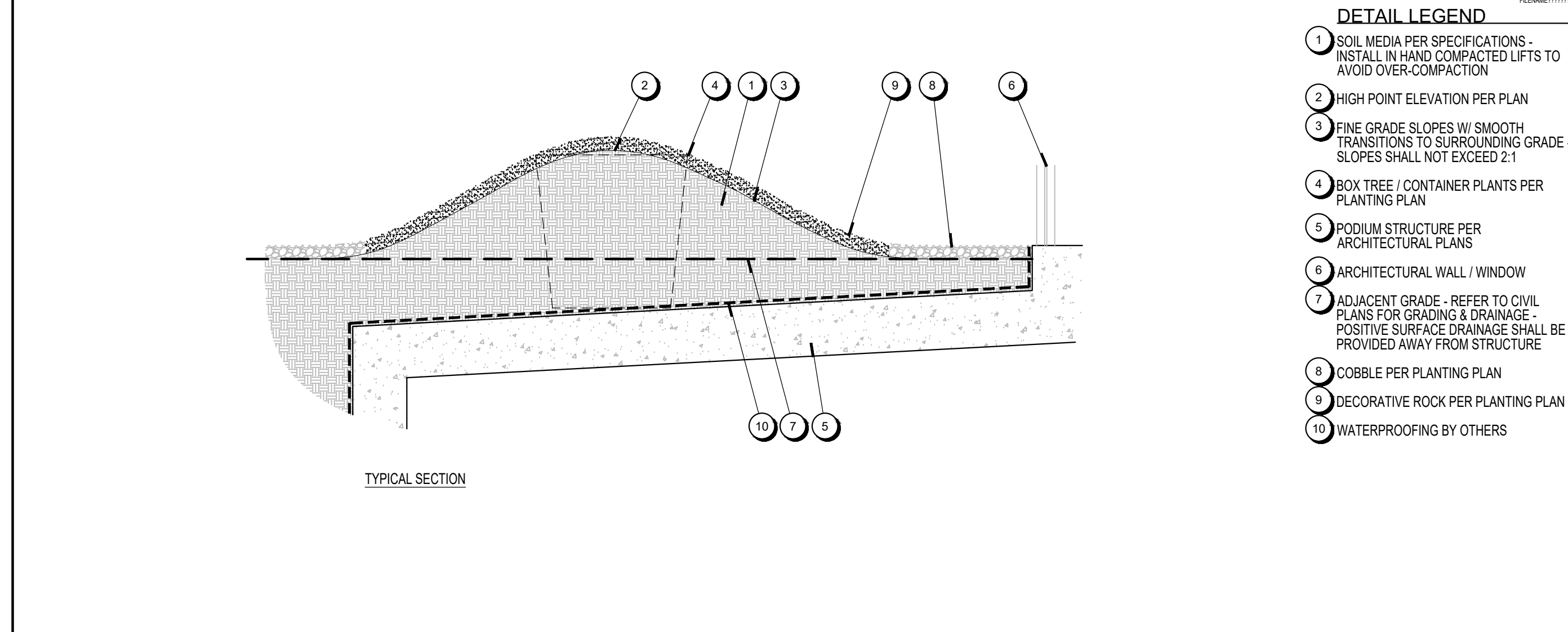
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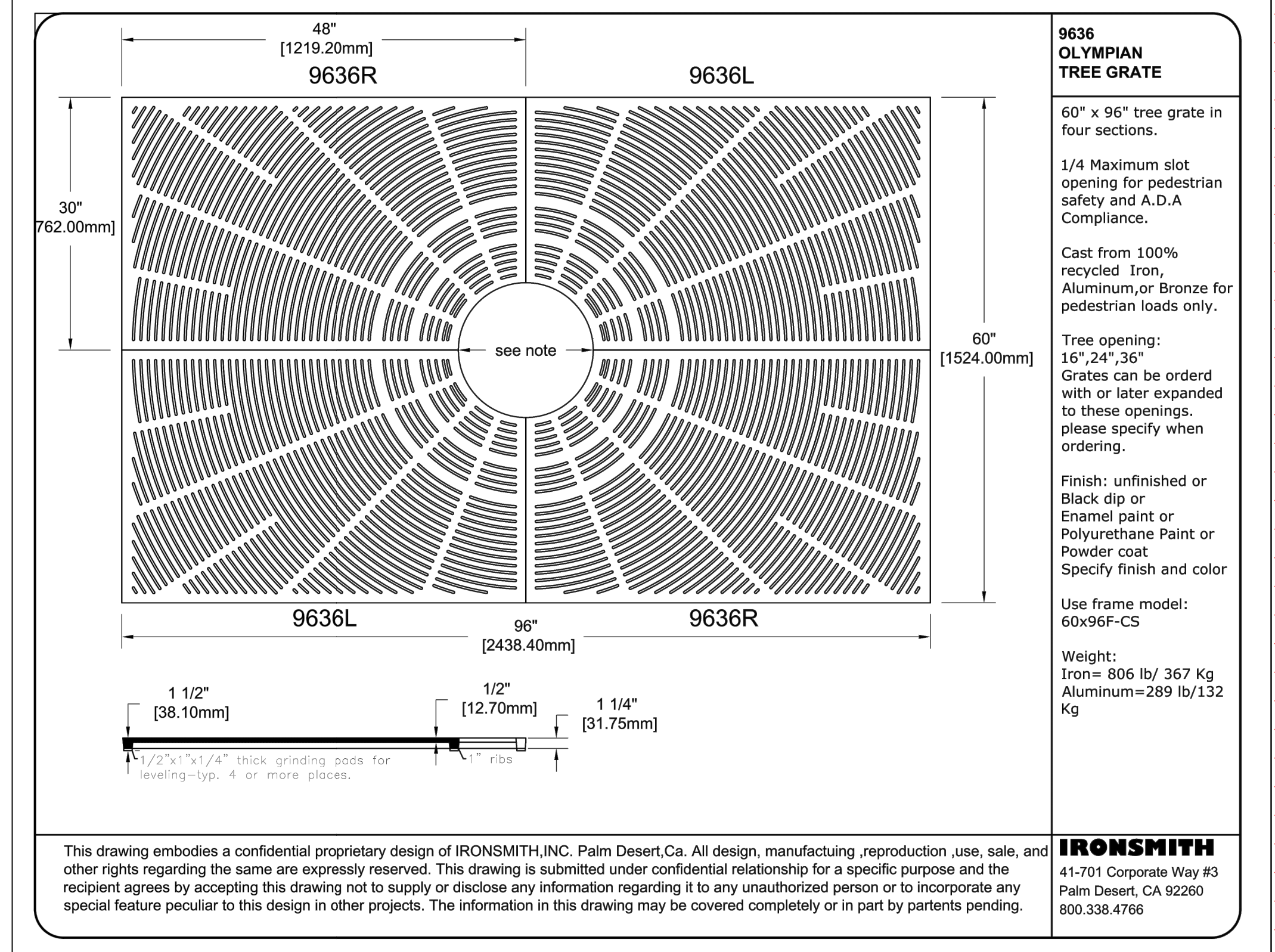
BULLETIN



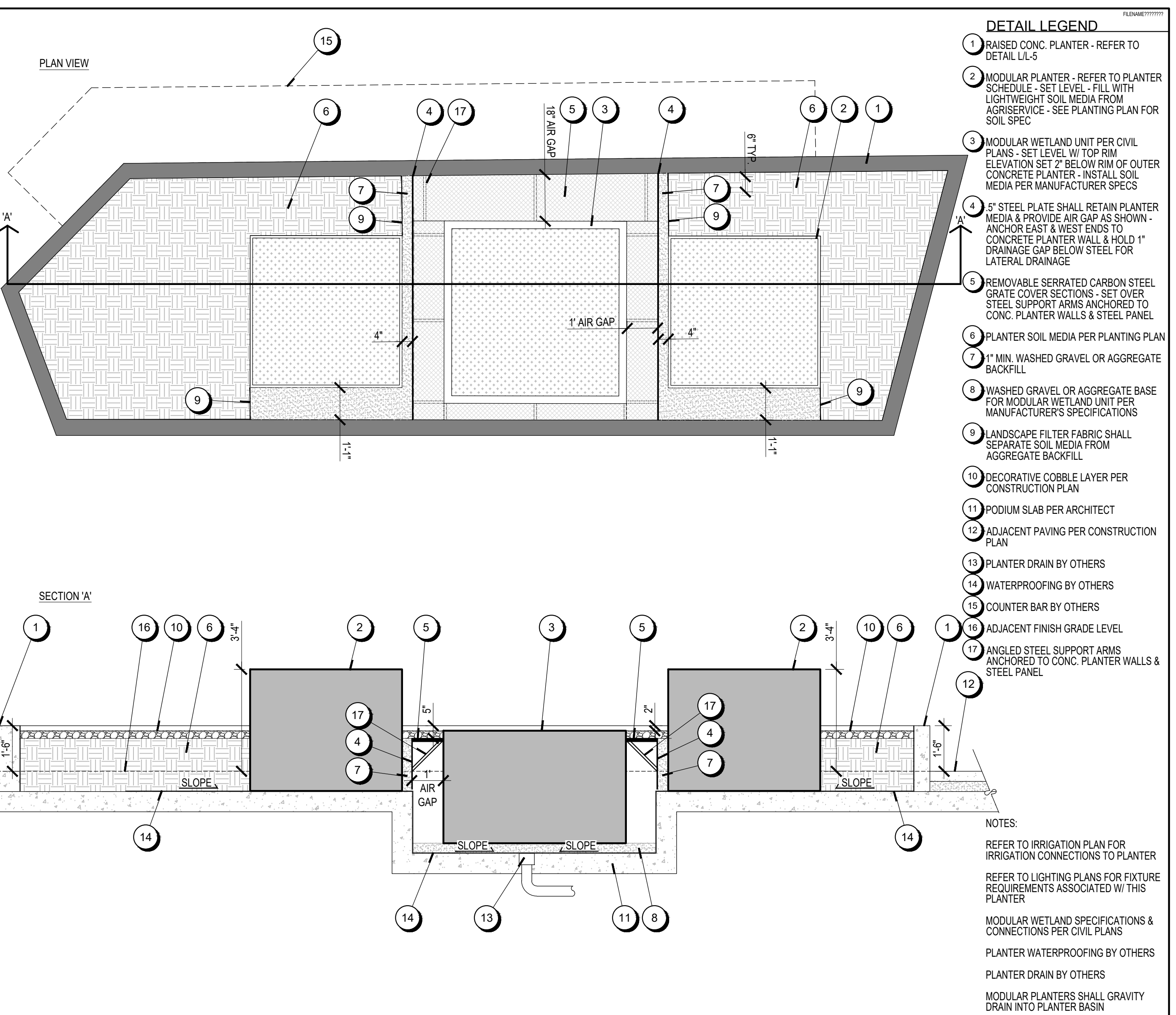
(B) TREE GRATE REVISED: 10/25/2021 N.T.S.



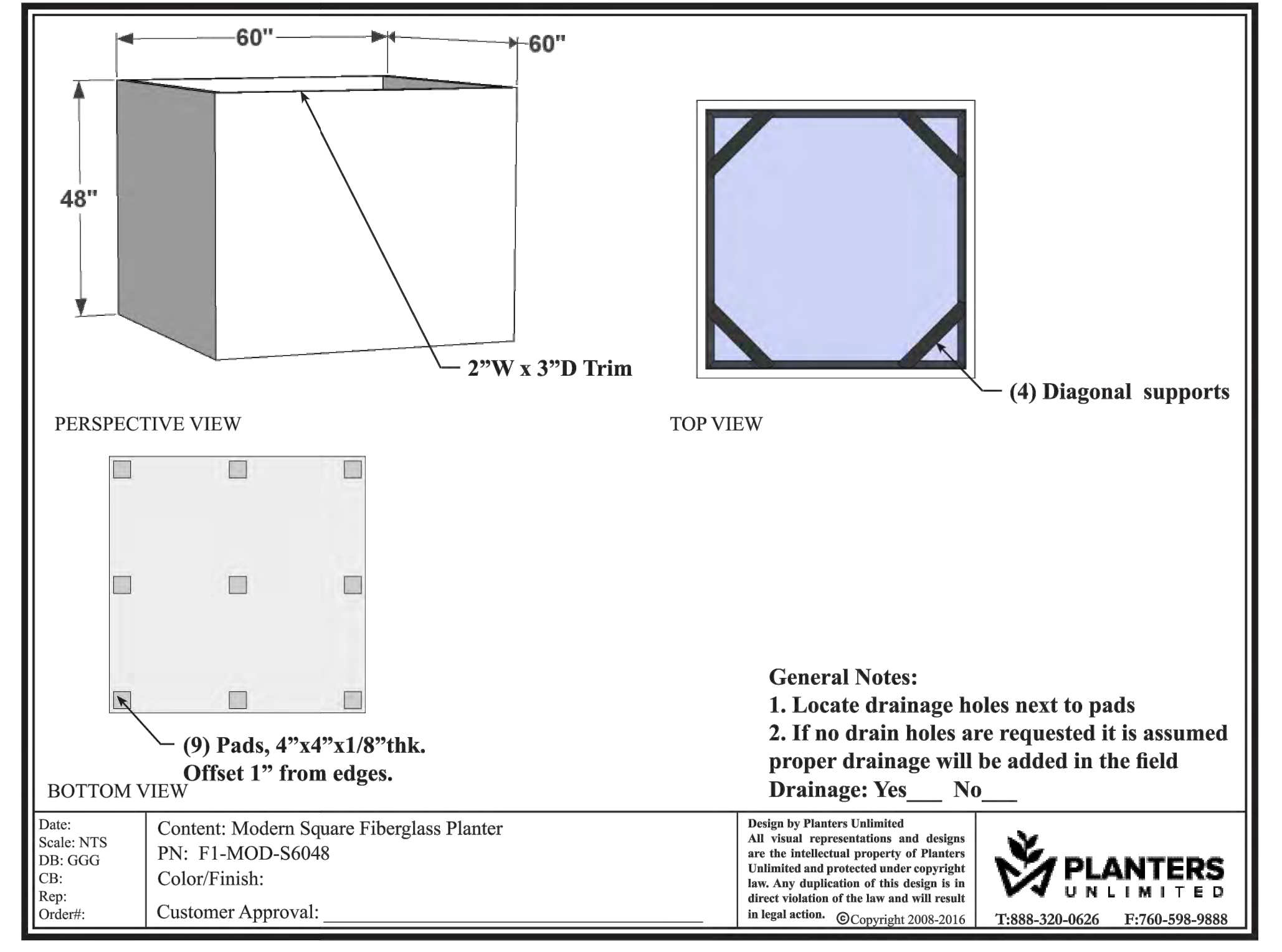
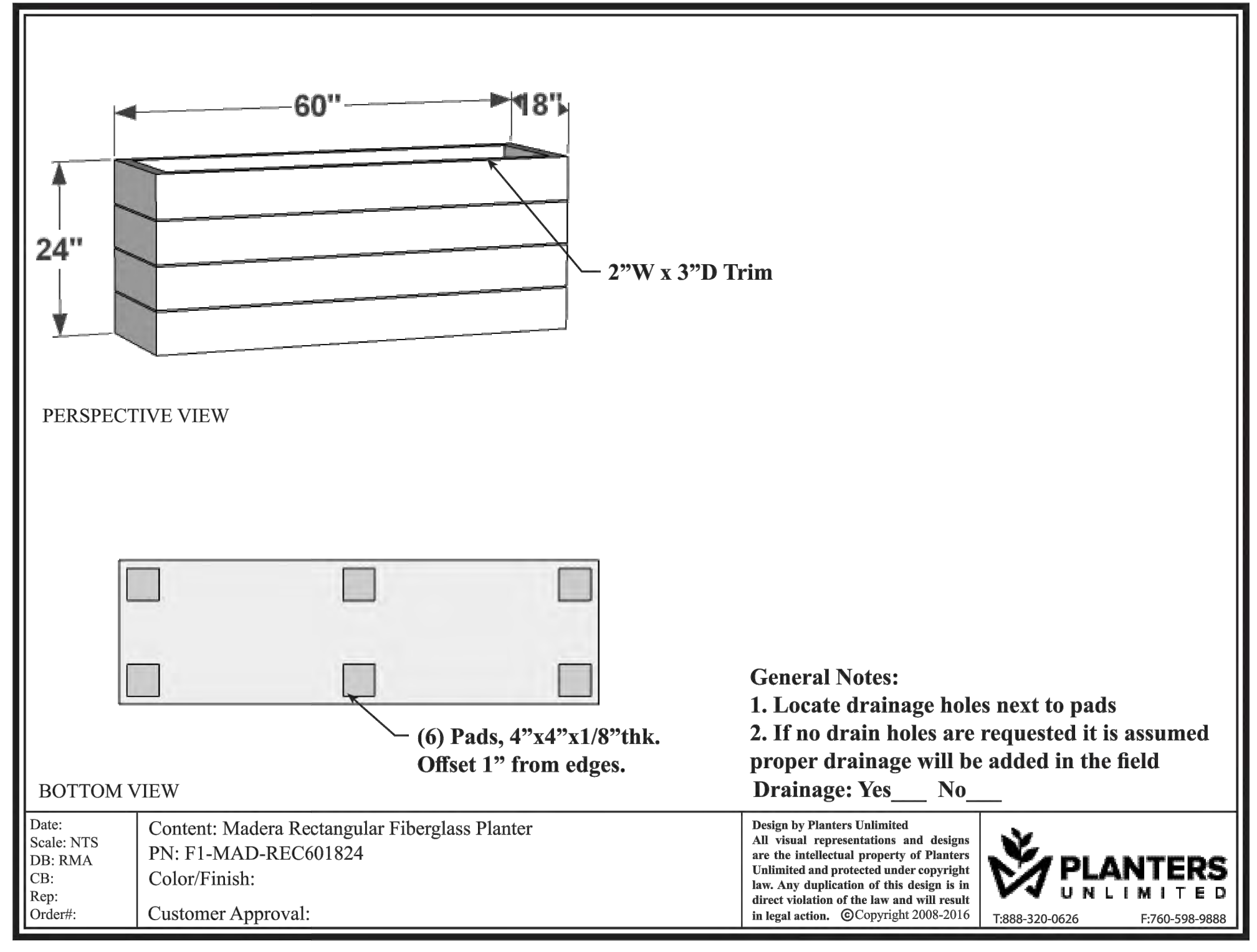
(C) EARTH MOUNDS REVISED: 10/25/2021 N.T.S.



BULLETIN



(A) 101 MODULAR WETLAND UNIT PLANTER REVISED: 10/25/2021 N.T.S.



ZEPHYR

Gensler

225 Broadway Suite 1600 San Diego, CA 92101 United States

Tel 619.557.2500 Fax 619.557.2520

4407 Orchard Ave San Diego, CA 92107 619.995.1306 cd-la.com

Corson Douglas Landscape Architecture

Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
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2019.08.29	BALANCE OF WORK PERMIT - CITY SUBMITTAL 1
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2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.8.23	BULLETIN 1

Seal/Signature

Project Name: Solana 101

Project Number: 16-036

Description: CONSTRUCTION DETAILS & CUT SHEETS

Scale: 1"=10'

L-6

Underground Service Alert

Call: TOLL FREE 1-800-227-2600

TWO WORKING DAYS BEFORE YOU DIG

"CAUTION" - Remember that the USA Center notifies only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.

ULTRA SPACE SAVER SQUARED Submittal Sheet

CAPACITY Modular construction 1 biker per arm

MATERIALS Hanger is 1" square tube with steel slider head with tamperproof locking bolts. Uprights are 2" square tube. Feet are AISI C3 x 4 galvanized steel channel. Crossbraces are 2" sched. 40 galvanized pipe.

FINISHES

- Powder Coat (Interior Use)** Our interior powder coat finish assures a high level of adhesion and durability for indoor use by following these steps:
 - Sandblast
 - Final thick TGIC polyester powder coat
- Powder Coat (Exterior Use) Additional Cost** Our exterior powder coat finish assures a high level of adhesion and durability for outdoor or exposed air use by following these steps:
 - Sandblast
 - Epoxy primer electrostatically applied
 - Final thick TGIC polyester powder coat
- Galvanized** An after fabrication hot-dipped galvanized finish is our standard option.

MOUNT OPTIONS

- Fl oor Mount** Ultra Space Saver Squared have steel channel feet (20" for single sided and 36" for double sided units) which must be anchored to the floor.
- Wall Mount** A well mounted unit which contains special brackets is also available for CMU or solid concrete walls. Cannot be used on sheetrock without additional support.

WHEEL STOPS

- Include optional wheel stops

As a general guideline, this space can fit approximately 60 bicycles.

The Ultra Space Saver Squared parks one bike every 36" with a typical bike extending out 40" from the wall.

DERO PLASTERWARE
www.dero.com | 1-888-337-6729
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FORM AND FIBER | TECHNICAL SHEET

FRAME RETAINING SYSTEMS

CONSTRUCTION

- Planter Frame Retaining Systems are manufactured in Carbon Steel, Corten Steel, and Aluminum alloys. Thickness range includes 3/16", 1/4", & 1/2", and based on designer specification, and/or manufacturer recommendation for size and length of run.
- Planters frame systems are constructed with horizontal stiffeners, vertical gussets, and base plates for anchor. Specific dimensions for spacing of internal reinforcement depends on frame size proposed and is submitted via shop drawing for approval, prior to construction.
- Depending on final size and configuration, frame systems may be "sectioned" with internal brackets for on-site assembly and connection. Size of sections can range from 72" in length or longer, depending on overall design configuration.

POWDER COAT FINISH

- Standard F&F stock powder coat colors are offered in satin and matte finishes as noted.
- Non-standard stock RAL, colors and metallics are available and may require an additional up-charge per unit.

POWDER COAT STANDARD STOCK COLORS

STANDARDS

- Standard construction of F&F Frame Retaining Systems includes a Blade Edge. Designers can specify an optional lip + 1/2" wide lip + 3/4" return
- Standard blade edge
- Optional lip

INCLUSIONS & EXCLUSIONS

- Form and Fiber PROVIDES connecting hardware for interior brackets connecting sections.
- Form and Fiber PROVIDES pre-drilled holes in base plate for contractor to anchor to sub base.
- Form and Fiber DOES NOT PROVIDE anchoring hardware for connection of base plate to sub base.
- Form and Fiber DOES NOT PROVIDE waterproofing gaskets, caulking or sealant for section connections.

WATERPROOFING

- All primary seams are continuously welded and Form and Fiber will apply sealant to these welded areas only. These areas will be waterproof in their construction.
- At the discretion of the installing contractor and as a suggestion only made by Form and Fiber, waterproofing gaskets or caulking may be applied between internal connecting brackets and/or along connection seams.
- Form and Fiber makes no recommendations for specific product used, nor is responsible for method of application, resulting aesthetic, and/or success of such waterproofing methods applied by installing contractor.

PRE-WEATHERED CORTEN STEEL FINISH

Typical Pre-Weathered Finish for Cor-Ten Steel

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FORM AND FIBER contract outdoor accessories
P.O. Box 2102 | Lebanon TX 75147
WEBSITE: www.formandfiber.com | ORDERS: 888-314-8852 | EMAIL: info@formandfiber.com

Construction and Finish

- The Boardform Series Planters are a line of completely customizable planter pots. Units range from 3" - 4" thick and are manufactured according to designer's specifications. They are manufactured with standard 1", 1.5", 2" drain holes, no drain holes. They have an average strength tested at 26-30 days of 5.810 psi.
- Planters come with steel loops cast within inside of planter for filling/cascading the unit.
- Planters are lightly sealed inside/outside to enhance color and protect surfaces from moisture, dirt, and stains.
- 99% of Form and Fiber's boardform planters are cast using a standard gray cement base, with no integral pigment.
- Integral pigments can be added for an upcharge per unit. However, pigment can "mottle" the grain pattern and create a monochromatic effect making it visually difficult to see. Standard Gray allows for the highest level of grain expression in units cast.

Wall Thickness

- The standard wall thickness cast for Form and Fiber's boardform planters is as follows:
 - 3.0" Minimum wall thickness for planters up to 6'-0" L
 - 3.5" thickness for planters over 6'-0" L (72")
 - 4.0" thickness for planters over 8'-0" L (96"), with manufacturer approval for overall size of box. Limitations in size will apply over 8'-0" L and/or over 5,000 lbs.

Limitations in Customization

- Form and Fiber is able to cast a variety of size of boardform planters, however, limitations do apply.
 - 9'-0" L MAX with a width of 5'-0" or less for this length.
 - Units 5,000 lbs or less.

Form and Fiber Inc. All rights reserved. © 2018. Made in the USA.

Sundeck WOOD FINISH

Available Colors

Shapes & Sizes

Resistant

- To freeze/thaw
- To breakage
- To chemical aggression
- To stains

Easier

- To clean
- To lay
- To remove
- For you

Get Social

Oldcastle Architectural
900 Ashwood Parkway, Suite 600
Atlanta, GA 30338

BELGARD For more info visit: Belgard.com/porcelain

ARC RACK Submittal Sheet

CAPACITY 2 Bikes

MATERIALS 2" x 2" x 1/4" square tube

FINISHES

- Galvanized** An after fabrication hot dipped galvanized finish is our standard option.
- Powder Coat** Our powder coat finish assures a high level of adhesion and durability by following these steps:
 - Sandblast
 - Epoxy primer electrostatically applied
 - Final thick TGIC polyester powder coat
- Stainless** Stainless Steel 304 grade stainless steel material finished in either a high polished shine or a satin finish.

MOUNT OPTIONS

- In-ground** In-ground mount is embedded into concrete base. Specify in ground mount for this option.
- Surface** Foot Mount has two 2.5"x5"x.25" feet with two anchors per foot. Specify foot mount for this option.

OPTIONAL LEAN BAR

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13238 SO. FIGUEROA ST. LOS ANGELES, CA 90001 www.stepstoneinc.com

LARGE SCALE CALCAR PAVERS

8"x12"x2-1/2"	12"x12"x2-1/2"
8"x18"x2-1/2"	12"x18"x2-1/2"
8"x24"x2-1/2"	12"x24"x2-1/2"
8"x36"x2-1/2"	12"x36"x2-1/2"
8"x48"x2-1/2"	12"x48"x2-1/2"
	12"x60"x2-1/2"
	24"x36"x2-1/2"
	24"x48"x2-1/2"

JOINT TO BE FILLED WITH ASTM C-144 SAND AND SEALED WITH SAND JOINT STABILIZER OR ACCEPTABLE POLYMERIC SAND

ASTM C-33

EXISTING SOIL SUBGRADE

DRAWN BY: Fernando C.
DATE: 09-20-2016
DRAWING TITLE: LARGE SCALE CALCAR PAVES TYPICAL SAND SET PEDESTRIAN USE
SCALE: NOT TO SCALE
SHEET #: 1

ARIZONA TILE PIETRA ITALIA SERIES

MADE IN ITALY

RECOMMENDED USES

- Commercial
- Residential
- Interior Floor
- *Exterior Floor (R11 Anti-Slip Recommended)
- Countertops
- Interior Wall
- Exterior Cladding
- Fileplacess
- Showers
- Steam Showers
- Showers Floors (R11, 2 x 2 mosaic, and sticks only)
- Pool & Spa (waterline)

STOCKED TRIM

- 12 x 24 x 10mm
- 24 x 24 x 10mm
- 24 x 48 x 10mm
- *12 x 24 x 10mm R11 Anti-Slip
- *24 x 48 x 10mm R11 Anti-Slip (Beige Only)

STOCKED FINISH

- 2 x 2 x 10mm Mosaic
- Beige/White Stack
- Black/Gray Stack
- 0.93 sq ft/box

It is available in three sizes. Because this material is a porcelain product, minimal maintenance is required. Piece to piece variation in shade or color are inherent in all fired clay products; therefore it is recommended to mix tiles from several boxes at a time during installation to achieve the best range of color. When mixing sizes within a series, shade, texture and coloration differences should be expected. This series is suitable for residential and commercial applications. For proper bonding, LFT/LHT mortar for large format and heavy tiles should be used when installing tiles with a dimensional length greater than 15", and rectangular shape and plank tile, per industry standards. Proper thinset coverage is also necessary, and in some cases, back buttering of tile may be required.

SIZE	SP/PRICE	PIECES/BOX	SP/BOX	BOXES/PALLET	SP/PALLET
12 x 24 x 10mm	1.9368	8	15.4944	32	495.8208
12 x 24 x 10mm R11 Anti-Slip Finish	1.9368	8	15.4944	32	495.8208
24 x 24 x 10mm	3.8736	4	15.4944	32	495.8208
24 x 48 x 10mm	7.7472	2	15.4944	36	557.7984
24 x 48 x 10mm R11 Anti-Slip Finish (Beige Only)	7.7472	2	15.4944	36	557.7984
Beige/White Stack	N/A	N/A	N/A	N/A	N/A
Black/Gray Stack	N/A	N/A	N/A	N/A	N/A
2 x 2 x 10mm Mosaic	0.9368	10 sheets	9.368	45	431.45

Arizona Tile www.arizonatiles.com

ZEPHYR

Gensler

225 Broadway Suite 1600 San Diego, CA 92101 United States
Tel 619.557.2500 Fax 619.557.2520

4407 Orchard Ave San Diego, CA 92107 619.995.1306 cd-la.com

Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
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2021.8.23	BULLETIN 1

Seal/Signature

Project Name: Solana 101

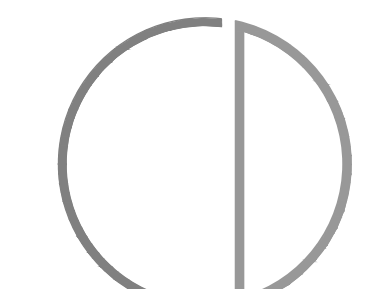
Project Number: 16-036

Description: CONSTRUCTION CUT SHEETS

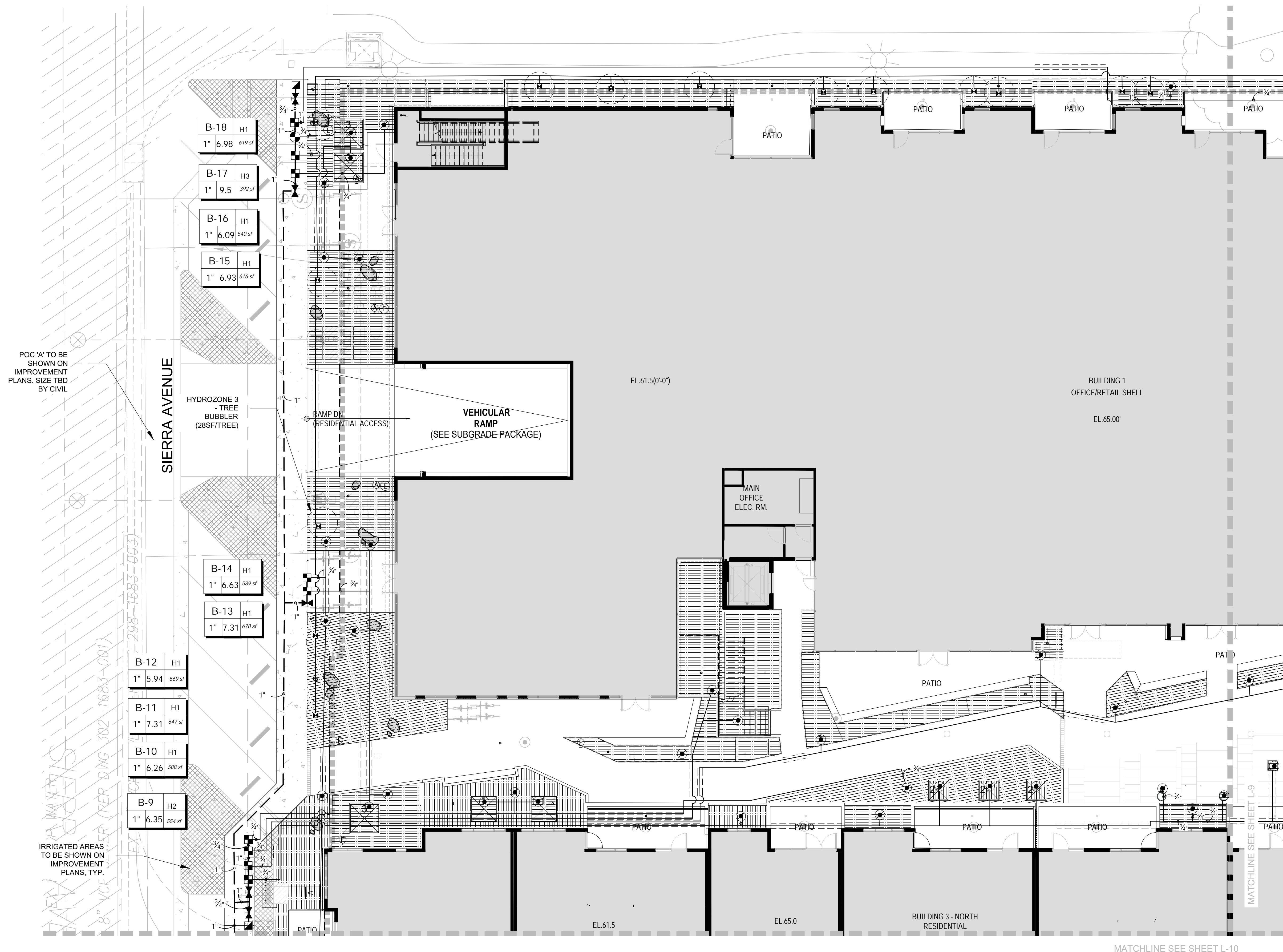
Scale: 1"=10'

L-7

Underground Service Alert
Call: TOLL FREE 1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG
"CAUTION" Remember that the USA Center notifies only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.



IRRIGATION SCHEDULE		
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
	Hunter RZWS-18-CV 18" long RZWS with installed 25gpm or 50gpm bubbler options, Check Valve, 1/2" swing joint for connection to 1/2" pipe. For Establishment only. To be removed after tree is established	25
SYMBOL MANUFACTURER/MODEL/DESCRIPTION		
	Hunter ICZ-101-LF Drip Control Zone Kit. 1" ICV Globe Valve with 1" HY100 filter system. Pressure Regulation: 25psi. Flow Range: 5 GPM to 15 GPM. 150 mesh stainless steel screen. Install in standard valve box	
	Pipe Transition Point Rainbird MDCF Fittings for Connections between lateral lines and drip tubing	
	Flush Valve Hunter PLD-BLV Flush Cap provided at end of drip discharge header. install flush valves inside a separate valve box, one at each end of the tubing runs in each direction, install 18" from paving. To be located at the lowest point in each drip zone.	
	Hunter PLD-AVR PLD-AVR allows for air to escape a RESIDENTIAL drip irrigation system to prevent blockage and water hammering. 1/2" MPT connection with 80 PSI maximum rating. INSTALL WITH COMBINATION PLD-075 TEE AND A 3/4" x 1/2" REDUCER BUSHING. INSTALL AIR RELIEF ASSEMBLY INSIDE A 6" ROUND VALVE BOX AT THE HIGH POINT OF EACH PLANTER. MIN 1 ARV PER 500' OF DISTRIBUTION TUBING. USING AIR LATERAL. CONNECT AIR RELIEF VALVE TO ALL DRIP LINE LATERALS WITHIN THE ELEVATED AREA.	
	Hunter ECO-ID ECO-ID: 1/2" FPT connection with 12-60 PSI operating pressure. Specify with Hunter SJ swing joint. To be located at the highest point of each drip zone	
	Area to Receive Dripline Hunter HDL-09-12-PC HDL-09-12-PC: Hunter Dripline with 0.9 GPH flow. Light brown tubing with black striping. Emitters at 12" O.C. Dripline laterals spaced at 16" apart, with emitters offset for triangular pattern. Install with Hunter PLD barbed or PLD-LOC fittings. For use on flat sites with Moderate/Sandy Soils	
SYMBOL MANUFACTURER/MODEL/DESCRIPTION		
	Hunter ICV-G-FS 1", 1-1/2", 2", and 3" Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry.	
	Hunter HQ-44LRC Quick coupler valve, yellow rubber locking cover, red brass and stainless steel, with 1" NPT inlet, 2-piece body.	
	Niloco T-113-K Class 125 bronze gate shut off valve with cross handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"	
	Hunter IBV-151-G-FS 1" 1", 1-1/2", 2", and 3" Brass Electric Master Valve, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry Factory Installed Option.	
	Zurn 975XL 1" Reduced Pressure Backflow device	
	Hunter ACC-3600-SS 36 Station Outdoor Modular Controller. With four ACM-600 module. High-End Commercial Use. Stainless Steel Cabinet.	
	Hunter WSS Wireless Solar, rain freeze sensor with outdoor interface, connects to Hunter PCC, Pro-C, and I-Core Controllers, install as noted. Includes 10 year lithium battery and rubber module cover, and gutter mount bracket.	
	Hunter HC-100-FLOW 1" Flow meter for use with Hydrowise enabled controller to monitor flow and provide system alerts. Also functions as stand alone flow totalizer/sub meter on any residential or commercial irrigation system.	
	Actual Manifold Location Actual Valve Box & Manifold Locations. Verify location in field, to be clear of obstacles or utilities. Refer to Irrigation notes & details for installation. Valve symbols shown on the plan are diagrammatic only.	
VALVE CALLOUT		
	Valve Number Hydrozone Area Valve Flow Valve Size	
	ELECTRICAL CONNECTION 120 V Electrical connection location for controller, to be installed by licensed electrician. Verify location in field	
	Penetration Point Through Structural Slab Connection from Valve to planter areas on podium. See waterproofing detail per Architect's plan. For line type and routing, see MEP plans.	
	Point of Connection 1" TBD	
	Irrigation Lateral Line: PVC Class 200 SDR 21	
	Irrigation Mainline: PVC Schedule 40	
	Pipe Sleeve: PVC Class 200 SDR 21	



Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
2019.07.26	SUBTERRANEAN BLDG PERMIT
2019.08.23	GMP ISSUE
2019.08.29	BALANCE OF WORK PERMIT - CITY SUBMITTAL 1
2019.12.20	SUBTERRANEAN BUILDING PERMIT
2020.2.12	PLANNING & FIRE CHECK
2020.3.25	BALANCE OF WORK PERMIT - SUBMITTAL 2
2020.3.30	ADDENDUM PE - BALANCE OF WORK
2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature



Project Name
Solana 101

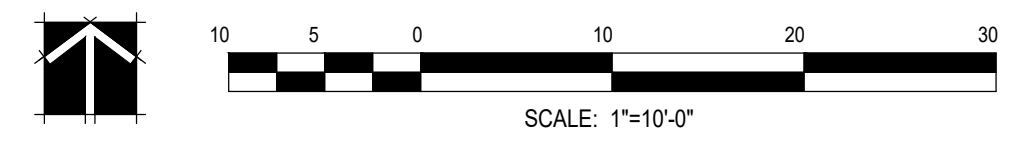
Project Number
16-036

Description
LANDSCAPE IRRIGATION PLAN

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1"=10'

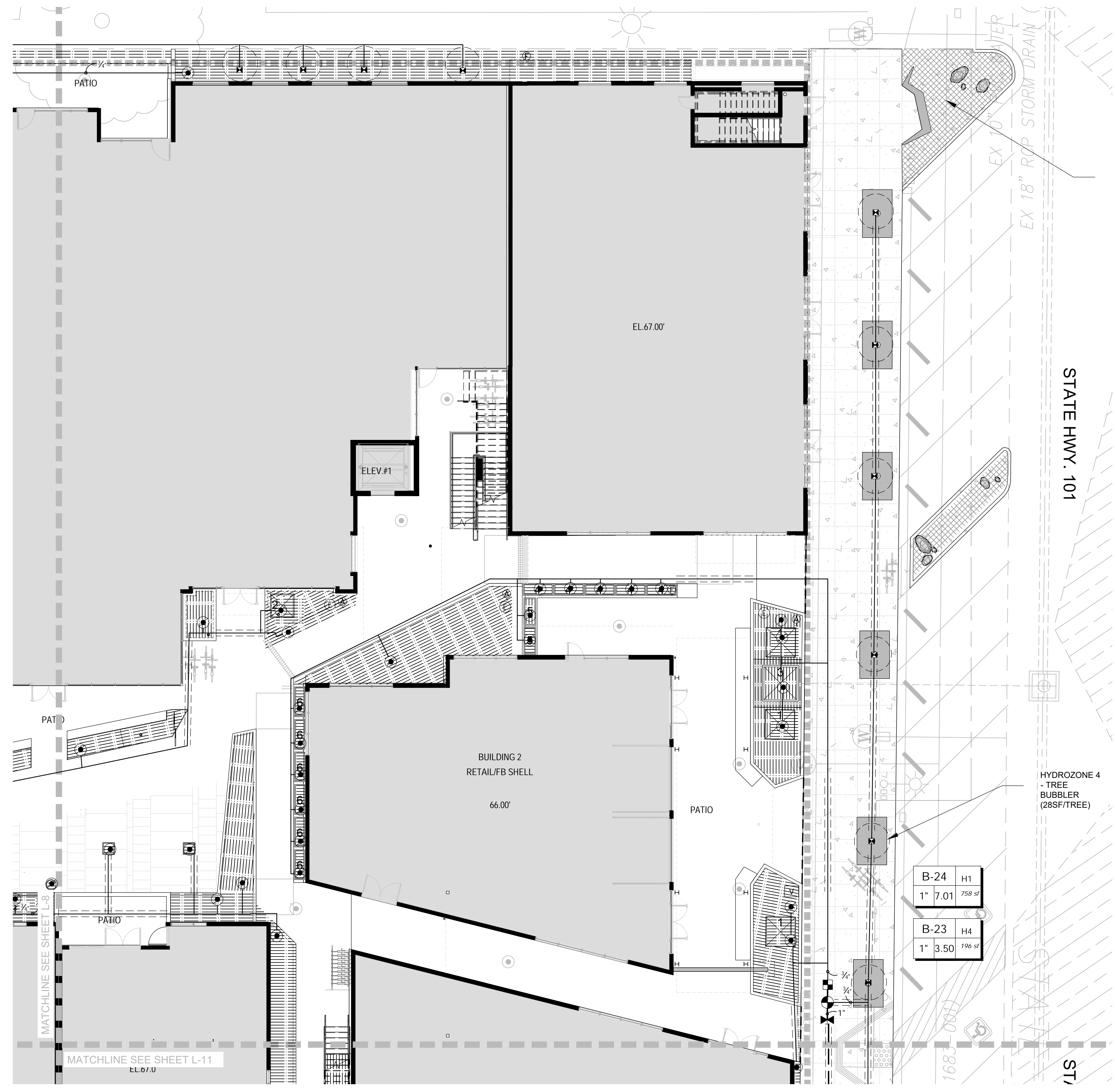
Underground Service Alert
Call: TOLL FREE
1-800-227-2600

TWO WORKING DAYS BEFORE YOU DIG
 CAUTION Remember that the USA Center notifies only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of when they will notify.



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
	Hunter RZWS-18-CV 18" long RZWS with installed 25gpm or 50gpm bubbler options, Check Valve, 12" swing joint for connection to 1/2" pipe. For Establishment only. To be removed after tree is established	25
	Hunter ICZ-101-LF Drip Control Zone Kit. 1" ICV Globe Valve with 1" HY100 filter system. Pressure Regulation: 25psi. Flow Range: .5 GPM to 15 GPM. 150 mesh stainless steel screen. Install in standard valve box	
	Pipe Transition Point Rainbird MDCF Fittings for Connections between lateral lines and drip tubing	
	Flush Valve Hunter PLD-BLV Flush Cap provided at end of drip discharge header, install flush valves inside a separate valve box, one at each end of the tubing runs in each direction, install 18" from paving. To be located at the lowest point in each drip zone.	
	Hunter PLD-AVR PLD-AVR allows for air to escape a RESIDENTIAL drip irrigation system to prevent blockage and water hammering. 1/2" MPT connection with 80 PSI maximum rating. INSTALL WITH COMBINATION PLD-075 TEE AND A 3/4" x 1/2" REDUCER BUSHING. INSTALL AIR RELIEF ASSEMBLY INSIDE A 6" ROUND VALVE BOX AT THE HIGH POINT OF EACH PLANTER. MIN 1 ARV PER 500' OF DISTRIBUTION TUBING. USING AIR LATERAL, CONNECT AIR RELIEF VALVE TO ALL DRIP LINE LATERALS WITHIN THE ELEVATED AREA.	
	Hunter ECO-ID ECO-ID. 1/2" FPT connection with 12-60 PSI operating pressure. Specify with Hunter SJ swing joint. To be located at the highest point of each drip zone	
	Area to Receive Dripline Hunter HDL-09-12-PC HDL-09-12-PC: Hunter Dripline with 0.9 GPH flow. Light brown tubing with black striping. Emitters at 12" O.C. Dripline laterals spaced at 16" apart, with emitters offset for triangular pattern. Install with Hunter PLD barbed or PLD-LOC fittings. For use on flat sites with Moderate/Sandy Soils	
	Hunter ICV-G-FS 1", 1-1/2", 2", and 3" Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry.	
	Hunter HQ-44LRC Quick coupler valve, yellow rubber locking cover, red brass and stainless steel, with 1" NPT inlet, 2-piece body.	
	Nibco T-113-K Class 125 bronze gate shut off valve with cross handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"	
	Hunter IBV-151-G-FS 1" 1", 1-1/2", 2", and 3" Brass Electric Master Valve, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry Factory installed Option	
	Zum 975XL 1" Reduced Pressure Backflow device	
	Hunter ACC-3600-SS 36 Station Outdoor Modular Controller. With four ACM-600 module. High-End Commercial Use. Stainless Steel Cabinet.	
	Hunter WSS Wireless Solar, rain freeze sensor with outdoor interface, connects to Hunter PCC, Pro-C, and I-Core Controllers, install as noted. Includes 10 year lithium battery and rubber module cover, and gutter mount bracket.	
	Hunter HC-100-FLOW 1" Flow meter for use with Hydrawise enabled controller to monitor flow and provide system alerts. Also functions as stand alone flow totalizer/sub meter on any residential or commercial irrigation system.	
	Actual Manifold Location Actual Valve Box & Manifold Locations. Verify location in field, to be clear of obstacles or utilities. Refer to Irrigation notes & details for installation. Valve symbols shown on the plan are diagrammatic only.	
<p>VALVE CALLOUT</p> <p>Valve Number Hydrozone Area Valve Flow Valve Size</p>		
	ELECTRICAL CONNECTION 120 V Electrical connection location for controller, to be installed by licensed electrician. Verify location in field	
	Penetration Point Through Structural Slab Connection from Valve to planter areas on podium. See waterproofing detail per Architect's plan. For line type and routing, see MEP plans.	
	Point of Connection 1" TBD	
	Irrigation Lateral Line: PVC Class 200 SDR 21	
	Irrigation Mainline: PVC Schedule 40	
	Pipe Sleeve: PVC Class 200 SDR 21	



IRRIGATED AREAS TO BE SHOWN ON IMPROVEMENT PLANS, TYP.

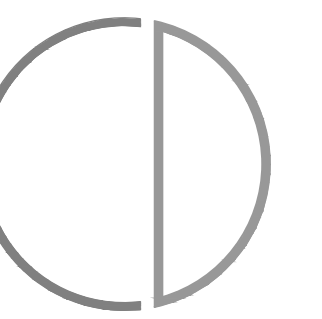
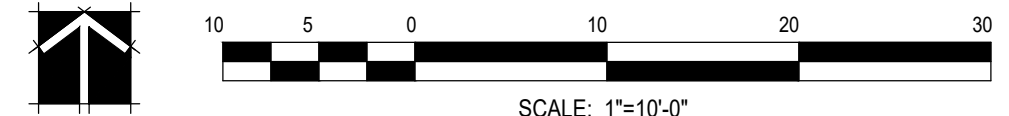
STATE HWY. 101

HYDROZONE 4 - TREE BUBBLER (88SF/TREE)

ST/

Underground Service Alert
Call: TOLL FREE
1-800-227-2600

WHO WORKING DAYS BEFORE YOU DIG
"CAUTION" - Remember that the USA Center notices into these utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.



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2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature



Project Name

Solana 101

Project Number

16-036

Description

LANDSCAPE IRRIGATION PLAN

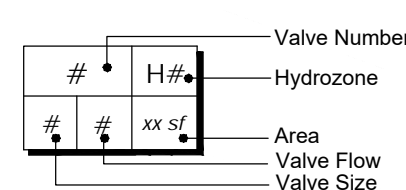
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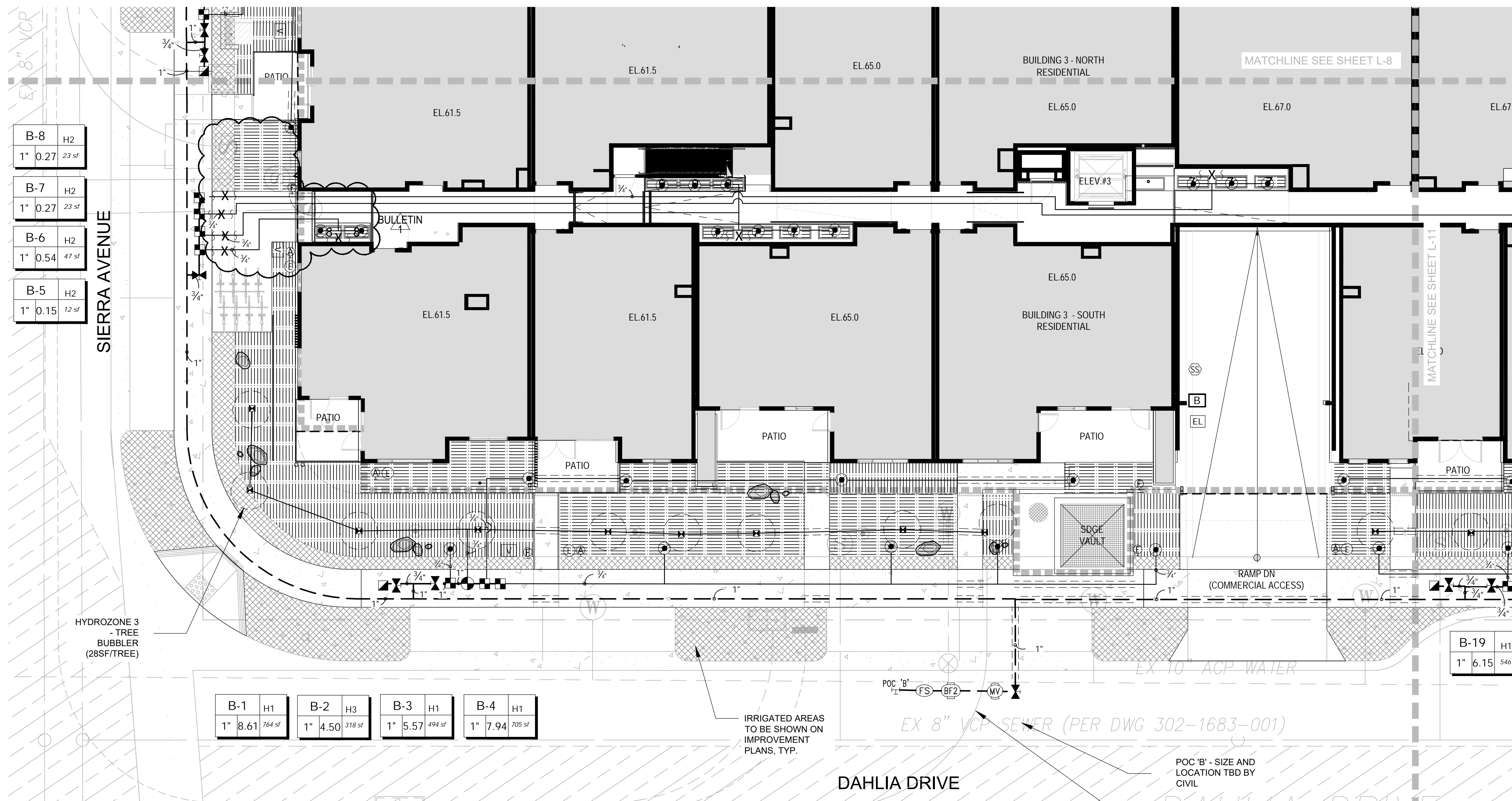
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
⊗ 0.25 0.50	Hunter RZWS-18-CV 18" long RZWS with installed 25gpm or .50gpm bubbler options. Check Valve, 1/2" swing joint for connection to 1/2" pipe. For Establishment only. To be removed after tree is established.	25
⊠	Hunter IZ-101-LF Drip Control Zone Kit. 1" ICV Globe Valve with 1" HY100 filter system. Pressure Regulation: 25psi. Flow Range: .5 GPM to 15 GPM. 150 mesh stainless steel screen. Install in standard valve box.	
⊙	Pipe Transition Point Rainbird MDCF Fittings for Connections between lateral lines and drip tubing	
⊕	Flush Valve Hunter PLD-BLV Flush Cap provided at end of drip discharge header. Install flush valves inside a separate valve box, one at each end of the tubing runs in each direction, install 18" from paving. To be located at the lowest point in each drip zone.	
Ⓐ	Hunter PLD-AVR PLD-AVR allows for air to escape a RESIDENTIAL drip irrigation system to prevent blockage and water hammering. 1/2" MPT connection with 80 PSI maximum rating. INSTALL WITH COMBINATION PLD-075 TEE AND A 3/4" x 1/2" REDUCER BUSHING. INSTALL AIR RELIEF ASSEMBLY INSIDE A 6" ROUND VALVE BOX AT THE HIGH POINT OF EACH PLANTER, MIN 1 ARV PER 500' OF DISTRIBUTION TUBING. USING AN LATERAL, CONNECT AIR RELIEF VALVE TO ALL DRIP LINE LATERALS WITHIN THE ELEVATED AREA.	
Ⓔ	Hunter ECO-ID ECO-ID: 1/2" FPT connection with 12-60 PSI operating pressure. Specify with Hunter SJ swing joint. To be located at the highest point of each drip zone.	
	Area to Receive Dripline Hunter HDL-09-12-PC HDL-09-12-PC: Hunter Dripline with 0.9 GPH flow. Light brown tubing with black striping. Emitters at 12" O.C. Dripline laterals spaced at 16" apart, with emitters offset for triangular pattern. Install with Hunter PLD based or PLD-LOC fittings. For use on flat sites with Moderate/Sandy Soils.	
⊙	Hunter ICV-G-FS 1", 1-1/2", 2", and 3" Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry.	
⊠	Hunter HQ-44LRC Quick coupler valve, yellow rubber locking cover, red brass and stainless steel, with 1" NPT inlet, 2-piece body.	
⊗	Nibco T-113-K Class 125 bronze gate shut off valve with cross handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"	
Ⓜ	Hunter IBV-151-G-FS 1" 1", 1-1/2", 2", and 3" Brass Electric Master Valve, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry Factory Installed Option.	
⊕	Zum 975XL 1" Reduced Pressure Backflow device	
Ⓛ	Hunter ACC-3600-SS 36 Station Outdoor Modular Controller. With four ACM-600 module. High-End Commercial Use. Stainless Steel Cabinet.	
Ⓢ	Hunter WSS Wireless Solar, rain freeze sensor with outdoor interface, connects to Hunter POC, Pro-C, and P-Core Controllers, install as noted. Includes 10 year lithium battery and rubber module cover, and gutter mount bracket.	
Ⓢ	Hunter HC-100-FLOW 1" Flow meter for use with Hydrowise enabled controller to monitor flow and provide system alerts. Also functions as stand alone flow totalizer/sub meter on any residential or commercial irrigation system.	
Ⓜ	Actual Manifold Location Actual Valve Box & Manifold Locations. Verify location in field, to be clear of obstacles or utilities. Refer to Irrigation notes & details for installation. Valve symbols shown on the plan are diagrammatic only.	

VALVE CALLOUT



EL	ELECTRICAL CONNECTION 120 V Electrical connection location for controller, to be installed by licensed electrician. Verify location in field	
x1	Penetration Point Through Structural Slab Connection from Valve to planter areas on podium. See waterproofing detail per Architect's plan. For line type and routing, see MEP plans.	
POC 'B'	Point of Connection 1" TBD	
---	Irrigation Lateral Line: PVC Class 200 SDR 21	
---	Irrigation Mainline: PVC Schedule 40	
---	Pipe Sleeve: PVC Class 200 SDR 21	

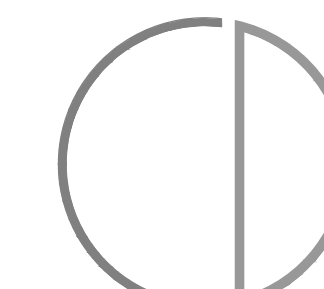
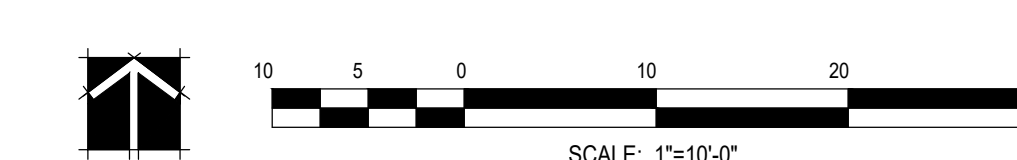


GENERAL IRRIGATION NOTES

- ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. IN CASE OF CONFLICT BETWEEN THE SPECIFICATIONS, DRAWINGS, AND/OR CODE, THE MORE STRINGENT REQUIREMENT SHALL PREVAIL.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
- THE MAINLINE AND SLEEVING IS DIAGRAMMATIC. ALL PIPING IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED WITHIN LIMIT OF WORK BOUNDARIES AND IN SHRUB PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES.
- IRRIGATION EQUIPMENT AS SHOWN IS DIAGRAMMATIC. INSTALL ALL THE IRRIGATION REMOTE CONTROL VALVES, QUICK COUPLERS, MASTER VALVES, FLOW SENSORS, BACKFLOWS, AIR/VACUUM DEVICES, BALL VALVES, AND ANCILLARY EQUIPMENT, IN SHRUB PLANTING AREAS WHEN FEASIBLE OR AS APPROVED BY OWNER'S REPRESENTATIVE AND THE LANDSCAPE IRRIGATION DESIGNER.
- DO NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.
- INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.
- CONTRACTOR TO PROVIDE AN ADDITIONAL PLEAD WIRE FROM CONTROLLER ALONG ENTIRETY OF MAINLINE TO THE LAST RCV ON EACH AND EVERY LEG OF MAIN LINE. LABEL SPARE WIRES AT BOTH ENDS.
- ALL PIPE UNDER PAVED AREAS, HARDSCAPE, OR AS DIRECTED BY OWNERS REPRESENTATIVE TO BE INSTALLED IN SLEEVING, TWICE THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED. ALL 2" AND 3" SLEEVING FOR NON-VIHCULAR PAVING SHALL BE PVC 1220 SCH. 40, TYPE 1, GRADE 2 MATERIAL CONFORMING TO ASTM STANDARD D-1785-4. ALL 4" AND LARGER SLEEVING BELOW VEHICULAR PAVING SHALL BE PVC 1220 SCH. 80 SDR21, TYPE 1, GRADE 2 MATERIAL CONFORMING TO ASTM STANDARD D-2241. SLEEVES UNDER BROW DITCHES SHALL BE ENCASED IN CONCRETE A MINIMUM OF 6" THICK ON ALL SIDES OF PIPE. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF PAVING.
- ALL QUICK COUPLER VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER VALVES WITHIN 18" OF HARDSCAPE.
- IRRIGATION HEADS ADJACENT TO THE STREET SHALL BE HELD A MINIMUM OF 2 FEET FROM EDGE OF PAVEMENT. ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS. WHEN VERTICAL OBSTRUCTIONS (PROPS, STREET LIGHTS, TREES, ETC.) INTERFERE WITH THE SPRAY PATTERN OF THE SPRINKLER HEADS PREVENTING PROPER COVERAGE, THE IRRIGATION CONTRACTOR SHALL FIELD ADJUST THE SPRINKLER SYSTEM BY INSTALLING A QUARTER CIRCLE OR HALF CIRCLE SPRINKLER HEAD ON EACH SIDE OF THE OBSTRUCTION SO AS TO PROVIDE PROPER COVERAGE. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- THE IRRIGATION CONTRACTOR SHALL ADJUST THE PRESSURE REGULATOR ON EACH ELECTRIC CONTROL VALVE SO THAT THE SPRINKLER HEAD FARTHEST AND HIGHEST IN ELEVATION FROM ITS RESPECTIVE CONTROL VALVE OPERATES WITHIN THE OPERATING PRESSURE SHOWN ON THE IRRIGATION LEGEND. NOT TO EXCEED FIVE (5) PSI ABOVE THE GIVEN OPERATING PRESSURE FROM THE SPECIFIED PRESSURE LOCATED ON THE IRRIGATION LEGEND.
- THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE IRRIGATION DRAWINGS AT EACH POINT OF CONNECTION. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE VIA DIRECT FIELD MEASUREMENT PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO START OF CONSTRUCTION, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS, AND COSTS ASSOCIATED WITH SAID REVISIONS.
- SHOULD FIELD CONDITIONS REQUIRE PIPE INSTALLATION OTHER THAN THAT SHOWN ON PLANS, THE CONTRACTOR SHALL LIMIT EXCESS FLOW AND SIZE ALL PIPE NOT TO EXCEED A VELOCITY OF 5 FEET PER SECOND (FPS) IN PVC PIPE AND CAST IRON PIPE. FLOW THROUGH ANCILLARY EQUIPMENT, STEEL AND COPPER PIPE SHALL NOT EXCEED A VELOCITY OF 7 1/2 FPS. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- CHECK VALVES SHALL BE USED TO PREVENT ALL LOW HEAD DRAINAGE

Underground Service Alert
Call: TOLL FREE
1-800
227-2600

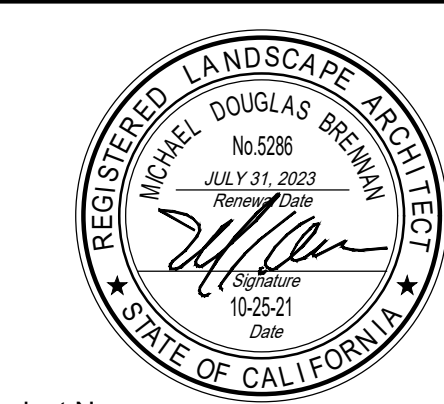
THREE WORKING DAYS BEFORE YOU DIG
"CAUTION: Remember that the USA Center notifies only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify."



Revision Log

Date	Description
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2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature



Project Name

Solana 101

Project Number

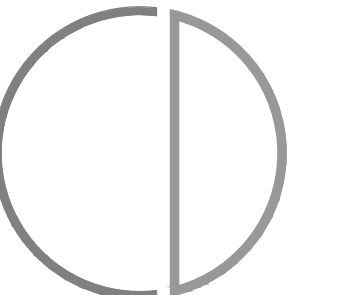
16-036

Description

LANDSCAPE IRRIGATION PLAN

Scale

1"=10'



PRESSURE LOSS CALCULATION

Generated: 2020-01-29 09:51

P.O.C. NUMBER: 02
Water Source Information: TBD

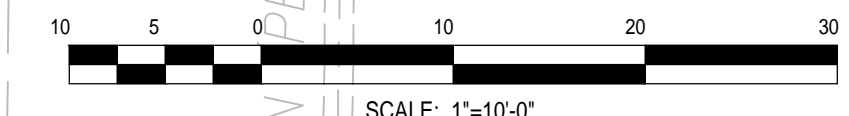
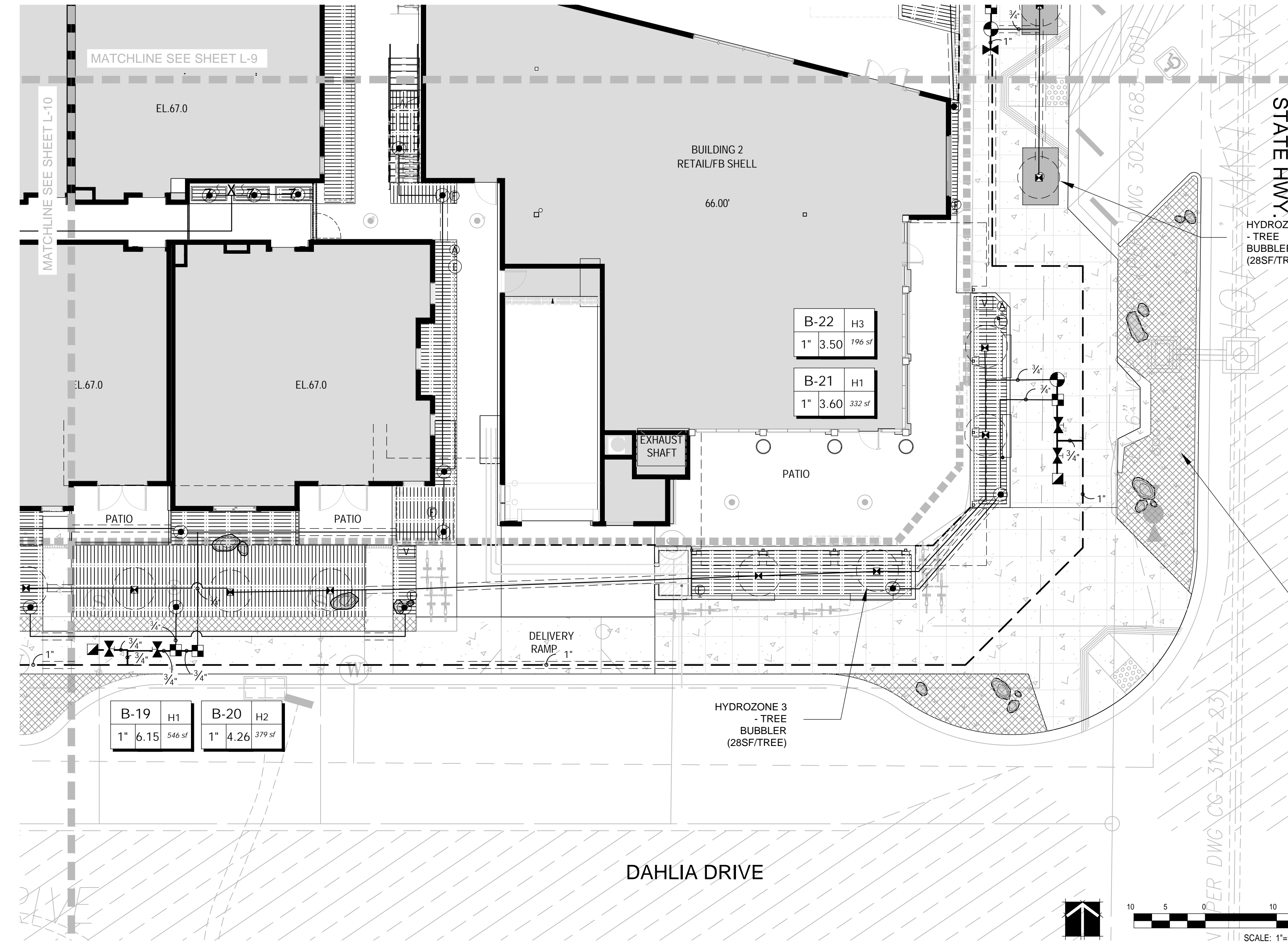
FLOW AVAILABLE
Point of Connection Size: 1"
Flow Available: 20.24 gpm

PRESSURE AVAILABLE
Static Pressure at POC: 60.00 psi
Pressure Available: 60.00 psi

DESIGN ANALYSIS
Maximum Station Flow: 8.61 gpm
Flow Available at POC: 20.24 gpm
Residual Flow Available: 11.63 gpm

Critical Station: B-24
Design Pressure: 25.00 psi
Friction Loss: 1.66 psi
Fittings Loss: 0.17 psi
Elevation Loss: 0.00 psi
Loss through Valve: 10.20 psi
Pressure Req. at Critical Station: 37.02 psi
Loss for Fittings: 0.45 psi
Loss for Main Line: 4.47 psi
Loss for POC to Valve Elevation: 0.00 psi
Loss for Backflow: 11.50 psi
Loss for Master Valve: 2.70 psi
Critical Station Pressure at POC: 56.14 psi
Pressure Available: 60.00 psi
Residual Pressure Available: 3.86 psi

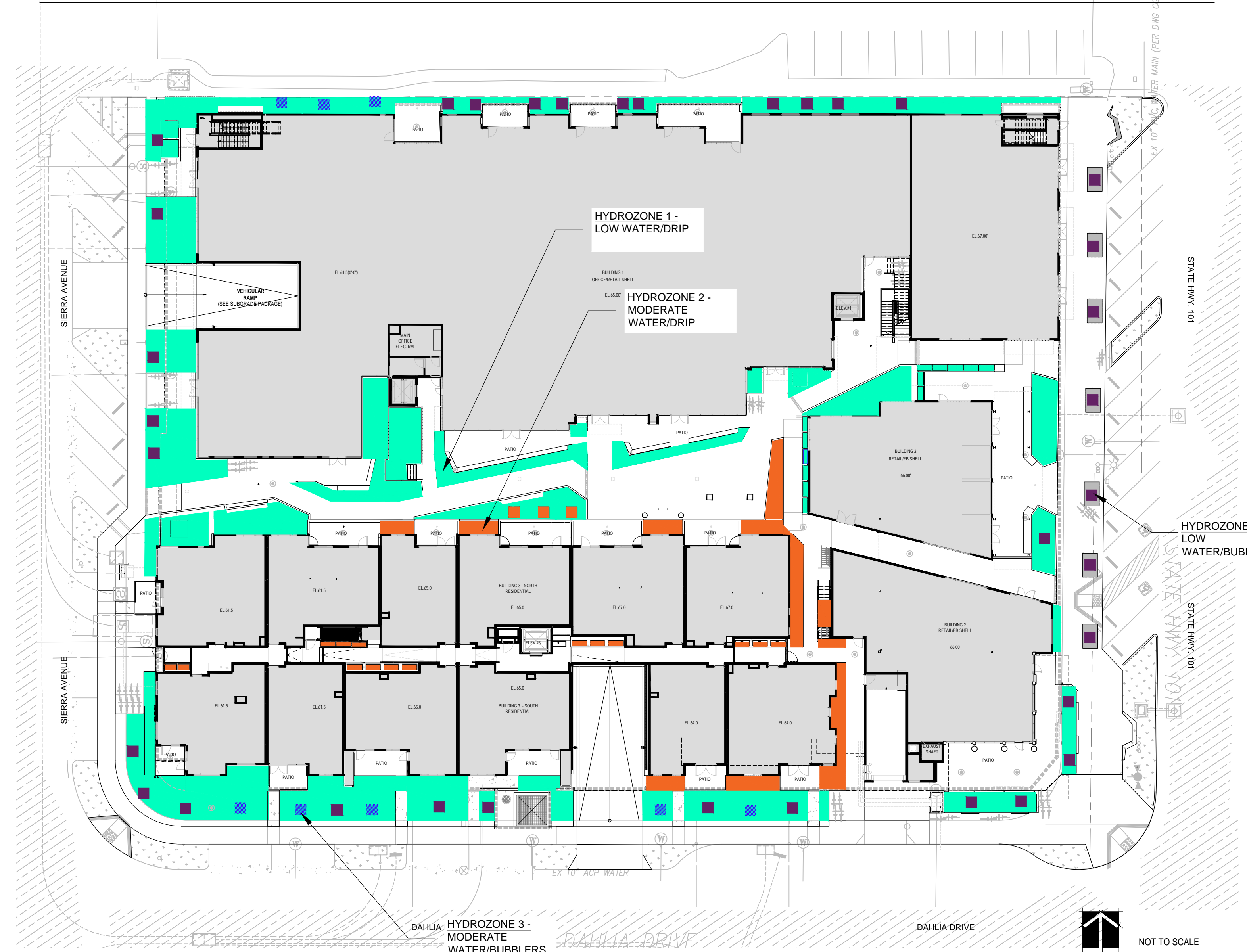
IRRIGATED AREAS TO BE SHOWN ON IMPROVEMENT PLANS, TYP.



