



AGENDA

March 11, 2021

PLANNING COMMISSION MEETING

6:30 p.m.

311 Vernon Street
Roseville, California
www.roseville.ca.us

Commissioners may teleconference pursuant to Executive Order N-29-20.

Members of the public may view the meeting on Comcast channel 14, Consolidated Communications channel 73 and AT&T U-verse. Meetings are also video streamed live and are available on the City's website and YouTube channel. Public comment can be provided during the meeting by phoning 916-774-5353.

If you need a disability-related modification or accommodation to participate in this meeting, please contact Voice: 916-774-5200, TDD: 916-774-5220. Requests must be made as early as possible.

THE CITY OF ROSEVILLE WELCOMES YOUR PARTICIPATION

If an agenda item is open to public comment, such public comment shall be addressed to the chair of the meeting.

Public Comment - Speakers have three minutes under Public Comment to speak on issues that are not listed on the agenda and are within the City's jurisdiction. The Brown Act does not permit any action or discussion on items not listed on the agenda.

Consent Calendar - If applicable, the Consent Calendar consists of routine items that may be approved by one motion. Any person can remove an item from the Consent Calendar to be discussed separately.

Agenda Items - Speakers have five minutes to address items that are listed on the agenda.

Americans with Disabilities Act - Notify the City Clerk or Secretary at least 72 hours in advance if special assistance is required to participate in a meeting including the need of auxiliary aids or services.

Audio/Visual Presentations - If making a presentation regarding an agenda item, audio/visual materials must be submitted to the City Clerk or Secretary at least 72 hours in advance.

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **PLEDGE OF ALLEGIANCE**
4. **PUBLIC COMMENTS**
5. **CONSENT CALENDAR**

5.1. Minutes of February 25, 2021

6. **REQUESTS/PRESENTATIONS**

- 6.1. NIPA PCLs CO-22 and CO-23 - Campus Oaks Apartments Phase 1 and 2 MPP MOD, 350 Roseville Pw, File # PL20-0234

REQUEST

The applicant requests a MPP Stage 1 Modification to alter the Campus Oaks Apartments Phase 1 project and install a private landscaped pedestrian path, irrigation, and plantings where "Road A" was previously approved. A MPP Stage 2 Modification is also requested to amend the Campus Oaks Apartments Phase 2 project. The modification would include a pool, spa, and pool building in the recreation area for the project.

Owner: Campus Oaks Apartments 2 LP

Applicant: Paul Gotta, Alan Ives Construction

RECOMMENDATION

- A. Adopt the two (2) findings of fact and approve the NIPA PCL CO-23 Campus Oaks Apartments Phase 1 MPP Stage 1 Modification subject to three (3) conditions of approval.
- B. Adopt the two (2) findings of fact and approve the NIPA PCL CO-22 Campus Oaks Apartments Phase 2 MPP Stage 2 Modification subject to five (5) conditions of approval.

7. **BOARD MEMBER / COMMISSIONER / STAFF REPORT**
8. **ADJOURNMENT**



PLANNING COMMISSION COMMUNICATION

Title: Minutes of February 25, 2021
Contact: Lupe Nelson, lnelson@roseville.ca.us, 916-774-5281

Meeting Date: 3/11/2021
Item #: 5.1.

ATTACHMENTS:

Description

Minutes of February 25, 2021



DRAFT MINUTES
February 25, 2021

PLANNING COMMISSION MEETING
6:30 p.m.
311 Vernon Street
Roseville, California
www.roseville.ca.us

Commissioners teleconferenced pursuant to Executive Order N-29-20.

Members of the public viewed the meeting on Comcast channel 14, Consolidated Communications channel 73 and AT&T U-verse. The meeting was video streamed live and was available on the City's website and YouTube channel.

Members of the public were able to offer public comment by phone.

1. CALL TO ORDER

Chair Brashears called the meeting to order at 6:30 p.m.

2. ROLL CALL

Present: Caporusso, Krafka, Librea, Martin, Prior, Jensen, Brashears

Absent: None

3. PLEDGE OF ALLEGIANCE

Chair Brashear led the Pledge of Allegiance.

4. PUBLIC COMMENTS

Chair Brashears opened the Public Comment period.

Nick Bryant spoke to public transportation issues:

- Requested a shelter at Woodcreek Oaks and Junction.
- Requested a bench at Country Club and Junction.
- Requested additional police presence at the Civic Center Transfer points due to individuals sleeping in the shelters.

Chair Brashears closed the Public Comment period.

5. CONSENT CALENDAR

Motion by Commissioner Caporusso, seconded by Commissioner Martin, to approve the Consent Calendar.

Roll call vote:

Ayes: Caporusso, Krafka, Martin, Jensen, Librea, Prior, Brashears

Noes: None

The Motion passed.

5.1. Minutes of February 11, 2021

5.2. INFILL PCL 191 – Paradise Laundry Expansion, 105 Ascot Dr, File # PL20-0270 **REQUEST**

The applicant requests approval of a Conditional Use Permit to expand an existing legal nonconforming laundromat use into an adjacent tenant space. The expansion includes six (6) washers, six (6) dryers, and will provide one (1) employee. The proposed hours will be 6 AM to 10 PM, consistent with the current operation.

6. REQUESTS/PRESENTATIONS

6.1. SVSP PCL KT-43 – Baseline Self-Storage, 5750 Baseline Rd, File # PL19-0350 **REQUEST**

The applicant requests approval of a Conditional Use Permit and a Design Review Permit to construct an approximately 230,000 square foot self-storage facility that will consist of a 1,364 square foot office, a 1,452 square foot manager's residence, and 226,149 square feet of storage.

Associate Planner, Charity Gold, presented the staff report.

Commissioner Discussion:

- Will the 50-ft landscape buffer be reduced when the road is built out to 6 lanes?
- Concerns with the proposed raised median/island on Baseline Road.
- Is it possible to have a raised pork chop within the driveway of the storage facility in order to prevent left turn exits onto Baseline Road?
- Prefer a raised pork chop island within the driveway instead of the proposed raised median/island in the center land of Baseline Road.

Chair Brashears opened the Public Hearing and invited comments from the applicant and/or audience.

Applicant representative, Dave Stark, stated he was in agreement with staff's recommendation.

Commissioner discussion with the applicant:

- Describe the operational on-site security.

Chair Brashears opened the public comment period. Hearing none, Chair Brashears closed the public comment period.

Commissioner Discussion:

- Pork chop island within the driveway is a better alternative for preventing left turn exiting movements onto Baseline Road than a median/island on Baseline Road.
- Is it possible to make the pork chop island more visible?
- What is the height of the median/island curb?

Motion by Vice-Chair Jensen, seconded by Commissioner Prior, to:

- A. Adopt the Baseline Storage Initial Study/Negative Declaration.
- B. Adopt the three (3) findings of fact and approve the Conditional Use Permit subject to five (5) conditions of approval.
- C. Adopt the four (4) findings of fact and approve the Design Review Permit subject to ninety-two (92) conditions of approval with revised condition #23.

Revised condition #23:

The driveway shall be a 40-foot wide A-7 type driveway with a minimum 30-foot radius. Site access shall be limited to right-turn ingress/egress and left-turn ingress only. In order to restrict left turn egress movements a raised median “pork chop” to direct vehicles to a right turn movements only shall be designed to the satisfaction of the City Engineer and constructed within the driveway. If Developer wishes to have left turn egress movements from the site, a traffic signal would be required per Section 3.5.7 and Exhibit “K” of the Development Agreement. This signal installation and all associated costs would be the responsibility of the Developer. (Engineering)

Roll call vote:

Ayes: Martin, Caporusso, Librea, Krafka, Prior, Jensen, Brashears

Noes: None

The Motion passed.

6.2. SVSP PCL FD-08, FD-10, FD-21, FD-23 – JMC TM#3, 2150 Vista Grande Bl, File # PL20-0119

REQUEST

The proposed project will create 613 single-family residential lots within the Sierra Vista Specific Plan (SVSP). The project entitlements include a General Plan Amendment to change the land use designation of Parcel FD-10 from Low Density Residential (LDR) to Medium Density Residential (MDR), a Specific Plan Amendment to reflect the land use change and to transfer units among several large lot parcels within the SVSP, a Tentative Subdivision Map to create 613 single-family lots on parcels FD-8, FD-10, FD-21 & FD-23, a Major Grading Plan to allow rough grading for FD-10, and a Design Review for

Residential Subdivision for FD-10, FD-21, and FD-23 to establish unit designs and modify development standards. Lastly, two Development Agreement Amendments are included to reflect the land use changes and unit transfers, revise development obligations with respect to groundwater and recycled water facilities, and to clarify evaluation of water conservation goals.

Associate Planner, Kinarik Shallow, presented the staff report.

Chair Brashears opened the Public Hearing and invited comments from the applicant and/or audience.

Applicant representative, Chad Roberts, stated he was in agreement with staff's recommendation.

Commissioner Discussion: None

Chair Brashears invited public comments. Hearing none, Chair Brashears closed the public comment period and Public Hearing.

Motion by Commissioner Martin, seconded by Vice-Chair Jensen, to:

- A. Consider the 4th Addendum to the Sierra Vista Specific Plan Environmental Impact Report (EIR);
- B. Recommend the City Council approve the General Plan Amendment (Land Use Map);
- C. Recommend the City Council approve the Specific Plan Amendment (Text and Land Use Map);
- D. Recommend the City Council approve the First Amendment of the Mourier Investments, LLC Development Agreement;
- E. Recommend the City Council approve the Fourth Amendment of the Westpark Federico Development Agreement;
- F. Adopt the three (3) findings of fact and approve the Tentative Subdivision Map subject to ninety-nine (99) conditions of approval;
- G. Adopt the three (3) findings of fact and approve the Major Grading Plan subject to twenty-nine (29) conditions of approval; and
- H. Adopt the two (2) findings of fact and approve the Design Review for Residential Subdivision subject to twenty-six (26) conditions of approval.

Roll call vote:

Ayes: Jensen, Krafka, Caporusso, Prior, Martin, Librea, Brashears

Noes: None

The Motion passed.

7. BOARD MEMBER / COMMISSIONER / STAFF REPORT

7.1. Planning Commission Meeting Start Time

Planning Manager, Greg Bitter, provided background.

Commissioner Discussion:

- If the start time is changed too many times, it may cause confusion amongst the public.
- Allows those that work until 6:00 p.m. to attend a 6:30 p.m. meeting.
- The 6:30 p.m. start time was chosen as a compromise between a City Council recommended 6:00 p.m. start time and previously established Planning Commission 7:00 p.m. start time.
- When the Planning Commission returns to meeting in-person would a Commissioner still be able to participate via Microsoft Teams?

Chair Brashears opened the public comment period. Hearing none, Chair Brashears closed the public comment period.

No action was taken as there was consensus among Commissioners to maintain the 6:30 p.m. start time.

Staff Reports

- California League of Cities Planning Commissioner Academy will be held virtually March 25, 26, 31 and April 1. Commissioners interested in attending should contact Greg Bitter or Lupe Nelson.
- There will be Planning Commission meetings on March 11 and March 25.

Commissioner Reports

- With Placer County entering the red tier soon has a plan been discussed for in-person Planning Commission meetings?

8. **ADJOURNMENT**

Motion by Vice-Chair Jensen, seconded by Commissioner Librea, to adjourn the meeting. The Motion passed unanimously at 7:39 p.m. with a voice vote.



PLANNING COMMISSION COMMUNICATION

Title: NIPA PCLs CO-22 and CO-23 - Campus Oaks Apartments Phase 1 and 2 MPP
MOD, 350 Roseville Pw, File # PL20-0234

Contact: Charity Gold, cgold@roseville.ca.us, 916-774-5247

Meeting Date: 3/11/2021
Item #: 6.1.

ATTACHMENTS:

Description

Staff Report

Attachment 1 Noise Analysis

Exhibit A Phase 1 MOD

Exhibit B Phase 2 MOD

Exhibit C Phase 2 Design Plans

Exhibit D Phase 2 Landscape

ITEM 6.1: Major Project Permit Stage 1 MOD and Major Project Permit Stage 2 MOD – 350 Roseville Parkway – NIPA PCLs CO-22 and CO-23 – Campus Oaks Apartments Phase 1 and Phase 2 MPP MOD – PL20-0234

REQUEST

The applicant requests a MPP Stage 1 Modification to alter the Campus Oaks Apartments Phase 1 project and install a private landscaped pedestrian path, irrigation, and plantings where “Road A” was previously approved. A MPP Stage 2 Modification is also requested to amend the Campus Oaks Apartments Phase 2 project. The modification would include a pool, spa, and pool building in the recreation area for the project.

Owner – Campus Oaks Apartments 2 LP
Applicant – Paul Gotta, Alan Ives Construction

SUMMARY RECOMMENDATION

The Planning Division recommends that the Planning Commission take the following actions:

- A. Adopt the two (2) findings of fact and approve the NIPA PCL CO-23 CAMPUS OAKS APARTMENTS PHASE 1 MPP STAGE 1 MODIFICATION subject to three (3) conditions of approval.
- B. Adopt the two (2) findings of fact and approve the NIPA PCL CO-22 CAMPUS OAKS APARTMENTS PHASE 2 MPP STAGE 2 MODIFICATION subject to five (5) conditions of approval.

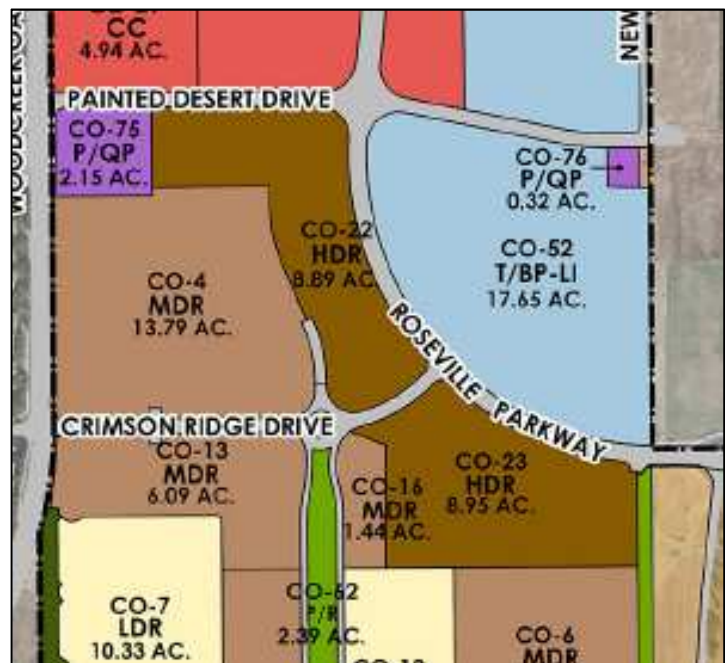
SUMMARY OF OUTSTANDING ISSUES

There are no outstanding issues associated with this request. The applicant has reviewed and is in agreement with the recommended conditions of approval.

BACKGROUND

The subject project is located on Parcel CO-22 and Parcel CO-23 within the Hewlett Packard Campus Oaks Master Plan (HPCO MP) area. Parcels CO-22 and CO-23 are located on the west side of Roseville Parkway south of Painted Desert Drive (Figure 1). The subject properties have a High Density Residential General Plan land use designation and are zoned Multi-family Residential with a Development Standard (R3/D3) overlay. In 2015, the Planning Commission approved a Major Project Permit (MPP) Stage 1 for the HPCO MP to allow the development of a mix of residential, commercial, and office uses in the Hewlett Packard Campus. In 2017, the HP Campus Oaks Master Plan Design Guidelines (Design Guidelines) were adopted to provide direction for planning, design, and review of residential neighborhoods within the HPCO MP. In February 2017, the Planning Commission approved the first phase of the Campus Oaks Apartment project on Parcel CO-23, which has since been completed. In June 2019, the

Figure 1: Project Location



Planning Commission approved the second phase of the Campus Oaks Apartments on Parcel CO-22. Phase 2 is currently under construction.

The applicant requests a MPP Stage 1 Modification to alter the Campus Oaks Apartments Phase 1 project and install a private landscaped pedestrian path, irrigation, and plantings where “Road A” was previously approved. A MPP Stage 2 Modification is also requested to amend the Campus Oaks Apartments Phase 2 project. The modification would include a pool, spa, and pool building in the recreation area for the project.

SITE INFORMATION

Location: 350 Roseville Parkway

Total Size: 8.89 acres and 8.93 acres

Topography and Setting: Both CO-22 and CO-23 have been graded and have buildings constructed. CO-23 is fully constructed and the apartments are occupied. CO-22 is currently under constructed with the buildings close to completion. The parcels are surrounded by developing single-family subdivisions to the south and west, commercial development to the north, and Hewlett Packard properties to the east.

EVALUATION

Section 19.82.040 of the City of Roseville Zoning Ordinance describes the procedures for an amendment to a Major Project Permit. According to Section 19.82.040 C, all amendments that are not considered minor shall be reviewed in the same manner as the initial approval. The proposed request includes the addition of a new pool and clubhouse on CO-22 and the addition of a private landscaped pedestrian area where “Road A” was previously approved on CO-23. These modifications do not meet the minor modification criteria and; therefore, require final action by the Planning Commission subject to the findings for a Major Project Permit Stage 1 (Campus Oaks Apartments Phase 1) and a Major Project Permit Stage 2 (Campus Oaks Apartments Phase 2). The required findings are listed below in ***italicized, bold text*** and are followed by an evaluation.

MPP STAGE 1 MODIFICATION

The findings for a Major Project Permit Stage 1 are as follows:

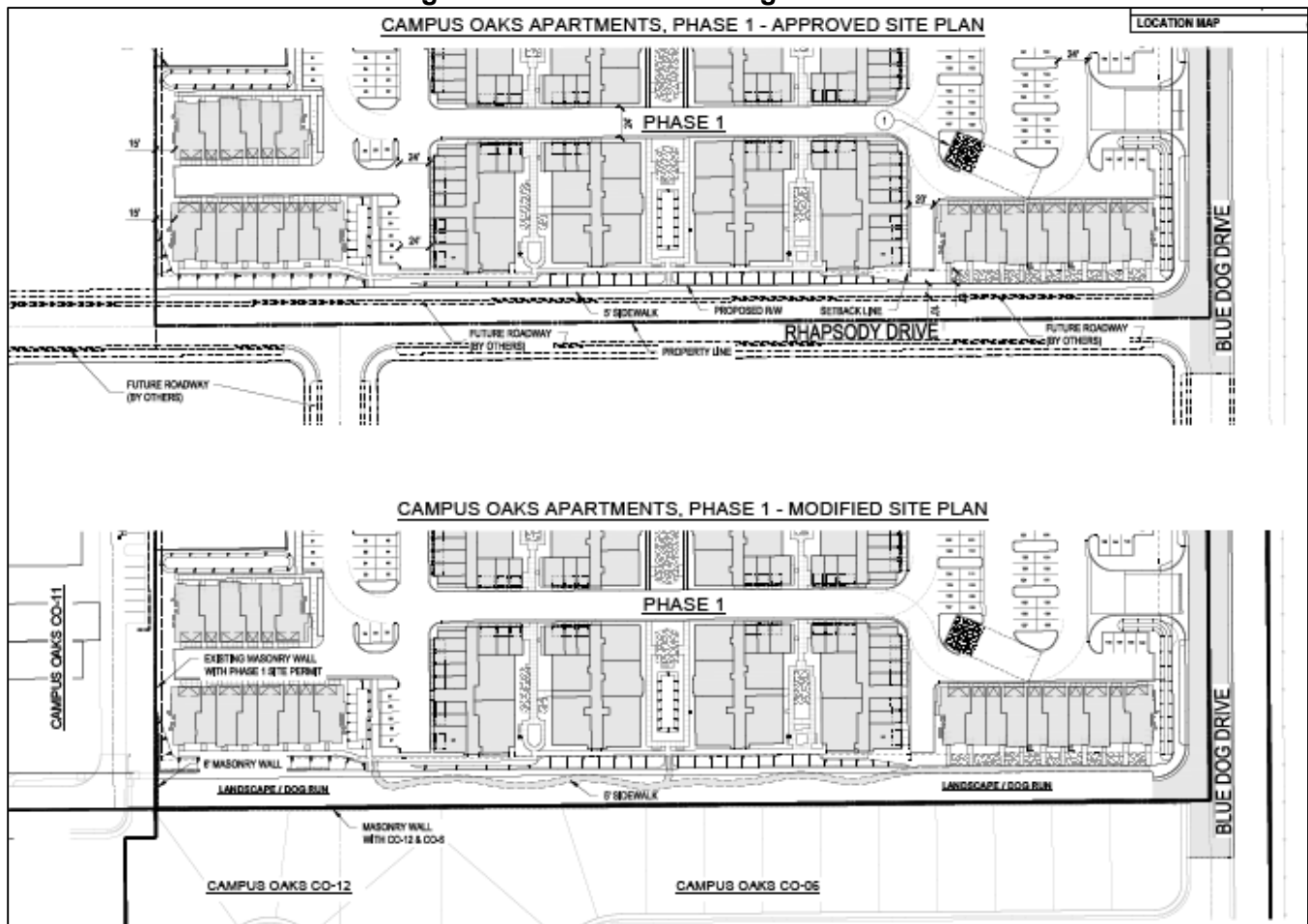
- 1. The Preliminary Development Plan is consistent with the General Plan, applicable Specific Plan, and adopted City design guidelines; and***
- 2. The design and installation of the Preliminary Development Plan shall not be detrimental to the public health and safety, or be materially detrimental to the public welfare.***

The MPP for the Campus Oaks Master Plan includes construction of new roadways to connect the new residential development to the existing adjacent roadways as well as new internal roadways to serve that development. The site plan for the Campus Oaks Apartments Phase 1 project (PL17-0207 and PL16-0331) included partial construction of an east/west internal roadway between the park couplet and the eastern boundary of the Campus Oaks Master Plan. At the time Phase 1 was being constructed, the adjacent property owner to the south was processing an amendment to the Campus Oaks Master Plan and Tentative Subdivision Map that would eliminate “Road A” (PL18-0192). In anticipation of the change, the applicant left the northern half of “Road A” undeveloped. On April 23, 2020, Planning Commission approved the modification to the Campus Oaks Master Plan eliminating the “Road A” construction requirement. Consistent with that amendment, the applicant proposes a modification to the Campus

Oaks Apartments Phase 1 site plan to allow construction of a landscaped pedestrian path instead of the northern half of “Road A”.

The project will modify the site plan to replace “Road A” with a landscaped pedestrian path. Figure 2 shows the existing and proposed condition. The area will be accessible from the apartment complex for private use by the residents of the complex. The western boundary will be enclosed with a masonry wall installed with the project, the southern boundary will be enclosed by an masonry wall installed by the adjacent residential project, and the northern and eastern boundaries will be connected and open to the apartment complex. The area will be landscaped with a mixture trees, shrubs, grasses, and ground covers. A portion of the area will be dedicated as a dog run.

Figure 2: Site Plan Showing “Road A”



The proposed design and landscape plants and materials are consistent with the existing design and materials within the Campus Oaks Apartments Phase 1 and are consistent with the landscaping materials detailed in the Campus Oaks Design Guidelines.

MPP STAGE 2 MODIFICATION

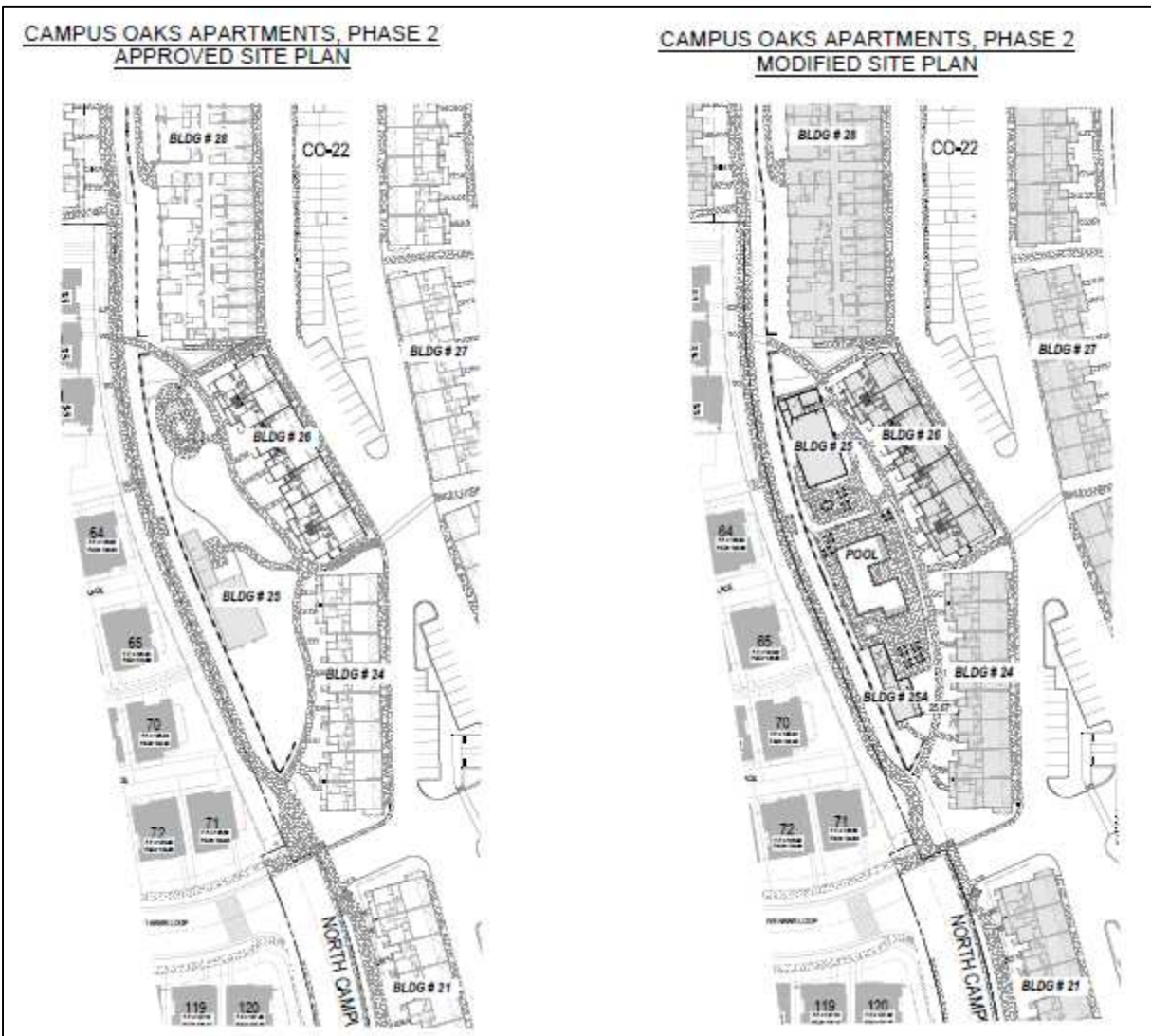
The findings for a Major Project Permit Stage 2 are as follows:

- 1. The Architecture and Landscaping is consistent with the General Plan, applicable Specific Plan, and adopted City design guidelines; and Phase 1 approval; and***

2. The design and installation of the Preliminary Development Plan shall not be detrimental to the public health and safety, or be materially detrimental to the public welfare.

The Campus Oaks Apartments Phase 2 Stage 2 approval included an outdoor gathering area adjacent to the paseo located along the western property boundary between the apartments (CO-22) and the adjacent single-family development (CO-4). The gathering area included outdoor seating, barbeque areas, dining areas, a community building, and outdoor seating area. The proposed modification will maintain the approved footprint of the outdoor area while adding a pool and pool building with restrooms and showers. The proposed modification is illustrated in Figure 3.

Figure 3: Phase 2 Modification



The proposed modification will include a 1,829 square-foot community building, an 892 square-foot pool building, pool, and outdoor seating. The proposed buildings are shown in Figure 4. Consistent with the previous approval, the architecture of the proposed buildings consists of concrete roof tiles and brick and stone accents. The proposed building colors are consistent with the previously approve color pallets. The western boundary of the pool will be shielded by a six-foot fence. The fence will be constructed of Trex brand composite material, will be capped, and include segments separated by pilasters.

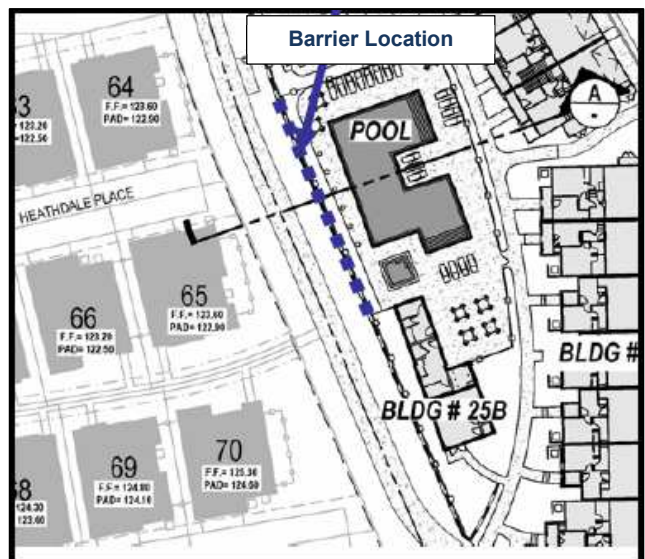
Figure 4: Proposed Community and Pool Buildings



The applicant provided a noise analysis to determine the expected noise level at the adjacent residential properties from activities occurring in the pool area (Attachment 1). The analysis determined that the noise level at the adjacent residential properties would not exceed 43 dB Leq and 62 dB Lmax, which is within the City's thresholds for non-transportation noise sources. The analysis assumed a six-foot tall noise barrier located adjacent to the western boundary of the pool. The location of the barrier is documented in the report, and is shown on Figure 5.

With inclusion of the fence, as currently proposed, the project will not generate noise at the adjacent properties in excess of City standards. At the time of this report, the color of the proposed fencing had not yet been determined. Condition 5 of this project requires that the color of the Trex composite fence be compatible with the adjacent development to the satisfaction of the Planning Division. The Planning Division will confirm consistency with this requirement during building permit review.

Figure 5: Sound Barrier Location



The proposed modifications are consistent with the existing design and materials within the Campus Oaks Apartments Phase 2 and are consistent with the Campus Oaks Design Guidelines.

PUBLIC OUTREACH

The proposed project was distributed to the various agencies and departments which have requested notice of City applications, and all comments were considered and incorporated into the Conditions of Approval, as appropriate. Notice of the application was also distributed to the Roseville Coalition of Neighborhood Associations. No comments were received. A public notice of the Planning Commission hearing was published on February 26, 2021, and was distributed to all property owners within 300 feet of the project site. To date, no comments have been received.

CONCLUSION

As described in the analyses above, the requested MPP Stage 1 and Stage 2 Modifications are consistent with the Campus Oaks Master Plan and Design Guidelines, the City's General Plan, and the City's Design Guidelines and will not be detrimental to the public.

ENVIRONMENTAL DETERMINATION

An Addendum to the Hewlett-Packard Master Plan Environmental Impact Report (HPMP EIR) was prepared as part of the analysis for the Campus Oaks Master Plan project (Hewlett-Packard Campus Oaks Addendum), which was approved by City Council on August 5, 2015. This activity is within the scope of the Addendum to the HPMP EIR; therefore, pursuant to the California Environmental Quality Act, Sections 15168 and 15162, no further analysis is required.

RECOMMENDATION

The Planning Division recommends the Planning Commission take the following actions:

- A. Adopt the findings of fact as stated in the staff report and approve the **NIPA PCL CO-23 - MPP STAGE 1 MODIFICATION – 350 ROSEVILLE PARKWAY – CAMPUS OAKS APARTMENTS PHASE 1 AND 2 MOD – PL20-0234** subject to three (3) conditions of approval.
- B. Adopt the findings of fact as stated in the staff report and approve the **NIPA PCL CO-22 - MPP STAGE 2 MODIFICATION – 350 ROSEVILLE PARKWAY – CAMPUS OAKS APARTMENTS PHASE 1 AND 2 MOD – PL20-0234** subject to five (5) conditions of approval.