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
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	Pipe Transition Point Rainbird MDCF Fittings for Connections between lateral lines and drip tubing	
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	Hunter ECO-ID ECO-ID: 1/2" FPT connection with 12-60 PSI operating pressure. Specify with Hunter SJ swing joint. To be located at the highest point of each drip zone.	
	Area to Receive Dripline Hunter HDL-09-12-PC HDL-09-12-PC: Hunter Dripline with 0.9 GPH flow. Light brown tubing with black striping. Emitters at 12" O.C. Dripline laterals spaced at 16" apart, with emitters offset for triangular pattern. Install with Hunter PLD barbed or PLD-LOC fittings. For use on flat sites with Moderate/Sandy Soils	
	Hunter ICV-G-FS 1", 1-1/2", 2", and 3" Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry.	
	Hunter HQ-44LRC Quick coupler valve, yellow rubber locking cover, red brass and stainless steel, with 1" NPT inlet, 2-piece body.	
	Nibco T-13-K Class 125 bronze gate shut off valve with cross handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"	
	Hunter IBV-151-G-FS 1" 1", 1-1/2", 2", and 3" Brass Electric Master Valve, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry Factory Installed Option.	
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	Actual Manifold Location Actual Valve Box & Manifold Locations. Verify location in field, to be clear of obstacles or utilities. Refer to irrigation notes & details for installation. Valve symbols shown on the plan are diagrammatic only.	
VALVE CALLOUT		
	Valve Number	
	Hydrozone	
	Area	
	Valve Flow	
	Valve Size	
	ELECTRICAL CONNECTION 120 V Electrical connection location for controller, to be installed by licensed electrician. Verify location in field. Penetration Point Through Structural Slab Connection from Valve to planter areas on podium. See waterproofing detail per Architect's plan. For line type and routing, see MEP plans.	
	Point of Connection 1" TBD	
	Irrigation Lateral Line: PVC Class 200 SDR 21	
	Irrigation Mainline: PVC Schedule 40	
	Pipe Sleeve: PVC Class 200 SDR 21	

HYDROZONE MAP



WATER USE CALCULATIONS

CITY OF SOLANA BEACH ESTIMATED TOTAL WATER USE (ETWU) WORKSHEET

Irrigation Point of Connection (P.O.C.) A -

LINE	HYDROZONE 1 (DRIP)	HYDROZONE 2 (DRIP)	HYDROZONE 3 (TREE BUBBLER)	HYDROZONE 4 (TREE BUBBLER)	SLA
EVAPOTRANSPIRATION RATE (Eto)	1		41		
CONVERSION FACTOR - 0.62	2		0.62		
LINE 1 X LINE 2	3		25.42		
PLANT FACTOR (PF)	4	0.30	0.80	0.30	
HYDROZONE AREA (HA)	5	8443	1038	896	523
LINE 4 X LINE 5	6	2533.5	822.8	837.6	159.6
IRRIGATION EFFICIENCY (IE)	7	0.81	0.81	0.75	0.75
LINE 6 / LINE 7	8	3127.78	768.89	715.80	212.80
TOTAL OF ALL LINE 8 BOXES	9		4.826		
LINE 3 X LINE 9 - ESTIMATED TOTAL WATER USE (ETWU)	10		122.684		

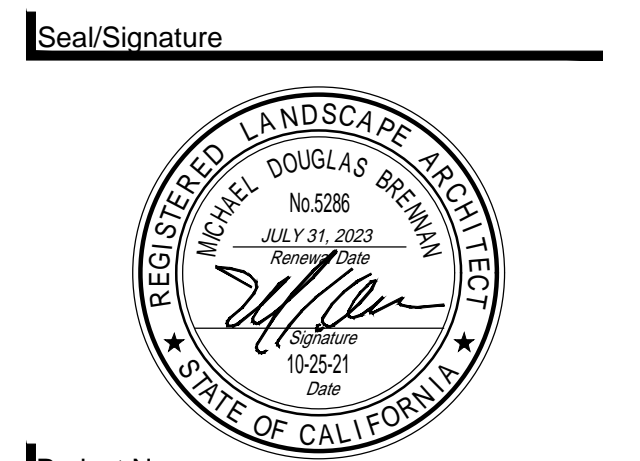
MAXIMUM APPLIED WATER ALLOWANCE (MAWA):
 $ET_o = 47 \text{ in/y}$
 $LA = 10911 \text{ sq ft}$
 $SLA = 0 \text{ sq ft}$
 $ETAF = 0.62$

MAWA = $(Eto)(0.62)(ETAF \times LA) + (1 - ETAF) \times SLA$
 $(Eto)(0.62)(0.45 \times LA) + (1 - 0.45) \times SLA$

MAWA = 28.42 [1.45 x 10911.00] + 0 = 10911.00 gal per year

MAXIMUM APPLIED WATER ALLOWANCE = 124810.929 gal per year

Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
2019.07.26	SUBTERRANEAN BLDG PERMIT
2019.08.23	GMP ISSUE
2019.08.29	BALANCE OF WORK PERMIT - CITY SUBMITTAL 1
2019.12.20	SUBTERRANEAN BUILDING PERMIT
2020.2.12	PLANNING & FIRE CHECK
2020.3.25	BALANCE OF WORK PERMIT - SUBMITTAL 2
2020.3.30	ADDENDUM PE - BALANCE OF WORK
2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC / DELTA 10
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

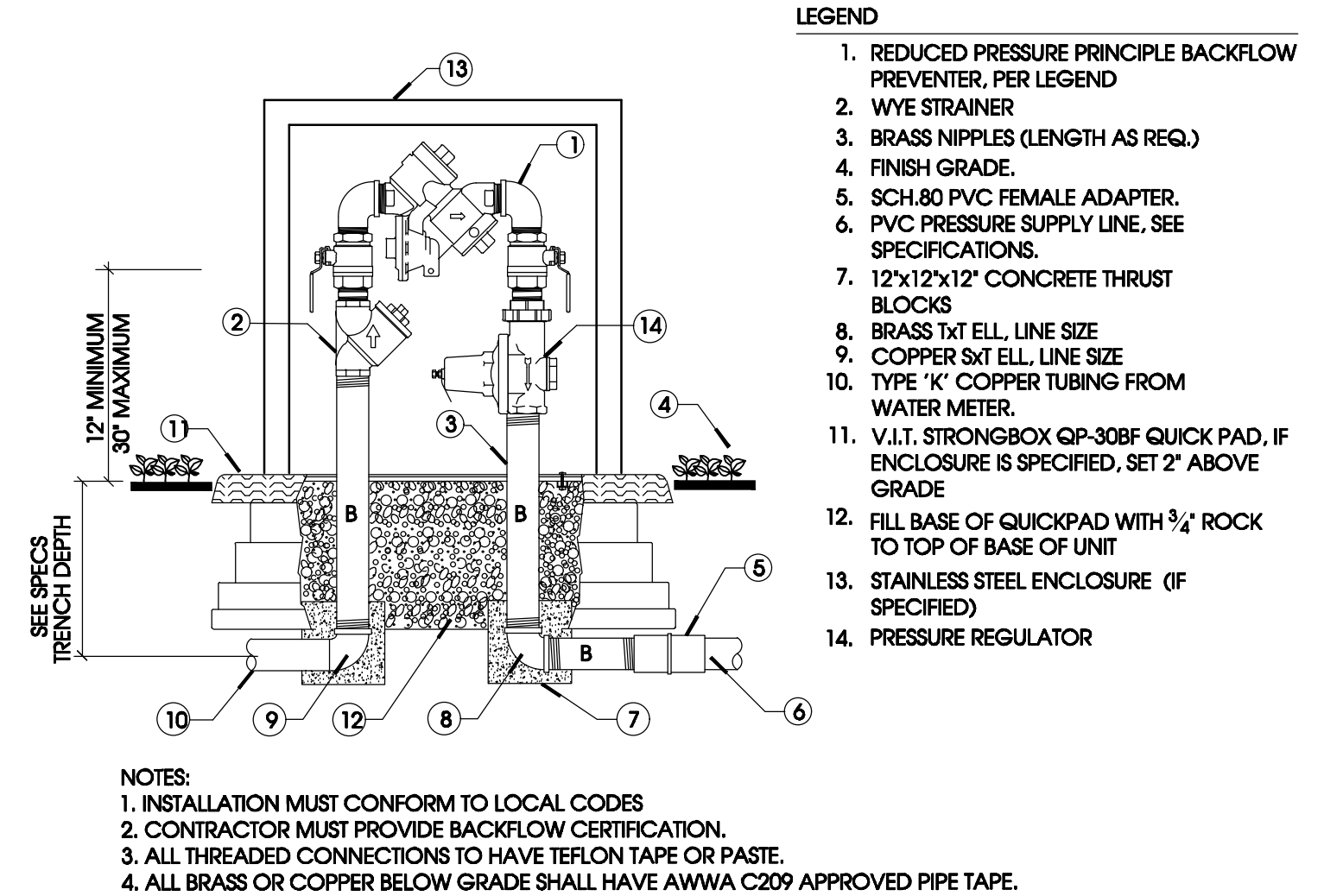


Project Name: Solana 101
 Project Number: 16-036
 Description: LANDSCAPE IRRIGATION PLAN

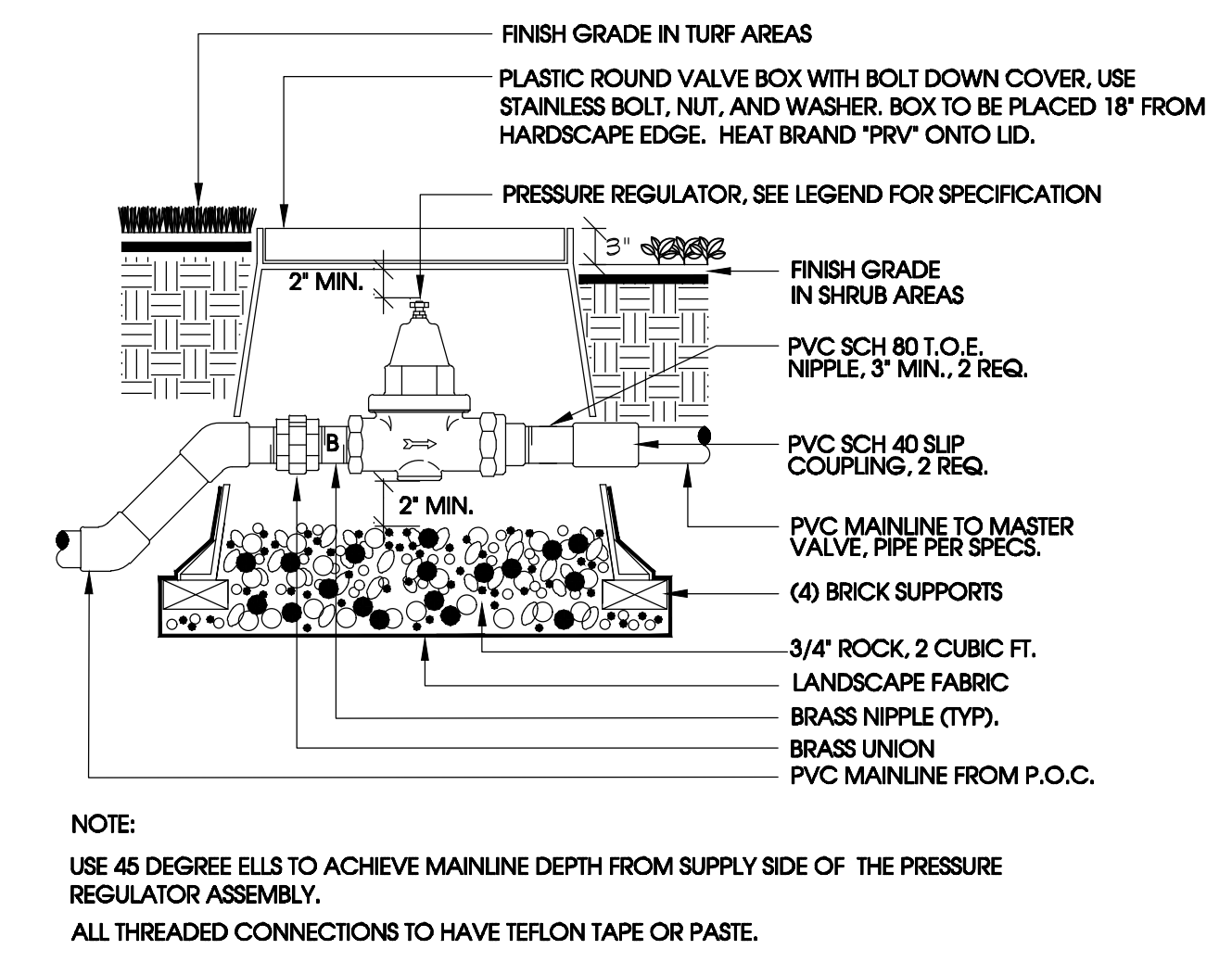
Scale: 1"=10'

Underground Service Alert
 Call: TOLL FREE
 1-800-227-2600

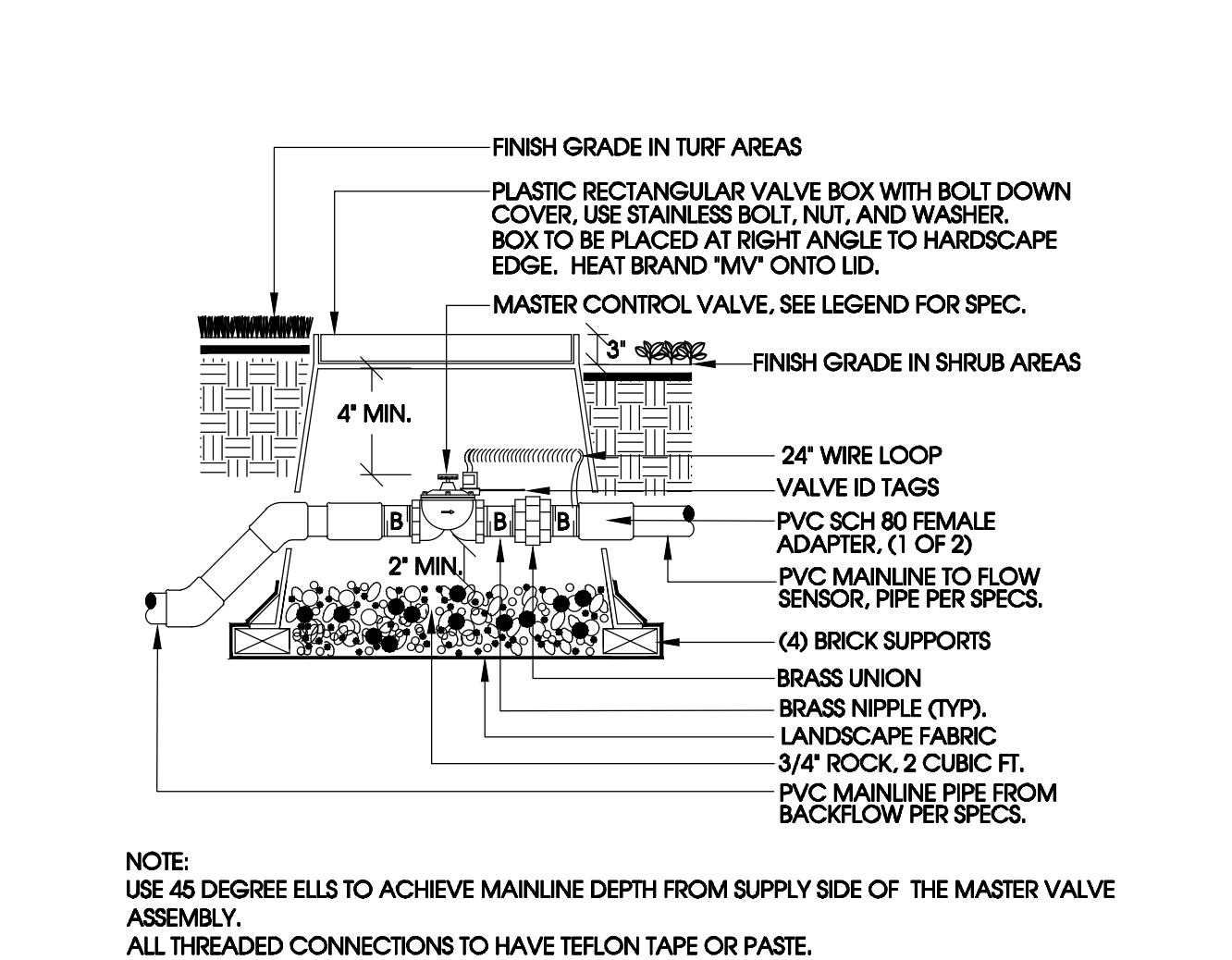
TWO WORKING DAYS BEFORE YOU DIG
 *CAUTION: Remember that the UGA Center notifies only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.



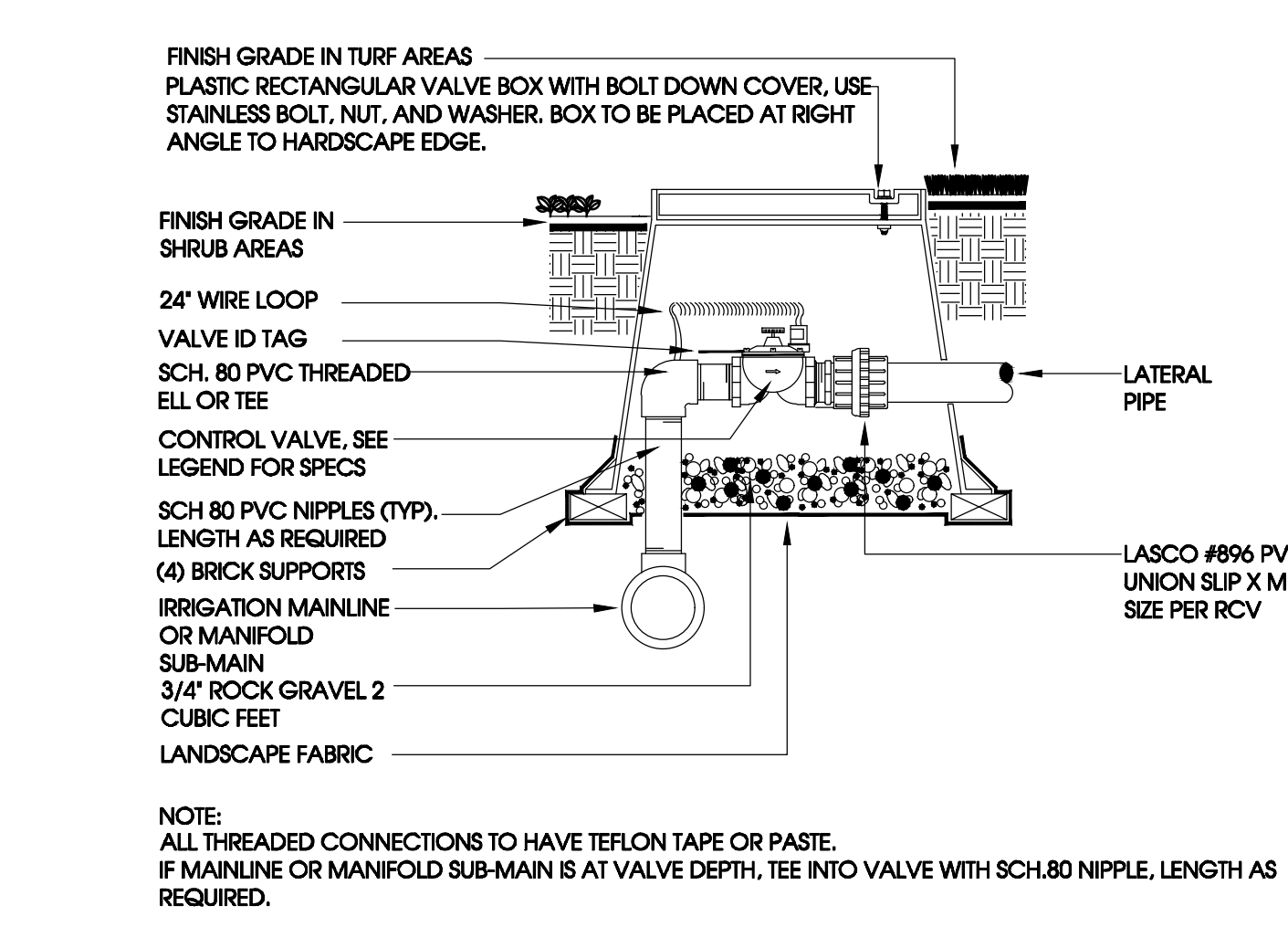
A BACKFLOW DEVICE
SCALE: N.T.S.



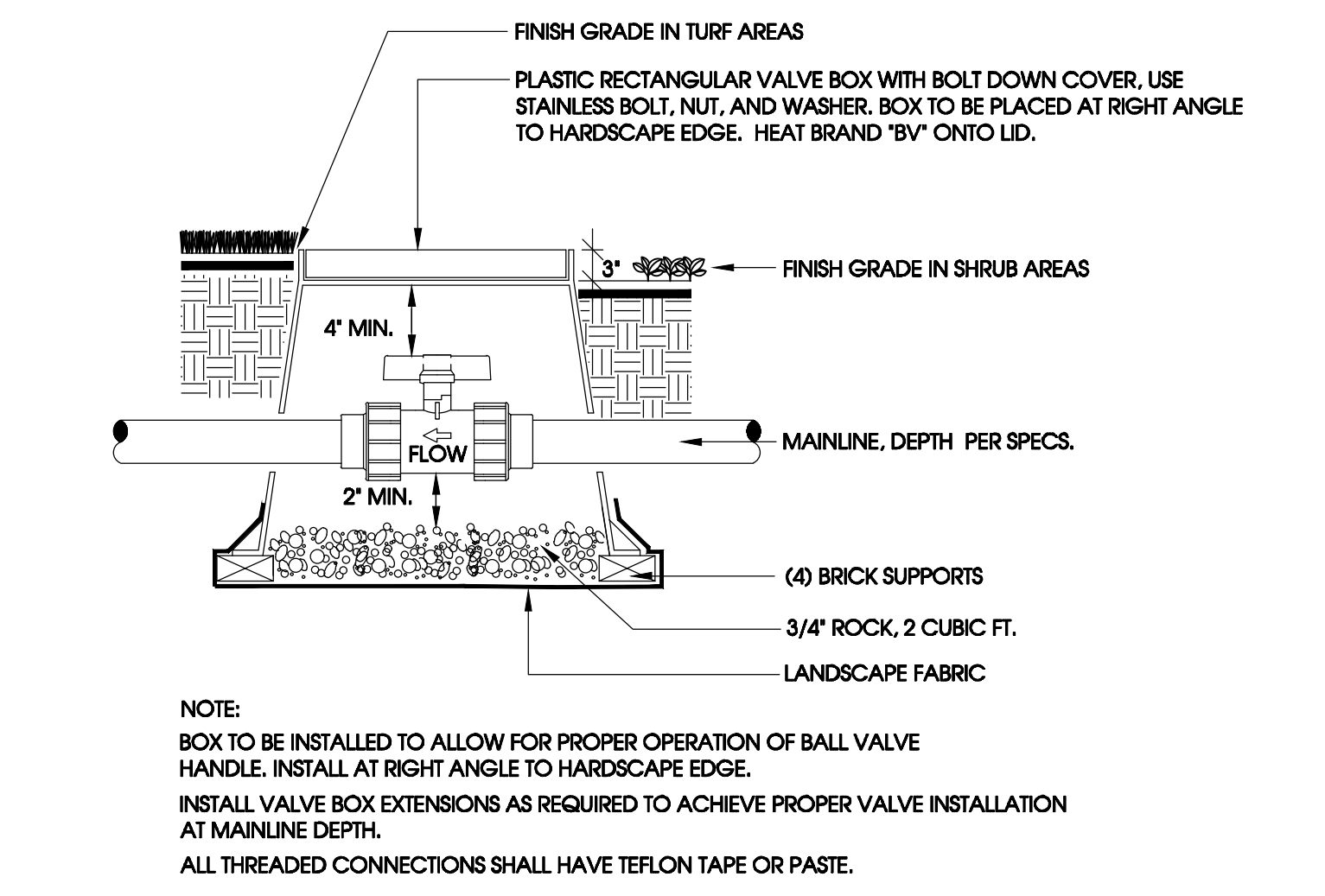
B PRESSURE REGULATOR
SCALE: N.T.S.



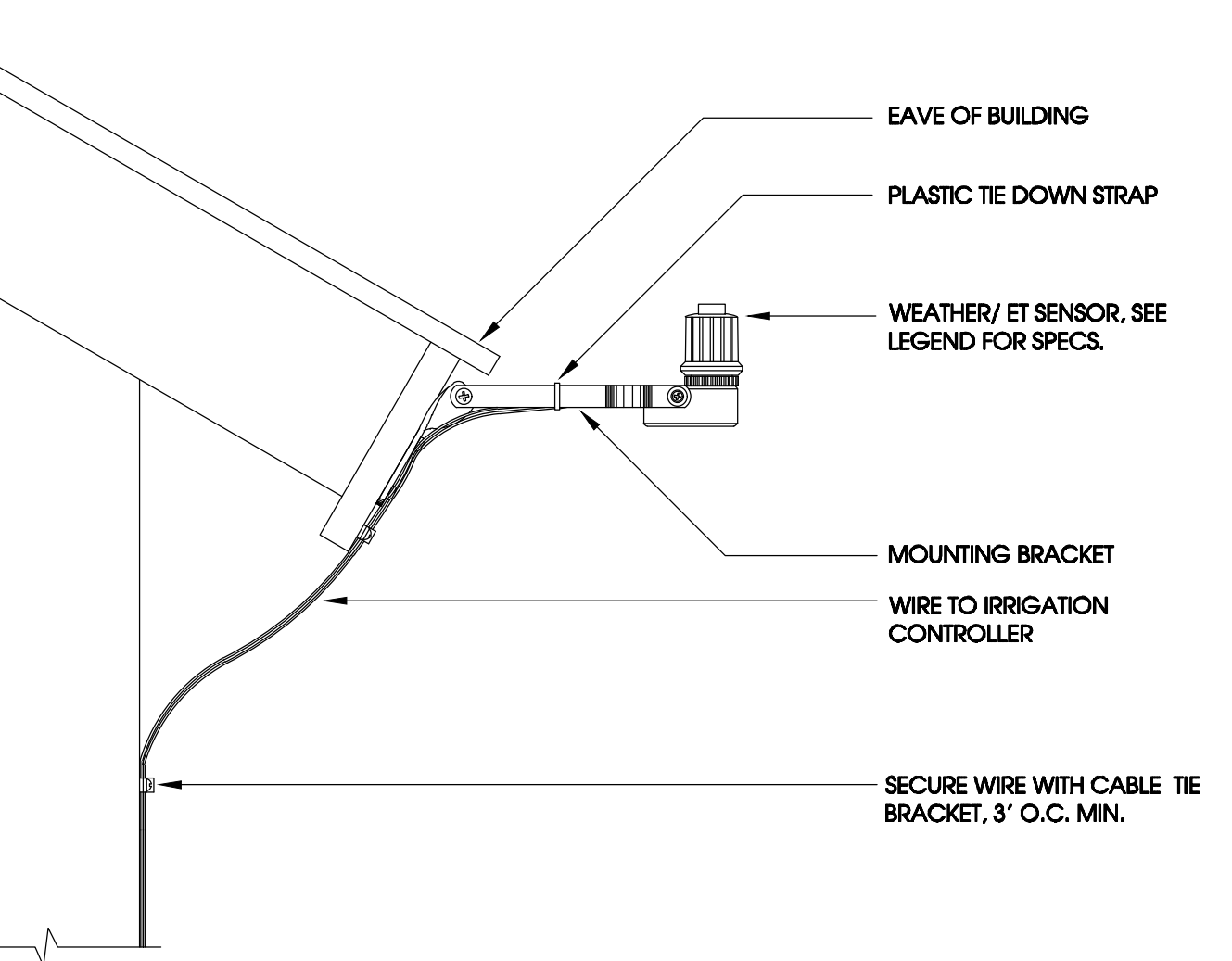
C MASTER VALVE
SCALE: N.T.S.



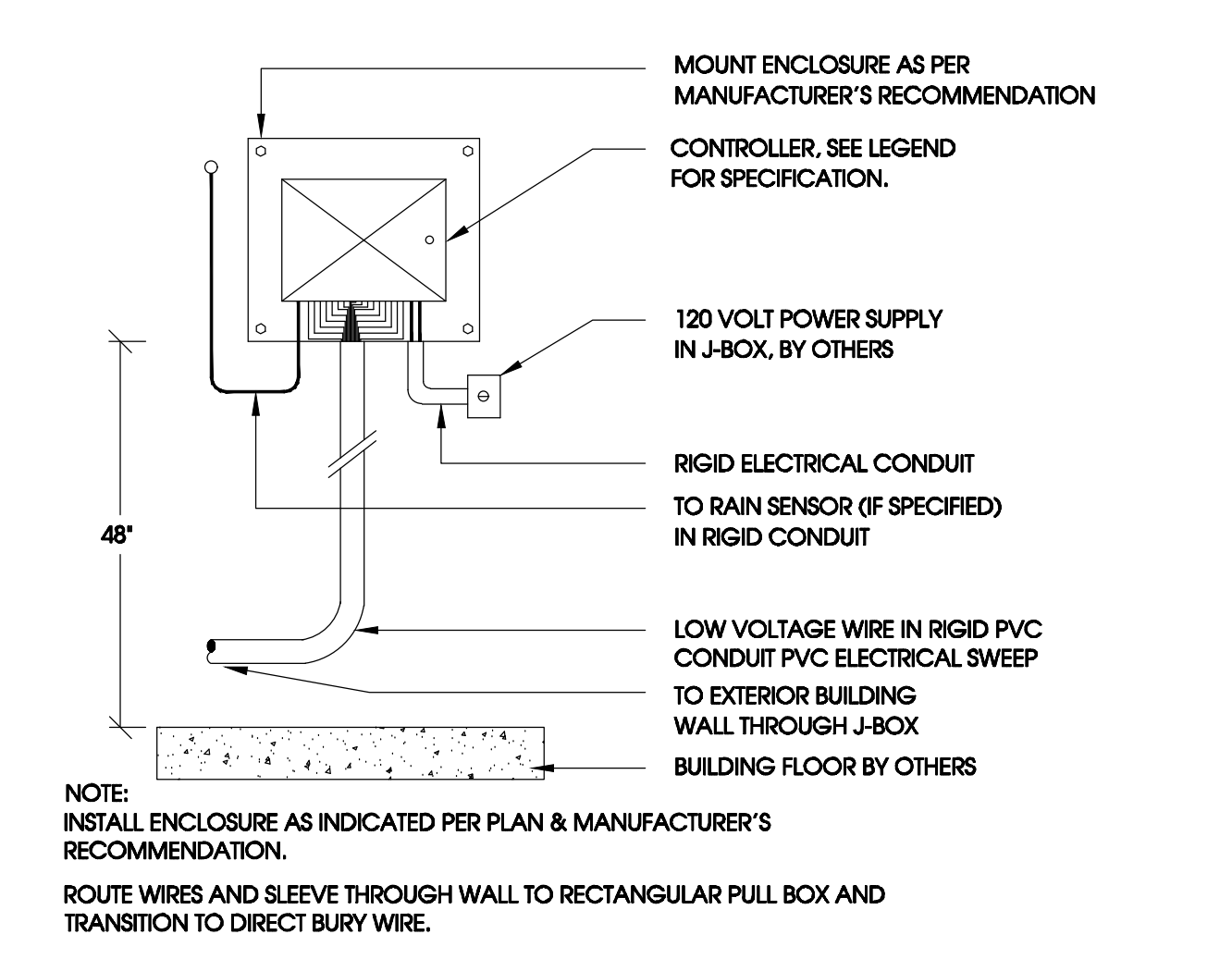
D REMOTE CONTROL VALVE
SCALE: N.T.S.



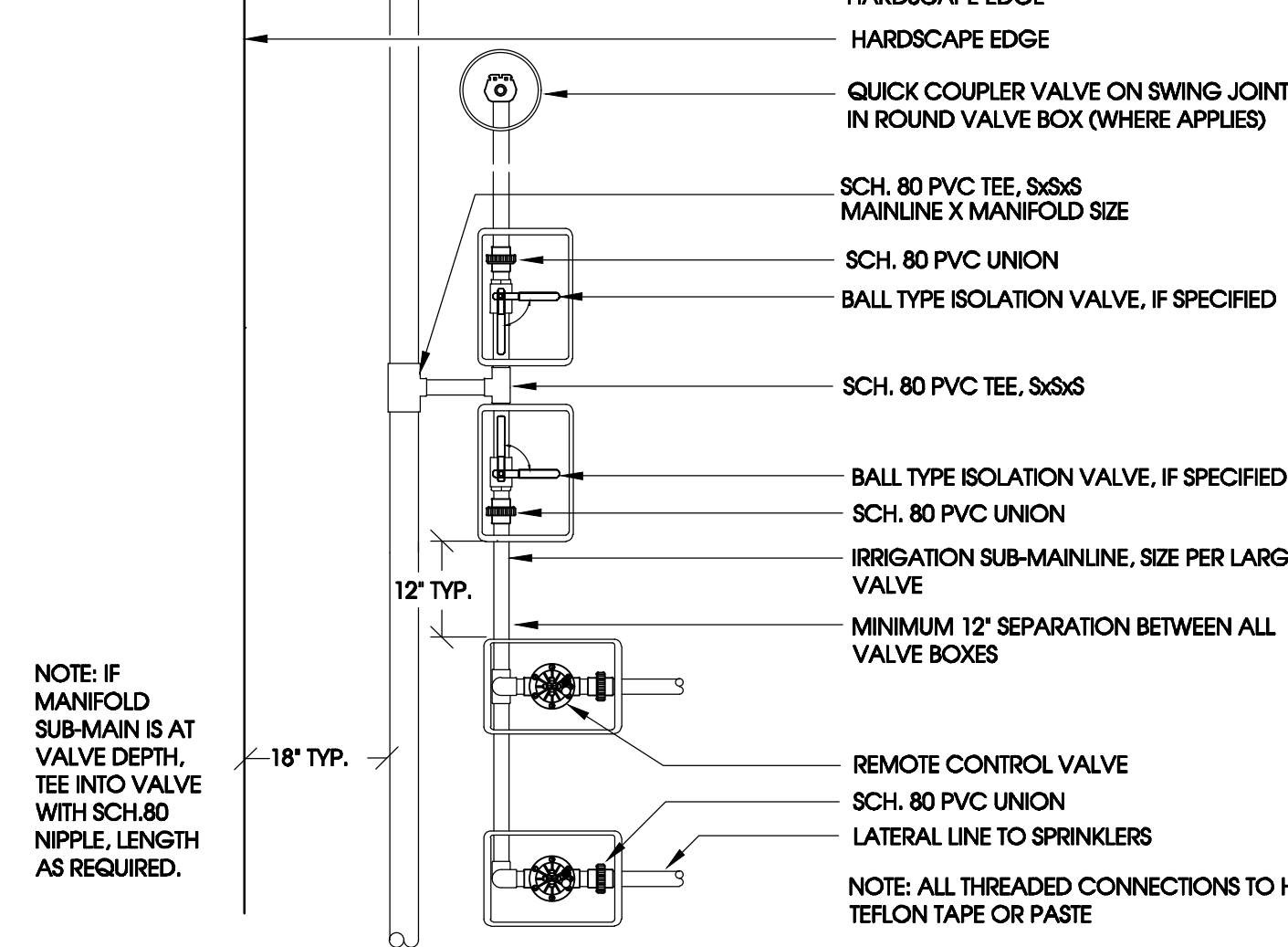
E BALL VALVE
SCALE: N.T.S.



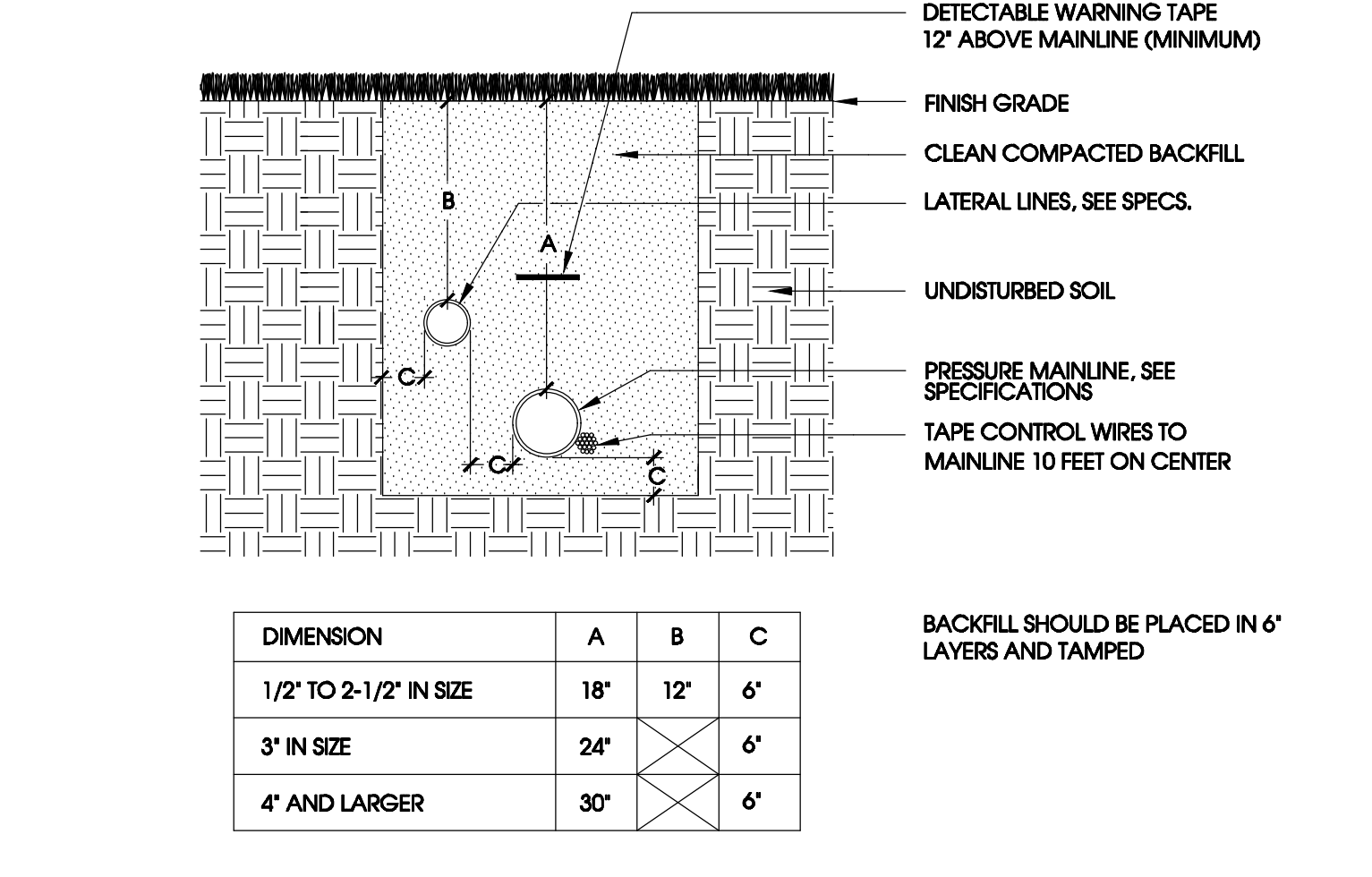
F WEATHER/ET SENSOR MOUNTED ON EAVE
SCALE: N.T.S.



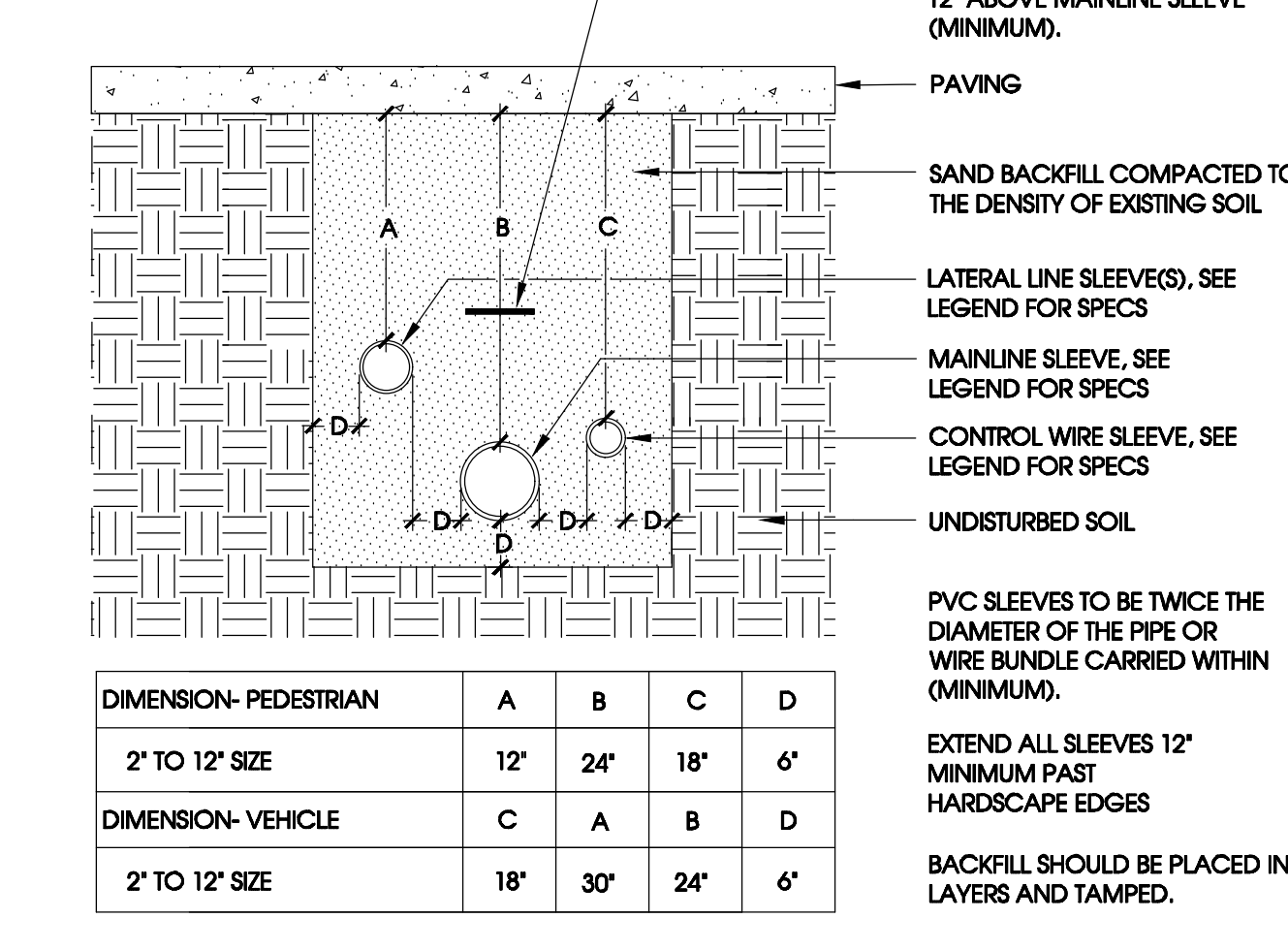
G WALL MOUNT CONTROLLER
SCALE: N.T.S.



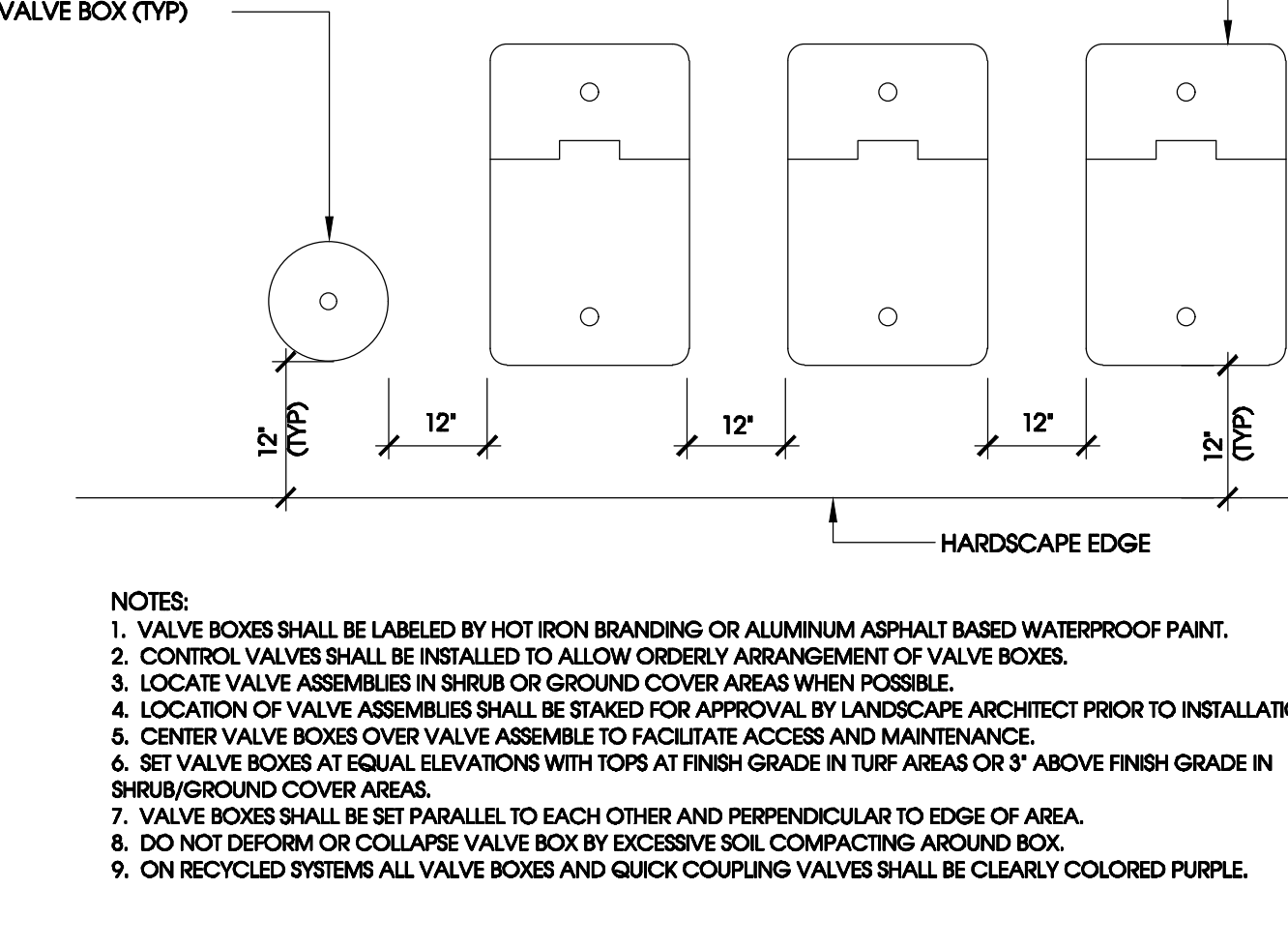
H MANIFOLD INSTALLATION
SCALE: N.T.S.



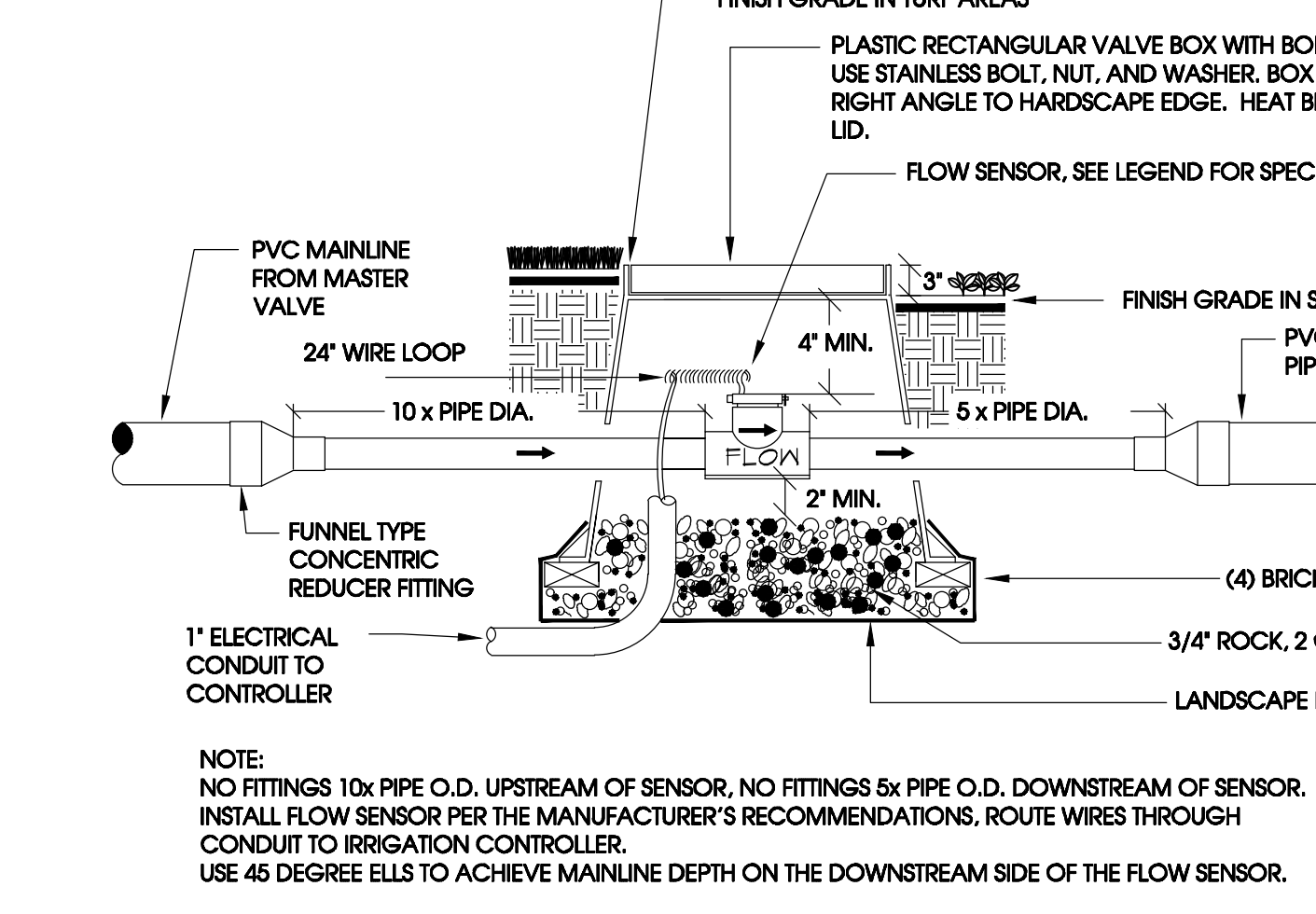
I PIPE INSTALLATION, POTABLE
SCALE: N.T.S.



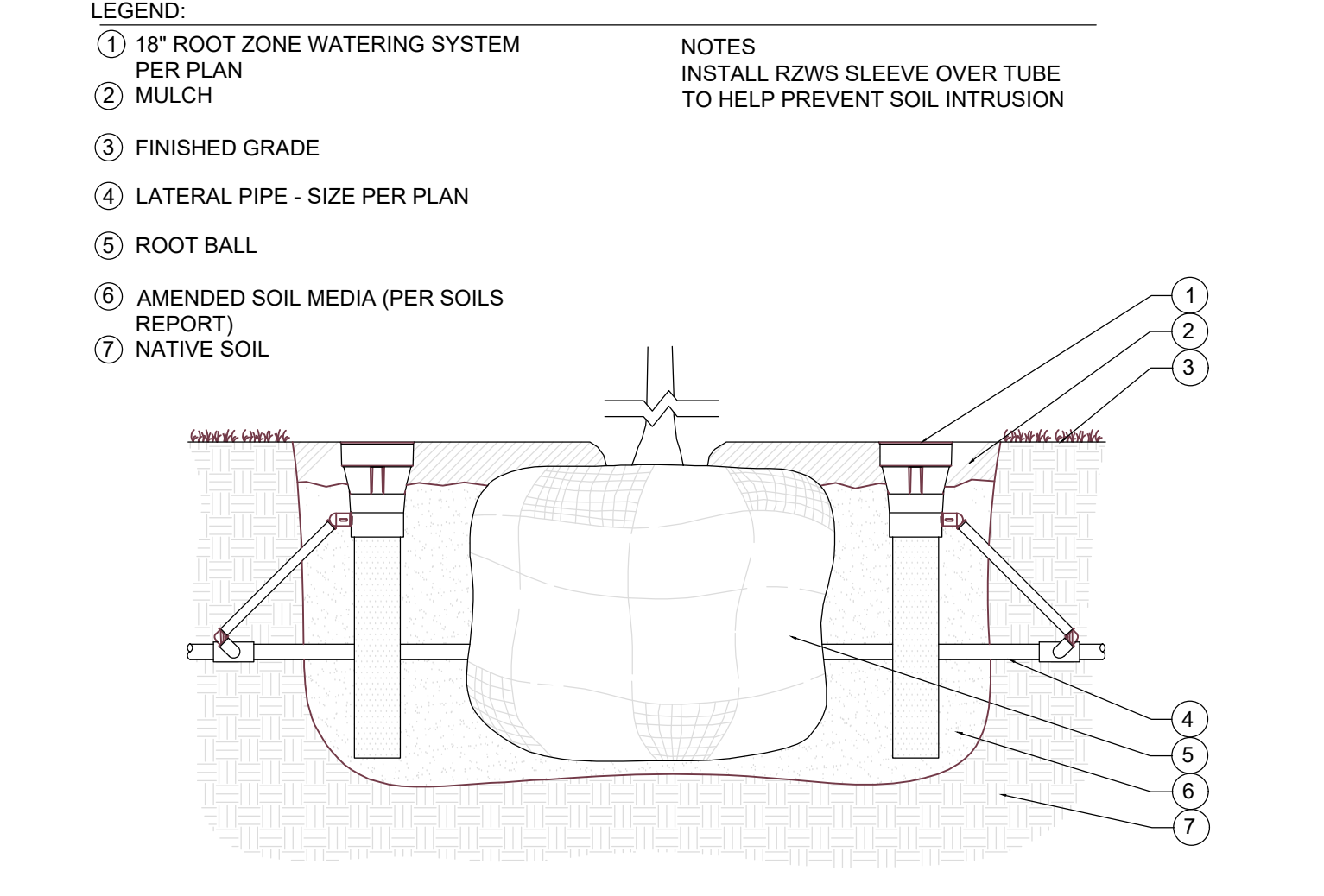
J SLEEVE INSTALLATION, POTABLE
SCALE: N.T.S.



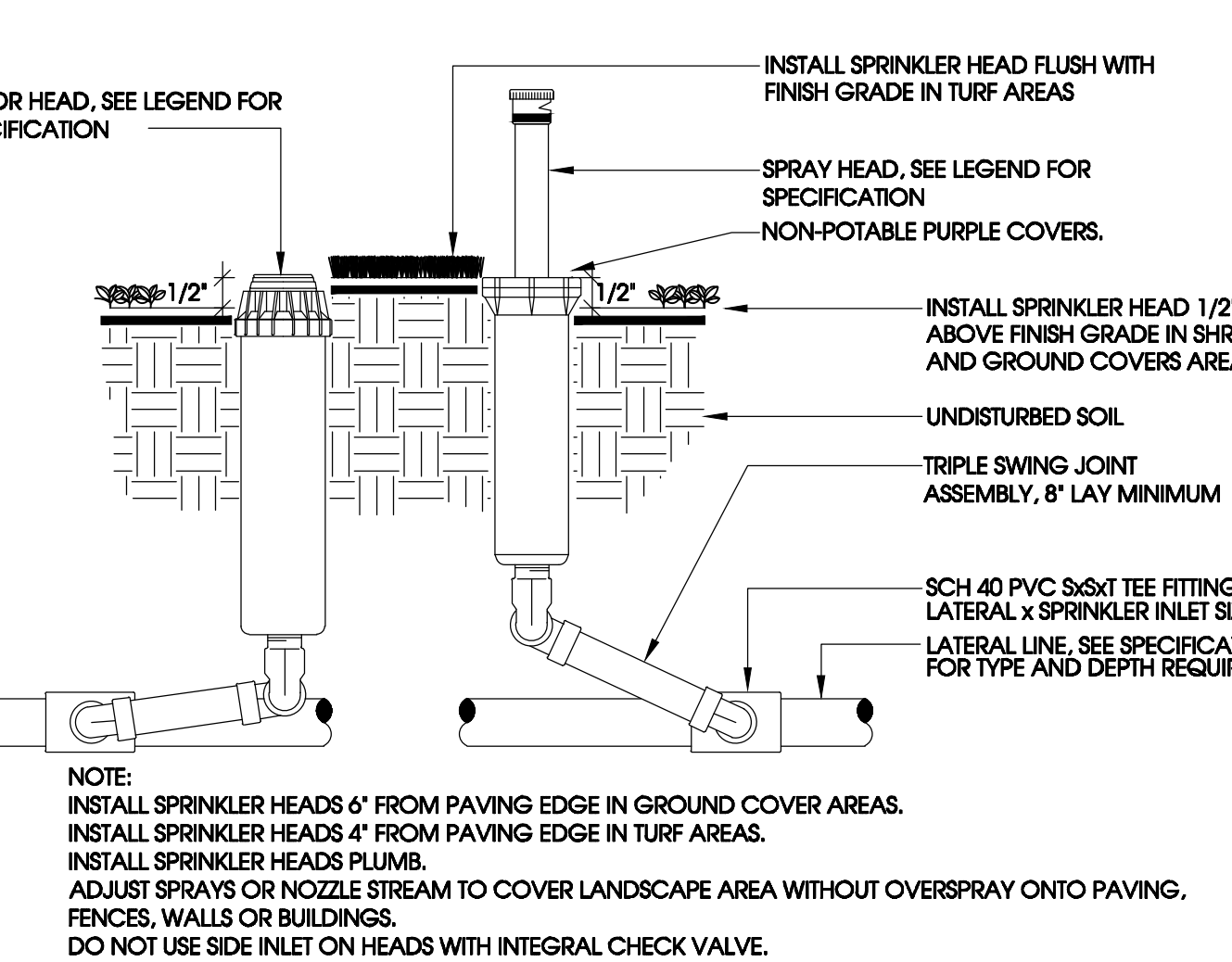
K VALVE BOX LAYOUT
SCALE: N.T.S.



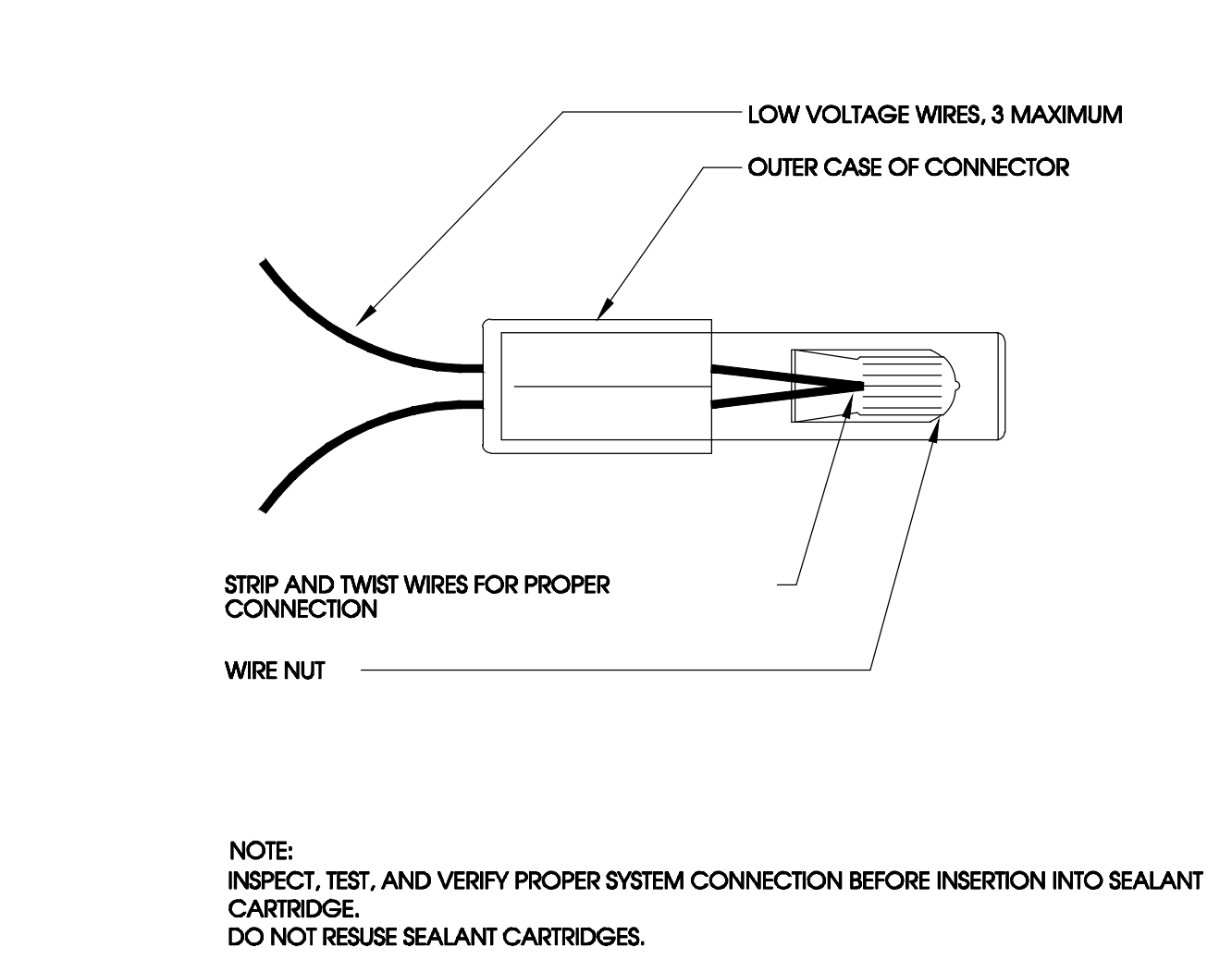
L FLOW SENSOR
SCALE: N.T.S.



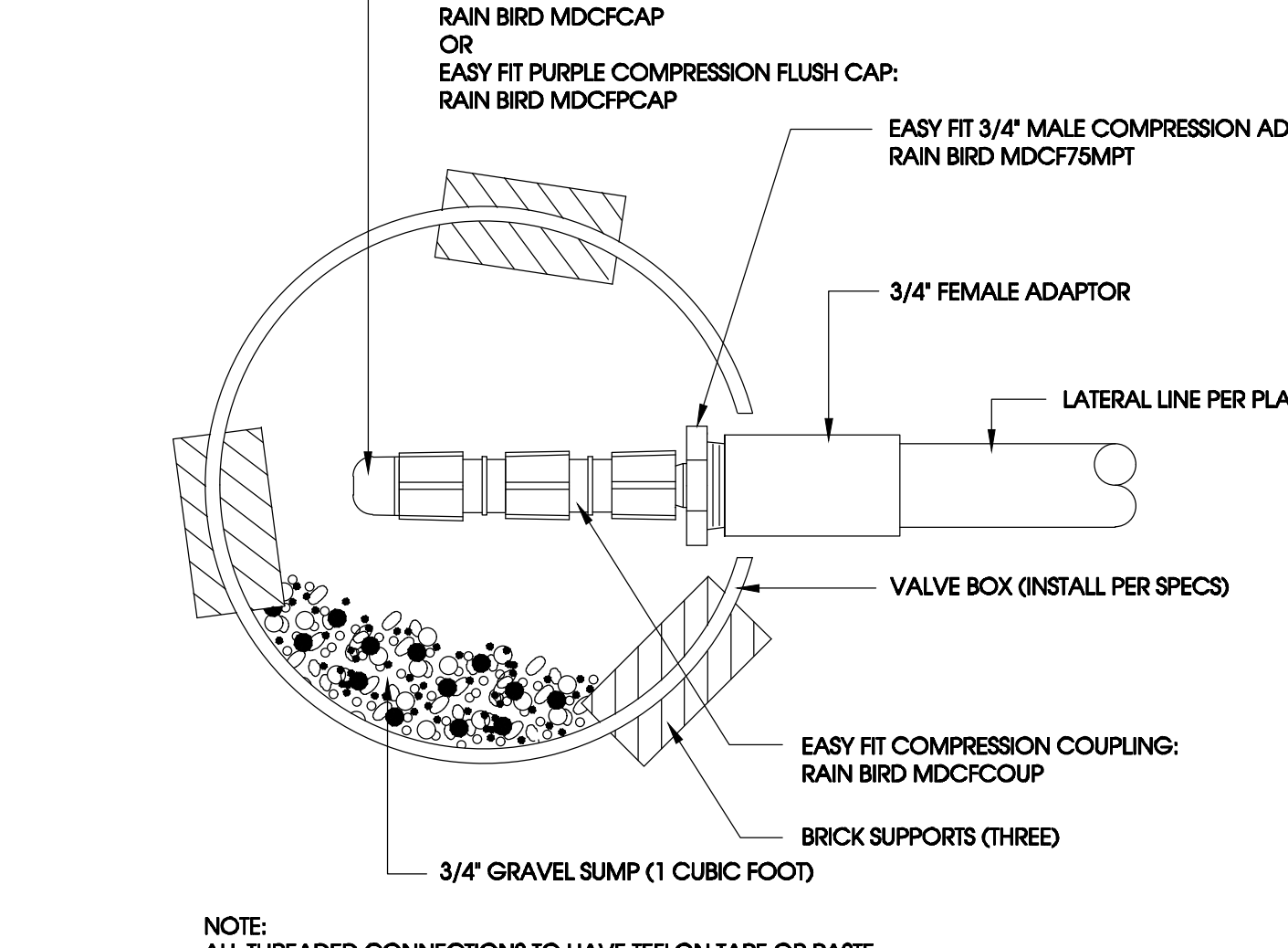
M DEEP WATERING TREE BUBBLER
SCALE: N.T.S.



N POP-UP SPRINKLER
SCALE: N.T.S.



O WIRE CONNECTIONS
SCALE: N.T.S.



P MDCF FLUSH CAP
SCALE: N.T.S.