CONDITIONS OF APPROVAL NIPA PCL CO-23 MPP STAGE 1 MOD

1. The project is approved as shown in Exhibit A and as conditioned or modified below. (Planning)
2. The project is subject to the previously approved conditions of approval for the previously approved project File # PL17-0207), except as conditioned or modified below. (Planning)
3. For File # PL17-0207, Condition #5 shall be modified as follows:

Condition #30 in the COA for the MPP (PL16-0331) shall be rewritten to the following:

The following improvements shall be constructed with Phase 1 of the project:

- a) The area referred to as Rhapsody Drive (Road "A") shall be constructed as an irrigated planted dog-run as shown in Exhibit A.

CONDITIONS OF APPROVAL NIPA PCL CO-22 MPP STAGE 2 MOD

1. The project is approved as shown in Exhibits B-D and as conditioned or modified below. (Planning)
2. The noise barrier between the pool and paseo shall be constructed of trex composite material as shown on Exhibit B. The trex composite material color shall be compatible with the adjacent buildings on both the subject property and the adjacent properties to the west to the satisfaction of the Planning Division as determined during building permit review. (Planning)
3. The project is subject to the previously approved conditions of approval for the previously approved project (PL19-0372), except as conditioned or modified below. (Planning)
4. Bike parking and clean air vehicle spaces shall be provided per the California Green Building Standards. Bike rack/locker design and location shall be approved by Alternative Transportation. (Alternative Transportation, Building).
5. All commercial air conditioning units 5 tons or less (<65,000 btu/ h) shall meet the current Consortium for Energy Efficiency ("CEE") Tier I specifications. The SEER/EER ratings will be specified on building plans and Title 24 compliance certificates at the time building permits are requested. The SEER and EER ratings will be verified with appropriate documentation. These requirements shall be utilized in the overall energy compliance calculations required for issuance of any building permit for any commercial building in the Plan Area. Any variances, with the exception of Tier 2 compliance, must be approved by the Electric Department's Retail Energy Services Department. (Electric)

Attachments

1. Noise Analysis

Exhibits

- A. NIPA PCL CO-23 Phase 1 MOD
- B. NIPA PCL CO-22 Phase 2 MOD
- C. NIPA PCL CO-22 Phase 2 Design Plans
- D. NIPA PCL CO-22 Phase 2 Landscape

Note to Applicant and/or Developer: Please contact the Planning Division staff at (916) 774-5276 prior to the Commission meeting if you have any questions on any of the recommended conditions for your project. If you challenge the decision of the Commission in court, you may be limited to raising only those issues which you or someone else raised at the public hearing held for this project, or in written correspondence delivered to the Planning Manager at, or prior to, the public hearing.



August 11, 2020

Alan Ives Construction Co.
1949 St. Johns Ave., Ste. 200
Highland Park, IL 60035
Attn: Mr. Paul Gotta

Subject: Campus Oaks Apartments Phase 2 Swimming Pool Noise Assessment

Dear Mr. Gotta:

At your request, j.c. brennan & associates, Inc. has conducted an analysis of potential noise levels associated with the proposed Campus Oaks Apartments Phase 2 swimming pool. It is our understanding that the City of Roseville has requested the noise analysis to address the noise impacts at the residences to the west. Figure 1 shows the project site, location of the swimming pool, single family residences to the west, and a cross-section from the pool to those residences.

BACKGROUND INFORMATION ON NOISE

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human

ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn} , and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. Table 1 lists several examples of the noise levels associated with common situations. Appendix A provides a summary of acoustical terms used in this report.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and

- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

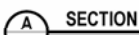
Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

Table 1

LOUDNESS COMPARISON CHART (dBA)

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 1000 ft	110	Rock Band
Gas Lawn Mower at 3 ft	100	
	90	Food Blender at 3 ft
Diesel Truck at 50 ft at 50 mph	80	Garbage Disposal at 3 ft
Noisy Urban Area, Daytime	70	Vacuum Cleaner at 10 ft
Gas Lawn Mower at 100 ft		Normal Speech at 3 ft
Commercial Area	60	
Heavy Traffic at 300 ft	50	Large Business Office
Quiet Urban, Daytime	40	Dishwasher Next Room
Quiet Urban, Nighttime	30	Theater, Large Conference Room (Background)
Quiet Suburban, Nighttime	20	Library
	10	Bedroom at Night, Concert Hall (Background)
Quiet Rural, Nighttime	0	Broadcast/Recording Studio
Lowest Threshold of Human Hearing		Lowest Threshold of Human Hearing

An increase of 3 dBA is barely perceptible to the human ear.



Campus Oaks Phase 2 Site Plan

CITY OF ROSEVILLE NOISE LEVEL CRITERIA

For stationary noise sources, the City of Roseville establishes noise level performance standards, which are shown in Table 2 below.

TABLE 2 (TABLE IX-3 OF THE CITY OF ROSEVILLE GENERAL PLAN NOISE ELEMENT) PERFORMANCE STANDARDS FOR NON-TRANSPORTATION NOISE SOURCES		
Noise Level Descriptor	Daytime (7 a.m. - 10 p.m.)	Nighttime (10 p.m. - 7 a.m.)
Hourly Average (L_{eq})	50 dB	45 dB
Maximum Level (L_{max})	70 dB	65 dB
Each of the noise levels specified above should be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and are a primary source of noise complaints. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings). No standards have been included for interior noise levels. Standard construction practices should, with exterior noise levels identified, result in acceptable interior noise levels. Source: City of Roseville, 2035 General Plan.		

It is important to note that the footnote in the Table 2 above states the following:

Each of the noise levels specified above should be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and are a primary source of noise complaints.

Since the noise levels associated with the proposed pool are generally associated with voice and speech, the 5 dB penalty does apply in this case. Therefore, the daytime (7 a.m. - 10 p.m.) hourly standards are 45 dB L_{eq} , and 65 dB L_{max} , and are to be applied at the property line. The pool will not be open during the nighttime hours, and therefore, the nighttime standards do not apply.

ANALYSIS OF REFERENCE POOL NOISE LEVELS

As a means of determining the potential noise levels associated with the pool at the Campus Oaks Phase 2 Apartments, j.c. brennan & associates, Inc. conducted noise level measurements of pool noise at the Campus Oaks Phase 1 pool, which is located directly south of the proposed project.

Noise measurements were conducted on Saturday August 8th, 2020. The noise measurements were conducted during the mid-afternoon from 2:00 p.m. to 4:00 p.m. Based upon discussions with the apartment manager at the Campus Oaks Phase 1 complex, the Saturday afternoon time period is the typical busy time for the pool activities.

Noise measurements were conducted using Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted $L_{\max}$, represents the highest noise level measured. The average value, denoted L_{eq} , represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50} , represents the sound level exceeded 50 percent of the time during the monitoring period.

During the noise measurements, people were gathering on the pool deck, children and adults were in the pool and lap swimmers were also using the pool. The results of the noise measurements indicated that the hourly noise levels due to pool activities were 53 dB Leq, and 72 dB Lmax, at a reference distance of 50-feet from the center of the pool.

ANALYSIS OF CAMPUS OAKS PHASE 2 POOL NOISE LEVELS

Based upon the cross-section shown in Figure 1, the residential property line to the west of the pool is 50-feet from the center of the pool. In addition, the Campus Oaks Phase 2 project site includes a 6-foot tall wall / fence located at the west property line. In addition, the residential property line to the west is approximately 3-feet below the grade of the pool and base of the barrier. This is important when calculating the effectiveness of the barrier.

Using the reference noise level data, and using a barrier performance analysis, the predicted noise levels at the residences to the west are 43 dB Leq, and 62 dB Lmax. Appendix B shows the barrier calculation results.

CONCLUSIONS

The results indicate that the pool noise will comply with the City of Roseville daytime noise level standards. This includes the -5 dB correction applied to the noise level standards for noise levels consisting primarily of speech. Figure 1 shows the recommended location of the barrier. Barriers should consist of concrete block, precast concrete, or other materials which have a density of 3 pounds per square foot. If wood is used, it shall not allow flanking of noise through cracks or openings. Barriers shall not allow sound to flank at the bottom. There are several prefabricated sound barriers available which can be researched.

If you or the City of Roseville staff have questions, please feel free to contact me.

Respectfully submitted,

j.c. brennan & associates, Inc.



Jim Brennan
President

Member: Institute of Noise Control Engineering

File: 2020-123 Campus Oaks Apts Phase 2 Pool Noise Assessment

Appendix A Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
L_(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L ₅₀ is the sound level exceeded 50% of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the <i>Maximum</i> level, which is the highest RMS level.
RT₆₀	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix B

Barrier Insertion Loss Calculation

Project Information:

Job Number: 2020-123
Project Name: Camphus Oaks Phase 2
Location(s): Pool Leq

Noise Level Data:

Source Description: Pool
Source Noise Level, dBA: 53
Source Frequency (Hz): 1000
Source Height (ft): 5

Site Geometry:

Receiver Description: Residences to the west
Source to Barrier Distance (C_1): 30
Barrier to Receiver Distance (C_2): 30

Pad/Ground Elevation at Receiver: 0
Receiver Elevation¹: 5
Base of Barrier Elevation: 3
Starting Barrier Height 6

Barrier Effectiveness:

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
9	6	-10	43	Yes
10	7	-11	42	Yes
11	8	-13	41	Yes
12	9	-13	40	Yes
13	10	-14	39	Yes
14	11	-15	38	Yes
15	12	-15	38	Yes
16	13	-16	37	Yes
17	14	-17	36	Yes
18	15	-17	36	Yes
19	16	-17	36	Yes

Notes: 1. Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)

Appendix B

Barrier Insertion Loss Calculation

Project Information:

Job Number: 2020-123
Project Name: Camphus Oaks Phase 2
Location(s): Pool Lmax

Noise Level Data:

Source Description: Pool
Source Noise Level, dBA: 72
Source Frequency (Hz): 1000
Source Height (ft): 5

Site Geometry:

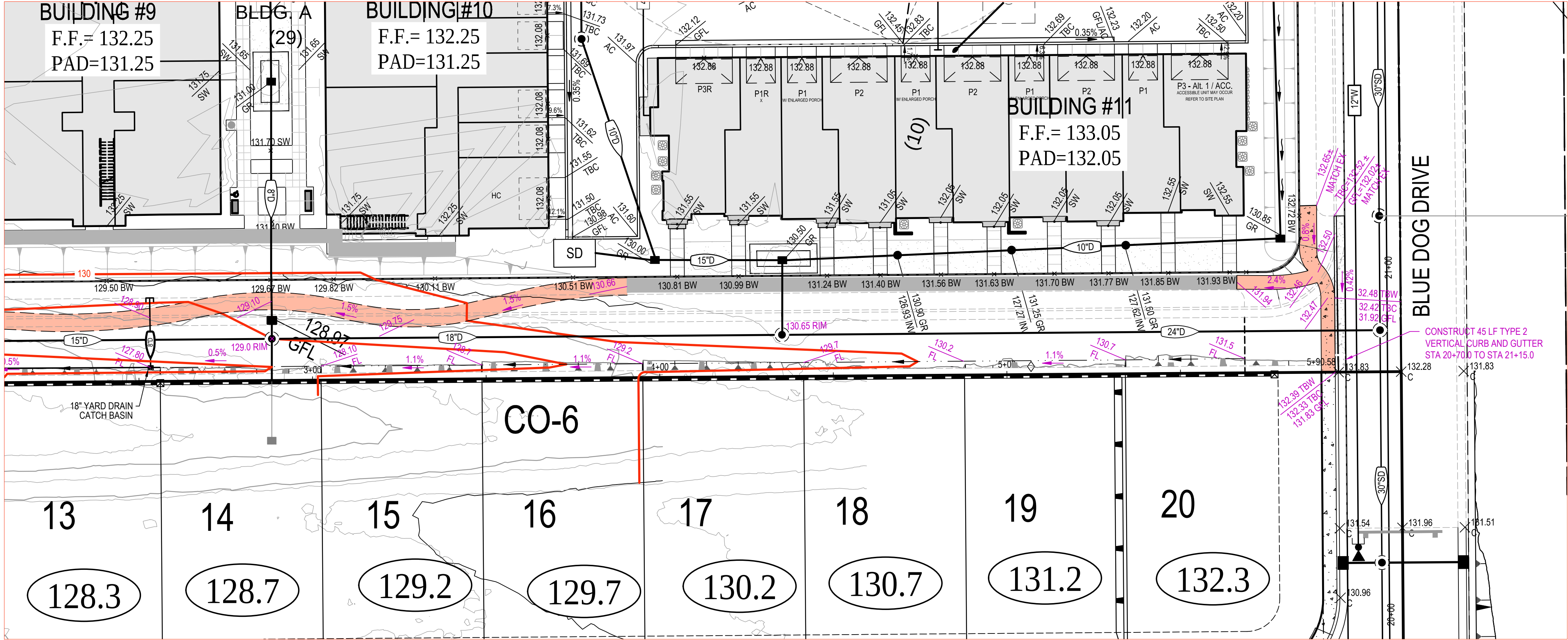
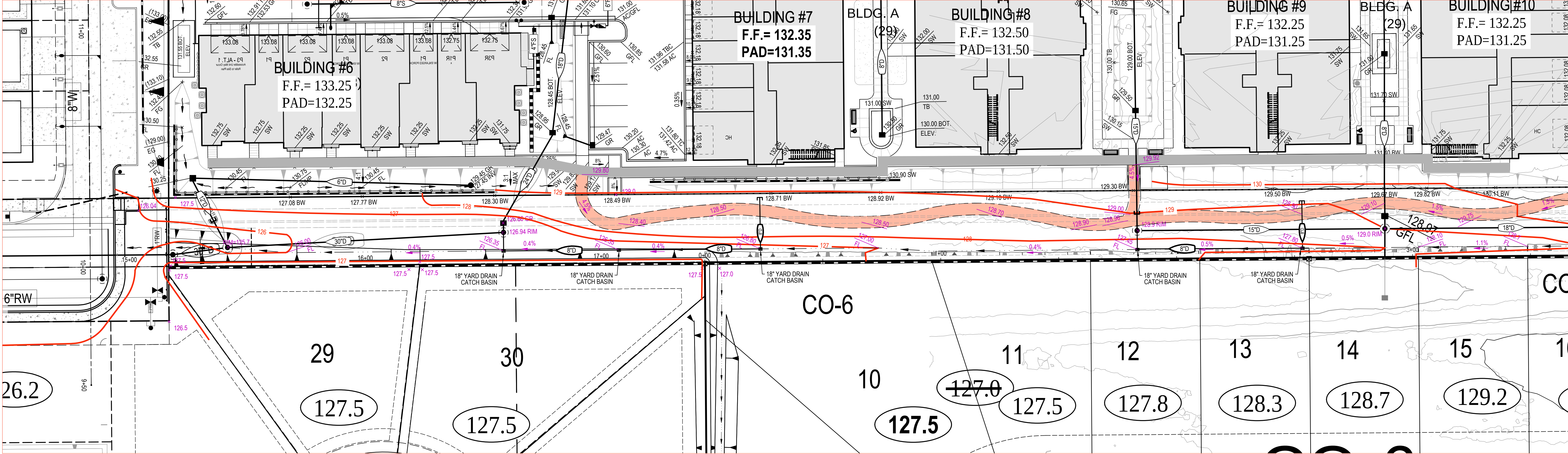
Receiver Description: Residences to the west
Source to Barrier Distance (C_1): 30
Barrier to Receiver Distance (C_2): 30

Pad/Ground Elevation at Receiver: 0
Receiver Elevation¹: 5
Base of Barrier Elevation: 3
Starting Barrier Height 6

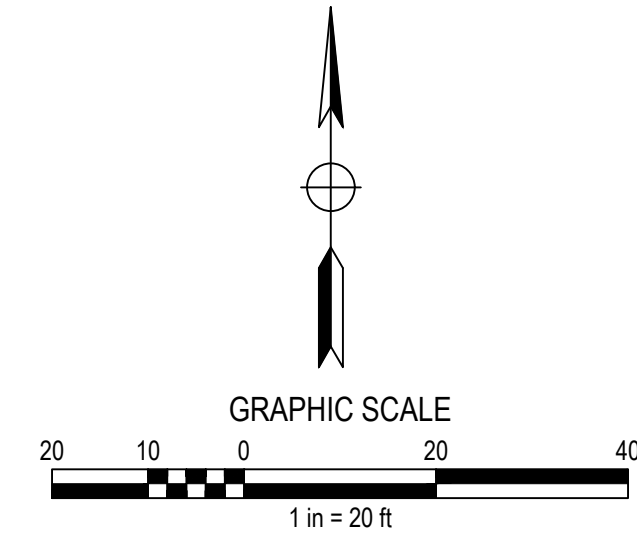
Barrier Effectiveness:

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
9	6	-10	62	Yes
10	7	-11	61	Yes
11	8	-13	60	Yes
12	9	-13	59	Yes
13	10	-14	58	Yes
14	11	-15	57	Yes
15	12	-15	57	Yes
16	13	-16	56	Yes
17	14	-17	55	Yes
18	15	-17	55	Yes
19	16	-17	55	Yes

Notes: 1. Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)



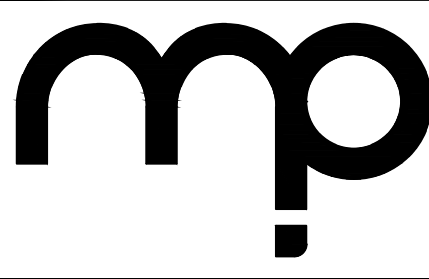
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SCALE:
HORIZ. 1" = 20'
VERT. 1" = N/A

BENCH MARK

COMPUTED
DESIGNED
DRAWN
PROJ. ENGR.



MORTON & PITALO, INC.
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EXHIBIT FOR
HP CAMPUS OAKS - APARTMENTS - PHASE 1
DOG-RUN2
CITY OF ROSEVILLE, CALIFORNIA

DATE	AUG 20, 2020
SHEET	1
OF	1

NOT FOR CONSTRUCTION

CAMPUS OAKS APARTMENTS-PHASE 1

Landscape Development Plans

DOG RUN 2
ROSEVILLE, CALIFORNIA

PLANTING NOTES

1. Installing Contractor shall verify quantities and areas to be planted prior to start of job. Notify Landscape Architect of any discrepancies prior to starting work.
2. All planting areas shall be completely free of trash, debris, rocks, and construction materials larger than 2", and shall be brought to finish grade before planting begins. Finish grade shall be 2" below surface of walks, curbs, and paved areas in planting areas where bark is to be installed. Grades shall be flush at catch basins. Surfaces shall be sloped with regard to drainage requirements so that water does not puddle or stand.
3. If additional soil is required, it shall be approved loam as similar to the existing soil as possible, free of debris and noxious weeds. Prior to placing additional soil, disc or scarify the sub-grade to a depth of at least 8" to permit bonding to the sub-grade. Spread and rototill a one inch layer of new soil, then proceed to place remaining soil and establish finish grade.
4. WITHIN 10 DAYS OF AWARD OF CONTRACT, LANDSCAPE CONTRACTOR MUST CONDUCT A SOILS TEST TO DETERMINE AMENDMENT QUANTITIES. FOR BID PURPOSES, ASSUME THE FOLLOWING SOIL PREPARATION FOR ALL PLANTING AREAS: APPLY NITRIFIED WOOD PRODUCT AMENDMENT AT A MINIMUM RATE OF 6 CUBIC YARDS PER 1000 SQ. FT. AND COMMERCIAL FERTILIZER (16-16-16 NPK OR EQUAL) AT A RATE OF 30 LBS. PER 1000 SQ.FT. FOR SHRUB AND GROUND COVER AREAS, 20 LBS. PER 1000 SQ.FT. FOR LAWN AREAS. ROTOTILL TO A DEPTH OF 6" TO 10". COMPACT AND SETTLE ALL AREAS BY APPLICATION OF HEAVY IRRIGATION TO A MINIMUM DEPTH OF 12".
5. Concrete headers shall be installed between all lawn and shrub/ground cover areas. Install per plans and details provided.
6. All plants shall be top quality nursery stock, free of disease and insect pests. Plants shall be normal size for container, vigorous, and true to name and variety. Plant holes shall be the same depth as the root ball, and three times the width for shrubs and four times the width for trees, see details.
7. Backfill for the plant holes shall be existing soil which has been previously amended. Apply Osmocote Controlled Release Formula fertilizer (18-6-12, 4 month formula) per manufacturer's recommendations.
8. When planted, crown of plant shall be 1-1/2" above finish grade. Prepare a water basin by forming a soil ring at least 3" high and as wide around the outer edge of the new plant hole. Water thoroughly to eliminate air pockets.
9. Upon completion of planting all containerized material, rake all shrub and ground cover areas to smooth grade, leaving watering basins intact. Prior to placement of bark mulch, all shrub and ground cover areas shall be treated with a pre-emergent herbicide (Ronstar or equal) per manufacturer's directions. Contractor to verify with manufacturer that pre-emergent will not adversely affect plant health.
10. Place a 3" layer of 'Walk-On' fir bark mulch, or approved equal, in all shrub and ground cover areas. Shredded redwood 'Gorilla Hair' is not acceptable.
11. Ground cover plants shall be planted in straight rows and evenly triangularly spaced at intervals noted in plant legend. Plant each rooted plant with its proportionate amount of rooting soil in a manner that will insure minimum disturbance of the root system.
12. For trees that require staking, use two 3" diameter treated lodgepole stakes set at minimum of 12" into undisturbed subgrade below the root ball. Place ties and stakes only to the level which will hold the tree upright; proper height is 6" above the point where the tree will snap to an upright position by itself if the top is pulled to one side as if wind loaded and then released. Ties shall be cinch-tie flexible vinyl (or equal) nailed to stake with galvanized nails, see details.
13. Sod Lawn and Biofiltration Sod: After soil preparation, carefully smooth all surfaces and roll to expose depressions and irregularities. Regrade as necessary. Lay first strip of sod slabs along a straight line. Butt joints tightly, do not overlap edges. For remaining strips, stagger joints much as laying bricks. Use a sharp knife to cut sod to fit curves, edges, sprinkler heads, etc.. When a conveniently large area has been sodded, water lightly to prevent drying. After laying all sod, roll lightly to eliminate irregularities and to form good contact between sod and soil. Water thoroughly; soil should be moistened at least 8 inches deep. Repeat sprinkling at regular intervals to keep sod moist at all times until rooted. After sod is established, decrease frequency and increase amount of water per application as necessary.
14. Contractor shall furnish all labor, material, equipment, and services required to maintain the landscape in an attractive condition as specified herein for a period of 60 days after final acceptance by Owner. Maintenance Period shall commence after all planting and related work has been completed in accordance with Plans and Notes. A prime requirement is that all lawn areas shall show an even, healthy stand of grass which shall have been mown at least twice. Any materials found to be dead, missing, or in poor condition during the Maintenance Period shall be replaced within 10 days of written notification by the Owner. Contractor shall not be held responsible for damage arising from acts of God, vandalism, theft, or negligence by Owner during the Maintenance Period.

IRRIGATION NOTES

1. THIS PROJECT UTILIZES RECYCLED WATER; EQUIPMENT MARKED OR COLORED PURPLE TO INDICATE 'NON POTABLE' SHALL BE USED THROUGHOUT, AS INDICATED ON THE IRRIGATION SCHEDULE.
2. Installing Contractor shall verify all dimensions and areas prior to start of job. Intent is for full coverage of planting. Notify Landscape Architect of any discrepancies prior to trenching.
3. Plan is diagrammatic and not intended to show exact locations of piping and valves. Install valves and piping in landscape areas wherever possible. Install valves near curbs and sidewalks whenever possible. Sprinkler head spacings are shown accurately and shall be installed as indicated by the center of the symbol. Contractor is responsible for pipe sizing the irrigation system correctly.
4. All materials shall be new and in perfect condition. No deviations from the specifications will be allowed without prior written approval of Landscape Architect.
5. Mainline shall be SCH 40 PVC or CL315 at a minimum depth of 18" below finish grade. Lateral lines shall be SCH 40 PVC at a minimum depth of 12" below grade. Use only the solvent supplied and recommended by the pipe manufacturer to make plastic pipe joints. Allow 15 minutes set-up curing time before moving or handling, and 24 hour curing time before water is placed in PVC pipe. Center load pipe with a small amount of backfill to prevent arching and whipping under pressure.
6. Where more than one pipe is installed in a trench, place pipe side by side at a minimum of 2" apart. Where soil conditions are rocky, place a 4" layer of fine material on bottom of trench prior to installation of pipe.
7. All valves shall be installed in Carson poly-plastic valve boxes with flush covers, or approved equal. All valve boxes to be Purple color to indicate recycled water use. Remote control valves shall be installed in Carson 1419 12" depth standard rectangular valve boxes; Drip zone remote control valves with filters and PRVs shall be installed in Carson 1220 12" depth jumbo rectangular valve boxes; Ball valves shall be installed in Carson 0011 10" diameter round valve boxes. Top of valve boxes shall be 1" above finish grade.
8. Install pop-up shrub heads and lawn spray heads 2" from curbs and walks.
9. Securely install controller as directed by manufacturer. Complete all electrical connections to controller. All control wire shall be #14 U.L. direct burial. Taped and bundled every 20'. Place at a minimum depth of 18", installing in common trenches with mainline whenever possible. Where wire crosses paving, encase wire in a SCH 40 PVC sleeve. For extra mainline, label, and leave in last valve box for future access.
10. At valves, both wires shall be brought into valve box and shall have an excess loop of 24" before being spliced into the solenoid pigtails using Pentite connectors.
11. After valves have been installed, test all mainlines for leaks at full line pressure for a period of 2 hours with couplings exposed and pipe sections center loaded. Before testing, fill line with water for at least 24 hours. Provisions shall be made for thoroughly bleeding the line of air and debris. Correct all defects and retest.
12. All excavations shall be backfilled with fine material to 4" above crown of pipe and tamped; then fill with earth and tamp. All trenches shall be left flush with adjoining grade and in a firm unyielding condition. Any subsequent settling shall be corrected by the Contractor.
13. Install systems without spray nozzles; open flush valves. Flush and operate each valve system at full pressure until all debris is removed. Install spray nozzles and close flush valves.
14. Test to determine that all sprinklers function according to manufacturer's data and give full coverage according to intent of drawing. Replace and adjust as necessary. Additional heads shall be provided by the Contractor to cover areas shown to be deficient by test.
15. Contractor shall set initial program for the controller. Note that overhead irrigation must be scheduled to run between the hours of 8 p.m. and 10 a.m. Contractor shall provide Owner with the instruction manual, keys, and all associated accessories and documentation, and demonstrate its operation to the Owner.
16. Contractor shall prepare and submit to Owner a complete set of irrigation record drawings (aka 'As-Builts') indicating actual installed locations of irrigation equipment and mainline.
17. Contractor shall guarantee all parts and labor for one year with exception of damage caused by vandalism, theft, adverse natural conditions, or anything beyond the control of the Contractor.

IRRIGATION WELO COMPLIANCE NOTES

1. Contractor shall prepare a WELO Certificate of Completion Package per WELO Section 14.18.060 that includes irrigation schedules (establishment and established), maintenance schedule, water audit, as well as all other requirements needed prior to final acceptance.
2. Contractor shall include Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis prior to final acceptance per WELO Section 14.18.080.
3. All landscape irrigation audits shall be conducted by a third party certified landscape irrigation auditor. Landscape audits shall not be conducted by the person who designed the landscape or installed the landscape.
4. In large projects or projects with multiple landscape installations (i.e. production home developments) an auditing rate of 1 in 7 lots or approximately 15% of the projects irrigation valves shall satisfy this requirement.
5. Applies to new construction and rehabilitated landscape projects installed after December 1, 2015, as described in WELO Section 14.18.030.
6. The project applicant shall submit an irrigation audit report with the Certificate of Completion Package to the local agency that may include, but is not limited to: inspection, system tune up, system test distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and any other factors necessary for accurate programming.

GENERAL NOTES

1. Landscape areas not covered with live material shall be covered with a 3" 'Walk-On' fir bark mulch layer.
2. Adjust location of plant material to avoid interference with building numbers and addresses at mature height.
3. Provide a minimum three foot clearance around all fire protection equipment and associated landscape apparatus.
4. All trees planted adjacent to fire lanes shall have their canopies maintained at 13'-6" or higher where they overhang into the required width of the fire lane.
5. Landscaping shall be placed and pruned as to retain the required clearance for ladder access to windows around the building and to not interfere at maturity with 13'-6" emergency vehicle access clearance.
6. Turf slopes cannot exceed 4:1.
7. Maintain a minimum distance of 18" between edge of lawn and trunk of tree(s).
8. Landscape contractor shall provide protection for all concrete surfaces when installing landscape materials. Staining of concrete from dirt, tire marks and damaged curbs will not be permitted. All damaged surfaces shall be cleaned or replaced.
9. Landscape contractor shall coordinate and install the sleeving and stubbing for irrigation crossing parking lots and paved areas.
10. Landscape contractor shall grade all landscape areas 2% min. to drain to the street. Landscape contractor is responsible to provide positive drainage away from all buildings. All planters and planter islands should be crowned to prevent standing water.
11. Root barriers are required in all locations where trees are placed closer than 48" from curbs, sidewalks, concrete or asphalt. Refer to detail for specification and installation.
12. Quantities found in the plant legend are for contractor convenience. In the event that the quantities in the legend differ from those found on the plans, the quantities found on the plans will take precedence.
13. Contractor to hand dig only under existing tree canopies, no mechanical excavation will be allowed, do not cut any roots 2" or larger in diameter, if it is necessary to prune roots 2" in diameter or larger, contractor shall hire the services of a licensed arborist to supervise and direct the work, follow all recommendations of the arborist.

DRAWING INDEX

L-0.1	COVER SHEET
L-1.1	IRRIGATION PLAN
L-2.1	PLANTING AND FURNISHINGS PLAN
L-3.1	LANDSCAPE DETAILS
L-3.2	LANDSCAPE DETAILS
L-3.3	LANDSCAPE CALCULATIONS



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CAMPUS OAKS APARTMENTS - PHASE 1

DOG RUN 2

ROSEVILLE, CALIFORNIA

These drawings are instruments of service and are the property of Yamasaki Landscape Architecture. All designs and other information on the drawings are for the use on the specified project and shall not be used otherwise without the express written permission of Yamasaki Landscape Architecture.

Sheet Title

COVER SHEET

Seal



No.

Date

Revision



Project Mgr: TVZ

Sheet No.:

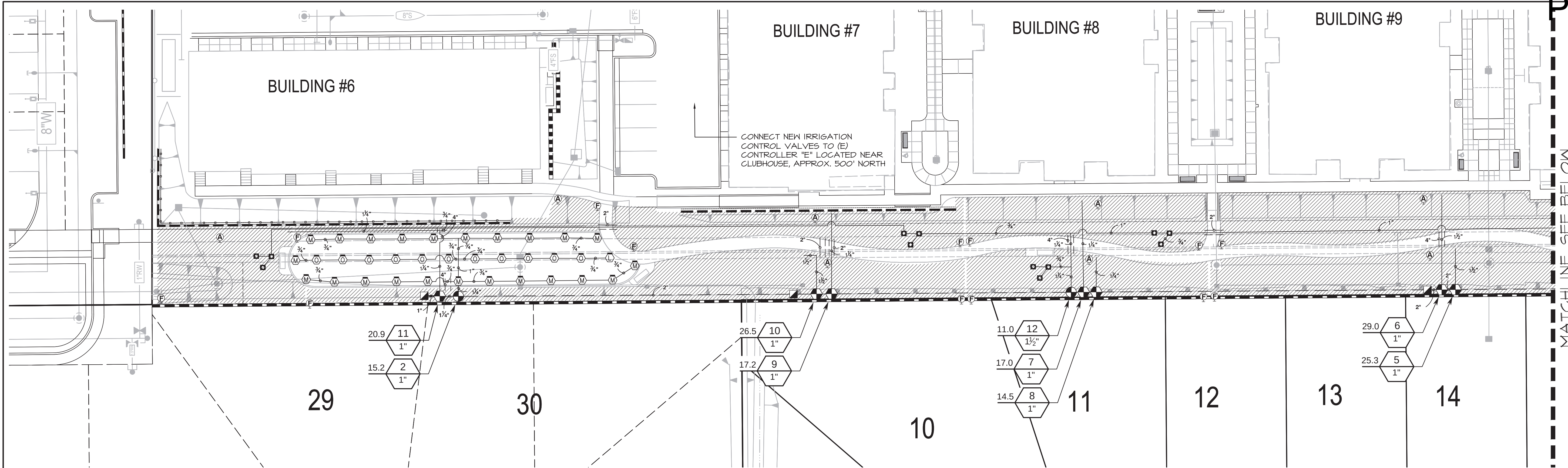
Drawn By: TVZ

Scale: ---

Date: 23 SEP 20

File Name: CO-DR-CV of 6 sheets

L-0.1



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Hunter MPI000 PRO5-06-PRS40-CV Turf Rotator, 6" (15.24 cm) pop-up with check valve, pressure regulated to 40 psi (2.76 bar), MP Rotator nozzle on PRS40 body. M=Maroon adj arc 90 to 210, L=Light Blue 210 to 270 arc, O=Olive 360 arc.	30		Signature 7645 1" Quick coupler valve with purple lockin cover 1" BSP. Provide two (2) 7640 keys with 8810 swivel at turnover.
	Toro 510Z-6-COM-5B-PC Pressure-compensating stream bubbler with check valve on 6.0" Pop-Up. Toro 5B-4-180-PC 180 degree arc, 4 stream, 2' radius nozzle. Three bubblers per tree as shown on plan; spaced equally 24" from tree trunk.	30		Irrigation Lateral Line: PVC Schedule 40
				Irrigation Mainline: PVC Schedule 40
				Pipe Sleeve: PVC Schedule 40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Netafim TLSOV Netafim TLSOV- 1/2" manual flush valve, barbed insert. Install in 10" box, with adequate blank or "cobra" tubing to extend valve out of valve box. 17mm fits Techline RW driplines.
	Netafim TLAVRV Air/Vacuum relief valve, 1/2" male pipe thread. Thread to Netafim TLO75FTEE 3/4" combination tee with 3/4" to 1/2" male pipe thread bushing.

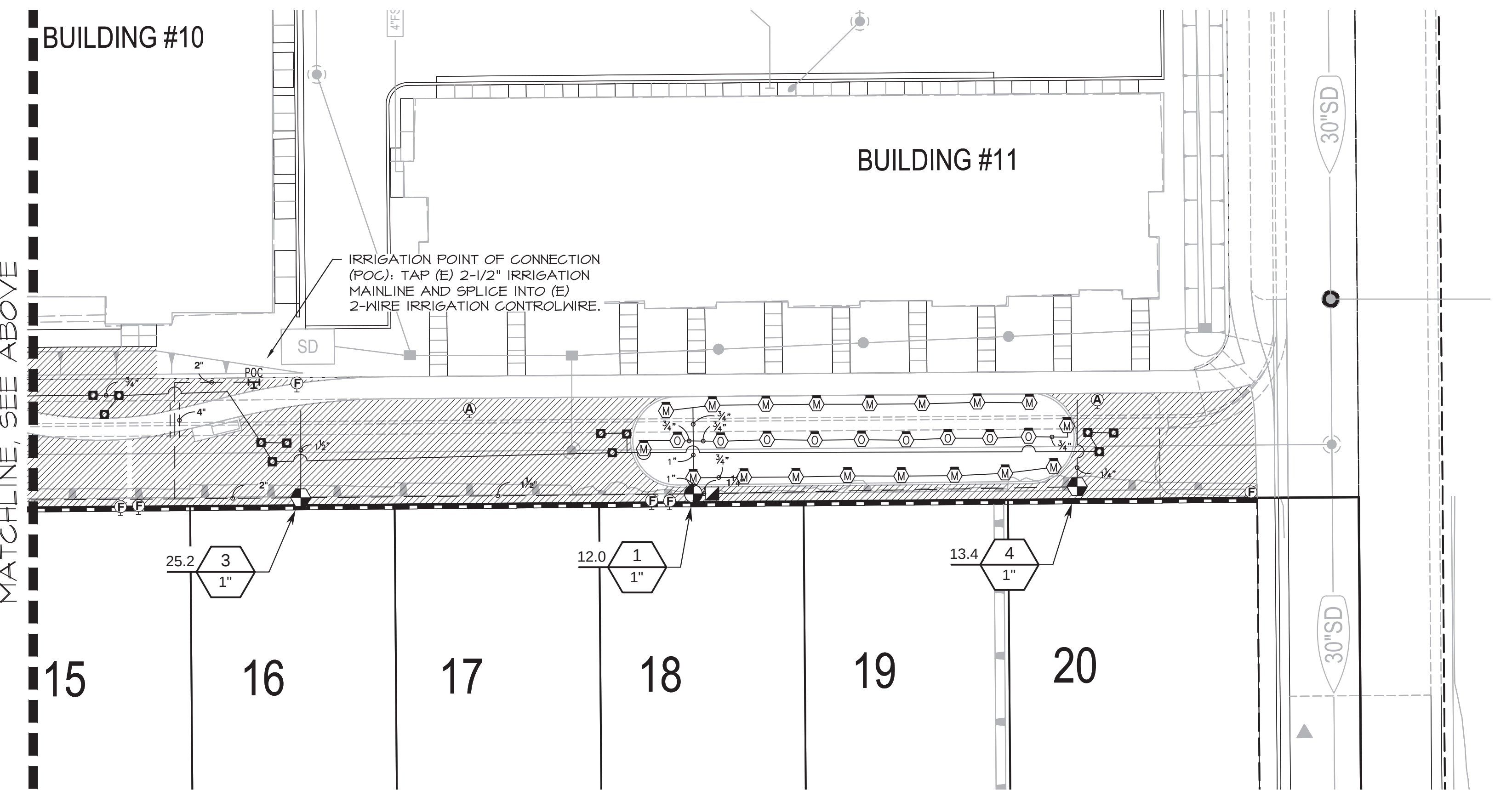
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Area to Receive Dripline Netafim TLRW-06-12-NP Techline TLRW Landscape Dripline with Purple Stripe for Non-Potable Water Applications. 0.6 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. Install Netafim TLS-6 tubing staples at 4' O.C. Changes in direction shall be made with Netafim barbed TL fittings. Install 1" below finished grade. Designed for Reclaimed Water Use Only.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Toro P220-27-O GLOBE Electric, 1", 1-1/2", 2" and 3" Plastic In-Line Remote Control Valve. Equipped to withstand pressure up to 220 PSI. Filter screen on 2" and 3" models. Standard Solenoid. Globe Body Style. With EZ Reg Pressure Regulator.
	Toro P220S-26-04 Electric, 1" Plastic Control Valve with the following: Rainbird FRB-QKCHK-100 40 psi pressure regulating basket strainer and imperial technical service NFDEC single station two-wire decoder.

Generated:	2020-09-15 18:03
P.O.C. NUMBER:	01
Water Source Information:	
FLOW AVAILABLE	
Custom Max Flow:	30.00 gpm
Flow Available:	30.00 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	40.00 psi
Pressure Available:	40.00 psi
DESIGN ANALYSIS	
Maximum Multi-valve Flow:	30.00 gpm
Flow Available at POC:	30.00 gpm
Residual Flow Available:	0.00 gpm

Critical Station:	2
Design Pressure:	30.00 psi
Friction Loss:	0.79 psi
Fittings Loss:	0.08 psi
Elevation Loss:	0.00 psi
Loss through Valve:	3.68 psi
Pressure Req. at Critical Station:	34.55 psi
Loss for Fittings:	0.35 psi
Loss for Main Line:	3.52 psi
Loss for POC to Valve Elevation:	0.00 psi
Loss for Backflow:	0.00 psi
Critical Station Pressure at POC:	38.42 psi
Pressure Available:	40.00 psi
Residual Pressure Available:	1.58 psi

CRITICAL ANALYSIS

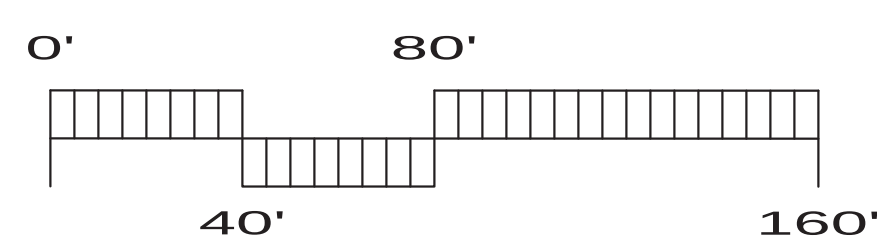


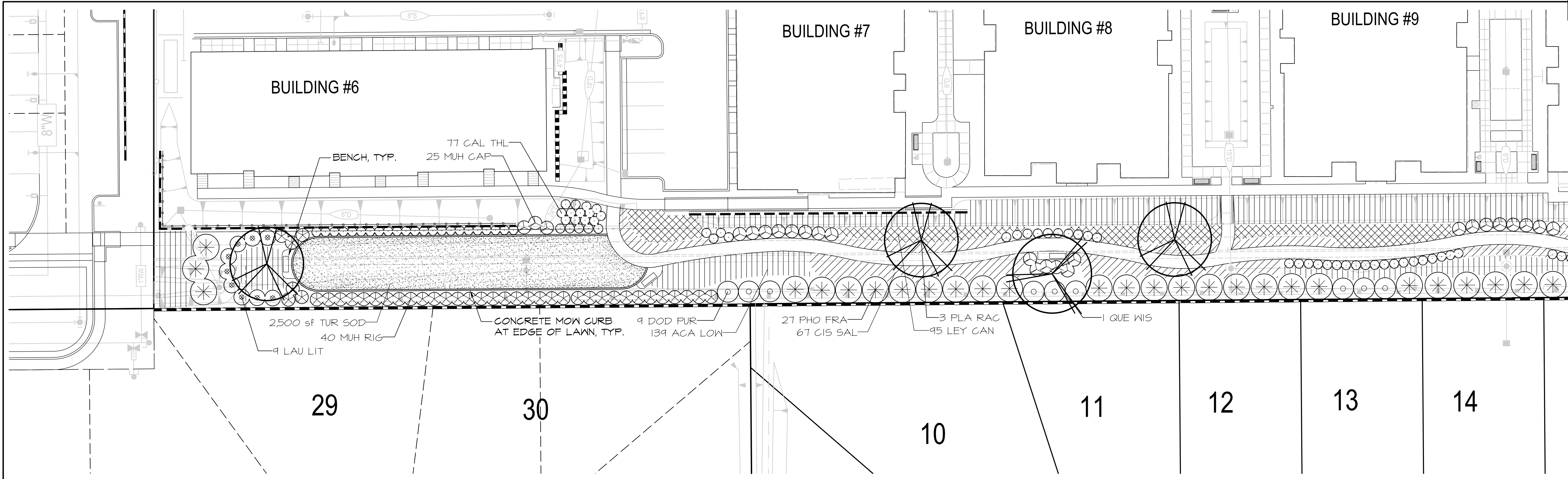
VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM
1	Toro P220-27-O GLOBE	1"	Turf Rotary	11.98
2	Toro P220-27-O GLOBE	1"	Turf Rotary	15.25
3	Toro P220S-26-04	1"	Area for Dripline	25.19
4	Toro P220S-26-04	1"	Area for Dripline	13.42
5	Toro P220S-26-04	1"	Area for Dripline	25.26
6	Toro P220S-26-04	1"	Area for Dripline	28.99
7	Toro P220S-26-04	1"	Area for Dripline	17.01
8	Toro P220S-26-04	1"	Area for Dripline	14.52
9	Toro P220S-26-04	1"	Area for Dripline	17.19
10	Toro P220S-26-04	1"	Area for Dripline	26.47
11	Toro P220S-26-04	1"	Area for Dripline	20.93
12	Toro P220-27-O GLOBE	1-1/2"	Bubbler	11.04

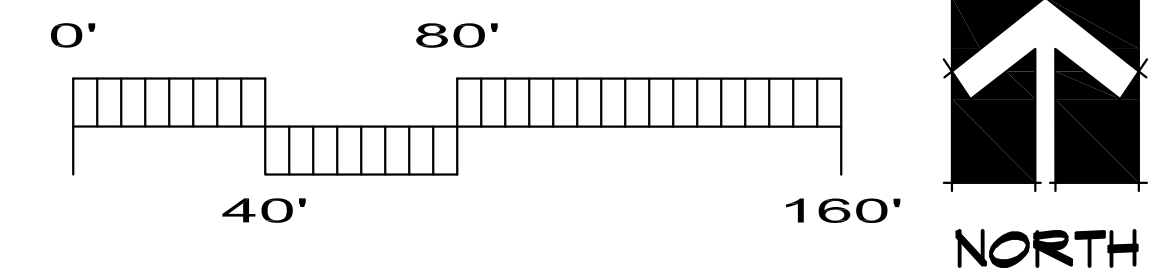
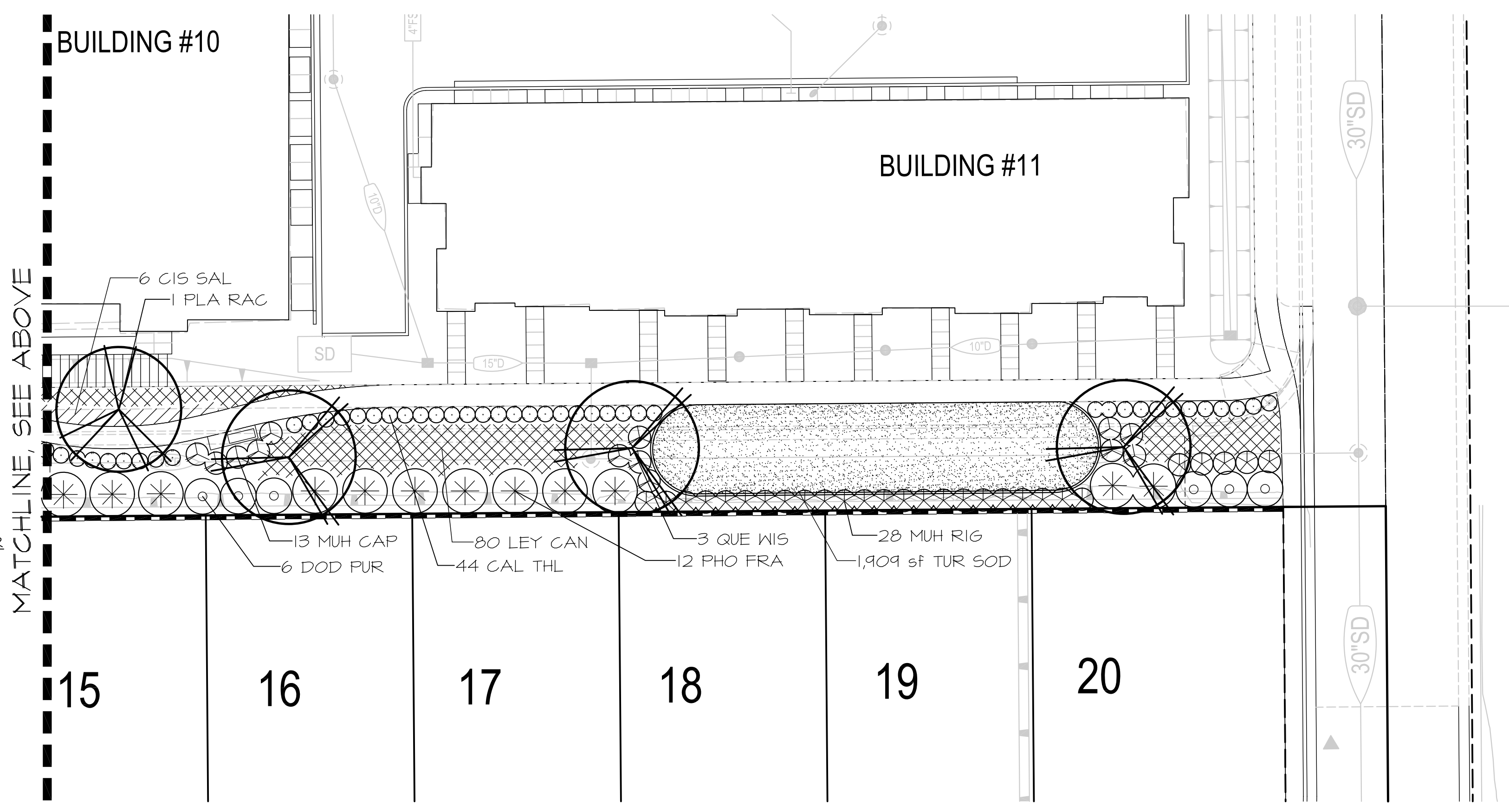
NOTES:

- IRRIGATION DESIGN IS BASED ON A MAXIMUM DEMAND OF 24 GPM WITH A MINIMUM OPERATING PRESSURE OF 40 PSI. LANDSCAPE CONTRACTOR SHALL TEST AND VERIFY PRESSURE AND FLOW PRIOR TO STARTING JOB AND NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IF WATER AND PRESSURE FLOWS DO NOT MEET THESE MINIMUM REQUIREMENTS.
- IRRIGATION PLAN IS DIAGRAMMATIC; INSTALL VALVES AND IRRIGATION LINES IN PLANTERS WHENEVER POSSIBLE.
- IRRIGATION SYSTEM IS A TWO WIRE SYSTEM. INSTALL ALL REQUIRED GROUNDING ACCESSORIES PER PLAN, DETAILS, AND MANUFACTURER'S RECOMMENDATIONS.





PLANT SCHEDULE					
TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	WATER USE
	PLA RAC	4	Platanus racemosa / California Sycamore	24" box	M
	QUE WIS	4	Quercus wislizenii / Interior Live Oak	24" box	L
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	WATER USE
	CAL THL	121	Callistemon citrinus 'Better John' / Better John Dwarf Bottlebrush	5 gal	L
	DOD PUR	15	Dodonaea viscosa 'Purpurea' / Purple Leafed Hopseed Bush	15 gal	L
	LAU LIT	9	Laurus nobilis 'Little Ragu' / Emerald Wave Sweet Bay	5 gal	L
	PHO FRA	39	Photinia x fraseri / Red Tip Photinia	15 gal	L
GRASSES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	WATER USE
	MUH CAP	38	Muhlenbergia capillaris 'Regal Mist' / Regal Mist Deer Grass	1 gal	L
	MUH RIG	68	Muhlenbergia rigens / Deer Grass	1 gal	L
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING WATER USE
	ACA LOW	139	Acacia redolens 'Low Boy' / Low Boy Bank Catclaw	1 gal	12" o.c. L
	CIS SAL	73	Cistus salvifolius / Rockrose Sageleaf	1 gal	60" o.c. L
	LEY CAN	175	Leymus condensatus 'Canyon Prince' / Canyon Prince Blue Rye	1 gal	48" o.c. L
	TUR SOD	4,409 sf	Turf Sod / Drought Tolerant Fescue Blend	sod	H



PC Exhibit A

YAMASAKI

LANDSCAPE ARCHITECTURE

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CAMPUS OAKS APARTMENTS - PHASE 1

DOG RUN 2

ROSEVILLE, CALIFORNIA

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Sheet Title

PLANTING PLAN

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No. Date Revision

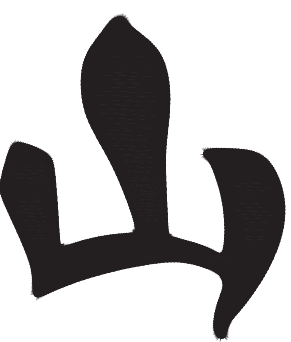
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Drawn By: TVZ

Scale: 1"=20'

Date: 23 SEP 20

File Name: CO-DR-PL of 6 sheets



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CAMPUS OAKS APARTMENTS - PHASE 1