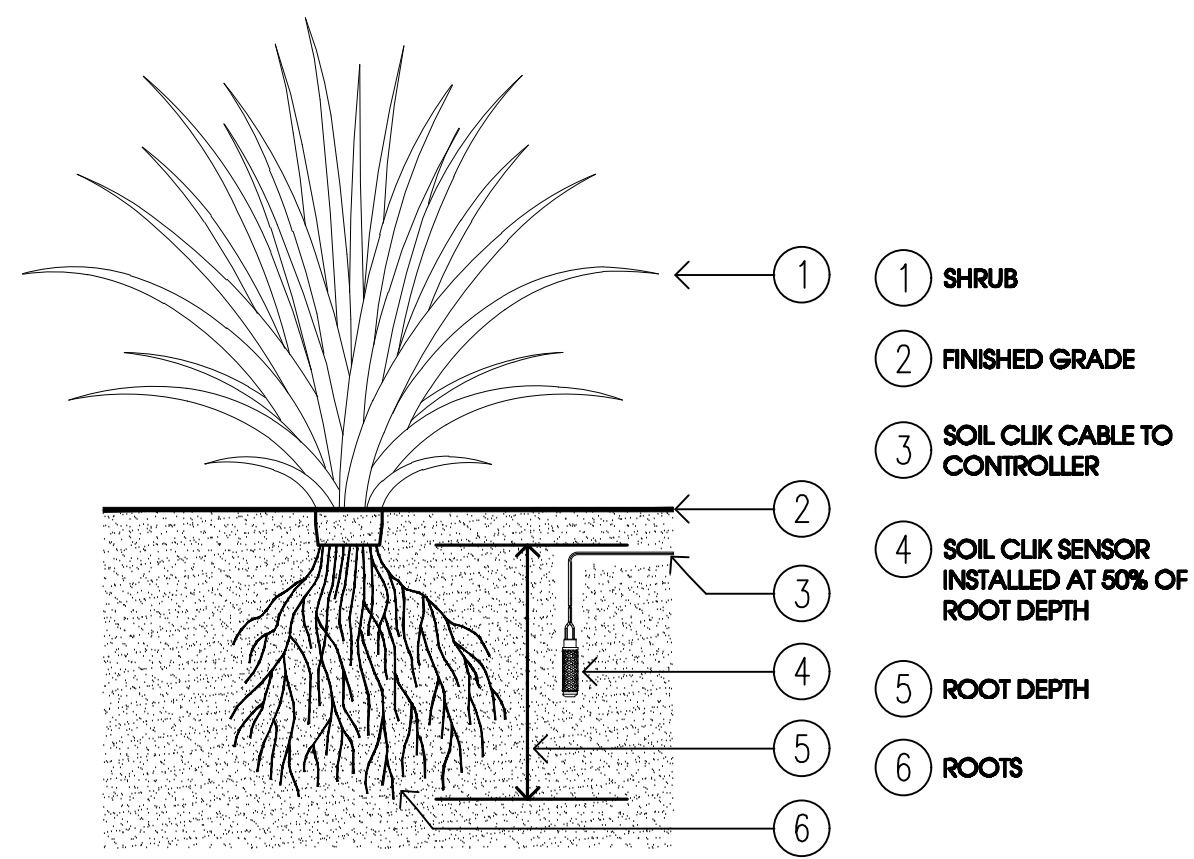
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2021.6.11	BULLETIN 1
2021.7.23	BULLETIN 1

Seal/Signature

Project Name
Solana 101

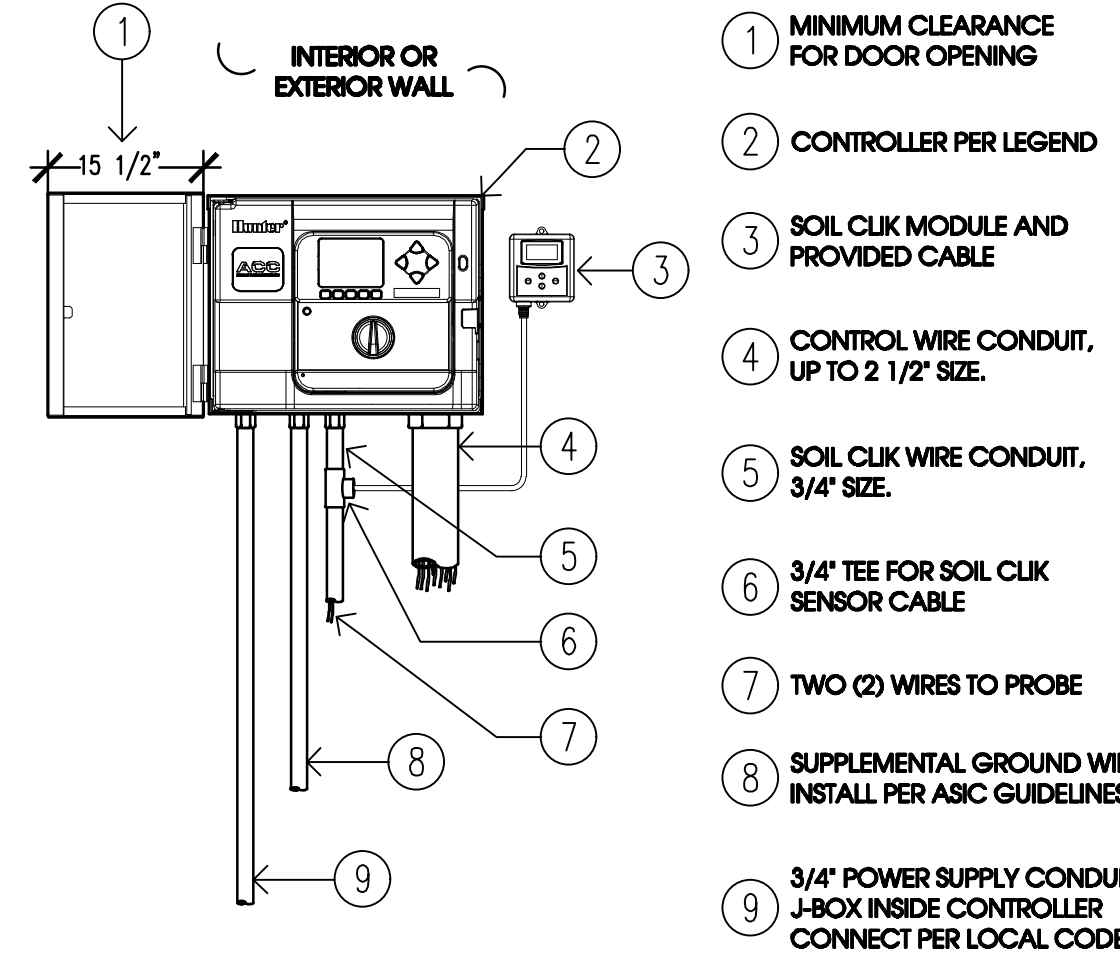
Project Number
16-036

Description
LANDSCAPE IRRIGATION DETAILS



Q SOIL CLIK SENSOR IN PLANTING AREA

SCALE: N.T.S.

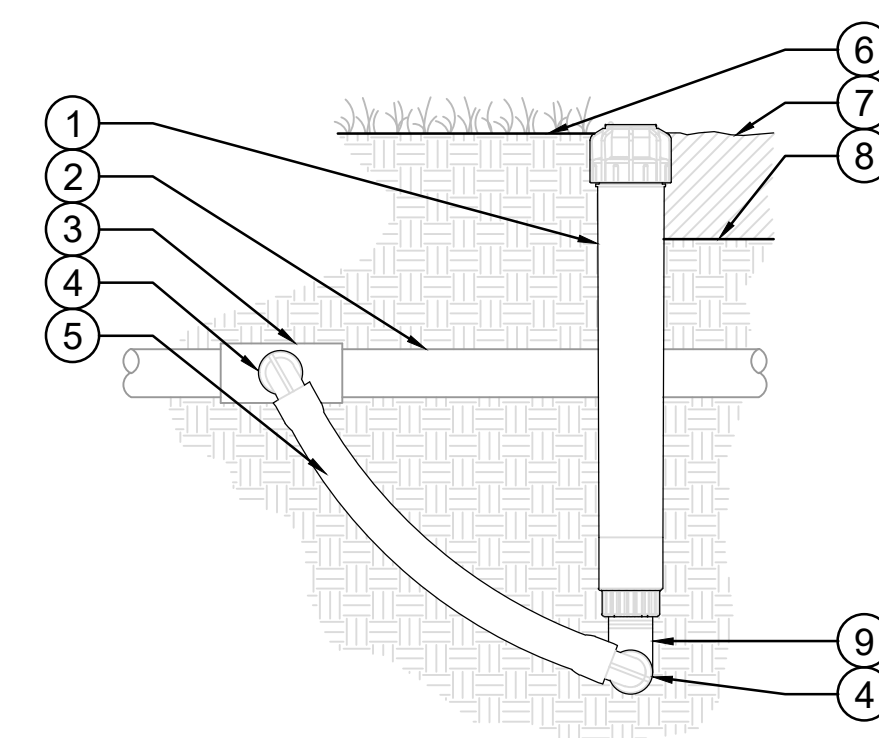


R SOIL CLIK INSTALLED AT CONTROLLER

SCALE: N.T.S.

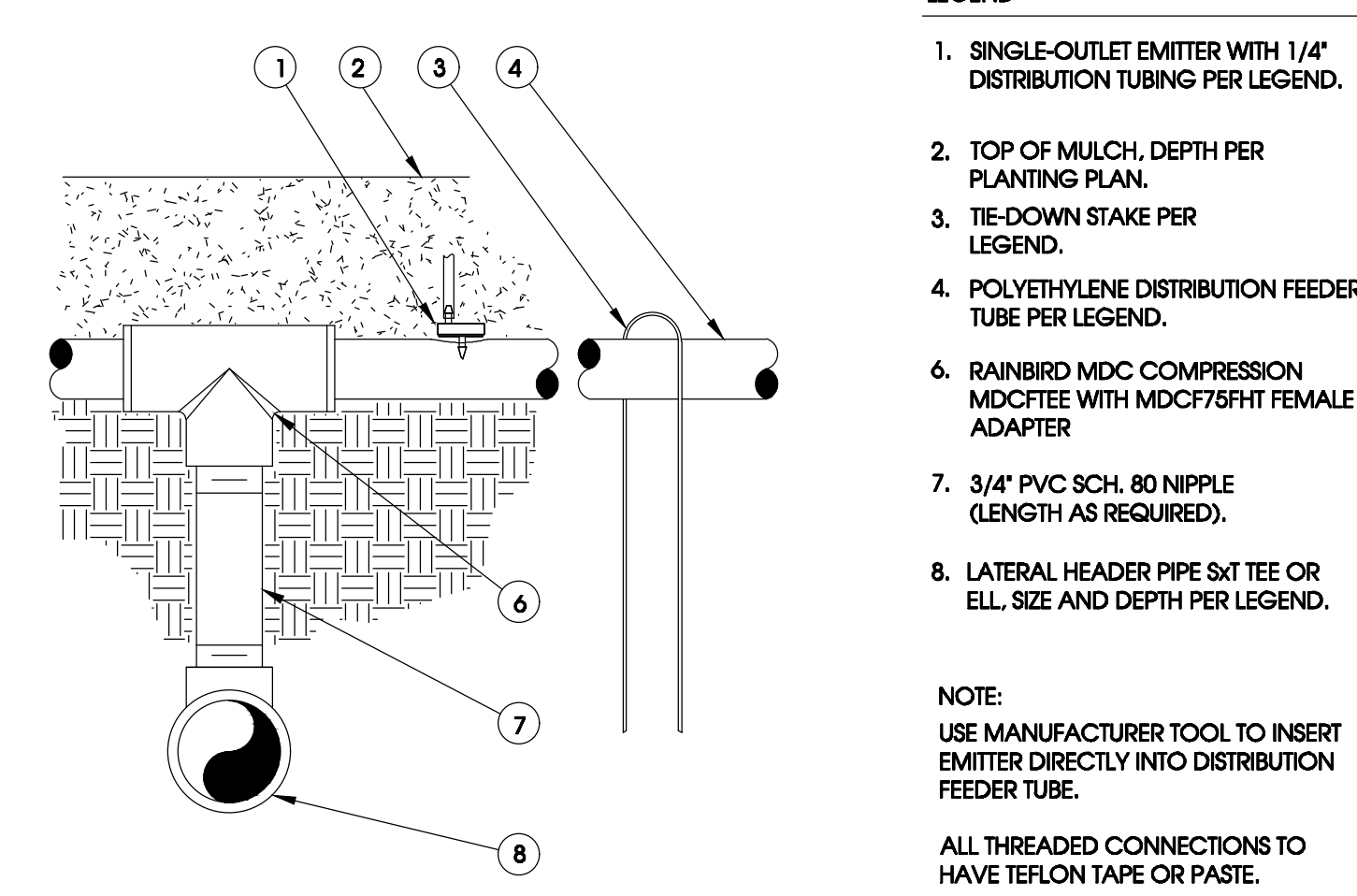
LEGEND:

1. ECO INDICATOR - ECOID
2. LATERAL PIPE PER PLAN
3. FFT CONNECTION FROM LATERAL
4. SPIRAL BARB ELBOW - HSBE-XXX
5. FLEX[®] TUBING - FLEBSG
6. FINISHED GRADE IN TURF
7. ADJACENT MULCH
8. FINISHED GRADE IN PLANTER BED
9. MARLEX STREET ELBOW



S ECO-INDICATOR

SCALE: N.T.S.



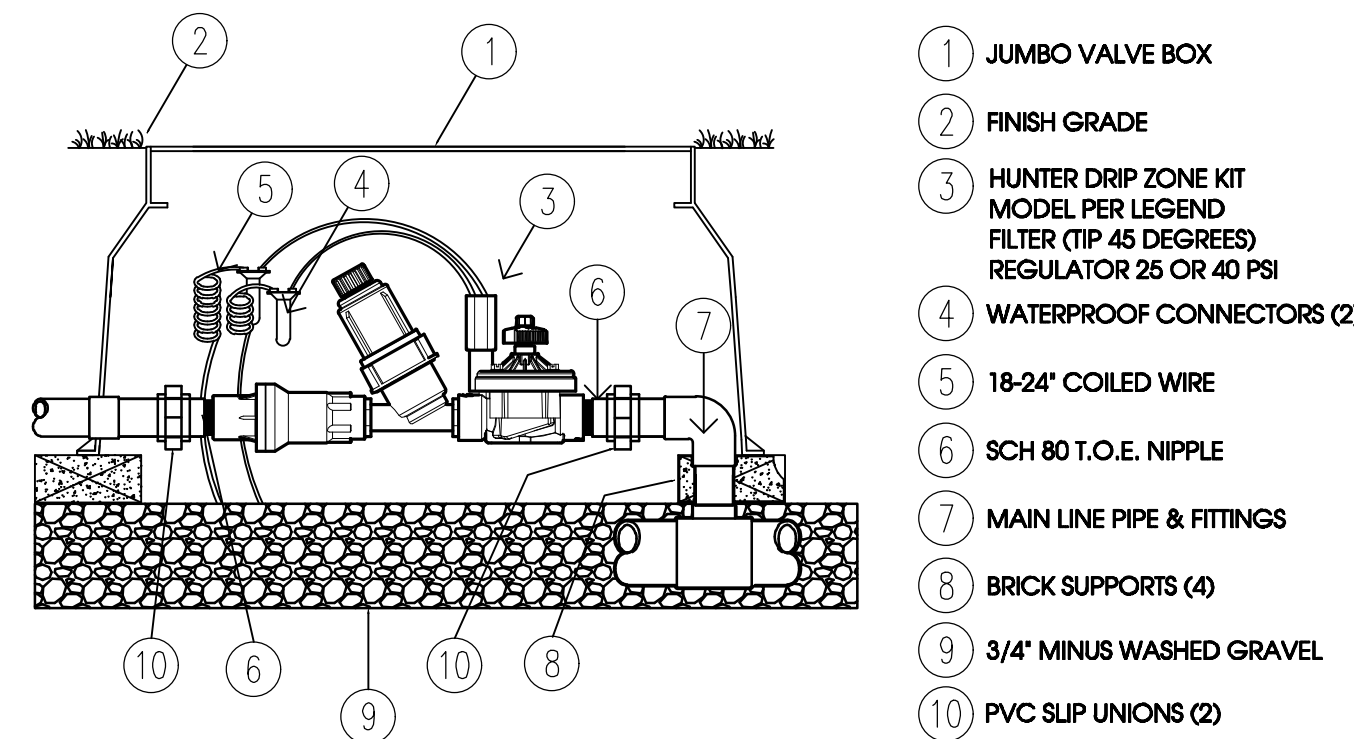
T PVC HEADER TO TUBING CONNECTION

SCALE: N.T.S.

LEGEND

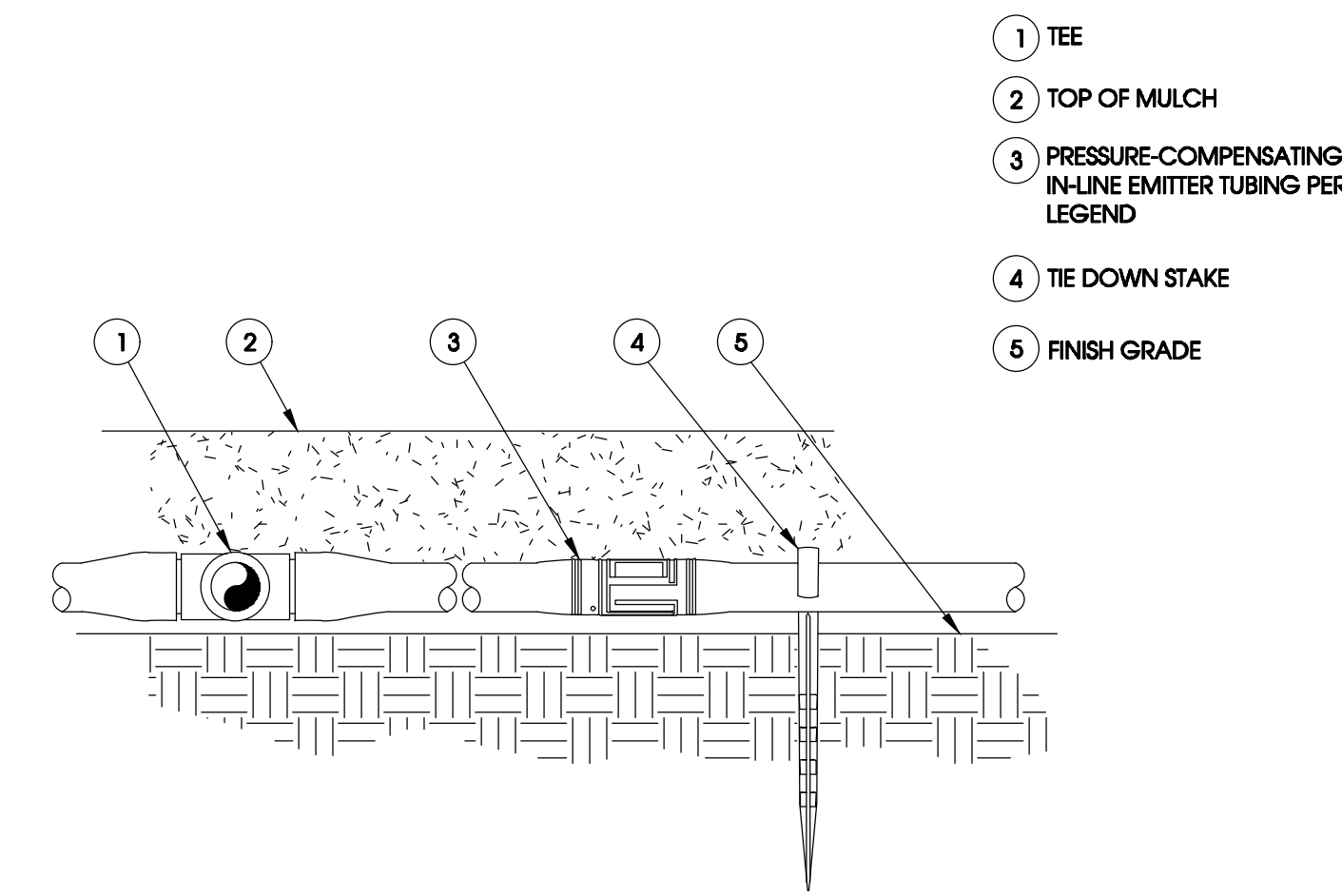
1. SINGLE-OUTLET EMITTER WITH 1/4" DISTRIBUTION TUBING PER LEGEND.
2. TOP OF MULCH, DEPTH PER PLANTING PLAN.
3. TIE-DOWN STAKE PER LEGEND.
4. POLYETHYLENE DISTRIBUTION FEEDER TUBE PER LEGEND.
5. RAINBIRD MDC COMPRESSION MDCTEE WITH MDC75FIT FEMALE ADAPTER
6. RAINBIRD MDC COMPRESSION MDCTEE WITH MDC75FIT FEMALE ADAPTER
7. 3/4" PVC SCH. 80 NIPPLE (LENGTH AS REQUIRED).
8. LATERAL HEADER PIPE 5/8" TEE OR ELL. SIZE AND DEPTH PER LEGEND.

NOTE:
USE MANUFACTURER TOOL TO INSERT EMITTER DIRECTLY INTO DISTRIBUTION FEEDER TUBE.
ALL THREADED CONNECTIONS TO HAVE TEFLON TAPE OR PASTE.



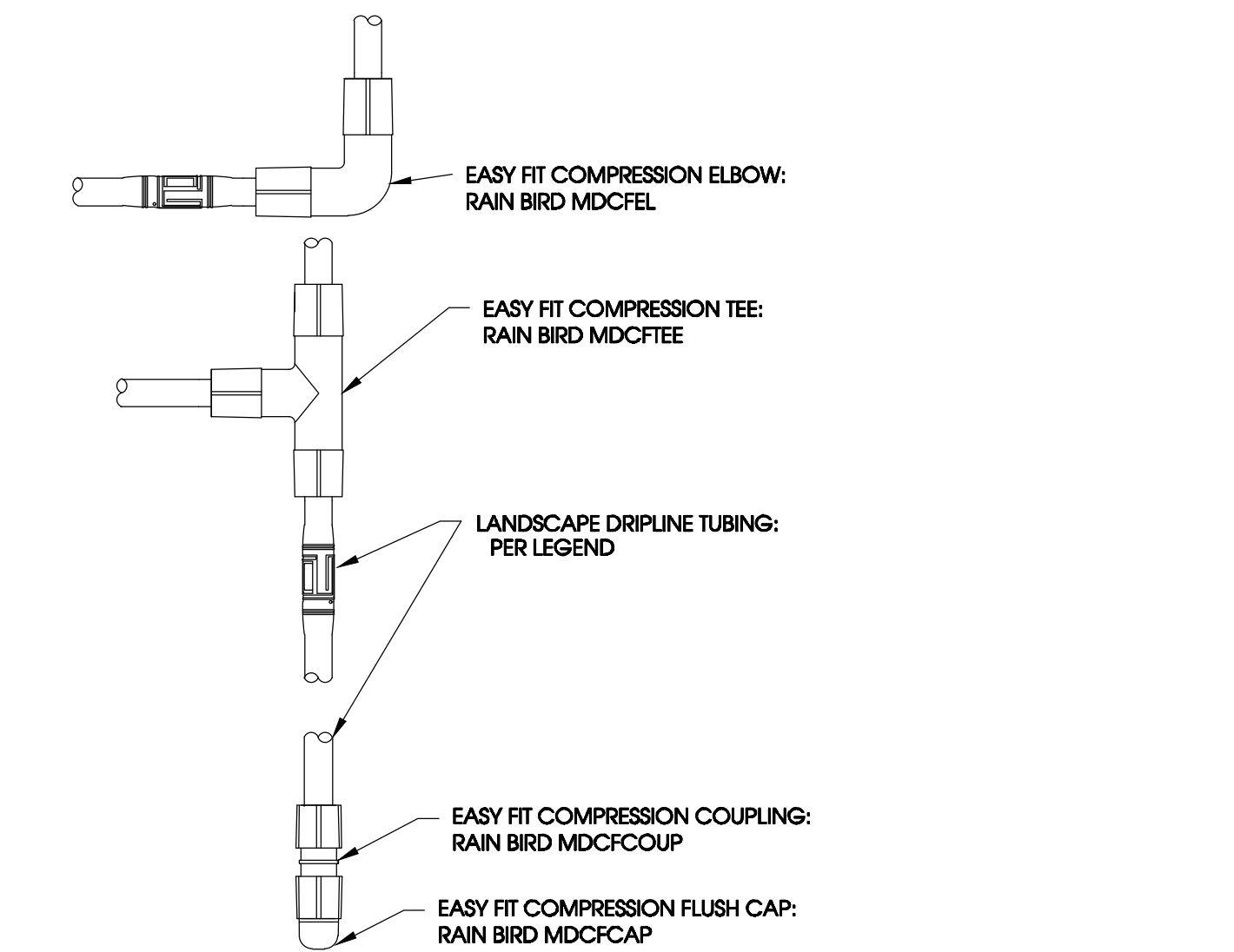
U DRIP CONTROL ZONE KIT

SCALE: N.T.S.



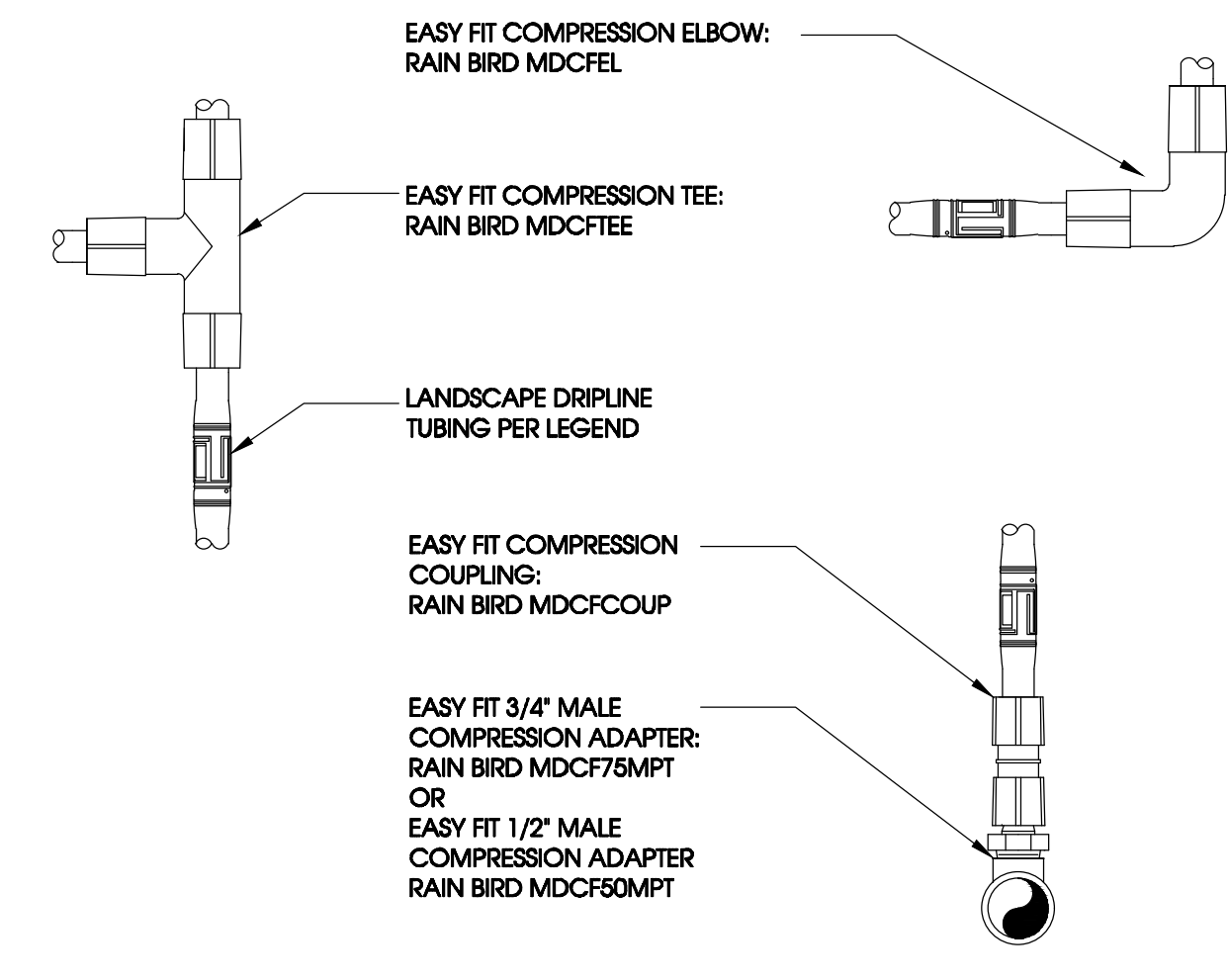
V LANDSCAPE DRIPLINE

SCALE: N.T.S.



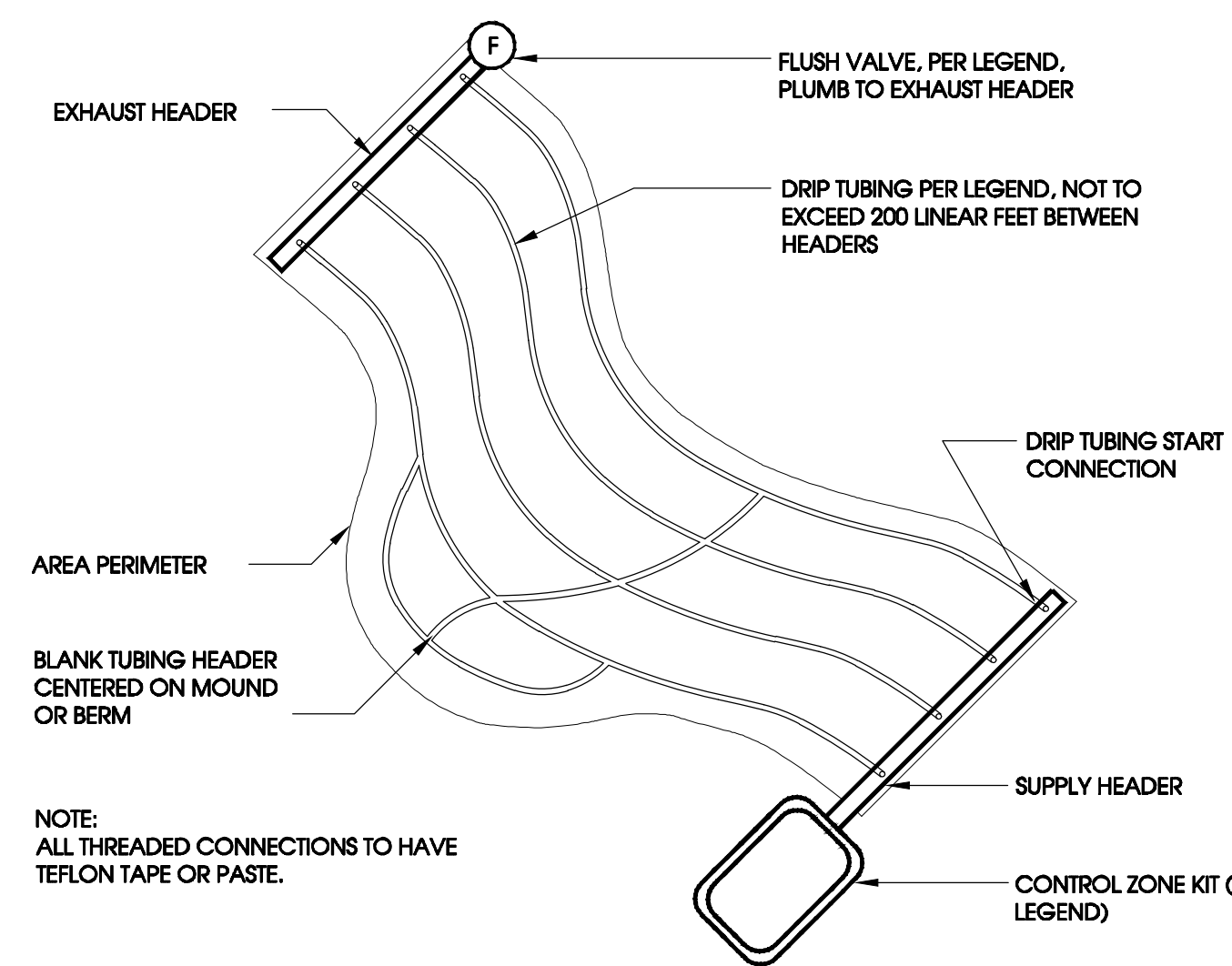
W EASY FIT COMPRESSION FITTINGS

SCALE: N.T.S.



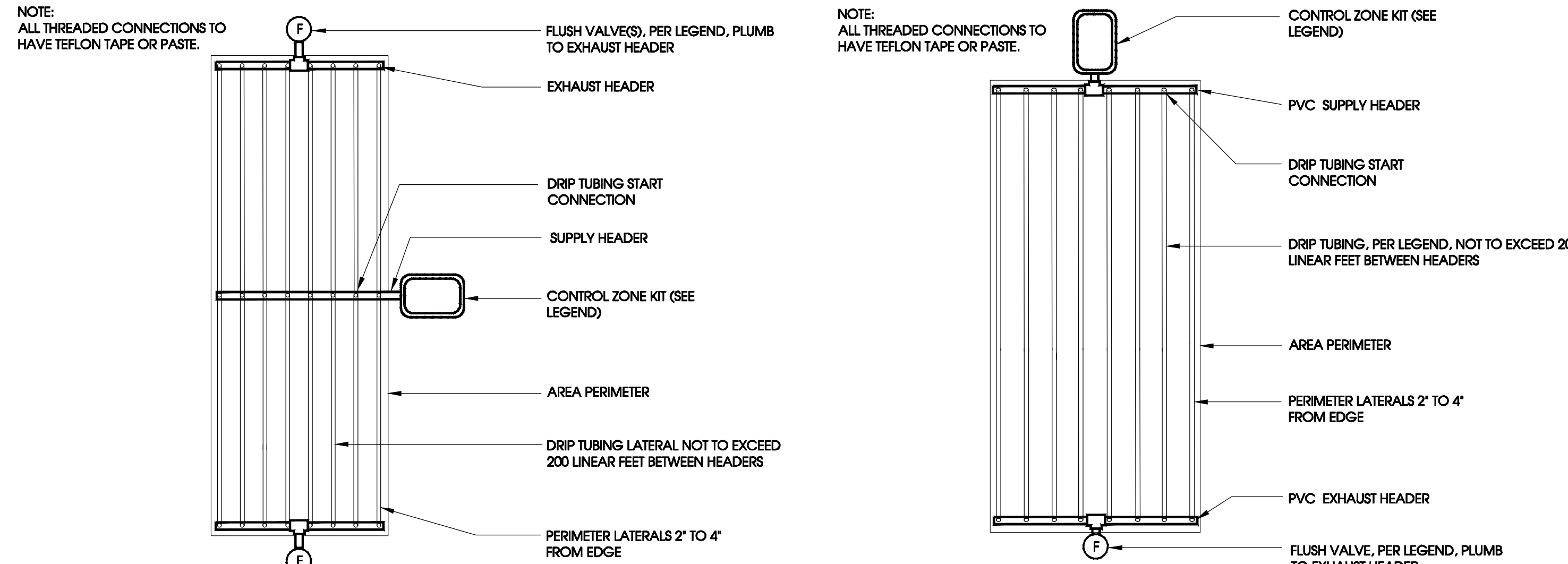
X MDC FITTINGS

SCALE: N.T.S.



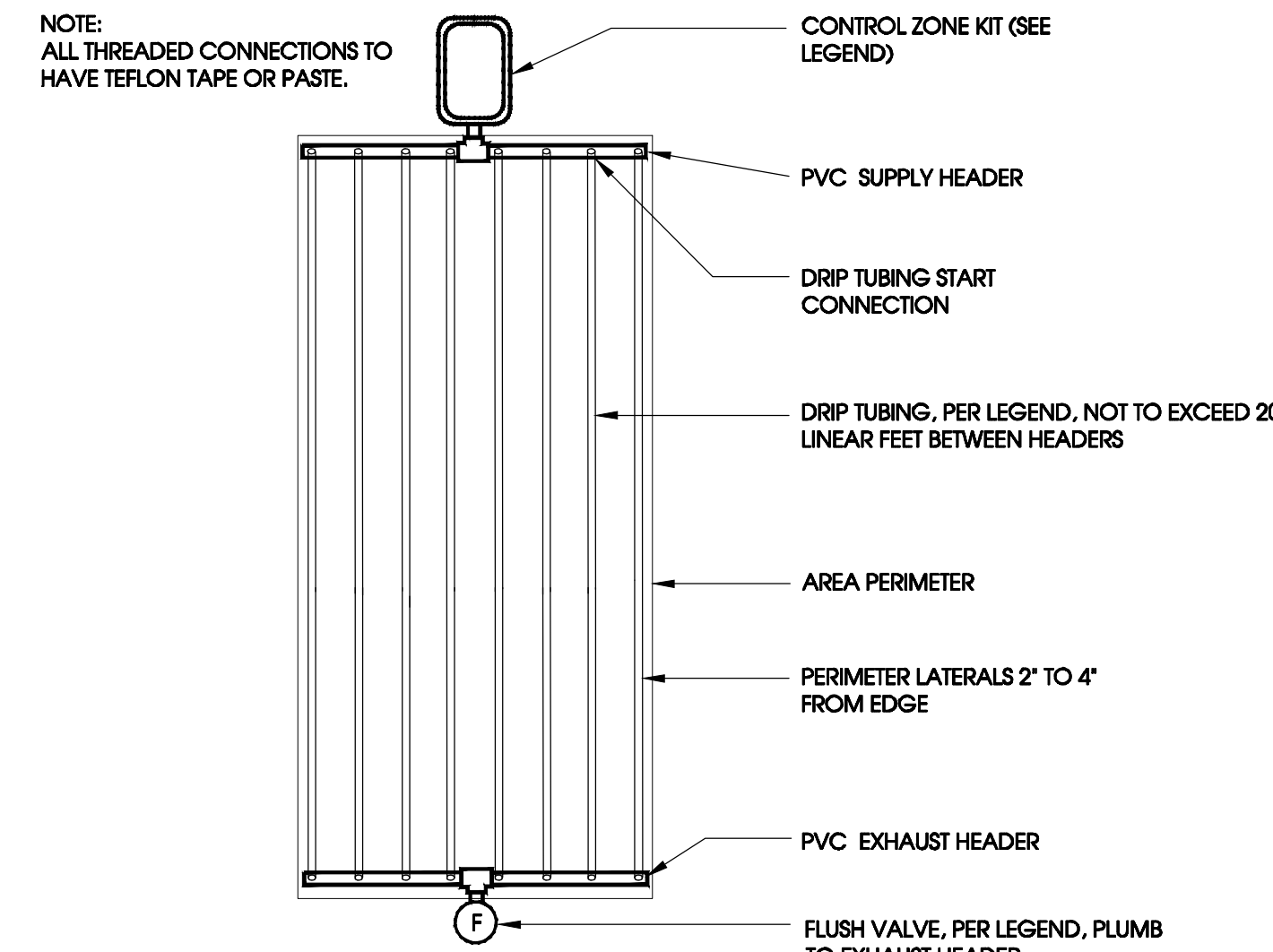
Y DRIP ZONE LAYOUT - ODD CURVES

SCALE: N.T.S.



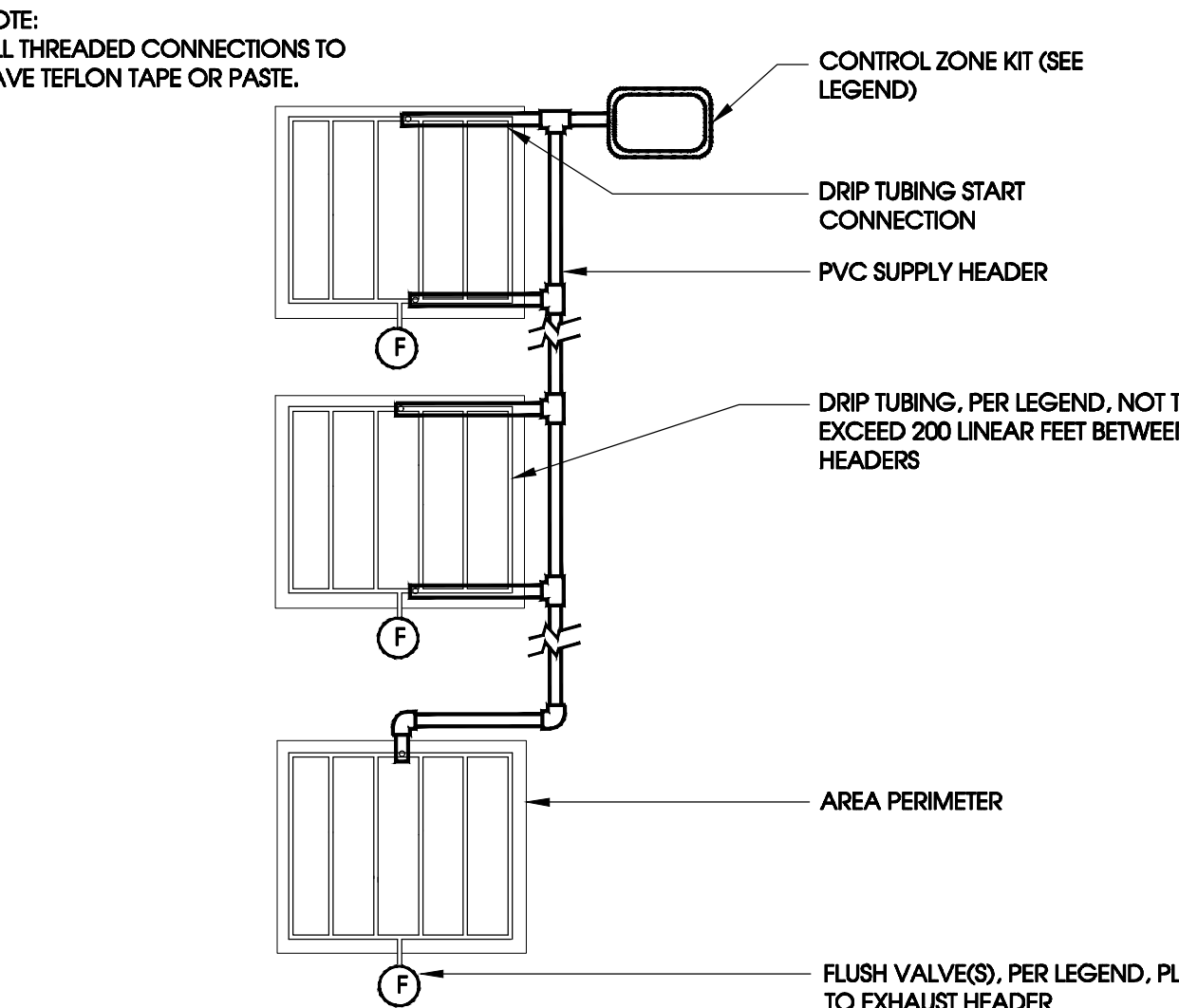
Z DRIP ZONE LAYOUT - CENTER FEED

SCALE: N.T.S.



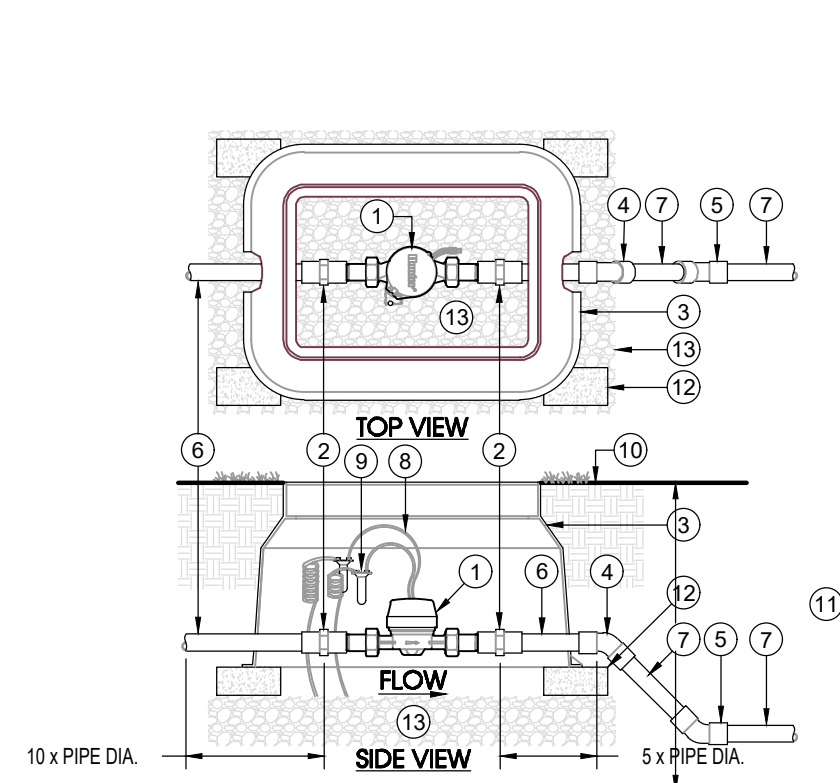
AA DRIP ZONE LAYOUT - END FEED

SCALE: N.T.S.



BB DRIP ZONE LAYOUT - MULTIPLE BEDS

SCALE: N.T.S.



HC-XX FLOW METER

SCALE: N.T.S.

LEGEND:

- 1 HUNTER HC FLOW METER WITH UNION CONNECTIONS, SIZE PER LEGEND
- 2 SCH 80 PVC FEMALE ADAPTER (S X T)
- 3 RECTANGULAR VALVE BOX PER SPECIFICATIONS
- 4 SCH 80 PVC 45 DEGREE ELBOW (S X S) TO LOWER MAIN LINE TO PROPER DEPTH (SIZE FOR LARGER MAIN LINE AS NEEDED)
- 5 SCH 80 PVC 45 DEGREE ELBOW (S X S) TO LOWER MAIN LINE TO PROPER DEPTH
- 6 MAIN LINE AT INLET & OUTLET - SEE CHART BELOW FOR SIZE
- 7 MAIN LINE TO SYSTEM (SEE LEGEND AND PLANS FOR TYPE AND SIZE)
- 8 TWO WIRES TO FLOW SENSOR TERMINALS AT CONTROLLER, MIN. 14 AWG-UF (2.08 mm²) WIRE WITH DIFFERENT COLOR FROM CONTROL/Common WIRE
- 9 WEATHERPROOF WIRE CONNECTOR
- 10 FINISH GRADE
- 11 SPECIFIED SOIL COVER (SEE LEGEND)
- 12 COMMON BRICK
- 13 GRAVEL BASE, 6" (15 cm) DEEP

NOTE: INLET PIPE ENTERING METER: LENGTH MUST BE A MIN. OF 10 X PIPE DIA.
OUTLET PIPE LEAVING METER: LENGTH MUST BE MIN. OF 8 X PIPE DIA.
INLET AND OUTLET PIPE MUST BE STRAIGHT PIPE WITH NO FITTINGS OR TURNS UNTIL AFTER THESE SPECIFIED LENGTHS. PIPE AND FITTINGS MAY BE SCH 80 PVC SOLVENT WELD, THREADED SCH 80 PVC OR BRASS, AS REQUIRED FOR PROJECT.

FLOW METER SPECIFICATIONS

FLOW METER MODEL	HC-075	HC-100	HC-150	HC-200
INLET / OUTLET CONNECTION SIZE	3/4" NPT BODY, MALE THREAD WITH 1" NPT MALE ADAPTER	1" NPT BODY, MALE THREAD WITH 1.5" NPT MALE ADAPTER	1.5" NPT BODY, MALE THREAD WITH 2" NPT MALE ADAPTER	2" NPT BODY, MALE THREAD WITH 3" NPT MALE ADAPTER
MARKING AT INLET/OUTLET	1"	1.5"	2"	3"
INTERNAL DIA.	3/4"	1"	1 1/2"	2"
MIN. FLOW	0.22 GPM	0.30 GPM	0.88 GPM	2.00 GPM
MAX. RECOMMENDED FLOW	15 GPM	30 GPM	66 GPM	105 GPM
MAX. FLOW RATE	21 GPM	34 GPM	88 GPM	132 GPM
DIAL READING	1 PULSE PER 0.1 US GALLON	1 PULSE PER 1 US GALLON	1 PULSE PER 1 US GALLON	1 PULSE PER 1 US GALLON
WORKING PRESSURE	1-230 PSI	1-230 PSI	2-230 PSI	3-230 PSI

Underground Service Alert
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TWO WORKING DAYS BEFORE YOU DIG
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ZEPHYR
Gensler
225 Broadway Suite 1600 San Diego, CA 92101 United States
Tel 619.557.2500 Fax 619.557.2520

Corson Douglas Landscape Architecture
4407 Orchard Ave San Diego, CA 92107 619.995.1306 cd-la.com

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2019.02.01	100% SCHEMATIC PACKAGE
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2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature
REGISTERED LANDSCAPE ARCHITECT
MICHAEL DOUGLAS BRUNWALD
No. 2388
JULY 31, 2022
10-21
DATE

Project Name
Solana 101

Project Number
16-036

Description
LANDSCAPE IRRIGATION DETAILS

Scale
1"=10'

L-13

IRRIGATION SPECIFICATIONS

LANDSCAPE IRRIGATION

PART I - GENERAL

1.01 SUMMARY

- A. IT IS THE INTENT OF THE SPECIFICATIONS AND DRAWINGS THAT THE FINISHED SYSTEM IS COMPLETE IN EVERY RESPECT AND SHALL BE READY FOR OPERATION SATISFACTORY TO THE OWNER.
- B. THE WORK SHALL INCLUDE ALL MATERIALS, LABOR, SERVICES, TRANSPORTATION, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AS INDICATED ON THE DRAWINGS, IN THESE SPECIFICATION, AND AS NECESSARY TO COMPLETE THE CONTRACT.

1.02 CONSTRUCTION DRAWINGS

- A. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC. WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC. AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.
- B. ALL WORK CALLED FOR ON THE DRAWINGS BY NOTES OR DETAILS SHALL BE FURNISHED AND INSTALLED WHETHER OR NOT SPECIFICALLY MENTIONED IN THE SPECIFICATIONS. WHEN AN ITEM IS SHOWN ON THE PLANS BUT NOT SHOWN ON THE SPECIFICATIONS OR VICE VERSA, IT SHALL BE DEEMED TO BE AS SHOWN ON BOTH. THE LANDSCAPE ARCHITECT SHALL HAVE FINAL AUTHORITY FOR CLARIFICATION.
- C. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DISCREPANCIES IN AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AS SOON AS DETECTED. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISION NECESSARY.

1.03 QUALITY ASSURANCE

- A. PROVIDE AT LEAST ONE ENGLISH SPEAKING PERSON WHO SHALL BE PRESENT AT ALL TIMES DURING EXECUTION OF THIS PORTION OF THE WORK AND WHO SHALL BE THOROUGHLY FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE MANUFACTURER'S RECOMMENDED METHODS OF INSTALLATION AND WHO SHALL DIRECT ALL WORK PERFORMED UNDER THIS SECTION.
- B. MANUFACTURER'S DIRECTIONS AND DETAILED DRAWINGS SHALL BE FOLLOWED IN ALL CASES WHERE THE MANUFACTURER OF ARTICLES USED IN THIS CONTRACT FURNISH DIRECTIONS COVERING POINTS NOT SHOWN IN THE DRAWINGS AND SPECIFICATIONS.
- C. ALL LOCAL, MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY OF THE ABOVE RULES AND REGULATIONS OF THE SAME. HOWEVER, WHEN THESE SPECIFICATIONS AND DRAWINGS CALL FOR OR DESCRIBE MATERIALS, WORKMANSHIP, OR CONSTRUCTION OF A BETTER QUALITY, HIGHER STANDARD, OR LARGER SIZE THAN IS REQUIRED BY THE ABOVE RULES AND REGULATIONS, THE PROVISIONS OF THESE SPECIFICATIONS AND DRAWINGS SHALL TAKE PRECEDENCE.
- D. ALL MATERIALS SUPPLIED FOR THIS PROJECT SHALL BE NEW AND FREE FROM ANY DEFECTS. ALL DEFECTIVE MATERIALS SHALL BE REPLACED IMMEDIATELY AT NO ADDITIONAL COST TO OWNER.
- E. THE CONTRACTOR SHALL SECURE THE REQUIRED LICENSES AND PERMITS INCLUDING PAYMENTS OF CHARGES AND FEES, GIVE REQUIRED NOTICES TO PUBLIC AUTHORITIES, VERIFY PERMITS SECURED OR ARRANGEMENTS MADE BY OTHERS AFFECTING THE WORK OF THIS SECTION.

1.04 SUBMITTALS

- A. MATERIALS LIST:
 1. AFTER AWARD OF CONTRACT AND BEFORE ANY IRRIGATION SYSTEM MATERIALS ARE DELIVERED TO THE JOB SITE, SUBMIT TO THE OWNER A COMPLETE LIST OF ALL IRRIGATION SYSTEMS, MATERIALS, OR PROCESSES PROPOSED TO BE FURNISHED AND INSTALLED AS PART OF THIS CONTRACT.
 2. SHOW MANUFACTURER'S NAME AND CATALOG NUMBER FOR EACH ITEM, FURNISH COMPLETE CATALOG CUTS AND TECHNICAL DATA, FURNISH THE MANUFACTURER'S RECOMMENDATIONS AS TO THE METHOD OF INSTALLATION.
 3. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN ACCEPTANCE BY THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.
 4. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.
- B. SUBSTITUTIONS:

IF THE IRRIGATION CONTRACTOR WISHES TO SUBSTITUTE ANY EQUIPMENT OR MATERIALS FOR THOSE EQUIPMENT OR MATERIALS LISTED ON THE IRRIGATION DRAWINGS AND SPECIFICATIONS HE MAY DO SO BY PROVIDING THE FOLLOWING INFORMATION TO THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE AND CITY INSPECTOR FOR APPROVAL.

 1. PROVIDE A WRITTEN STATEMENT INDICATING THE REASON FOR MAKING THE SUBSTITUTION.
 2. PROVIDE CATALOG CUT SHEETS, TECHNICAL DATA, AND PERFORMANCE INFORMATION FOR EACH SUBSTITUTE ITEM.

3. PROVIDE IN WRITING THE DIFFERENCE IN INSTALLED PRICE IF THE ITEM IS ACCEPTED.

1.05 EXISTING CONDITIONS

- A. THE CONTRACTOR SHALL VERIFY AND BE FAMILIAR WITH THE LOCATIONS, SIZE AND DETAIL OF POINTS OF CONNECTION PROVIDED AS THE SOURCE OF WATER, ELECTRICAL SUPPLY, AND ANY TELEPHONE LINE CONNECTION TO THE IRRIGATION SYSTEM.
- B. IRRIGATION DESIGN IS BASED ON THE AVAILABLE STATIC WATER PRESSURE SHOWN ON THE DRAWINGS. CONTRACTOR SHALL VERIFY STATIC WATER ON THE PROJECT PRIOR TO THE START OF CONSTRUCTION. SHOULD A DISCREPANCY EXIST, NOTIFY THE LANDSCAPE ARCHITECT AND OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.
- C. PRIOR TO CUTTING INTO THE SOIL, THE CONTRACTOR SHALL LOCATE ALL CABLES, CONDUITS, SEWER SEPTIC TANKS, AND OTHER UTILITIES AS ARE COMMONLY ENCOUNTERED UNDERGROUND AND HE SHALL TAKE PROPER PRECAUTIONS NOT TO DAMAGE OR DISTURB SUCH IMPROVEMENTS. IF A CONFLICT EXISTS BETWEEN THE SUCH OBSTACLES AND THE PROPOSED WORK, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE LANDSCAPE ARCHITECT AND OWNER WHO WILL ARRANGE FOR RELOCATIONS. THE CONTRACTOR WILL PROCEED IN THE SAME MANNER IF A ROCK LAYER OR ANY OTHER SUCH CONDITIONS ARE ENCOUNTERED.
- D. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND FEATURES TO REMAIN ON AND ADJACENT TO THE PROJECT SITE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR, AT HIS OWN COST, ALL DAMAGE RESULTING FROM HIS OPERATIONS OR NEGLIGENCE.
- E. THE IRRIGATION CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR FOR INSTALLATION OF REQUIRED SLEEVING AS SHOWN ON THE PLANS.

1.06 INSPECTIONS

- A. THE CONTRACTOR SHALL PERMIT THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE AND CITY INSPECTOR TO VISIT AND INSPECT AT ALL TIMES ANY PART OF THE WORK AND SHALL PROVIDE SAFE ACCESS FOR SUCH VISITS.
- B. WHERE THE SPECIFICATIONS REQUIRE WORK TO BE TESTED BY THE CONTRACTOR, IT SHALL NOT BE COVERED OVER UNTIL ACCEPTED BY THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE, AND/OR GOVERNING AGENCIES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR NOTIFYING THE LANDSCAPE ARCHITECT, OWNER, AND GOVERNING AGENCIES, A MINIMUM OF 48 HOURS IN ADVANCE, WHERE AND WHEN THE WORK IS READY FOR TESTING. SHOULD ANY WORK BE COVERED WITHOUT TESTING OR ACCEPTANCE, IT SHALL BE, IF SO ORDERED, UNCOVERED AT THE CONTRACTOR'S EXPENSE.
- C. INSPECTIONS WILL BE REQUIRED FOR THE FOLLOWING AT A MINIMUM:
 1. SYSTEM LAYOUT
 2. PRESSURE TEST OF IRRIGATION MAIN LINE (FOUR HOURS AT 125 PSI OR 120% OF STATIC WATER PRESSURE, WHICH EVER IS GREATER) APPROVAL REQUIRED BY CITY INSPECTOR.
 3. COVERAGE TEST OF IRRIGATION SYSTEM (APPROVAL REQUIRED BY CITY INSPECTOR).
 4. FINAL INSPECTION PRIOR TO START OF MAINTENANCE PERIOD
 5. FINAL ACCEPTANCE
- D. SITE OBSERVATIONS AND TESTING WILL NOT COMMENCE WITHOUT THE RECORD DRAWINGS AS PREPARED BY THE IRRIGATION CONTRACTOR. RECORD DRAWINGS MUST COMPLETE AND UP TO DATE FOR EACH SITE VISIT.
- E. WORK WHICH FAILS TESTING AND IS NOT ACCEPTED WILL BE RETESTED. HOURLY RATES AND EXPENSES OF THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE, AND GOVERNING AGENCIES FOR REINSPECTION OR RETESTING WILL BE PAID BY THE IRRIGATION CONTRACTOR AT NO ADDITIONAL EXPENSE TO OWNER.

1.07 STORAGE AND HANDLING

- A. USE ALL MEANS NECESSARY TO PROTECT IRRIGATION SYSTEM MATERIALS BEFORE, DURING, AND AFTER INSTALLATION AND TO PROTECT THE INSTALLATION WORK AND MATERIALS OF ALL OTHER TRADES. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE ACCEPTANCE OF THE LANDSCAPE ARCHITECT AND OWNER AND AT NO ADDITIONAL COST TO THE OWNER.
- B. EXERCISE CARE IN HANDLING, LOADING, UNLOADING, AND STORING PLASTIC PIPE AND FITTINGS UNDER COVER UNTIL READY TO INSTALL. TRANSPORT PLASTIC PIPE ONLY ON A VEHICLE WITH A BED LONG ENOUGH TO ALLOW THE PIPE TO LAY FLAT TO AVOID UNDUE BENDING AND CONCENTRATED EXTERNAL LOAD.
- C. DISPOSE OF WASTE, TRASH, AND DEBRIS IN ACCORDANCE WITH APPLICABLE LAWS AND ORDINANCES AND AS PRESCRIBED BY AUTHORITIES HAVING JURISDICTION. BURY NO SUCH WASTE MATERIAL AND DEBRIS ON THE SITE. BURNING OF TRASH AND DEBRIS WILL NOT BE PERMITTED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF RUBBISH AND DEBRIS GENERATED BY HIS WORK AND WORKMEN AT FREQUENT INTERVALS OR WHEN ORDERED TO DO SO BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
- D. AT THE TIME OF COMPLETION THE ENTIRE SITE WILL BE CLEARED OF TOOLS, EQUIPMENT, RUBBISH AND DEBRIS WHICH SHALL BE DISPOSED OF OFF-SITE IN A LEGAL DISPOSAL AREA.

1.09 TURNOVER ITEMS

- A. RECORD DRAWINGS:
 1. RECORD ACCURATELY ON ONE SET OF CONTRACT DRAWINGS ALL CHANGES IN THE WORK CONSTITUTING DEPARTURES FROM THE ORIGINAL CONTRACT DRAWINGS.
 2. THE CHANGES AND DIMENSIONS SHALL BE RECORDED IN A LEGIBLE AND WORKMANLIKE MANNER TO THE SATISFACTION OF THE OWNER. PRIOR TO FINAL INSPECTION OF WORK, SUBMIT RECORD DRAWINGS TO THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.
 3. DIMENSIONS FROM/TO PERMANENT POINTS OF REFERENCE SUCH AS BUILDINGS, SIDEWALKS, CURBS, ETC. SHALL BE SHOWN. DATA ON RECORD DRAWINGS SHALL BE RECORDED ON A DAY TO DAY BASIS AS THE PROJECT IS BEING INSTALLED. ALL LETTERING ON DRAWINGS SHALL BE MINIMUM 1/8" INCH IN SIZE.
 4. SHOW LOCATIONS AND DEPTHS OF THE FOLLOWING ITEMS:
 - A. POINT OF CONNECTION (INCLUDING WATER METERS, BACKFLOW PREVENTERS, MASTER CONTROL VALVES, ETC.)
 - B. ROUTING OF SPRINKLER PRESSURE LINES (DIMENSIONS SHOWN AT A MAXIMUM OF 100 FEET ALONG ROUTING)
 - C. GATE VALVES
 - D. AUTOMATIC REMOTE CONTROL VALVES AND ISOLATION BALL VALVES
 - E. QUICK COUPLING VALVES AND ISOLATION BALL VALVES
 - F. ROUTING OF CONTROL WIRES
 - G. IRRIGATION CONTROLLERS
 - H. RELATED EQUIPMENT (AS MAY BE DIRECTED)
 - I. MAINTAIN RECORD DRAWINGS ON SITE AT ALL TIMES. UPON COMPLETION OF WORK, TRANSFER ALL AS-BUILT INFORMATION AND DIMENSIONS TO REPRODUCIBLE SEPIA PRINTS.

- A. POINT OF CONNECTION (INCLUDING WATER METERS, BACKFLOW PREVENTERS, MASTER CONTROL VALVES, ETC.)
- B. ROUTING OF SPRINKLER PRESSURE LINES (DIMENSIONS SHOWN AT A MAXIMUM OF 100 FEET ALONG ROUTING)
- C. GATE VALVES
- D. AUTOMATIC REMOTE CONTROL VALVES AND ISOLATION BALL VALVES
- E. QUICK COUPLING VALVES AND ISOLATION BALL VALVES
- F. ROUTING OF CONTROL WIRES
- G. IRRIGATION CONTROLLERS
- H. RELATED EQUIPMENT (AS MAY BE DIRECTED)
- I. MAINTAIN RECORD DRAWINGS ON SITE AT ALL TIMES. UPON COMPLETION OF WORK, TRANSFER ALL AS-BUILT INFORMATION AND DIMENSIONS TO REPRODUCIBLE SEPIA PRINTS.

- B. CONTROLLER CHARTS:
 1. RECORD DRAWINGS MUST BE APPROVED BY LANDSCAPE ARCHITECT AND/OR OWNER'S AUTHORIZED REPRESENTATIVE BEFORE CHARTS ARE PREPARED.
 2. PROVIDE ONE CONTROLLER CHART FOR EACH AUTOMATIC CONTROLLER. CHART SHALL SHOW THE AREA COVERED BY THE PARTICULAR CONTROLLER.
 3. THE CHART IS TO BE A REDUCED COPY OF THE ACTUAL "RECORD" DRAWING. IN THE EVENT THE CONTROLLER SEQUENCE IS NOT LEGIBLE WHEN THE DRAWING IS REDUCED, IT SHALL BE ENLARGED TO A READABLE SIZE.
 4. WHEN COMPLETED AND APPROVED, THE CHART SHALL BE HERMETICALLY SEALED BETWEEN TWO PIECES OF PLASTIC, EACH PIECE BEING A MINIMUM 20 MILS IN THICKNESS.

- C. OPERATION AND MAINTENANCE MANUALS:
 1. TWO INDIVIDUALLY BOUND COPIES OF OPERATION AND MAINTENANCE MANUALS SHALL BE DELIVERED TO THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE AT LEAST TO CALENDAR DAYS PRIOR TO FINAL INSPECTION. THE MANUALS SHALL DESCRIBE THE MATERIAL INSTALLED AND THE PROPER OPERATION OF THE SYSTEM.
 2. EACH COMPLETE, BOUND MANUAL SHALL INCLUDE THE FOLLOWING INFORMATION:
 - A. INDEX SHEET STATING CONTRACTOR'S ADDRESS AND TELEPHONE NUMBER, DURATION OF GUARANTEE PERIOD, LIST OF EQUIPMENT INCLUDING NAMES AND ADDRESSES OF LOCAL MANUFACTURER REPRESENTATIVES.
 - B. OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT.
 - C. SPARE PARTS LISTS AND RELATED MANUFACTURER INFORMATION FOR ALL EQUIPMENT.

- D. EQUIPMENT:
 1. SUPPLY AS A PART OF THIS CONTRACT THE FOLLOWING ITEMS:
 - A. TWO (2) WRENCHES FOR DISASSEMBLY AND ADJUSTMENT OF EACH TYPE OF SPRINKLER HEAD USED IN THE IRRIGATION SYSTEM.
 - B. THREE 30-INCH SPRINKLER KEYS FOR MANUAL OPERATION OF CONTROL VALVES.
 - C. TWO KEYS FOR EACH AUTOMATIC CONTROLLER.
 - D. FIVE QUICK COUPLER KEYS WITH A BRONZE HOSE THREAD 90 DEGREE SWIVEL ATTACHMENT AND FIVE COUPLER LID KEYS.
 - E. FIVE VALVE BOX COVER KEY OR WRENCH.
 - F. ONE 5-FOOT TEE WRENCH FOR OPERATING GATE VALVES 3 INCHES OR LARGER (IF USED).
 - G. SIX EXTRA SPRINKLER HEADS OF EACH SIZE AND TYPE PER IRRIGATION P.O.C.
 2. THE ABOVE EQUIPMENT SHALL BE TURNED OVER TO OWNER'S AUTHORIZED REPRESENTATIVE AT THE FINAL INSPECTION.

- 1.10 COMPLETION
 - A. AT THE TIME OF THE PRE-MAINTENANCE PERIOD INSPECTION, THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE, AND GOVERNING AGENCIES WILL INSPECT THE WORK, AND IF NOT ACCEPTED, WILL PREPARE A LIST OF ITEMS TO BE COMPLETED BY THE CONTRACTOR. AT THE TIME OF THE POST-MAINTENANCE PERIOD OR FINAL INSPECTION THE WORK WILL BE REINSPECTED AND FINAL ACCEPTANCE WILL BE IN WRITING BY THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE, AND GOVERNING AGENCIES.

- B. THE OWNER'S AUTHORIZED REPRESENTATIVE SHALL HAVE FINAL AUTHORITY ON ALL PORTIONS OF THE WORK.
- C. AFTER THE SYSTEM HAS BEEN COMPLETED, THE CONTRACTOR SHALL INSTRUCT OWNER'S AUTHORIZED REPRESENTATIVE IN THE OPERATION AND MAINTENANCE OF THE IRRIGATION SYSTEM AND SHALL FURNISH A COMPLETE SET OF OPERATING AND MAINTENANCE INSTRUCTIONS.
- D. ANY SETTLING OF TRENCHES WHICH MAY OCCUR DURING THE ONE-YEAR PERIOD FOLLOWING ACCEPTANCE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION BY THE CONTRACTOR WITHOUT ANY ADDITIONAL EXPENSE TO THE OWNER. REPAIRS SHALL INCLUDE THE COMPLETE RESTORATION OF ALL DAMAGE TO PLANTING, PAVING OR OTHER IMPROVEMENTS OF ANY KIND AS A RESULT OF THE WORK.

1.11 GUARANTEE

- A. THE ENTIRE SPRINKLER SYSTEM, INCLUDING ALL WORK DONE UNDER THIS CONTRACT, SHALL BE UNCONDITIONALLY GUARANTEED AGAINST ALL DEFECTS AND FAULT OF MATERIAL AND WORKMANSHIP, INCLUDING SETTLING OF BACK FIELD AREAS BELOW GRADE, FOR A PERIOD OF ONE (1) YEAR FOLLOWING THE FILING OF THE NOTICE OF COMPLETION. SHOULD ANY PROBLEM WITH THE IRRIGATION SYSTEM BE DISCOVERED WITHIN THE GUARANTEE PERIOD, IT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO OWNER WITHIN TEN (10) CALENDAR DAYS OF RECEIPT OF WRITTEN NOTICE FROM OWNER. WHEN THE NATURE OF THE REPAIRS AS DETERMINED BY THE OWNER CONSTITUTE AN EMERGENCY (I.E. BROKEN PRESSURE LINE) THE OWNER MAY PROCEED TO MAKE REPAIRS AT THE CONTRACTOR'S EXPENSE. ANY AND ALL DAMAGES TO EXISTING IMPROVEMENT RESULTING EITHER FROM FAULTY MATERIALS OR WORKMANSHIP, OR FROM THE NECESSARY REPAIRS TO CORRECT SAME, SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER BY THE CONTRACTOR, ALL AT NO ADDITIONAL COST TO THE OWNER.
- B. GUARANTEE SHALL BE SUBMITTED ON CONTRACTORS OWN LETTERHEAD AS FOLLOWS: GUARANTEE FOR SPRINKLER IRRIGATION SYSTEM WE HEREBY GUARANTEE THAT THE SPRINKLER IRRIGATION SYSTEM WE HAVE FURNISHED AND INSTALLED IS FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP, AND THE WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, ORDINARY WEAR AND TEAR AND UNUSUAL ABUSE, OR NEGLIGENCE EXCEPTED. WE AGREE TO REPAIR OR REPLACE ANY DEFECTIVE MATERIAL.