DOG RUN 2

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Sheet Title

LANDSCAPE
DETAILS

Seal



No. Date Revision

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Project Mgr.: TVZ

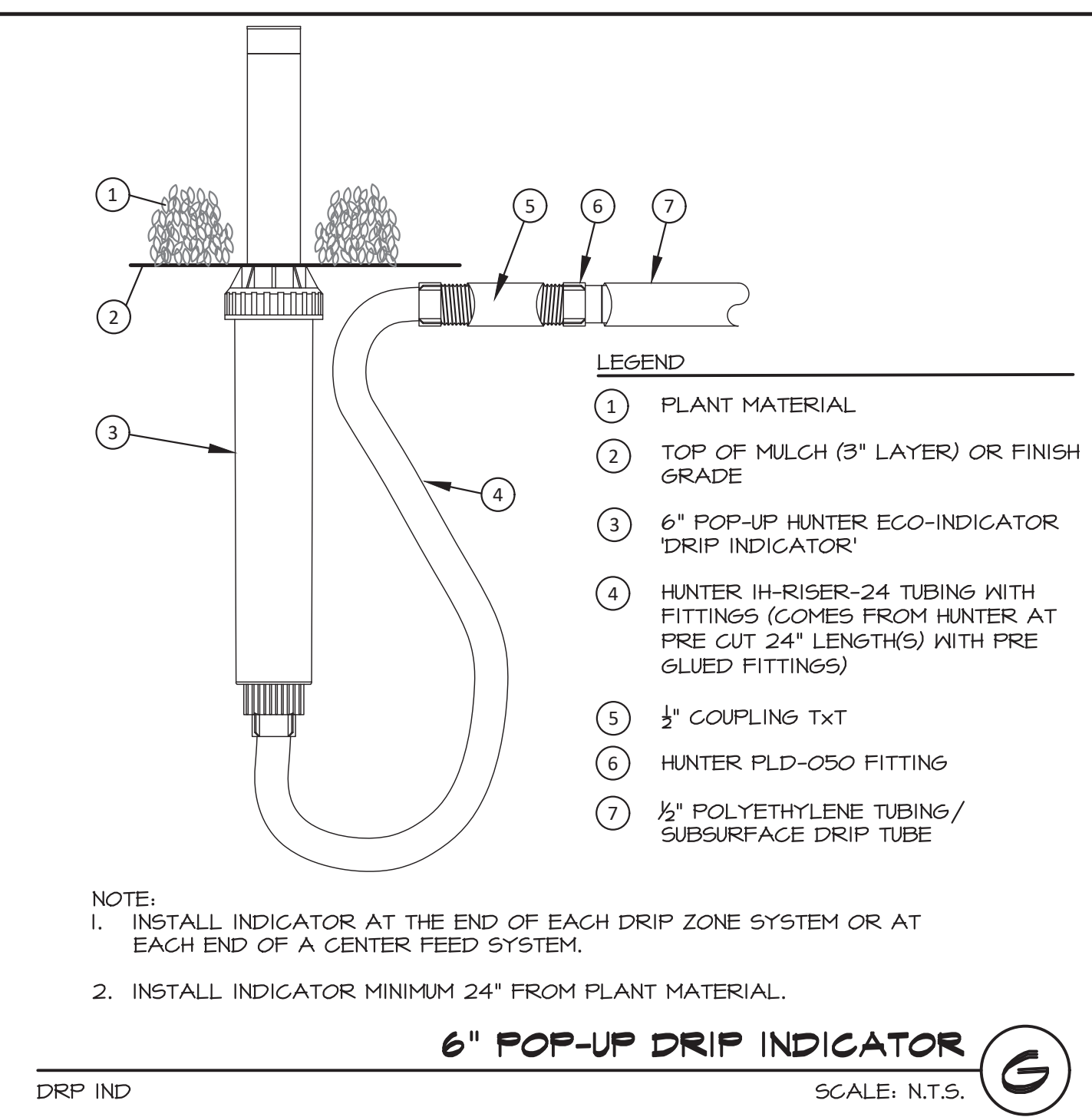
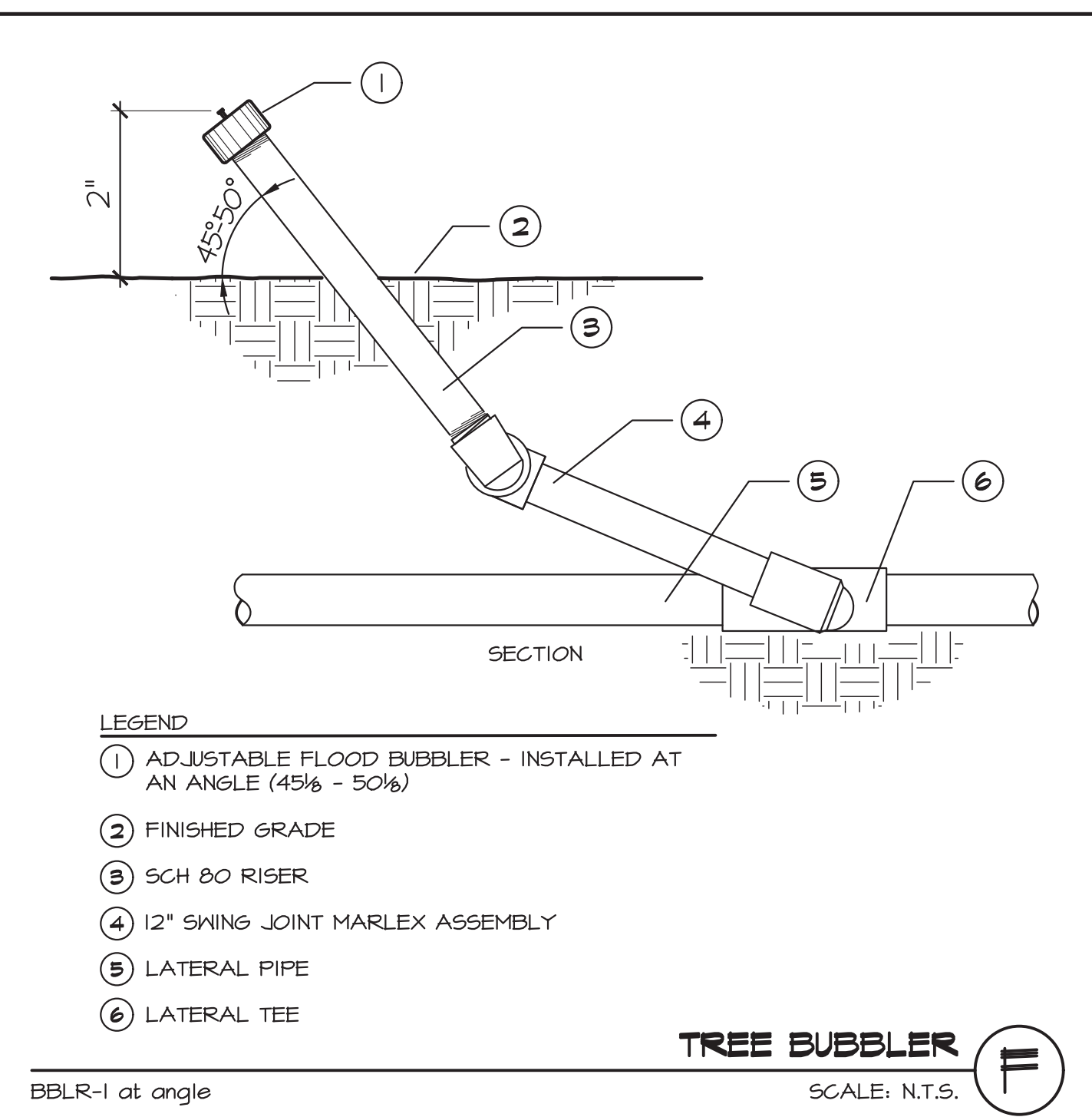
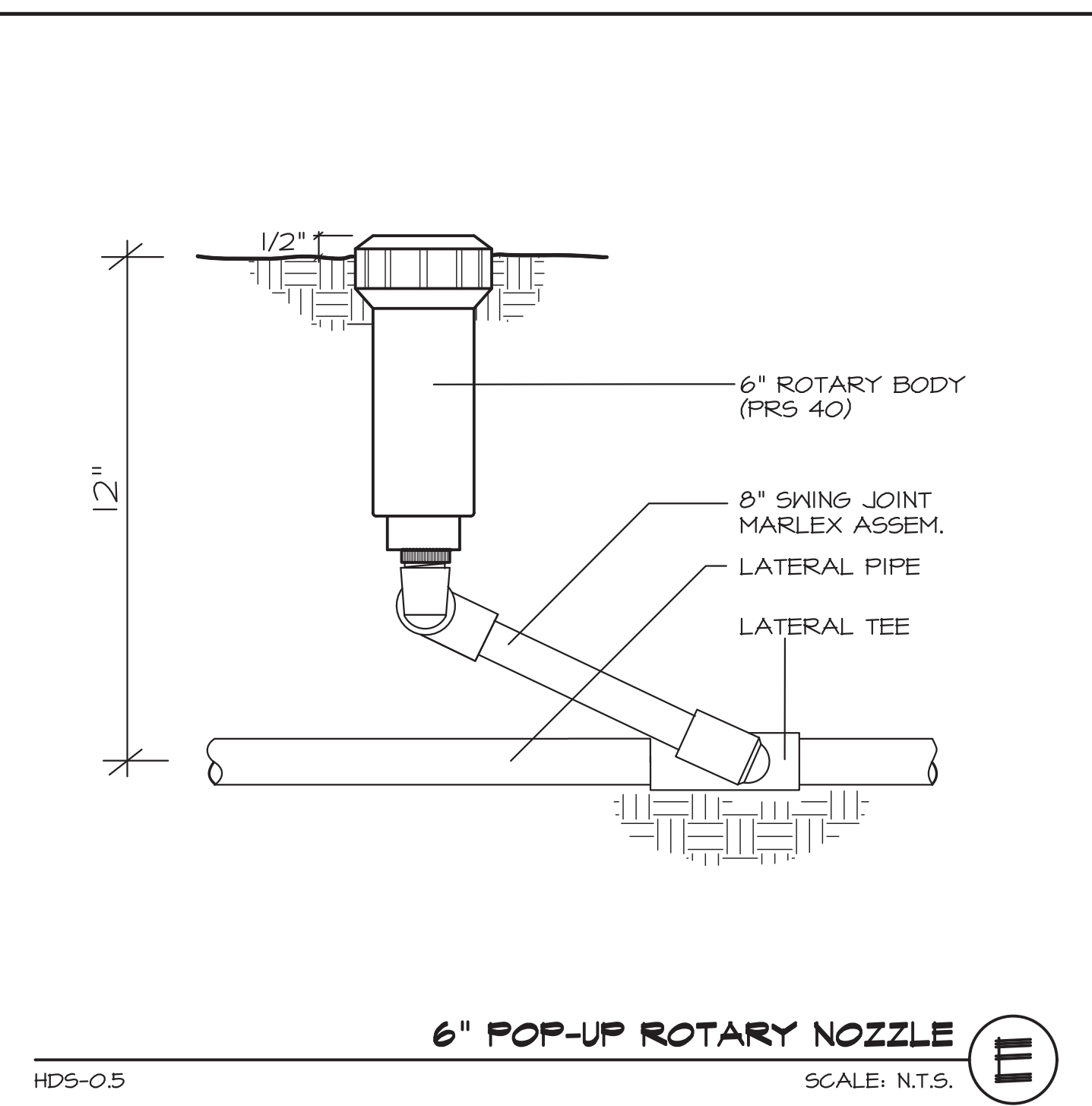
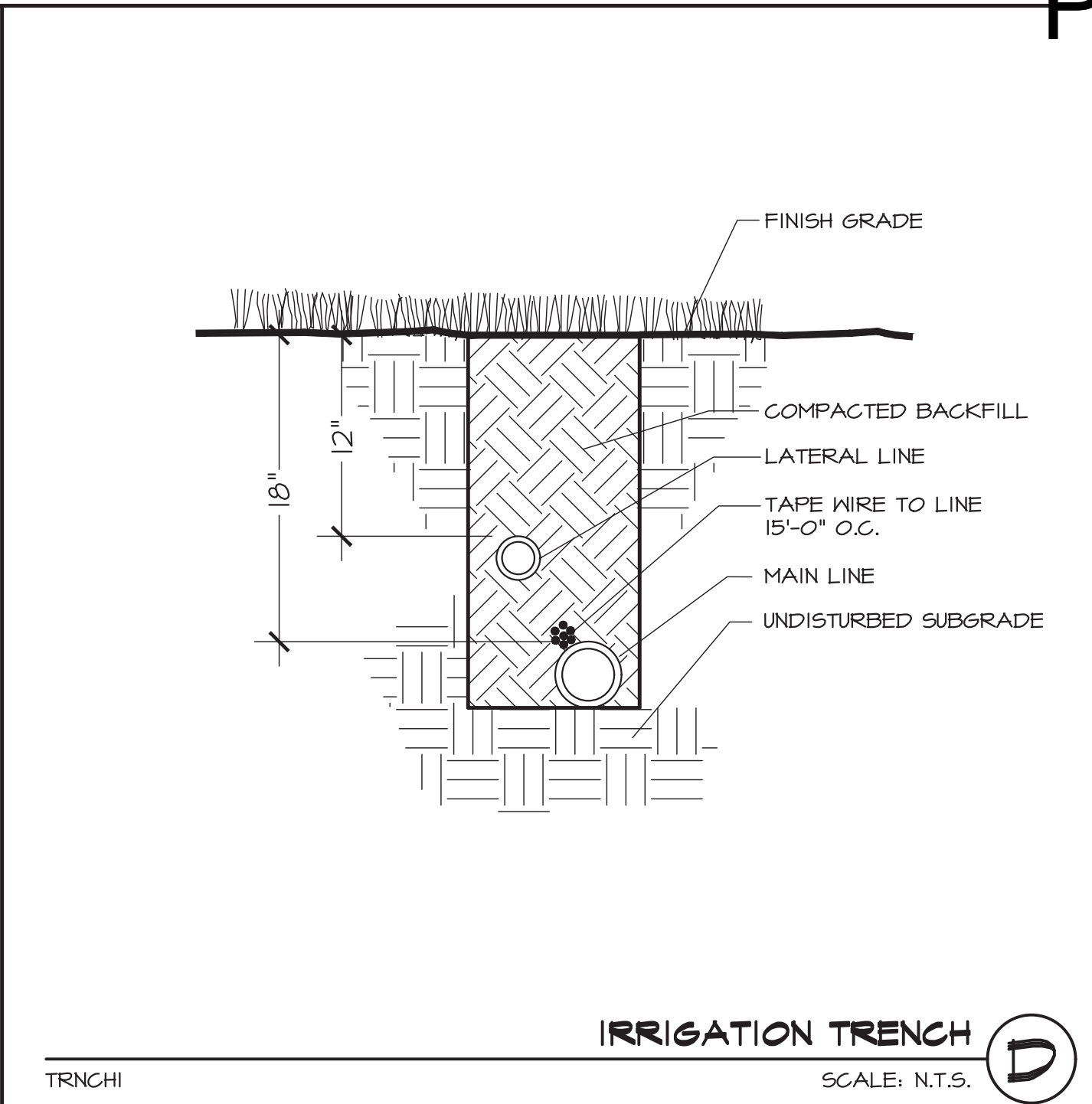
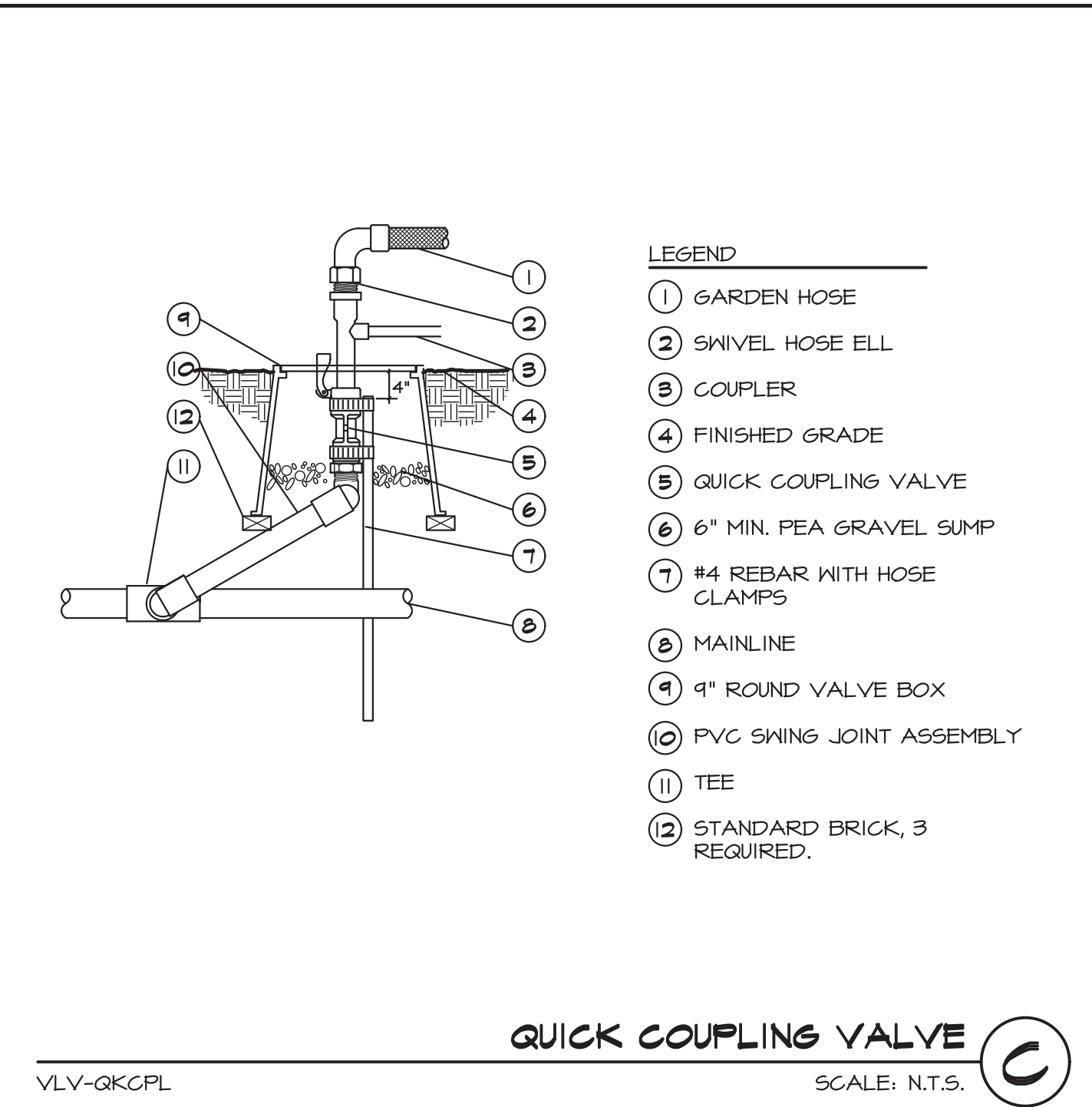
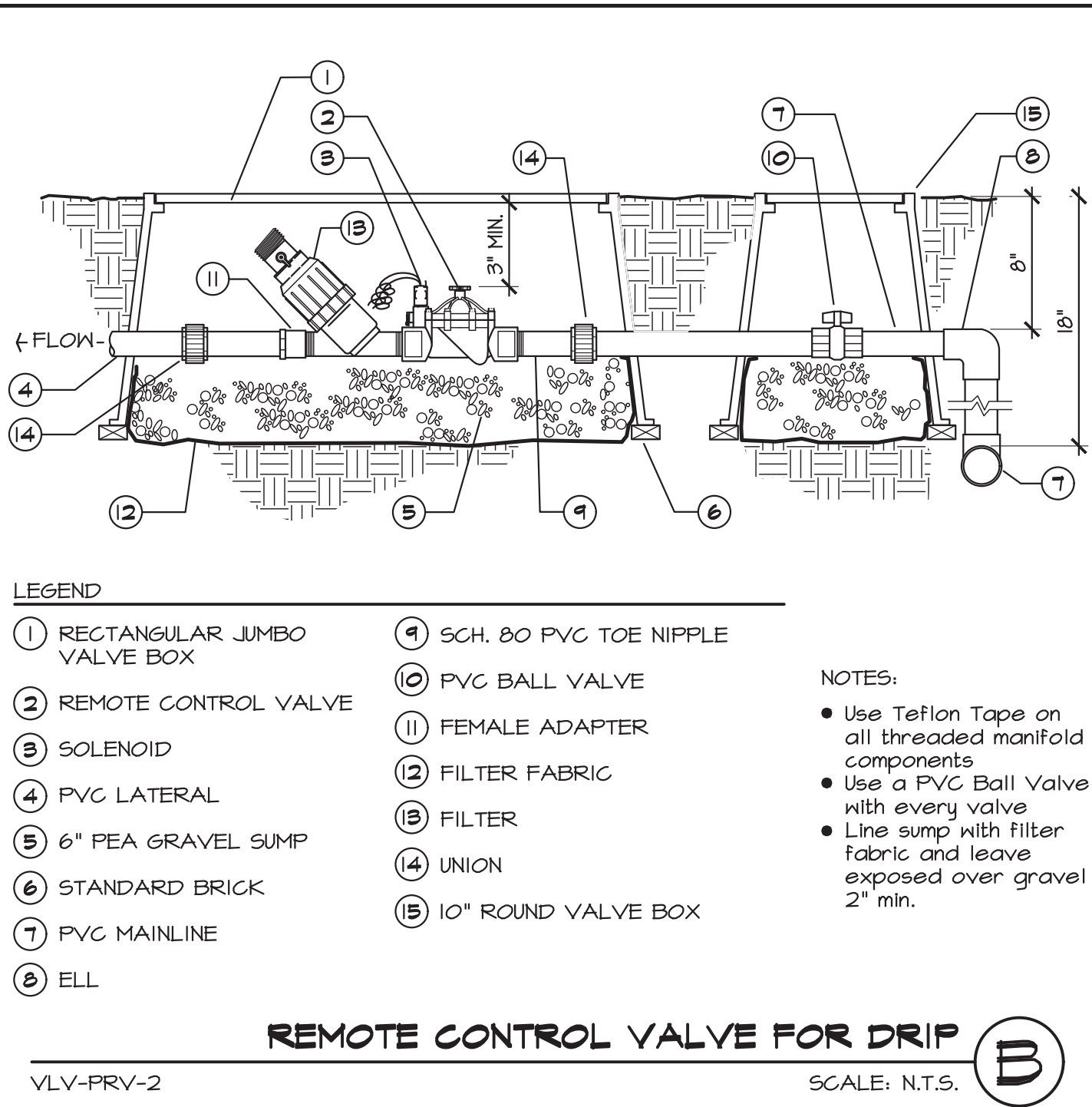
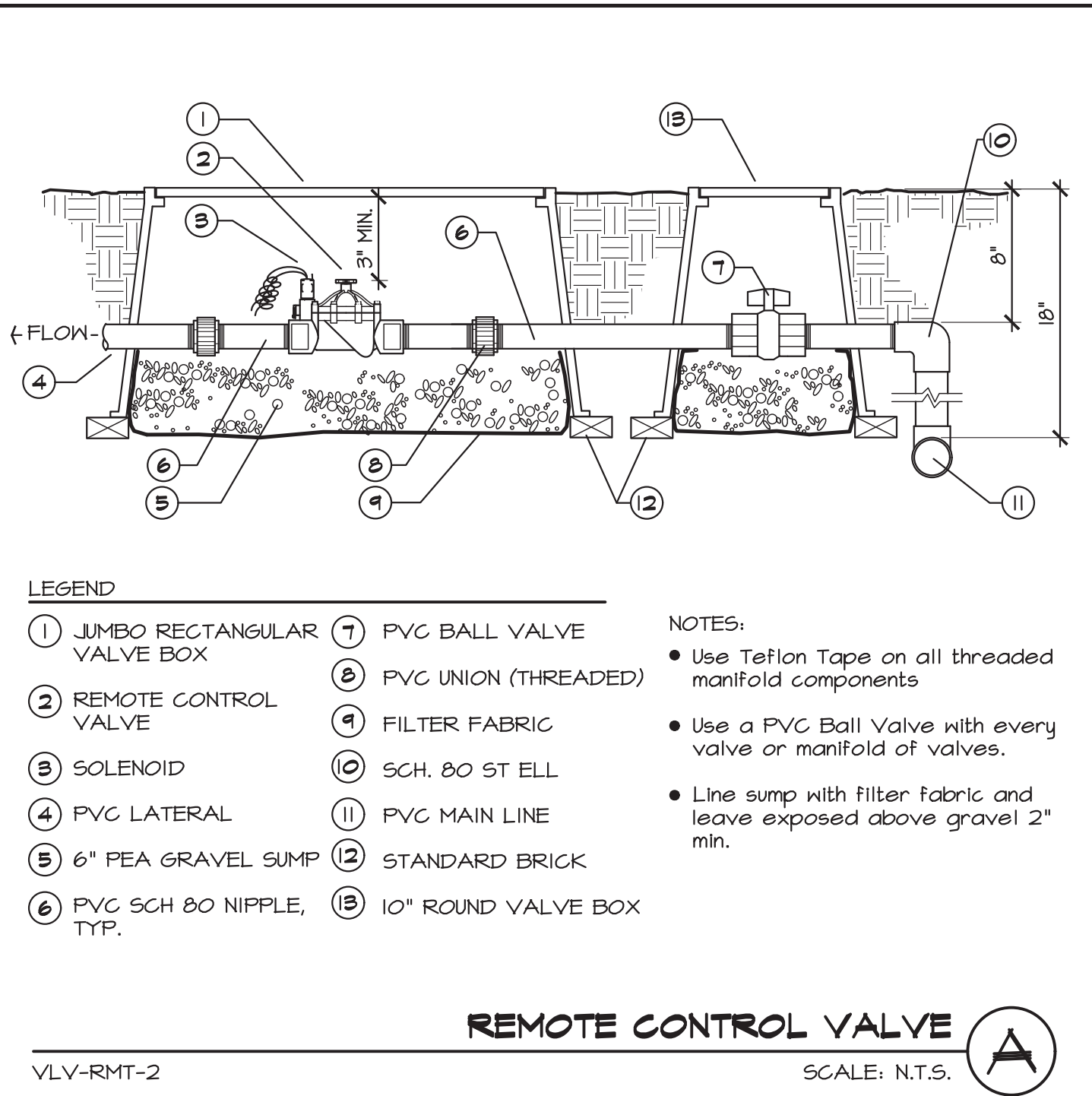
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Drawn By: TVZ

Scale: AS SHOWN

Date: 23 SEP 20

File Name: CO-DR-DT of 6 sheets



Sleeving Schedule

ALL PIPE SLEEVES TO BE SCHEDULE 40 PVC. ALL PLASTIC LINES SHALL BE INSTALLED IN SLEEVES UNDER PAVED AREAS. SLEEVES SHALL EXTEND AT LEAST 12 INCHES BEYOND THE EDGES OF THE PAVEMENT. SIZE OF SLEEVES SHALL BE AS FOLLOWS:

PIPE OR WIRE SIZE	REQUIRED SLEEVE
3/4", 1" PIPE	1-2" PVC SLEEVE
1-1/4", 1-1/2", 2", 2-1/2" PIPE	1-4" PVC SLEEVE
3", 4" PIPE	1-6" PVC SLEEVE
6" PIPE	1-8" PVC SLEEVE
1-25 CONTROL WIRES	1-2" PVC SLEEVE
26-55 CONTROL WIRES	2-2" PVC SLEEVES

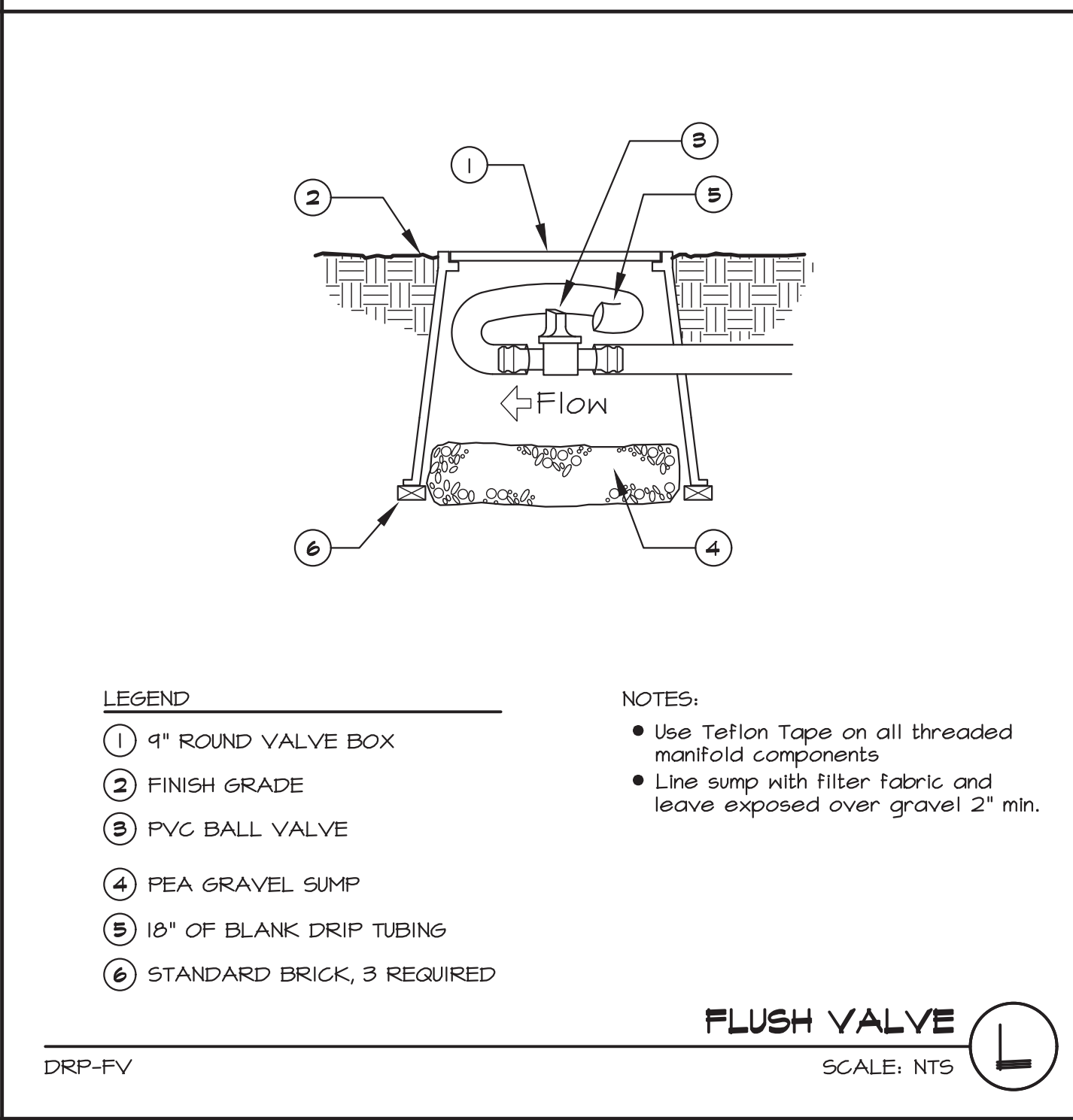
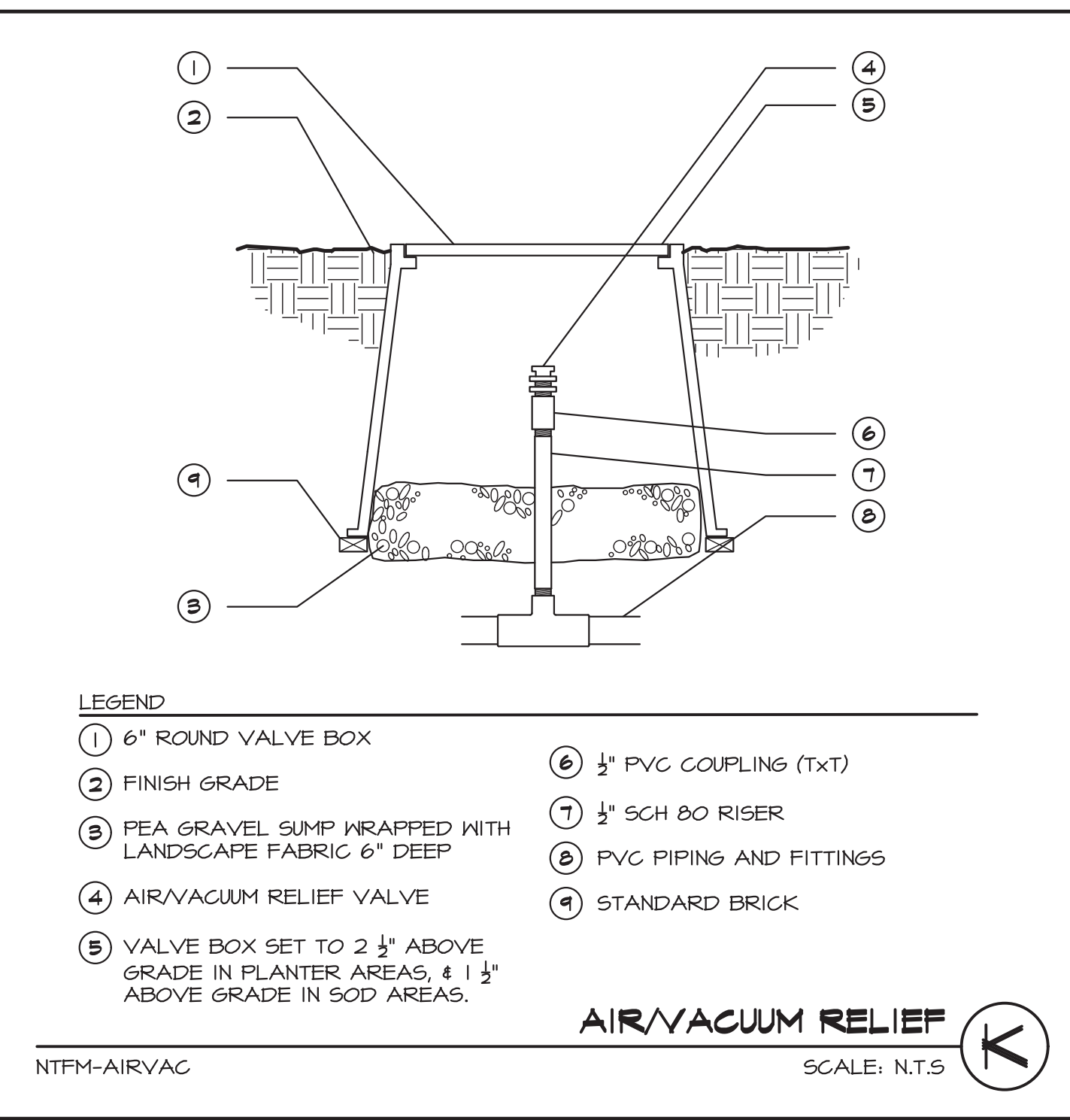
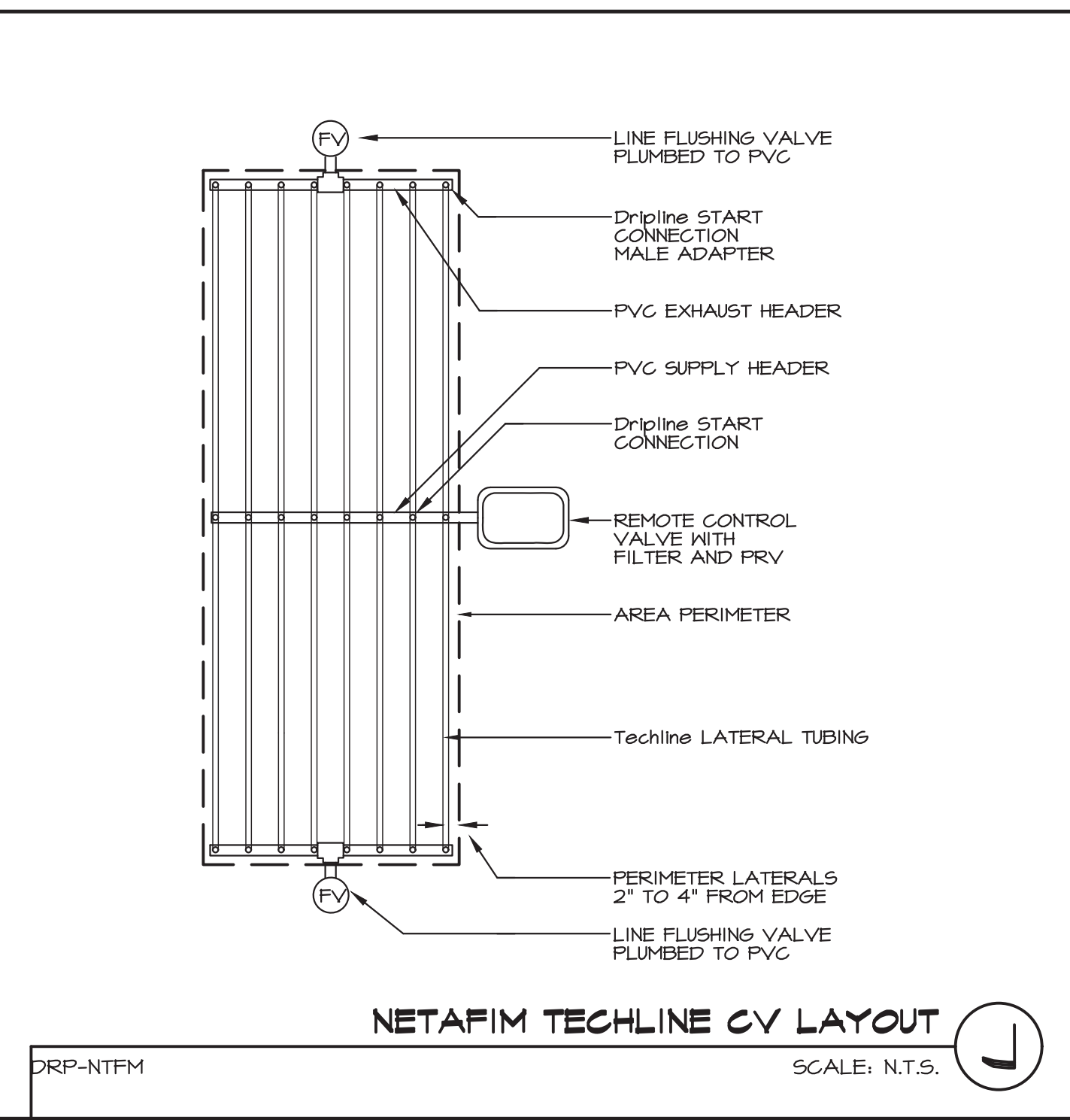
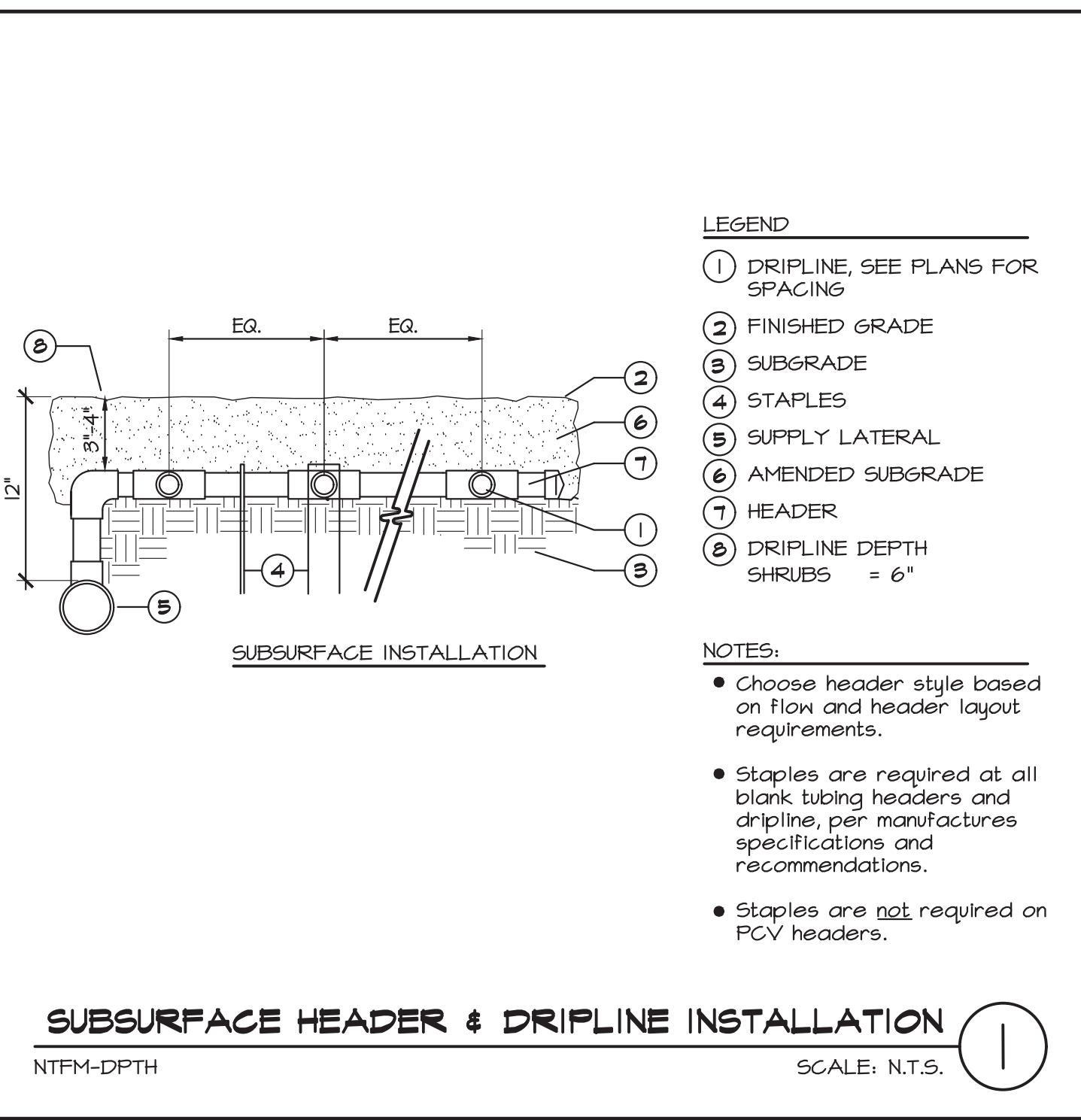
Main and Lateral Line Pipe Sizing Schedule

PIPE SIZE	SCH 40 (GPM)	CL 315 (GPM)	CL 200 (GPM)
3/4"	5-8	-	-
1 INCH	9-13	-	-
1-1/4"	14-23	-	-
1-1/2"	24-32	-	-
2 INCHES	33-53	-	-
2-1/2"	-	50-74	-
3 INCHES	-	75-109	-
4 INCHES	-	-	126-200
6 INCHES	-	-	200-425

NOTE:

1. ALL PIPE 1" - 2" SHALL BE SCH 40. ALL MAINLINE PIPE SHALL BE MINIMUM 1" OR LARGER.
2. ALL PIPE 2 1/2" - 4" SHALL BE CLASS 315.
3. ALL PIPE 5" - 6" AND GREATER SHALL BE CLASS 200.

(I)





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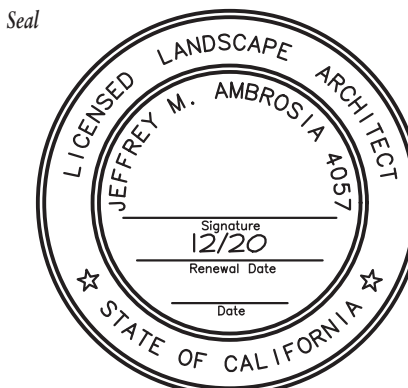
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CAMPUS OAKS APARTMENTS - PHASE 1
DOG RUN 2
ROSEVILLE, CALIFORNIA

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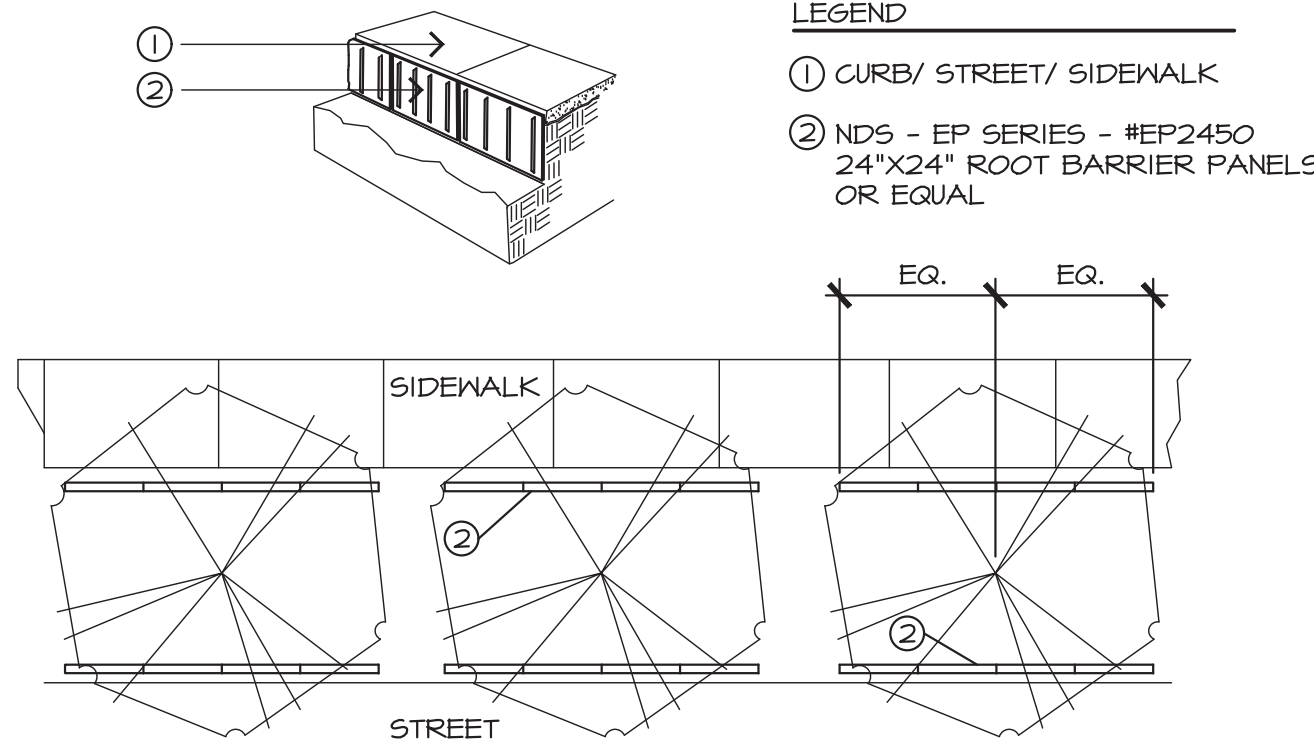
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LANDSCAPE
DETAILS



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Drawn By: TVZ
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Date: 23 SEP 20
File Name: CO-DR-DT of 6 sheets

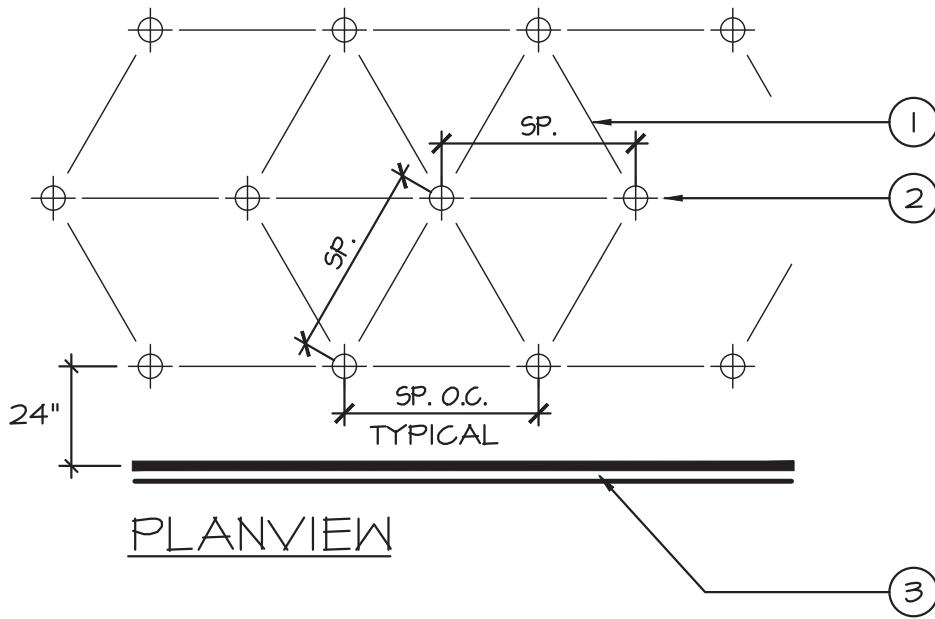
L-3.2



- LEGEND
- ① CURB/ STREET/ SIDEWALK
 - ② NDS - EP SERIES - #EP2450 24"X24" ROOT BARRIER PANELS OR EQUAL
- NOTES:
- Install (4) 24" panels on each side of tree
 - Center the panels on trunk of tree
 - Root barriers are required in all locations where trees are placed closer than 48" from curbs, sidewalks, concrete or asphalt, and where shown on plans.
 - Set top of root barrier 4" below top of walk or curb, or 2" below finished grade, whichever is lower.

TREE ROOT BARRIER

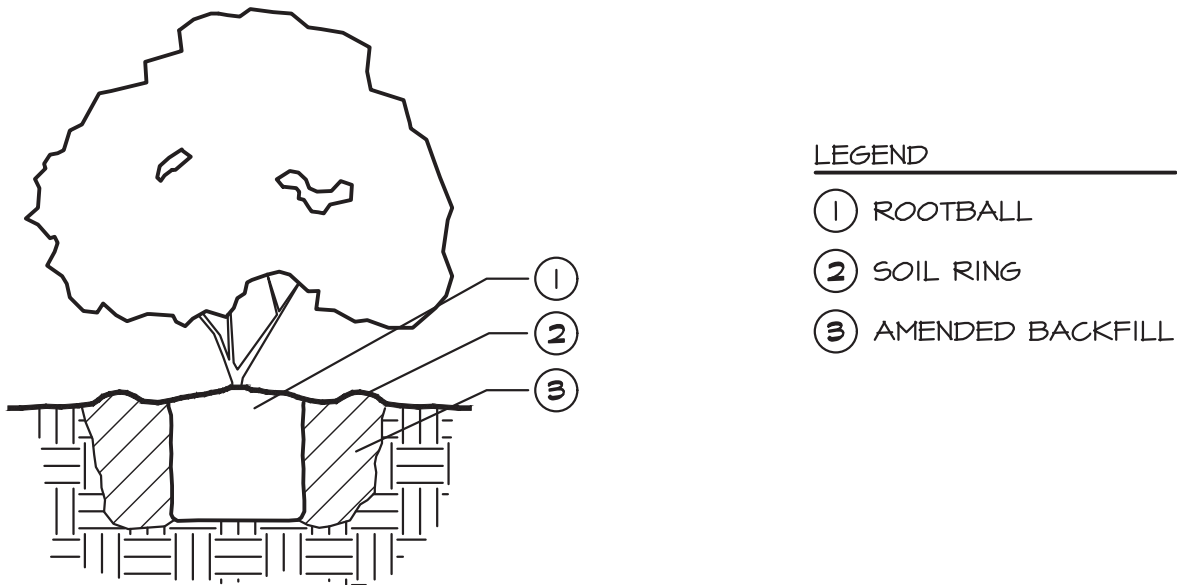
SCALE: N.T.S.



- LEGEND
- ① GROUNDCOVER SPACING: SEE PLANTING PLAN LEGEND.
 - ② GROUNDCOVER CENTERS.
 - ③ WALL, WALK OR EDGE OF GROUNDCOVER PLANTING.

GROUNDCOVER PLANTING

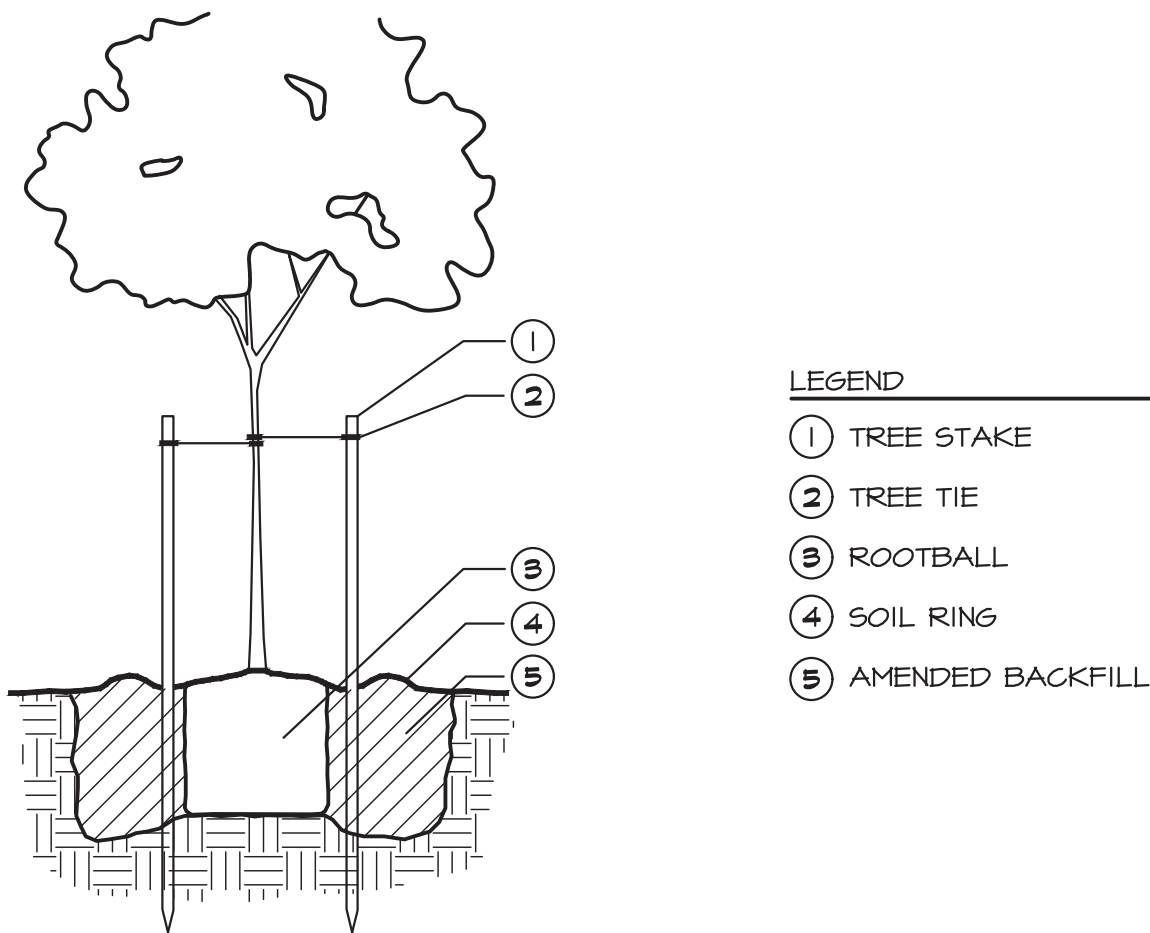
SCALE: N.T.S.



- LEGEND
- ① ROOTBALL
 - ② SOIL RING
 - ③ AMENDED BACKFILL
- NOTES:
- WIDTH OF HOLE SHALL BE 3 TIMES THE WIDTH OF THE ROOTBALL
 - DEPTH OF THE HOLE SHALL BE DEPTH OF THE ROOTBALL WITH 1 1/2" OF TOP OF ROOTBALL HIGHER THAN SURROUNDING FINISH GRADE
 - CUT TREE STAKES WITHIN 2" OF TIES
 - WATER BACKFILL HEAVILY TO REDUCE AIR POCKETS
 - REMOVE NURSERY STAKE PRIOR TO THE END OF THE MAINTENANCE PERIOD
 - MAINTAIN A MINIMUM DISTANCE OF 18" BETWEEN EDGE OF LAWN AND TRUNK OF TREE(S)

SHRUB PLANTING

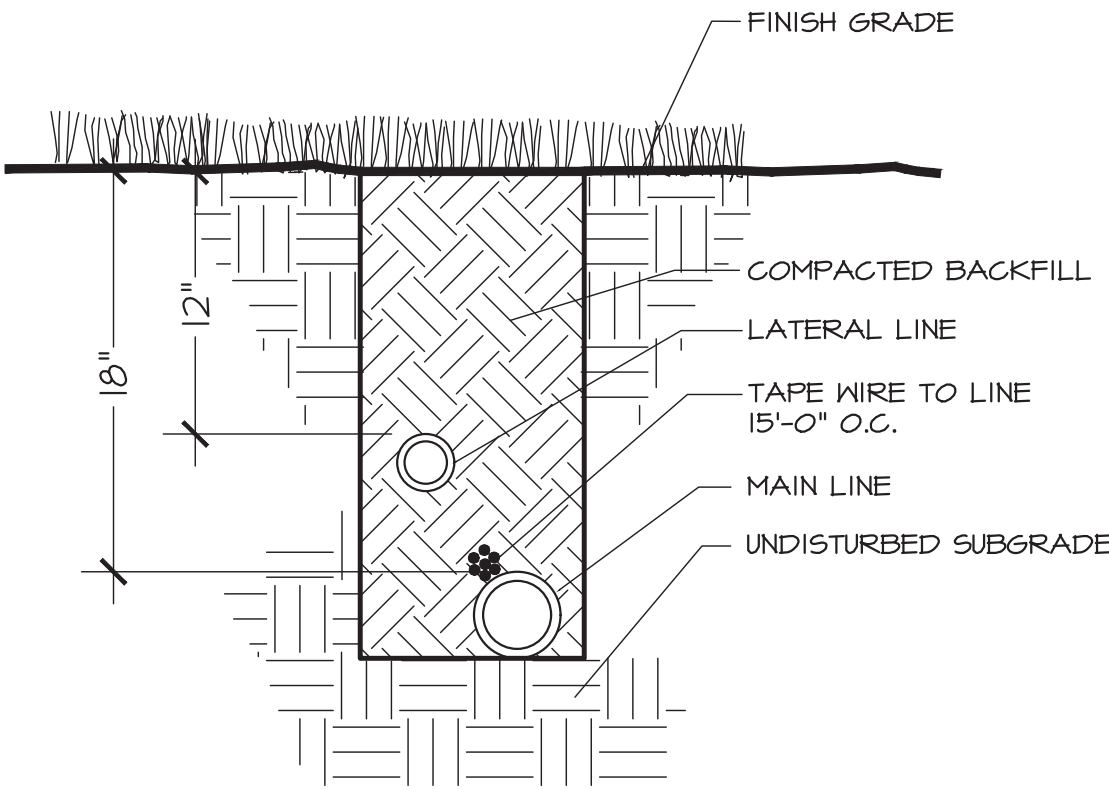
SCALE: N.T.S.



- LEGEND
- ① TREE STAKE
 - ② TREE TIE
 - ③ ROOTBALL
 - ④ SOIL RING
 - ⑤ AMENDED BACKFILL
- NOTES:
- WIDTH OF HOLE SHALL BE 3 TIMES THE WIDTH OF THE ROOTBALL
 - DEPTH OF THE HOLE SHALL BE HEIGHT OF THE ROOTBALL WITH 1 1/2" OF TOP OF ROOTBALL HIGHER THAN SURROUNDING FINISH GRADE
 - CUT TREE STAKES WITHIN 2" OF TIES
 - WATER BACKFILL HEAVILY TO REDUCE AIR POCKETS
 - REMOVE NURSERY STAKE PRIOR TO THE END OF THE MAINTENANCE PERIOD
 - MAINTAIN A MINIMUM DISTANCE OF 18" BETWEEN EDGE OF LAWN AND TRUNK OF TREE(S)

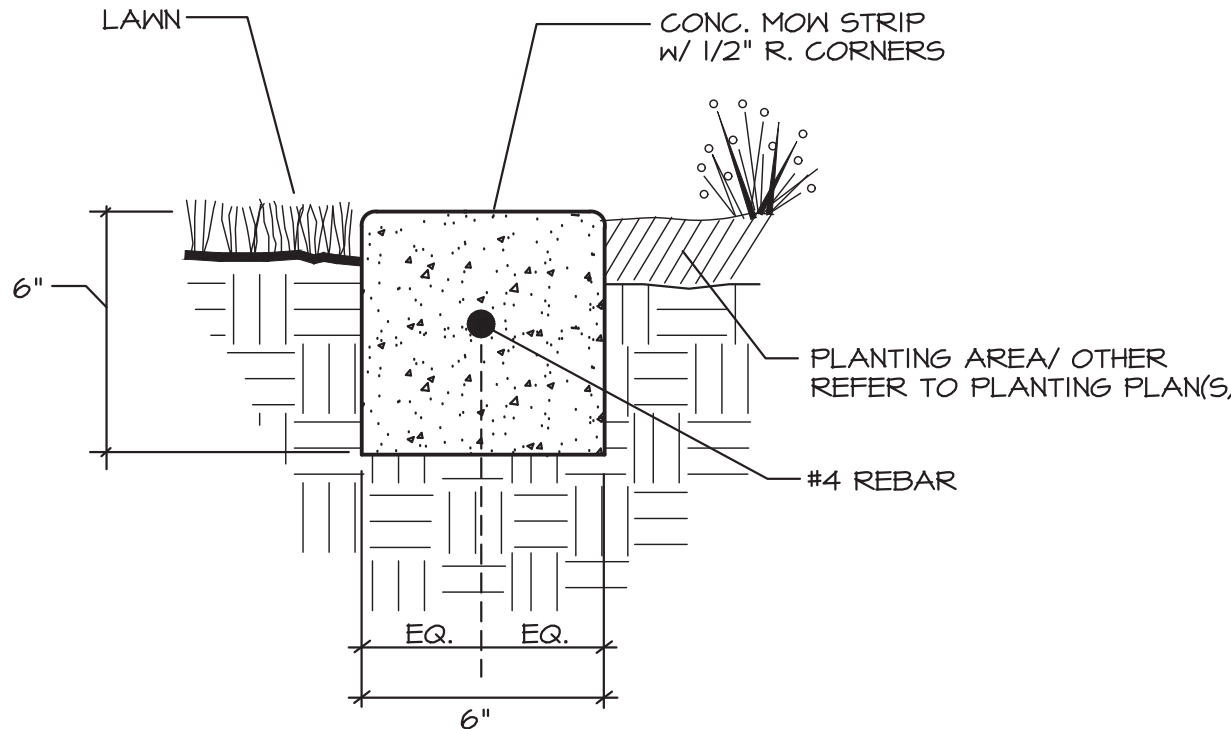
TREE PLANTING AND STAKING

SCALE: N.T.S.



IRRIGATION TRENCH

SCALE: N.T.S.



6" CONCRETE MOW STRIP

SCALE: N.T.S.

- NOTE
- PLACE 1/2" WIDE PRE-FORMED FIBER EXPANSION JOINTS AT 15' O.C.
 - IF EXTRUDED USE FIBER MESH, IF POURED IN PLACE USE #4 REBAR CONTINUOUS IN MIDDLE OF MOW STRIP
 - MOW STRIP SHALL BE FLUSH WITH ADJOINING PAVEMENT
 - CONCRETE TO BE CLASS A



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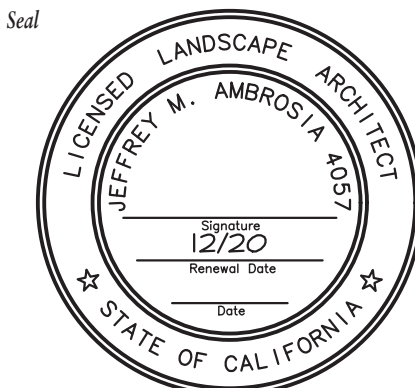
CAMPUS OAKS APARTMENTS - PHASE 1

DOG RUN 2

ROSEVILLE, CALIFORNIA

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Sheet Title
LANDSCAPE
CALCULATIONS



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Project Mgr.: TVZ
Drawn By: TVZ
Scale: AS SHOWN
Date: 23 SEP 20
File Name: CO-DR-DT of 6 sheets

L-3.3



Irrigation Division
Irrigation Audit Services (CLIA)
LEED Certified Landscape Design
AB1881 Compliance Documentation

PROJECT INFORMATION

Project Name: Campus Oaks Dog Run Date: 9/23/2020

Project Contact:	Applicant:	Yamasaki Landscape Architecture 1223 High Street, Auburn, CA 95603 (530) 885-0040
	Contact:	Jeff Ambrosia
	Owner:	Paul Gotla Campus Oaks Apartments 1949 St Johns Ave. Suite 200. Highland Park, IL 60035
Project Address:		350 Roseville Parkway Roseville, California

Project Type:	New Public Project
Local Water Purveyor:	City of Roseville
Water Supply:	Potable Water

Total Landscape Area:	23,306 s.f.
Maximum Applied Water Allowance:	339,424 gallons
Estimated Total Water Use:	309,607 gallons

Document Check List:
☒ Project Information
☒ Water Efficient Landscape Worksheet
☐ Soil Management Report
☒ Landscape Design Plan
☒ Irrigation Design Plan
☒ Grading Design Plan

	9/23/2020
Applicant Signature	Date
"I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package."	



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Water Efficient Landscape Worksheet
Section A: Hydrozone Information Sheet

Hydro-zone	Zone or Valve #	Irrigation Method	Area (Sq.Ft.)	% of Landscape Area
H	1	Rotor	1,909	8%
H	2	Rotor	2,500	11%
L	3	Drip	2,519	11%
L	4	Drip	1,342	6%
L	5	Drip	2,526	11%
L	6	Drip	2,899	12%
L	7	Drip	1,701	7%
L	8	Drip	1,451	6%
L	9	Drip	1,719	7%
L	10	Drip	2,647	11%
L	11	Drip	2,093	9%
M	12	Bubbler	320	1%
	13			0%
	14			0%
	15			0%
	16			0%
	17			0%
	18			0%
	19			0%
	20			0%
	21			0%
	22			0%
	23			0%
	24			0%
	25			0%
	26			0%
Total Bubbler Area			320	1%
Total Area(Sq.Ft.)			23,306	Total (%)
Bubbler Area is deducted from Drip Area				100%



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Water Efficient Landscape Worksheet
Section B. Water Budget Calculation

Maximum Applied Water Allowance (MAWA)

Project ETo City: Roseville

MAWA = (ETo) (0.62) [(0.45 x LA) + (0.55 x SLA)]

Insert: Where:
MAWA = Maximum Applied Water Allowance (gallons per year)
ETo = Reference Evapotranspiration (inches per year)
0.45= ET Adjustment Factor (ETAF)[AB 1881 Dec 1, 2015]
LA = Landscape Area includes Special Landscape Area (Sq.Ft.)
0.62 = Conversion Factor (to gallons per Sq.Ft.)
SLA = Special Landscape Area (Sq.Ft.)
0.55= The additional ET Adjustment Factor for SLA (1.0-0.45=0.55)

MAWA = 52.2 [(0.62) [(0.45x 23,306) + (0.55x 0)]

Maximum Applied Water Allowance: 339,424 Gal. / Yr

Effective Precipitation (Eppt)

If considering Effective Precipitation, use 25% of Annual precipitation.

MAWA = (ETo - Eppt) (0.62) [(0.45 x LA) + (0.55 x SLA)]
Annual Prec: (x 0.25)
Eppt: 0

MAWA 52.2 - 0 [(0.62) [(0.45 x 23,306) +(0.55 x 0)]

Maximum Applied Water Allowance: 339,424 Gal. / Yr



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Water Efficient Landscape Worksheet
Section B. Water Budget Calculation

Estimated Total Water Use (ETWU)

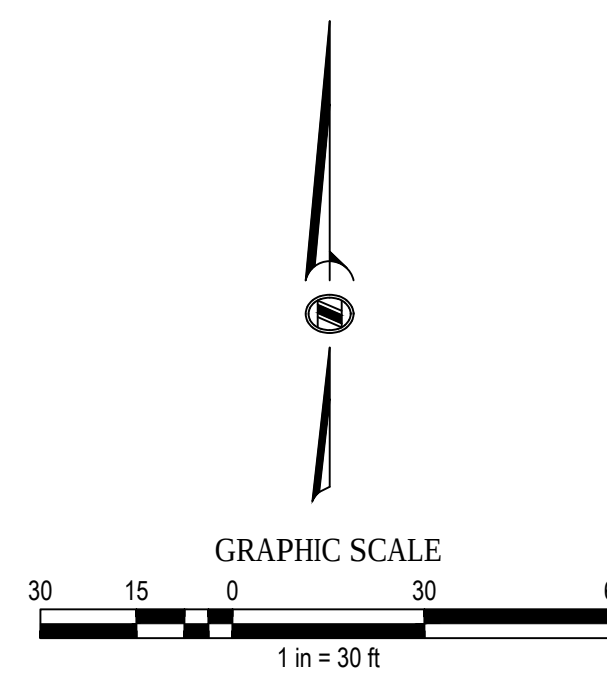
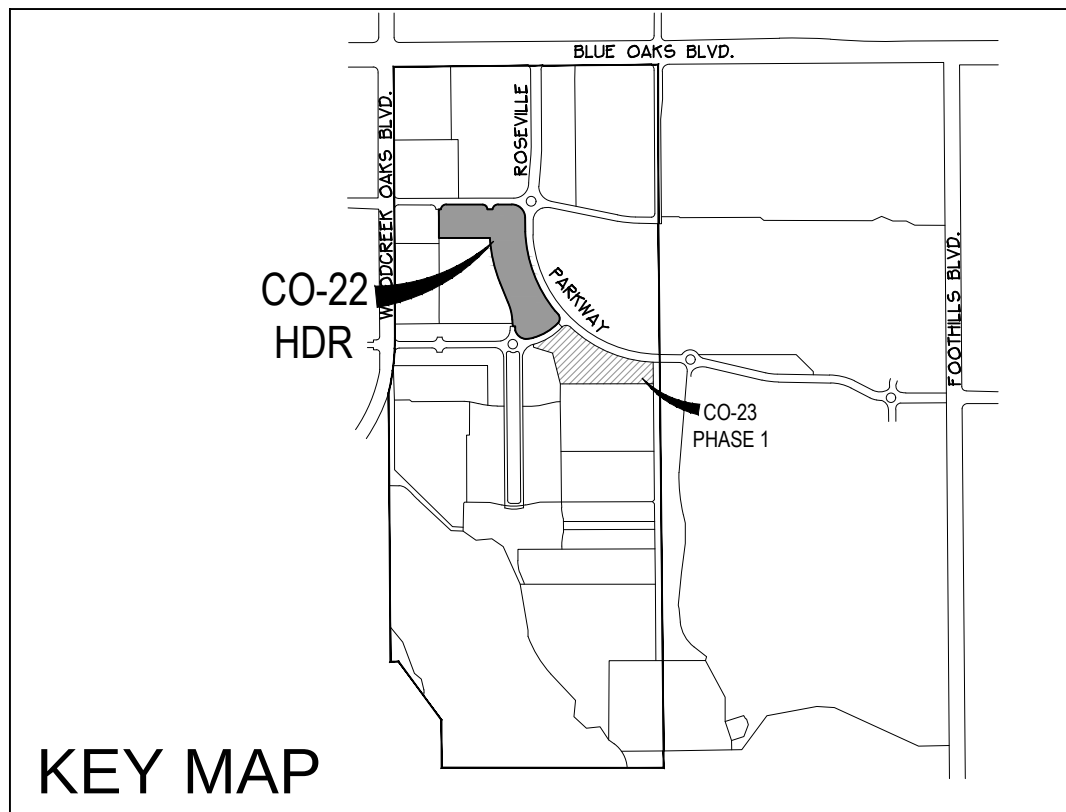
Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)	ETAF (PF/IE)	Area (HA) (Sq.Ft.)	ETAF x Area	Estimated Total Water Use
1	High (H)	0.8	0.75	1,909	2,036	65,902
2	High (H)	0.8	0.75	2,500	2,667	86,304
3	Low (L)	0.2	0.81	2,519	622	20,130
4	Low (L)	0.2	0.81	1,342	331	10,724
5	Low (L)	0.2	0.81	2,526	624	20,186
6	Low (L)	0.2	0.81	2,899	716	23,166
7	Low (L)	0.2	0.81	1,701	420	13,593
8	Low (L)	0.2	0.81	1,451	358	11,595
9	Low (L)	0.2	0.81	1,719	424	13,737
10	Low (L)	0.2	0.81	2,647	654	21,152
11	Low (L)	0.2	0.81	2,093	517	16,725
12	Moderate (M)	0.5	0.81	320	198	6,393
13			0.00		0	0
14			0.00		0	0
15			0.00		0	0
16			0.00		0	0
Total				23,626	9,566	
				SUM		309,607
Special Landscape Areas						
			0.00		0	0
			0.00		0	0
			0.00		0	0
			0.00		0	0
			0.00		0	0
Total SLA			SUM	0	0	0
Project Eto						52.2
ETWU =(ETo)(0.62)(PF x HA + SLA)						309,607
IE						0.40
Regular Landscape ETWU						0
Average ETAF						0.40
SLA ETWU						0
Sitewide ETAF						0.40
Max Applied Water Allowance						339,424
Estimated Total Water Use						309,607

CAMPUS OAKS APARTMENTS, PHASE 2

APPROVED SITE PLAN



CAMPUS OAKS APARTMENTS, PHASE 2 MODIFIED SITE PLAN

[illegible]REVISIONS
BENCH MARK

ELEV = 112.83
3-1/4" BRASS DISC STAMED LS5614, TOP OF CURB
WEST SIDE OF DI @ SE CORNER OF WASHINGTON BLVD. &
ROSEVILLE PARKWAY @ NE END OF CURB RETURN