DURING THE PERIOD OF ONE YEAR FROM DATE OF FILING OF THE NOTICE OF COMPLETION AND ALSO TO REPAIR OR REPLACE ANY DAMAGE RESULTING FROM THE REPAIRING OR REPLACING OF SUCH DEFECTS AT NO ADDITIONAL COST TO THE OWNER. WE SHALL MAKE SUCH REPAIRS OR REPLACEMENTS WITHIN 10 CALENDAR DAYS FOLLOWING WRITTEN NOTIFICATION BY THE OWNER. IN THE EVENT OF OUR FAILURE TO MAKE SUCH REPAIRS OR REPLACEMENTS WITHIN THE TIME SPECIFIED AFTER RECEIPT OF WRITTEN NOTICE FROM OWNER, WE AUTHORIZE THE OWNER TO PROCEED TO HAVE SAID REPAIRS OR REPLACEMENTS MADE AT OUR EXPENSE AND WE WILL PAY THE COSTS AND CHARGES THEREFORE UPON DEMAND.

PROJECT NAME:
PROJECT LOCATION:
CONTRACTOR NAME:
ADDRESS:
TELEPHONE:
SIGNED:
DATE:

PART II - MATERIALS

- 2.01 SUMMARY

USE ONLY NEW MATERIALS OF THE MANUFACTURER, SIZE AND TYPE SHOWN ON THE DRAWINGS AND SPECIFICATIONS. MATERIALS OR EQUIPMENT INSTALLED OR FURNISHED THAT DO NOT MEET LANDSCAPE ARCHITECTS, OWNER'S, OR GOVERNING AGENCIES STANDARDS WILL BE REJECTED AND SHALL BE REMOVED FROM THE SITE AT NO EXPENSE TO THE OWNER.

- 2.02 PIPE
 - A. PRESSURE SUPPLY LINE FROM POINT OF CONNECTION THROUGH BACKFLOW PREVENTION UNIT SHALL BE TYPE K "HARD" COPPER PIPE OR BRASS NIPPLES (LENGTH AS REQUIRED).
 - B. PRESSURE SUPPLY LINES 2 INCHES IN DIAMETER AND UP TO 2.5 INCHES IN DIAMETER DOWNSTREAM OF BACKFLOW PREVENTION UNIT SHALL BE CLASS 315 SOLVENT WELD PVC. PIPING SHALL CONFORM TO ASTM D2241.
 - C. PRESSURE SUPPLY LINES 3 INCHES IN DIAMETER AND UP TO 8 INCHES IN DIAMETER DOWNSTREAM OF BACKFLOW PREVENTION UNIT SHALL BE CLASS 200 GASKET JOINT PVC. PIPING SHALL CONFORM TO ASTM D2241.
 - D. PRESSURE SUPPLY LINES 1.5 INCHES IN DIAMETER AND SMALLER OF THE BACKFLOW PREVENTION UNIT SHALL BE SCHEDULE 40 SOLVENT WELD PVC CONFORMING TO ASTM D1785.
 - E. NON-PRESSURE LINES .75 INCHES IN DIAMETER AND LARGER DOWNSTREAM OF THE REMOTE CONTROL VALVE SHALL BE SCH. 40 PVC.
 - F. ALL SPECIALIZED PIPING SHALL BE AS INDICATED ON THE DRAWING LEGEND OR DETAILS.

- 2.03 METAL PIPE AND FITTINGS
 - A. BRASS PIPE SHALL BE 85 PERCENT RED BRASS, ANSI, IPS STANDARD 125 POUNDS, SCHEDULE 40 SCREWED PIPE.
 - B. BRASS FITTINGS SHALL BE MEDIUM BRASS, SCREWED 125-POUND CLASS.
 - C. COPPER PIPE SHALL BE "HARD" TYPE K OR AS NOTED ON THE DRAWING LEGEND OR DETAILS.
 - D. COPPER FITTINGS SHALL BE SOLDERED TYPE.

- 2.04 PLASTIC PIPE AND FITTINGS
 - A. PIPE SHALL BE MARKED CONTINUOUSLY WITH MANUFACTURER'S NAME, NOMINAL PIPE SIZE, SCHEDULE OR CLASS, PVC TYPE AND GRADE, NATIONAL SANITATION FOUNDATION APPROVAL, COMMERCIAL STANDARDS DESIGNATION, AND DATE OF EXTRUSION.
 - B. ALL PLASTIC PIPE SHALL BE EXTRUDED OF AN IMPROVED PVC VIRGIN PIPE COMPOUND IN ACCORDANCE WITH ASTM D2241 OR ASTM D1784.
 - C. ALL PVC FITTINGS SHALL BE STANDARD WEIGHT SCHEDULE 40 AND SHALL BE INJECTION MOLDED OF AN IMPROVED VIRGIN PVC FITTING COMPOUND. SLIP PVC FITTINGS SHALL BE THE "DEEP SOCKET" BRACKETED TYPE. THREADED PLASTIC FITTINGS SHALL BE INJECTION MOLDED. ALL TEES AND ELLS SHALL BE SIDE GATED. ALL FITTINGS SHALL CONFORM TO ASTM D2466.
 - D. ALL THREADED NIPPLES SHALL BE STANDARD WEIGHT SCHEDULE 80 WITH MOLDED THREADS AND SHALL CONFORM TO ASTM D1785.

- E. ALL SOLVENT CEMENTING OF PLASTIC PIPE AND FITTINGS SHALL BE A TWO-STEP PROCESS, USING PRIMER AND SOLVENT CEMENT APPLIED PER THE MANUFACTURER'S RECOMMENDATIONS. CEMENT SHALL BE OF A FLUID CONSISTENCY, NOT GEL-LIKE OR ROPY. SOLVENT CEMENTING SHALL BE IN CONFORMANCE WITH ASTM D2564 AND ASTM D2855.
- F. WHEN CONNECTION IS PLASTIC TO METAL, FEMALE ADAPTERS SHALL BE HAND TIGHTENED, PLUS ONE TURN WITH A STRAP WRENCH. JOINT COMPOUND SHALL BE NON-LEAD BASE TEFLON PASTE, TAPE, OR EQUAL.

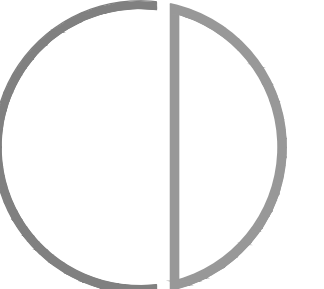
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Gensler

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Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
2019.07.26	SUBTERRANEAN BLDG PERMIT
2019.08.23	GMP ISSUE
2019.08.29	BALANCE OF WORK PERMIT - CITY SUBMITTAL 1
2019.12.20	SUBTERRANEAN BUILDING PERMIT
2020.2.12	PLANNING & FIRE CHECK
2020.3.25	BALANCE OF WORK PERMIT - SUBMITTAL 2
2020.3.30	ADDENDUM PE - BALANCE OF WORK
2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature



Project Name

Solana 101

Project Number

16-036

Description

LANDSCAPE IRRIGATION SPECIFICATIONS

Scale

1"=10'

IRRIGATION SPECIFICATIONS

PART II - MATERIALS (CONT.)

- 2.05 BACKFLOW PREVENTION UNITS
- THE BACKFLOW PREVENTION UNIT SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
 - THE BACKFLOW PREVENTION UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH BY LOCAL CODES.
 - THE BACKFLOW PREVENTION ASSEMBLY SHALL CONSIST OF BRASS PIPING, UNIONS AND FITTINGS.
- 2.06 VALVES
- GATE VALVES:
 - GATE VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
 - GATE VALVES SHALL BE CONSTRUCTED OF A BRONZE BODY, BONNET AND DISC, AND A MALLEABLE IRON HANDWHEEL. GATE VALVES SHALL HAVE THREADED CONNECTIONS.
 - ALL GATE VALVES SHALL HAVE A MINIMUM WORKING PRESSURE OF NOT LESS THAN 150 PSI AND SHALL CONFORM TO AWWA STANDARDS.
 - BALL VALVES:
 - BALL VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
 - BALL VALVES SHALL BE CONSTRUCTED OF A BRONZE BODY, STAINLESS STEEL BALL AND STEM, MALLEABLE IRON HANDLE. BALL VALVES SHALL HAVE THREADED CONNECTIONS.
 - ALL BALL VALVES SHALL HAVE A MINIMUM WORKING PRESSURE OF NOT LESS THAN 150 PSI AND SHALL CONFORM TO AWWA STANDARDS.
 - QUICK COUPLER VALVES:
 - QUICK COUPLER VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
 - QUICK COUPLER VALVES SHALL BE BRASS WITH A WALL THICKNESS GUARANTEED TO WITHSTAND NORMAL WORKING PRESSURE OF 150 PSI WITHOUT LEAKAGE. VALVES SHALL HAVE FEMALE THREADS OPENING AT BASE, WITH TWO-PIECE BODY. VALVES TO BE OPERATED ONLY WITH A COUPLER KEY, DESIGNED FOR THAT PURPOSE. COUPLER KEY IS INSERTED INTO VALVE AND A POSITIVE, WATERTIGHT CONNECTION SHALL BE MADE BETWEEN THE COUPLER KEY AND VALVE. HINGE COVER SHALL BE THE LOCKING TYPE CONSTRUCTED OF BRASS WITH A RUBBER-LIKE VINYL COVER.
 - VINYL QUICK COUPLER COVER FOR RECLAIMED WATER QUICK COUPLER VALVES TO BE PURPLE IN COLOR WITH THE WORDS "WARNING-RECYCLED (RECLAIMED) WATER-DO NOT DRINK PERMANENTLY MARKED ON LID FOR RECYCLED SYSTEM.
 - AUTOMATIC CONTROL VALVES:
 - AUTOMATIC CONTROL VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
 - AUTOMATIC CONTROL VALVES SHALL BE ELECTRICALLY OPERATED.
 - ANTI-DRAIN VALVES:
 - ANTI-DRAIN VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
 - ANTI-DRAIN VALVES SHALL HAVE 18-8 STAINLESS STEEL SPRINGS AND VALVE STEMS WITH BUNA-N SEALS.
 - ANTI-DRAIN VALVES WILL HAVE THREADED CONNECTIONS THE SIZE OF THE RISER OR PIPE THEY ARE TO BE INSTALLED ONTO, OR THE NEXT AVAILABLE SIZE. NO SLIP CONNECTION ANTI-DRAIN VALVES ARE ALLOWED.
- 2.07 VALVE BOXES
- VALVE BOXES SHALL BE FABRICATED FROM A DURABLE, WEATHER-RESISTANT PLASTIC MATERIAL RESISTANT TO SUNLIGHT AND CHEMICAL ACTION OF SOILS.
 - THE VALVE BOX COVER SHALL BE GREEN IN COLOR AND SECURED WITH BOLTS.
 - THE COVER AND BOX SHALL BE CAPABLE OF SUSTAINING A LOAD OF 1,500 POUNDS.
 - VALVE BOX EXTENSIONS SHALL BE BY THE SAME MANUFACTURER AS THE VALVE BOX.
 - AUTOMATIC CONTROL AND MASTER VALVE BOXES SHALL BE 16"x11"x12" RECTANGULAR SIZE. VALVE BOX COVERS SHALL BE "HEAT BRANDED" IN 2" HIGH LETTERS WITH EITHER "RCV" WITH THE VALVE IDENTIFICATION NUMBERS OR "MCV".
 - SPECIALTY "JUMBO" BOXES MAY BE INDICATED ON DRAWINGS AND SHALL BE 25"x15"x12" RECTANGULAR SIZE.
 - BALL VALVE, GATE VALVE, AND QUICK COUPLER VALVE BOXES SHALL BE CIRCULAR 10" SIZE. VALVE BOX COVERS SHALL BE "HEAT BRANDED" IN 2" HIGH LETTERS WITH EITHER "BV", "GV", OR "OCV".
- 2.08 IRRIGATION CONTROLLER
- CONTROLLER SHALL BE OF THE MANUFACTURER, SIZE AND TYPE INDICATED ON THE DRAWINGS.
 - THE CONTROLLER ENCLOSURE SHALL BE OF THE MANUFACTURER, SIZE AND TYPE INDICATED ON THE DRAWINGS. THE ENCLOSURE SHALL ALSO ENCLOSE THE CONTROLLER ELECTRICAL METER.
- THE CONTROLLER SHALL BE OF THE MANUFACTURER, SIZE AND TYPE REQUIRED BY THE CITY OF SOLANA BEACH
- 2.09 ELECTRICAL
- ALL ELECTRICAL EQUIPMENT SHALL BE NEMA TYPE 3, WATERPROOFED FOR EXTERIOR INSTALLATIONS.
 - ALL ELECTRICAL WORK SHALL CONFORM TO LOCAL CODES AND ORDINANCES.
- 2.10 LOW VOLTAGE CONTROL WIRING
- REMOTE CONTROL WIRE SHALL BE DIRECT-BURIAL AWG-UF TYPE, SIZE AS INDICATED ON THE DRAWINGS, AND IN NO CASE SMALLER THAN 14 GAUGE.
 - CONNECTIONS SHALL BE EITHER EPOXY-SEALED PACKET TYPE OR PENN-TITE CONNECTORS. SPICES ARE NOT ACCEPTABLE.
 - COMMON WIRES SHALL BE WHITE IN COLOR, AND IN NO CASE SMALLER THAN 14 GAUGE. CONTROL WIRES SHALL BE RED (WHERE TWO OR MORE CONTROLLERS ARE USED), THE CONTROL WIRES SHALL BE A DIFFERENT COLOR FOR EACH CONTROLLER.
 - TWO ADDITIONAL WIRES SHALL BE RUN FROM THE CONTROLLERS TO THE LAST VALVE/VALVE MANIFOLD ON THE MAINLINE. AN ADDITIONAL TWO WIRES SHALL BE RUN FOR EACH SPLIT IN THE MAINLINE. A TRACER WIRE SHALL BE RUN ALONG THE ENTIRE LENGTH OF THE MAINLINE.
 - GROUND WIRES SHALL BE GREEN IN COLOR, AND IN NO CASE SMALLER THAN 6 GAUGE.
 - PROVIDE A 24" LONG EXPANSION LOOP FOR ALL DIRECTIONAL CHANGES IN CONTROL WIRE ROUTING.
- 2.11 IRRIGATION HEADS
- SPRINKLER HEADS SHALL BE OF THE MANUFACTURER SIZE, TYPE, WITH RADIUS OF THROW, OPERATING PRESSURE, AND DISCHARGE RATE INDICATED ON THE DRAWINGS.
 - POP-UP HEADS AND RISER HEADS SHALL BE USED AS INDICATED ON THE DRAWINGS.

PART III - EXECUTION

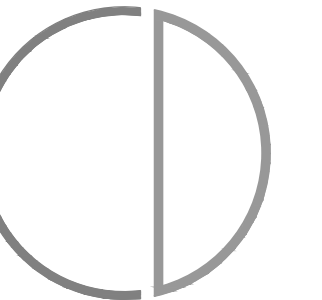
- 3.01 SITE CONDITIONS
- INSPECTIONS:
 - PRIOR TO ALL WORK OF THIS SECTION, CAREFULLY INSPECT THE INSTALLED WORK OF ALL OTHER TRADES AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE.
 - VERIFY THAT IRRIGATION SYSTEM MAY BE INSTALLED IN STRICT ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS, THE ORIGINAL DESIGN, THE REFERENCED STANDARDS, AND THE MANUFACTURER'S RECOMMENDATIONS.
 - DISCREPANCIES:
 - IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.
 - DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL DISCREPANCIES HAVE BEEN RESOLVED.
 - GRADES:
 - BEFORE STARTING WORK, CAREFULLY CHECK ALL GRADES TO DETERMINE THAT WORK MAY SAFELY PROCEED, KEEPING WITHIN THE SPECIFIED MATERIAL DEPTHS WITH RESPECT TO FINISH GRADE.
 - FINAL GRADES SHALL BE ACCEPTED BY THE ENGINEER BEFORE WORK ON THIS SECTION WILL BE ALLOWED TO BEGIN.
 - FIELD MEASUREMENTS:
 - MAKE ALL NECESSARY MEASUREMENTS IN THE FIELD TO ENSURE PRECISE FIT OF ITEMS IN ACCORDANCE WITH THE ORIGINAL DESIGN. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL IRRIGATION MATERIALS WITH ALL OTHER WORK.
 - ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SIZE DIMENSIONS PRIOR TO PROCEEDING WITH WORK UNDER THIS SECTION.
 - EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR EXISTING UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY HIS OPERATIONS. NEGLECT.
 - DIAGRAMMATIC INTENT:
 - THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC. THE SIZE AND LOCATION OF EQUIPMENT AND FIXTURES ARE DRAWN TO SCALE WHERE POSSIBLE. PROVIDE OFFSETS IN PIPING CHANGES IN EQUIPMENT LOCATIONS AS NECESSARY TO CONFORM WITH STRUCTURES AND TO AVOID OBSTRUCTIONS OR CONFLICTS WITH OTHER WORK AT NO ADDITIONAL EXPENSE TO OWNER.
 - LAYOUT:
 - PRIOR TO INSTALLATION, THE CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS, VALVES, BACKFLOW PREVENTER, AND AUTOMATIC CONTROLLER.
 - LAYOUT IRRIGATION SYSTEM AND MAKE MINOR ADJUSTMENTS REQUIRED DUE TO DIFFERENCES BETWEEN SITE AND DRAWINGS. WHERE PIPING IS SHOWN ON DRAWINGS UNDER PAVED AREAS, BUT RUNNING PARALLEL AND ADJACENT TO PLANTED AREAS, INSTALL THE PIPING IN THE PLANTED AREAS.
 - WATER SUPPLY CONNECTIONS TO, OR THE INSTALLATION OF, THE WATER SUPPLY SHALL BE AT THE LOCATIONS SHOWN ON THE DRAWINGS. MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS SHALL BE MADE AT NO ADDITIONAL EXPENSE TO OWNER.
 - ELECTRICAL SERVICE:
 - CONNECTIONS TO THE ELECTRICAL SUPPLY SHALL BE AT THE LOCATIONS SHOWN ON THE DRAWINGS. MINOR CHANGES CAUSED BY SITE CONDITIONS SHALL BE MADE AT NO ADDITIONAL EXPENSE TO OWNER.
 - CONTRACTOR SHALL MAKE 120 VOLT CONNECTION TO THE IRRIGATION CONTROLLERS. ELECTRICAL POWER SOURCE TO CONTROLLER LOCATIONS SHALL BE PROVIDED BY OTHERS.
- 3.02 TRENCHING
- EXCAVATIONS SHALL BE STRAIGHT WITH VERTICAL SIDES, EVEN GRADE, AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. TRENCHING EXCAVATION SHALL FOLLOW LAYOUT INDICATED ON DRAWINGS TO THE DEPTHS BELOW FINISHED GRADE AND AS NOTED. WHERE LINES OCCUR UNDER PAVED AREA, THESE DIMENSIONS SHALL BE CONSIDERED BELOW SUBGRADE.
 - PROVIDE MINIMUM COVER OF 18 INCHES ON PRESSURE SUPPLY LINES 2 1/2 INCHES AND SMALLER. PROVIDE MINIMUM COVER OF 24 INCHES ON PRESSURE SUPPLY LINES 3 INCHES, AND 36 INCHES OF COVER ON PRESSURE SUPPLY LINES 4 INCH AND LARGER.
 - PROVIDE MINIMUM COVER OF 18 INCHES FOR CONTROL WIRES.
 - PROVIDE MINIMUM COVER OF 12 INCHES FOR NON-PRESSURE LINES.
 - PIPES INSTALLED IN A COMMON TRENCH SHALL HAVE A 4 INCH MINIMUM SPACE BETWEEN PIPES.
 - PROVIDE SAND BACKFILL A MINIMUM OF 4 INCHES OVER AND UNDER ALL MAINLINE PIPING.
- 3.03 BACKFILLING
- BACKFILL MATERIAL ON ALL LINES SHALL BE THE SAME AS ADJACENT SOIL FREE OF DEBRIS, LITTER, AND ROCKS OVER 1/2 INCH IN DIAMETER.
 - BACKFILL SHALL BE TAMPED IN 4-INCH LAYERS UNDER THE PIPE AND UNIFORMLY ON BOTH SIDES FOR THE FULL WIDTH OF THE TRENCH AND THE FULL LENGTH OF THE PIPE. BACKFILL MATERIALS SHALL BE SUFFICIENTLY DAMP TO PERMIT THOROUGH COMPACTION, FREE OF VOIDS. BACKFILL SHALL BE COMPACTED TO DRY DENSITY EQUAL TO ADJACENT UNDISTURBED SOIL AND SHALL CONFORM TO ADJACENT GRADES.
 - FLOODING IN LIEU OF TAMPING IS NOT ALLOWED.
 - UNDER NO CIRCUMSTANCES SHALL TRUCK WHEELS BE USED TO COMPACT BACKFILL.
 - PROVIDE SAND BACKFILL A MINIMUM OF 6 INCHES OVER AND UNDER ALL PIPING UNDER PAVED AREAS.
- 3.04 PIPING
- PIPING UNDER EXISTING PAVEMENT MAY BE INSTALLED BY JACKING, BORING, OR HYDRAULIC DRIVING, NO HYDRAULIC DRIVING IS PERMITTED UNDER ASPHALT PAVEMENT.
 - CUTTING OR BREAKING OF EXISTING PAVEMENT IS NOT PERMITTED.
 - CAREFULLY INSPECT ALL PIPE AND FITTINGS BEFORE INSTALLATION, REMOVING DIRT, SCALE, BURRS REAMING. INSTALL PIPE WITH ALL MARKINGS UP FOR VISUAL INSPECTION AND VERIFICATION.
 - REMOVE ALL DENTED AND DAMAGED PIPE SECTIONS.
 - ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM EACH OTHER AND 12 INCHES FROM LINES OF OTHER TRADES.
 - PARALLEL LINES SHALL NOT BE INSTALLED DIRECTLY OVER EACH OTHER.
 - IN SOLVENT WELDING, USE ONLY THE SPECIFIED PRIMER AND SOLVENT CEMENT AND MAKE ALL JOINTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHODS INCLUDING WIPING ALL EXCESS SOLVENT FROM EACH WELD. ALLOW SOLVENT WELDS AT LEAST 15 MINUTES SETUP TIME BEFORE MOVING OR HANDLING AND 24 HOURS CURING TIME BEFORE FILLING.
 - PVC PIPE SHALL BE INSTALLED IN A MANNER WHICH WILL PROVIDE FOR EXPANSION CONTRACTION AS RECOMMENDED BY THE PIPE MANUFACTURER.
 - CENTERLOAD ALL PLASTIC PIPE PRIOR TO PRESSURE TESTING.
 - ALL THREADED PLASTIC-TO-PLASTIC CONNECTIONS SHALL BE ASSEMBLED USING TEFLON TAPE OR TEFLON PASTE.
 - FOR PLASTIC-TO-METAL CONNECTIONS, WORK THE METAL CONNECTIONS FIRST. USE A NON-HARDENING PIPE DOPE ON ALL THREADED PLASTIC-TO-METAL CONNECTIONS, EXCEPT WHERE NOTED OTHERWISE. ALL PLASTIC-TO-METAL CONNECTIONS SHALL BE MADE WITH PLASTIC FEMALE ADAPTERS.
 - ALL CONNECTIONS BETWEEN PVC LATERAL LINES SHALL BE MADE USING SCH. 40 PVC FITTINGS WITH COMPRESSION ADAPTERS. ALL CONNECTIONS BETWEEN DRIPPERLINES TO BE MADE USING COMPRESSION FITTINGS OF MANUFACTURER OF THE DRIPPERLINE. USE NO PIPE DOPE, TEFLON TAPE, PRIMER OR SOLVENT CEMENT ON COMPRESSION FITTINGS.
- 3.05 CONTROLLER
- THE EXACT LOCATION OF THE CONTROLLER SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE BEFORE INSTALLATION. THE ELECTRICAL SERVICE SHALL BE COORDINATED WITH THIS LOCATION.
 - THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL ELECTRICAL HOOK UP TO IRRIGATION CONTROLLER.
 - THE IRRIGATION SYSTEM SHALL BE PROGRAMMED TO OPERATE DURING THE PERIODS OF MINIMAL USE OF THE DESIGN AREA.
 - INSTALL CONTROLLER ENCLOSURE AS RECOMMENDED BY THE MANUFACTURER.
- 3.06 CONTROL WIRING
- LOW VOLTAGE CONTROL WIRING SHALL OCCUPY THE SAME TRENCH AND SHALL BE INSTALLED ALONG THE SAME ROUTE AS THE PRESSURE SUPPLY LINES WHENEVER POSSIBLE.
 - WHERE MORE THAN ONE WIRE IS PLACED IN A TRENCH, THE WIRING SHALL BE TAPED TOGETHER IN A BUNDLE AT INTERVALS OF 10 FEET. BUNDLE SHALL BE SECURED TO THE MAINLINE WITH TAPE AT INTERVALS OF 20 FEET.
 - ALL CONNECTIONS SHALL BE OF AN APPROVED TYPE AND SHALL OCCUR IN A VALVE BOX. PROVIDE AN 18 INCH SERVICE LOOP AT EACH CONNECTION.
 - AN EXPANSION LOOP OF 12 INCHES SHALL BE PROVIDED AT EACH WIRE CONNECTION AND/OR DIRECTIONAL CHANGE, AND ONE OF 24 INCHES SHALL BE PROVIDED AT EACH REMOTE CONTROL VALVE.
 - A CONTINUOUS RUN OF WIRE SHALL BE USED BETWEEN A CONTROLLER AND EACH REMOTE CONTROL VALVE. UNDER NO CIRCUMSTANCES SHALL SPICES BE USED WITHOUT PRIOR APPROVAL.
- 3.07 VALVES
- AUTOMATIC CONTROL VALVES, BALL VALVES, GATE VALVES, AND QUICK COUPLER VALVES SHALL BE INSTALLED IN THE APPROXIMATE LOCATIONS INDICATED ON THE DRAWINGS.
 - VALVE SHALL BE INSTALLED IN SHRUB AREAS WHENEVER POSSIBLE.
 - INSTALL ALL VALVES AS INDICATED IN THE DETAIL DRAWINGS.
 - VALVES TO BE INSTALLED IN VALVE BOXES SHALL BE INSTALLED ONE VALVE PER BOX.
 - REMOTE CONTROL VALVES AND QUICK COUPLER VALVES SHALL BE ISOLATED FROM THE MAINLINE BY A BALL VALVE SIZED PER THE LARGEST R.C.V. IN THE MANFOLD OR 1 1/2 INCH FOR Q.C.V.'S.
- 3.08 VALVE BOXES
- VALVE BOXES SHALL BE INSTALLED IN SHRUB AREAS WHENEVER POSSIBLE.
 - EACH VALVE BOX SHALL BE INSTALLED ON A FOUNDATION OF 3/4 INCH GRAVEL BACKFILL, 2 CUBIC FEET MINIMUM. VALVE BOXES SHALL BE INSTALLED WITH THEIR TOPS 1/2 INCH ABOVE THE SURFACE OF SURROUNDING FINISH GRADE IN LAWN AREAS AND 3 INCHES ABOVE FINISH GRADE IN GROUND COVER AREAS.
- 3.09 BACKFLOW PREVENTERS
- INSTALL BACKFLOW PREVENTER UNIT AS INDICATED IN THE DETAIL DRAWINGS.
 - INSTALL BACKFLOW ASSEMBLIES AT LOCATIONS APPROVED IN THE FIELD AND AT HEIGHT REQUIRED BY LOCAL CODES.
 - INSTALL WYE STRAINERS AND PRESSURE REGULATORS ON THE BACKFLOW ASSEMBLY.
 - IF BACKFLOW PREVENTER IS INSTALLED ADJACENT TO A BUILDING, WALL, OR OTHER OBSTRUCTION, INSTALL UNIT SO THAT THE TEST COCKS ARE FACING OUTWARD AWAY FROM THE OBSTRUCTION.
 - INSTALL BACKFLOW ENCLOSURE AS RECOMMENDED BY THE MANUFACTURER.
- 3.10 SPRINKLER HEADS
- SPRINKLER HEADS SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS.
 - SPACING OF HEADS SHALL NOT EXCEED MAXIMUM INDICATED ON THE DRAWINGS.
 - RISER NIPPLES SHALL BE OF THE SAME SIZE AS THE RISER OPENING IN THE SPRINKLER BODY.
 - POP-UP SPRINKLER HEADS SHALL NOT BE INSTALLED USING SIDE OUTLET OPENINGS.
 - RISER NIPPLES ON RECYCLED WATER SYSTEMS SHALL BE IDENTIFIED WITH ADHESIVE VINYL MARKERS BELOW SPRINKLER HEAD AND A MINIMUM OF 10 INCHES ABOVE FINISH GRADE.
- 3.11 MISCELLANEOUS EQUIPMENT
- INSTALL ALL ASSEMBLIES SPECIFIED HEREIN ACCORDING TO THE RESPECTIVE DETAIL DRAWINGS OR SPECIFICATIONS, USING BEST STANDARD PRACTICES.
 - QUICK COUPLER VALVES SHALL BE SET APPROXIMATELY 12 INCHES FROM WALKS, CURBS, HEADER BOARDS, OR PAVED AREAS WHERE APPLICABLE.
 - UNLESS DESIGNED AS AN INTEGRAL PART OF THE IRRIGATION HEAD, ANTI-DRAIN VALVES WILL BE INSTALLED UNDER EVERY HEAD. THE ANTI-DRAIN VALVE WILL BE THE SAME DIAMETER AS THE RISER AND BE INTEGRAL TO THE RISER ASSEMBLY.
 - INSTALL RAIN SENSOR AS INDICATED ON THE DRAWINGS AND AS RECOMMENDED BY THE MANUFACTURER.
- 3.12 FLUSHING THE SYSTEM
- PRIOR TO INSTALLATION OF SPRINKLER NOZZLES, THE VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE LINES AND RISERS.
 - SPRINKLER NOZZLES SHALL BE INSTALLED AFTER FLUSHING THE SYSTEM HAS BEEN COMPLETED.
- 3.13 ADJUSTING THE SYSTEM
- CONTRACTOR SHALL ADJUST VALVES, ALIGN HEADS, AND CHECK COVERAGE OF EACH SYSTEM PRIOR TO COVERAGE TEST.
 - IF IT IS DETERMINED BY THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE THAT ADDITIONAL ADJUSTMENTS OR NOZZLE CHANGES WILL BE REQUIRED TO PROVIDE PROPER COVERAGE, ALL NECESSARY CHANGES OR ADJUSTMENTS SHALL BE MADE PRIOR TO ANY PLANTING.
 - THE ENTIRE SYSTEM SHALL BE OPERATING PROPERLY BEFORE ANY PLANTING OPERATIONS COMMENCE.
 - AUTOMATIC CONTROL VALVES ARE TO BE ADJUSTED SO THAT THE SPRINKLER HEADS OPERATE AT THE PRESSURE RECOMMENDED BY THE MANUFACTURER.
- 3.14 TESTING AND OBSERVATION
- DO NOT ALLOW OR CAUSE ANY OF THE WORK OF THIS SECTION TO BE COVERED UP OR ENCLOSED UNTIL IT HAS BEEN OBSERVED, TESTED AND ACCEPTED BY THE LANDSCAPE ARCHITECT, OWNER, AND GOVERNING AGENCIES.
 - THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR NOTIFYING THE LANDSCAPE ARCHITECT, OWNER, AND GOVERNING AGENCIES, A MINIMUM OF 48 HOURS IN ADVANCE, WHERE AND WHEN THE WORK IS READY FOR TESTING.
 - WHEN THE SPRINKLER SYSTEM IS COMPLETED, THE CONTRACTOR SHALL PERFORM A COVERAGE TEST OF EACH SYSTEM IN ITS ENTIRETY TO DETERMINE IF THE WATER COVERAGE FOR THE PLANTED AREAS IS COMPLETE AND ADEQUATE IN THE PRESENCE OF THE LANDSCAPE ARCHITECT.
 - THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE DUE TO DEVIATIONS FROM THE PLANS, OR WHERE THE SYSTEM HAS BEEN WILLFULLY INSTALLED AS INDICATED ON THE DRAWINGS WHEN IT IS OBVIOUSLY INADEQUATE, WITHOUT BRINGING THIS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THIS TEST SHALL BE ACCEPTED BY THE LANDSCAPE ARCHITECT AND ACCOMPLISHED BEFORE STARTING ANY PLANTING.
 - FINAL INSPECTION WILL NOT COMMENCE WITHOUT RECORD DRAWINGS AS PREPARED BY THE IRRIGATION CONTRACTOR.
- 3.15 MAINTENANCE
- DURING THE MAINTENANCE PERIOD THE CONTRACTOR SHALL ADJUST AND MAINTAIN THE IRRIGATION SYSTEM IN A FULLY OPERATIONAL CONDITION PROVIDING COMPLETE IRRIGATION COVERAGE TO ALL INTENDED PLANTINGS.
- 3.16 COMPLETION CLEANING
- CLEAN-UP SHALL BE MADE AS EACH PORTION OF THE WORK PROGRESSES. REFUSE AND EXCESS DIRT SHALL BE REMOVED FROM THE SITE, ALL WALKS AND PAVING SHALL BE BROOMED, AND ANY DAMAGE SUSTAINED ON THE WORK OF OTHERS SHALL BE REPAIRED TO ORIGINAL CONDITIONS.

END OF SECTION



Gensler

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Tel 619.557.2500 Fax 619.557.2520



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Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
2019.07.26	SUBTERRANEAN BLDG PERMIT
2019.08.23	GMP ISSUE
2019.08.29	BALANCE OF WORK PERMIT - CITY SUBMITTAL 1
2019.12.20	SUBTERRANEAN BUILDING PERMIT
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2020.3.25	BALANCE OF WORK PERMIT - SUBMITTAL 2
2020.3.30	ADDENDUM PE - BALANCE OF WORK
2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature



Project Name

Solana 101

Project Number

16-036

Description

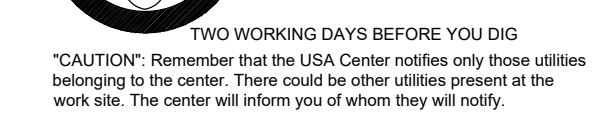
LANDSCAPE IRRIGATION SPECIFICATIONS

Scale

1"=10'

L-15

Underground Service Alert
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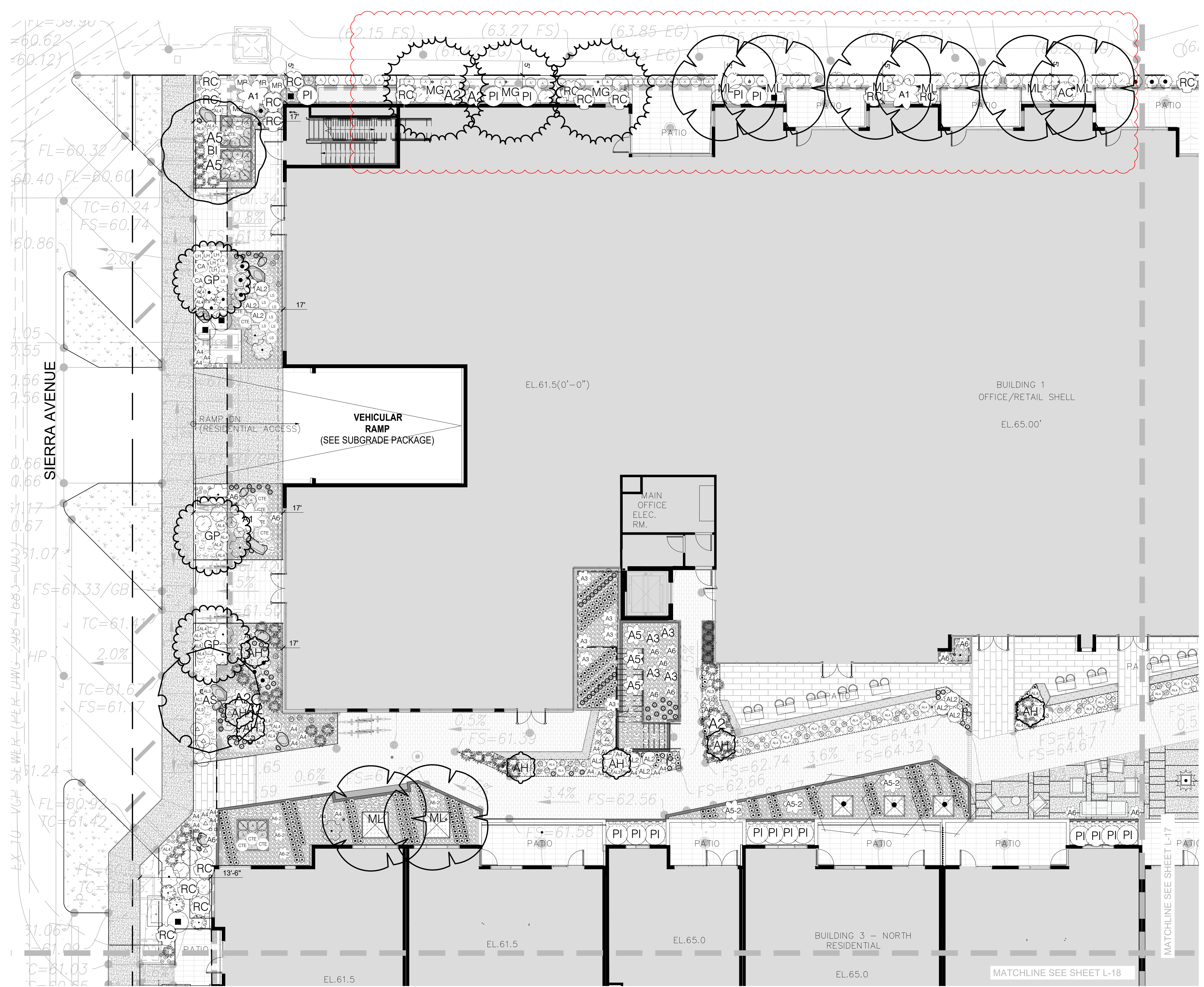


"CAUTION" Remember that the USA Center routes only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.

PLANT SCHEDULE

BULLETIN

TREES	CODE	BOTANICAL NAME	COMMON NAME	CONTAINER	WUCOLS	MAX HT.	QTY
AS	AS	Acacia stenophylla	Shoestring Acacia STD	48" box	LOW	25'	8
AH	AH	Aloe hercules	Tree Aloe STD	24" BOX	LOW	30'	9
BI	BI	Banksia integrifolia	Coast Banksia STD	36" BOX	VERY LOW	40'	7
BB	BB	Bauhinia x blakeana	Hong Kong Orchid Tree STD	36" BOX	MEDIUM	30'	3
GP	GP	Geijera parviflora	Australian Willow STD	36" BOX	LOW	30'	8
MG	MG	Magnolia grandiflora 'Little Gem'	Little Gem Magnolia Columnar	36" BOX	MEDIUM	30'	3
ML	ML	Melaleuca leucadendra	Cajeput Tree STD	36" BOX	LOW	30'	9
ME	ME	Metrosideros excelsa	New Zealand Christmas Tree STD	36" BOX	MEDIUM	30'	4
TT	TT	Tipuana tipu	Tipu Tree STD	48" box	LOW	30'	3
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	CONTAINER	WUCOLS	MAX HT.	QTY
AC	AC	Acca sellowiana	Pineapple Guava	15 gal.	LOW	15'	14
A1	A1	Agave americana	Century Plant	15 gal.	LOW	<5'	6
A2	A2	Agave attenuata	Foxtail Agave	15 gal.	LOW	<5'	9
A3	A3	Agave filifera	Century Plant	5 gal.	LOW	<5'	19
A4	A4	Agave parryi couesii	Parry's Agave	5 gal.	LOW	<5'	52
A5-2	A5-2	Agave x 'Blue Flame'	Blue Flame Agave	1 gal.	LOW	<5'	15
A5	A5	Agave x 'Blue Flame'	Blue Flame Agave	15 gal.	LOW	<5'	8
A6-2	A6-2	Agave x 'Blue Glow'	Blue Glow Agave	1 gal.	LOW	<5'	10
A6	A6	Agave x 'Blue Glow'	Blue Glow Agave	5 gal.	LOW	<5'	49
AL1	AL1	Aloe arborescens	Tree Aloe	15 gal.	LOW	8'	12
AL2	AL2	Aloe plicatilis	Fan Aloe	5 gal.	LOW	<5'	14
AL3	AL3	Aloe striata	Coral Aloe	5 gal.	LOW	<5'	13
AL4	AL4	Aloe vera	Medicinal Aloe	5 gal.	LOW	<5'	111
AL5	AL5	Aloe x 'Grassy Lassie'	Aloe	5 gal.	LOW	<5'	179
CAR	CAR	Carex tumulicola	Berkeley Sedge	5 gal.	LOW	<5'	115
CTE	CTE	Chondropetalum tectorum 'El Campo'	Cape Rush	15 gal.	LOW	<5'	53
CO	CO	Cotyledon orbiculata 'Silver Waves'	Pig's Ear	5 gal.	LOW	<5'	204
CA	CA	Crassula arborescens	Silver Dollar Plant	5 gal.	LOW	<5'	36
DW	DW	Dasyliion wheeleri	Grey Desert Spoon	15 gal.	LOW	<5'	21
DD	DD	Dracaena draco	Dragon Tree	24" box	LOW	15'	1
DM	DM	Dracaena marginata	Red Edged Dracaena	24" box	MEDIUM	15'	3
DS	DS	Dyckia x 'Silver Superstar'		1 gal.	LOW	<5'	50
EG	EG	Echinocactus grusonii	Golden Barrel Cactus	1 gal.	LOW	<5'	129
HAS	HAS	Hakonechloa macra 'Stripe it Rich'	Japanese Forest Grass	5 gal.	MEDIUM	<5'	21
HP	HP	Hesperaloe parviflora 'Brakelights' TM	Brakelights Red Yucca	5 gal.	LOW	<5'	9
HA	HA	Heteromeles arbutifolia	Toyon	15 gal.	LOW	10'	9
KB	KB	Kalanchoe bracteata	Silver Teaspoons	5 gal.	LOW	<5'	62
KF	KF	Kalanchoe flammula	Kalanchoe of Somalia	5 gal.	LOW	<5'	28
LH	LH	Lavandula heterophylla	Lavender	5 gal.	LOW	<5'	17
LB	LB	Lomandra longifolia 'Breeze'	Dwarf Mat Rush	5 gal.	LOW	<5'	126
LS	LS	Lygeum spartum	False Esparto Grass	1 gal.	MEDIUM	<5'	33
MHE	MHE	Mahonia eurybracteata 'Soft Caress'	Soft Caress Mahonia	5 gal.	LOW	<5'	58
MAH	MAH	Mahonia repens	Creeping Mahonia	5 gal.	LOW	<5'	31
MR	MR	Muhlenbergia rigens	Deer Grass	5 gal.	LOW	<5'	4
PI	PI	Podocarpus x 'Icee Blue'	Icee Blue Podocarpus	15 gal.	MEDIUM	20'	29
RC	RC	Rhamnus californica	California Coffee Berry	5 gal.	LOW	6-8'	43
SW	SW	Salvia clevelandii 'Winifred Gillman'	Cleveland Sage	5 gal.	LOW	<5'	20
SAN	SAN	Sansevieria trifasciata (no yellow variegation)	Mother-in-law's Tongue	5 gal.	LOW	<5'	65
SR	SR	Sempervivum x 'Red Rubin'	Hen-and-Chicks	1 gal.	LOW	<5'	228
SEN	SEN	Senecio radicans 'Fishhooks'	Senecio Fishhooks	1 gal.	LOW	<5'	50
SS	SS	Senecio serpens	Blue Chalksticks	1 gal.	LOW	<5'	128
TP	TP	Trichocereus pachanoi	San Pedro Cactus	2-4" BTH	LOW	8-10'	89
YE	YE	Yucca elephantipes	Soft-tipped Yucca	2-4" BTH	LOW	15'	15



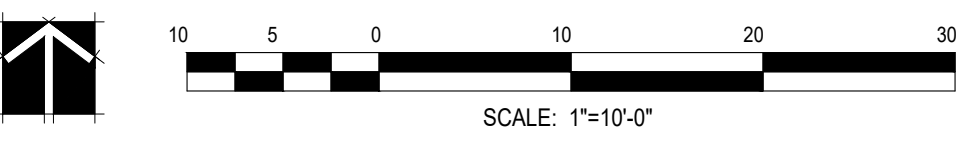
PLANT SCHEDULE CONT'D

SHRUB AREAS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	SPACING	QTY
[Pattern]	SED MOR	Sedum morganianum	Burro's Tail	6"	LOW	12" o.c.	338

NOTE: ALL SOIL MIX ON STRUCTURE SHALL BE LIGHTWEIGHT SOIL MEDIA PROVIDED BY AGRISERVICE CONTACT MARY @ AGRISERVICE 3720 OCEANIC WAY, SUITE 204 OCEANSIDE, CA 92056. PH. 760-295-6255

- NOTE:
- A COMPLETE AGRONOMIC SOILS TEST MUST BE PERFORMED PRIOR TO PLANTING & THE RECOMMENDED AMENDMENTS REVIEWED BY THE LANDSCAPE ARCHITECT OF RECORD PRIOR TO PLANTING. THE TEST MUST INCLUDE PH, ORGANIC MATTER PERCENTAGE, INFILTRATION RATE AND A COMPLETE CHEMICAL ANALYSIS (NH₄, NO₃, N, P, K, CA, MG, SO₄, NA, B, CU, ZN, MN, FE). THE FOLLOWING TESTS ARE ALSO RECOMMENDED: TOTAL EXCHANGE CAPACITY (TEC), EFFECTIVE CATION EXCHANGE (ECE) & SODIUM ABSORPTION RATIO (SAR). WAYPOINT ANALYTICAL AND WALLACE LABORATORIES ARE SOURCES FOR THIS TEST.
 - THE SOIL PREP MUST INCLUDE, AT A MINIMUM, 4 CUBIC YARDS OF COMPOST/1000 SF INCORPORATE TO A DEPTH OF 6 INCHES INTO THE SOIL.
 - 3" OF TOP DRESS MULCH MUST BE INSTALLED TO ALL AREAS WHERE EXPOSED SOIL IS PRESENT.
 - AT THE TIME OF COMPLETION OF THE INSTALLATION, A CERTIFICATION OF COMPLETION, USING THE CITY'S FORM AND SIGNED BY THE LICENSED PROFESSIONAL WHO PREPARED THE LANDSCAPE PLANS, WILL BE REQUIRED. THE FOLLOWING MUST BE SUBMITTED WITH THE CERTIFICATION OF COMPLETION FORM:
 - A COPY OF THE AGRONOMIC SOILS REPORT.
 - A MAINTENANCE SCHEDULE FOR PLANTING AND IRRIGATION.
 - AN IRRIGATION SCHEDULE THAT DELINEATES IRRIGATION TIMES AND WATER USAGE CONSISTENT WITH THE APPROVED PLANS ESTIMATED TOTAL WATER USE (ETWU) AND CURRENT SANTA FE IRRIGATION DISTRICT REQUIREMENTS.

Underground Service Alert
Call: TOLL FREE
1-800-227-6600



Gensler
225 Broadway Suite 1600 San Diego, CA 92101 United States
Tel 619.557.2500 Fax 619.557.2520

Carson Douglas Landscape Architecture
4407 Orchard Ave San Diego, CA 92107 619.995.1306 cd-la.com

Date	Description
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2021.7.23	BULLETIN 1

Seal/Signature



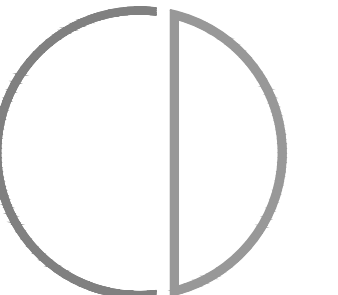
Project Name
Solana 101

Project Number
16-036

Description
LANDSCAPE PLANTING PLAN

Scale
1"=10'

L-16



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 San Diego, CA 92107
 619.995.1306
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2021.7.23	BULLETIN 1

Seal/Signature



Project Name
 Solana 101

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 16-036

Description
 LANDSCAPE PLANTING PLAN

Scale
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PLANT SCHEDULE

BULLETIN

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	A3	Agave filifera	Century Plant	5 gal.	LOW	<5'	19
	A4	Agave parryi couesii	Parry's Agave	5 gal.	LOW	<5'	52
	A5-2	Agave x 'Blue Flame'	Blue Flame Agave	1 gal.	LOW	<5'	15
	A5	Agave x 'Blue Flame'	Blue Flame Agave	15 gal.	LOW	<5'	8
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	AL1	Aloe arborescens	Tree Aloe	15 gal.	LOW	8'	12
	AL2	Aloe plicatilis	Fan Aloe	5 gal.	LOW	<5'	14
	AL3	Aloe striata	Coral Aloe	5 gal.	LOW	<5'	13
	AL4	Aloe vera	Medicinal Aloe	5 gal.	LOW	<5'	111
	AL5	Aloe x 'Grassy Lassie'	Aloe	5 gal.	LOW	<5'	179
	CAR	Carex tumulicola	Berkeley Sedge	5 gal.	LOW	<5'	115
	CTE	Chondropetalum tectorum 'El Campo'	Cape Rush	15 gal.	LOW	<5'	53
	CO	Cotyledon orbiculata 'Silver Waves'	Pig's Ear	5 gal.	LOW	<5'	204
	CA	Crassula arborescens	Silver Dollar Plant	5 gal.	LOW	<5'	36
	DW	Dasyliion wheeleri	Grey Desert Spoon	15 gal.	LOW	<5'	21
	DD	Dracaena draco	Dragon Tree	24" box	LOW	15'	1
	DM	Dracaena marginata	Red Edged Dracaena	24" box	MEDIUM	15'	3
	DS	Dyckia x 'Silver Superstar'		1 gal.	LOW	<5'	50
	EG	Echinocactus grusonii	Golden Barrel Cactus	1 gal.	LOW	<5'	129
	HAS	Hakonechloa macra 'Stripe it Rich'	Japanese Forest Grass	5 gal.	MEDIUM	<5'	21
	HP	Hesperaloe parviflora 'Brakelights' TM	Brakelights Red Yucca	5 gal.	LOW	<5'	9
	HA	Heteromeles arbutifolia	Toyon	15 gal.	LOW	10'	9
	KB	Kalanchoe bracteata	Silver Teaspoons	5 gal.	LOW	<5'	62
	KF	Kalanchoe flammula	Kalanchoe of Somalia	5 gal.	LOW	<5'	28
	LH	Lavandula heterophylla	Lavender	5 gal.	LOW	<5'	17
	LB	Lomandra longifolia 'Breeze'	Dwarf Mat Rush	5 gal.	LOW	<5'	126
	LS	Lygeum spartum	False Esparto Grass	1 gal.	MEDIUM	<5'	33
	MHE	Mahonia eurybracteata 'Soft Caress'	Soft Caress Mahonia	5 gal.	LOW	<5'	58
	MAH	Mahonia repens	Creeping Mahonia	5 gal.	LOW	<5'	31
	MR	Muhlenbergia rigens	Deer Grass	5 gal.	LOW	<5'	4
	PI	Podocarpus x 'Icee Blue'	Icee Blue Podocarpus	15 gal.	MEDIUM	20'	29
	RC	Rhamnus californica	California Coffee Berry	5 gal.	LOW	6-8'	43
	SW	Salvia clevelandii 'Winifred Gilman'	Cleveland Sage	5 gal.	LOW	<5'	20
	SAN	Sansevieria trifasciata (no yellow variegation)	Mother-in-law's Tongue	5 gal.	LOW	<5'	65
	SR	Sempervivum x 'Red Rubin'	Hen-and-Chicks	1 gal.	LOW	<5'	228
	SEN	Senecio radicans 'Fishhooks'	Senecio Fishhooks	1 gal.	LOW	<5'	50
	SS	Senecio serpens	Blue Chalksticks	1 gal.	LOW	<5'	128
	TP	Trichocereus pachanoi	San Pedro Cactus	2-4" BTH	LOW	8-10'	89
	YE	Yucca elephantipes	Soft-tipped Yucca	2-4" BTH	LOW	15'	15

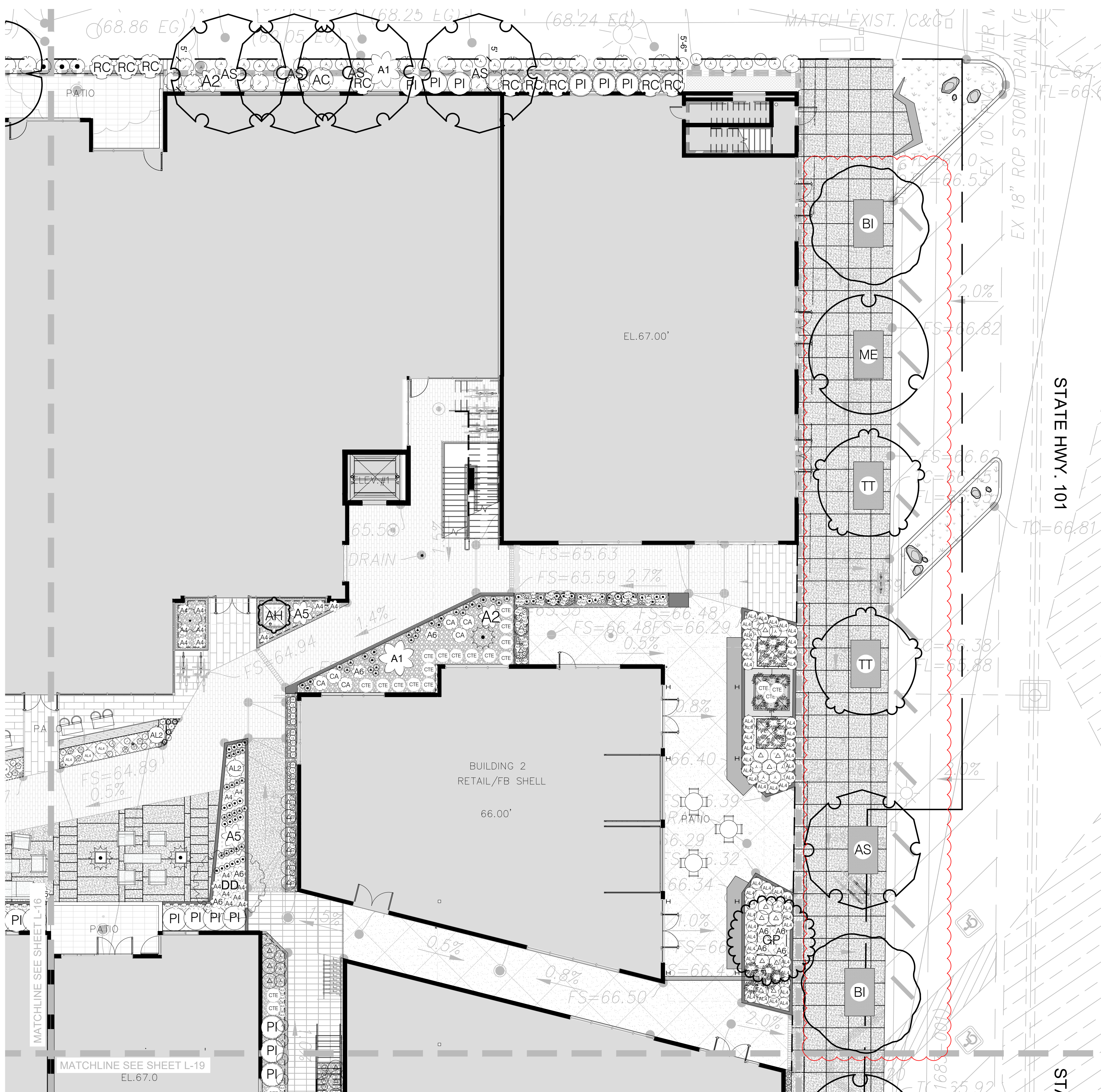
PLANT SCHEDULE CONT'D

SHRUB AREAS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	SPACING	QTY
	SED MOR	Sedum morganianum	Burro's Tail	6"	LOW	12" o.c.	338

NOTE: ALL SOIL MIX ON STRUCTURE SHALL BE LIGHTWEIGHT SOIL MEDIA PROVIDED BY AGRISERVICE CONTACT MARY @ AGRI SERVICE 3720 OCEANIC WAY, SUITE 204 OCEANSIDE, CA 92056. PH. 760-295-6255

NOTE:

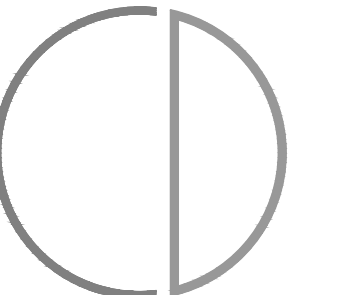
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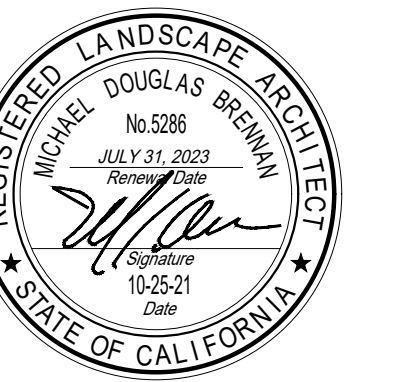
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2020.2.12	PLANNING & FIRE CHECK
2020.3.25	BALANCE OF WORK PERMIT - SUBMITTAL 2
2020.3.30	ADDENDUM PE - BALANCE OF WORK
2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature



Project Name

Solana 101

Project Number

16-036

Description

LANDSCAPE PLANTING PLAN

Scale

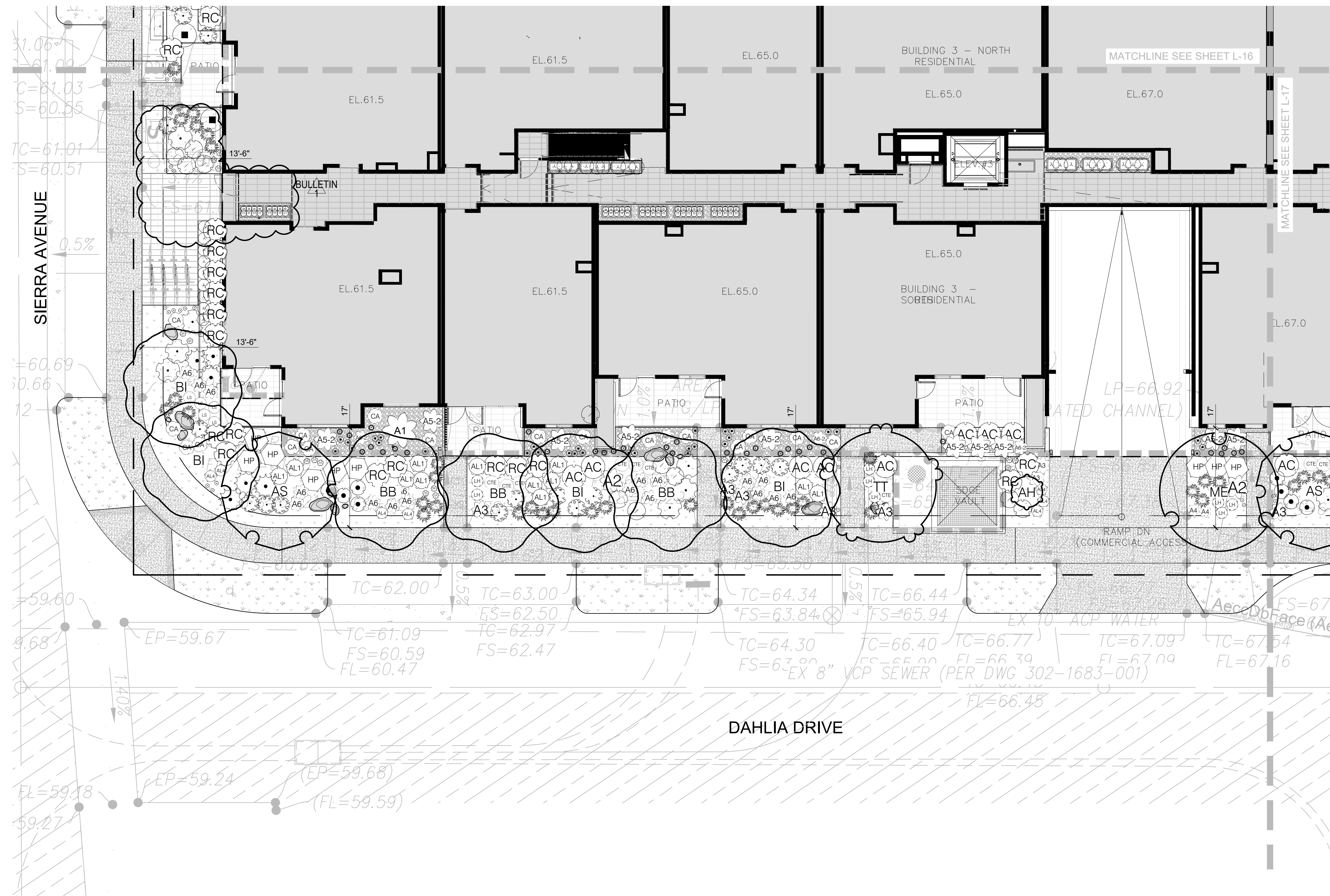
1"=10'

L-18

PLANT SCHEDULE

BULLETIN

TREES	CODE	BOTANICAL NAME	COMMON NAME	CONTAINER	WUCOLS	MAX HT.	QTY
	AS	Acacia stenophylla	Shoestring Acacia STD	48" box	LOW	25'	8
	AH	Aloe hercules	Tree Aloe STD	24" BOX	LOW	30'	9
	BI	Banksia integrifolia	Coast Banksia STD	36" BOX	VERY LOW	40'	7
	BB	Bauhinia x blakeana	Hong Kong Orchid Tree STD	36" BOX	MEDIUM	30'	3
	GP	Geijera parviflora	Australian Willow STD	36" BOX	LOW	30'	8
	MG	Magnolia grandiflora 'Little Gem'	Little Gem Magnolia Columnar	36" BOX	MEDIUM	30'	3
	ML	Melaleuca leucadendra	Cajeput Tree STD	36" BOX	LOW	30'	9
	ME	Metrosideros excelsa	New Zealand Christmas Tree STD	36" BOX	MEDIUM	30'	4
	TT	Tipuana tipu	Tipu Tree STD	48" box	LOW	30'	3
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	CONTAINER	WUCOLS	MAX HT.	QTY
	AC	Acca sellowiana	Pineapple Guava	15 gal.	LOW	15'	14
	A1	Agave americana	Century Plant	15 gal.	LOW	<5'	6
	A2	Agave attenuata	Foxtail Agave	15 gal.	LOW	<5'	9
	A3	Agave filifera	Century Plant	5 gal.	LOW	<5'	19
	A4	Agave parryi couesii	Parry's Agave	5 gal.	LOW	<5'	52
	A5-2	Agave x 'Blue Flame'	Blue Flame Agave	1 gal.	LOW	<5'	15
	A5	Agave x 'Blue Flame'	Blue Flame Agave	15 gal.	LOW	<5'	8
	A6-2	Agave x 'Blue Glow'	Blue Glow Agave	1 gal.	LOW	<5'	10
	A6	Agave x 'Blue Glow'	Blue Glow Agave	5 gal.	LOW	<5'	49
	AL1	Aloe arborescens	Tree Aloe	15 gal.	LOW	8'	12
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	CAR	Carex tumulicola	Berkeley Sedge	5 gal.	LOW	<5'	115
	CTE	Chondropetalum tectorum 'El Campo'	Cape Rush	15 gal.	LOW	<5'	53
	CO	Cotyledon orbiculata 'Silver Waves'	Pig's Ear	5 gal.	LOW	<5'	204
	CA	Crassula arborescens	Silver Dollar Plant	5 gal.	LOW	<5'	36
	DW	Dasyliroton wheeleri	Grey Desert Spoon	15 gal.	LOW	<5'	21
	DD	Dracaena draco	Dragon Tree	24" box	LOW	15'	1
	DM	Dracaena marginata	Red Edged Dracaena	24" box	MEDIUM	15'	3
	DS	Dyckia x 'Silver Superstar'		1 gal.	LOW	<5'	50
	EG	Echinocactus grusonii	Golden Barrel Cactus	1 gal.	LOW	<5'	129
	HAS	Hakonechloa macra 'Stripe It Rich'	Japanese Forest Grass	5 gal.	MEDIUM	<5'	21
	HP	Hesperaloe parviflora 'Brakelights' TM	Brakelights Red Yucca	5 gal.	LOW	<5'	9
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	KB	Kalanchoe bracteata	Silver Teaspoons	5 gal.	LOW	<5'	62
	KF	Kalanchoe flammula	Kalanchoe of Somalia	5 gal.	LOW	<5'	28
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	LB	Lomandra longifolia 'Breeze'	Dwarf Mat Rush	5 gal.	LOW	<5'	126
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	MHE	Mahonia eurybracteata 'Soft Caress'	Soft Caress Mahonia	5 gal.	LOW	<5'	58
	MAH	Mahonia repens	Creeping Mahonia	5 gal.	LOW	<5'	31
	MR	Muhlenbergia rigens	Deer Grass	5 gal.	LOW	<5'	4
	PI	Podocarpus x 'Icee Blue'	Icee Blue Podocarpus	15 gal.	MEDIUM	20'	29
	RC	Rhamnus californica	California Coffee Berry	5 gal.	LOW	6-8'	43
	SW	Salvia clevelandii 'Winifred Gilman'	Cleveland Sage	5 gal.	LOW	<5'	20
	SAN	Sansevieria trifasciata (no yellow variegation)	Mother-in-law's Tongue	5 gal.	LOW	<5'	65
	SR	Sempervivum x 'Red Rubin'	Hen-and-Chicks	1 gal.	LOW	<5'	228
	SEN	Senecio radicans 'Fishhooks'	Senecio Fishhooks	1 gal.	LOW	<5'	50
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	TP	Trichocereus pachanoi	San Pedro Cactus	2-4" BTH	LOW	8-10'	89
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PLANT SCHEDULE CONT'D

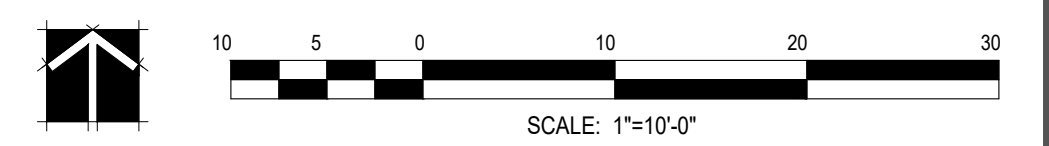
SHRUB AREAS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	SPACING	QTY
	SED MOR	Sedum morganianum	Burro's Tail	6"	LOW	12" o.c.	338

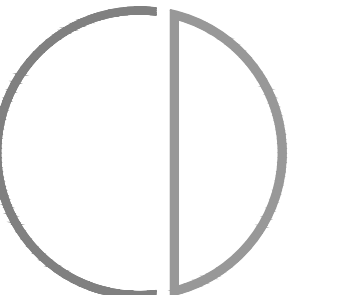
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2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature



Project Name

Solana 101

Project Number

16-036

Description

LANDSCAPE PLANTING PLAN

Scale

1"=10'