COMPUTED BY _____

DESIGNED BY _____

DRAWN BY _____

PROJECT ENGINEER

PROJECT

ENTITLEMENT DRAWING FOR
MAJOR PROJECT PERMIT MODIFICATION
HP CAMPUS OAKS APARTMENTS
PHASE 2
SITE PLAN REVISION

ROSEVILLE, CA

DRAWING

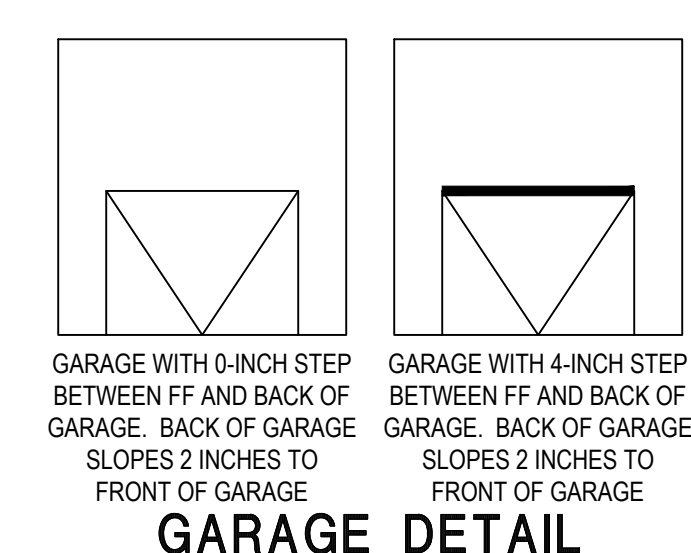
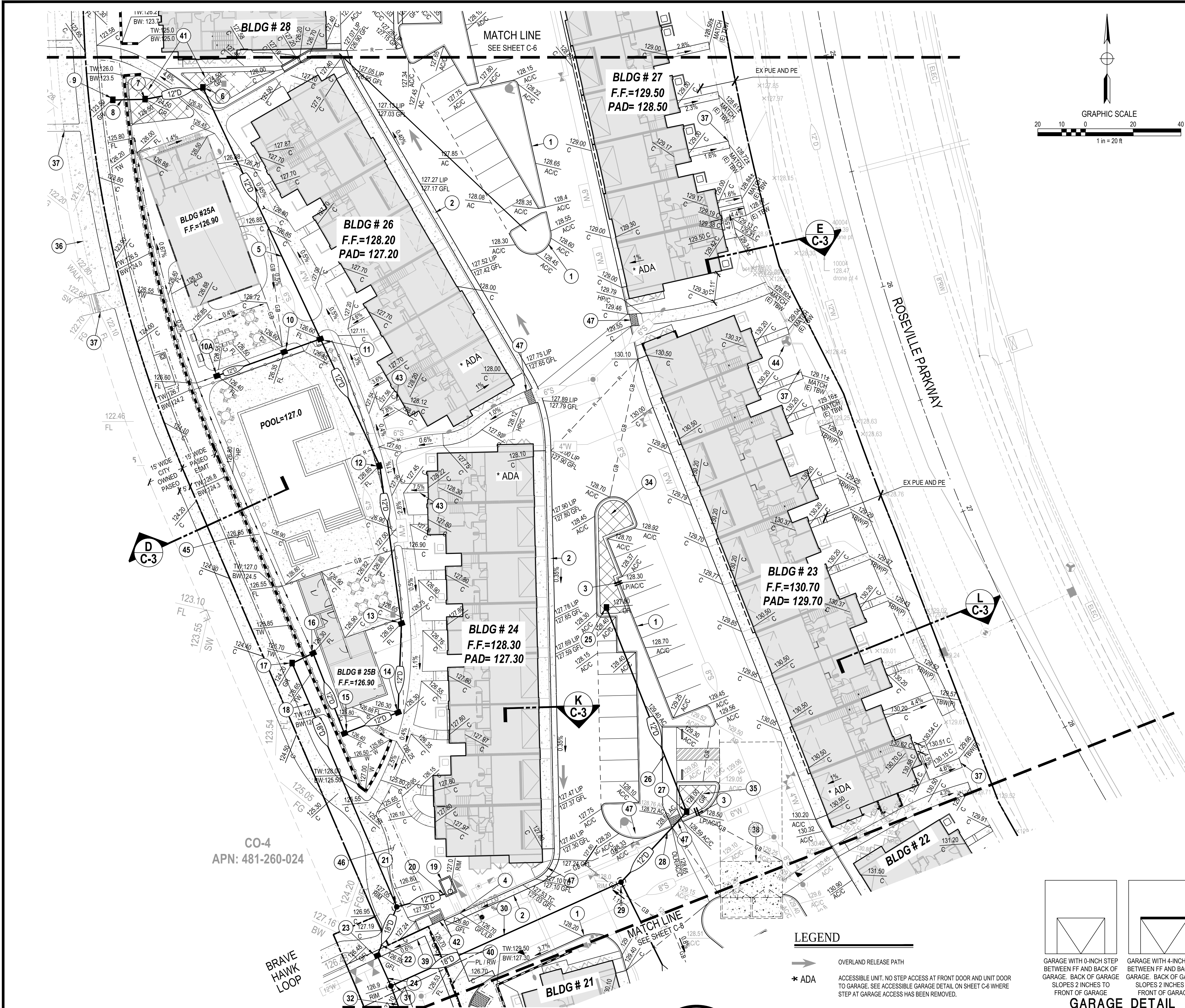
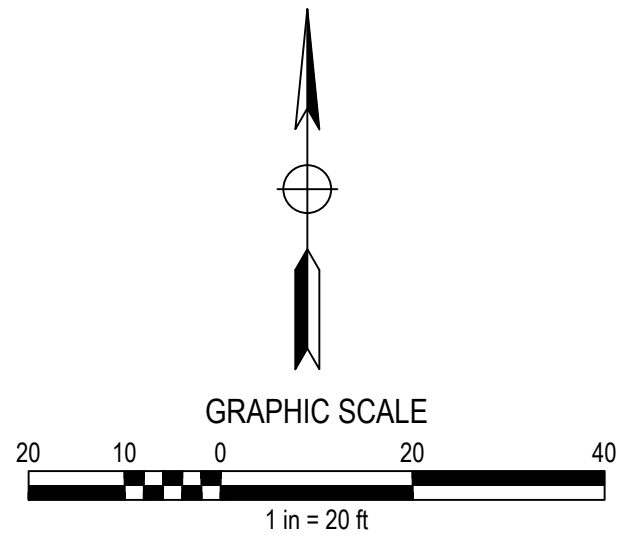
DATE	SHEET
DECEMBER 22, 2020	1

SCALE 1" = 40'

JOB NUMBER	OF
16-0018-01	1

CONSTRUCTION KEYNOTES

1. CONSTRUCT VERTICAL CURB PER DETAIL 8 ON SHEET C-16.
2. CONSTRUCT ROLLED CURB AND GUTTER PER DETAIL 13 ON SHEET C-16.
3. CURB OPENING PER DETAIL 12 ON SHEET C-16.
4. CONSTRUCT TWO ADJACENT AND PARALLEL UNDER SIDEWALK DRAINS PER DETAIL "G" ON SHEET C-15. EXTEND UNDERDRAINS TO CONTECH FILTERRA UNIT PER KEYNOTE 19 WITH INVERT ELEVATION = 126.25.
5. PLACE 116 LF X 12" DRAINAGE PIPE @ S = 0.0026.
6. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 124.50, INV=120.77 12" IN (W), INV=120.77 12" OUT (SE).
7. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 124.50, INV=120.84 12" IN (W), INV=120.84 12" IN (E), INV=120.84 12" OUT. PLACE 25 LF X 12" DRAINAGE PIPE @ S=0.0026.
8. PLACE 14 LF X 12" DRAINAGE PIPE @ S = 0.0050.
9. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 123.50, INV=120.91 12" OUT.
10. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 126.35, INV=120.51 12" OUT (NE), INV=120.51 12" IN (SW). PLACE 16 LF X 12" DRAINAGE PIPE @ S = 0.0026.
- 10A. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 126.40, INV=120.81 12" OUT (NE). PLACE 30 LF X 12" DRAINAGE PIPE @ S = 0.0100.
11. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 126.60, INV=120.47 IN (SW), INV=120.47 OUT (SE). PLACE 59 LF X 12" DRAINAGE PIPE @ S = 0.0026.
12. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 126.85, INV=120.32 IN (NW), INV=120.32 OUT (S). PLACE 67 LF X 12" DRAINAGE PIPE @ S = 0.0026.
13. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 126.50, INV=120.15 IN (N), INV=120.15 OUT (S). PLACE 37 LF X 12" DRAINAGE PIPE @ S = 0.0026.
14. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 126.30, INV=120.20 IN (N), INV=120.05 OUT (SW). PLACE 24 LF X 12" DRAINAGE PIPE @ S = 0.0026.
15. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 126.40, INV=119.99 IN (NE), INV=119.99 OUT (NW). PLACE 36 LF X 12" DRAINAGE PIPE @ S = 0.0026.
16. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 126.30, INV=119.90 IN (SE), INV=119.90 OUT (SW). CONNECT TO 10 LF X 12" DRAINAGE PIPE @ S = 0.0026.
17. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 124.20, INV=119.87 IN (E), INV=119.87 OUT.
18. PLACE 111 LF X 18" DRAINAGE PIPE @ S = 0.0026.
19. DMA #13; INSTALL CONTECH FILTERRA FTBIC-C, 4' x 4.5' MEDIA BAY SIZE; RIM=127.0; FL FILTERRA INLET=126.25; INV=122.96 12" OUT; SEE DETAIL "D" ON SHEET C-15.
20. PLACE 21 LF X 12" DRAINAGE PIPE @ S = 0.1610.
21. CONSTRUCT 48" DMH PER DETAIL "A" ON SHEET C-15; RIM = 127.05, INV = 119.58 IN (E), 119.58 IN (N), INV=119.58 OUT.
22. PLACE 22 LF X 18" DRAINAGE PIPE @ S = 0.0050.
23. CONSTRUCT TYPE "C" DI PER CITY DRAWING DR-1 W/ NOTICE PER CITY DRAWING DR-20; GR = 126.55, INV=119.47 IN (NE), INV=118.47 OUT.
24. PLACE 14 LF X 18" DRAINAGE PIPE @ S = 0.0050.
25. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 127.80, INV=123.70 OUT.
26. PLACE 92 LF X 12" DRAINAGE PIPE @ S = 0.0109.
27. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 128.00, INV=122.70 IN, INV=122.70 OUT.
28. PLACE 40 LF X 12" DRAINAGE PIPE @ S = 0.0050.
29. CONSTRUCT 48" DMH PER CITY DRAWING DR-4; RIM = 128.20, INV=122.50 IN (NE), INV=122.50 IN (SW), INV=121.50 OUT.
30. PLACE 106 LF X 18" DRAINAGE PIPE @ S = 0.0050.
31. CONSTRUCT 48" DMH PER CITY DRAWING DR-4; RIM = 126.9, INV=121.07 IN (E); INV=118.40 IN (N); INV=118.40 OUT.
32. SEE SHEET C-8.
33. CONSTRUCT 24"x24" DI BY JENSEN OR APPROVED EQUAL PER DETAIL "A" ON SHEET C-15; GR = 125.65, INV=120.49 IN (N) INV=120.49 OUT.
34. DMA #14; CONST BIORETENTION BASIN PER WEST PLACER STORMWATER QUALITY DESIGN MANUAL FACT SHEET TR-1. MIN BOTTOM AREA= 210 SF, MIN TOP AREA= 210 SF, MIN DEPTH OF PLANTING MEDIA= 1.5 FEET, MIN DEPTH OF GRAVEL= 2.3 FT. SEE DETAIL "B" ON SHEET C-15.
35. DMA #15; CONST BIORETENTION BASIN PER WEST PLACER STORMWATER QUALITY DESIGN MANUAL FACT SHEET TR-1. MIN BOTTOM AREA= 151 SF, MIN TOP AREA= 151 SF, MIN DEPTH OF PLANTING MEDIA= 1.5 FEET, MIN DEPTH OF GRAVEL= 1.5 FT. SEE DETAIL "B" ON SHEET C-15.
36. DEMO SIDEWALK CONSTRUCTED W/ CO-4 PLANS.
37. CONNECT TO NEW / EXISTING CITY SIDEWALK / NEW CITY PASEO WALKWAY; CONNECTING WALK SHALL NOT EXCEED 5% LONGITUDINAL SLOPE, TYPICAL.
38. CONSTRUCT TRASH ENCLOSURE PER CITY DRAWING SW-1, SEE DETAIL 14 ON SHEET C-16.
39. CONSTRUCT TYPE 2 CURB AND GUTTER PER CITY DRAWING ST-17.
40. CONSTRUCT TYPE A-7 DRIVEWAY ENTRANCE PER CITY DRAWING ST-22.
41. DMA #9; CONST BIORETENTION BASIN PER WEST PLACER STORMWATER QUALITY DESIGN MANUAL FACT SHEET TR-1. MIN BOTTOM AREA= 431 SF, MIN TOP AREA= 617 SF, MIN DEPTH OF PLANTING MEDIA= 1.5 FEET, MIN DEPTH OF GRAVEL= 1.6 FT. SEE DETAIL "B" ON SHEET C-15.
42. CONSTRUCT CASE "C" PEDESTRIAN-CURB RAMP PER CITY DRAWING ST-26, AND PLACE TRUNCATED DOMES PER CITY DRAWING ST-35.
43. INSTALL HANDRAILS.
44. ADJUST (EX) UTILITY BASE TO GRADE, IF NECESSARY.
45. DMA #10; CONSTRUCT SOIL QUALITY IMPROVEMENT AREA PER WEST PLACER STORMWATER QUALITY DESIGN MANUAL FACT SHEET SDM-2. MIN. AREA = 1200 SF WITH MINIMUM DEPTH OF AMENDED SOIL = 0.5'. SEE DETAIL C ON SHEET C-15.
46. DMA #12; CONSTRUCT SOIL QUALITY IMPROVEMENT AREA PER WEST PLACER STORMWATER QUALITY DESIGN MANUAL FACT SHEET SDM-2. MIN. AREA = 300 SF WITH MINIMUM DEPTH OF AMENDED SOIL = 0.5'. SEE DETAIL C ON SHEET C-15.
47. PLACE TRUNCATED DOMES PER CITY DRAWING ST-35, TYPICAL. CURBS SHALL BE FLUSH AT GFL.



NO.	DESCRIPTION	APPD. ENGR.	DATE	APPD. E.U.	DATE
1	REVISE WQ UNIT & ASSOCIATED DRAINAGE				
2					
3					
4					

SCALE:	BENCH MARK
HORIZ. 1" = N/A	CITY B.M. 96
VERT. 1" = N/A	ELEV=112.83
	3-1/4" BRASS DISC STAMPED LS614, TOP OF CURB WEST SIDE OF DI @ SE CORNER OF WASHINGTON BLVD. & ROSEVILLE PARKWAY AT THE END OF CURB RETURN

COMPUTED	MJC
DESIGNED	JJC
DRAWN	MCK
PROJ. ENGR.	CDK



MORTON & PITALO, INC.
CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
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phone: (916) 984-7621
web: www.mpengr.com

IMPROVEMENT PLANS FOR
HP CAMPUS OAKS APARTMENTS - PHASE 2
GRADING & DRAINAGE PLAN 3
CITY OF ROSEVILLE, CALIFORNIA

DATE
OCTOBER 30, 2019

SHEET
C-7

7 OF 40

CONSTRUCTION KEYNOTES

SEWER:

- 1 SMH #7; CONST 48" SEWER MANHOLE PER CITY DRAWING SS-2; RIM=126.9, INV=118.2 8" IN, INV=118.1 8" OUT.
- 2 PLACE 162 LF X 8" VCP SEWER @ S=0.0097.
- 3 PLACE 12 LF X 6" VCP SEWER @ S=0.020.
- 4 PLACE 40 LF X 6" VCP SEWER @ S=0.020.
- 5 SMH #8; CONST 48" SEWER MANHOLE PER CITY DRAWING SS-2; RIM=129.7, INV=119.87 8" IN, INV=119.77 8" OUT.
- 6 PLACE 206 LF X 8" VCP SEWER @ S=0.0035.
- 7 SMH #9; CONST 48" SEWER MANHOLE PER CITY DRAWING SS-2; RIM=129.1, INV=120.76 6" IN, INV=120.59 8" OUT.
- 8 PLACE 43 LF X 6" VCP SEWER @ S=0.020.
- 9 INSTALL 6" CLEAN OUT TO GRADE; INV=121.62 (6" OUT).
- 10 PLACE 37 LF X 6" VCP SEWER @ S=0.020.
- 11 INSTALL 6" CLEAN OUT TO GRADE; INV=121.50 (6" OUT).
- 12 PLACE 22 LF X 6" VCP SEWER @ S=0.020.
- 13 INSTALL 6" CLEAN OUT TO GRADE; INV=122.06 (6" OUT).
- 14 PLACE 41 LF X 6" VCP SEWER @ S=0.020.
- 15 INSTALL 6" CLEAN OUT TO GRADE; INV=122.88 (6" OUT).
- 16 PLACE 22 LF X 6" VCP SEWER @ S=0.020.
- 17 INSTALL 6" CLEAN OUT TO GRADE; INV=122.00 (6" OUT).
- 18 INSTALL 6" CLEAN OUT TO GRADE; INV=123.10 (6" OUT).
- 19 PLACE 131 LF X 6" VCP SEWER @ S=0.010.
- 20 INSTALL 6" CLEAN OUT TO GRADE; INV=124.19 (6" OUT).
- 21 PLACE 54 LF X 4" VCP SEWER @ S=0.020.
- 22 INSTALL 4" CLEAN OUT TO GRADE; INV=123.96 (4" OUT).
- 23 PLACE 23 LF X 4" VCP SEWER @ S=0.020.
- 24 INSTALL 4" CLEAN OUT TO GRADE; INV=124.42 (4" OUT).

WATER:

- 1 CONNECT INTO EXISTING 12" WATERLINE CONSTRUCTED PER THE 'CAMPUS OAKS - CO-4 SUBDIVISION' IMPROVEMENT PLANS; REMOVE 4 LF +/- OF 12" WATERLINE AND CONNECT INTO WATERLINE PER CITY OF ROSEVILLE STANDARDS; INSTALL 12" X 8" TEE WITH 12" TO 6" REDUCER AT POC. WATER LINE FROM REDUCER TO WATER METER TO BE 6" DIP CL350.
- 2 INSTALL FIRE HYDRANT PER CITY DRAWING W-13.
- 3 INSTALL APPROVED 6" DOUBLE DETECTOR CHECK VALVE (DDCV) PER CITY DRAWING W-3.
- 4 INSTALL FIRE PROTECTION SERVICE PER DETAIL "E" ON SHEET C-15.
- 5 INSTALL APPROVED 6" WATER METER (DOMESTIC) AND RP TYPE BACKFLOW DEVICE PER CITY DRAWING W-29 & W-7.
- 6 INSTALL 8" PVC C900 CL150 FIRE SERVICE LINE.
- 7 INSTALL 6" PVC C900 CL150 DOMESTIC WATERLINE.
- 8 INSTALL 6" PVC C900 CL200 FIRE SERVICE LINE.
- 9 INSTALL 4" PVC C900 CL 150 DOMESTIC WATERLINE.
- 10 INSTALL 8" DIP CL350 FIRE SERVICE LINE.
- 11 INSTALL 4" PVC C900 CL 150 DOMESTIC WATERLINE; MAINTAIN 6' MIN SEPARATION BETWEEN 4" WATERLINE AND 6" SEWERLINE.
- 12 INSTALL 6" GATE VALVE PER CITY STANDARDS.
- 13 INSTALL 4" PVC C900 CL 150 DOMESTIC WATERLINE.
- 14 INSTALL 2" ARV PER CITY DRAWING G W-12.
- 15 INSTALL 8" DIP CL350 FIRE SERVICE LINE AT 8" & 6"W CROSSING; DIP SHALL EXTEND 5' MIN ON EACH SIDE OF CROSSING; SEE UTILITY CROSSING KEYNOTE #6 ON SHEET C-19.
- 16 INSTALL 150 LF X 4" PVC C900 CL 150 DOMESTIC WATERLINE.
- 17 INSTALL 77 LF X 4" PVC C900 CL 150 DOMESTIC WATERLINE.

WATER NOTES:

- 1. ALL BENDS, FITTINGS AND TEES ARE TO BE MECHANICALLY RESTRAINED.
- 2. ALL TAPS TO PUBLIC WATER SHALL BE COMPLETED BY CITY FORCES ON A TIME AND MATERIAL BASIS. ALL CONSTRUCTION COSTS INCURRED SHALL BE PAID FOR BY THE CONTRACTOR.



KEYMAP - UTILITY PLAN

DATE	OCTOBER 30, 2019
SHEET	C-11
11	OF 40

IMPROVEMENT PLANS FOR
HP CAMPUS OAKS APARTMENTS - PHASE 2
UTILITY PLAN 3
CITY OF ROSEVILLE, CALIFORNIA

MORTON & PITALO, INC.
CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
Folsom • Sacramento • Fresno
75 Iron Point Circle, Suite #120
Folsom, CA 95630
phone: (916) 984-7621
web: www.mpengr.com



COMPUTED	MJC
DESIGNED	JJC
DRAWN	MCK
PROJ. ENGR.	CDK

BENCH MARK
CITY B.M. 96
ELEV=112.83
3-1/4" BRASS DISC STAMPED LS6614, TOP OF CURB
WEST SIDE OF DI @ SE CORNER OF WASHINGTON BLVD.
& ROSEVILLE PARKWAY AT THE END OF CURB RETURN

SCALE:	
HORIZ. 1" =	N/A
VERT. 1" =	N/A

REVISIONS					
NO.	DESCRIPTION	APPD. ENGR.	DATE	APPD. E.U.	DATE

CONSULTANT

APPROVALS

OWNER/DEVELOPER :
CAMPUS OAKS APARTMENTS 1 LLC
CONTACT: SCOTT CANEL
1949 ST. JOHNS AVE., SUITE 200
HIGHLAND PARK, IL 60035
PHONE: (312) 580-0085

ENGINEERS

MORTON & PITALO, INC.
CONTACT: GREG BARDINI
75 IRON POINT CIRCLE, #120
FOLSOM, CA 95630
PHONE: (916) 927-2400
FAX: (916) 357-7888

CITY OF ROSEVILLE
STORM DRAINAGE
SANITARY SEWER
WATER
ELECTRICITY
PARK & RECREATION
FIRE PROTECTION
POLICE PROTECTION

ZONING

LAND USE

SCHOOLS

ROSEVILLE CITY SCHOOL DISTRICT
ROSEVILLE JOINT UNION
HIGH SCHOOL DISTRICT

APN
481-260-025-000

AREA
8.89± AC.

GAS
PACIFIC GAS & ELECTRIC

TELEPHONE
CONSOLIDATED COMMUNICATIONS

PROPOSED UNITS

210 MULTI-FAMILY LOTS

NO	DATE	DESCRIPTION

REVISIONS
BENCHMARK

EV = 112.83

1/4" BRASS DISC STAMED LS5614, TOP OF CURB
WEST SIDE OF DI @ SE CORNER OF WASHINGTON BLVD. &
ROSEVILLE PARKWAY @ NE END OF CURB RETURN

COMPUTED BY

DESIGNED BY

DRAWN BY

PROJECT ENGINEER

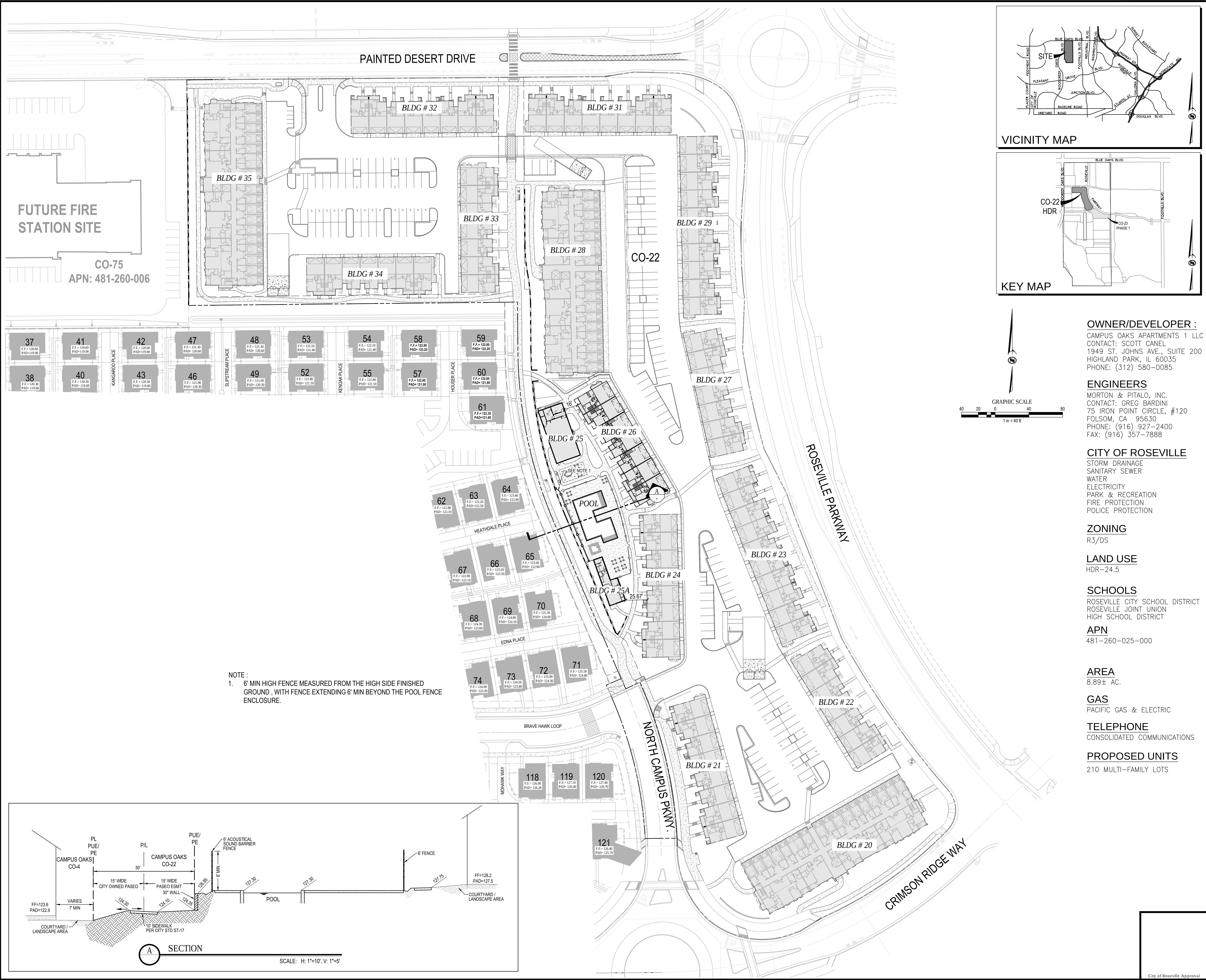
PROJECT
ENTITLEMENT DRAWING FOR
MAJOR PROJECT PERMIT MODIFICATION
HP CAMPUS OAKS APARTMENTS
PHASE 2
SITE PLAN REVISION

ROSEVILLE, CA

DRAWING

DATE	DECEMBER 22, 2020	SHEET	1
SCALE	1" = 40'		
JOB NUMBER	16-0018-01	OF	1

NOT FOR CONSTRUCTION



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HP CAMPUS OAKS APARTMENTS - PHASE 2 SWIMMING POOL AND SPA

500 ROSEVILLE PARKWAY
ROSEVILLE, CA 95747



VICINITY MAP



SWIMMING POOL DESIGN DATA	
Swimming Pool Size	34 ft x 57.5 ft
Swimming Pool Depth	3.5 ft ~ 5.0 ft
Swimming Pool Surface Area	1,521 sq ft
Swimming Pool Perimeter	217 ft
Total Volume	45,508 gal
Max Bather Load	76 Bathers

SWIMMING POOL SYSTEM DESIGN DATA	
Turnover Rate	5.06 hrs
Recirculation Rate @ 69 ft TDH	150 gpm
Filter Area	14.12 sq ft
Filtration Rate	10.62 gpm/ft ²
Backwash Flow Rate	15 gpm/ft ²

SWIMMING POOL SUCTION OUTLET DATA	
Specified Circulation Pump (Pentair Whisperflo, 3hp @ 22 TDH) Max Flow Rate	220 gpm
Specified Main Drain (Aqua Star A10RCFR-101) Max Flow Rate	170 gpm
Suction Pipe Velocity	1.5 fps

SPA DESIGN DATA	
Spa Size	10 ft x 10 ft
Spa Depth	3.5 ft
Spa Surface Area	100 sq ft
Spa Perimeter	40 ft
Total Volume	2,618 gal
Max Bather Load	10 Bathers

SPA SYSTEM DESIGN DATA	
Turnover Rate	34 min
Recirculation Rate @ 60 ft TDH	78 gpm
Filter Area	7.08 sq ft
Filtration Rate	11.05 gpm/ft ²
Backwash Flow Rate	11.05 gpm/ft ²

SPA SUCTION OUTLET DATA	
Specified Circulation Pump (Pentair Whisperflo, 1.0hp @ 25 TDH) Max Flow Rate	110 gpm
Specified Main Drain (Aqua Star A10RCFR-101)	170 gpm
Suction Pipe Velocity	0.78 fps

INDEX OF DRAWINGS	
SP0.0	Design Data & Sheet Index
SP1.0	Pool & Spa Site Plan
SP1.1	Pool Layout Plan
SP1.2	Spa Layout Plan
SP1.3	Pool & Spa Sections
SP1.4	Pool & Spa Details
SP2.0	Pool & Spa Structural Plan
SP2.1	Pool & Spa Structural Details
SP3.0	Pool & Spa Site Piping Plan
SP3.1	Pool Piping Plan
SP3.2	Spa Piping Plan
SP3.3	Pool & Spa Piping Details
SP4.0	Pool & Spa Equipment Room Plan
SP4.1	Equipment Room Schematics
SP4.2	Equipment Room Details

CODES	
2019 California Building Code (C.B.C.)	
Per Title 24, Chapter 31B, Public Swimming Pools	

H2 ENGINEERS LLP

160 Rockmont Circle
Sacramento, California 95835
916.390.0632

DESIGN DATA & SHEET INDEX

PROJECT: HP CAMPUS OAKS APARTMENTS - PHASE 2
500 ROSEVILLE PARKWAY
ROSEVILLE, CA 95747

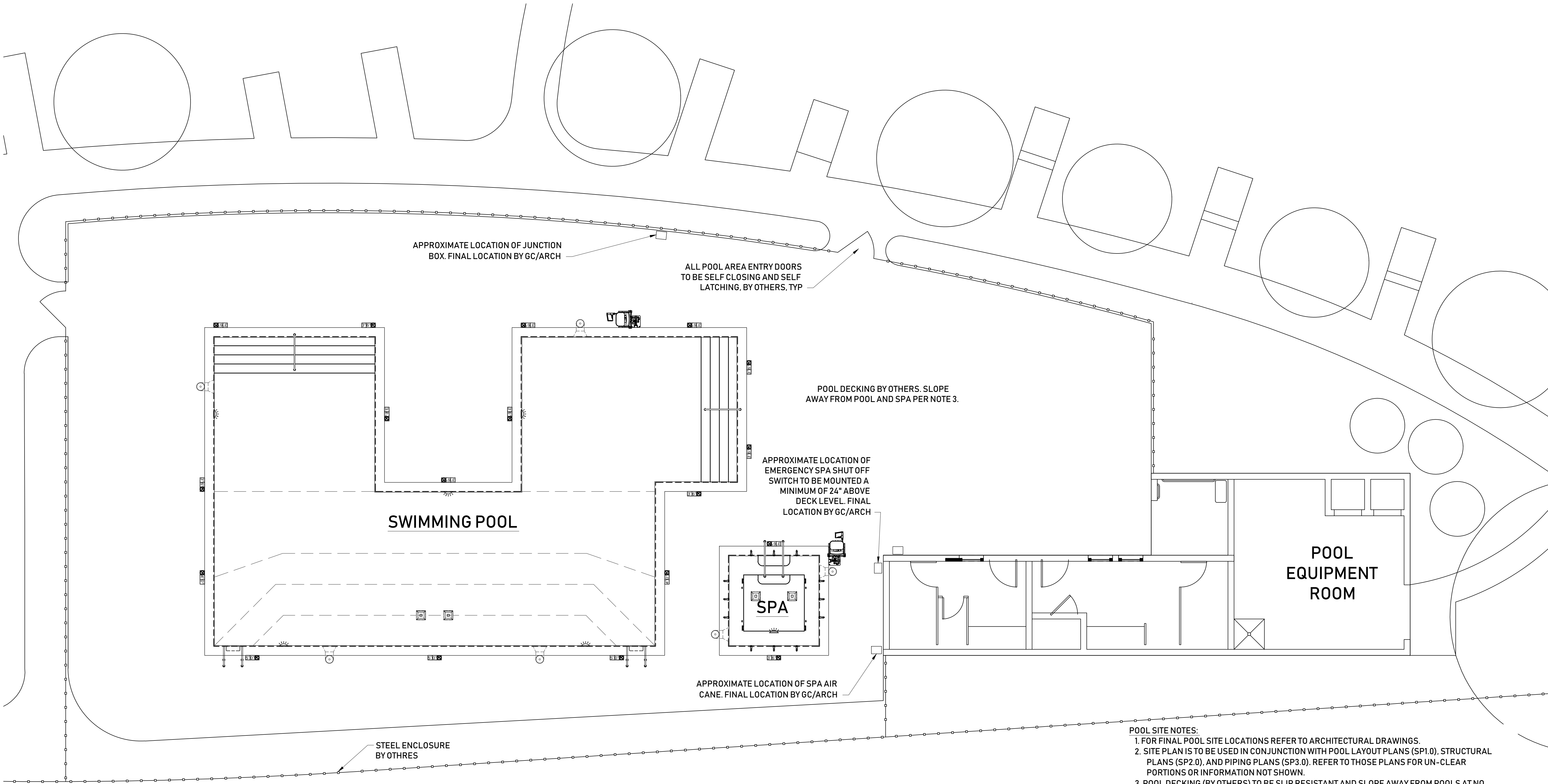
CLIENT: GEREMIA POOLS INC.
7901 14TH AVENUE
SACRAMENTO, CA 95826

REV	DATE	DESCRIPTION	APPR.
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NOT FOR
CONSTRUCTION

JOB NUMBER:	SP200054
SCALE:	AS NOTED
DATE:	10/12/2020
DRAWN BY:	KIMES
DESIGNED BY:	HOLMER
SHEET:	SP0.0

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Swimming Pool & Spa Site Plan

SP1.0 3/16" = 1'-0"

- POOL SITE NOTES:
1. FOR FINAL POOL SITE LOCATIONS REFER TO ARCHITECTURAL DRAWINGS.
 2. SITE PLAN IS TO BE USED IN CONJUNCTION WITH POOL LAYOUT PLANS (SP1.0), STRUCTURAL PLANS (SP2.0), AND PIPING PLANS (SP3.0). REFER TO THOSE PLANS FOR UN-CLEAR PORTIONS OR INFORMATION NOT SHOWN.
 3. POOL DECKING (BY OTHERS) TO BE SLIP RESISTANT AND SLOPE AWAY FROM POOLS AT NO GREATER THAN 2% SLOPE TO DECK AREA DRAINS.
 4. FOR POOL DECK AREA DRAINS LOCATIONS REFER TO CIVIL DRAWINGS.
 5. LIFEGUARD EQUIPMENT SHALL BE PROVIDED AS REQUIRED BY CODE GOVERNING AGENCY.
 6. HOSE BIBS TO BE LOCATED NO FURTHER THAN 75 FEET APART. FOR LOCATIONS REFER TO ARCHITECTURAL PIPING DRAWINGS.
 7. JUNCTION BOXES TO BE LOCATED A MINIMUM OF 4 FEET AWAY FROM POOL/SPA AND ROUTED TO GFCI PROTECTED PANEL. FOR LOCATIONS REFER TO ELECTRICAL DRAWINGS.
 8. ALL DOORS FOR POOL AREA TO BE SELF LOCKING & SELF CLOSING.
 9. ALL APPLICABLE STATE & LOCAL LAWS AND CODES SHALL BE FOLLOWED.
 10. SAFETY BARRIER SHALL BE INSTALLED PER THE REQUIREMENTS OF 2013 CBC SECTION 3119.

POOL FINISH SCHEDULE	
Plaster Finish	1/2" White Marcite
Water Line Tile	6"x6" Glazed Dal-Tile (selection by owner), dark blue depth marking letters
Step Trim Tile	1"x1" Mosaic un-glazed Dal-Tile D032 Galaxy (Dark Blue)
Deck Depth Marker Tile	6"x6" high Dal-Tile un-glazed white w/ dark blue lettering
Lane Marker & Wall Target Tile	1"x1" Mosaic un-glazed Dal-Tile D032 Galaxy (Dark Blue)
CONTRACTOR TO PROVIDE SUBMITTAL TO OWNER FOR FINAL APPROVAL OF SELECTED COLORS.	

H2 ENGINEERS LLP

160 Rockmont Circle
Sacramento, California 95835

916.390.0632

SWIMMING POOL & SPA SITE PLAN

PROJECT: HP CAMPUS OAKS APARTMENTS - PHASE 2
500 ROSEVILLE PARKWAY
ROSEVILLE, CA 95747

CLIENT: GEREMIA POOLS INC.
7901 14TH AVENUE
SACRAMENTO, CA 95826

REV	DATE	DESCRIPTION	APPR.
1			
2			
3			
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6			
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NOT FOR
CONSTRUCTION

JOB NUMBER: SP200054

SCALE: AS NOTED

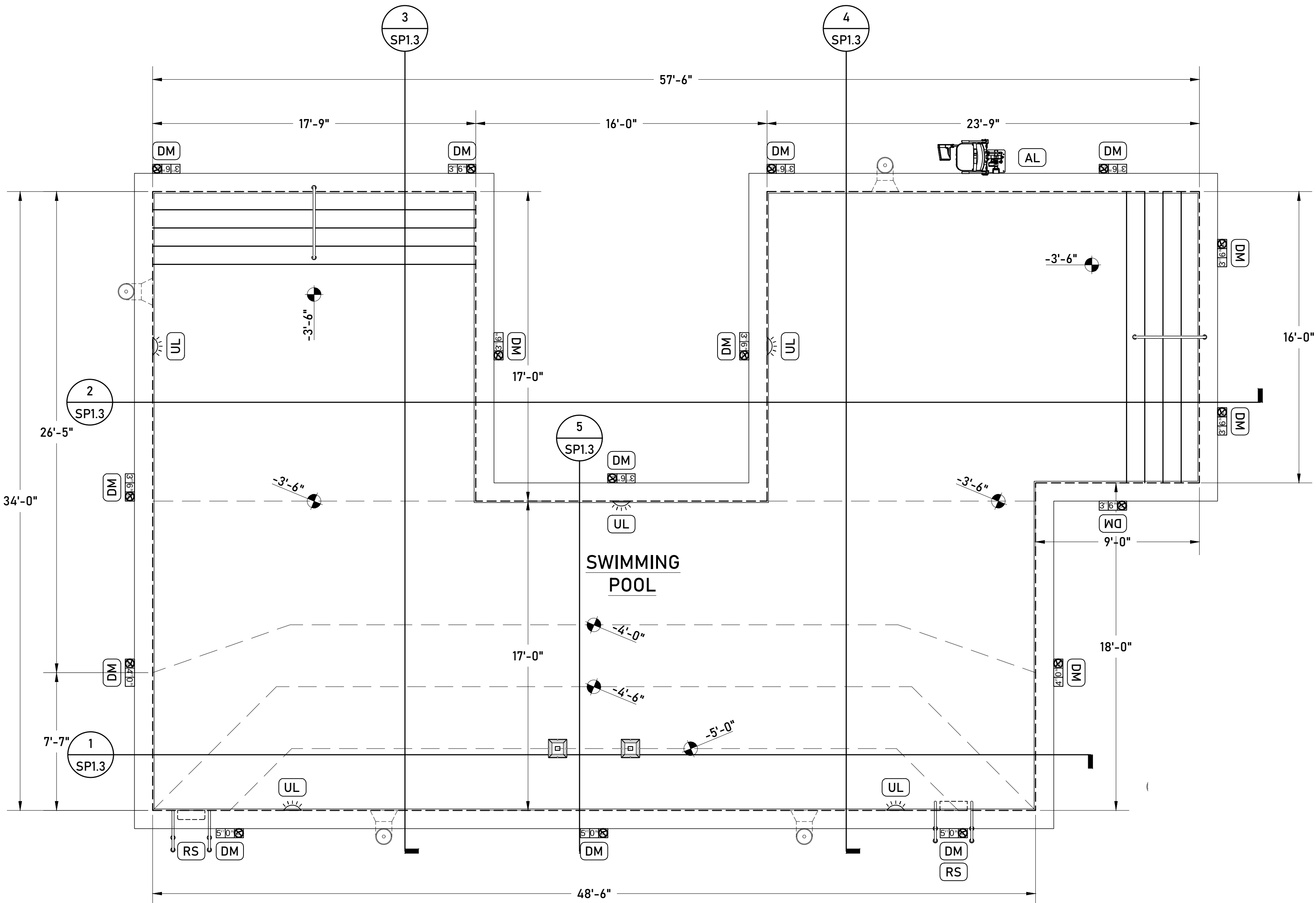
DATE: 10/12/2020

DRAWN BY: KIMES

DESIGNED BY: HOLMER

SHEET: SP1.0

H:\from PC Desktop\20-016 SP200054 - Campus Oaks Comm Pool (Full Design)\eng\working\SP200054 - Campus Oaks Community Pool (Full Design) 2020.10.12.dwg 10.12.2020 By: Michael Kimes



Swimming Pool Layout Plan
SP1.1 1/4" = 1'-0"

POOL SIGNAGE:

- ALL SIGNS SHALL HAVE CLEARLY LEGIBLE LETTERS OR NUMBERS NOT LESS THAN FOUR (4) INCHES HIGH (UNLESS NOTED OTHERWISE), AFFIXED TO A WALL, POLE, GATE OR SIMILAR PERMANENT STRUCTURE IN A LOCATION VISIBLE TO ALL POOL USERS.
- THE POOL USER CAPACITY SHALL BE BASED ON ONE USER FOR EVERY 20 SQUARE FEET OF WATER SURFACE AREA. BATHER CAPACITY SIGN SHALL BE POSTED THAT READS:
"MAXIMUM BATHER CAPACITY: 76 PERSONS"
- THE EMERGENCY TELEPHONE NUMBER, THE NUMBER OF THE NEAREST EMERGENCY SERVICES AND THE NAME AND STREET ADDRESS OF THE POOL FACILITY SHALL BE POSTED.
- AN ILLUSTRATED DIAGRAM WITH TEXT AT LEAST 1/4 INCH HIGH OF ARTIFICIAL RESPIRATION AND CPR PROCEDURES SHALL BE POSTED.
- WHERE NO LIFEGUARD SERVICE IS PROVIDED, A WARNING SIGN SHALL BE POSTED STATING:
"WARNING: NO LIFEGUARD ON DUTY"
- FOR POOLS WITH A MAXIMUM WATER DEPTH OF 6'-0" OR LESS, A "NO DIVING" SIGN SHALL BE POSTED IN PLAIN VIEW OF THE POOL WITH CLEARLY LEGIBLE LETTERS AT LEAST SIX (6) INCHES IN HEIGHT.
- EXTERIOR SIDE OF GATES AND DOORS LEADING INTO THE POOL ENCLOSURE AREA SHALL HAVE A SIGN THAT READS: "KEEP CLOSED"
- WHEN POOLS ARE CONSTRUCTED FOR WHICH LIGHTING IS NOT REQUIRED, A SIGN SHALL BE POSTED AT EACH POOL ENTRANCE ON EXTERIOR SIDE OF GATES THAT READS:
"NO USE OF POOL ALLOWED AFTER DARK"
- A PRECAUTION SIGN WITH CLEARLY VISIBLE LETTERS AT LEAST ONE (1) INCHES IN HEIGHT, SHALL BE POSTED IN A PROMINENT PLACE NEAR THE ENTRANCE TO THE POOL THAT READS:
"CAUTION"
 - ELDERLY PERSONS, PREGNANT WOMEN, INFANTS AND THOSE WITH HEALTH CONDITIONS REQUIRING MEDICAL CARE SHOULD CONSULT WITH A PHYSICIAN BEFORE ENTERING POOL.
 - CHILDREN UNDER THE AGE OF 14 SHALL NOT USE POOL WITHOUT A PARENT OR ADULT GUARDIAN IN ATTENDANCE.
 - PERSONS WITH A COMMUNICABLE DISEASE, INCLUDING VOMITING OR DIARRHEA WITHIN THE PREVIOUS 14 DAYS SHALL NOT BE ALLOWED TO ENTER THE POOL WATER.
 - DO NOT USE ALONE.
- IF SPECIFIED BY THE OWNER/ARCHITECT, PROVIDE THE FOLLOWING SIGNAGE IN A CONSPICUOUS PLACE NEAR THE POOL, IN LETTERS AT LEAST (4) INCHES IN HEIGHT.
 - NO RUNNING OR HORSEPLAY IN POOL AREA.
 - ALL PERSONS MUST HAVE A CLEANSING SHOWER BEFORE ENTERING THE POOL.
 - NO FOOD OR DRINK ALLOWED IN THE POOL.
 - DIAPERS MUST BE CHANGED IN A DESIGNATED DIAPER CHANGING AREA.

POOL LAYOUT PLAN LEGEND

SYMBOL	CALL OUT	POOL EQUIPMENT	QTY	DETAIL
	DM	DEPTH MARKER	14	3/SP1.4
	RS	RECESSED STEPS & GRAB RAILS	2	9/SP1.4
	HR	HANDRAIL	3	5/SP1.4
	UL	UNDERWATER LIGHT	5	8/SP1.4
	AL	ADA ACCESS LIFT	1	4/SP1.4
FOR PIPING EQUIPMENT NOT SHOWN REFER TO PIPING PLANS ON SP3.0				

POOL LAYOUT PLAN GENERAL NOTES:

- POOL FINISH PER FINISH SCHEDULE ON SP1.0.
- LAYOUT PLAN IS TO BE USED IN CONJUNCTION WITH THE POOL STRUCTURAL (SP2.0) & PIPING PLANS (SP3.0). REFER TO THOSE PLANS FOR UN-CLEAR PORTIONS OR INFORMATION NOT SHOWN.
- ALL DIMENSIONS SHALL BE VERIFIED PRIOR TO START OF WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
- OVERALL DIMENSIONS SHOWN ARE FROM THE OUTSIDE FINISH OF THE POOL WALLS & FLOORS.
- FEATURES OR EQUIPMENT DIMENSIONS SHOWN ARE FROM CENTER TO CENTER.
- ALL APPLICABLE STATE AND LOCAL LAWS AND CODES SHALL BE FOLLOWED.
- DEPTH MARKERS AND WARNING SIGNS ARE SHOWN IN APPROXIMATE LOCATIONS. DEPTH MARKERS AND WARNING SIGNS MAY NOT EXCEED 25'-0" APART PER CODE.
- ALL METAL COMPONENTS TO BE BOND & GROUNDED PER N.E.C.

POOL LAYOUT EQUIPMENT SCHEDULE

EQUIPMENT	MODEL/DESCRIPTION
Depth/No Diving Markers	6"x6" high Dal-Tile un-glazed white w/ dark blue lettering.
Recessed Steps	Built-in injection moulded, 3 steps per set min.
Grab Rails	Figure 4 Stainless Steel 316L (2 rails per step location).
Handrails	S.R. SMITH Custom 316L Stainless Steel
Anchors	4" Bronze Anchor, Qty. 2 per rail.
Escutcheons	316L Stainless Steel Grade, Qty. 2 per rail.
Underwater Lights	PENTAIR 70W LED White
ADA Access Lift	Aqua Creek Scout Lift
Water Test Kit	TAYLOR Complete 2005, Palin Test Pool Test 6
Rescue Poles	16 ft. Rescue Poles with attached Body Hooks
Life Rings	17 inch Life Rings with attached Lifelines
ALL EQUIPMENT NOTED ARE BASIS OF DESIGN & DESIGNATE MINIMUM PERFORMANCE STANDARDS. EQUIVALENT PRODUCTS MAY BE USED PROVIDED THEY ARE SUBMITTED TO PROJECT ENGINEER FOR APPROVAL.	

H2 ENGINEERS LLP

160 Rockmont Circle
Sacramento, California 95835
916.390.0632

SWIMMING POOL LAYOUT PLAN

PROJECT: HP CAMPUS OAKS APARTMENTS - PHASE 2
500 ROSEVILLE PARKWAY
ROSEVILLE, CA 95747

CLIENT: GEREMIA POOLS INC.
7901 14TH AVENUE
SACRAMENTO, CA 95826

REV	DATE	DESCRIPTION	APPR.
1			
2			
3			
4			
5			
6			
7			
8			

NOT FOR
CONSTRUCTION

JOB NUMBER: SP200054

SCALE: AS NOTED

DATE: 10/12/2020

DRAWN BY: KIMES

DESIGNED BY: HOLMER

SHEET: SP1.1

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160 Rockmont Circle
Sacramento, California 95835
916.390.0632

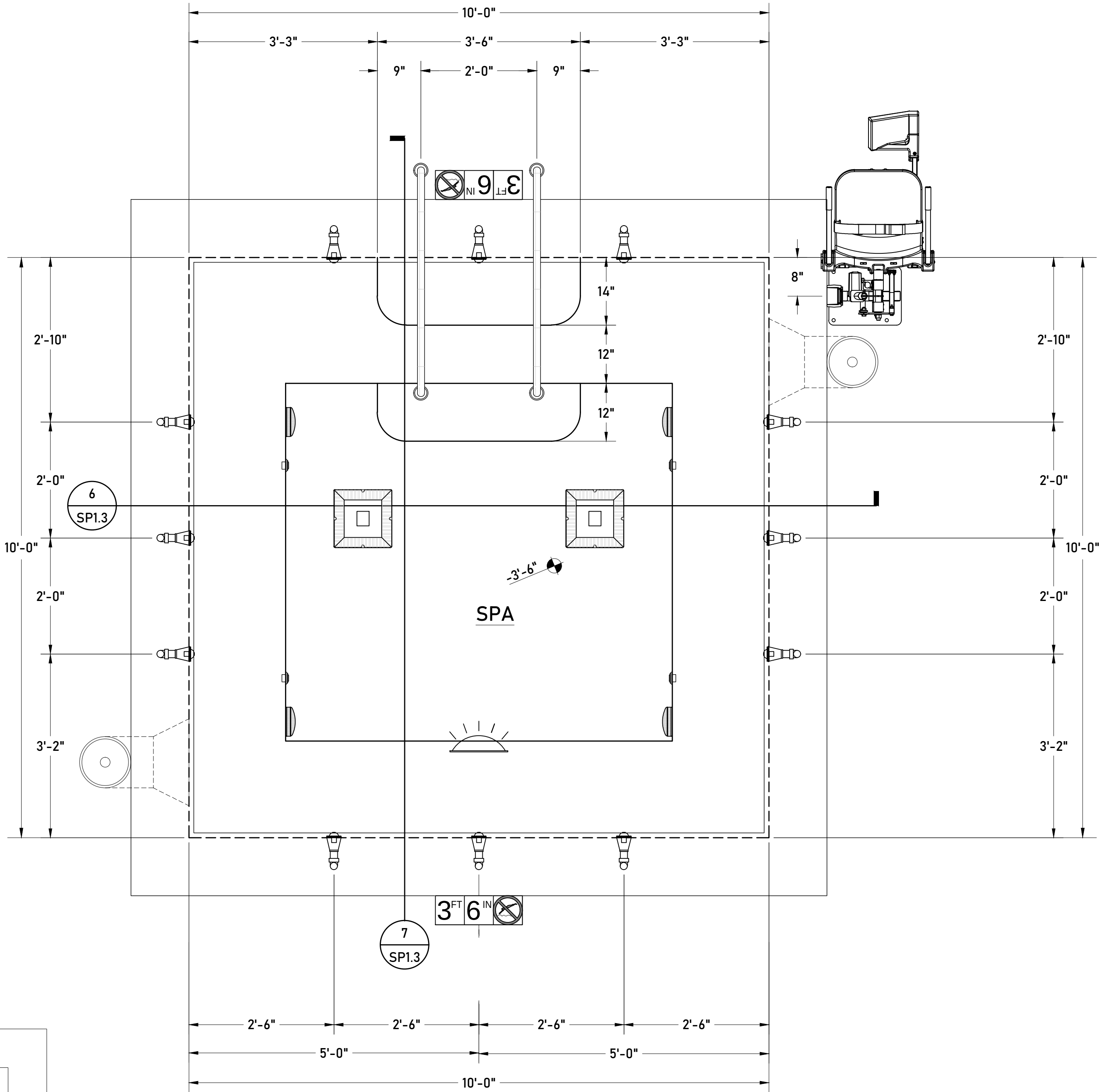
SPA LAYOUT PLAN

PROJECT: HP CAMPUS OAKS APARTMENTS - PHASE 2
500 ROSEVILLE PARKWAY
ROSEVILLE, CA 95747
CLIENT: GEREMIA POOLS INC.
7901 14TH AVENUE
SACRAMENTO, CA 95826

REV	DATE	DESCRIPTION	APPR.
1			
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8			

NOT FOR
CONSTRUCTION

JOB NUMBER:	SP200054
SCALE:	AS NOTED
DATE:	10/12/2020
DRAWN BY:	KIMES
DESIGNED BY:	HOLMER
SHEET:	SP1.2



SPA LAYOUT PLAN LEGEND				
SYMBOL	CALL OUT	SPA EQUIPMENT	QTY	DETAIL
	DM	DEPTH MARKER	14	3/SP1.4
	HR	HANDRAIL	3	5/SP1.4
	UL	UNDERWATER LIGHT	5	8/SP1.4
	AL	ADA ACCESS LIFT	1	4/SP1.4
FOR PIPING EQUIPMENT NOT SHOWN REFER TO PIPING PLANS ON SP3.1				

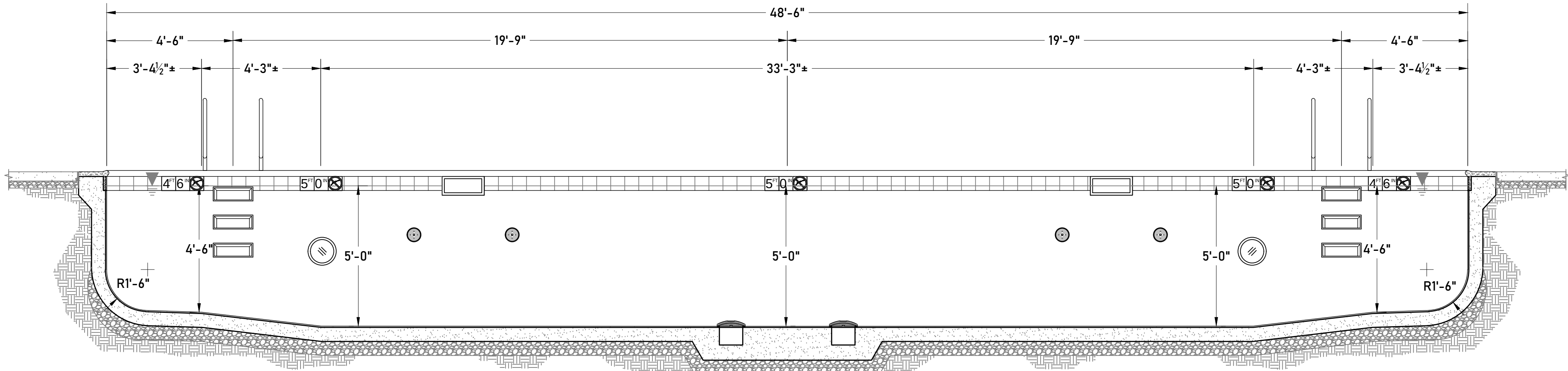
- SPA SIGNAGE:**
- ALL SIGNS SHALL HAVE CLEARLY LEGIBLE LETTERS OR NUMBERS NOT LESS THAN FOUR (4) INCHES HIGH (UNLESS NOTED OTHERWISE), AFFIXED TO A WALL, POLE, GATE OR SIMILAR PERMANENT STRUCTURE IN A LOCATION VISIBLE TO ALL SPA USERS.
 - THE SPA USER CAPACITY SHALL BE BASED ON ONE USER FOR EVERY 20 SQUARE FEET OF WATER SURFACE AREA. BATHER CAPACITY SIGN SHALL BE POSTED THAT READS:
"MAXIMUM BATHER CAPACITY: 12 PERSONS"
 - THE EMERGENCY TELEPHONE NUMBER 911, THE NUMBER OF THE NEAREST EMERGENCY SERVICES AND THE NAME AND STREET ADDRESS OF THE SPA FACILITY SHALL BE POSTED.
 - AN ILLUSTRATED DIAGRAM WITH TEXT AT LEAST 1/4 INCH HIGH OF ARTIFICIAL RESPIRATION AND CPR PROCEDURES SHALL BE POSTED.
 - WHERE NO LIFEGUARD SERVICE IS PROVIDED, A WARNING SIGN SHALL BE POSTED STATING:
"WARNING: NO LIFEGUARD ON DUTY"
 - FOR SPAS WITH A MAXIMUM WATER DEPTH OF 6'-0" OR LESS, A "NO DIVING" SIGN SHALL BE POSTED IN PLAIN VIEW OF THE SPA WITH CLEARLY LEGIBLE LETTERS AT LEAST SIX (6) INCHES IN HEIGHT.
 - EXTERIOR SIDE OF GATES AND DOORS LEADING INTO THE SPA ENCLOSURE AREA SHALL HAVE A SIGN THAT READS: "KEEP CLOSED"
 - WHEN SPAS ARE CONSTRUCTED FOR WHICH LIGHTING IS NOT REQUIRED, A SIGN SHALL BE POSTED AT EACH SPA ENTRANCE ON EXTERIOR SIDE OF GATES THAT READS:
"NO USE OF SPA ALLOWED AFTER DARK"
 - A PRECAUTION SIGN WITH CLEARLY VISIBLE LETTERS AT LEAST ONE (1) INCHES IN HEIGHT, SHALL BE POSTED IN A PROMINENT PLACE NEAR THE ENTRANCE TO THE SPA THAT READS:
"CAUTION"
 - ELDERLY PERSONS, PREGNANT WOMEN, INFANTS AND THOSE WITH HEALTH CONDITIONS REQUIRING MEDICAL CARE SHOULD CONSULT WITH A PHYSICIAN BEFORE ENTERING SPA.
 - CHILDREN UNDER THE AGE OF 14 SHALL NOT USE SPA WITHOUT A PARENT OR ADULT GUARDIAN IN ATTENDANCE.
 - PERSONS WITH A COMMUNICABLE DISEASE, INCLUDING VOMITING OR DIARRHEA WITHIN THE PREVIOUS 14 DAYS SHALL NOT BE ALLOWED TO ENTER THE SPA WATER.
 - DO NOT USE ALONE.
 - IF SPECIFIED BY THE OWNER/ARCHITECT, PROVIDE THE FOLLOWING SIGNAGE IN A CONSPICUOUS PLACE NEAR THE SPA, IN LETTERS AT LEAST (4) INCHES IN HEIGHT.
 - NO RUNNING OR HORSEPLAY IN SPA AREA.
 - ALL PERSONS MUST HAVE A CLEANSING SHOWER BEFORE ENTERING THE SPA.
 - NO FOOD OR DRINK ALLOWED IN THE SPA.
 - DIAPERS MUST BE CHANGED IN A DESIGNATED DIAPER CHANGING AREA.

- SPA LAYOUT PLAN GENERAL NOTES:**
- SPA FINISH PER FINISH SCHEDULE ON SP1.0.
 - LAYOUT PLAN IS TO BE USED IN CONJUNCTION WITH THE SPA STRUCTURAL (SP2.0) & PIPING PLANS (SP3.0). REFER TO THOSE PLANS FOR UN-CLEAR PORTIONS OR INFORMATION NOT SHOWN.
 - ALL DIMENSIONS SHALL BE VERIFIED PRIOR TO START OF WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
 - OVERALL DIMENSIONS SHOWN ARE FROM THE OUTSIDE FINISH OF THE SPA WALLS & FLOORS.
 - FEATURES OR EQUIPMENT DIMENSIONS SHOWN ARE FROM CENTER TO CENTER.
 - ALL APPLICABLE STATE AND LOCAL LAWS AND CODES SHALL BE FOLLOWED.
 - DEPTH MARKERS AND WARNING SIGNS ARE SHOWN IN APPROXIMATE LOCATIONS. DEPTH MARKERS AND WARNING SIGNS MAY NOT EXCEED 25'-0" APART PER CODE.
 - ALL METAL COMPONENTS TO BE BOND & GROUNDED PER N.E.C.

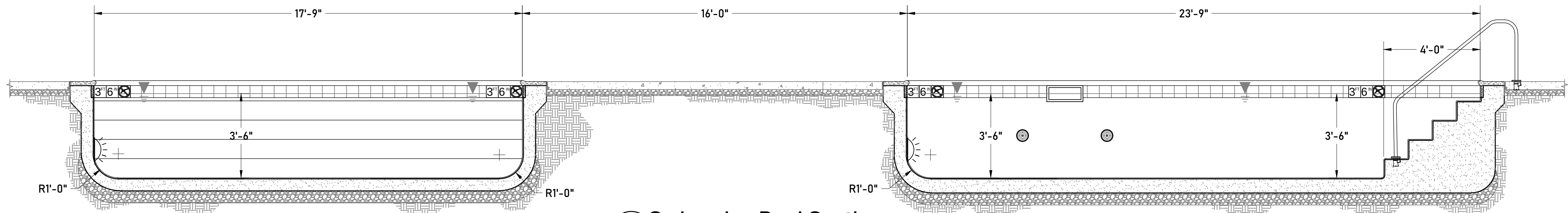
SPA LAYOUT EQUIPMENT SCHEDULE

EQUIPMENT	MODEL/DESCRIPTION
Depth/No Diving Markers	6"x6" high Dal-Tile un-glazed white w/ dark blue lettering.
Handrails	S.R. SMITH Custom 316L Stainless Steel
Anchors	4" Bronze Anchor, Qty. 2 per rail.
Escutcheons	316L Stainless Steel Grade, Qty. 2 per rail.
Underwater Lights	PENTAIR 70W LED White
ADA Access Lift	Aqua Creek Scout Lift
ALL EQUIPMENT NOTED ARE BASIS OF DESIGN & DESIGNATE MINIMUM PERFORMANCE STANDARDS. EQUIVALENT PRODUCTS MAY BE USED PROVIDED THEY ARE SUBMITTED TO PROJECT ENGINEER FOR APPROVAL.	