PLANT SCHEDULE

BULLETIN

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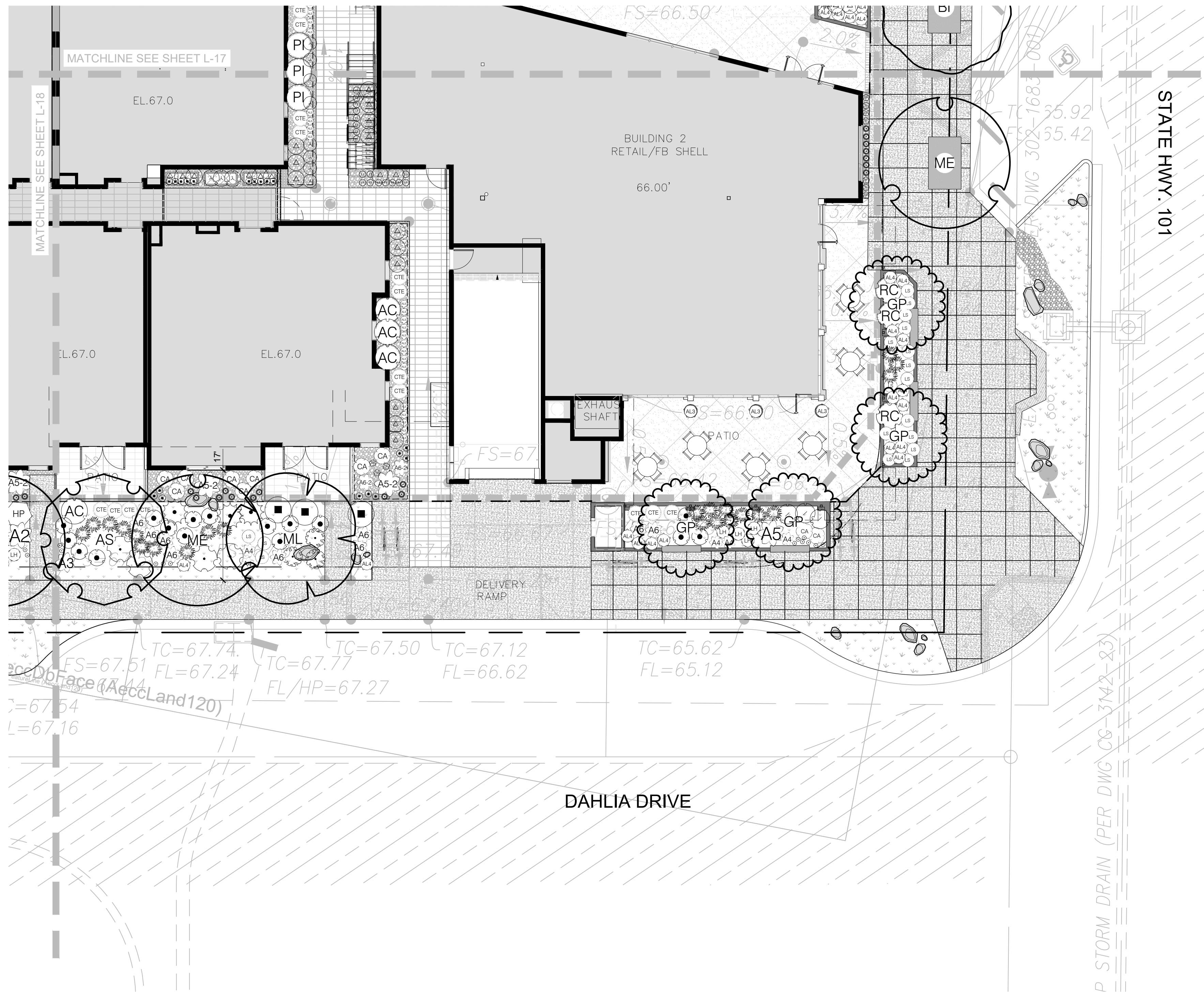
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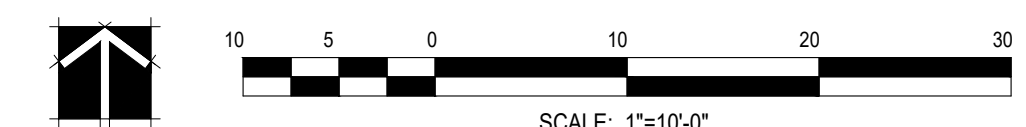
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PLANTING AND SOIL SPECIFICATIONS

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- B. QUANTITIES SHOWN ON THE PLANTING PLAN ARE APPROXIMATE AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY.
- C. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF THE DISCREPANCIES BETWEEN QUANTITIES AND SYMBOLS SHOWN.
2. LANDSCAPE CONTRACTOR SHALL APPLY AN ORGANIC OR ALL NATURAL CONTACT HERBICIDE, WHERE WEEDS ARE PRESENT, PER MANUFACTURER'S SPECIFICATIONS A MINIMUM OF TEN (10) DAYS PRIOR TO COMMENCEMENT OF ANY PLANTING OR IRRIGATION WORK. WEEDS SHALL BE ALLOWED TO COMPLETELY DIE BACK, INCLUDING THE ROOTS BEFORE PROCEEDING WITH WORK. AS AN ALTERNATIVE WEEDS MAY ALSO BE REMOVED MANUALLY FROM THE ROOTS.
3. THE SOIL ANALYSIS REPORT DATED 6/28/16 PREPARED BY FALLBROOK AG-LABORATORY, INC. SHALL BE FOLLOWED AND SUPERSEDE THE RECOMMENDATIONS HEREIN.
4. IMMEDIATELY FOLLOWING PLANTING, IRRIGATION SYSTEM SHALL BE FULLY OPERATIONAL AND PLANTING AREAS SHALL BE THOROUGHLY SOAKED.
5. ALL AREAS TO BE PLANTED, WHICH HAVE A SLOPE OF LESS THAN 10%, SHALL BE CROSS-RIPPED TO A DEPTH OF SIX (6") INCHES AND THE FOLLOWING AMENDMENTS SPREAD EVENLY AND THOROUGHLY BLENDED IN (QUANTITIES AS PER SOIL ANALYSIS AND MANUFACTURER'S RECOMMENDATION):
 - A. NITROGEN FORTIFIED REDWOOD SHAVINGS
 - B. ORGANIC FERTILIZER PER MANUFACTURER'S RECOMMENDATIONS
6. EACH PLANT SHALL RECEIVE ORGANIC FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS FOR EACH PLANT TYPE AND SIZE.
7. PLANT BACK FILL SHALL BE 50% SITE SOIL, AND 50% ORGANIC AMENDMENTS BY VOLUME.
8. ALL PLANTING AREAS SHALL INCLUDE A MINIMUM OF FOUR (4) CUBIC YARDS OF COMPOST PER 1,000 SQ. FT. OF AREA TO A DEPTH OF SIX (6) INCHES.
9. PLANT PITS SHALL BE TWICE THE SIZE OF THE DESIGNATED NURSERY CONTAINER.
10. PLANT MATERIAL SHALL NOT BE ROOT BOUND. FIVE GALLON PLANTS AND LARGER SHALL HAVE BEEN GROWN IN CONTAINERS FOR A MINIMUM OF 6 MONTHS AND A MAXIMUM OF TWO YEARS.
11. PLANTS SHALL EXHIBIT HEALTHY GROWTH AND BE FREE OF DISEASES AND PESTS.
12. STAKE ALL TREES PER STANDARD DETAIL.
13. REMOVE NURSERY STAKES ON ALL VINES AND ATTACH TO ADJACENT FENCES WITH GALV. NAILS AND GREEN NURSERY TAPE OR AS SHOWN IN DETAILS.
14. REMOVE NURSERY STAKES AND TIES FROM ALL CONTAINER STOCK. MAINTAIN SIDE GROWTH ON ALL TREES.
15. PLANTS SHALL NOT BE PLACED WITHIN TWELVE (12") INCHES OF SPRINKLER HEADS.
16. SHRUBS SHOWN IN PLANT AREAS SHALL BE UNDER-PLANTED WITH GROUNDCOVER SHOWN BY ADJACENT SYMBOL, TO WITHIN 12" OF MAIN PLANT STEM.
17. LANDSCAPE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 2% DRAINAGE AWAY FROM ALL BUILDINGS, STRUCTURES, AND WALLS. NUISANCE SOCKS SHALL BE REMOVED AND FINISHED GRADES SHALL BE SMOOTHED TO ELIMINATE PUDDLING OR STANDING WATER. POSITIVE SURFACE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL BUILDINGS.
18. FINISHED GRADES SHALL BE ONE (1) INCH BELOW THE TOP OF CURBS, SILLS, AND WALKWAYS IN ALL AREAS. WHERE SOD IS LAID NEXT TO THESE IMPROVEMENTS-FINISH GRADE BEFORE LAYING SOD SHALL BE 1-1/2" BELOW THE TOP.
19. THE LANDSCAPE CONTRACTOR SHALL LEAVE SITE IN A CLEAN CONDITION, REMOVING ALL UNUSED MATERIAL, TRASH, AND TOOLS.
20. LANDSCAPE CONTRACTOR SHALL MAINTAIN AND GUARANTEE ALL PLANTINGS FOR A PERIOD OF SIXTY (60) DAYS AFTER COMPLETION. ALL AREAS SHALL BE KEPT CLEAN, WATERED, AND WEED FREE.
21. AT COMPLETION OF ALL WORK OUTLINED IN THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL CONTACT OWNER AND ARRANGE FOR A WALK THROUGH TO DETERMINE THAT ALL ASPECTS OF WORK ARE COMPLETED. WORK MUST BE FULLY COMPLETED ACCORDING TO ALL PLANS AND SPECIFICATIONS AND MUST BE COMPLETED IN A GOOD WORKMANSHIP MANNER AND MUST BE ACCEPTED BY THE OWNER IN WRITING PRIOR TO THE BEGINNING OF THE MAINTENANCE PERIOD.
22. THE MAINTENANCE PERIOD SHALL INCLUDE THE FOLLOWING SCOPE OF WORK:
 - A. DAILY WATERING OF ALL PLANT MATERIAL.
 - B. WEEKLY MOWING OF ALL TURF AREAS.
 - C. WEEDING AND REMOVAL OF ALL WEEDS FROM GROUND COVER AREAS.
 - D. REPLACEMENT OF ANY DEAD, DYING, OR DAMAGED TREES, SHRUBS, OR GROUND COVERS.
 - E. FILLING AND REPLANTING OF ANY LOW AREAS WHICH MAY CAUSE STANDING WATER.
 - F. ADJUSTING OF SPRINKLER HEAD HEIGHT AND WATERING SYSTEM.
 - G. FILLING AND RECOMPACTION OF ERODED AREAS.
 - H. WEEKLY REMOVAL OF ALL TRASH, LITTER, CLIPPINGS, AND ALL FOREIGN DEBRIS.
 - I. AT 120 DAYS AFTER PLANTING AND PRIOR TO THE END OF THE MAINTENANCE PERIOD, ORGANIC FERTILIZER SHALL BE APPLIED TO PLANTING AREAS AS PER MANUFACTURER'S RECOMMENDATIONS.
 - J. AT 60 DAYS ORGANIC FERTILIZER SHALL BE APPLIED TO TURF AREAS AS PER MANUFACTURER'S RECOMMENDATIONS.
23. PRIOR TO END OF MAINTENANCE PERIOD, LANDSCAPE CONTRACTOR SHALL CONTACT OWNER AND ARRANGE FOR A FINAL WALK THROUGH. OWNER MUST ACCEPT ALL MAINTAINED AREAS IN WRITING PRIOR TO END OF MAINTENANCE PERIOD.
24. ALL GROUND COVERS SHALL BE GUARANTEED BY THE CONTRACTOR AS TO GROWTH AND HEALTH FOR A PERIOD OF SIXTY (60) DAYS AFTER THE COMPLETION OF MAINTENANCE PERIOD AND FINAL ACCEPTANCE. ALL SHRUBS SHALL BE GUARANTEED BY THE CONTRACTOR AS TO GROWTH AND HEALTH FOR A PERIOD OF NINETY (90) DAYS AFTER COMPLETION OF MAINTENANCE PERIOD AND FINAL ACCEPTANCE. ALL TREES SHALL BE GUARANTEED BY THE CONTRACTOR TO LIVE AND GROW IN AN ACCEPTABLE UPRIGHT POSITION FOR A PERIOD OF ONE (1) YEAR AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD AND FINAL ACCEPTANCE.
25. THE CONTRACTOR, WITHIN FIFTEEN (15) DAYS OF WRITTEN NOTIFICATION BY THE LANDSCAPE ARCHITECT, SHALL REMOVE AND REPLACE ALL GUARANTEED PLANT MATERIALS, WHICH FOR ANY REASON FAIL TO MEET THE REQUIREMENTS OF THE GUARANTEE. REPLACEMENT SHALL BE MADE WITH PLANT MATERIALS AS INDICATED OR SPECIFIED ON THE ORIGINAL PLANS, AND ALL SUCH REPLACEMENT MATERIALS SHALL BE GUARANTEED AS SPECIFIED FOR THE ORIGINAL MATERIAL GUARANTEE.
26. ALL MECHANICAL EQUIPMENT AND UTILITIES SHALL BE SCREENED BY PLANTING. IF NOT ALREADY INDICATED ON THE PLAN, ALLOW EIGHT 5-GALLON SHRUBS PER UTILITY TO BE PLACED DURING PLANT INSTALLATION AS NEEDED TO PROVIDE REQUIRED SCREENING.

- GENERAL NOTES:
1. ALL BARE SOIL AREAS NOT SHOWN WITH COBBLE SHALL BE COVERED WITH A 3" LAYER OF NATURAL SHREDDED BARK MULCH. SAMPLE SHALL BE APPROVED BY LANDSCAPE ARCHITECT.
 2. ALL TREES PLANTED WITHIN OR NEXT TO PEDESTRIAN AREAS SHALL BE SOURCED WITH SCAFFOLD BRANCHES NO LOWER THAN 60" ABOVE PEDESTRIAN PAVING FINISHED GRADE.
 3. ALL PODIUM PLANTERS SHALL BE FILLED WITH AGRISERVICE LIGHTWEIGHT SOIL MIX INSTALLED PER SUPPLIER'S SPECIFICATIONS. CONTACT MARY MATAVA WITH AGRISERVICE 760.296.6255
 4. ALL STREET TREES PLANTED WITHIN TREE GRATES SHALL BE PROVIDED WITH STRUCTURAL SOIL WITHIN A 4' RADIUS OF EACH TREE AND A DEPTH EQUAL TO THE ROOT BALL. INSTALL STRUCTURAL SOIL PER MANUFACTURER SPECIFICATIONS.
 5. ALL PLANT MATERIAL SIZE 15 GAL AND LARGER SHALL BE APPROVED BY PHOTO SUBMITTAL TO THE LANDSCAPE ARCHITECT.
 6. ALL TRICHOCEREUS AND SIMILAR VERTICAL CACTI SHALL BE PROVIDED WITH TEMPORARY STAKING THROUGH THE ESTABLISHMENT PERIOD.
 7. ALL TREES PLANTED WITHIN 5' OF HARDSCAPE MUST BE INSTALLED WITH A ROOT BARRIER ALONG THE HARDSCAPE EDGE SPANNING OUT 5' IN EACH DIRECTION FROM THE CENTER OF THE TREE FOR A TOTAL LENGTH OF 10' - REFER TO ROOT BARRIER DETAIL.
 8. REFER TO PLANTING DETAILS & SPECIFICATIONS FOR PLANTING INSTRUCTIONS.
 9. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE STANDARDS OF THE COUNTY-WIDE LANDSCAPE REGULATIONS AND THE CITY OF SOLANA BEACH MUNICIPAL CODE ALONG WITH ALL OTHER APPLICABLE STANDARDS.
 10. CONTRACTOR SHALL ENSURE THAT ALL TREE LOCATIONS ARE SPOTTED PER LANDSCAPE ARCHITECT'S SITE DIRECTION. TREE INSTALLATION SHALL ALSO INCLUDE COORDINATION OF DELIVERY AND PROTECTION OF TREES PRIOR TO INSTALLATION, KNOWLEDGE OF UNDERGROUND UTILITIES, PROPER DRAINAGE, AND STAKING PER STANDARD DETAIL.
 11. PRIOR TO PLANTING, LANDSCAPE CONTRACTOR SHALL PROVIDE AN AGRICULTURAL SOILS ANALYSIS FROM ON-GRADE PLANTING AREAS OF THE SITE AND SHALL AMEND SOIL PER ANALYSIS RECOMMENDATIONS.
 12. THE ENTIRE PROPERTY WILL BE PERMANENTLY MAINTAINED BY THE PROPERTY OWNER.

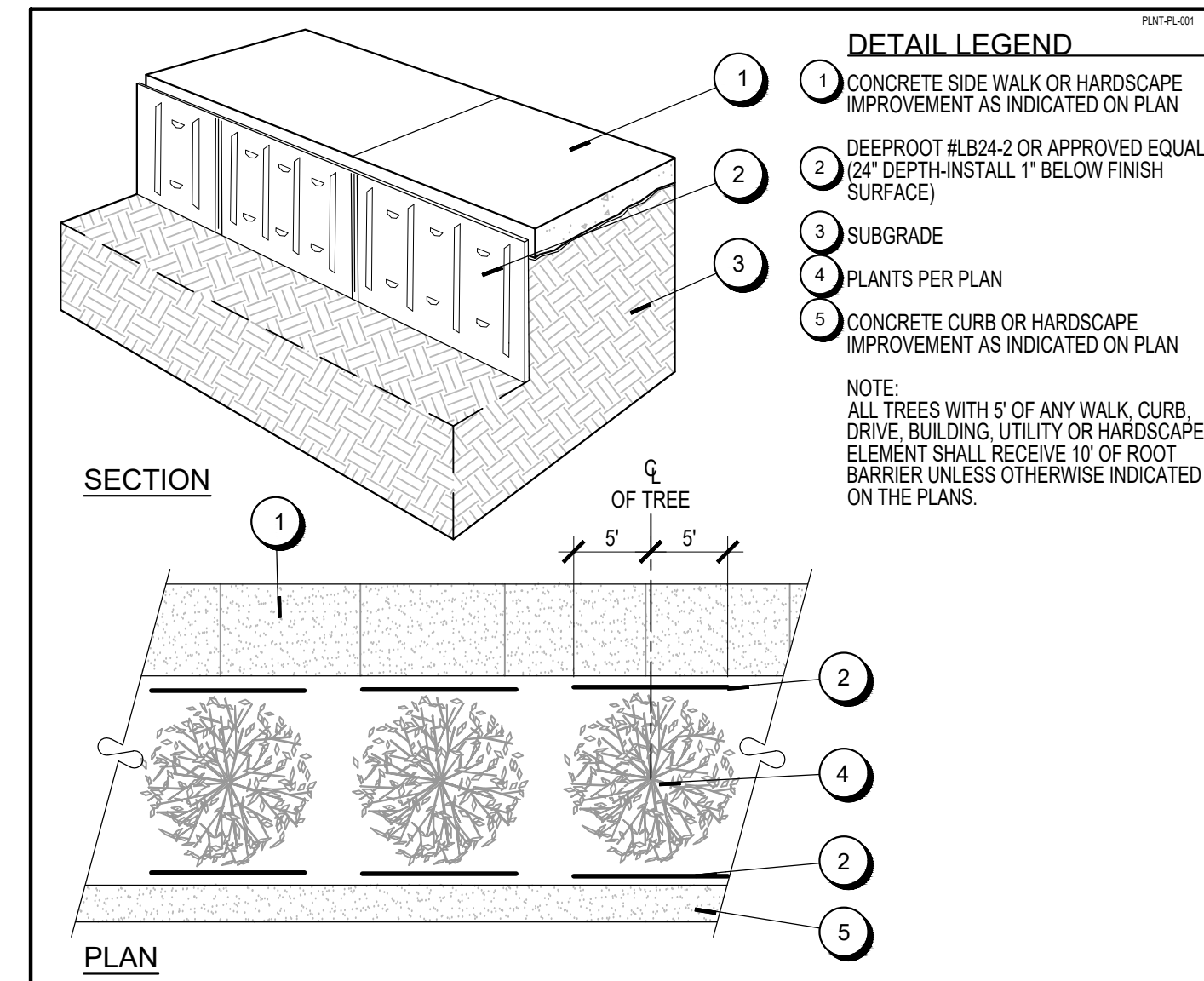
TREE SETBACKS
PROVIDE THE FOLLOWING MINIMUM SEPARATION BETWEEN TREE TRUNK AND ADJACENT -

PROPERTY LINE	3 FEET
ANY UTILITY	4 FEET
FIRE HYDRANT	10 FEET
STREET LIGHT	20 FEET

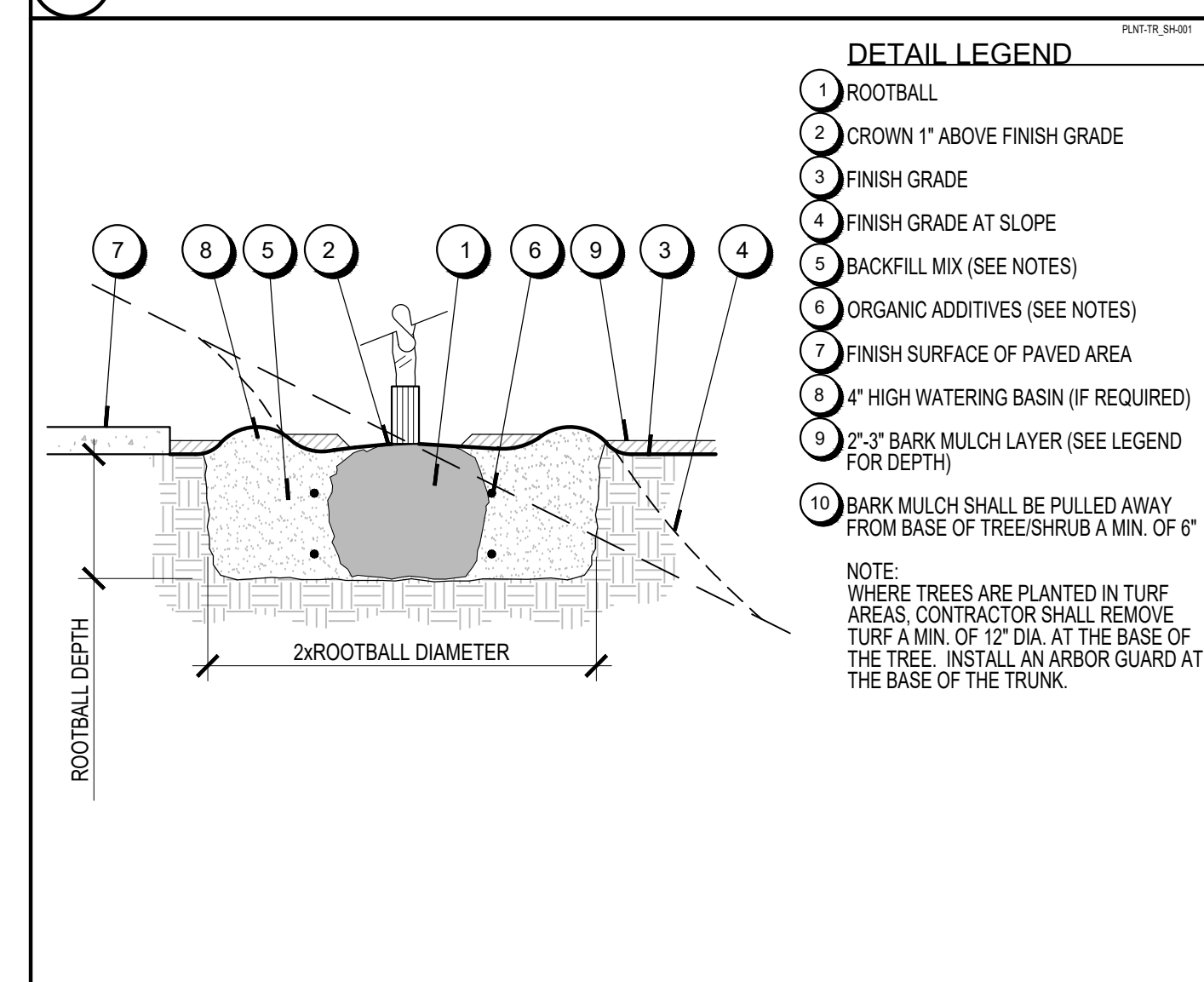
PROVIDE THE FOLLOWING MINIMUM LIMB CLEARANCES OVER-

STREET	15 FEET
BIKE AND PEDESTRIAN AREAS	8 FEET

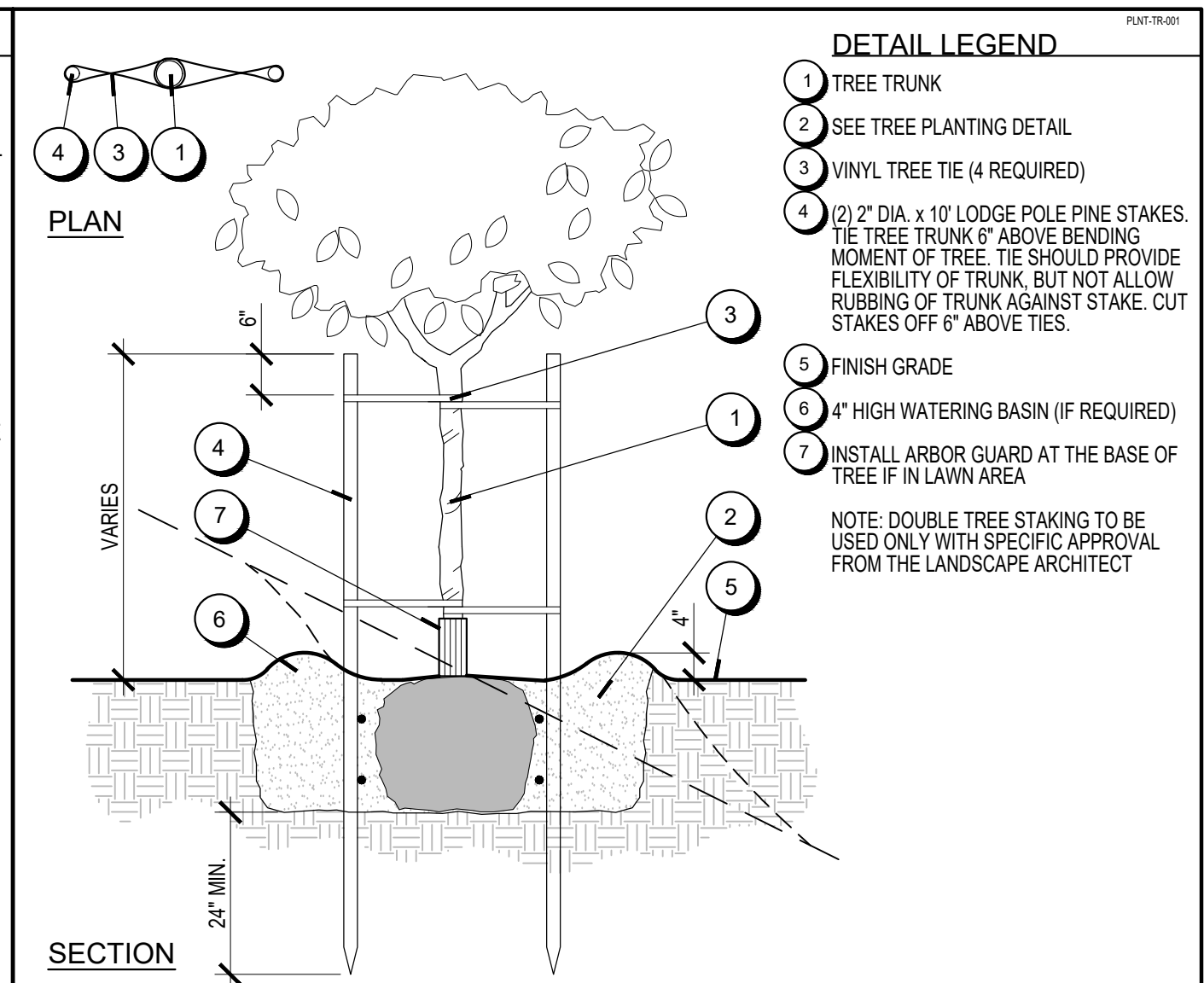
MAINTENANCE NOTE
OWNER SHALL BE RESPONSIBLE FOR PROPER MAINTENANCE OF THE LANDSCAPE INCLUDING RIGHT OF WAY IN A HEALTHY DISEASE FREE CONDITION



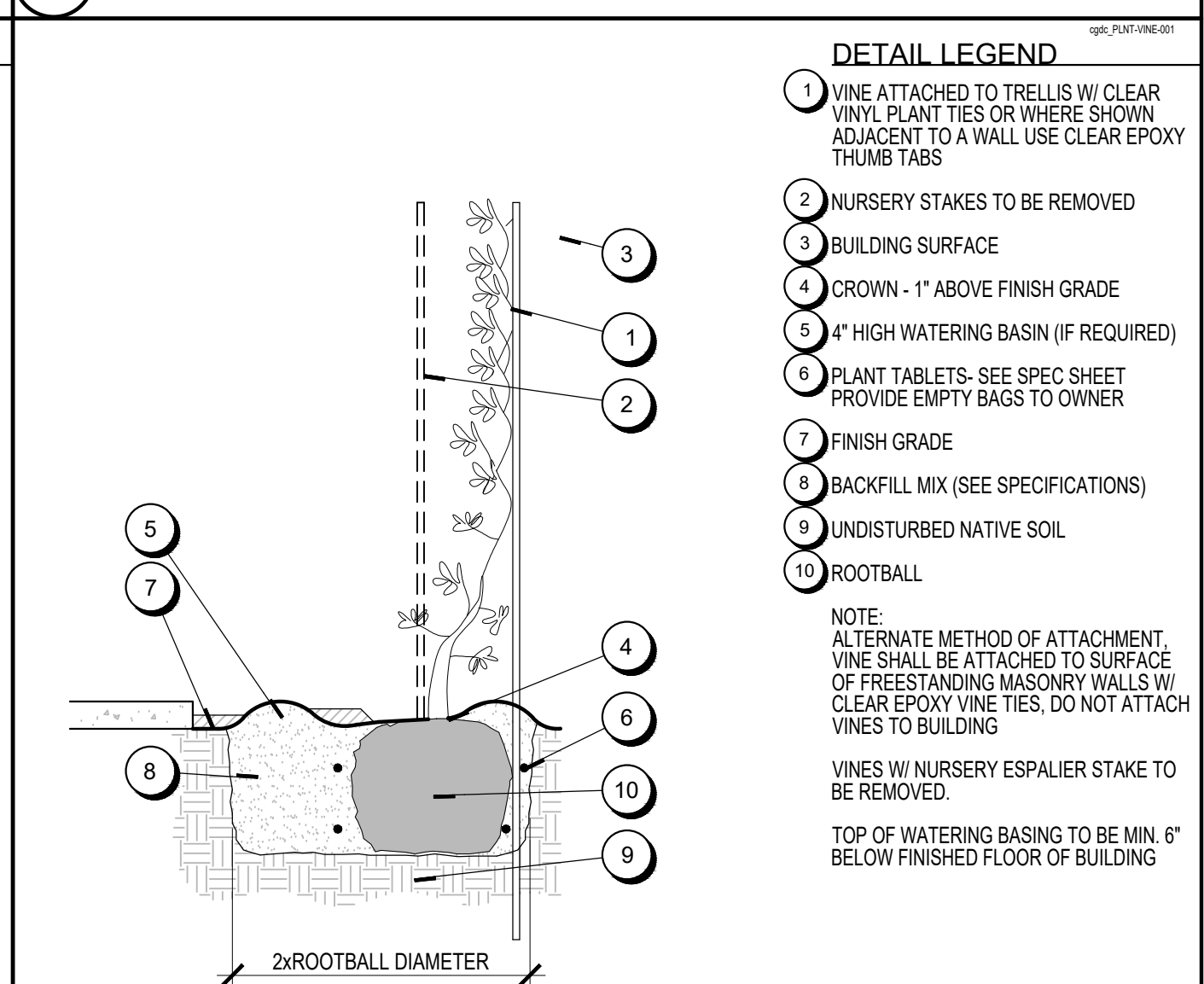
ROOT BARRIER



TREE AND SHRUB PLANTING



TREE DOUBLE STAKING



VINE PLANTING

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225 Broadway
Suite 1600
San Diego, CA 92101
United States

Tel 619.557.2500
Fax 619.557.2520

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4407 Orchard Ave
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619.995.1306
cd-la.com

Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
2019.07.26	SUBTERRANEAN BLDG PERMIT
2019.08.23	GMP ISSUE
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2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature



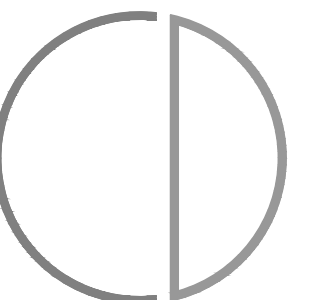
Project Name
Solana 101

Project Number
16-036

Description
LANDSCAPE PLANTING DETAILS & NOTES

Scale
1"=10'

L-20



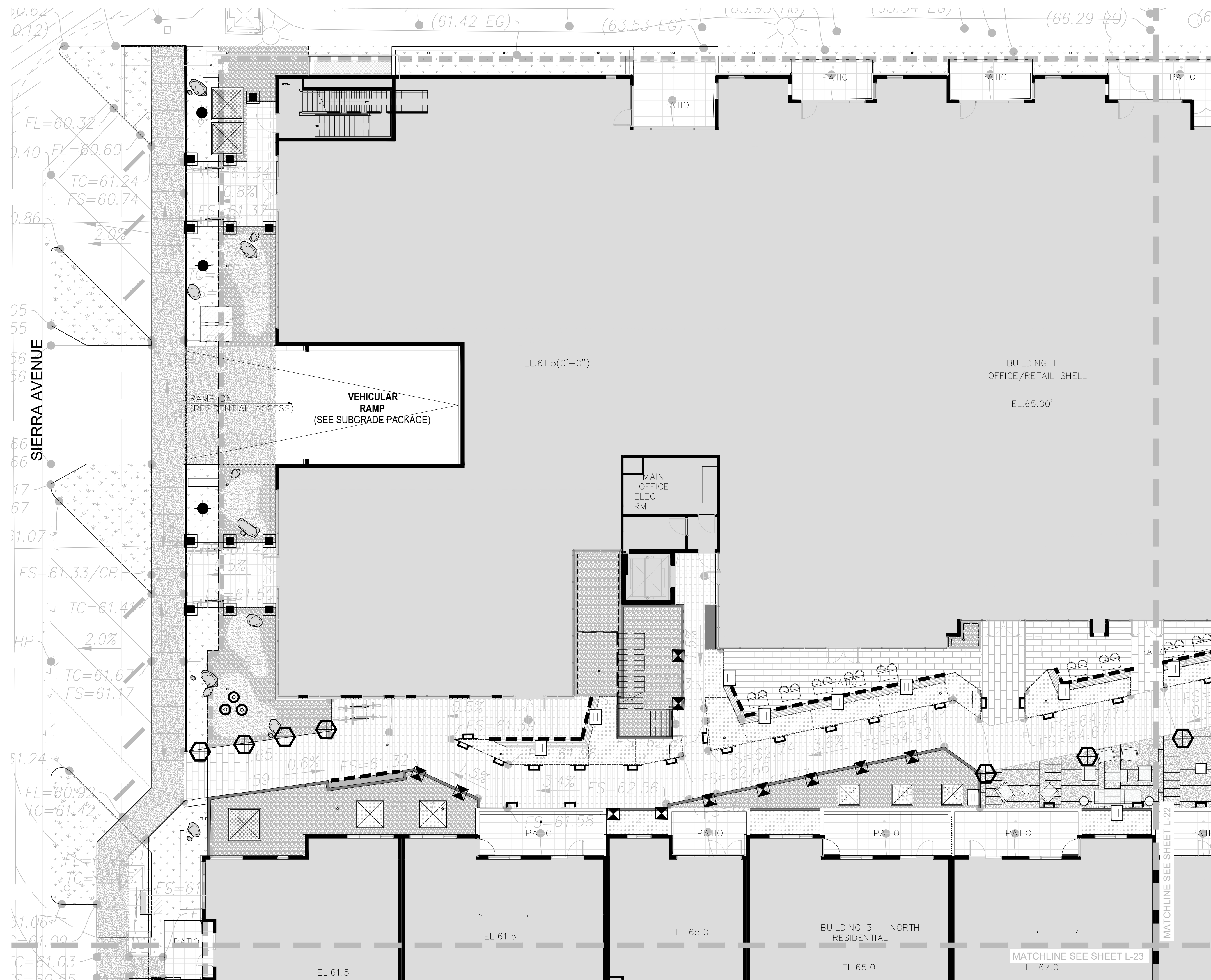
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LIGHTING LEGEND

- (L4) BOLLARD LIGHT - BEGA LIGHTING, MODEL # 84 602 BLACK FINISH
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- DECORATIVE TREE PENDANT AURORALIGHT HDL-11-HL 12V
- SUGGESTED CONVENIENCE POWER LOCATION

NOTE:

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Seal/Signature



Project Name

Solana 101

Project Number

16-036

Description

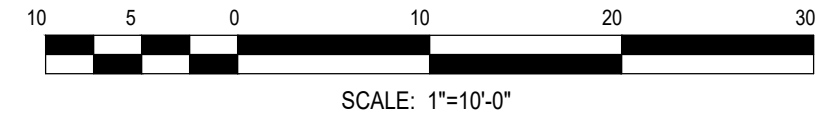
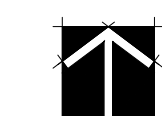
LANDSCAPE LIGHTING PLAN

Scale

1"=10'









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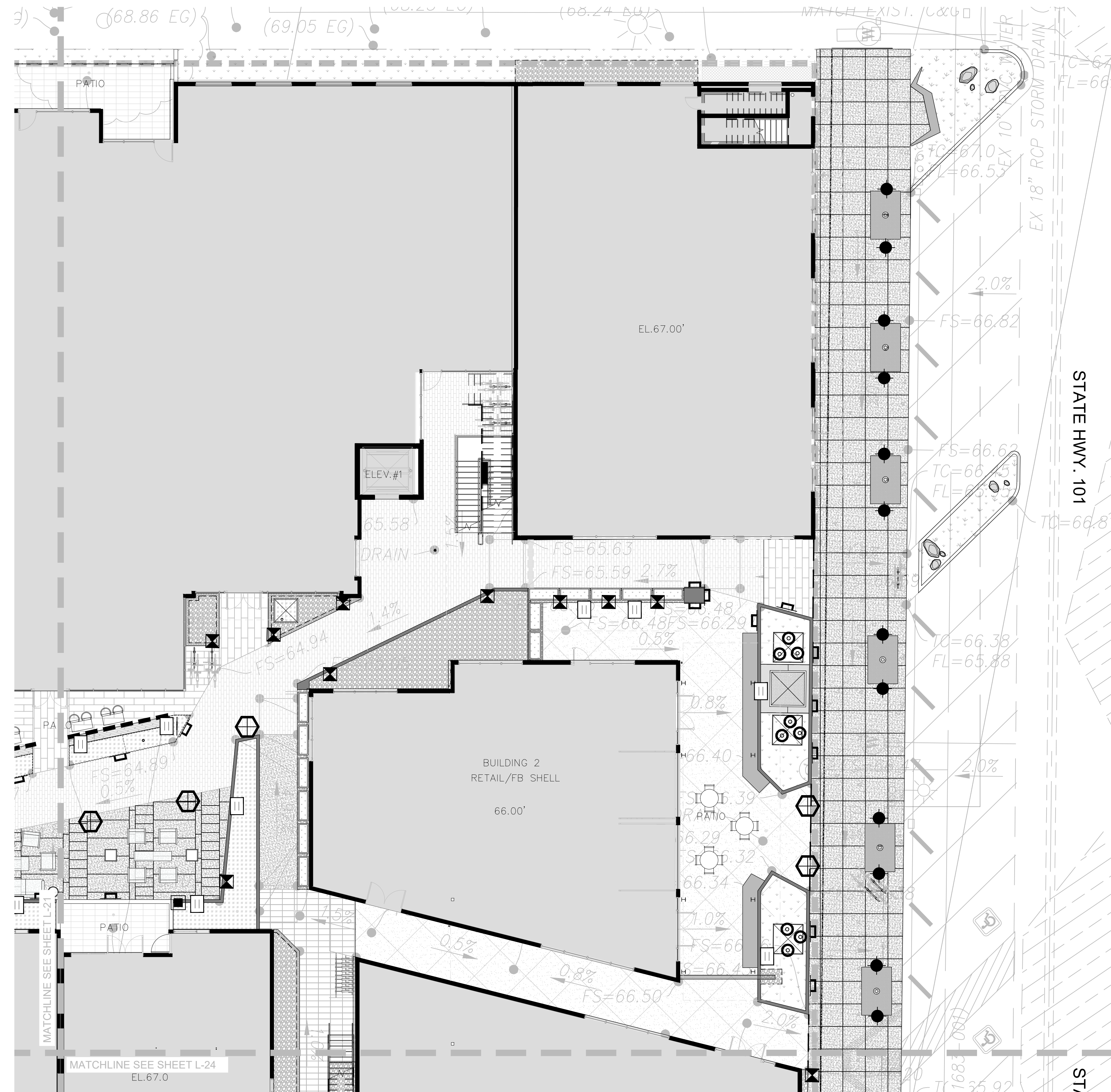
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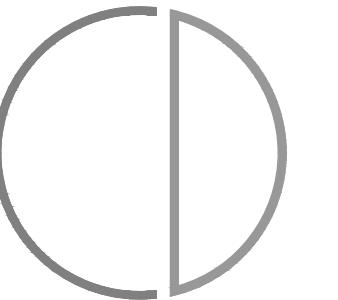
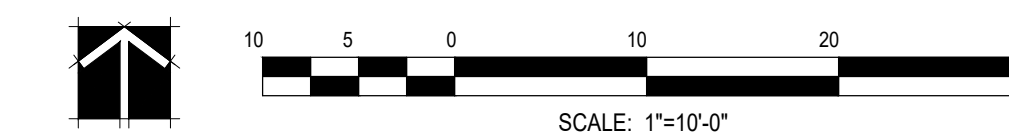
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Seal/Signature



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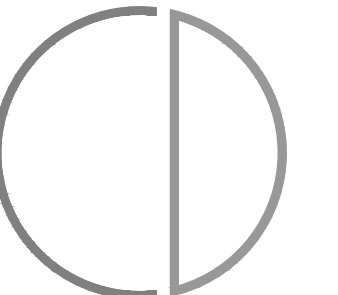
16-036

Description

LANDSCAPE LIGHTING PLAN

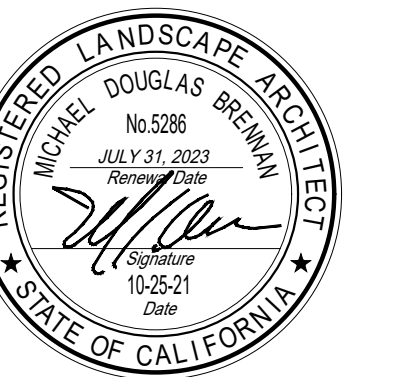
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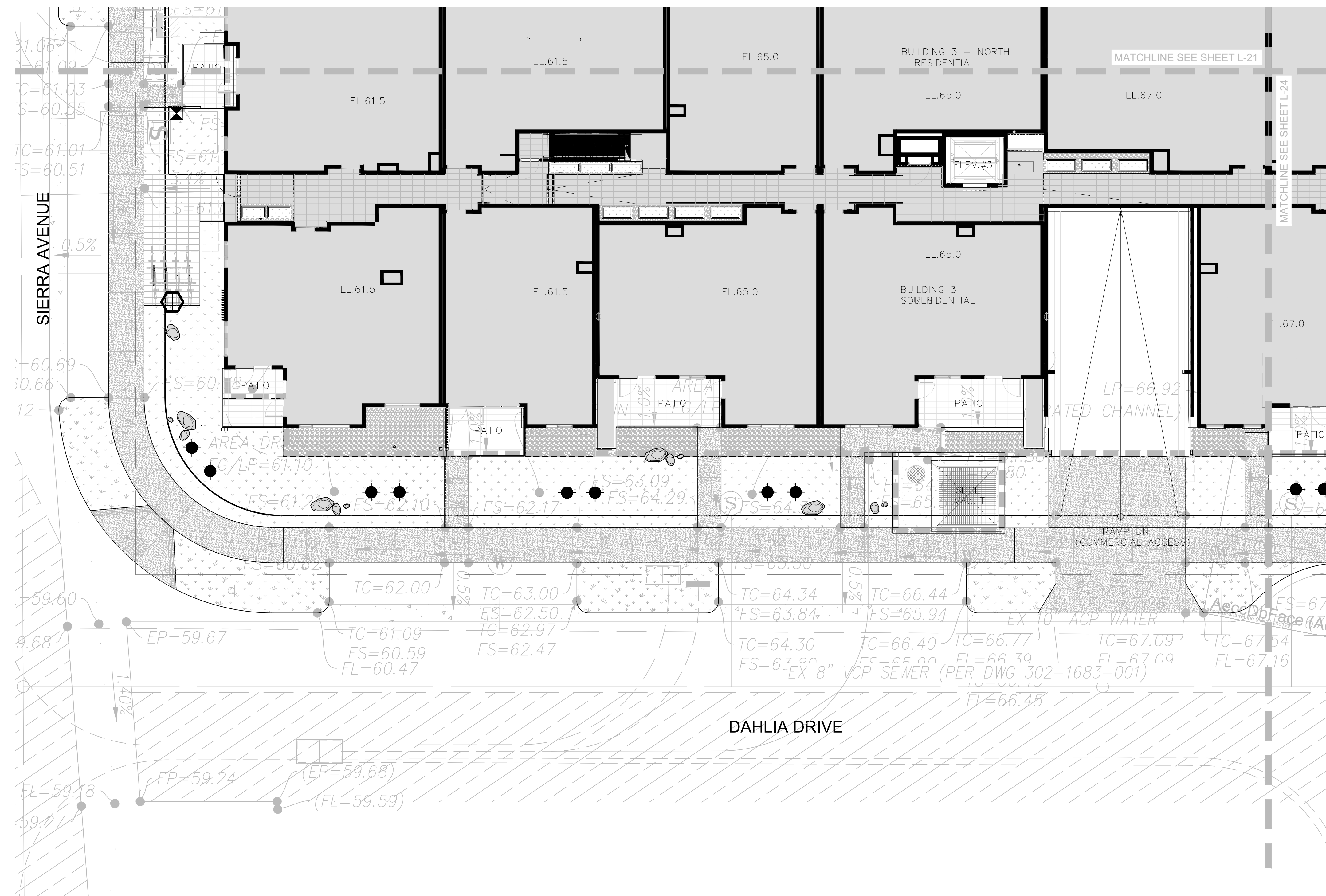
L-23

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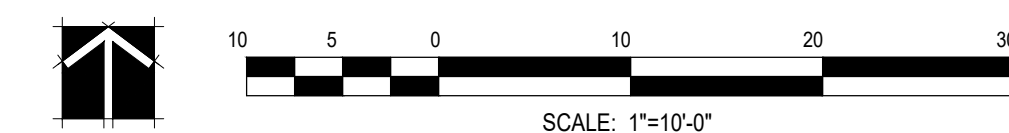
NOTE:

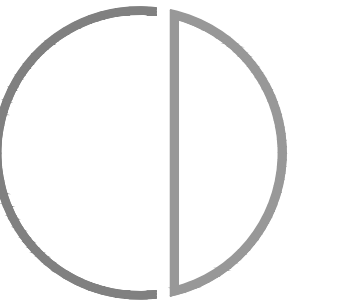
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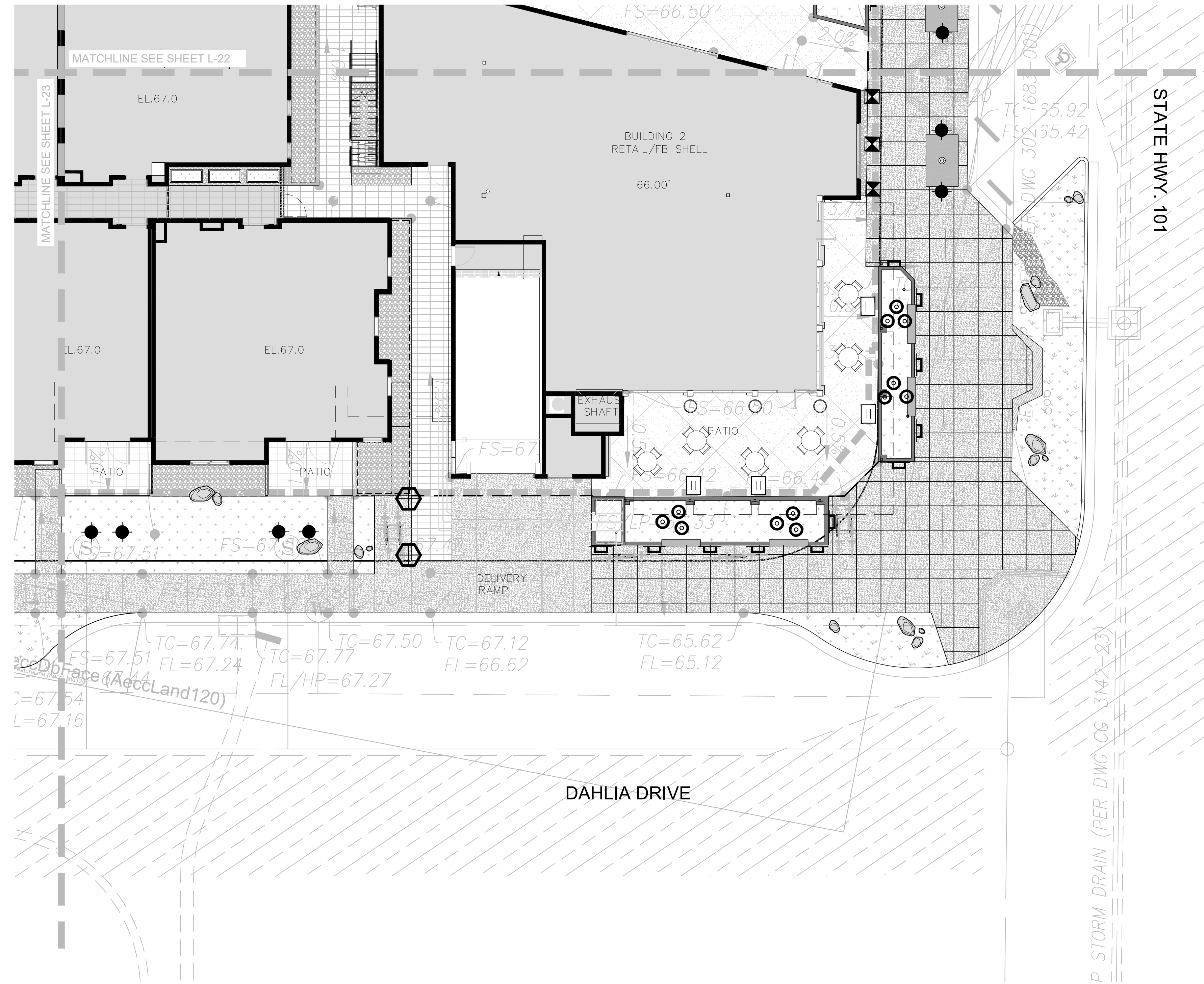


LIGHTING LEGEND

- (L4) BOLLARD LIGHT - BEGA LIGHTING, MODEL # 84 602 BLACK FINISH
- (L5A) PATH LIGHT LUMIERE 303 B1 LED 120V T2 BRONZE FINISH
- (L5B) PATH LIGHT LUMIERE 303 B1 LED 120V T4 BRONZE FINISH
- (L6) WALL / PLANTER FLUSH MOUNT - SPJ MSL2-12 MATTE BRONZE 120V
- (L7) ALLOY LED TAPE LIGHT
- (L8) PEDESTRIAN AREA TREE LIGHT HEVI LITE HL3682B BRONZE 8 LED E MF LA1 WITH TREE MOUNT SM-2-2X-2B B2
- DECORATIVE TREE PENDANT AURORALIGHT HDL-11-HL 12V
- SUGGESTED CONVENIENCE POWER LOCATION

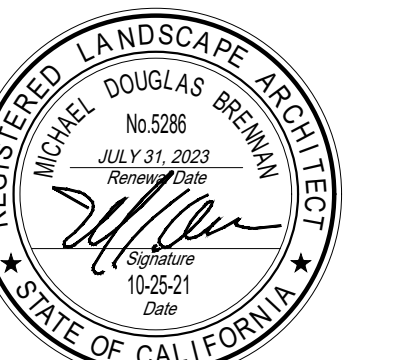
NOTE:

1. EXTERIOR LIGHT POLLUTION MUST COMPLY WITH CGC SEC. 5.106.8.
2. CONCEPTUAL PLAN ONLY - PHOTOMETRIC STUDY SHALL BE PERFORMED BY ARCHITECT. CONTACT TAZZ LIGHTING FOR SPEC BOOK, TRANSFORMER AND CONTROLLER INFORMATION.
3. ALL FIXTURES SHALL BE PROVIDED AT COLOR TEMPERATURE 2700. WIRING DESIGN & TRANSFORMER SPECIFICATIONS BY OTHERS. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE CORRECT TRANSFORMER FOR THE LIGHTING DEMAND AND CONCEALING TRANSFORMERS WITHIN THE LANDSCAPE OR IN A MECHANICAL ROOM(S) IN COORDINATION WITH THE DESIGN TEAM. LOW VOLTAGE FIXTURES SHALL INCLUDE TRANSFORMER(S) IN STAINLESS STEEL ENCLOSURE(S), WIRING RUNS & TRANSFORMERS SHALL BE INSTALLED IN ACCORDANCE W/ MANUFACTURER RECOMMENDATIONS. LINE VOLTAGE FIXTURES SHALL BE COORDINATED WITH MEP CONSULTANT.
4. ALL LIGHTING SHALL BE DOWN-SHIELDED TO THE MAXIMUM EXTENT FEASIBLE, OF LOW-INTENSITY, AND OBSCURED SO THAT NO DIRECT VIEW OF THE LIGHTING SOURCE IS POSSIBLE FROM ADJACENT PROPERTIES, RESIDENTIAL WINDOWS OR PUBLIC RIGHTS-OF-WAY.
5. ALL LIGHTS TO BE DIRECTED AT THE INTENDED SUBJECT OF ILLUMINATION SUCH AS SPECIMEN PLANT MATERIAL OR TREES, PATHWAYS OR LANDSCAPE FEATURE. NO UNSHIELDED UP LIGHTING SHALL BE PROVIDED.
6. REFER TO ARCHITECT'S PLANS FOR EXTERIOR ARCHITECTURAL LIGHTING.



Date	Description
2019.02.01	100% SCHEMATIC PACKAGE
2019.05.31	SUBTERRANEAN BLDG PERMIT
2019.07.26	SUBTERRANEAN BLDG PERMIT
2019.08.23	GMP ISSUE
2019.08.29	BALANCE OF WORK PERMIT - CITY SUBMITTAL 1
2019.12.20	SUBTERRANEAN BUILDING PERMIT
2020.2.12	PLANNING & FIRE CHECK
2020.3.25	BALANCE OF WORK PERMIT - SUBMITTAL 2
2020.3.30	ADDENDUM PE - BALANCE OF WORK
2020.12.17	BALANCE OF WORK - SUBMITTAL 3
2021.5.21	IFC
2021.6.11	IFC / DELTA 10
2021.7.23	BULLETIN 1

Seal/Signature



Project Name

Solana 101

Project Number

16-036

Description

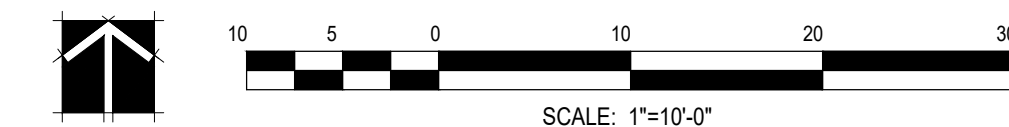
LANDSCAPE LIGHTING PLAN

Scale

1"=10'

Underground Service Alert
Call: TOLL FREE
1-800
227-2600

TWO WORKING DAYS BEFORE YOU DIG
*CAUTION: Remember that the USA Center notifies only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.



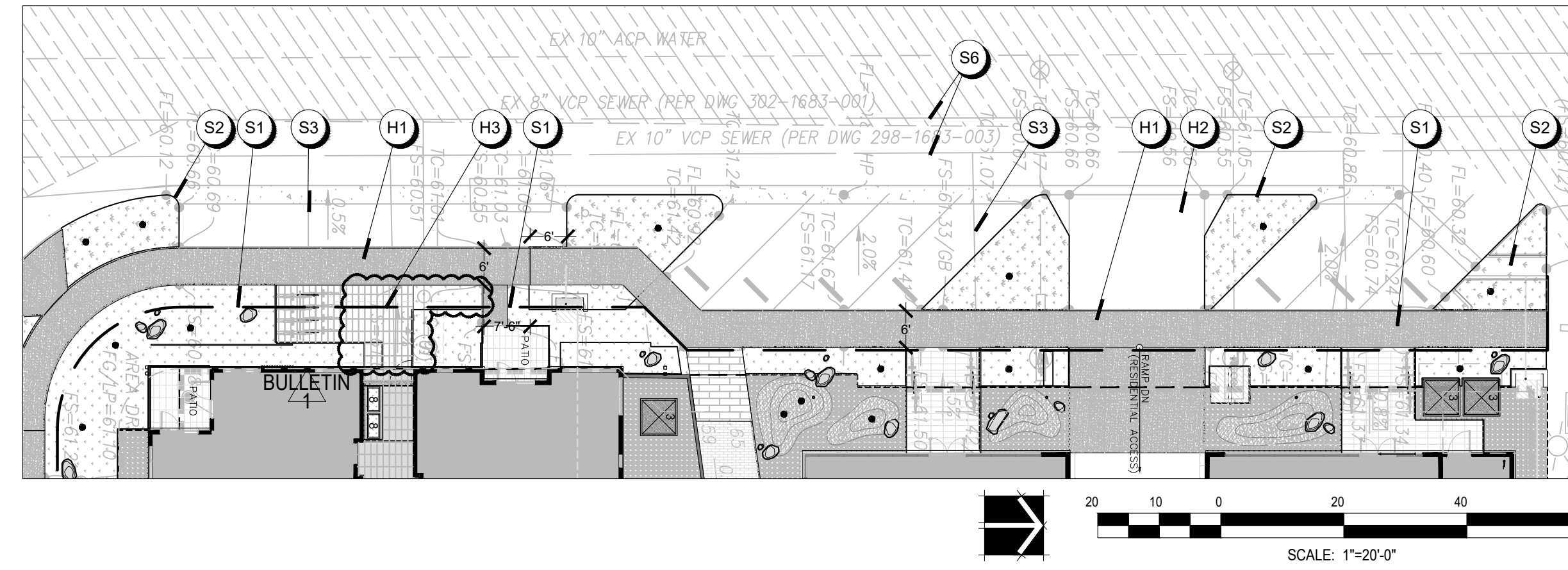
LANDSCAPE CONSTRUCTION LEGEND

- SITE FEATURES**
- (S1) PROPOSED RIGHT OF WAY BOUNDARY SHALL BE VERIFIED BY SURVEYOR
- (S2) CURB GUTTER& DRAINAGE INFRASTRUCTURE PER CIVIL ENGINEER'S PLANS
- (S3) PARKING PAVING & WHEEL STOPS WHERE SHOWN PER CIVIL ENGINEER'S PLANS
- (S4) ADA PARKING PER CIVIL ENGINEER'S PLANS
- (S5) ACCESSIBLE PEDESTRIAN RAMP PER CIVIL ENGINEER'S PLANS
- (S6) ALL UTILITIES PER CIVIL ENGINEER'S PLANS
- HARDSCAPE & PAVING**
- (H1) PIP NATURAL GRAY SIDEWALK CONCRETE PAVING WITH MEDIUM ACID ETCH FINISH - SEE DETAIL A&B/L-2
- (H2) PIP NATURAL GRAY DRIVEWAY APRON CONCRETE PAVING WITH MEDIUM ACID ETCH FINISH - SEE DETAIL A&B/L-2
- (H3) FINISHED TILE SURFACE OVER CONCRETE AT ENTRY TO RESIDENTIAL BUILDING - TILE TBD - SEE DETAIL C/L-2
- (H4) PIP INTEGRAL COLOR CONCRETE PAVING SHALL BE INSTALLED TO MATCH THE EXISTING 101 SIDEWALK CORRIDOR IN COLOR FINISH AND JOINT PATTERN SEE DETAIL A&B/L-2
- (H5) P.I.P. CONCRETE BENCH - SEE DETAIL E/L-2
- (H6) RECTANGULAR STEEL TREE GRATE SHALL BE INSTALLED PER BUILDING SET OF PLANS
- (H7) BOULDERS RANGING IN SIZE FROM 2'-4' SHALL BE SELECTED AND PLACED AT THE DIRECTION OF THE LANDSCAPE ARCHITECT. BOULDERS SHALL BE OF THE TYPE 'DESERT SELECT' AVAILABLE FROM KRC ROCK SEE DETAIL D/L-2
- (H8) P.I.P. NATURAL GRAY CONCRETE PARKING MAINTENANCE STRIPS PER CITY STANDARD
- (H9) 3" LAYER OF DECORATIVE COBBLE 'SAN QUINTIN SHELL & PEBBLE' 3/8" - 7/8" FROM KRC ROCK - COBBLE FINISH SURFACE SHALL NOT IMPEDE WATER FLOW - REFER TO FINISH GRADES PER CIVIL PLAN

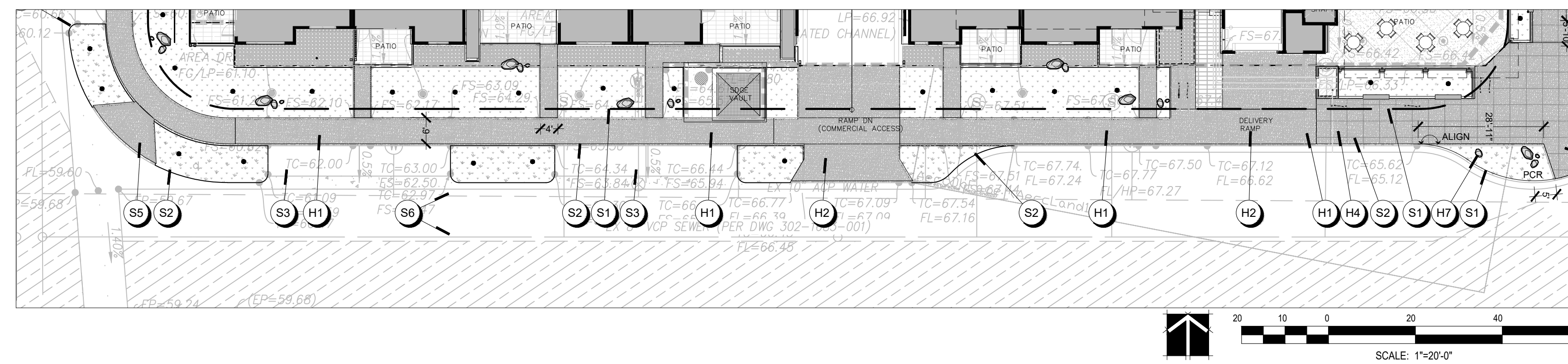
NOTES:
CONTRACTOR TO LOCATE AND CONFIRM ALL UTILITIES PRIOR TO CONSTRUCTION - NOTIFY LANDSCAPE ARCHITECT OF ANY DESIGN CONFLICTS

ALL DRAINAGE SHALL BE INSTALLED PER CIVIL PLANS

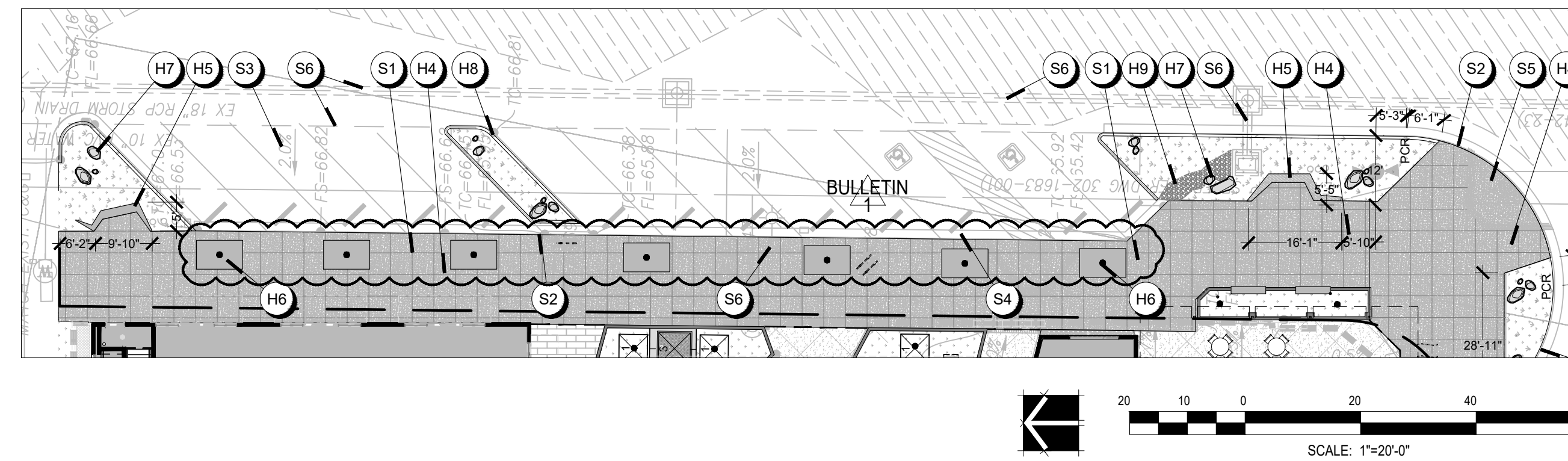
SIERRA AVENUE FRONTAGE



DAHLIA DRIVE FRONTAGE



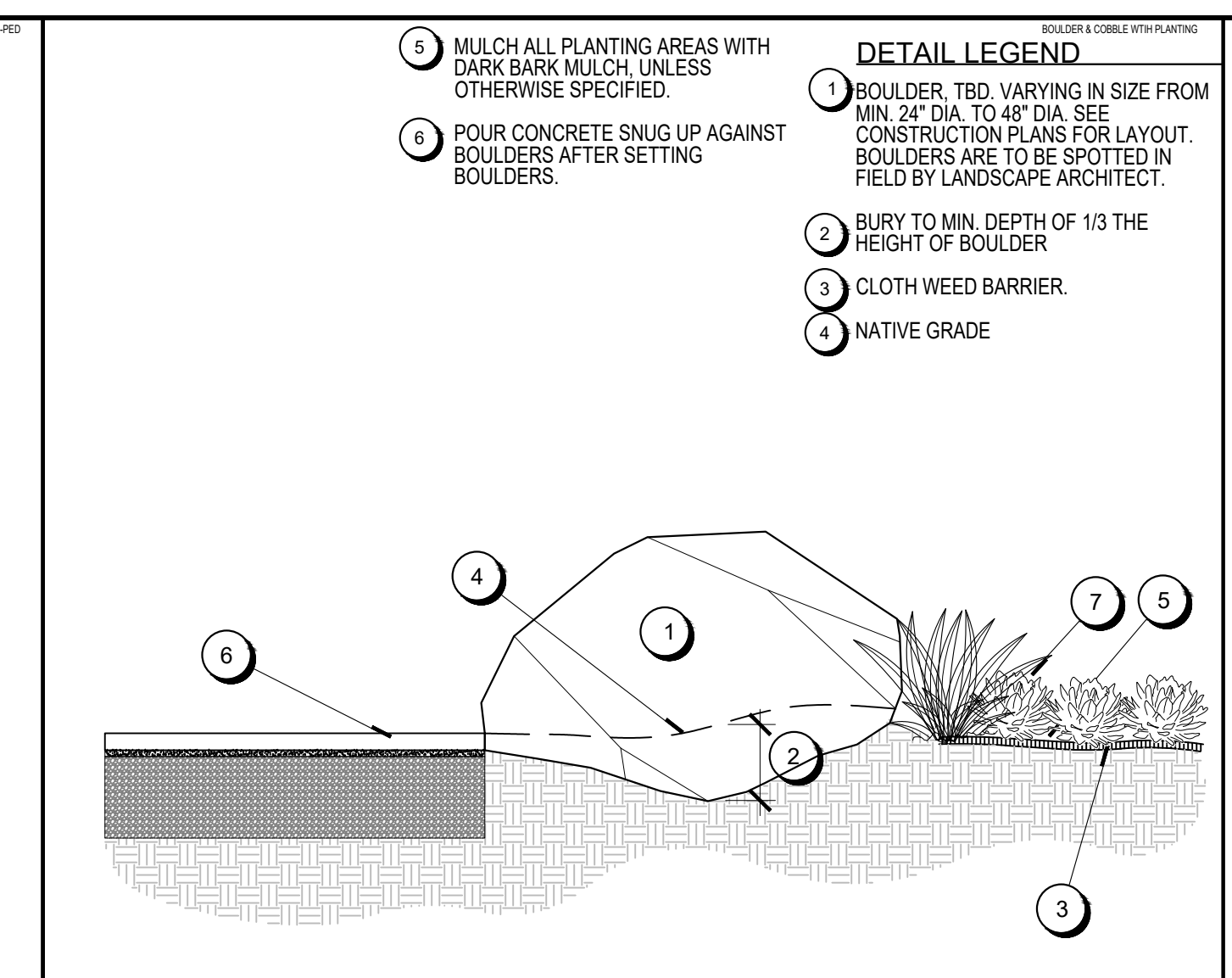
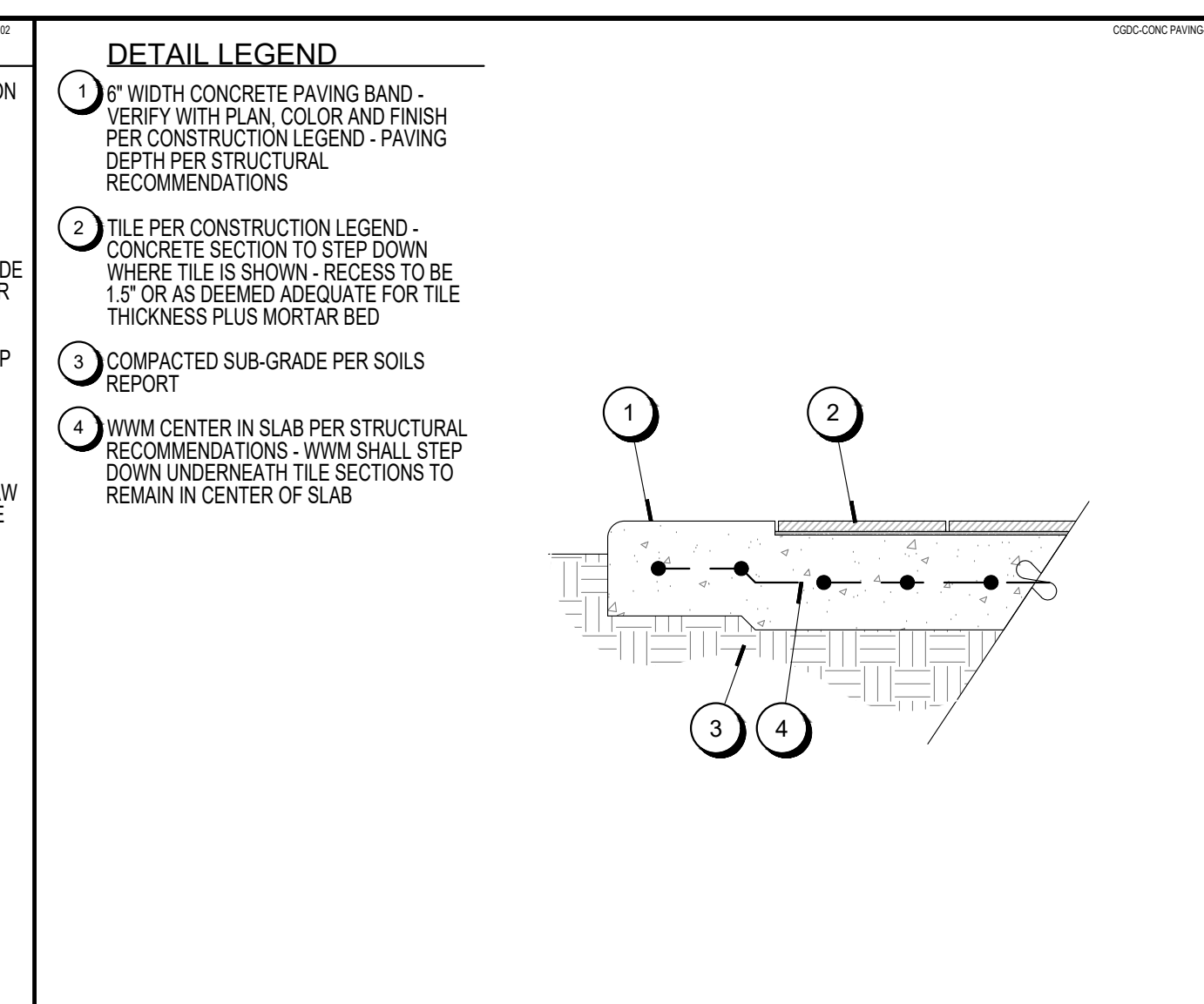
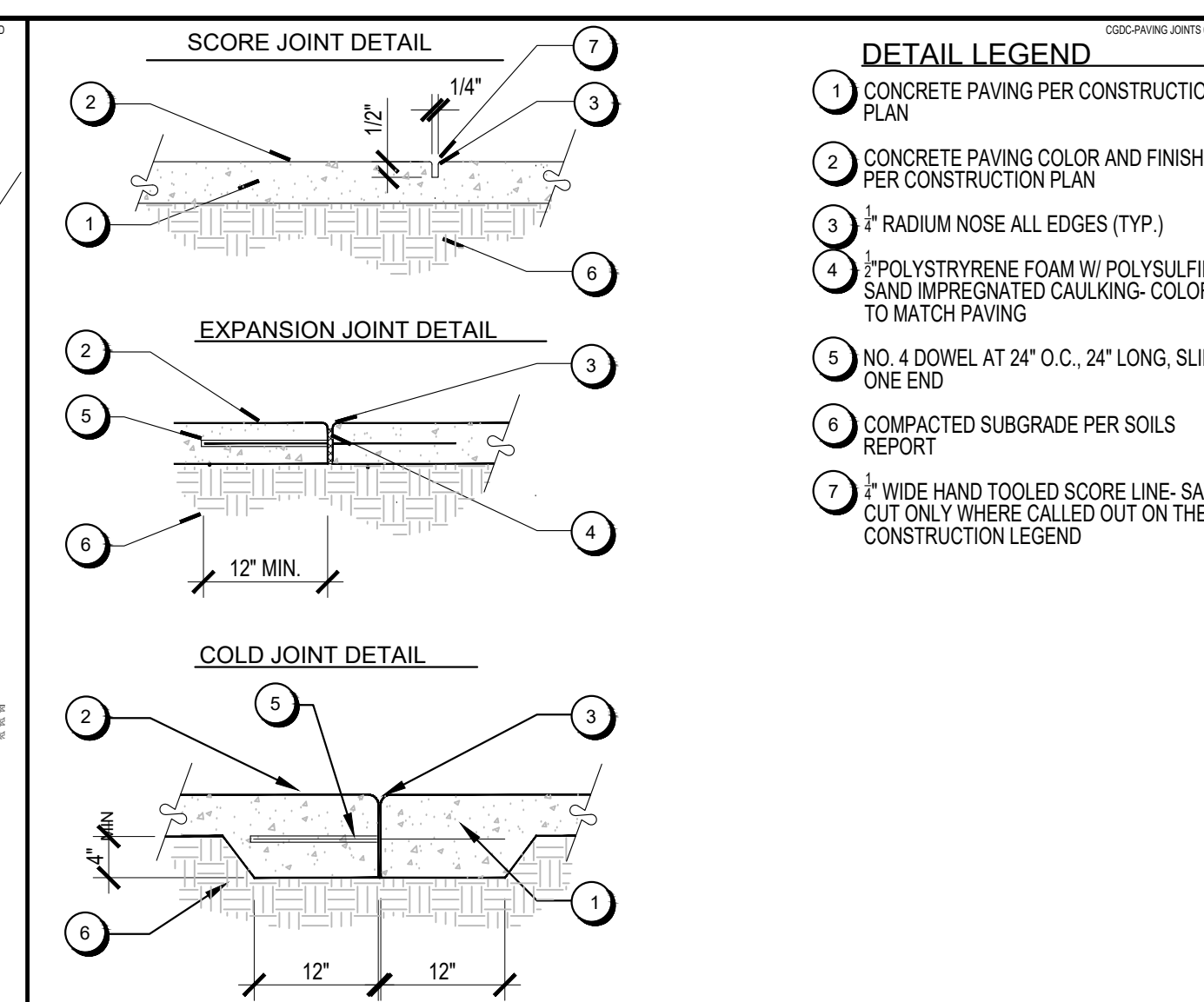
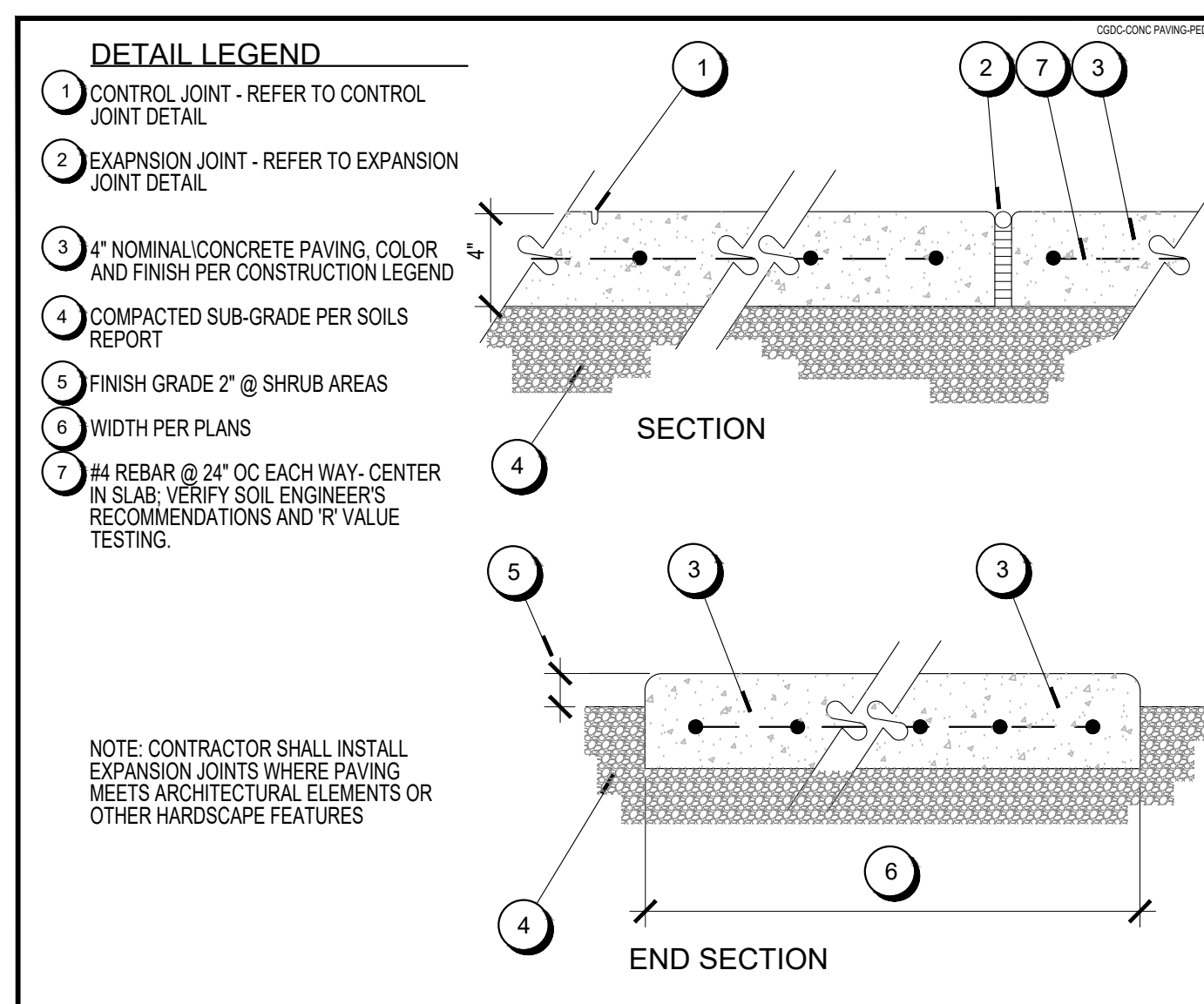
HIGHWAY 101 FRONTAGE



AS-BUILT

By: _____ Date: _____
R.C.E.: _____ Exp: _____

SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APP'D DATE	RECOMMENDED FOR APPROVAL	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH	ENGINEERING DEPARTMENT	DRAWING NO.
By: _____ Fire Chief Date: _____	Reviewed By: _____ District Representative Date: _____	By: _____ Date: _____			By: _____ Date: _____	By: _____ Date: _____ Mohammad Sammak, City Engineer R.C.E.: 37146 Exp: 6/30/20	THE BENCHMARK FOR THIS SURVEY IS G.P.S. STATION NO. 2001 (SOLB-1) 2.5" CITY OF SOLANA BEACH BRASS DISC ON CONCRETE DRAINAGE INLET ON THE EAST SHOULDER OF HIGHWAY 101, 0.1 MILE SOUTH OF LOMAS SANTA FE DRIVE. ELEV.: 69.28 N.G.V.D. 29 DATUM: M.S.L.	IMPROVEMENT PLANS FOR: SOLANA BEACH 101		CG-3180 Sheet 10 of 18

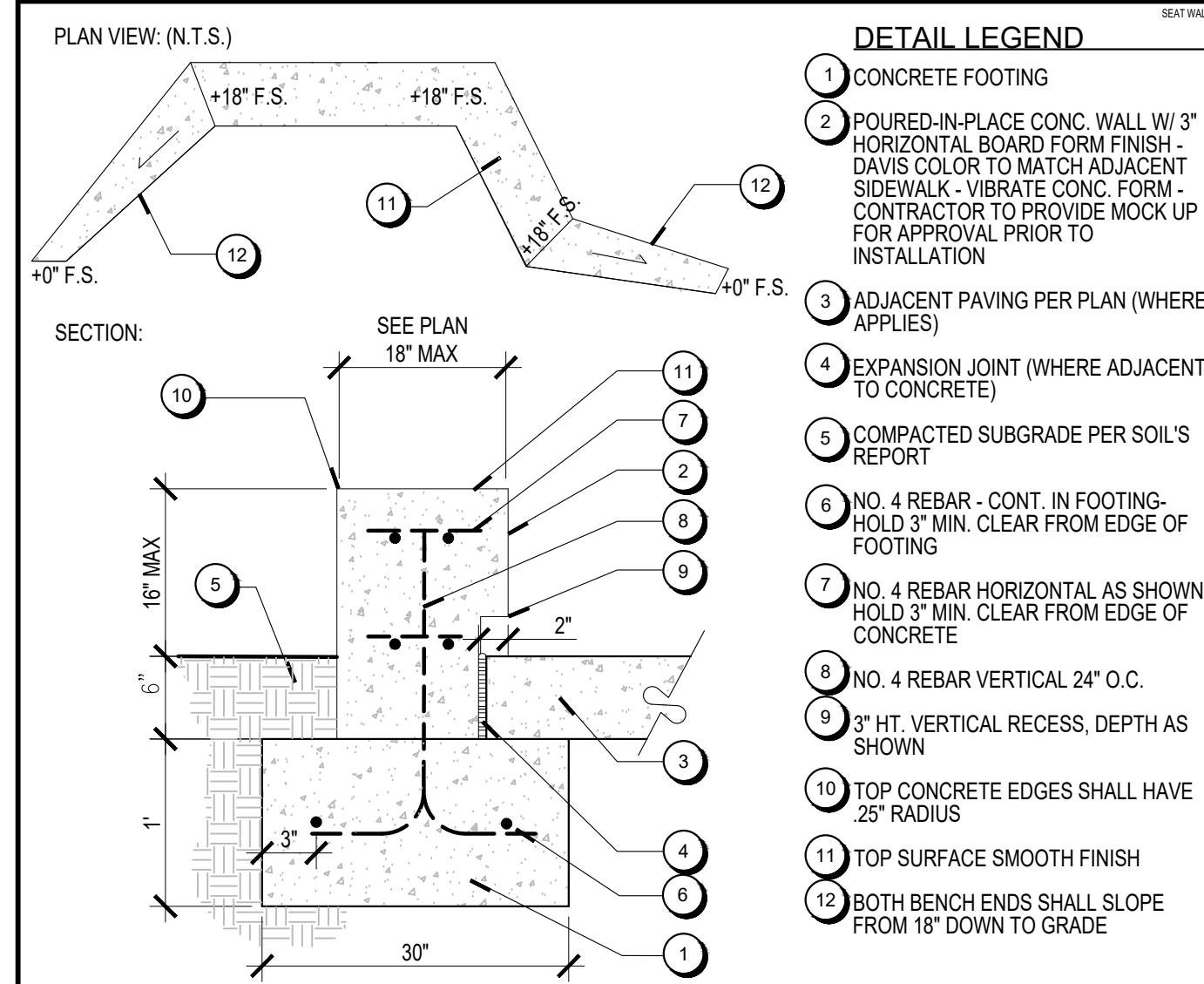


A) CONCRETE PAVING REVISED: 6/15/10 N.T.S.

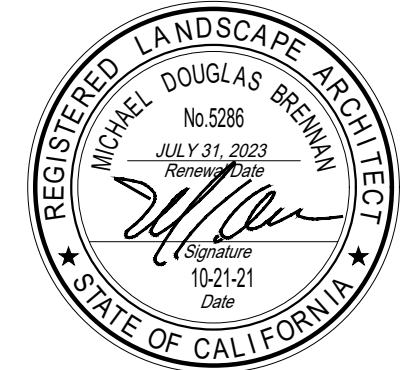
B) PAVING JOINTS REVISED: 1/05/10 N.T.S.

C) CONCRETE W/ TILE PAVING REVISED: 6/15/10 N.T.S.

D) BOULDER SETTING REVISED: 11.15.2010 N.T.S.



E) P.I.P. CONCRETE SEAT WALL REVISED: 01/11 N.T.S.



AS-BUILT
 By: _____ Date: _____
 R.C.E.: _____ Exp: _____

SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APP'D	DATE	RECOMMENDED FOR APPROVAL	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH	ENGINEERING DEPARTMENT	DRAWING NO.
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											Sheet 11 of 18

IRRIGATION SCHEDULE		
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
▲ 25 50 10 20	Hunter PROS-PRS30-04-PCN Flood Bubbler, 4.0" pop-up.	30
■ 0.25 0.50	Hunter RZWS-18-CV 18" long RZWS with installed .25gpm or .50gpm bubbler options, Check Valve, 1/2" swing joint for connection to 1/2" pipe. For Establishment only. To be removed after tree is established.	30
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	
■	Hunter IC2-101-F Drip Control Zone Kit. 1" ICV Globe Valve with 1" HY100 filter system. Pressure Regulation: 25psi. Flow Range: 5 GPM to 15 GPM. 150 mesh stainless steel screen. Install in standard valve box.	
■	Pipe Transition Point Rainbird MDCF Fittings for Connections between lateral lines and drip tubing	
⊕	Flush Valve Hunter PLD-BLV Flush Cap provided at end of drip discharge header, install flush valves inside a separate valve box, one at each end of the tubing runs in each direction, install 18" from paving. To be located at the lowest point in each drip zone.	
Ⓐ	Hunter PLD-AVR PLD-AVR allows for air to escape a RESIDENTIAL drip irrigation system to prevent blockage and water hammering. 1/2" MPT connection with 80 PSI maximum rating. To be located at the highest point of each drip zone.	
	Area to Receive Dripline Hunter HDL-06-12-PC HDL-06-12-PC: Hunter Dripline with 0.6 GPH flow. Light brown tubing with gray striping. Emitters at 12" O.C. Dripline laterals spaced at 16" apart, with emitters offset for triangular pattern. Install with Hunter PLD barbed or PLD-LOC fittings. For use on flat sites with moderate/clay soils.	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	
⊕	Hunter ICV-G-FS 1", 1-1/2", 2", and 3" Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry.	
■	Hunter HQ-44-LRC Quick coupler valve, yellow rubber locking cover, red brass and stainless steel, with 1" NPT inlet, 2-piece body.	
⌘	Nibco T-113-K Class 125 bronze gate shut off valve with cross handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"	
Ⓜ	Hunter IBV-151-G-FS 1" 1", 1-1/2", 2", and 3" Brass Electric Master Valve, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry Factory Installed Option.	
▲	Pressure Reducing Valve WILKINS - 500-HLR series pressure reducing valve with 10-125 PSI spring range, size and pressure setting as noted. Pressure limited to 62.60 PSI	
⊖	Zurn 975XL 3/4" Reduced Pressure Backflow device	
ⓐ	Hunter HCC-X00-PED-SS Wi-Fi enabled, full-functioning controller with touchscreen, 8-54 Station fixed controller, 120 VAC, Outdoor model.	
Ⓢ	Hunter WSS Wireless Solar, rain freeze sensor with outdoor interface, connects to Hunter PCC, Pro-C, and i-Core Controllers, install as noted. Includes 10 year lithium battery and rubber module cover, and gutter mount bracket.	
ⓕ	Hunter HC-100-FLOW 1" Flow meter for use with Hydrowise enabled controller to monitor flow and provide system alerts. Also functions as stand alone flow totalizer/sub meter on any residential or commercial irrigation system.	
POC ROW	Point of Connection 1" TBD	
	Irrigation Lateral Line: PVC Class 200 SDR 21	
	Irrigation Mainline: PVC Schedule 40	
	Pipe Sleeve: PVC Class 200 SDR 21	

WATER CALCULATIONS

CITY OF SOLANA BEACH ESTIMATED TOTAL WATER USE (ETWU) WORKSHEET						
Irrigation Point of Connection (P.O.C.) 'A'						
	LINE	HYDROZONE 1	HYDROZONE 2	HYDROZONE 3	HYDROZONE 4	HYDROZONE 5
EVAPOTRANSPIRATION RATE (Eto)	1					41
CONVERSION FACTOR x 0.62	2					0.62
LINE 1 X LINE 2	3					25.42
PLANT FACTOR (PF)	4	0.30	.3	0.50		
HYDROZONE AREA (HA)	5	3207	224	56		
LINE 4 X LINE 5	6	962.1	67.2	28.0		
IRRIGATION EFFICIENCY (IE)	7	0.81	0.75	0.75		
LINE 6 X LINE 7	8	1187.78	89.60	37.33		
TOTAL OF ALL LINE 8 BOXES	9					1,315
LINE 3 X LINE 9 - ESTIMATED TOTAL WATER USE (ETWU)	10					33,420

MAXIMUM APPLIED WATER ALLOWANCE (MAWA)	
ET o = .47 in/yr	
LA = 3487 sq ft	
SLA = 0 sq ft	
ETAF = 0.45	
$MAWA = \frac{(Eto)(0.62)(ETAF \times LA) + (1 - ETAF) \times SLA}{(Eto)(0.62)(0.45 \times LA) + (1 - 0.45) \times SLA}$	
MAWA =	25.42 [(.45 x 3487.00) + (1 - .45) x 0]
	MAXIMUM APPLIED WATER ALLOWANCE = 39887.793 gal. per year

PRESSURE LOSS

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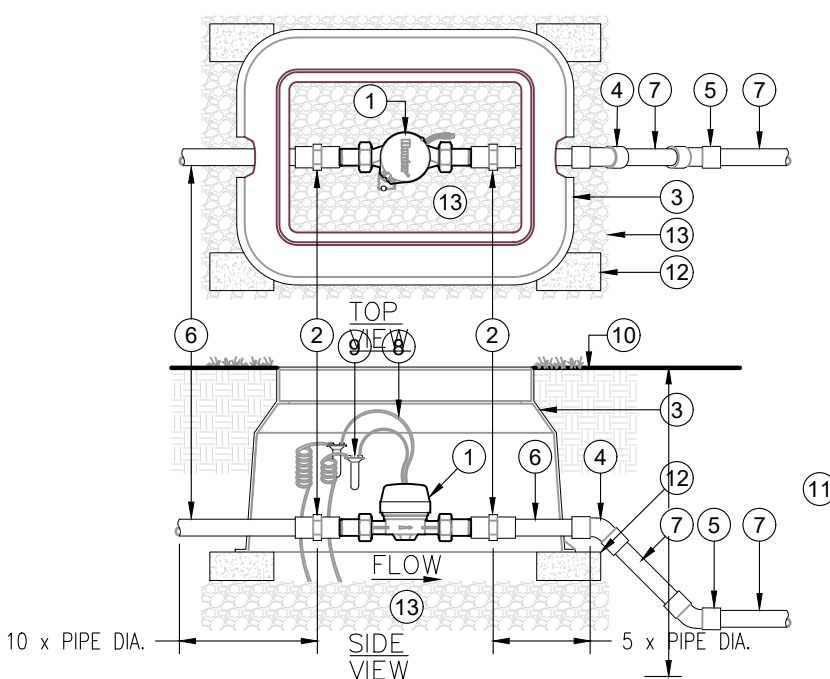
P.O.C. NUMBER: 01
Water Source Information: SANTA FE
IRRIGATION DISTRICT

FLOW AVAILABLE
Point of Connection Size: 1"
Flow Available: 20.24 gpm

PRESSURE AVAILABLE
Static Pressure at POC: 60.00 psi
Pressure Available: 60.00 psi

DESIGN ANALYSIS
Maximum Station Flow: 7.47 gpm
Flow Available at POC: 20.24 gpm
Residual Flow Available: 12.77 gpm

Critical Station:
Design Pressure: 20.00 psi
Friction Loss: 0.63 psi
Fittings Loss: 0.06 psi
Elevation Loss: 0.00 psi
Loss through Valve: 9.65 psi
Pressure Req. at Critical Station: 30.34 psi
Loss for Fittings: 0.60 psi
Loss for Main Line: 5.98 psi
Loss for POC to Valve Elevation: 0.00 psi
Loss for Backflow: 10.81 psi
Loss for Master Valve: 2.61 psi
Critical Station Pressure at POC: 50.34 psi
Pressure Available: 60.00 psi
Residual Pressure Available: 9.66 psi



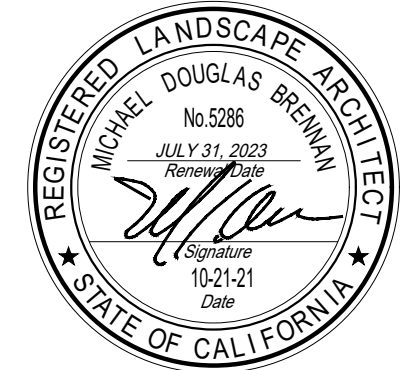
- LEGEND:**
- HUNTER HC FLOW METER WITH UNION CONNECTIONS, SIZE PER LEGEND AND 10 X PIPE DIA.
 - SCH 80 PVC FEMALE ADAPTER (S X S) SPECIFICATIONS
 - SCH 80 PVC 45 DEGREE ELBOW (S X S) TO LOWER MAIN LINE TO PROPER DEPTH (SIZE FOR LARGER MAIN LINE AS NEEDED)
 - SCH 80 PVC 45 DEGREE ELBOW (S X S) TO LOWER MAIN LINE TO PROPER DEPTH
 - MAIN LINE AT INLET & OUTLET - SEE FLOW METER SPECIFICATIONS
 - MAIN LINE TO SYSTEM (SEE LEGEND AND PLANS FOR TYPE AND SIZE)
 - TWO WIRES TO FLOW SENSOR TERMINALS AT CONTROLLER. MIN. 14 AWG-UF (2.08 mm²) WIRE WITH DIFFERENT COLOR FROM CONTROL/COMMON WIRE.
 - WEATHERPROOF WIRE CONNECTOR
 - FINISH GRADE
 - SCH 80 PVC 45 DEGREE ELBOW (S X S) TO LOWER MAIN LINE TO PROPER DEPTH
 - COMMON BRICK GRAVEL BASE, 6" (15 cm)

FLOW METER MODEL	HC-075	HC-100 DEEP	HC-150	HC-200
INLET/OUTLET CONNECTION SIZE	3/4" NPT BODY, MALE THREAD WITH 1" NPT MALE ADAPTER	1" NPT BODY, MALE THREAD WITH 1.5" NPT MALE ADAPTER	1.5" NPT BODY, MALE THREAD WITH 2" NPT MALE ADAPTER	2" NPT BODY, MALE THREAD WITH 3" NPT MALE ADAPTER
MAINLINE AT INLET/OUTLET INTERNAL DIA.	1"	1.5"	2"	3"
MIN. FLOW	0.22 GPM	0.30 GPM	0.88 GPM	2.00 GPM
MAX. RECOMMENDED FLOW	15 GPM	30 GPM	66 GPM	105 GPM
MAX. FLOW RATE	21 GPM	34 GPM	88 GPM	132 GPM
DIAL READING	1 PULSE PER 0.1 US GALLON	1 PULSE PER 1 US GALLON	1 PULSE PER 1 US GALLON	1 PULSE PER 1 US GALLON
WORKING PRESSURE	1-230 PSI	1-230 PSI	2-230 PSI	3-230 PSI

HC-XX FLOW METER
SCALE: N.T.S.

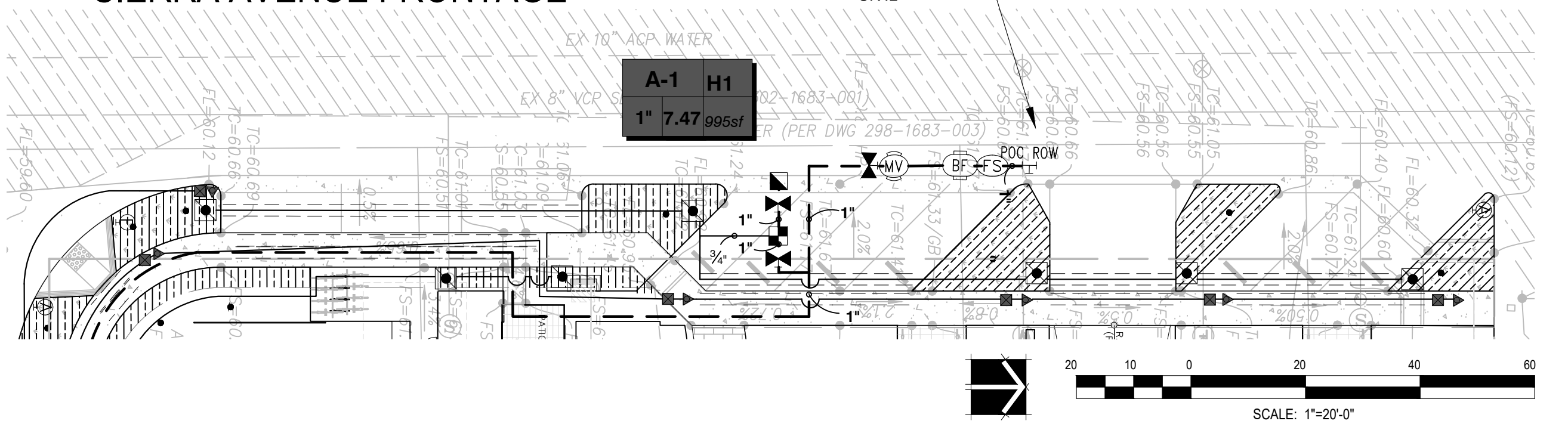
GENERAL IRRIGATION NOTES

- ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. IN CASE OF CONFLICT BETWEEN THE SPECIFICATIONS, DRAWINGS, AND/OR CODE, THE MORE STRINGENT REQUIREMENT SHALL PREVAIL.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
- THE MAINLINE AND SLEEVING IS DIAGRAMMATIC. ALL PIPING IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED WITHIN LIMIT OF WORK BOUNDARIES AND IN SHRUB PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES.
- IRRIGATION EQUIPMENT AS SHOWN IS DIAGRAMMATIC. INSTALL ALL THE IRRIGATION REMOTE CONTROL VALVES, QUICK COUPLERS, MASTER VALVES, FLOW SENSORS, BACKFLOWS, AIR/VACUUM DEVICES, BALL VALVES, AND ANCILLARY EQUIPMENT, IN SHRUB PLANTING AREAS WHEN FEASIBLE OR AS APPROVED BY OWNER'S REPRESENTATIVE AND THE LANDSCAPE IRRIGATION DESIGNER.
- DO NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.
- INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.
- CONTRACTOR TO PROVIDE AN ADDITIONAL PILOT WIRE FROM CONTROLLER ALONG ENTIRETY OF MAINLINE TO THE LAST RCV ON EACH AND EVERY LEG OF MAIN LINE. LABEL SPARE WIRES AT BOTH ENDS
- ALL PIPE UNDER PAVED AREAS, HARDSCAPE, OR AS DIRECTED BY OWNERS REPRESENTATIVE TO BE INSTALLED IN SLEEVING, TWICE THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED. ALL 2" AND 3" SLEEVING FOR NON-VEHICULAR PAVING SHALL BE PVC1220 SCH. 40, TYPE 1, GRADE 2 MATERIAL CONFORMING TO ASTM STANDARD D-1785-4. ALL 4" AND LARGER SLEEVING BELOW VEHICULAR PAVING SHALL BE PVC1220 SCH.80 SDR21, TYPE 1, GRADE 2 MATERIAL CONFORMING TO ASTM STANDARD D-2241. SLEEVES UNDER BROW DITCHES SHALL BE ENCASED IN CONCRETE A MINIMUM OF 6" THICK ON ALL SIDES OF PIPE. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF PAVING.
- ALL QUICK COUPLER VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER VALVES WITHIN 18" OF HARDSCAPE.
- IRRIGATION HEADS ADJACENT TO THE STREET SHALL BE HELD A MINIMUM OF 2 FEET FROM EDGE OF PAVEMENT. ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS. WHEN VERTICAL OBSTRUCTIONS (PROPS, STREET LIGHTS, TREES, ETC.) INTERFERE WITH THE SPRAY PATTERN OF THE SPRINKLER HEADS PREVENTING PROPER COVERAGE, THE IRRIGATION CONTRACTOR SHALL FIELD ADJUST THE SPRINKLER SYSTEM BY INSTALLING A QUARTER CIRCLE OR HALF CIRCLE SPRINKLER HEAD ON EACH SIDE OF THE OBSTRUCTION SO AS TO PROVIDE PROPER COVERAGE. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- THE IRRIGATION CONTRACTOR SHALL ADJUST THE PRESSURE REGULATOR ON EACH ELECTRIC CONTROL VALVE SO THAT THE SPRINKLER HEAD FARTHEST AND HIGHEST IN ELEVATION FROM ITS RESPECTIVE CONTROL VALVE OPERATES WITHIN THE OPERATING PRESSURE SHOWN ON THE IRRIGATION LEGEND. NOT TO EXCEED FIVE (5) PSI ABOVE THE GIVEN OPERATING PRESSURE FROM THE SPECIFIED PRESSURE LOCATED ON THE IRRIGATION LEGEND.
- THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE IRRIGATION DRAWINGS AT EACH POINT OF CONNECTION. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE VIA DIRECT FIELD MEASUREMENT PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO START OF CONSTRUCTION, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS, AND COSTS ASSOCIATED WITH SAID REVISIONS.
- SHOULD FIELD CONDITIONS REQUIRE PIPE INSTALLATION OTHER THAN THAT SHOWN ON PLANS, THE CONTRACTOR SHALL LIMIT EXCESS FLOW AND SIZE ALL PIPE NOT TO EXCEED A VELOCITY OF 5 FEET PER SECOND (FPS) IN PVC PIPE AND CAST IRON PIPE. FLOW THROUGH ANCILLARY EQUIPMENT, STEEL AND COPPER PIPE SHALL NOT EXCEED A VELOCITY OF 7 1/2 FPS. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- CHECK VALVES SHALL BE USED TO PREVENT ALL LOW HEAD DRAINAGE

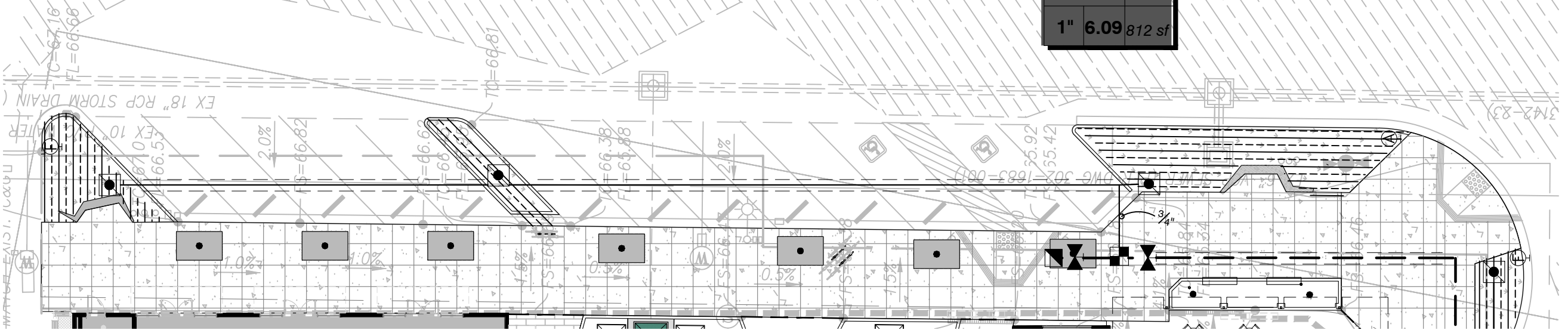


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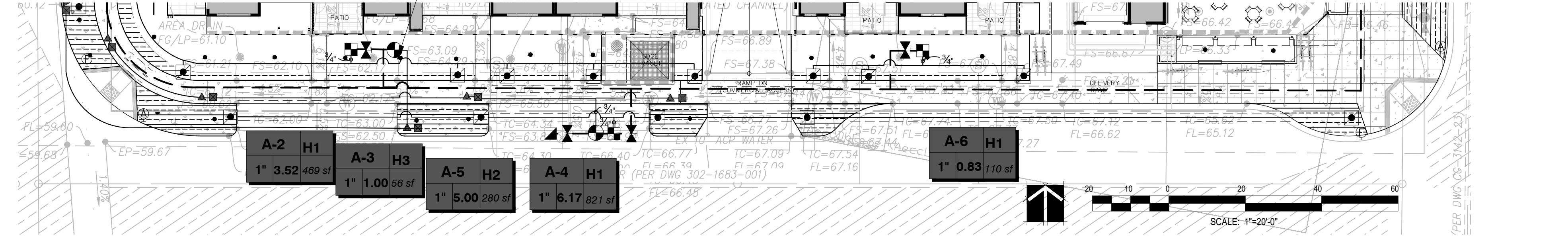
SIERRA AVENUE FRONTAGE



HIGHWAY 101 FRONTAGE

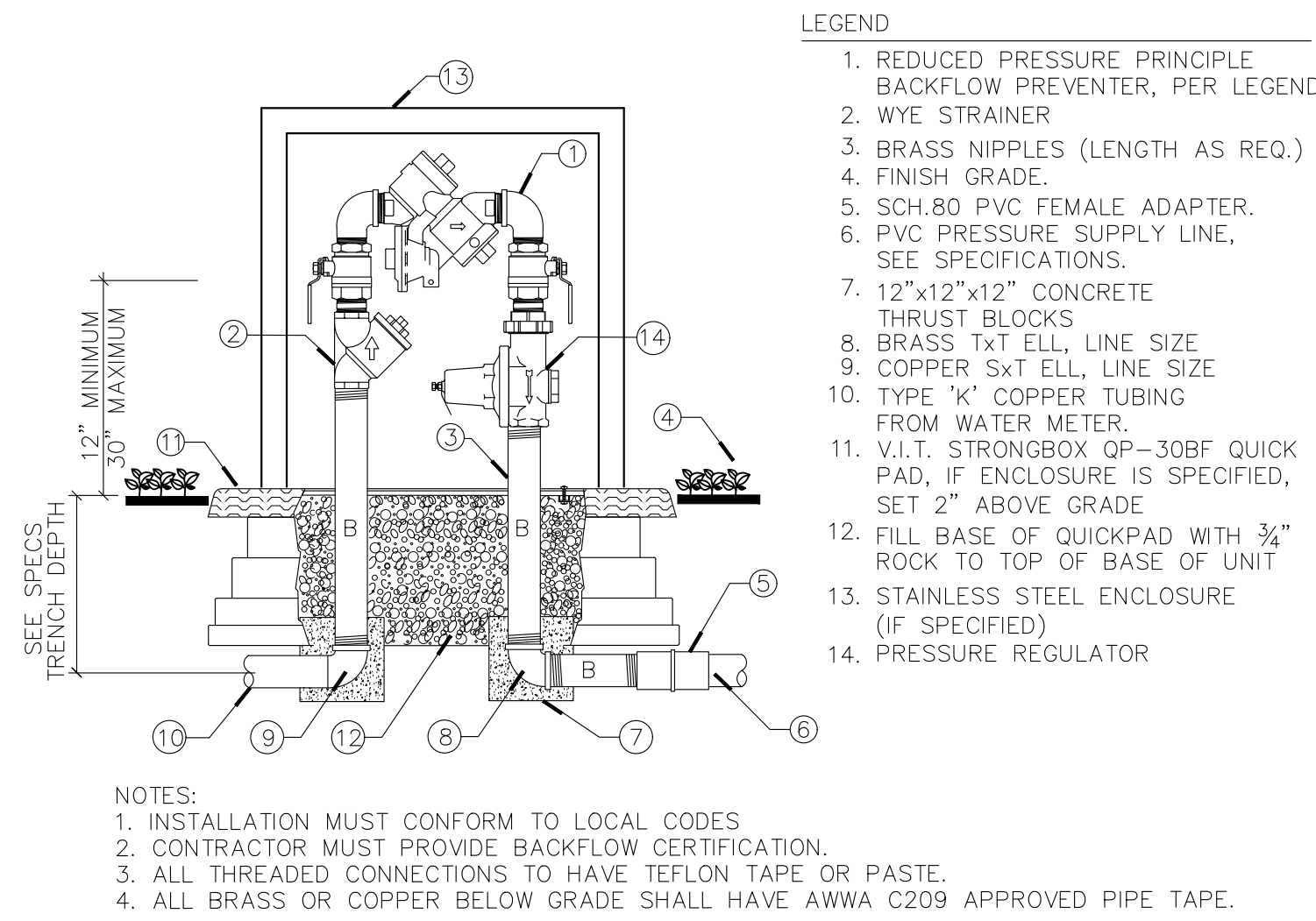


DAHLIA DRIVE FRONTAGE



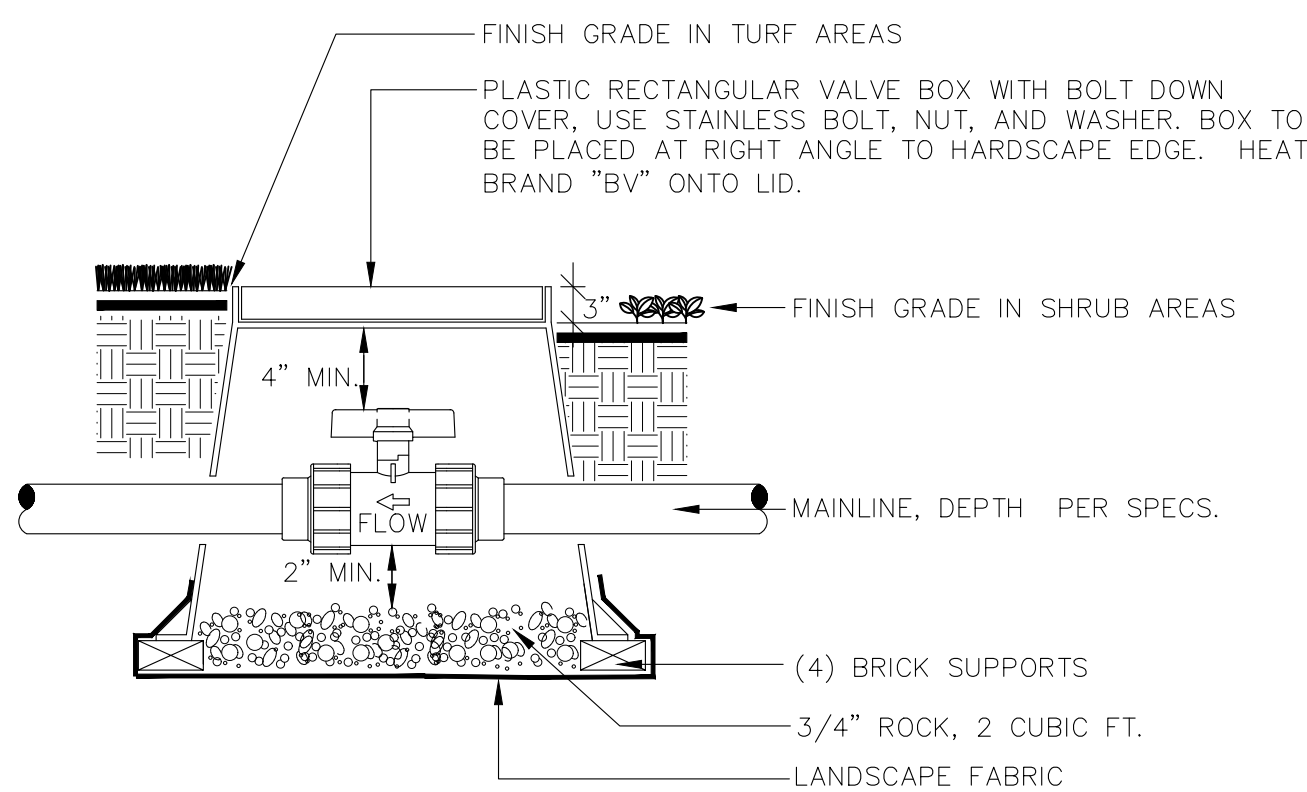
IRRIGATION PIPING AND EQUIPMENT IS SHOWN ON THE PLAN DIAGRAMMATICALLY FOR CLARITY. ALL IRRIGATION MAINLINE, LATERALS, AND VALVE EQUIPMENT SHALL BE INSTALLED WITHIN THE R.O.W.

SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APP'D DATE	RECOMMENDED FOR APPROVAL	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH	ENGINEERING DEPARTMENT	DRAWING NO.
By: _____ Fire Chief	Reviewed By: _____ District Representative	By: _____ Date: _____			By: _____ Date: _____	By: Mohammad Sammak, City Engineer R.C.E.: 37146 Exp: 6/30/20	THE BENCHMARK FOR THIS SURVEY IS G.P.S. STATION NO. 2001 (SOLB-1) 2.5" CITY OF SOLANA BEACH BRASS DISC ON CONCRETE DRAINAGE INLET ON THE EAST SHOULDER OF HIGHWAY 101, 0.1 MILE SOUTH OF LOMAS SANTA FE DRIVE. ELEV.: 69.28 N.G.V.D. 29 DATUM: M.S.L.	IMPROVEMENT PLANS FOR: SOLANA BEACH 101		CG-3180 Sheet 12 of 18



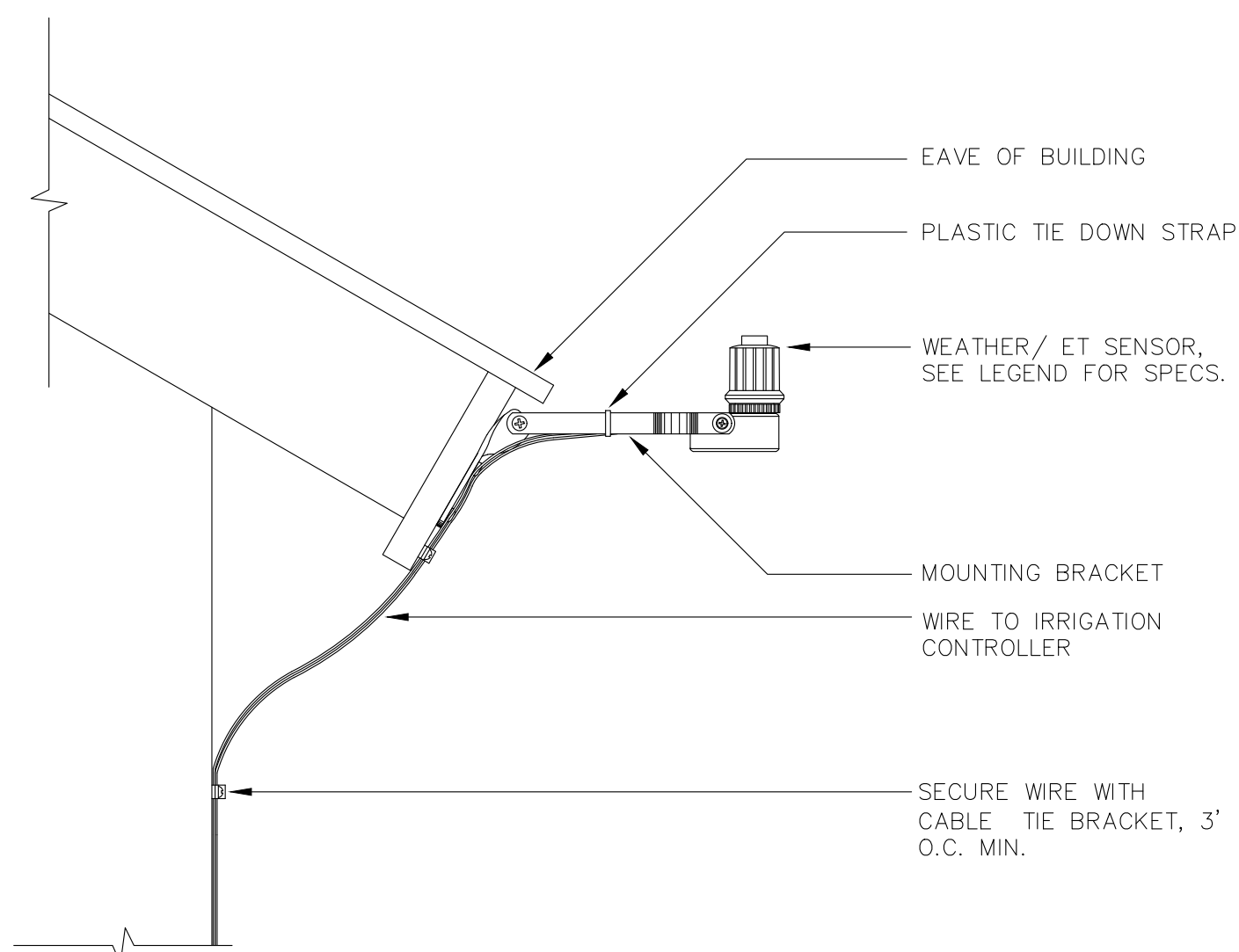
A BACKFLOW DEVICE

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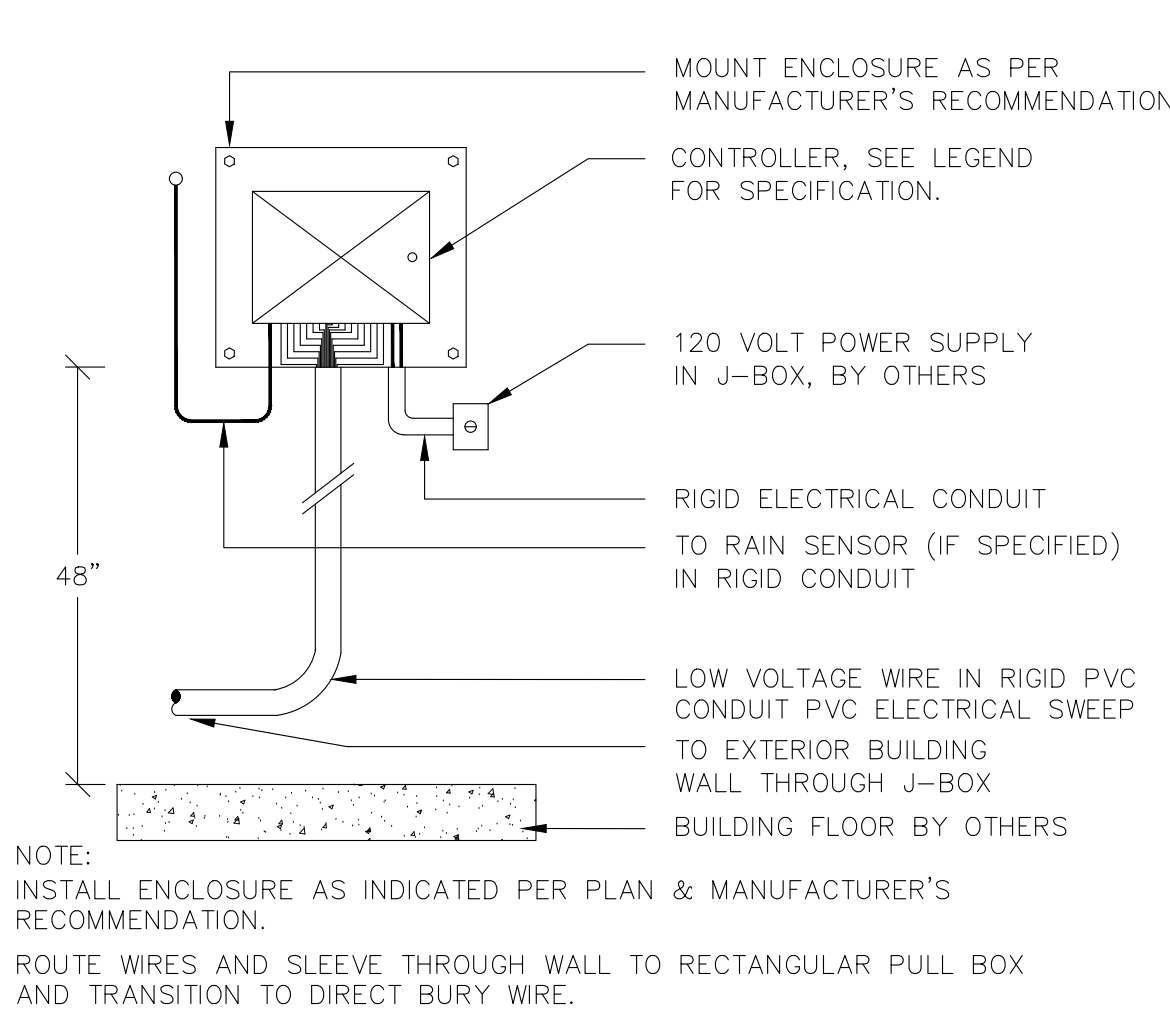
B PRESSURE REGULATOR

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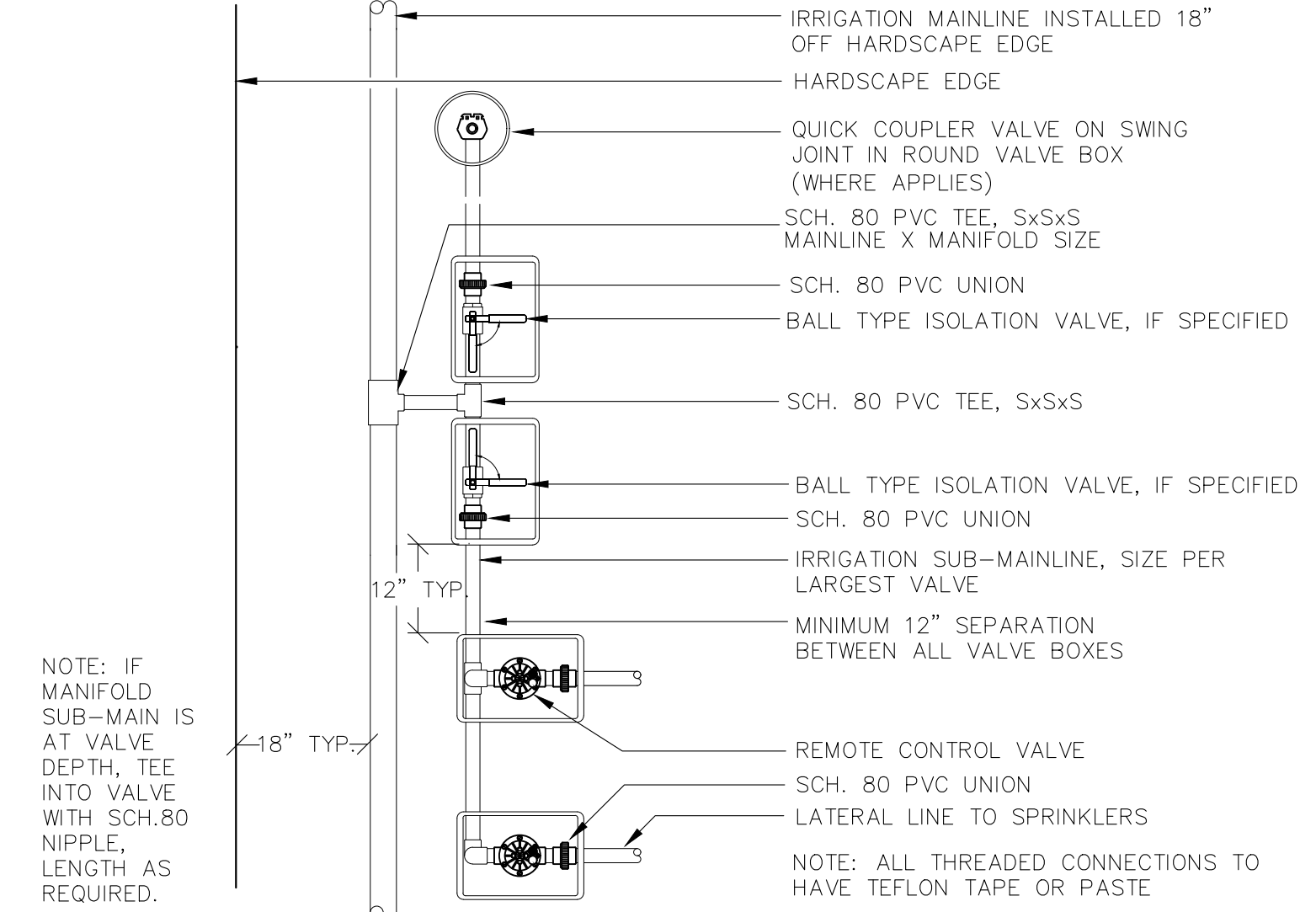
C MASTER VALVE

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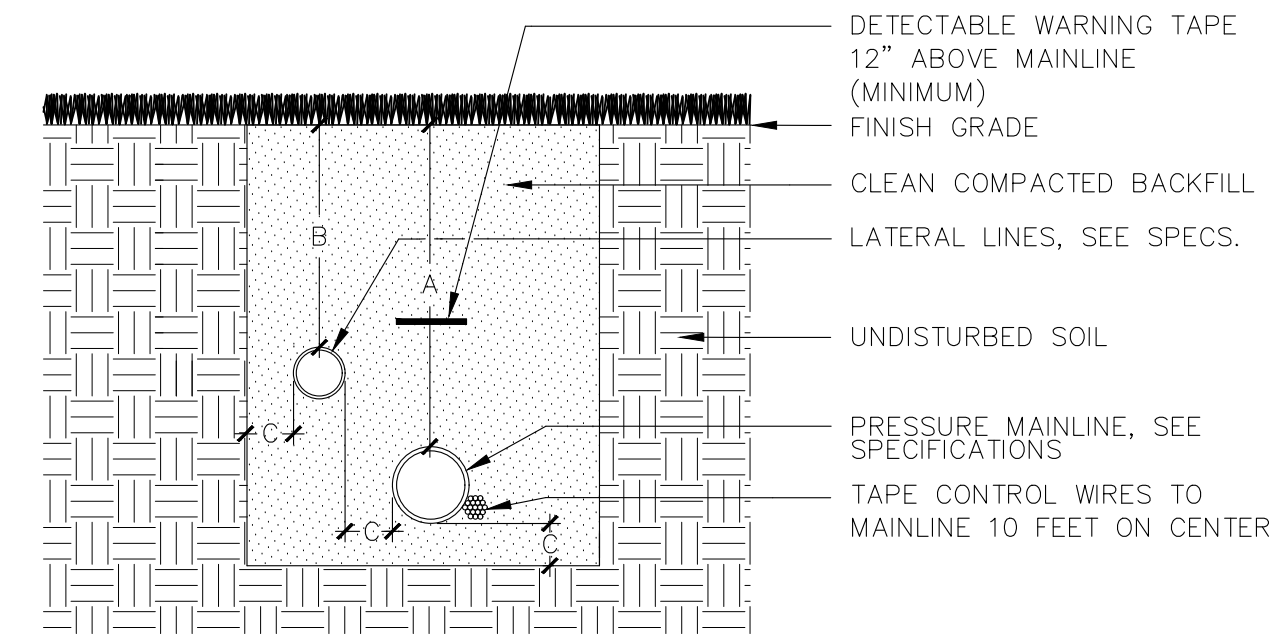
D REMOTE CONTROL VALVE

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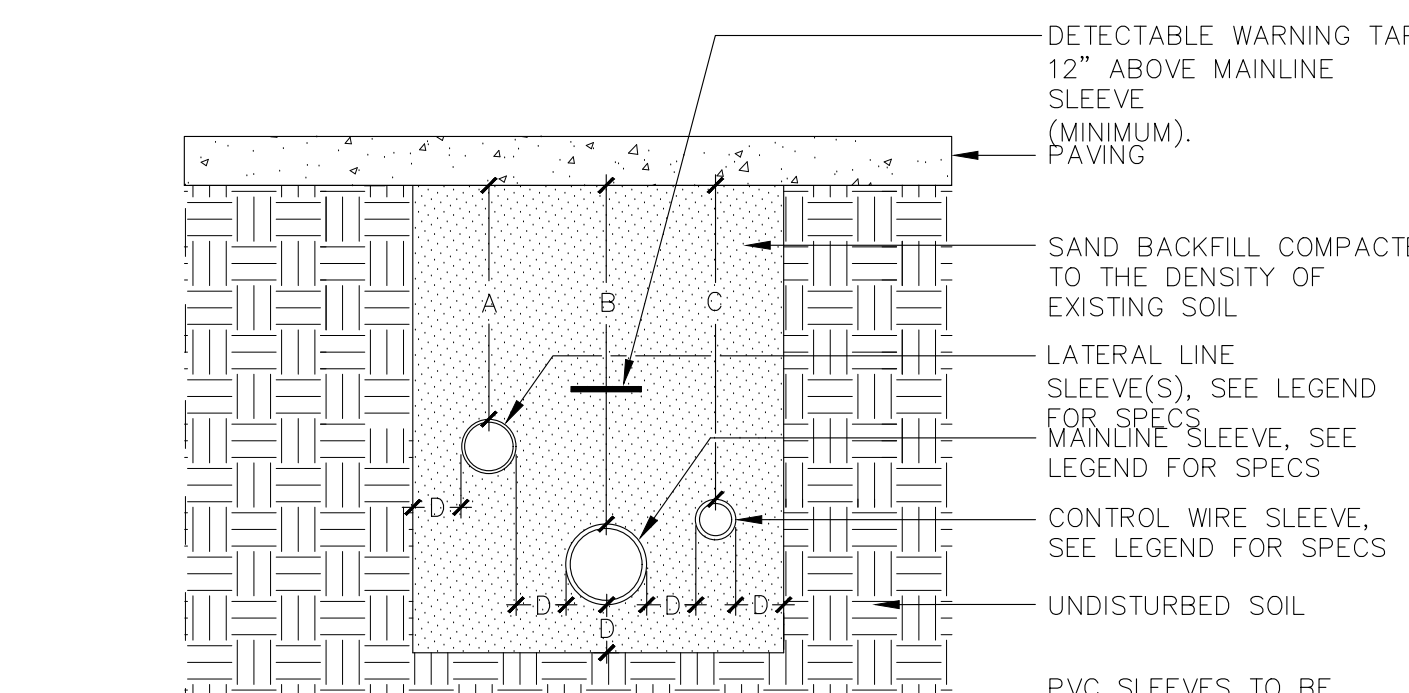
E BALL VALVE

SCALE: N.T.S.



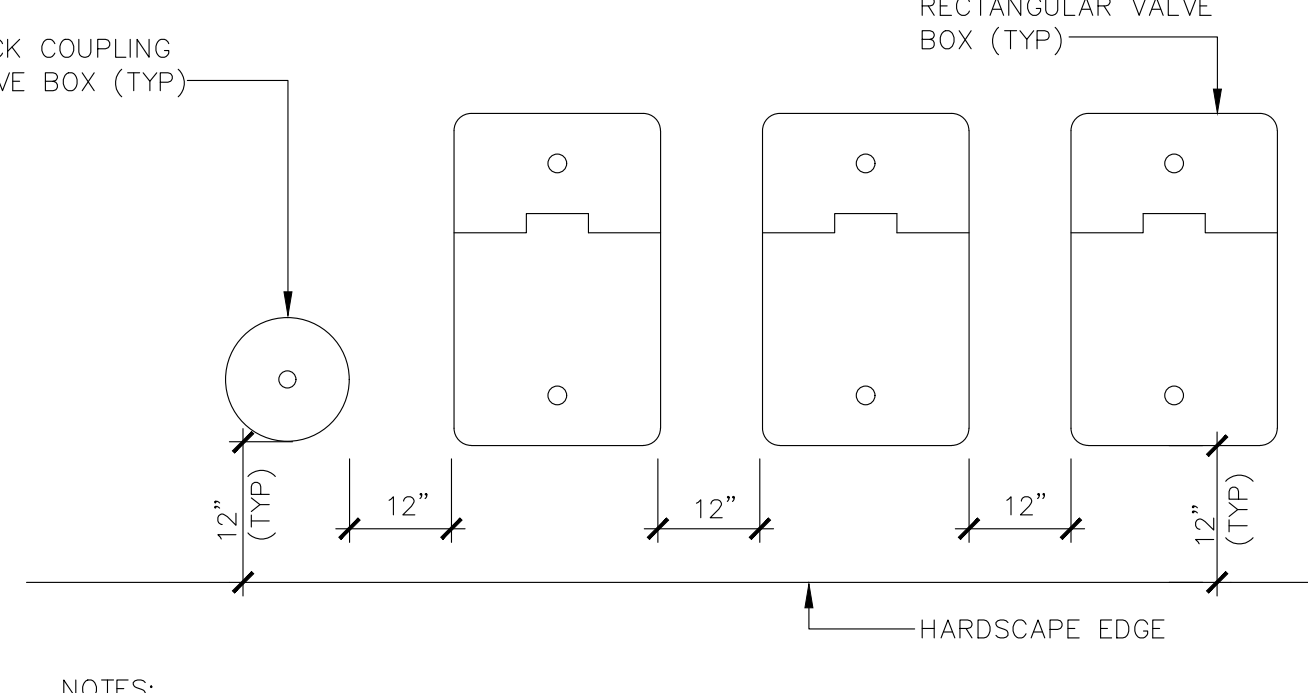
F WEATHER/ ET SENSOR MOUNTED ON EAVE

SCALE: N.T.S.



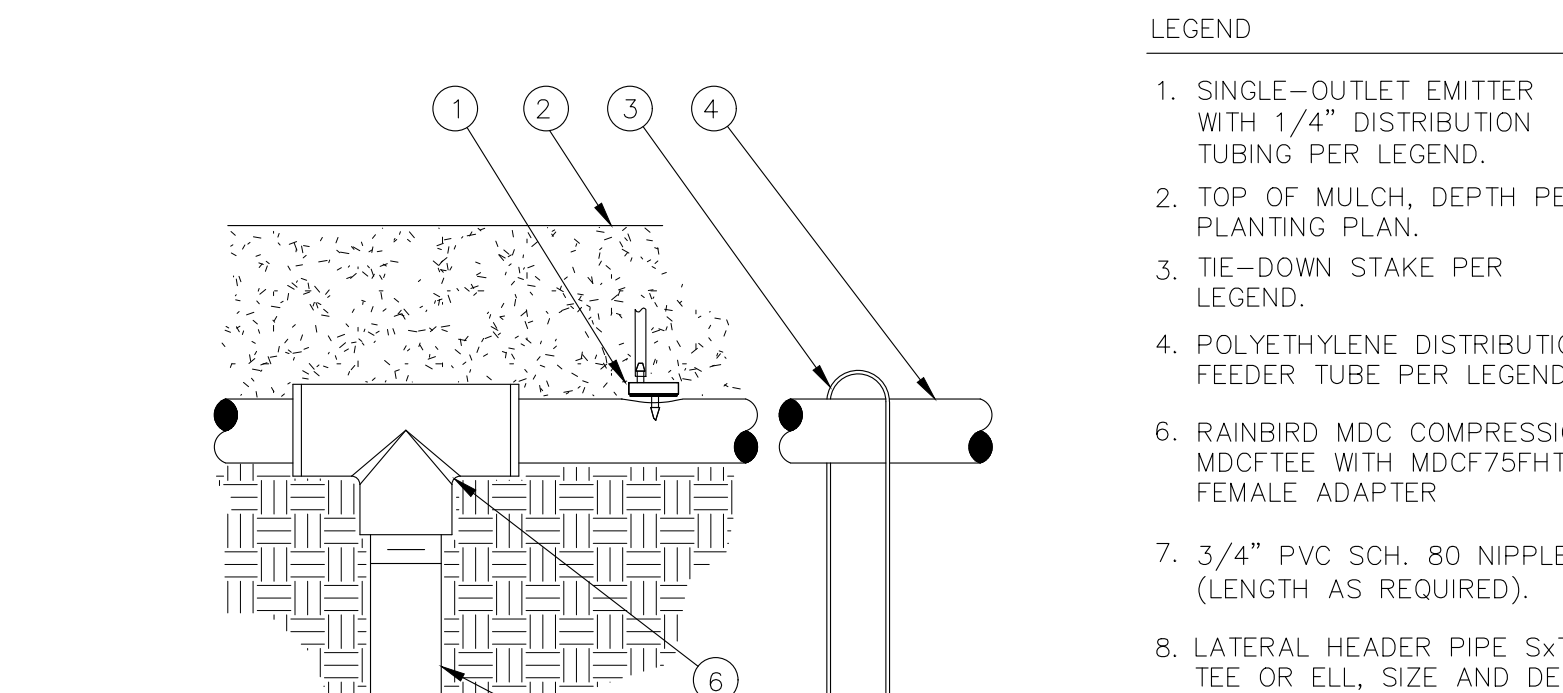
G WALL MOUNT CONTROLLER

SCALE: N.T.S.



H MANIFOLD INSTALLATION

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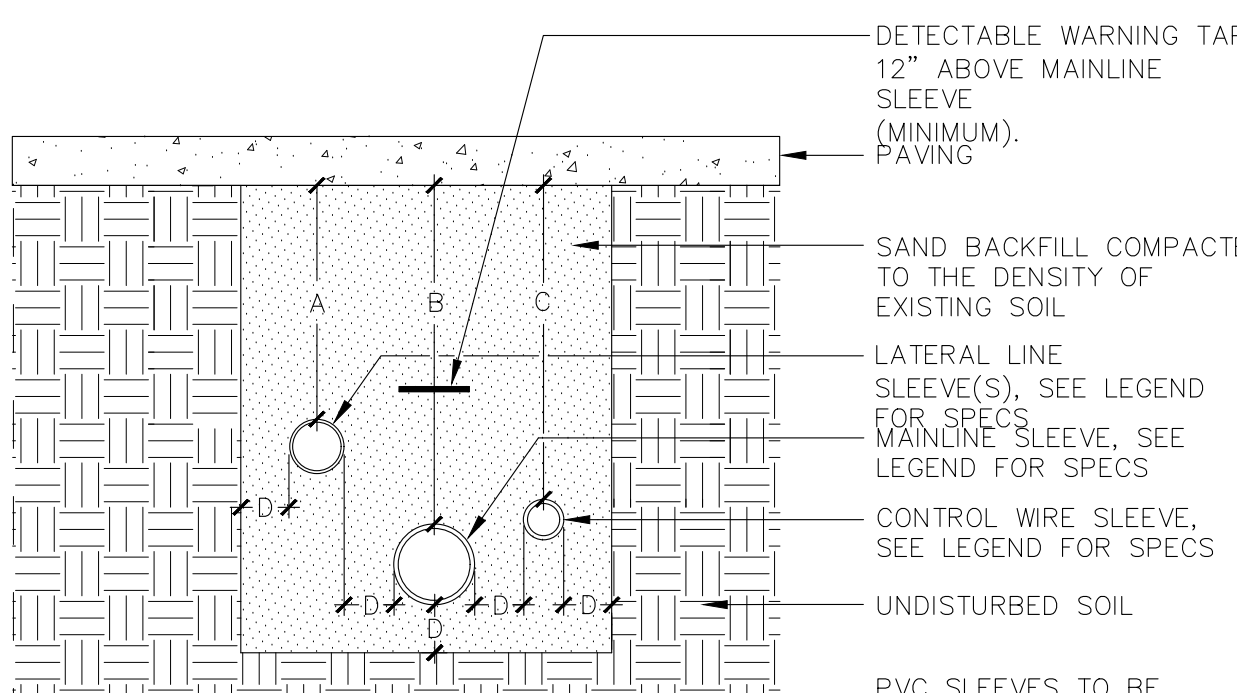
I PIPE INSTALLATION, POTABLE

SCALE: N.T.S.

DIMENSION	A	B	C
1/2" TO 2-1/2" IN SIZE	18"	12"	6"
3" IN SIZE	24"	6"	
4" AND LARGER	30"	6"	

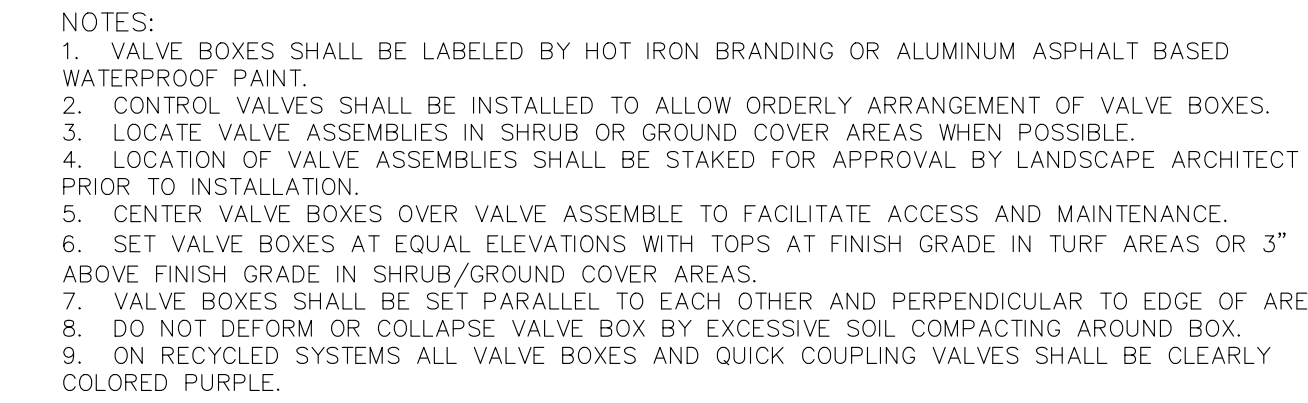
J SLEEVE INSTALLATION, POTABLE

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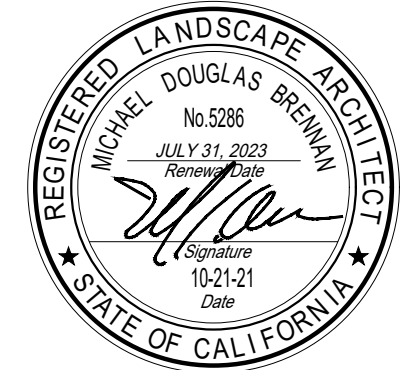
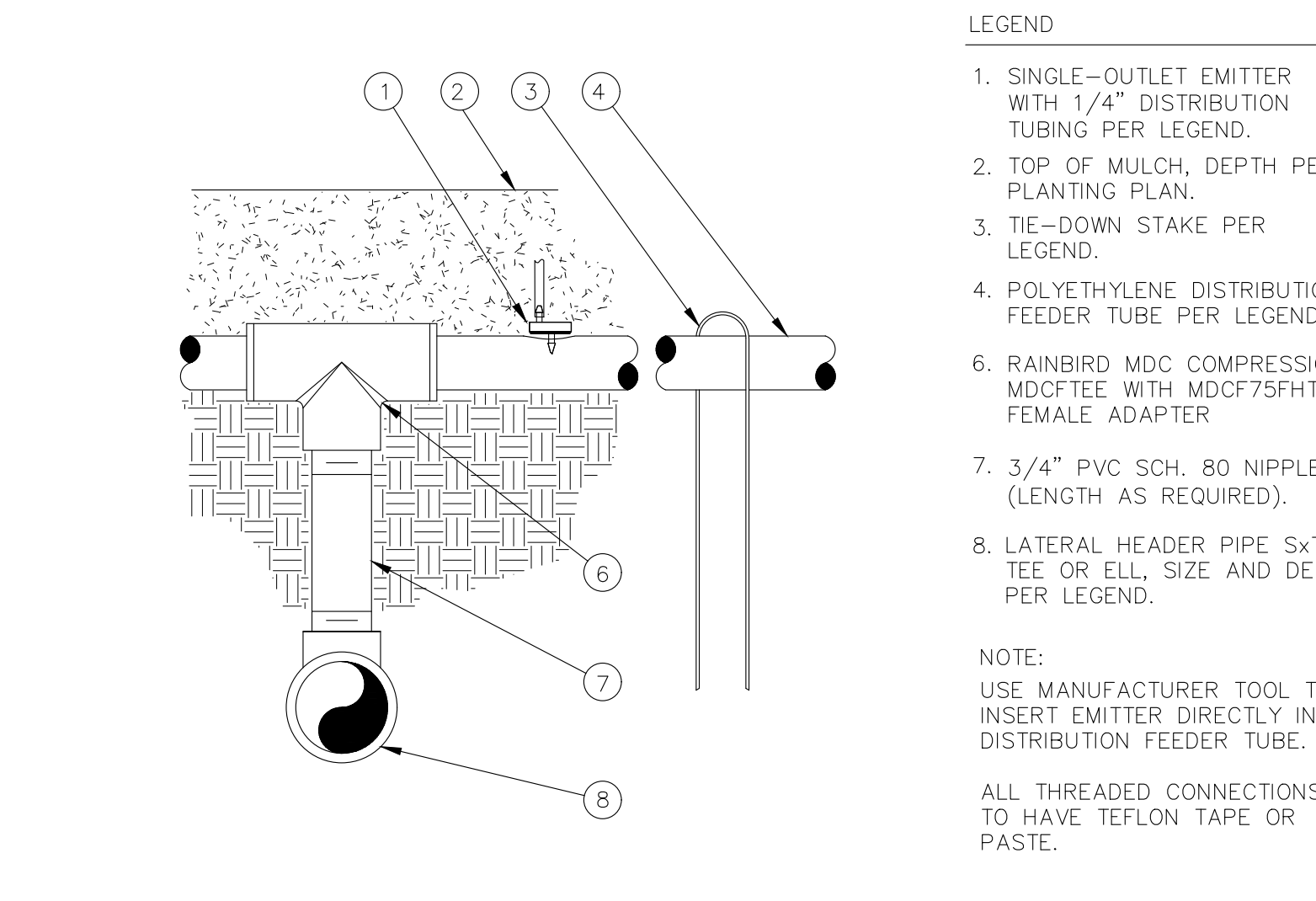
K VALVE BOX LAYOUT

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L PVC HEADER TO TUBING CONNECTION

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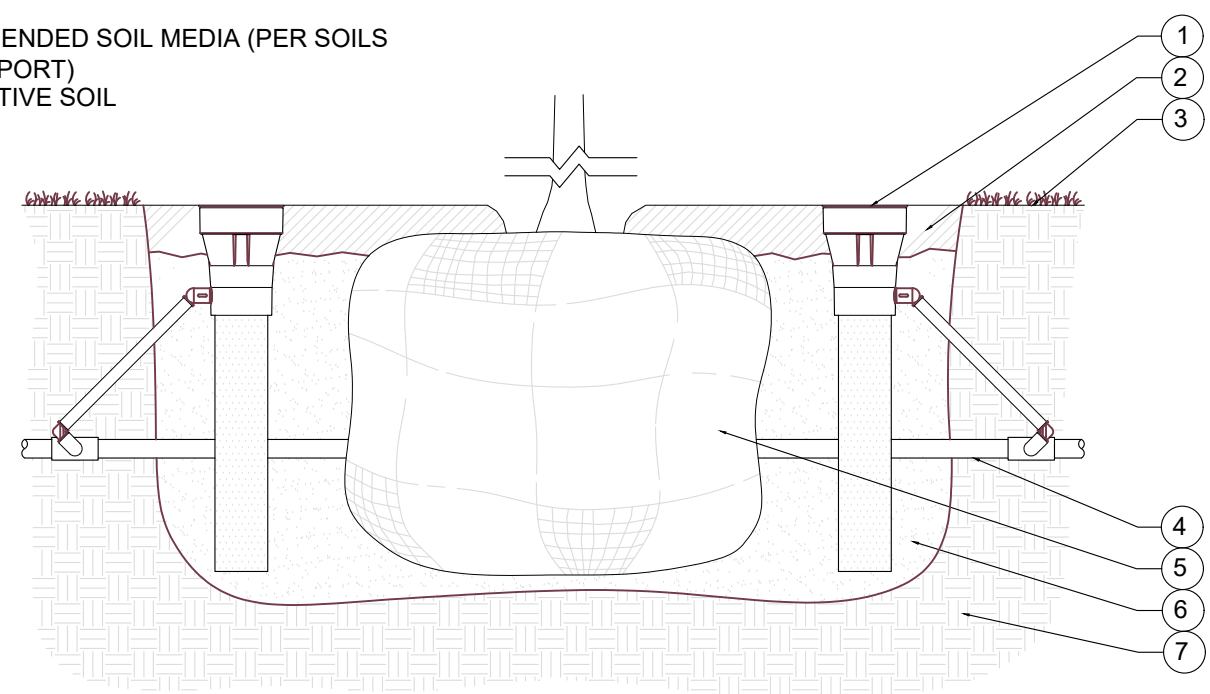


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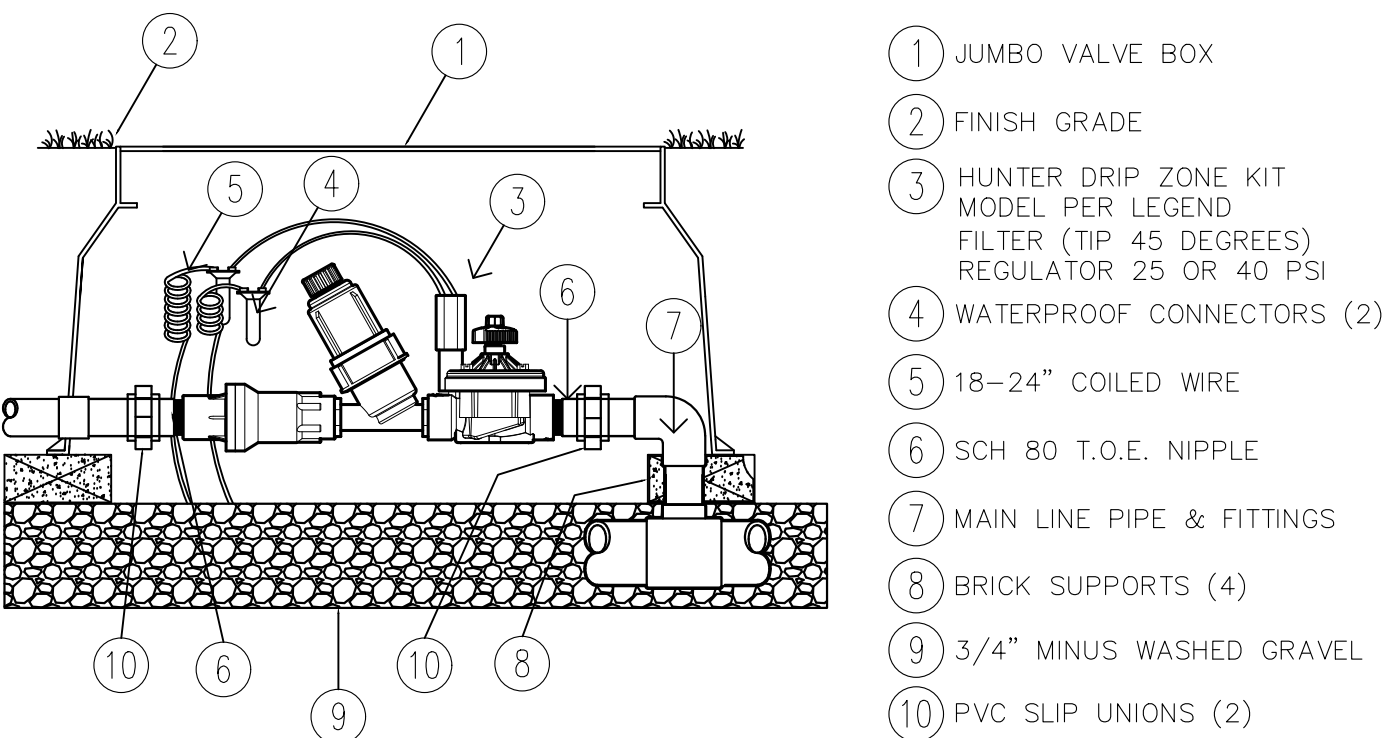
By: _____ Date: _____
R.C.E.: _____ Exp: _____

SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APP'D DATE	RECOMMENDED FOR APPROVAL	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH	ENGINEERING DEPARTMENT	DRAWING NO.
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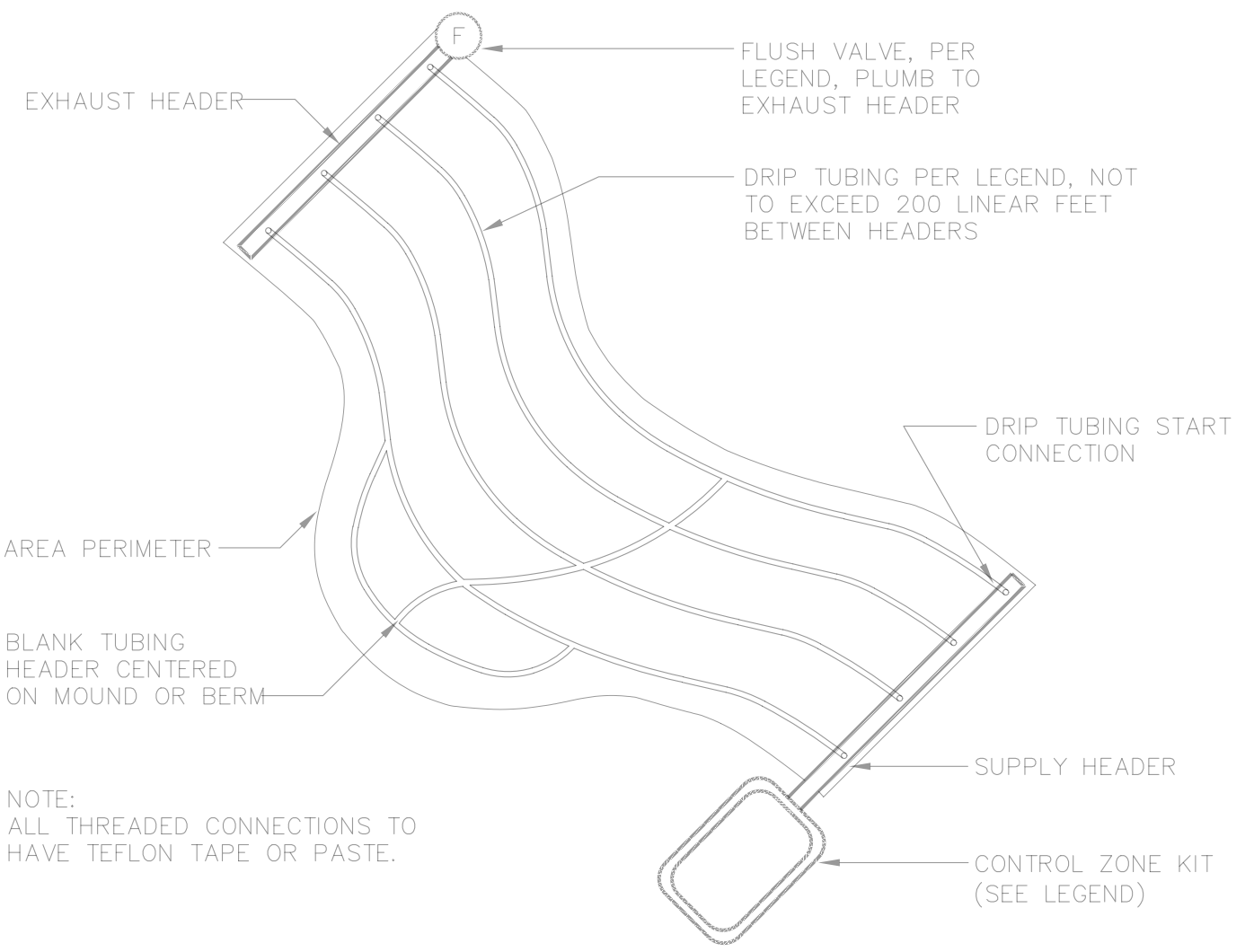
- LEGEND:**
- ① 18" ROOT ZONE WATERING SYSTEM PER PLAN
 - ② MULCH
 - ③ FINISHED GRADE
 - ④ LATERAL PIPE - SIZE PER PLAN
 - ⑤ ROOT BALL
 - ⑥ AMENDED SOIL MEDIA (PER SOILS REPORT)
 - ⑦ NATIVE SOIL
- NOTES:**
 INSTALL RZWS SLEEVE OVER TUBE TO HELP PREVENT SOIL INTRUSION



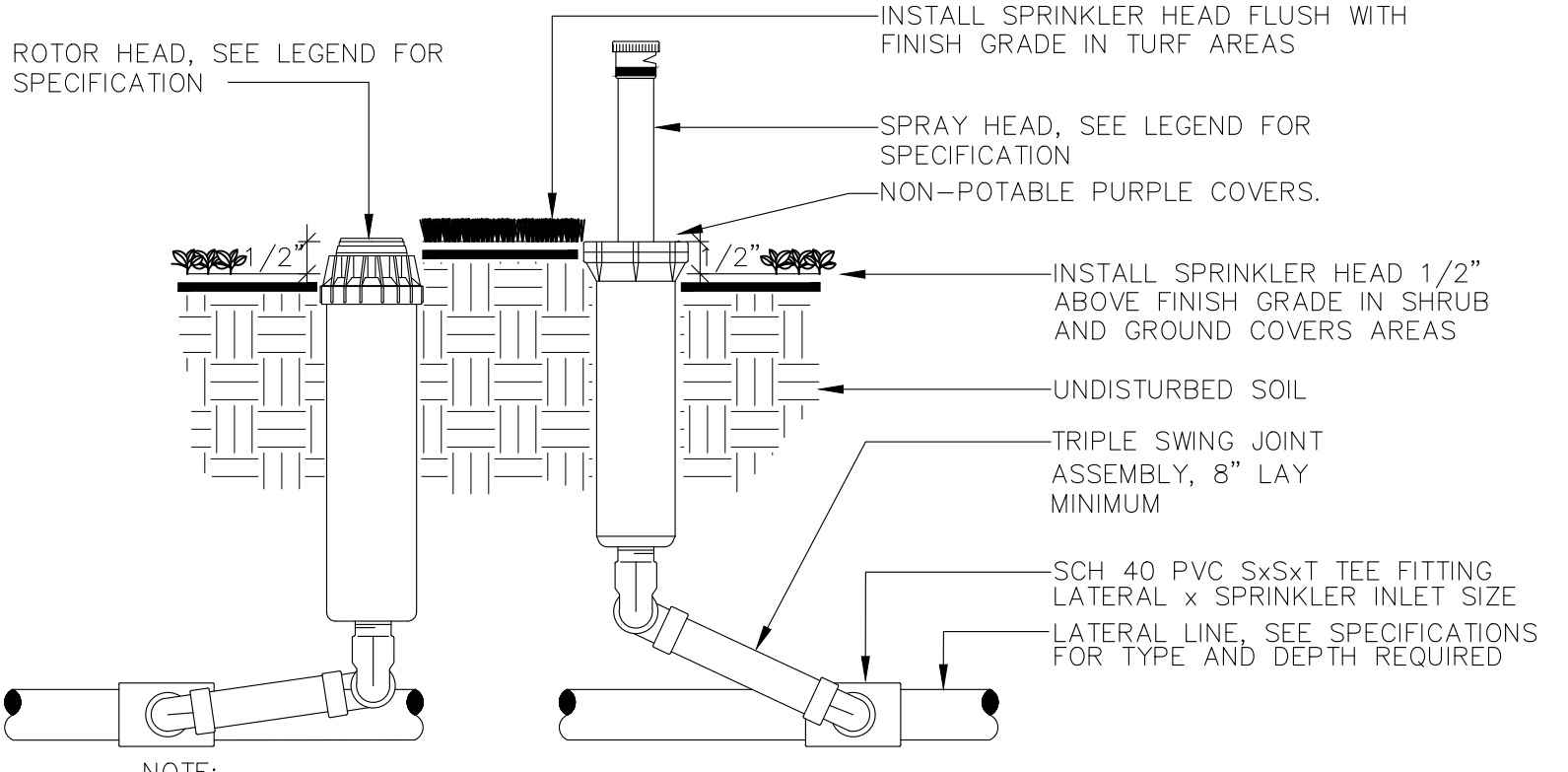
M DEEP WATERING TREE BUBBLER
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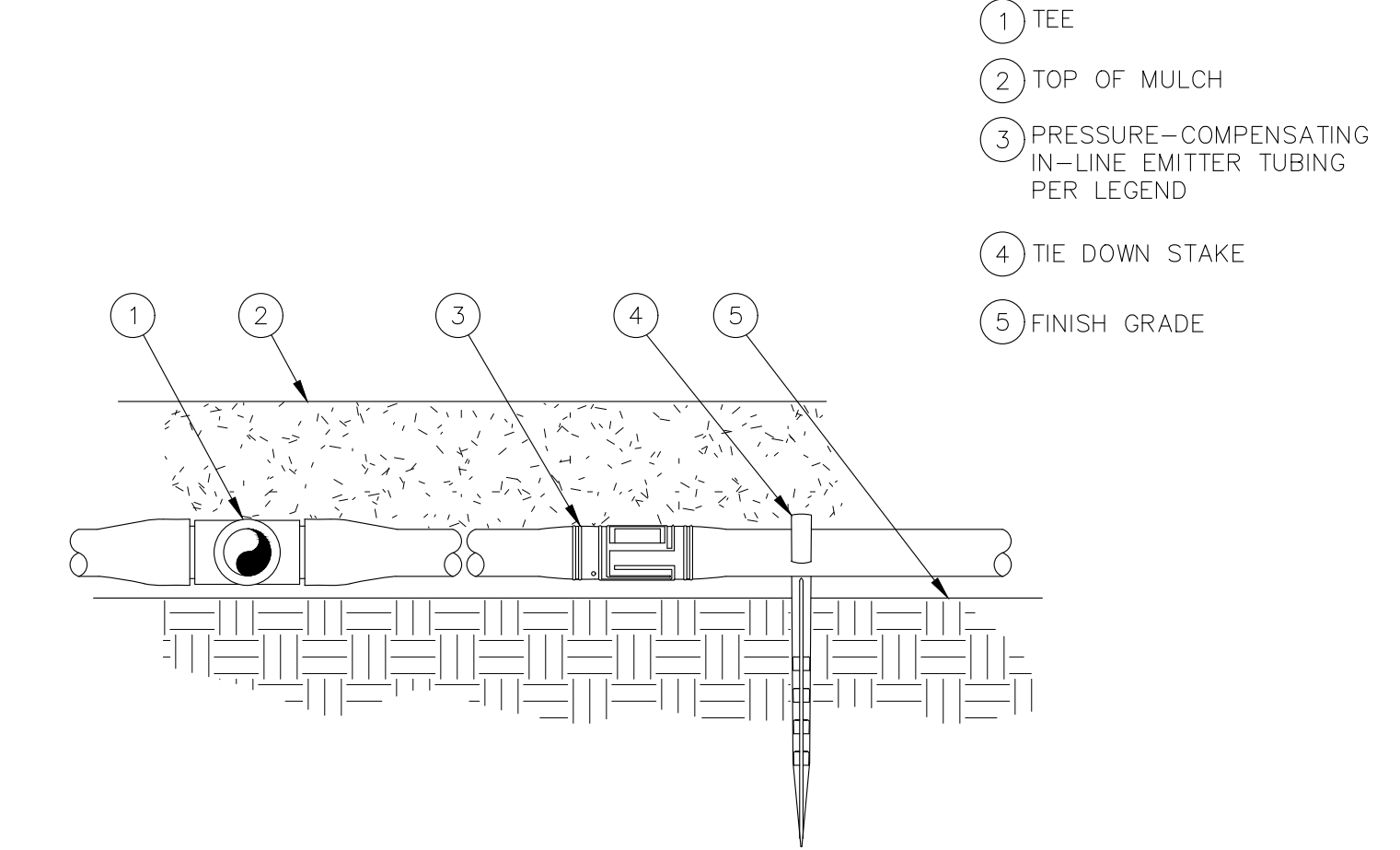
Q DRIP CONTROL ZONE KIT
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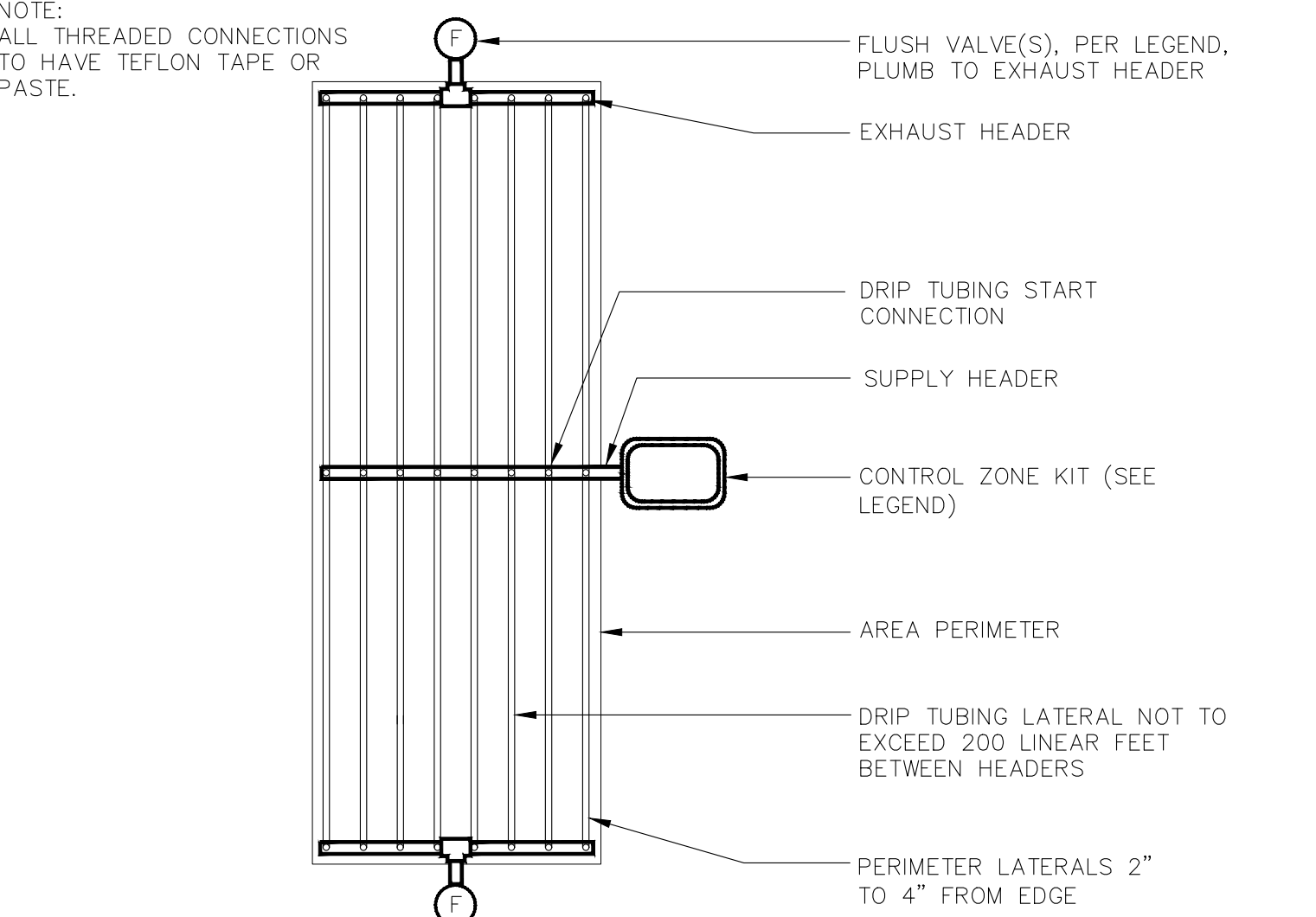
U DRIP ZONE LAYOUT - ODD CURVES
 SCALE: N.T.S.



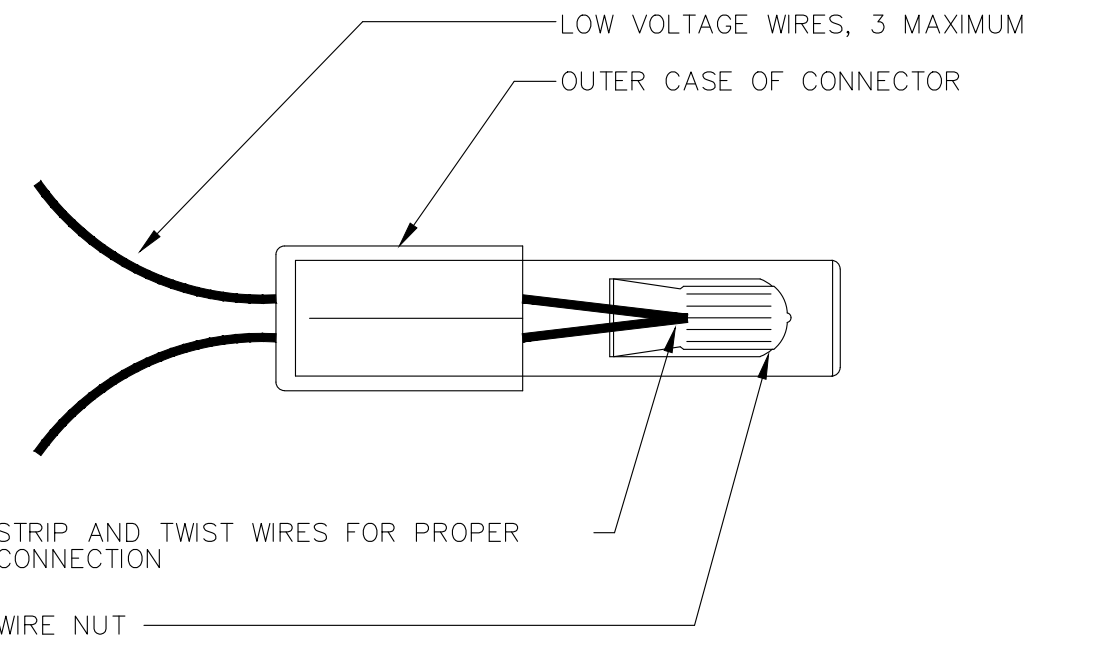
N POP-UP SPRINKLER
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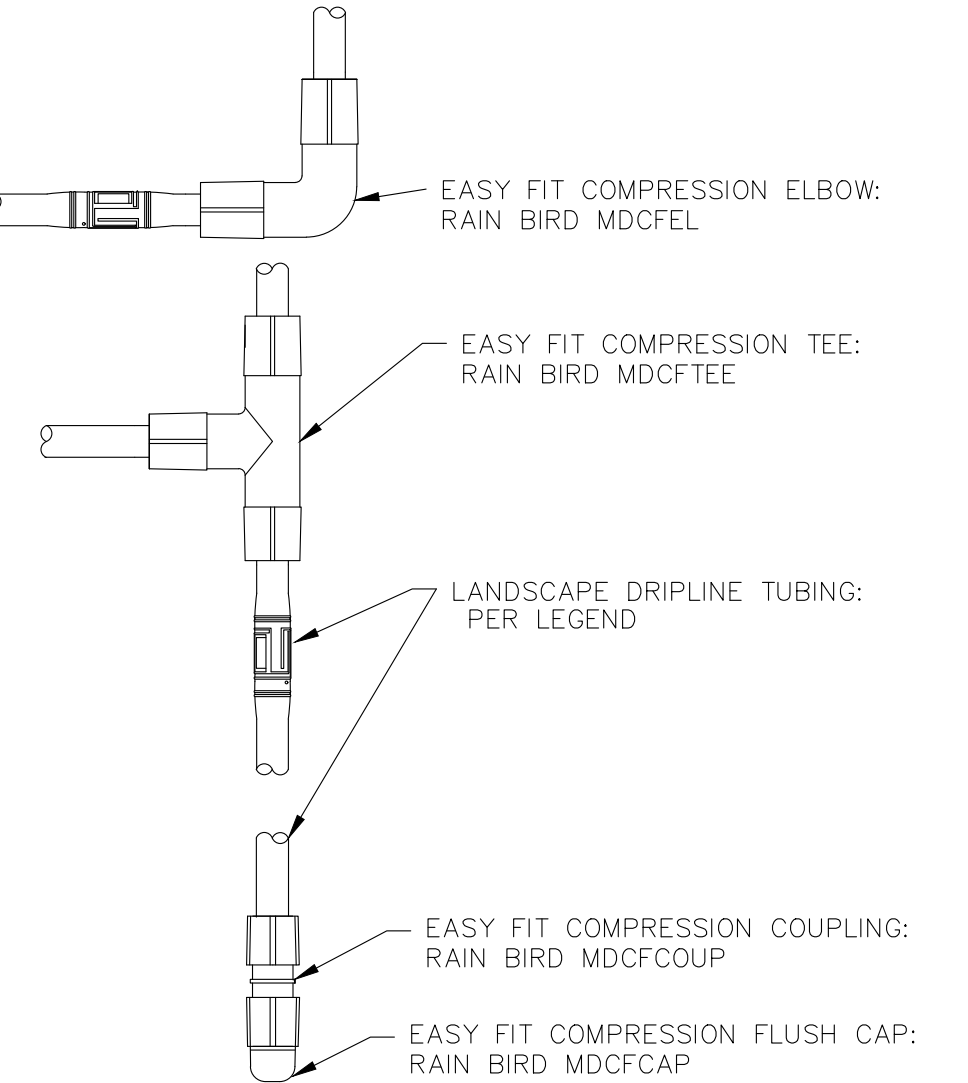
R LANDSCAPE DRIPLINE
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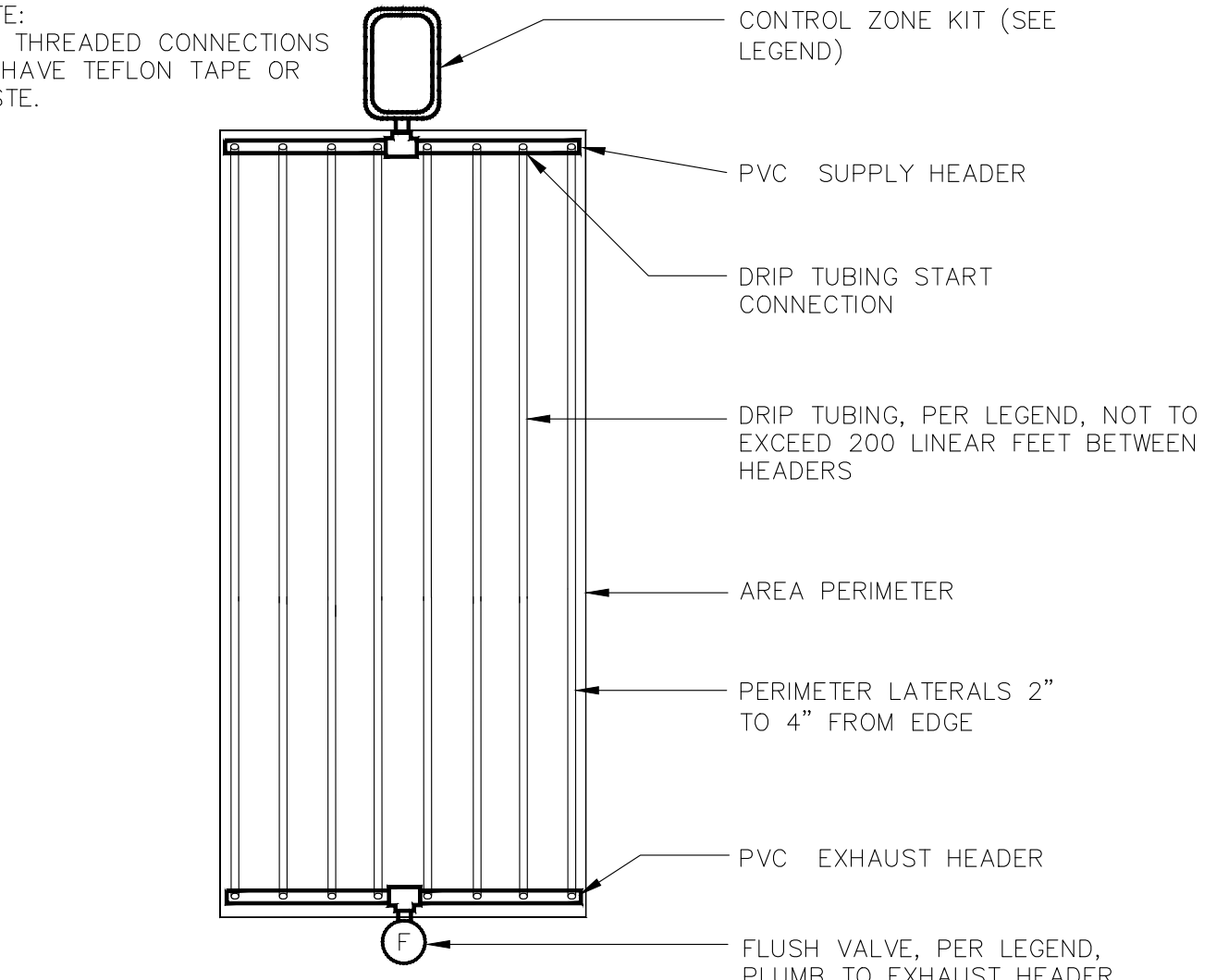
V DRIP ZONE LAYOUT - CENTER FEED
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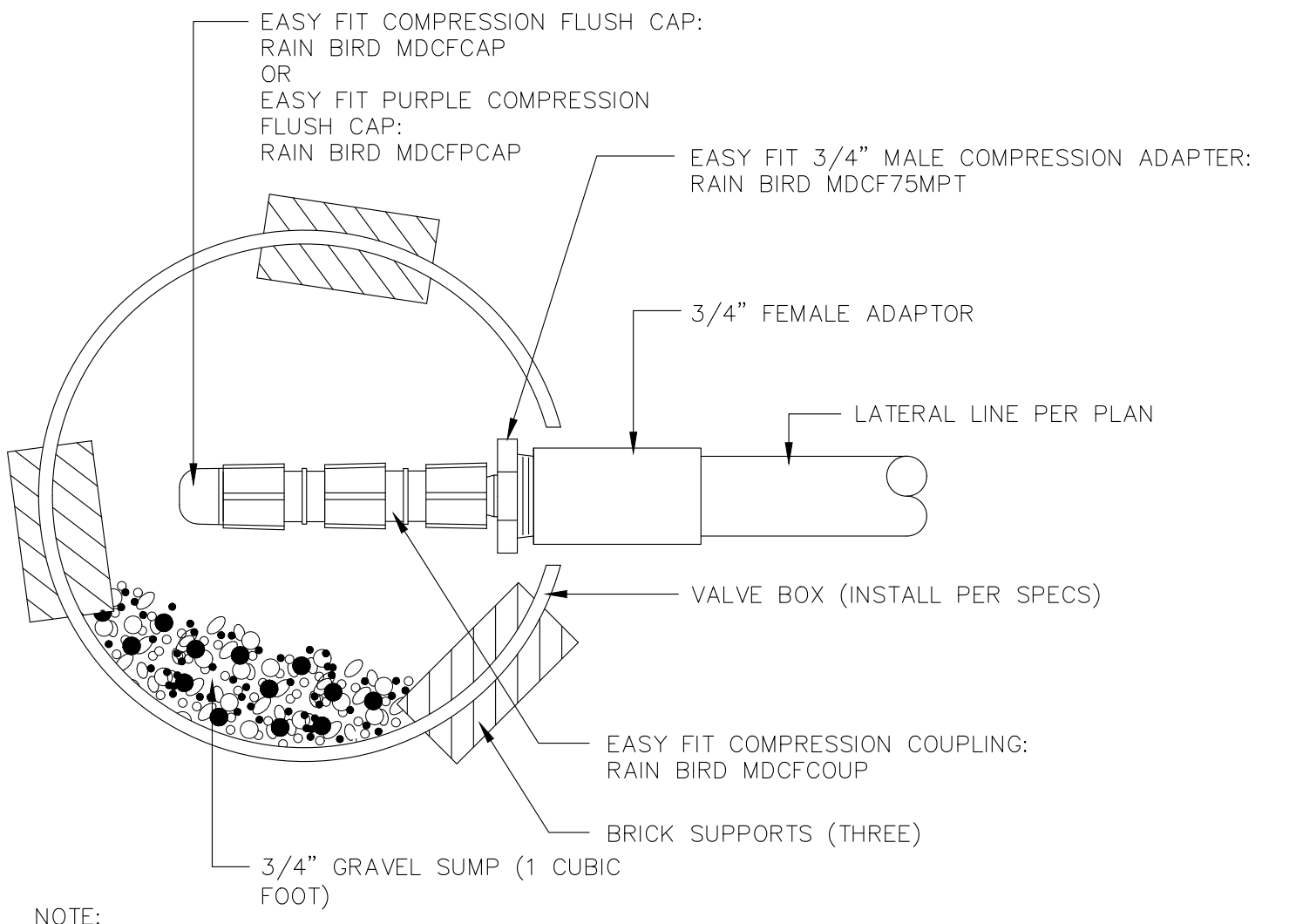
O WIRE CONNECTIONS
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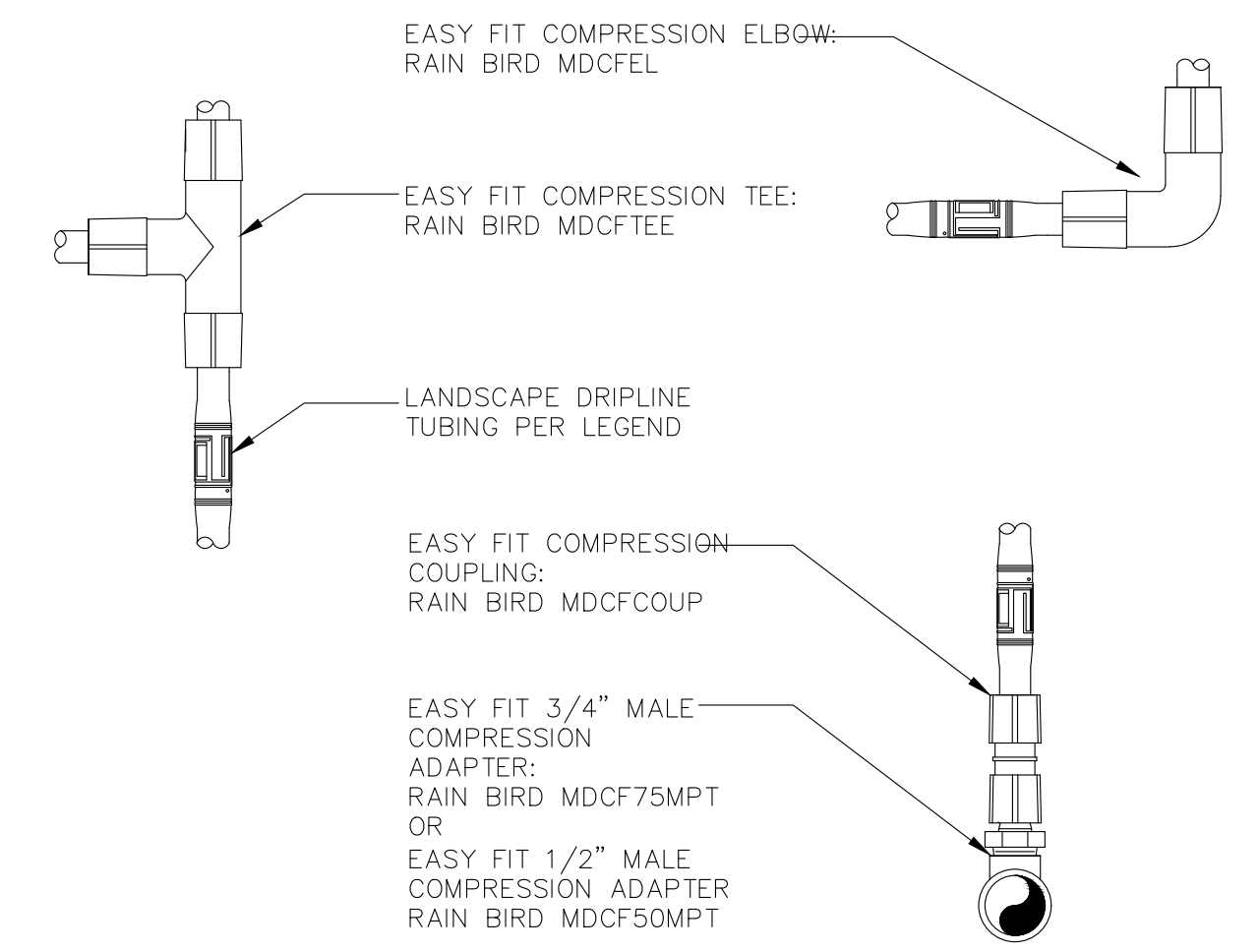
S EASY FIT COMPRESSION FITTINGS
 SCALE: N.T.S.



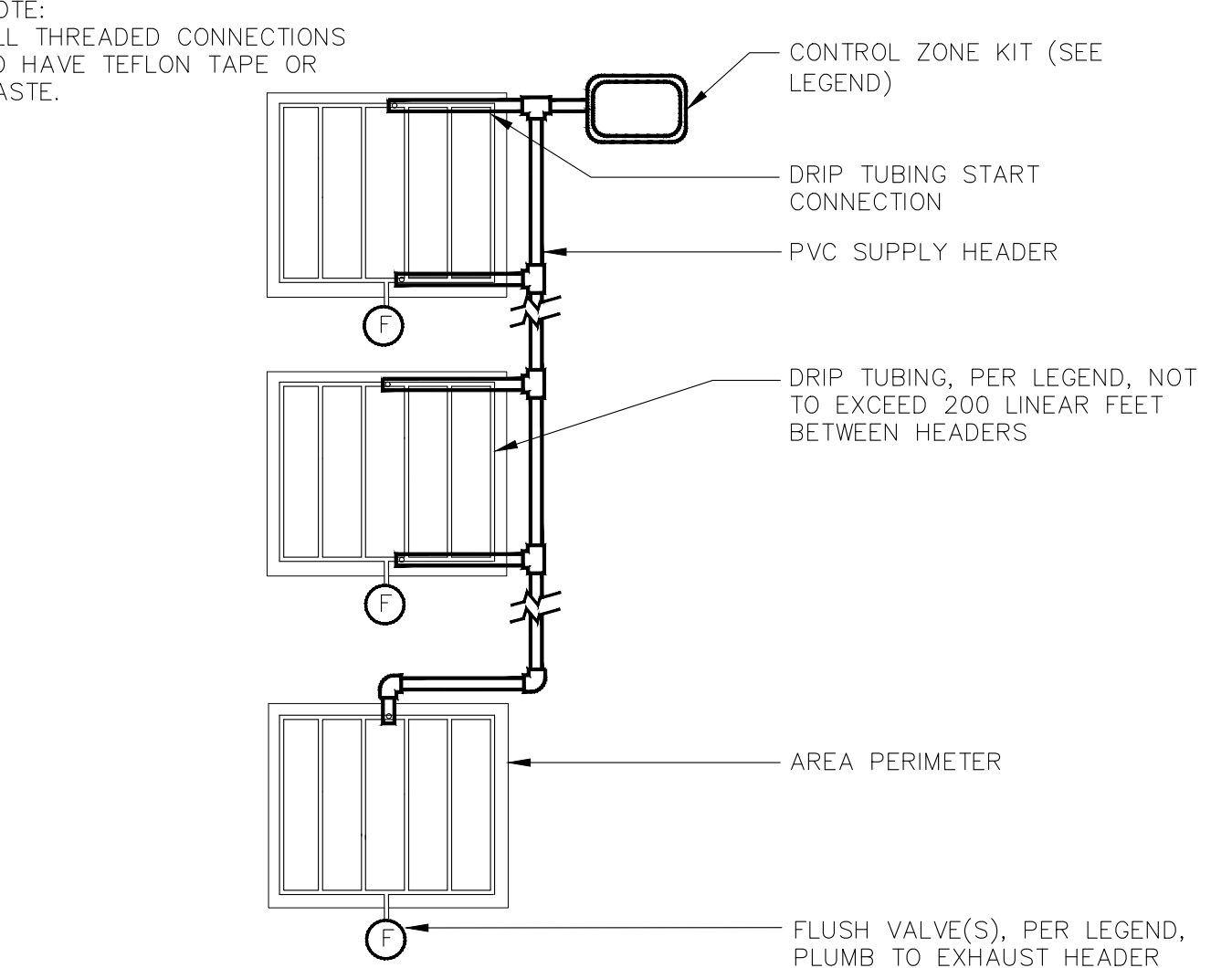
W DRIP ZONE LAYOUT - END FEED
 SCALE: N.T.S.



P MDCF FLUSH CAP
 SCALE: N.T.S.



T MDC FITTINGS
 SCALE: N.T.S.



X DRIP ZONE LAYOUT - MULTIPLE BEDS
 SCALE: N.T.S.



AS-BUILT
 By: _____ Date: _____
 R.C.E.: _____ Exp: _____

SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APP'D	DATE	RECOMMENDED FOR APPROVAL	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH	ENGINEERING DEPARTMENT	DRAWING NO.
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IRRIGATION SPECIFICATIONS

LANDSCAPE IRRIGATION

PART I – GENERAL

1.01 SUMMARY

- A. IT IS THE INTENT OF THE SPECIFICATIONS AND DRAWINGS THAT THE FINISHED SYSTEM IS COMPLETE IN EVERY RESPECT AND SHALL BE READY FOR OPERATION SATISFACTORY TO THE OWNER.
- B. THE WORK SHALL INCLUDE ALL MATERIALS, LABOR, SERVICES, TRANSPORTATION, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AS INDICATED ON THE DRAWINGS, IN THESE SPECIFICATION, AND AS NECESSARY TO COMPLETE THE CONTRACT.

1.02 CONSTRUCTION DRAWINGS

- A. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC. WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC. AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.

- B. ALL WORK CALLED FOR ON THE DRAWINGS BY NOTES OR DETAILS SHALL BE FURNISHED AND INSTALLED WHETHER OR NOT SPECIFICALLY MENTIONED IN THE SPECIFICATIONS. WHEN AN ITEM IS SHOWN ON THE PLANS BUT NOT SHOWN ON THE SPECIFICATIONS OR VICE VERSA, IT SHALL BE DEEMED TO BE AS SHOWN ON BOTH. THE LANDSCAPE ARCHITECT SHALL HAVE FINAL AUTHORITY FOR CLARIFICATION.

- C. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DISCREPANCIES IN AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AS SOON AS DETECTED. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISION NECESSARY.

1.03 QUALITY ASSURANCE

- A. PROVIDE AT LEAST ONE ENGLISH SPEAKING PERSON WHO SHALL BE PRESENT AT ALL TIMES DURING EXECUTION OF THIS PORTION OF THE WORK AND WHO SHALL BE THOROUGHLY FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE MANUFACTURER'S RECOMMENDED METHODS OF INSTALLATION AND WHO SHALL DIRECT ALL WORK PERFORMED UNDER THIS SECTION.

- B. MANUFACTURER'S DIRECTIONS AND DETAILED DRAWINGS SHALL BE FOLLOWED IN ALL CASES WHERE THE MANUFACTURER OF ARTICLES USED IN THIS CONTRACT FURNISH DIRECTIONS COVERING POINTS NOT SHOWN IN THE DRAWINGS AND SPECIFICATIONS.

- C. ALL LOCAL, MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY OF THE ABOVE RULES AND REGULATIONS OF THE SAME. HOWEVER, WHEN THESE SPECIFICATIONS AND DRAWINGS CALL FOR OR DESCRIBE MATERIALS, WORKMANSHIP OR CONSTRUCTION OF A BETTER QUALITY, HIGHER STANDARD, OR LARGER SIZE THAN IS REQUIRED BY THE ABOVE RULES AND REGULATIONS, THE PROVISIONS OF THESE SPECIFICATIONS AND DRAWINGS SHALL TAKE PRECEDENCE.

- D. ALL MATERIALS SUPPLIED FOR THIS PROJECT SHALL BE NEW AND FREE FROM ANY DEFECTS. ALL DEFECTIVE MATERIALS SHALL BE REPLACED IMMEDIATELY AT NO ADDITIONAL COST TO OWNER.

- E. THE CONTRACTOR SHALL SECURE THE REQUIRED LICENSES AND PERMITS INCLUDING PAYMENTS OF CHARGES AND FEES, GIVE REQUIRED NOTICES TO PUBLIC AUTHORITIES, VERIFY PERMITS SECURED OR ARRANGEMENTS MADE BY OTHERS AFFECTING THE WORK OF THIS SECTION.

1.04 SUBMITTALS

- A. MATERIALS LIST:
1. AFTER AWARD OF CONTRACT AND BEFORE ANY IRRIGATION SYSTEM MATERIALS ARE DELIVERED TO THE JOB SITE, SUBMIT TO THE OWNER A COMPLETE LIST OF ALL IRRIGATION SYSTEMS, MATERIALS, OR PROCESSES PROPOSED TO BE FURNISHED AND INSTALLED AS PART OF THIS CONTRACT.
2. SHOW MANUFACTURER'S NAME AND CATALOG NUMBER FOR EACH ITEM, FURNISH COMPLETE CATALOG CUTS AND TECHNICAL DATA, FURNISH THE MANUFACTURER'S RECOMMENDATIONS AS TO THE METHOD OF INSTALLATION.
3. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN ACCEPTANCE BY THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.
4. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.

- B. SUBSTITUTIONS:
IF THE IRRIGATION CONTRACTOR WISHES TO SUBSTITUTE ANY EQUIPMENT OR MATERIALS FOR THOSE EQUIPMENT OR MATERIALS LISTED ON THE IRRIGATION DRAWINGS AND SPECIFICATIONS HE MAY DO SO BY PROVIDING THE FOLLOWING INFORMATION TO THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE AND CITY INSPECTOR FOR APPROVAL.

- PROVIDE A WRITTEN STATEMENT INDICATING THE REASON FOR MAKING THE SUBSTITUTION.
- PROVIDE CATALOG CUT SHEETS, TECHNICAL DATA, AND PERFORMANCE INFORMATION FOR EACH SUBSTITUTE ITEM.

3. PROVIDE IN WRITING THE DIFFERENCE IN INSTALLED PRICE IF THE ITEM IS ACCEPTED.

1.05 EXISTING CONDITIONS

- A. THE CONTRACTOR SHALL VERIFY AND BE FAMILIAR WITH THE LOCATIONS, SIZE AND DETAIL OF POINTS OF CONNECTION PROVIDED AS THE SOURCE OF WATER, ELECTRICAL SUPPLY, AND ANY TELEPHONE LINE CONNECTION TO THE IRRIGATION SYSTEM.

- B. IRRIGATION DESIGN IS BASED ON THE AVAILABLE STATIC WATER PRESSURE SHOWN ON THE DRAWINGS. CONTRACTOR SHALL VERIFY STATIC WATER ON THE PROJECT PRIOR TO THE START OF CONSTRUCTION. SHOULD A DISCREPANCY EXIST, NOTIFY THE LANDSCAPE ARCHITECT AND OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.

- C. PRIOR TO CUTTING INTO THE SOIL, THE CONTRACTOR SHALL LOCATE ALL CABLES, CONDUITS, SEWER SEPTIC TANKS, AND OTHER UTILITIES AS ARE COMMONLY ENCOUNTERED UNDERGROUND AND HE SHALL TAKE PROPER PRECAUTIONS NOT TO DAMAGE OR DISTURB SUCH IMPROVEMENTS. IF A CONFLICT EXISTS BETWEEN THE SUCH OBSTACLES AND THE PROPOSED WORK, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE LANDSCAPE ARCHITECT AND OWNER WHO WILL ARRANGE FOR RELOCATIONS. THE CONTRACTOR WILL PROCEED IN THE SAME MANNER IF A ROCK LAYER OR ANY OTHER SUCH CONDITIONS ARE ENCOUNTERED.

- D. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND FEATURES TO REMAIN ON AND ADJACENT TO THE PROJECT SITE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR, AT HIS OWN COST, ALL DAMAGE RESULTING FROM HIS OPERATIONS OR NEGLIGENCE.

- E. THE IRRIGATION CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR FOR INSTALLATION OF REQUIRED SLEEVING AS SHOWN ON THE PLANS.

1.06 INSPECTIONS

- A. THE CONTRACTOR SHALL PERMIT THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE AND CITY INSPECTOR TO VISIT AND INSPECT AT ALL TIMES ANY PART OF THE WORK AND SHALL PROVIDE SAFE ACCESS FOR SUCH VISITS.

- B. WHERE THE SPECIFICATIONS REQUIRE WORK TO BE TESTED BY THE CONTRACTOR, IT SHALL NOT BE COVERED OVER UNTIL ACCEPTED BY THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE, AND/OR GOVERNING AGENCIES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR NOTIFYING THE LANDSCAPE ARCHITECT, OWNER, AND GOVERNING AGENCIES, A MINIMUM OF 48 HOURS IN ADVANCE, WHERE AND WHEN THE WORK IS READY FOR TESTING. SHOULD ANY WORK BE COVERED WITHOUT TESTING OR ACCEPTANCE, IT SHALL BE, IF SO ORDERED, UNCOVERED AT THE CONTRACTOR'S EXPENSE.

- C. INSPECTIONS WILL BE REQUIRED FOR THE FOLLOWING AT A MINIMUM:
1. SYSTEM LAYOUT
2. PRESSURE TEST OF IRRIGATION MAIN LINE (FOUR HOURS AT 125 PSI OR 120% OF STATIC WATER PRESSURE, WHICH EVER IS GREATER) APPROVAL REQUIRED BY CITY INSPECTOR.

3. COVERAGE TEST OF IRRIGATION SYSTEM (APPROVAL REQUIRED BY CITY INSPECTOR).
4. FINAL INSPECTION PRIOR TO START OF MAINTENANCE PERIOD
5. FINAL ACCEPTANCE

- D. SITE OBSERVATIONS AND TESTING WILL NOT COMMENCE WITHOUT THE RECORD DRAWINGS AS PREPARED BY THE IRRIGATION CONTRACTOR. RECORD DRAWINGS MUST COMPLETE AND UP TO DATE FOR EACH SITE VISIT.

- E. WORK WHICH FAILS TESTING AND IS NOT ACCEPTED WILL BE RETESTED. HOURLY RATES AND EXPENSES OF THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE, AND GOVERNING AGENCIES FOR REINSPECTION OR RETESTING WILL BE PAID BY THE IRRIGATION CONTRACTOR AT NO ADDITIONAL EXPENSE TO OWNER.

1.07 STORAGE AND HANDLING

- A. USE ALL MEANS NECESSARY TO PROTECT IRRIGATION SYSTEM MATERIALS BEFORE, DURING, AND AFTER INSTALLATION AND TO PROTECT THE INSTALLATION WORK AND MATERIALS OF ALL OTHER TRADES. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE ACCEPTANCE OF THE LANDSCAPE ARCHITECT AND OWNER AND AT NO ADDITIONAL COST TO THE OWNER.

- B. EXERCISE CARE IN HANDLING, LOADING, UNLOADING, AND STORING PLASTIC PIPE AND FITTINGS UNDER COVER UNTIL READY TO INSTALL. TRANSPORT PLASTIC PIPE ONLY ON A VEHICLE WITH A BED LONG ENOUGH TO ALLOW THE PIPE TO LAY FLAT TO AVOID UNDUE BENDING AND CONCENTRATED EXTERNAL LOAD.

1.08 CLEANUP AND DISPOSAL

- A. DISPOSE OF WASTE, TRASH, AND DEBRIS IN ACCORDANCE WITH APPLICABLE LAWS AND ORDINANCES AND AS PRESCRIBED BY AUTHORITIES HAVING JURISDICTION. BURY NO SUCH WASTE MATERIAL AND DEBRIS ON THE SITE. BURNING OF TRASH AND DEBRIS WILL NOT BE PERMITTED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF RUBBISH AND DEBRIS GENERATED BY HIS WORK AND WORKMEN AT FREQUENT INTERVALS OR WHEN ORDERED TO DO SO BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

- B. AT THE TIME OF COMPLETION THE ENTIRE SITE WILL BE CLEARED OF TOOLS, EQUIPMENT, RUBBISH AND DEBRIS WHICH SHALL BE DISPOSED OF OFF-SITE IN A LEGAL DISPOSAL AREA.

1.09 TURNOVER ITEMS

- A. RECORD DRAWINGS:
1. RECORD ACCURATELY ON ONE SET OF CONTRACT DRAWINGS ALL CHANGES IN THE WORK CONSTITUTING DEPARTURES FROM THE ORIGINAL CONTRACT DRAWINGS.
2. THE CHANGES AND DIMENSIONS SHALL BE RECORDED IN A LEGIBLE AND WORKMANLIKE MANNER TO THE SATISFACTION OF THE OWNER. PRIOR TO FINAL INSPECTION OF WORK, SUBMIT RECORD DRAWINGS TO THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.

3. DIMENSIONS FROM/TO PERMANENT POINTS OF REFERENCE SUCH AS BUILDINGS, SIDEWALKS, CURBS, ETC. SHALL BE SHOWN. DATA ON RECORD DRAWINGS SHALL BE RECORDED ON A DAY TO DAY BASIS AS THE PROJECT IS BEING INSTALLED. ALL LETTERING ON DRAWINGS SHALL BE MINIMUM 1/8 INCH IN SIZE.

4. SHOW LOCATIONS AND DEPTHS OF THE FOLLOWING ITEMS:

- POINT OF CONNECTION (INCLUDING WATER METERS, BACKFLOW PREVENTERS, MASTER CONTROL VALVES, ETC.)
- ROUTING OF SPRINKLER PRESSURE LINES (DIMENSIONS SHOWN AT A MAXIMUM OF 100 FEET ALONG ROUTING)
- GATE VALVES
- AUTOMATIC REMOTE CONTROL VALVES AND ISOLATION BALL VALVES
- QUICK COUPLING VALVES AND ISOLATION BALL VALVES
- ROUTING OF CONTROL WIRES
- IRRIGATION CONTROLLERS
- RELATED EQUIPMENT (AS MAY BE DIRECTED)
- MAINTAIN RECORD DRAWINGS ON SITE AT ALL TIMES. UPON COMPLETION OF WORK, TRANSFER ALL AS-BUILT INFORMATION AND DIMENSIONS TO REPRODUCIBLE SEPIA PRINTS.

- B. CONTROLLER CHARTS:
1. RECORD DRAWINGS MUST BE APPROVED BY LANDSCAPE ARCHITECT AND/OR OWNER'S AUTHORIZED REPRESENTATIVE BEFORE CHARTS ARE PREPARED.
2. PROVIDE ONE CONTROLLER CHART FOR EACH AUTOMATIC CONTROLLER. CHART SHALL SHOW THE AREA COVERED BY THE PARTICULAR CONTROLLER.
3. THE CHART IS TO BE A REDUCED COPY OF THE ACTUAL "RECORD" DRAWING. IN THE EVENT THE CONTROLLER SEQUENCE IS NOT LEGIBLE WHEN THE DRAWING IS REDUCED, IT SHALL BE ENLARGED TO A READABLE SIZE.
4. WHEN COMPLETED AND APPROVED, THE CHART SHALL BE HERMETICALLY SEALED BETWEEN TWO PIECES OF PLASTIC, EACH PIECE BEING A MINIMUM 20 MILS IN THICKNESS.

- C. OPERATION AND MAINTENANCE MANUALS:
1. TWO INDIVIDUALLY BOUND COPIES OF OPERATION AND MAINTENANCE MANUALS SHALL BE DELIVERED TO THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE AT LEAST 10 CALENDAR DAYS PRIOR TO FINAL INSPECTION. THE MANUALS SHALL DESCRIBE THE MATERIAL INSTALLED AND THE PROPER OPERATION OF THE SYSTEM.
2. EACH COMPLETE, BOUND MANUAL SHALL INCLUDE THE FOLLOWING INFORMATION:
A. INDEX SHEET STATING CONTRACTOR'S ADDRESS AND TELEPHONE NUMBER, DURATION OF GUARANTEE PERIOD, LIST OF EQUIPMENT INCLUDING NAMES AND ADDRESSES OF LOCAL MANUFACTURER REPRESENTATIVES.
B. OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT.
C. SPARE PARTS LISTS AND RELATED MANUFACTURER INFORMATION FOR ALL EQUIPMENT.

- D. EQUIPMENT:
SUPPLY AS A PART OF THIS CONTRACT THE FOLLOWING ITEMS:
1. TWO (2) WRENCHES FOR DISASSEMBLY AND ADJUSTMENT OF EACH TYPE OF SPRINKLER HEAD USED IN THE IRRIGATION SYSTEM.
2. THREE 30-INCH SPRINKLER KEYS FOR MANUAL OPERATION OF CONTROL VALVES.
3. TWO KEYS FOR EACH AUTOMATIC CONTROLLER.
4. FIVE QUICK COUPLER KEYS WITH A BRONZE HOSE THREAD 90 DEGREE SWIVEL ATTACHMENT AND FIVE COUPLER LID KEYS.
5. FIVE VALVE BOX COVER KEY OR WRENCH.
6. ONE 5-FOOT TEE WRENCH FOR OPERATING GATE VALVES 3 INCHES OR LARGER (IF USED).
7. SIX EXTRA SPRINKLER HEADS OF EACH SIZE AND TYPE PER IRRIGATION P.O.C.

2. THE ABOVE EQUIPMENT SHALL BE TURNED OVER TO OWNER'S AUTHORIZED REPRESENTATIVE AT THE FINAL INSPECTION.

1.10 COMPLETION

- A. AT THE TIME OF THE PRE-MAINTENANCE PERIOD INSPECTION, THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE, AND GOVERNING AGENCIES WILL INSPECT THE WORK, AND IF NOT ACCEPTED, WILL PREPARE A LIST OF ITEMS TO BE COMPLETED BY THE CONTRACTOR. AT THE TIME OF THE POST-MAINTENANCE PERIOD OR FINAL INSPECTION THE WORK WILL BE REINSPECTED AND FINAL ACCEPTANCE WILL BE IN WRITING BY THE LANDSCAPE ARCHITECT, OWNER'S AUTHORIZED REPRESENTATIVE, AND GOVERNING AGENCIES.

- B. THE OWNER'S AUTHORIZED REPRESENTATIVE SHALL HAVE FINAL AUTHORITY ON ALL PORTIONS OF THE WORK.

- C. AFTER THE SYSTEM HAS BEEN COMPLETED, THE CONTRACTOR SHALL INSTRUCT OWNER'S AUTHORIZED REPRESENTATIVE IN THE OPERATION AND MAINTENANCE OF THE IRRIGATION SYSTEM AND SHALL FURNISH A COMPLETE SET OF OPERATING AND MAINTENANCE INSTRUCTIONS.

- D. ANY SETTLING OF TRENCHES WHICH MAY OCCUR DURING THE ONE-YEAR PERIOD FOLLOWING ACCEPTANCE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION BY THE CONTRACTOR WITHOUT ANY ADDITIONAL EXPENSE TO THE OWNER. REPAIRS SHALL INCLUDE THE COMPLETE RESTORATION OF ALL DAMAGE TO PLANTING, PAVING OR OTHER IMPROVEMENTS OF ANY KIND AS A RESULT OF THE WORK.

1.11 GUARANTEE

- A. THE ENTIRE SPRINKLER SYSTEM, INCLUDING ALL WORK DONE UNDER THIS CONTRACT, SHALL BE UNCONDITIONALLY GUARANTEED AGAINST ALL DEFECTS AND FAULT OF MATERIAL AND WORKMANSHIP, INCLUDING SETTLING OF BACK FIELD AREAS BELOW GRADE, FOR A PERIOD OF ONE (1) YEAR FOLLOWING THE FILING OF THE NOTICE OF COMPLETION. SHOULD ANY PROBLEM WITH THE IRRIGATION SYSTEM BE DISCOVERED WITHIN THE GUARANTEE PERIOD, IT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO OWNER WITHIN TEN (10) CALENDAR DAYS OF RECEIPT OF WRITTEN NOTICE FROM OWNER. WHEN THE NATURE OF THE REPAIRS AS DETERMINED BY THE OWNER CONSTITUTE AN EMERGENCY (I.E. BROKEN PRESSURE LINE) THE OWNER MAY PROCEED TO MAKE REPAIRS AT THE CONTRACTOR'S EXPENSE. ANY AND ALL DAMAGES TO EXISTING IMPROVEMENT RESULTING EITHER FROM FAULTY MATERIALS OR WORKMANSHIP, OR FROM THE NECESSARY REPAIRS TO CORRECT SAME, SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER BY THE CONTRACTOR, ALL AT NO ADDITIONAL COST TO THE OWNER.

- B. GUARANTEE SHALL BE SUBMITTED ON CONTRACTORS OWN LETTERHEAD AS FOLLOWS: GUARANTEE FOR SPRINKLER IRRIGATION SYSTEM WE HEREBY GUARANTEE THAT THE SPRINKLER IRRIGATION SYSTEM WE HAVE FURNISHED AND INSTALLED IS FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP, AND THE WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, ORDINARY WEAR AND TEAR AND UNUSUAL ABUSE, OR NEGLECT EXCEPTED. WE AGREE TO REPAIR OR REPLACE ANY DEFECTIVE MATERIAL

DURING THE PERIOD OF ONE YEAR FROM DATE OF FILING OF THE NOTICE OF COMPLETION AND ALSO TO REPAIR OR REPLACE ANY DAMAGE RESULTING FROM THE REPAIRING OR REPLACING OF SUCH DEFECTS AT NO ADDITIONAL COST TO THE OWNER. WE SHALL MAKE SUCH REPAIRS OR REPLACEMENTS WITHIN 10 CALENDAR DAYS FOLLOWING WRITTEN NOTIFICATION BY THE OWNER. IN THE EVENT OF OUR FAILURE TO MAKE SUCH REPAIRS OR REPLACEMENTS WITHIN THE TIME SPECIFIED AFTER RECEIPT OF WRITTEN NOTICE FROM OWNER, WE AUTHORIZE THE OWNER TO PROCEED TO HAVE SAID REPAIRS OR REPLACEMENTS MADE AT OUR EXPENSE AND WE WILL PAY THE COSTS AND CHARGES THEREFORE UPON DEMAND.

PROJECT NAME:
PROJECT LOCATION:
CONTRACTOR NAME:
ADDRESS:
TELEPHONE:
SIGNED:
DATE:

PART II – MATERIALS

2.01 SUMMARY

- USE ONLY NEW MATERIALS OF THE MANUFACTURER, SIZE AND TYPE SHOWN ON THE DRAWINGS AND SPECIFICATIONS. MATERIALS OR EQUIPMENT INSTALLED OR FURNISHED THAT DO NOT MEET LANDSCAPE ARCHITECT'S, OWNER'S, OR GOVERNING AGENCIES STANDARDS WILL BE REJECTED AND SHALL BE REMOVED FROM THE SITE AT NO EXPENSE TO THE OWNER.

2.02 PIPE

- A. PRESSURE SUPPLY LINE FROM POINT OF CONNECTION THROUGH BACKFLOW PREVENTION UNIT SHALL BE TYPE K "HARD" COPPER PIPE OR BRASS NIPPLES (LENGTH AS REQUIRED).

- B. PRESSURE SUPPLY LINES 2 INCHES IN DIAMETER AND UP TO 2.5 INCHES IN DIAMETER DOWNSTREAM OF BACKFLOW PREVENTION UNIT SHALL BE CLASS 315 SOLVENT WELD PVC. PIPING SHALL CONFORM TO ASTM D2241.

- C. PRESSURE SUPPLY LINES 3 INCHES IN DIAMETER AND UP TO 8 INCHES IN DIAMETER DOWNSTREAM OF BACKFLOW PREVENTION UNIT SHALL BE CLASS 200 GASKET JOINT PVC. PIPING SHALL CONFORM TO ASTM D2241.

- D. PRESSURE SUPPLY LINES 1.5 INCHES IN DIAMETER AND SMALLER OF THE BACKFLOW PREVENTION UNIT SHALL BE SCHEDULE 40 SOLVENT WELD PVC CONFORMING TO ASTM D1785.

- E. NON-PRESSURE LINES .75 INCHES IN DIAMETER AND LARGER DOWNSTREAM OF THE REMOTE CONTROL VALVE SHALL BE SCH. 40 PVC.

- F. ALL SPECIALIZED PIPING SHALL BE AS INDICATED ON THE DRAWING LEGEND OR DETAILS.

2.03 METAL PIPE AND FITTINGS

- A. BRASS PIPE SHALL BE 85 PERCENT RED BRASS, ANSI, IPS STANDARD 125 POUNDS, SCHEDULE 40 SCREWED PIPE.

- B. BRASS FITTINGS SHALL BE MEDIUM BRASS, SCREWED 125-POUND CLASS.

- C. COPPER PIPE SHALL BE "HARD" TYPE K OR AS NOTED ON THE DRAWING LEGEND OR DETAILS.

- D. COPPER FITTINGS SHALL BE SOLDERED TYPE.

2.04 PLASTIC PIPE AND FITTINGS

- A. PIPE SHALL BE MARKED CONTINUOUSLY WITH MANUFACTURER'S NAME, NOMINAL PIPE SIZE, SCHEDULE OR CLASS, PVC TYPE AND GRADE, NATIONAL SANITATION FOUNDATION APPROVAL, COMMERCIAL STANDARDS DESIGNATION, AND DATE OF EXTRUSION.

- B. ALL PLASTIC PIPE SHALL BE EXTRUDED OF AN IMPROVED PVC VIRGIN PIPE COMPOUND IN ACCORDANCE WITH ASTM D2241 OR ASTM D1784.

- C. ALL PVC FITTINGS SHALL BE STANDARD WEIGHT SCHEDULE 40 AND SHALL BE INJECTION MOLDED OF AN IMPROVED VIRGIN PVC FITTING COMPOUND. SLIP PVC FITTINGS SHALL BE THE "DEEP SOCKET" BRACKETED TYPE. THREADED PLASTIC FITTINGS SHALL BE INJECTION MOLDED. ALL TEES AND ELLS SHALL BE SIDE GATED. ALL FITTINGS SHALL CONFORM TO ASTM D2466.

- D. ALL THREADED NIPPLES SHALL BE STANDARD WEIGHT SCHEDULE 80 WITH MOLDED THREADS AND SHALL CONFORM TO ASTM D1785.

- E. ALL SOLVENT CEMENTING OF PLASTIC PIPE AND FITTINGS SHALL BE A TWO-STEP PROCESS, USING PRIMER AND SOLVENT CEMENT APPLIED PER THE MANUFACTURER'S RECOMMENDATIONS. CEMENT SHALL BE OF A FLUID CONSISTENCY, NOT GEL-LIKE OR ROPY. SOLVENT CEMENTING SHALL BE IN CONFORMANCE WITH ASTM D2564 AND ASTM D2855.

- F. WHEN CONNECTION IS PLASTIC TO METAL, FEMALE ADAPTERS SHALL BE HAND TIGHTENED, PLUS ONE TURN WITH A STRAP WRENCH. JOINT COMPOUND SHALL BE NON-LEAD BASE TEFLON PASTE, TAPE, OR EQUAL.



AS-BUILT

By: _____ Date: _____

R.C.E.: _____ Exp: _____

SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APP'D	DATE	RECOMMENDED FOR APPROVAL	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH	ENGINEERING DEPARTMENT	DRAWING NO.
By: _____ Fire Chief	Reviewed By: District Representative	By: _____ Date: _____				By: _____ Date: _____	By: _____ Date: _____ Mohammad Sammak, City Engineer R.C.E.: 37146 Exp: 6/30/20	THE BENCHMARK FOR THIS SURVEY IS G.P.S. STATION NO. 2001 (SOLB-1) 2.5" CITY OF SOLANA BEACH BRASS DISC ON CONCRETE DRAINAGE INLET ON THE EAST SHOULDER OF HIGHWAY 101, 0.1 MILE SOUTH OF LOMAS SANTA FE DRIVE. ELEV.: 69.28 N.G.V.D. 29 DATUM: M.S.L.	IMPROVEMENT PLANS FOR: SOLANA BEACH 101		CG-3180
		Drawn By				By: _____ Date: _____					Sheet 15 of 18

IRRIGATION SPECIFICATIONS

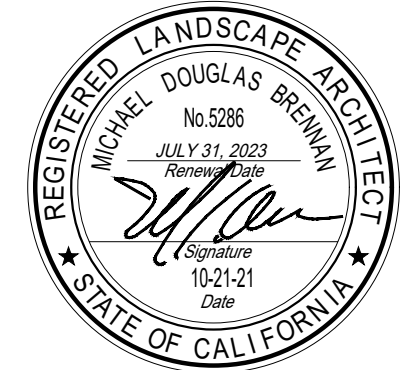
PART II – MATERIALS (CONT.)

- 2.05 BACKFLOW PREVENTION UNITS
- A. THE BACKFLOW PREVENTION UNIT SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
- B. THE BACKFLOW PREVENTION UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH BY LOCAL CODES.
- C. THE BACKFLOW PREVENTION ASSEMBLY SHALL CONSIST OF BRASS PIPING, UNIONS AND FITTINGS.
- 2.06 VALVES
- A. GATE VALVES:
1. GATE VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
2. GATE VALVES SHALL BE CONSTRUCTED OF A BRONZE BODY, BONNET AND DISC, AND A MALLEABLE IRON HANDWHEEL. GATE VALVES SHALL HAVE THREADED CONNECTIONS.
3. ALL GATE VALVES SHALL HAVE A MINIMUM WORKING PRESSURE OF NOT LESS THAN 150 PSI AND SHALL CONFORM TO AWWA STANDARDS.
- B. BALL VALVES:
1. BALL VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
2. BALL VALVES SHALL BE CONSTRUCTED OF A BRONZE BODY, STAINLESS STEEL BALL AND STEM, MALLEABLE IRON HANDLE. BALL VALVES SHALL HAVE THREADED CONNECTIONS.
3. ALL BALL VALVES SHALL HAVE A MINIMUM WORKING PRESSURE OF NOT LESS THAN 150 PSI AND SHALL CONFORM TO AWWA STANDARDS.
- C. QUICK COUPLER VALVES:
1. QUICK COUPLER VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
2. QUICK COUPLER VALVES SHALL BE BRASS WITH A WALL THICKNESS GUARANTEED TO WITHSTAND NORMAL WORKING PRESSURE OF 150 PSI WITHOUT LEAKAGE. VALVES SHALL HAVE FEMALE THREADS OPENING AT BASE, WITH TWO-PIECE BODY. VALVES TO BE OPERATED ONLY WITH A COUPLER KEY, DESIGNED FOR THAT PURPOSE. COUPLER KEY IS INSERTED INTO VALVE AND A POSITIVE, WATERTIGHT CONNECTION SHALL BE MADE BETWEEN THE COUPLER KEY AND VALVE. HINGE COVER SHALL BE THE LOCKING TYPE CONSTRUCTED OF BRASS WITH A RUBBER-LIKE VINYL COVER.
3. VINYL QUICK COUPLER COVER FOR RECLAIMED WATER QUICK COUPLER VALVES TO BE PURPLE IN COLOR WITH THE WORDS "WARNING-RECYCLED (RECLAIMED) WATER-DO NOT DRINK PERMANENTLY" MARKED ON LID FOR RECYCLED SYSTEM.
- D. AUTOMATIC CONTROL VALVES:
1. AUTOMATIC CONTROL VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
2. AUTOMATIC CONTROL VALVES SHALL BE ELECTRICALLY OPERATED.
- E. ANTI-DRAIN VALVES:
1. ANTI-DRAIN VALVES SHALL BE OF THE MANUFACTURER, SIZE, AND TYPE INDICATED ON THE DRAWINGS.
2. ANTI-DRAIN VALVES SHALL HAVE 18-8 STAINLESS STEEL SPRINGS AND VALVE STEMS WITH BUNA-N SEALS.
3. ANTI-DRAIN VALVES WILL HAVE THREADED CONNECTIONS THE SIZE OF THE RISER OR PIPE THEY ARE TO BE INSTALLED ONTO, OR THE NEXT AVAILABLE SIZE. NO SLIP CONNECTION ANTI-DRAIN VALVES ARE ALLOWED.
- 2.07 VALVE BOXES
- A. VALVE BOXES SHALL BE FABRICATED FROM A DURABLE, WEATHER-RESISTANT PLASTIC MATERIAL RESISTANT TO SUNLIGHT AND CHEMICAL ACTION OF SOILS.
- B. THE VALVE BOX COVER SHALL BE GREEN IN COLOR AND SECURED WITH BOLTS.
- C. THE COVER AND BOX SHALL BE CAPABLE OF SUSTAINING A LOAD OF 1,500 POUNDS.
- D. VALVE BOX EXTENSIONS SHALL BE BY THE SAME MANUFACTURER AS THE VALVE BOX.
- E. AUTOMATIC CONTROL AND MASTER VALVE BOXES SHALL BE 16"x11"x12" RECTANGULAR SIZE. VALVE BOX COVERS SHALL BE "HEAT BRANDED" IN 2" HIGH LETTERS WITH EITHER "RCV" WITH THE VALVE IDENTIFICATION NUMBERS OR "MCV".
- F. SPECIALITY "JUMBO" BOXES MAY BE INDICATED ON DRAWINGS AND SHALL BE 25"x15"x12" RECTANGULAR SIZE.
- G. BALL VALVE, GATE VALVE, AND QUICK COUPLER VALVE BOXES SHALL BE CIRCULAR 10" SIZE. VALVE BOX COVERS SHALL BE "HEAT BRANDED" IN 2" HIGH LETTERS WITH EITHER "BV", "GV", OR "QCV".
- 2.08 IRRIGATION CONTROLLER
- A. CONTROLLER SHALL BE OF THE MANUFACTURER, SIZE AND TYPE INDICATED ON THE DRAWINGS.
- B. THE CONTROLLER ENCLOSURE SHALL BE OF THE MANUFACTURER, SIZE AND TYPE INDICATED ON THE DRAWINGS. THE ENCLOSURE SHALL ALSO ENCLOSE THE CONTROLLER ELECTRICAL METER.
- THE CONTROLLER SHALL BE OF THE MANUFACTURER, SIZE AND TYPE REQUIRED BY THE CITY OF SOLANA BEACH
- 2.09 ELECTRICAL
- A. ALL ELECTRICAL EQUIPMENT SHALL BE NEMA TYPE 3, WATERPROOFED FOR EXTERIOR INSTALLATIONS.
- B. ALL ELECTRICAL WORK SHALL CONFORM TO LOCAL CODES AND ORDINANCES.
- 2.10 LOW VOLTAGE CONTROL WIRING
- A. REMOTE CONTROL WIRE SHALL BE DIRECT-BURIAL AWG-UF TYPE, SIZE AS INDICATED ON THE DRAWINGS, AND IN NO CASE SMALLER THAN 14 GAUGE.
- B. CONNECTIONS SHALL BE EITHER EPOXY-SEALED PACKET TYPE OR PENN-TITE CONNECTORS. SPLICES ARE NOT ACCEPTABLE
- C. COMMON WIRES SHALL BE WHITE IN COLOR, AND IN NO CASE SMALLER THAN 14 GAUGE. CONTROL WIRES SHALL BE RED (WHERE TWO OR MORE CONTROLLERS ARE USED), THE CONTROL WIRES SHALL BE A DIFFERENT COLOR FOR EACH CONTROLLER.
- D. TWO ADDITIONAL WIRES SHALL BE RUN FROM THE CONTROLLERS TO THE LAST VALVE/VALVE MANIFOLD ON THE MAINLINE. AN ADDITIONAL TWO WIRES SHALL BE RUN FOR EACH SPLIT IN THE MAINLINE. A TRACER WIRE SHALL BE RUN ALONG THE ENTIRE LENGTH OF THE MAINLINE.
- E. GROUND WIRES SHALL BE GREEN IN COLOR, AND IN NO CASE SMALLER THAN 6 GAUGE.
- F. PROVIDE A 24" LONG EXPANSION LOOP FOR ALL DIRECTIONAL CHANGES IN CONTROL WIRE ROUTING.
- 2.11 IRRIGATION HEADS
- A. SPRINKLER HEADS SHALL BE OF THE MANUFACTURER SIZE, TYPE, WITH RADIUS OF THROW, OPERATING PRESSURE, AND DISCHARGE RATE INDICATED ON THE DRAWINGS.
- B. POP-UP HEADS AND RISER HEADS SHALL BE USED AS INDICATED ON THE DRAWINGS.

PART III – EXECUTION

- 3.01 SITE CONDITIONS
- A. INSPECTIONS:
1. PRIOR TO ALL WORK OF THIS SECTION, CAREFULLY INSPECT THE INSTALLED WORK OF ALL OTHER TRADES AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE.
2. VERIFY THAT IRRIGATION SYSTEM MAY BE INSTALLED IN STRICT ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS, THE ORIGINAL DESIGN, THE REFERENCED STANDARDS, AND THE MANUFACTURER'S RECOMMENDATIONS.
- B. DISCREPANCIES:
1. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.
2. DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL DISCREPANCIES HAVE BEEN RESOLVED.
- C. GRADES:
1. BEFORE STARTING WORK, CAREFULLY CHECK ALL GRADES TO DETERMINE THAT WORK MAY SAFELY PROCEED, KEEPING WITHIN THE SPECIFIED MATERIAL DEPTHS WITH RESPECT TO FINISH GRADE.
2. FINAL GRADES SHALL BE ACCEPTED BY THE ENGINEER BEFORE WORK ON THIS SECTION WILL BE ALLOWED TO BEGIN.
- D. FIELD MEASUREMENTS:
1. MAKE ALL NECESSARY MEASUREMENTS IN THE FIELD TO ENSURE PRECISE FIT OF ITEMS IN ACCORDANCE WITH THE ORIGINAL DESIGN. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL IRRIGATION MATERIALS WITH ALL OTHER WORK.
2. ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SIZE DIMENSIONS PRIOR TO PROCEEDING WITH WORK UNDER THIS SECTION.
3. EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR EXISTING UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY HIS OPERATIONS' NEGLIGENCE.
- E. DIAGRAMMATIC INTENT:
THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC. THE SIZE AND LOCATION OF EQUIPMENT AND FIXTURES ARE DRAWN TO SCALE WHERE POSSIBLE. PROVIDE OFFSETS IN PIPING CHANGES IN EQUIPMENT LOCATIONS AS NECESSARY TO CONFORM WITH STRUCTURES AND TO AVOID OBSTRUCTIONS OR CONFLICTS WITH OTHER WORK AT NO ADDITIONAL EXPENSE TO OWNER.
- F. LAYOUT:
1. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS, VALVES, BACKFLOW PREVENTER, AND AUTOMATIC CONTROLLER.
2. LAYOUT IRRIGATION SYSTEM AND MAKE MINOR ADJUSTMENTS REQUIRED DUE TO DIFFERENCES BETWEEN SITE AND DRAWINGS. WHERE PIPING IS SHOWN ON DRAWINGS UNDER PAVED AREAS, BUT RUNNING PARALLEL AND ADJACENT TO PLANTED AREAS, INSTALL THE PIPING IN THE PLANTED AREAS.
- G. WATER SUPPLY CONNECTIONS TO, OR THE INSTALLATION OF, THE WATER SUPPLY SHALL BE AT THE LOCATIONS SHOWN ON THE DRAWINGS. MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS SHALL BE MADE AT NO ADDITIONAL EXPENSE TO OWNER.
- H. ELECTRICAL SERVICE:
1. CONNECTIONS TO THE ELECTRICAL SUPPLY SHALL BE AT THE LOCATIONS SHOWN ON THE DRAWINGS. MINOR CHANGES CAUSED BY SITE CONDITIONS SHALL BE MADE AT NO ADDITIONAL EXPENSE TO OWNER.
2. CONTRACTOR SHALL MAKE 120 VOLT CONNECTION TO THE IRRIGATION CONTROLLERS. ELECTRICAL POWER SOURCE TO CONTROLLER LOCATIONS SHALL BE PROVIDED BY OTHERS.
- 3.02 TRENCHING
- A. EXCAVATIONS SHALL BE STRAIGHT WITH VERTICAL SIDES, EVEN GRADE, AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. TRENCHING EXCAVATION SHALL FOLLOW LAYOUT INDICATED ON DRAWINGS TO THE DEPTHS BELOW FINISHED GRADE AND AS NOTED. WHERE LINES OCCUR UNDER PAVED AREA, THESE DIMENSIONS SHALL BE CONSIDERED BELOW SUBGRADE.
- B. PROVIDE MINIMUM COVER OF 18 INCHES ON PRESSURE SUPPLY LINES 2 1/2 INCHES AND SMALLER, PROVIDE MINIMUM COVER OF 24 INCHES ON PRESSURE SUPPLY LINES 3 INCHES, AND 36 INCHES OF COVER ON PRESSURE SUPPLY LINES 4 INCH AND LARGER.
- C. PROVIDE MINIMUM COVER OF 18 INCHES FOR CONTROL WIRES.
- D. PROVIDE MINIMUM COVER OF 12 INCHES FOR NON-PRESSURE LINES.
- E. PIPES INSTALLED IN A COMMON TRENCH SHALL HAVE A 4 INCH MINIMUM SPACE BETWEEN PIPES.
- F. PROVIDE SAND BACKFILL A MINIMUM OF 4 INCHES OVER AND UNDER ALL MAINLINE PIPING.
- 3.03 BACKFILLING
- A. BACKFILL MATERIAL ON ALL LINES SHALL BE THE SAME AS ADJACENT SOIL FREE OF DEBRIS, LITTER, AND ROCKS OVER 1/2 INCH IN DIAMETER.
- B. BACKFILL SHALL BE TAMPED IN 4-INCH LAYERS UNDER THE PIPE AND UNIFORMLY ON BOTH SIDES FOR THE FULL WIDTH OF THE TRENCH AND THE FULL LENGTH OF THE PIPE. BACKFILL MATERIALS SHALL BE SUFFICIENTLY DAMP TO PERMIT THOROUGH COMPACTION, FREE OF VOIDS. BACKFILL SHALL BE COMPACTED TO DRY DENSITY EQUAL TO ADJACENT UNDISTURBED SOIL AND SHALL CONFORM TO ADJACENT GRADES.
- C. FLOODING IN LIEU OF TAMPING IS NOT ALLOWED.
- D. UNDER NO CIRCUMSTANCES SHALL TRUCK WHEELS BE USED TO COMPACT BACKFILL.
- E. PROVIDE SAND BACKFILL A MINIMUM OF 6 INCHES OVER AND UNDER ALL PIPING UNDER PAVED AREAS.
- 3.04 PIPING
- A. PIPING UNDER EXISTING PAVEMENT MAY BE INSTALLED BY JACKING, BORING, OR HYDRAULIC DRIVING. NO HYDRAULIC DRIVING IS PERMITTED UNDER ASPHALT PAVEMENT.
- B. CUTTING OR BREAKING OF EXISTING PAVEMENT IS NOT PERMITTED.
- C. CAREFULLY INSPECT ALL PIPE AND FITTINGS BEFORE INSTALLATION, REMOVING DIRT, SCALE, BURRS REAMING. INSTALL PIPE WITH ALL MARKINGS UP FOR VISUAL INSPECTION AND VERIFICATION.
- D. REMOVE ALL DENTED AND DAMAGED PIPE SECTIONS.
- E. ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM EACH OTHER AND 12 INCHES FROM LINES OF OTHER TRADES.
- F. PARALLEL LINES SHALL NOT BE INSTALLED DIRECTLY OVER EACH OTHER.
- G. IN SOLVENT WELDING, USE ONLY THE SPECIFIED PRIMER AND SOLVENT CEMENT AND MAKE ALL JOINTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHODS INCLUDING WIPING ALL EXCESS SOLVENT FROM EACH WELD. ALLOW SOLVENT WELDS AT LEAST 15 MINUTES SETUP TIME BEFORE MOVING OR HANDLING AND 24 HOURS CURING TIME BEFORE FILLING.
- H. PVC PIPE SHALL BE INSTALLED IN A MANNER WHICH WILL PROVIDE FOR EXPANSION CONTRACTION AS RECOMMENDED BY THE PIPE MANUFACTURER.
- I. CENTERLOAD ALL PLASTIC PIPE PRIOR TO PRESSURE TESTING.
- J. ALL THREADED PLASTIC-TO-PLASTIC CONNECTIONS SHALL BE ASSEMBLED USING TEFLON TAPE OR TEFLON PASTE.
- K. FOR PLASTIC-TO-METAL CONNECTIONS, WORK THE METAL CONNECTIONS FIRST. USE A NON-HARDENING PIPE DOPE AN ALL THREADED PLASTIC-TO-METAL CONNECTIONS, EXCEPT WHERE NOTED OTHERWISE. ALL PLASTIC-TO-METAL CONNECTIONS SHALL BE MADE WITH PLASTIC FEMALE ADAPTERS.
- L. ALL CONNECTIONS BETWEEN PVC LATERAL LINES SHALL BE MADE USING SCH. 40 PVC FITTINGS WITH COMPRESSION ADAPTERS. ALL CONNECTIONS BETWEEN DRIPPERLINES TO BE MADE USING COMPRESSION FITTINGS OF MANUFACTURER OF THE DRIPPERLINE. USE NO PIPE DOPE, TEFLON TAPE, PRIMER OR SOLVENT CEMENT ON COMPRESSION FITTINGS.
- 3.05 CONTROLLER
- A. THE EXACT LOCATION OF THE CONTROLLER SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE BEFORE INSTALLATION. THE ELECTRICAL SERVICE SHALL BE COORDINATED WITH THIS LOCATION.
- B. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL ELECTRICAL HOOK UP TO IRRIGATION CONTROLLER.
- C. THE IRRIGATION SYSTEM SHALL BE PROGRAMMED TO OPERATE DURING THE PERIODS OF MINIMAL USE OF THE DESIGN AREA.
- D. INSTALL CONTROLLER ENCLOSURE AS RECOMMENDED BY THE MANUFACTURER.
- 3.06 CONTROL WIRING
- A. LOW VOLTAGE CONTROL WIRING SHALL OCCUPY THE SAME TRENCH AND SHALL BE INSTALLED ALONG THE SAME ROUTE AS THE PRESSURE SUPPLY LINES WHENEVER POSSIBLE.
- B. WHERE MORE THAN ONE WIRE IS PLACED IN A TRENCH, THE WIRING SHALL BE TAPED TOGETHER IN A BUNDLE AT INTERVALS OF 10 FEET. BUNDLE SHALL BE SECURED TO THE MAINLINE WITH TAPE AT INTERVALS OF 20 FEET.
- C. ALL CONNECTIONS SHALL BE OF AN APPROVED TYPE AND SHALL OCCUR IN A VALVE BOX. PROVIDE AN 18 INCH SERVICE LOOP AT EACH CONNECTION.
- D. AN EXPANSION LOOP OF 12 INCHES SHALL BE PROVIDED AT EACH WIRE CONNECTION AND/OR DIRECTIONAL CHANGE, AND ONE OF 24 INCHES SHALL BE PROVIDED AT EACH REMOTE CONTROL VALVE.
- E. A CONTINUOUS RUN OF WIRE SHALL BE USED BETWEEN A CONTROLLER AND EACH REMOTE CONTROL VALVE. UNDER NO CIRCUMSTANCES SHALL SPLICES BE USED WITHOUT PRIOR APPROVAL.
- 3.07 VALVES
- A. AUTOMATIC CONTROL VALVES, BALL VALVES, GATE VALVES, AND QUICK COUPLER VALVES SHALL BE INSTALLED IN THE APPROXIMATE LOCATIONS INDICATED ON THE DRAWINGS.
- B. VALVE SHALL BE INSTALLED IN SHRUB AREAS WHENEVER POSSIBLE.
- C. INSTALL ALL VALVES AS INDICATED IN THE DETAIL DRAWINGS.
- D. VALVES TO BE INSTALLED IN VALVE BOXES SHALL BE INSTALLED ONE VALVE PER BOX.
- E. REMOTE CONTROL VALVES AND QUICK COUPLER VALVES SHALL BE ISOLATED FROM THE MAINLINE BY A BALL VALVE SIZED PER THE LARGEST R.C.V. IN THE MANIFOLD OR 1 1/2 INCH FOR Q.C.V.'S.
- 3.08 VALVE BOXES
- A. VALVE BOXES SHALL BE INSTALLED IN SHRUB AREAS WHENEVER POSSIBLE.
- B. EACH VALVE BOX SHALL BE INSTALLED ON A FOUNDATION OF 3/4 INCH GRAVEL BACKFILL, 2 CUBIC FEET MINIMUM. VALVE BOXES SHALL BE INSTALLED WITH THEIR TOPS 1/2 INCH ABOVE THE SURFACE OF SURROUNDING FINISH GRADE IN LAWN AREAS AND 3 INCHES ABOVE FINISH GRADE IN GROUND COVER AREAS.
- 3.09 BACKFLOW PREVENTERS
- A. INSTALL BACKFLOW PREVENTER UNIT AS INDICATED IN THE DETAIL DRAWINGS.
- B. INSTALL BACKFLOW ASSEMBLIES AT LOCATIONS APPROVED IN THE FIELD AND AT HEIGHT REQUIRED BY LOCAL CODES.
- C. INSTALL WYE STRAINERS AND PRESSURE REGULATORS ON THE BACKFLOW ASSEMBLY.
- D. IF BACKFLOW PREVENTER IS INSTALLED ADJACENT TO A BUILDING, WALL, OR OTHER OBSTRUCTION, INSTALL UNIT SO THAT THE TEST COCKS ARE FACING OUTWARD AWAY FROM THE OBSTRUCTION.
- E. INSTALL BACKFLOW ENCLOSURE AS RECOMMENDED BY THE MANUFACTURER.
- 3.10 SPRINKLER HEADS
- A. SPRINKLER HEADS SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS.
- B. SPACING OF HEADS SHALL NOT EXCEED MAXIMUM INDICATED ON THE DRAWINGS.
- C. RISER NIPPLES SHALL BE OF THE SAME SIZE AS THE RISER OPENING IN THE SPRINKLER BODY.
- D. POP-UP SPRINKLER HEADS SHALL NOT BE INSTALLED USING SIDE OUTLET OPENINGS.
- E. RISER NIPPLES ON RECYCLED WATER SYSTEMS SHALL BE IDENTIFIED WITH ADHESIVE VINYL MARKERS BELOW SPRINKLER HEAD AND A MINIMUM OF 10 INCHES ABOVE FINISH GRADE.
- 3.11 MISCELLANEOUS EQUIPMENT
- A. INSTALL ALL ASSEMBLIES SPECIFIED HEREIN ACCORDING TO THE RESPECTIVE DETAIL DRAWINGS OR SPECIFICATIONS, USING BEST STANDARD PRACTICES.
- B. QUICK COUPLER VALVES SHALL BE SET APPROXIMATELY 12 INCHES FROM WALKS, CURBS, HEADER BOARDS, OR PAVED AREAS WHERE APPLICABLE.
- C. UNLESS DESIGNED AS AN INTEGRAL PART OF THE IRRIGATION HEAD, ANTI-DRAIN VALVES WILL BE INSTALLED UNDER EVERY HEAD. THE ANTI-DRAIN VALVE WILL BE THE SAME DIAMETER AS THE RISER AND BE INTEGRAL TO THE RISER ASSEMBLY.
- D. INSTALL RAIN SENSOR AS INDICATED ON THE DRAWINGS AND AS RECOMMENDED BY THE MANUFACTURER.
- 3.12 FLUSHING THE SYSTEM
- A. PRIOR TO INSTALLATION OF SPRINKLER NOZZLES, THE VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE LINES AND RISERS.
- B. SPRINKLER NOZZLES SHALL BE INSTALLED AFTER FLUSHING THE SYSTEM HAS BEEN COMPLETED.
- 3.13 ADJUSTING THE SYSTEM
- A. CONTRACTOR SHALL ADJUST VALVES, ALIGN HEADS, AND CHECK COVERAGE OF EACH SYSTEM PRIOR TO COVERAGE TEST.
- B. IF IT IS DETERMINED BY THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE THAT ADDITIONAL ADJUSTMENTS OR NOZZLE CHANGES WILL BE REQUIRED TO PROVIDE PROPER COVERAGE, ALL NECESSARY CHANGES OR ADJUSTMENTS SHALL BE MADE PRIOR TO ANY PLANTING.
- C. THE ENTIRE SYSTEM SHALL BE OPERATING PROPERLY BEFORE ANY PLANTING OPERATIONS COMMENCE.
- D. AUTOMATIC CONTROL VALVES ARE TO BE ADJUSTED SO THAT THE SPRINKLER HEADS OPERATE AT THE PRESSURE RECOMMENDED BY THE MANUFACTURER.
- 3.14 TESTING AND OBSERVATION
- A. DO NOT ALLOW OR CAUSE ANY OF THE WORK OF THIS SECTION TO BE COVERED UP OR ENCLOSED UNTIL IT HAS BEEN OBSERVED, TESTED AND ACCEPTED BY THE LANDSCAPE ARCHITECT, OWNER, AND GOVERNING AGENCIES.
- B. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR NOTIFYING THE LANDSCAPE ARCHITECT, OWNER, AND GOVERNING AGENCIES, A MINIMUM OF 48 HOURS IN ADVANCE, WHERE AND WHEN THE WORK IS READY FOR TESTING.
- C. WHEN THE SPRINKLER SYSTEM IS COMPLETED, THE CONTRACTOR SHALL PERFORM A COVERAGE TEST OF EACH SYSTEM IN ITS ENTIRETY TO DETERMINE IF THE WATER COVERAGE FOR THE PLANTED AREAS IS COMPLETE AND ADEQUATE IN THE PRESENCE OF THE LANDSCAPE ARCHITECT.
- D. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE DUE TO DEVIATIONS FROM THE PLANS, OR WHERE THE SYSTEM HAS BEEN WILLFULLY INSTALLED AS INDICATED ON THE DRAWINGS WHEN IT IS OBVIOUSLY INADEQUATE, WITHOUT BRINGING THIS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THIS TEST SHALL BE ACCEPTED BY THE LANDSCAPE ARCHITECT AND ACCOMPLISHED BEFORE STARTING ANY PLANTING.
- E. FINAL INSPECTION WILL NOT COMMENCE WITHOUT RECORD DRAWINGS AS PREPARED BY THE IRRIGATION CONTRACTOR.
- 3.15 MAINTENANCE
- DURING THE MAINTENANCE PERIOD THE CONTRACTOR SHALL ADJUST AND MAINTAIN THE IRRIGATION SYSTEM IN A FULLY OPERATIONAL CONDITION PROVIDING COMPLETE IRRIGATION COVERAGE TO ALL INTENDED PLANTINGS.
- 3.16 COMPLETION CLEANING
- CLEAN-UP SHALL BE MADE AS EACH PORTION OF THE WORK PROGRESSES. REFUSE AND EXCESS DIRT SHALL BE REMOVED FROM THE SITE, ALL WALKS AND PAVING SHALL BE BROOMED, AND ANY DAMAGE SUSTAINED ON THE WORK OF OTHERS SHALL BE REPAIRED TO ORIGINAL CONDITIONS.

END OF SECTION



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By: _____ Date: _____
R.C.E.: _____ Exp: _____

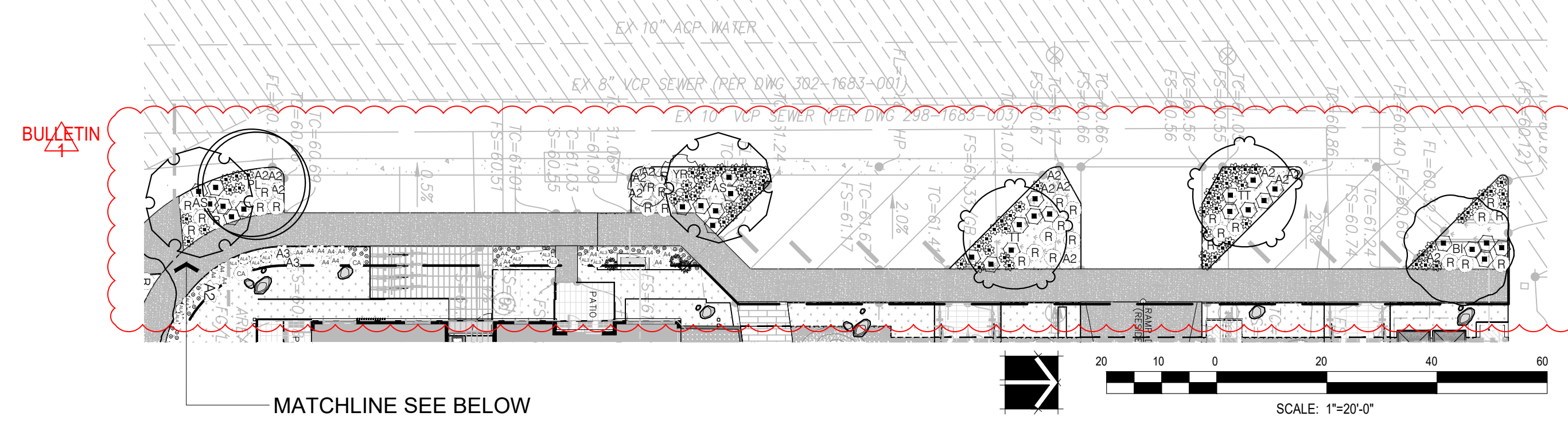
SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APP'D	DATE	RECOMMENDED FOR APPROVAL	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH	ENGINEERING DEPARTMENT	DRAWING NO.
By: _____ Fire Chief Date: _____	Reviewed By: _____ District Representative Date: _____	By: _____ Date: _____				By: _____ Date: _____	By: _____ Date: _____ Mohammad Sammak, City Engineer R.C.E.: 37146 Exp: 6/30/20	THE BENCHMARK FOR THIS SURVEY IS G.P.S. STATION NO. 2001 (SOLB-1) 2.5" CITY OF SOLANA BEACH BRASS DISC ON CONCRETE DRAINAGE INLET ON THE EAST SHOULDER OF HIGHWAY 101, 0.1 MILE SOUTH OF LOMAS SANTA FE DRIVE. ELEV.: 69.28 N.G.V.D. 29 DATUM: M.S.L.	IMPROVEMENT PLANS FOR: SOLANA BEACH 101		CG-3180
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PLANT SCHEDULE

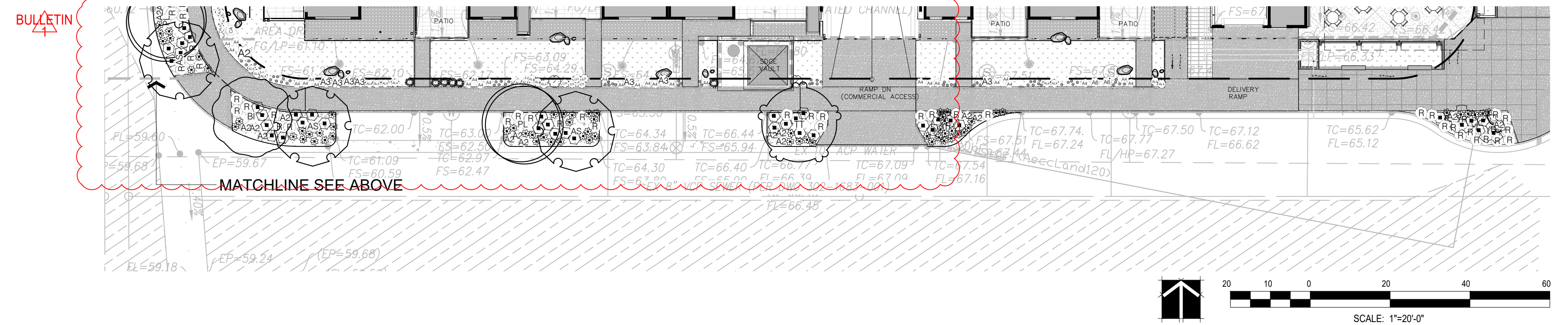
TREES	BOTANICAL NAME	COMMON NAME	CONTAINER	WUCOLS	QTY	MAX HT.
AS	Acacia stenophylla	Shoestring Acacia STD	48" box	LOW	4	25'
BS	Banksia integrifolia	Coast Banksia STD	36" BOX	VERY LOW	2	40'
PL	Platanus racemosa	California Sycamore STD	48" box	MEDIUM	2	30'
TT	Tipuana tipu	Tipu Tree STD	48" box	LOW	3	30'
SHRUBS	BOTANICAL NAME	COMMON NAME	CONTAINER	WUCOLS	QTY	MAX HT.
A2	Agave attenuata	Foxtail Agave	15 gal.	LOW	48	<5'
A3	Agave filifera	Century Plant	5 gal.	LOW	9	<5'
A4	Agave parryi couesii	Parry's Agave	5 gal.	LOW	41	<5'
A6	Agave x 'Blue Glow'	Blue Glow Agave	5 gal.	LOW	2	<5'
AL3	Aloe striata	Coral Aloe	5 gal.	LOW	6	<5'
AL4	Aloe vera	Medicinal Aloe	15 gal.	LOW	209	<5'
AL4	Aloe vera	Medicinal Aloe	5 gal.	LOW	20	<5'
CA	Crassula arborescens	Silver Dollar Plant	5 gal.	LOW	2	<5'
DD	Dracaena draco	Dragon Tree	24" box	LOW	1	15'
LH	Lavandula heterophylla	Lavender	5 gal.	LOW	5	<5'
LM	Lomandra longifolia 'Breeze'	Dwarf Mat Rush	5 gal.	LOW	9	<5'
MC	Mahonia eurybracteata 'Soft Caress'	Soft Caress Mahonia	5 gal.	LOW	2	<5'
MG	Muhlenbergia rigens	Deer Grass	5 gal.	LOW	99	<5'
R	Rosmarinus officinalis 'Lockwood de Forest'	Dwarf Rosemary	5 gal.	LOW	91	<5'
S	Senecio serpens	Blue Chalksticks	1 gal.	LOW	99	<5'
YR	Yucca rostrata 'Sapphire Skies'	Sapphire Skies Beaked Blue Yucca	15 gal.	LOW	8	15'

NOTE:
*TYPICAL MAXIMUM HEIGHT. SPECIES HAS BEEN OBSERVED TO GROW TO A 50' HEIGHT IN RARE CONDITIONS

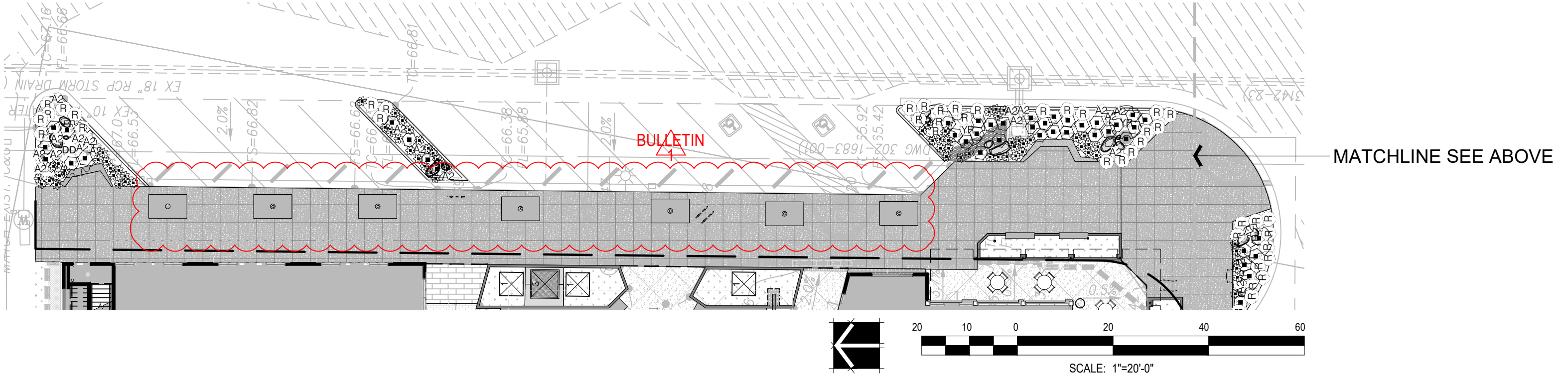
SIERRA AVENUE FRONTAGE



DAHLIA DRIVE FRONTAGE



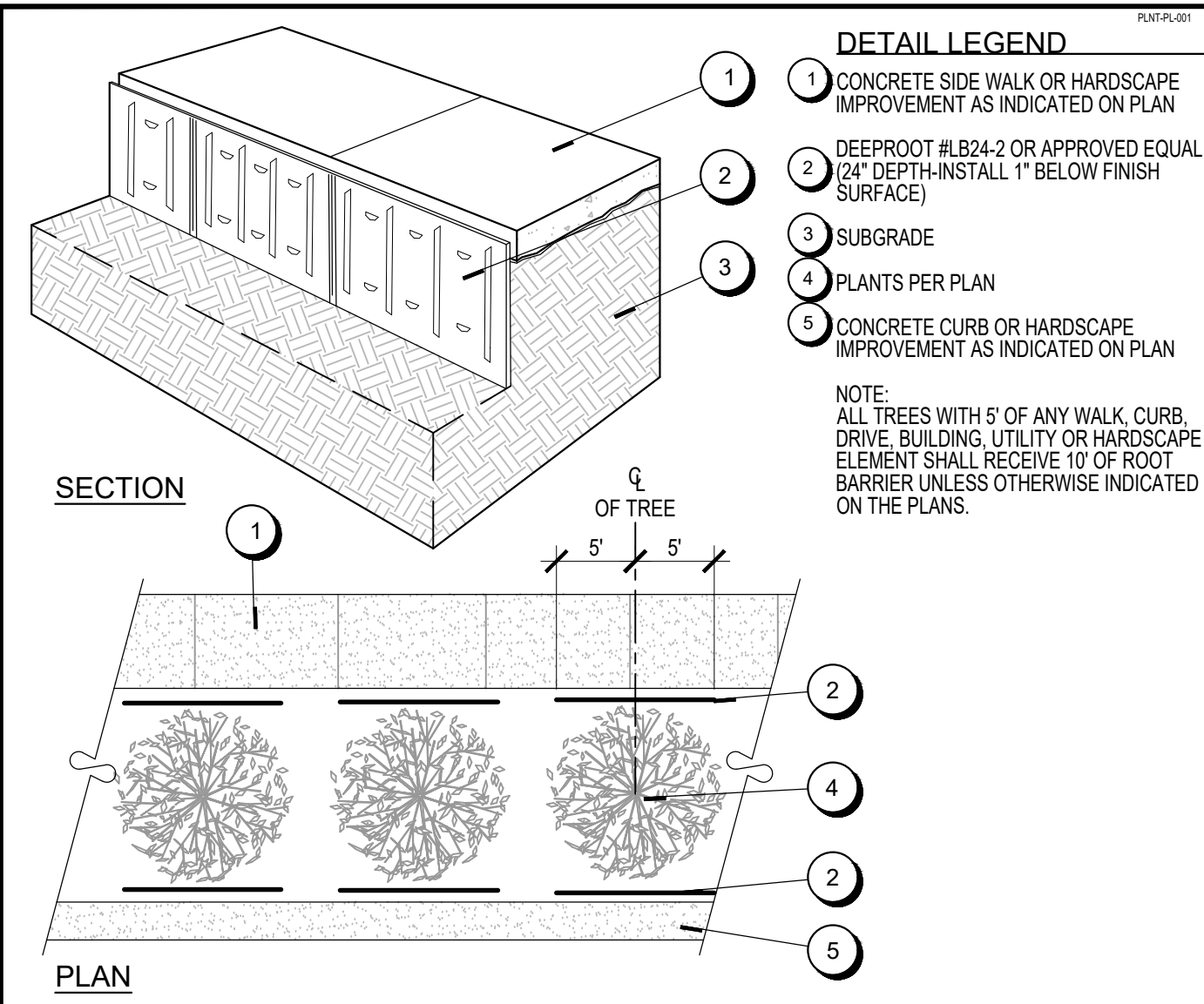
HIGHWAY 101 FRONTAGE



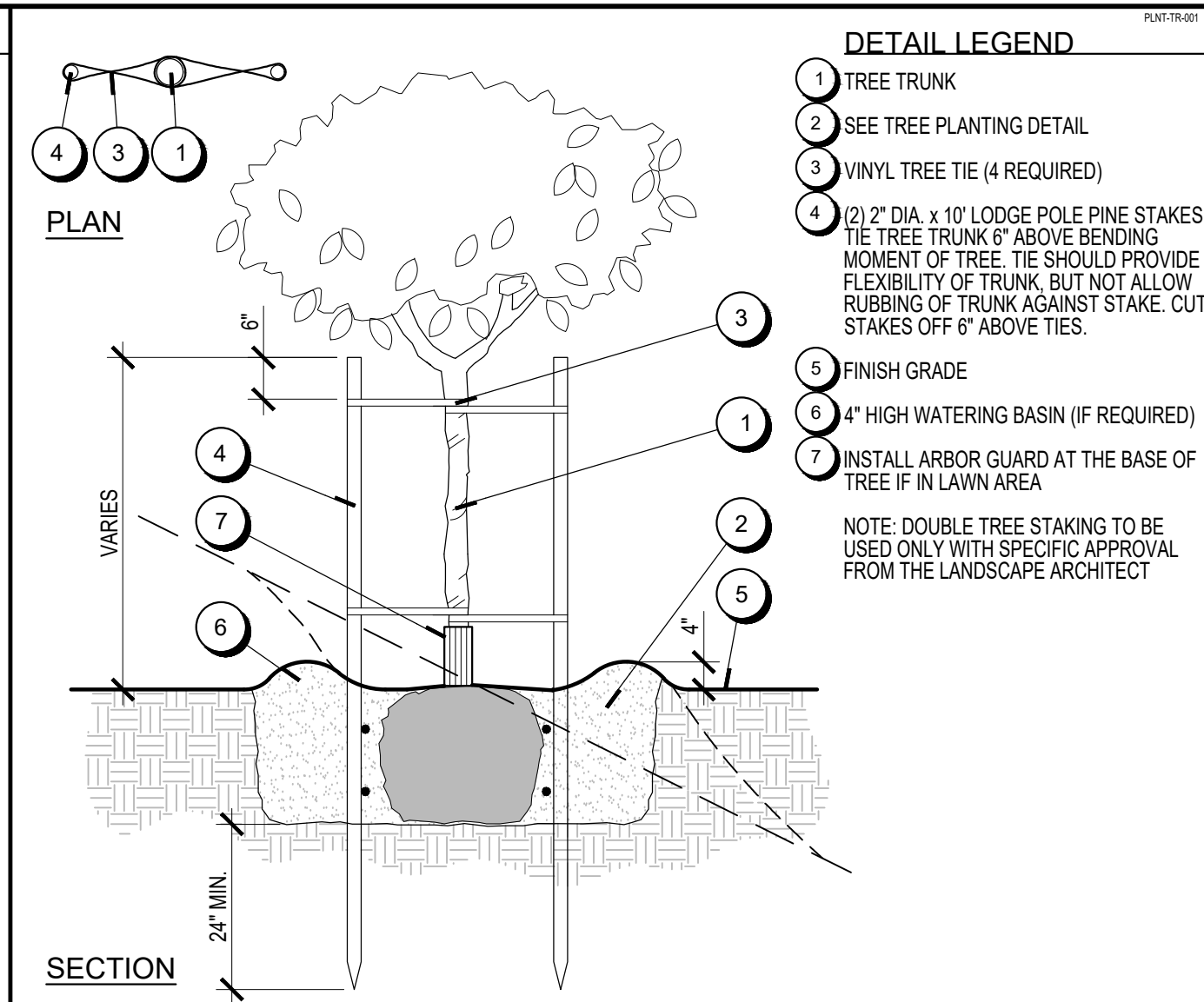
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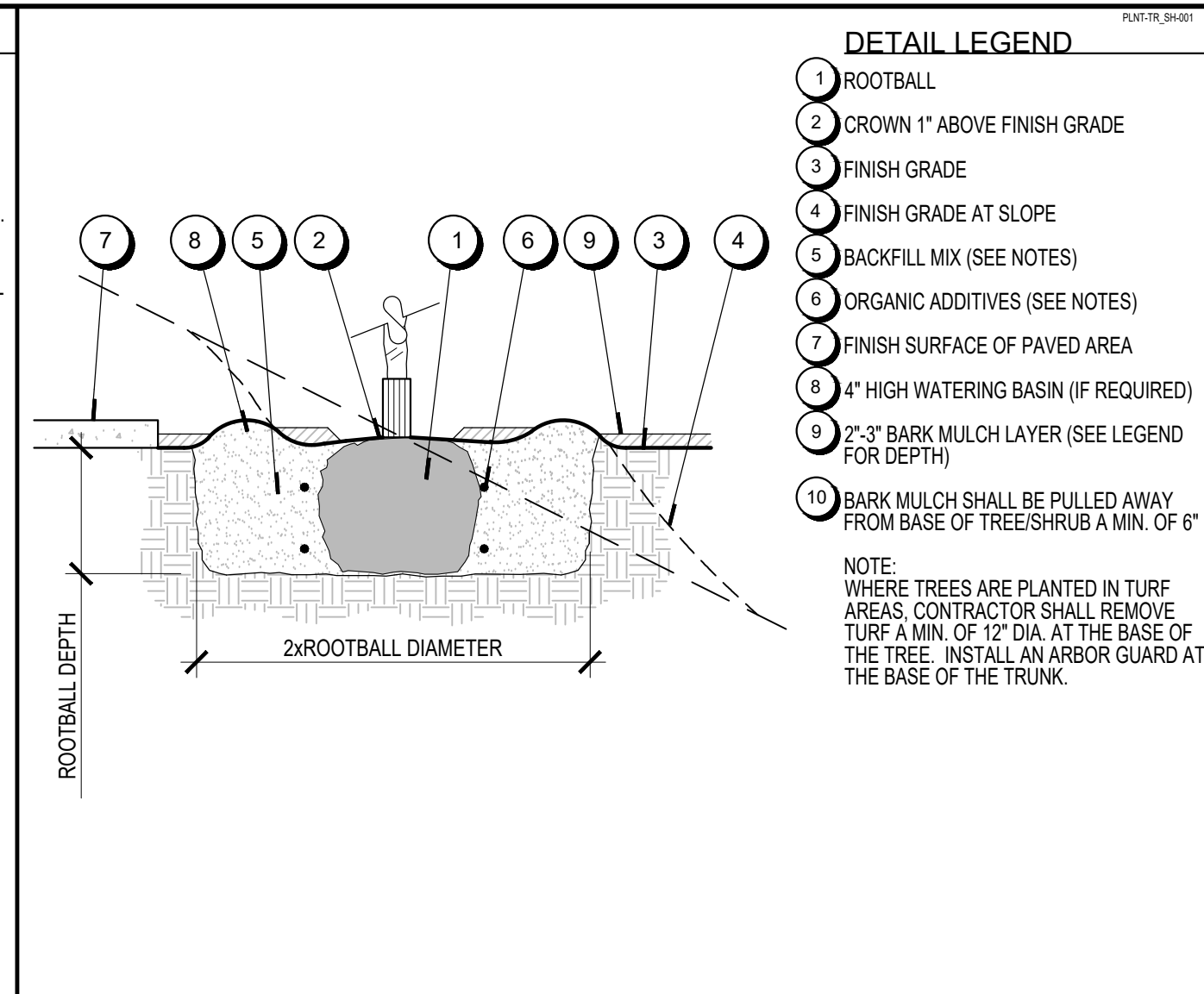
SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APP'D DATE	RECOMMENDED FOR APPROVAL	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH	ENGINEERING DEPARTMENT	DRAWING NO.
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ROOT BARRIER REVISED: 03/10/04 N.T.S.



TREE DOUBLE STAKING REVISED: 03/10/04 N.T.S.

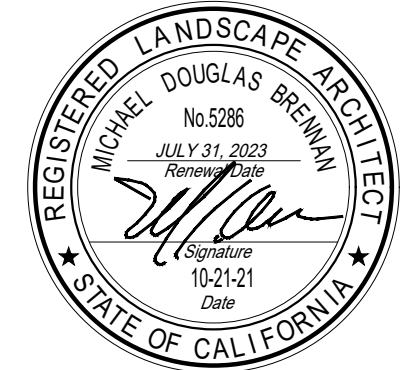


TREE AND SHRUB PLANTING REVISED: 03/10/04 N.T.S.

PLANTING AND SOIL SPECIFICATIONS

1. A. THE PLANTING PLAN IS DIAGRAMMATIC. ALL PLANT LOCATIONS ARE APPROXIMATE. PLANT SYMBOLS TAKE PRECEDENCE OVER PLANT QUANTITIES SPECIFIED.
- B. QUANTITIES SHOWN ON THE PLANTING PLAN ARE APPROXIMATE AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY.
- C. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF THE DISCREPANCIES BETWEEN QUANTITIES AND SYMBOLS SHOWN.
2. LANDSCAPE CONTRACTOR SHALL APPLY AN ORGANIC OR ALL NATURAL CONTACT HERBICIDE, WHERE WEEDS ARE PRESENT, PER MANUFACTURERS SPECIFICATIONS A MINIMUM OF TEN (10) DAYS PRIOR TO COMMENCEMENT OF ANY PLANTING OR IRRIGATION WORK. WEEDS SHALL BE ALLOWED TO COMPLETELY DIE BACK, INCLUDING THE ROOTS BEFORE PROCEEDING WITH WORK. AS AN ALTERNATIVE WEEDS MAY ALSO BE REMOVED MANUALLY FROM THE ROOTS.
3. A SOIL ANALYSIS REPORT SHALL BE PREPARED AND FOLLOWED. REPORT FINDINGS SHALL SUPERSEDE THE RECOMMENDATIONS HEREIN.
4. IMMEDIATELY FOLLOWING PLANTING, IRRIGATION SYSTEM SHALL BE FULLY OPERATIONAL AND PLANTING AREAS SHALL BE THOROUGHLY SOAKED.
5. ALL AREAS TO BE PLANTED, WHICH HAVE A SLOPE OF LESS THAN 10%, SHALL BE CROSS-RIPPED TO A DEPTH OF SIX (6") INCHES AND THE FOLLOWING AMENDMENTS SPREAD EVENLY AND THOROUGHLY BLENDED IN (QUANTITIES AS PER SOIL ANALYSIS AND MANUFACTURER'S RECOMMENDATION):
 - A. NITROGEN FORTIFIED REDWOOD SHAVINGS
 - B. ORGANIC FERTILIZER PER MANUFACTURER'S RECOMMENDATIONS
6. EACH PLANT SHALL RECEIVE ORGANIC FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS FOR EACH PLANT TYPE AND SIZE
7. PLANT BACK FILL SHALL BE 50% SITE SOIL, AND 50% ORGANIC AMENDMENTS BY VOLUME.
8. ALL PLANTING AREAS SHALL INCLUDE A MINIMUM OF FOUR (4) CUBIC YARDS OF COMPOST PER 1,000 SQ. FT. OF AREA TO A DEPTH OF SIX (6) INCHES.
9. PLANT PITS SHALL BE TWICE THE SIZE OF THE DESIGNATED NURSERY CONTAINER.
10. PLANT MATERIAL SHALL NOT BE ROOT BOUND. FIVE GALLON PLANTS AND LARGER SHALL HAVE BEEN GROWN IN CONTAINERS FOR A MINIMUM OF 6 MONTHS AND A MAXIMUM OF TWO YEARS.
11. PLANTS SHALL EXHIBIT HEALTHY GROWTH AND BE FREE OF DISEASES AND PESTS.
12. STAKE ALL TREES PER STANDARD DETAIL.
13. REMOVE NURSERY STAKES ON ALL VINES AND ATTACH TO ADJACENT FENCES WITH GALV. NAILS AND GREEN NURSERY TAPE OR AS SHOWN IN DETAILS.
14. REMOVE NURSERY STAKES AND TIES FROM ALL CONTAINER STOCK. MAINTAIN SIDE GROWTH ON ALL TREES.
15. PLANTS SHALL NOT BE PLACED WITHIN TWELVE (12") INCHES OF SPRINKLER HEADS.
16. SHRUBS SHOWN IN PLANT AREAS SHALL BE UNDER-PLANTED WITH GROUND COVER SHOWN BY ADJACENT SYMBOL, TO WITHIN 12" OF MAIN PLANT STEM.
17. LANDSCAPE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 2% DRAINAGE AWAY FROM ALL BUILDINGS, STRUCTURES, AND WALLS. NUISANCE ROCKS SHALL BE REMOVED AND FINISHED GRADES SHALL BE SMOOTHED TO ELIMINATE PUDDLING OR STANDING WATER. POSITIVE SURFACE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL BUILDINGS.
18. FINISHED GRADES SHALL BE ONE (1) INCH BELOW THE TOP OF CURBS, SILLS, AND WALKWAYS IN ALL AREAS. WHERE SOD IS LAID NEXT TO THESE IMPROVEMENTS-FINISH GRADE BEFORE LAYING SOD SHALL BE 1-1/2" BELOW THE TOP.
19. THE LANDSCAPE CONTRACTOR SHALL LEAVE SITE IN A CLEAN CONDITION, REMOVING ALL UNUSED MATERIAL, TRASH, AND TOOLS.
20. LANDSCAPE CONTRACTOR SHALL MAINTAIN AND GUARANTEE ALL PLANTINGS FOR A PERIOD OF SIXTY (60) DAYS AFTER COMPLETION. ALL AREAS SHALL BE KEPT CLEAN, WATERED, AND WEED FREE.
21. AT COMPLETION OF ALL WORK OUTLINED IN THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL CONTACT OWNER AND ARRANGE FOR A WALK THROUGH TO DETERMINE THAT ALL ASPECTS OF WORK ARE COMPLETED. WORK MUST BE FULLY COMPLETED ACCORDING TO ALL PLANS AND SPECIFICATIONS AND MUST BE COMPLETED IN A GOOD WORKMANSHIP MANNER AND MUST BE ACCEPTED BY THE OWNER IN WRITING PRIOR TO THE BEGINNING OF THE MAINTENANCE PERIOD.
22. THE MAINTENANCE PERIOD SHALL INCLUDE THE FOLLOWING SCOPE OF WORK:
 - A. DAILY WATERING OF ALL PLANT MATERIAL.
 - B. WEEKLY MOWING OF ALL TURF AREAS.
 - C. WEEDING AND REMOVAL OF ALL WEEDS FROM GROUND COVER AREAS.
 - D. REPLACEMENT OF ANY DEAD, DYING, OR DAMAGED TREES, SHRUBS, OR GROUND COVERS.
 - E. FILLING AND REPLANTING OF ANY LOW AREAS WHICH MAY CAUSE STANDING WATER.
 - F. ADJUSTING OF SPRINKLER HEAD HEIGHT AND WATERING SYSTEM.
 - G. FILLING AND RECOMPACTION OF ERODED AREAS.
 - H. WEEKLY REMOVAL OF ALL TRASH, LITTER, CLIPPINGS, AND ALL FOREIGN DEBRIS.
 - I. AT 60 DAYS AFTER PLANTING AND PRIOR TO THE END OF THE MAINTENANCE PERIOD, ORGANIC FERTILIZER SHALL BE APPLIED TO PLANTING AREAS AS PER MANUFACTURER'S RECOMMENDATIONS.
23. PRIOR TO END OF MAINTENANCE PERIOD, LANDSCAPE CONTRACTOR SHALL CONTACT OWNER AND ARRANGE FOR A FINAL WALK THROUGH. OWNER MUST ACCEPT ALL MAINTAINED AREAS IN WRITING PRIOR TO END OF MAINTENANCE PERIOD.
24. ALL GROUND COVERS SHALL BE GUARANTEED BY THE CONTRACTOR AS TO GROWTH AND HEALTH FOR A PERIOD OF SIXTY (60) DAYS AFTER THE COMPLETION OF MAINTENANCE PERIOD AND FINAL ACCEPTANCE. ALL SHRUBS SHALL BE GUARANTEED BY THE CONTRACTOR AS TO GROWTH AND HEALTH FOR A PERIOD OF NINETY (90) DAYS AFTER COMPLETION OF MAINTENANCE PERIOD AND FINAL ACCEPTANCE. ALL TREES SHALL BE GUARANTEED BY THE CONTRACTOR TO LIVE AND GROW IN AN ACCEPTABLE UPRIGHT POSITION FOR A PERIOD OF ONE (1) YEAR AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD AND FINAL ACCEPTANCE.
25. THE CONTRACTOR, WITHIN FIFTEEN (15) DAYS OF WRITTEN NOTIFICATION BY THE LANDSCAPE ARCHITECT, SHALL REMOVE AND REPLACE ALL GUARANTEED PLANT MATERIALS, WHICH FOR ANY REASON FAIL TO MEET THE REQUIREMENTS OF THE GUARANTEE. REPLACEMENT SHALL BE MADE WITH PLANT MATERIALS AS INDICATED OR SPECIFIED ON THE ORIGINAL PLANS, AND ALL SUCH REPLACEMENT MATERIALS SHALL BE GUARANTEED AS SPECIFIED FOR THE ORIGINAL MATERIAL GUARANTEE.
26. ALL MECHANICAL EQUIPMENT AND UTILITIES SHALL BE SCREENED BY PLANTING. IF NOT ALREADY INDICATED ON THE PLAN, ALLOW EIGHT 5-GALLON SHRUBS PER UTILITY TO BE PLACED DURING PLANT INSTALLATION AS NEEDED TO PROVIDE REQUIRED SCREENING.

- GENERAL NOTES:**
1. ALL BARE SOIL AREAS SHALL BE COVERED WITH A 3" LAYER OF DARK BROWN BARK MULCH UNLESS SHOWN OTHERWISE ON PLAN. DECORATIVE GRAVEL SHALL BE USED WITHIN 12" OF A STRUCTURE.
 2. ALL STREET TREES HAVE BEEN SELECTED (AND SHALL BE MAINTAINED) SUCH THAT AT MATURE SIZE SCAFFOLD BRANCHES WILL BE A MINIMUM OF 60" ABOVE THE FINISHED GRADE.
 3. ALL SUCCULENTS REQUIRE CACTUS MIX OR OTHER APPROVED SOIL TYPE TO BE PLACED MIN. 12" AROUND THE BASE OF EACH PLANT. NO BARK MULCH.
 4. ALL TREES PLANTED WITHIN 5' OF HARDSCAPE MUST BE INSTALLED WITH A ROOT BARRIER ALONG THE HARDSCAPE EDGE SPANNING OUT 5' IN EACH DIRECTION FROM THE CENTER OF THE TREE FOR A TOTAL LENGTH OF 10'. REFER TO ROOT BARRIER DETAIL.
 5. REFER TO PLANTING DETAILS FOR PLANTING INSTRUCTIONS.
 6. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE STANDARDS OF THE COUNTY-WIDE LANDSCAPE REGULATIONS AND THE SOLANA BEACH GUIDELINES ALONG WITH ALL OTHER APPLICABLE STANDARDS.
 9. CONTRACTOR TO ENSURE THAT TREE LOCATIONS AVOID UTILITIES AND ARE SPOTTED PER LANDSCAPE ARCHITECT'S SITE DIRECTION. TREE INSTALLATION SHALL ALSO INCLUDE COORDINATION OF DELIVERY AND PROTECTION OF TREES PRIOR TO INSTALLATION, KNOWLEDGE OF UNDERGROUND UTILITIES, PROPER DRAINAGE, AND STAKING PER STANDARD DETAIL.
 10. PRIOR TO PLANTING, LANDSCAPE CONTRACTOR SHALL PROVIDE AN AGRICULTURAL SOILS ANALYSIS AND AMEND SOIL PER ANALYSIS RECOMMENDATIONS.
 11. THE ENTIRE PROPERTY SHALL BE PERMANENTLY MAINTAINED BY THE APPLICANT OR SUBSEQUENT OWNER.



AS-BUILT
 By: _____ Date: _____
 R.C.E.: _____ Exp: _____

SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	APP'D	DATE	RECOMMENDED FOR APPROVAL	APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH	ENGINEERING DEPARTMENT	DRAWING NO.
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