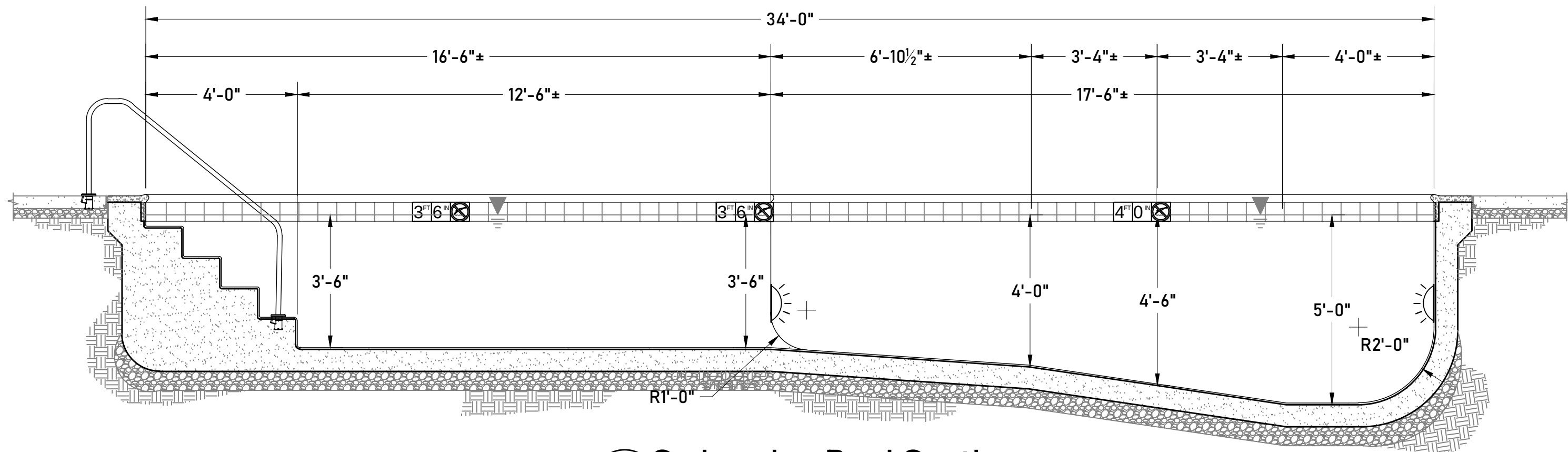
H:\from PC Desktop\20-016 SP200054 - Campus Oaks Comm Pool (Full Design)\eng\working\SP200054 - Campus Oaks Community Pool (Full Design) 2020.10.12.dwg 10.12.2020 By: Michael Kimes



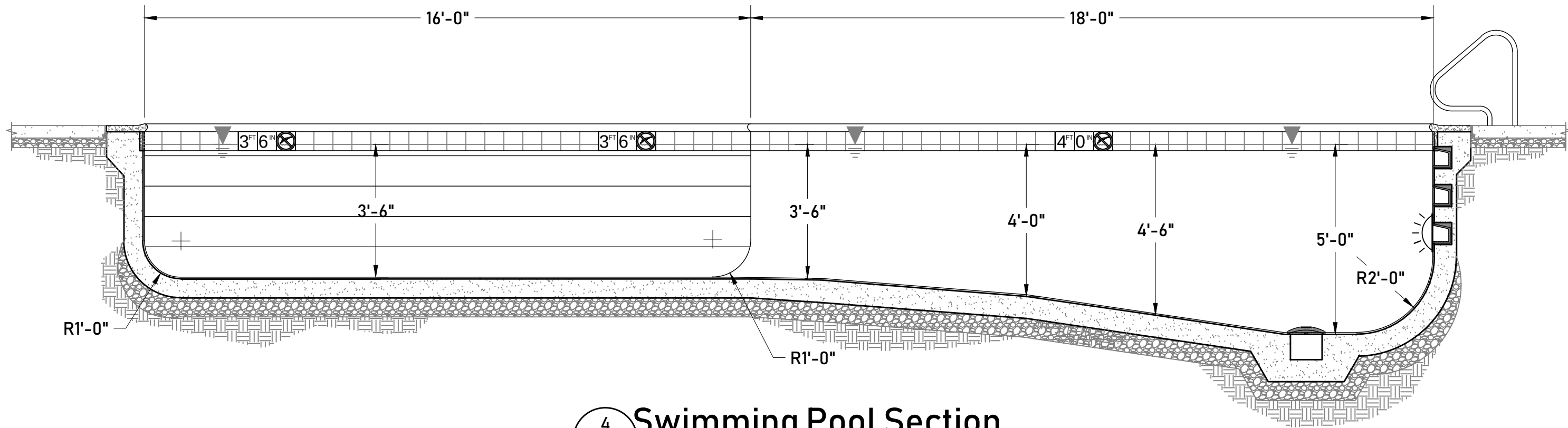
1 Swimming Pool Section
SP1.3 3/4" = 1'-0"



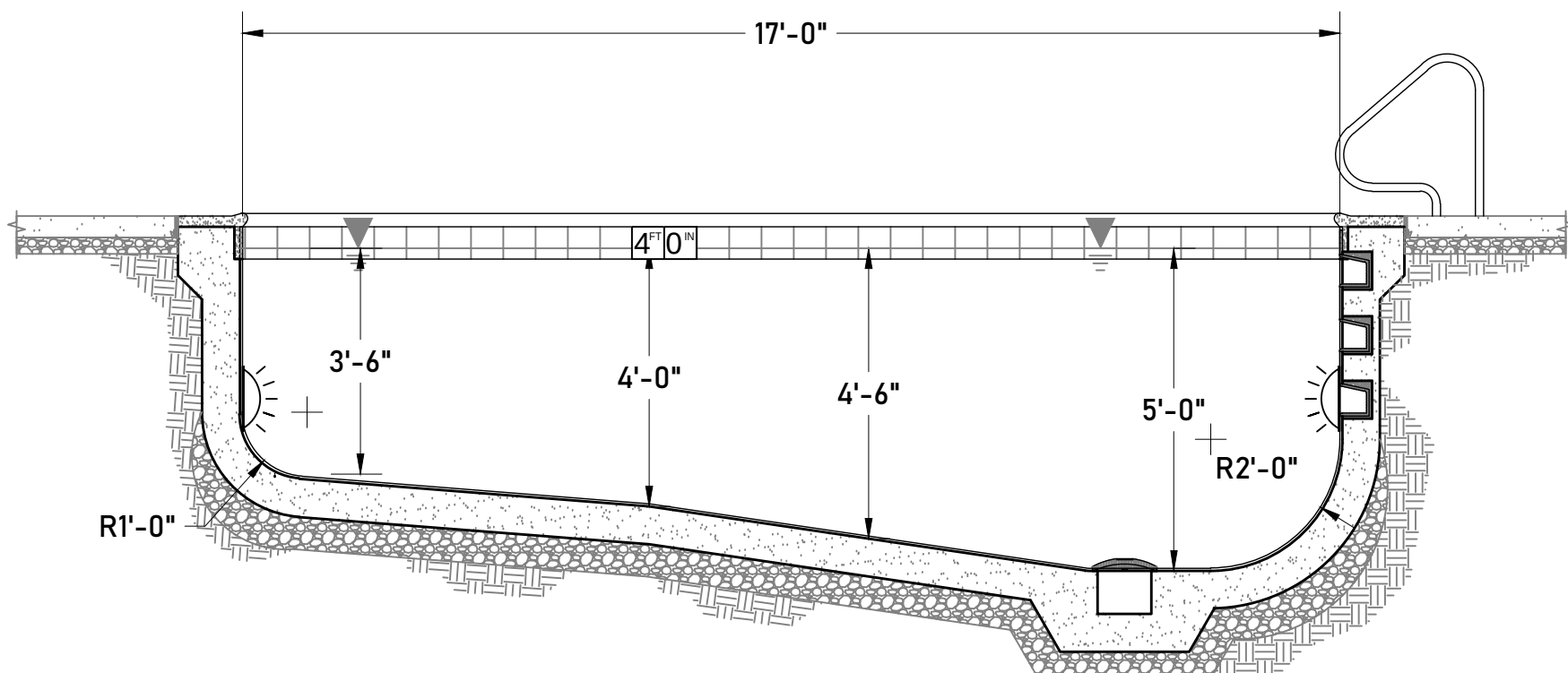
2 Swimming Pool Section
SP1.3 3/4" = 1'-0"



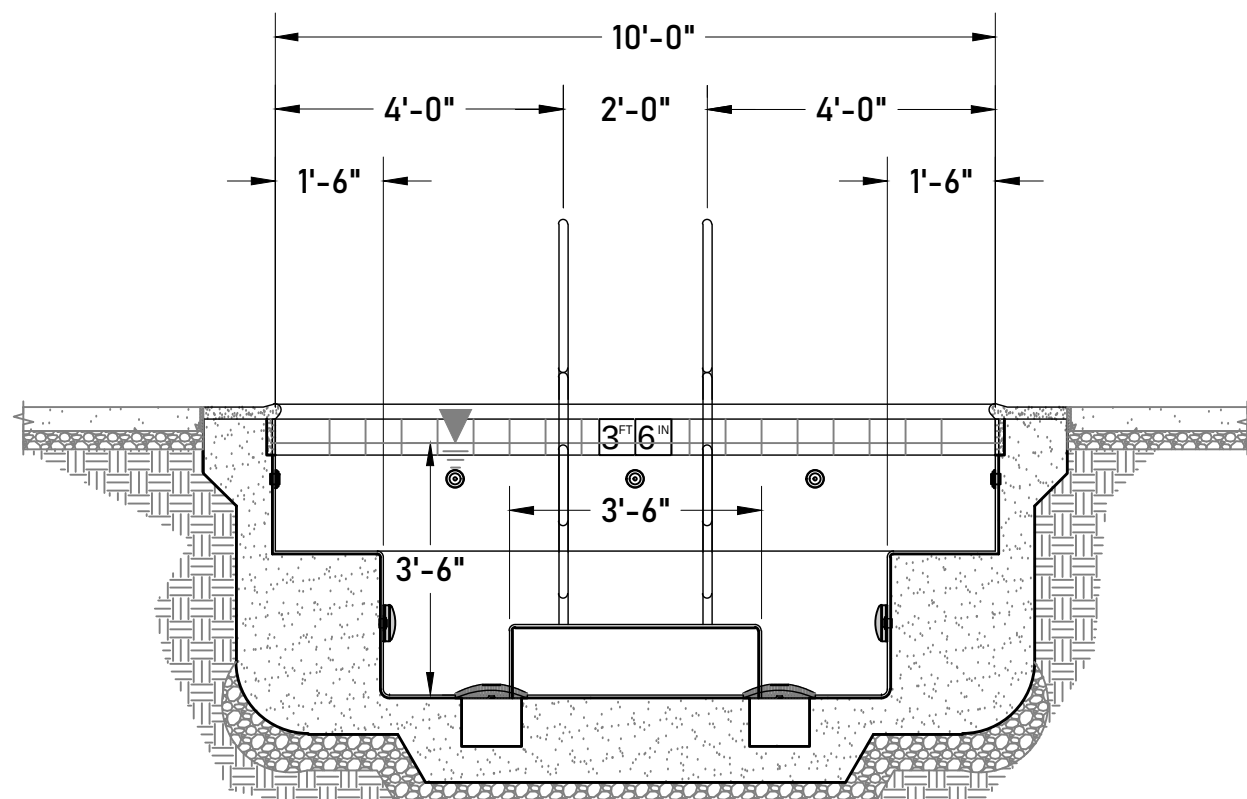
3 Swimming Pool Section
SP1.3 3/4" = 1'-0"



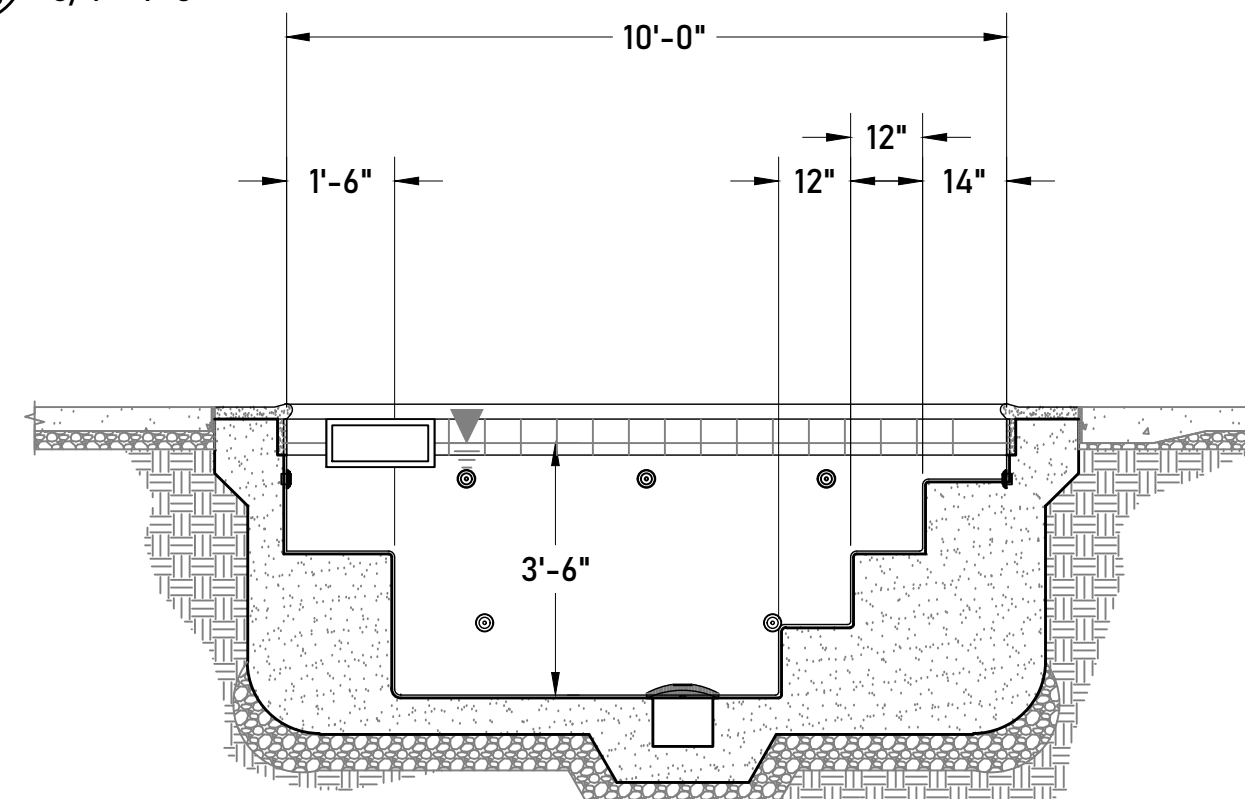
4 Swimming Pool Section
SP1.3 3/4" = 1'-0"



5 Swimming Pool Section
SP1.3 3/4" = 1'-0"



6 Spa Section
SP1.3 3/4" = 1'-0"



7 Spa Section
SP1.3 3/4" = 1'-0"

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SWIMMING POOL & SPA SECTIONS

PROJECT: HP CAMPUS OAKS APARTMENTS - PHASE 2

500 ROSEVILLE PARKWAY
ROSEVILLE, CA 95747

CLIENT: GEREMIA POOLS INC.

7901 14TH AVENUE
SACRAMENTO, CA 95826

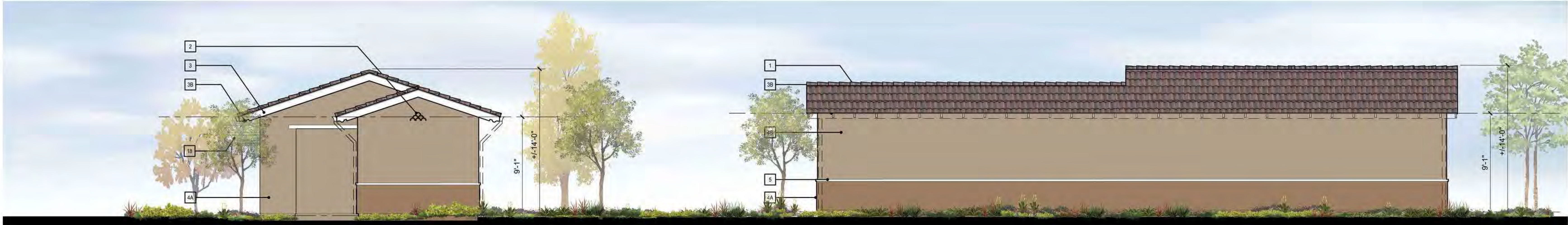
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NOT FOR
CONSTRUCTION

JOB NUMBER:	SP200054
SCALE:	AS NOTED
DATE:	10/12/2020
DRAWN BY:	KIMES
DESIGNED BY:	HOLMER
SHEET:	SP1.3

Building Material List

- 1. "S" Concrete Roof Tile
- 2. Decorative Clay Pipe
- 3. 2x6 Fascia Board
- 3B. 2x6 Shaped Rafter Tail
- 4A. 3-Coat Exterior Plaster - Primary Color
- 4B. 3-Coat Exterior Plaster - Secondary Color
- 5. Foam Trim w/ Plaster Over
- 6. Adhered Thin Brick Veneer
- 7. Adhered Masonry Veneer
- 8. Composite Diagonal Siding
- 9. Composite Trim
- 10. Decorative Metal Railing
- 11. Decorative Metal Potshelf
- 12. Decorative Metal Juliet Balcony
- 13. Foam Corbel w/ Plaster Over
- 14. Decorative Faux Shutter
- 15. Decorative Composite Finial
- 16. Composite Post
- 17. Overhead Steel Sectional Door
- 18. Composite Trellis



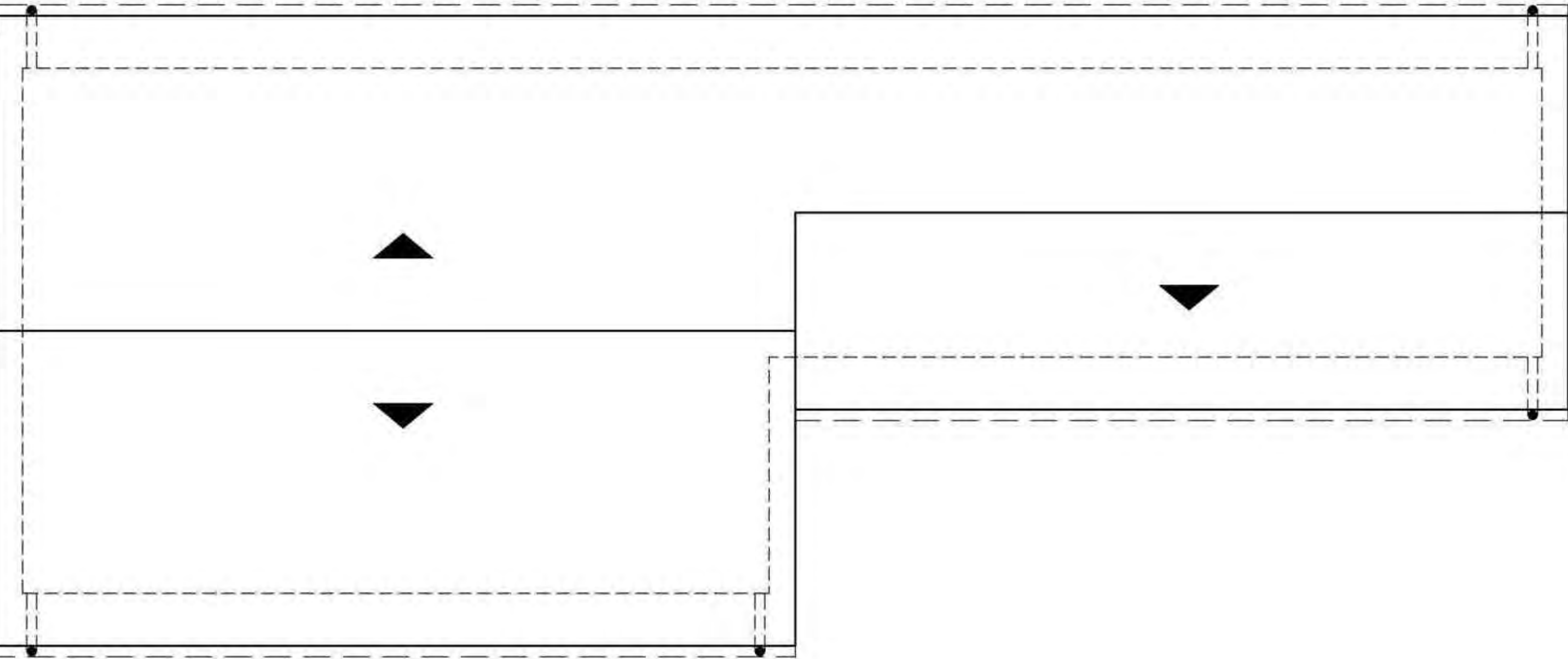
Conceptual Right Elevation

Conceptual Rear Elevation

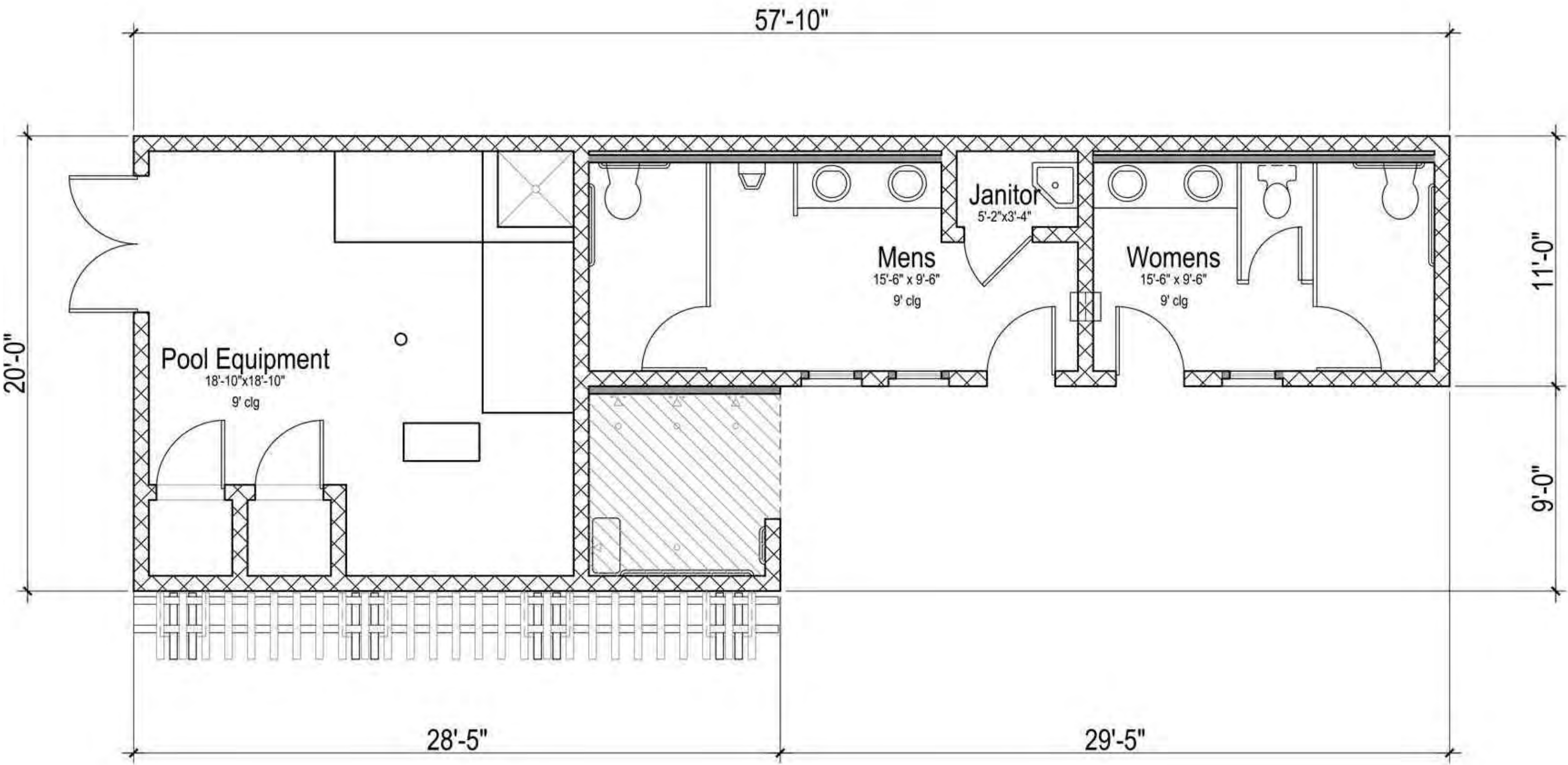


Conceptual Left Elevation

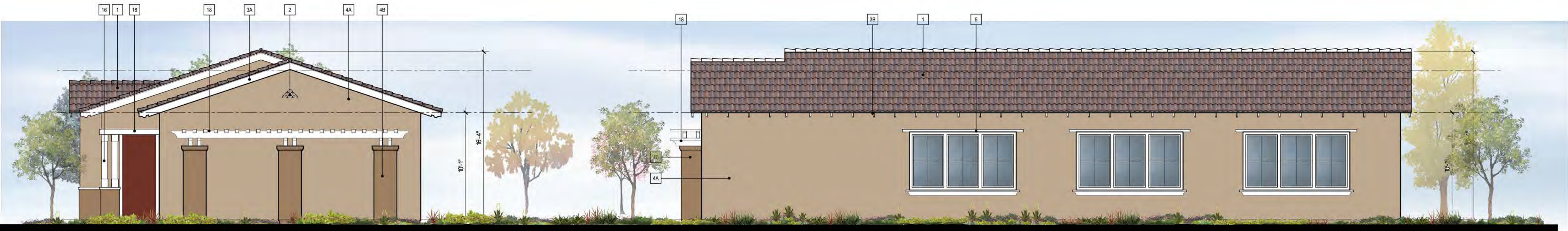
Conceptual Front Elevation



Conceptual Roof Plan
Slope: 4:12
Overhang: 24", Rake: 12"



Conceptual Floor Plan
Gross Floor Area: 892 sq. ft.



Conceptual Right Elevation

Conceptual Rear Elevation

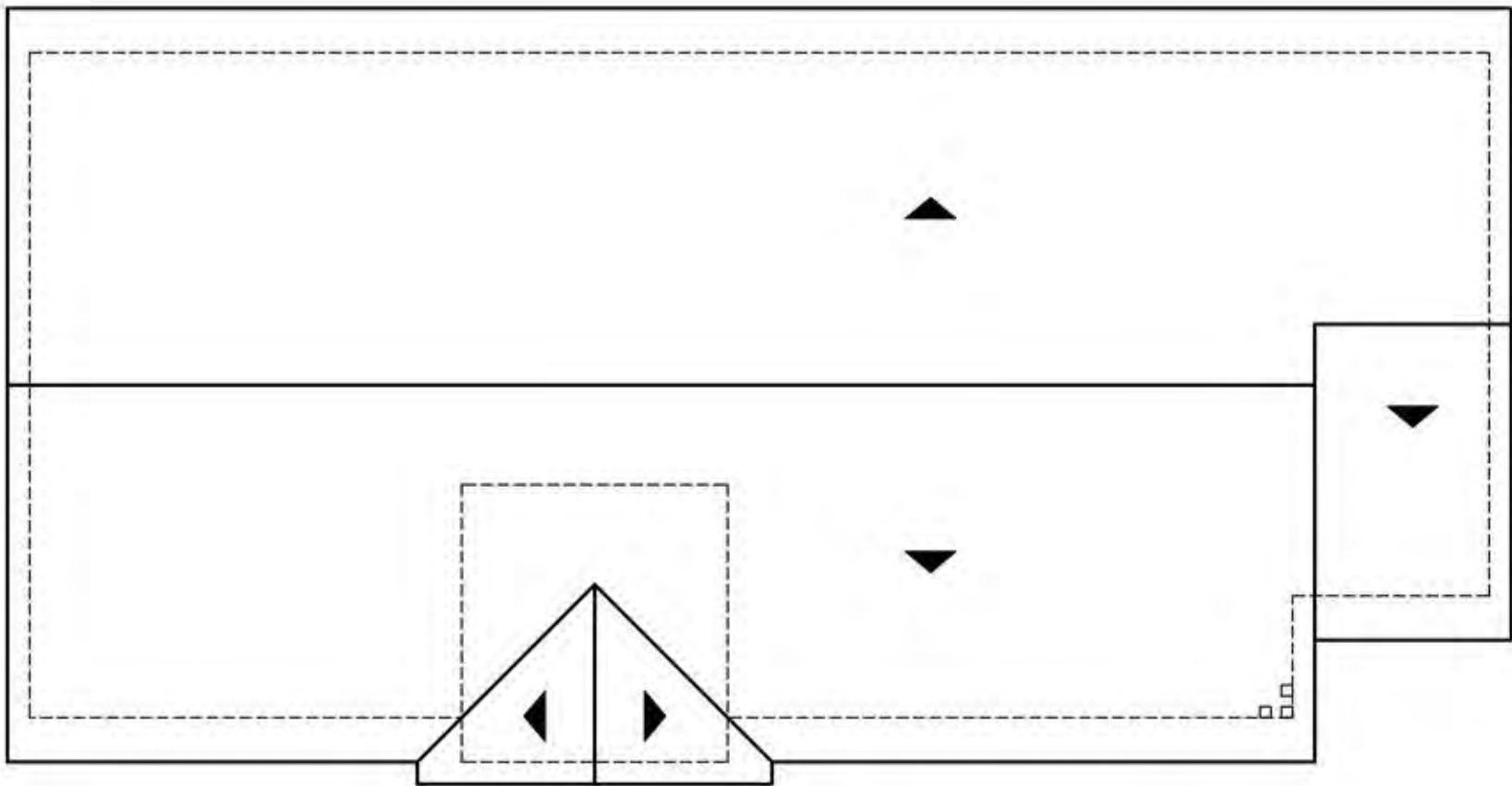


Conceptual Left Elevation

Conceptual Front Elevation

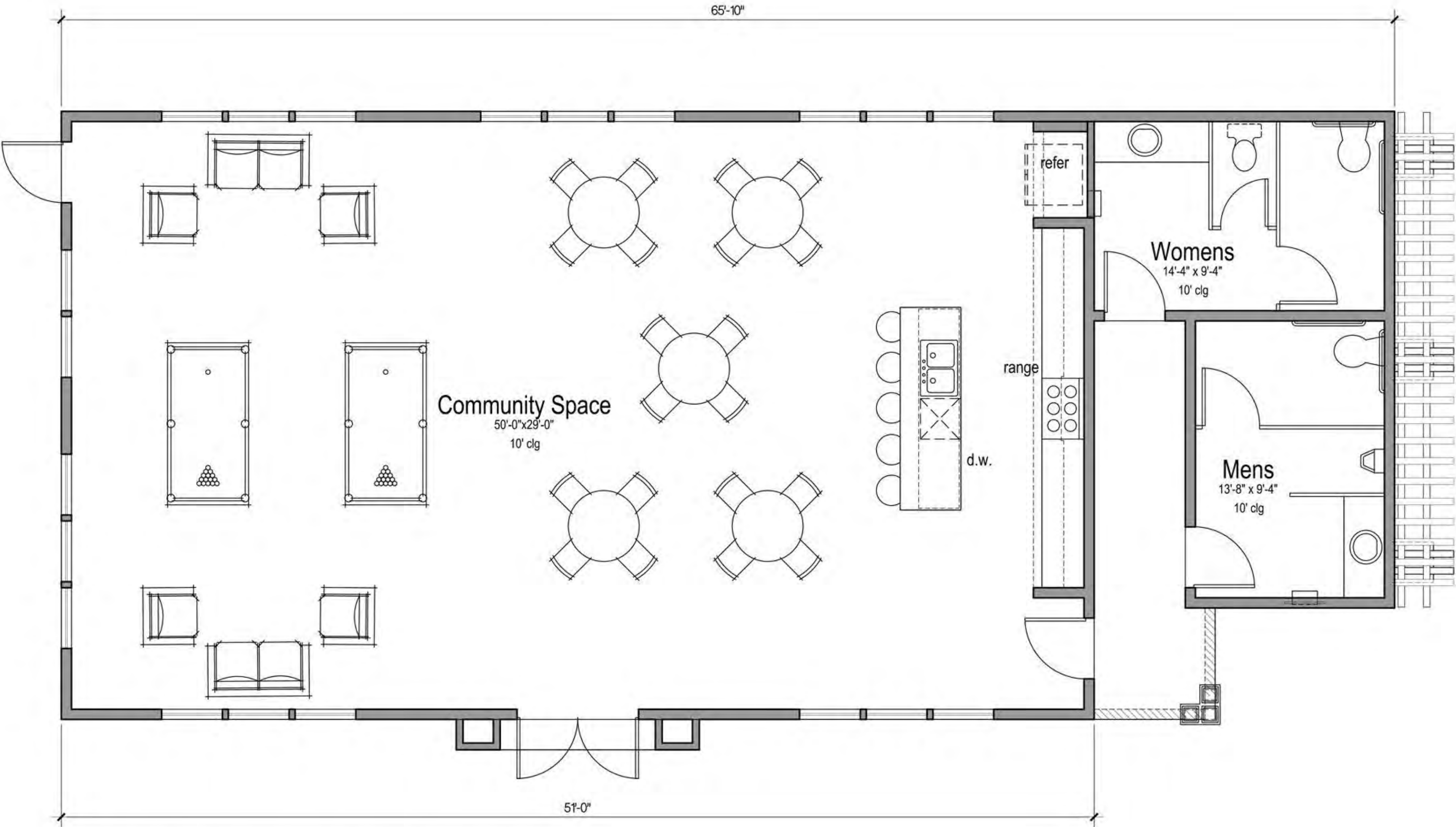
Building Material List

- | | | |
|---|-------------------------------|-------------------------------------|
| 1. "S" Concrete Roof Tile | 5. Foam Trim w/ Plaster Over | 12. Decorative Metal Juliet Balcony |
| 2. Decorative Clay Pipe | 6. Adhered Thin Brick Veneer | 13. Foam Corbel w/ Plaster Over |
| 3. 2x6 Fascia Board | 7. Adhered Masonry Veneer | 14. Decorative Faux Shutter |
| 3B. 2x6 Shaped Rafter Tail | 8. Composite Diagonal Siding | 15. Decorative Composite Finial |
| 4A. 3-Coat Exterior Plaster - Primary Color | 9. Composite Trim | 16. Composite Post |
| 4B. 3-Coat Exterior Plaster - Secondary Color | 10. Decorative Metal Railing | 17. Overhead Steel Sectional Door |
| | 11. Decorative Metal Potshelf | 18. Composite Trellis |



Conceptual Roof Plan

Scale 1/8" = 1'-0"



Conceptual Community Building Floor Plan

Gross Interior Area: 1,829 sq.ft.

CAMPUS OAKS APARTMENTS- PHASE 2

Landscape Development Plans

PLANTING NOTES

1. Installing Contractor shall verify quantities and areas to be planted prior to start of job. Notify Landscape Architect of any discrepancies prior to starting work.
2. All planting areas shall be completely free of trash, debris, rocks, and construction materials larger than 2", and shall be brought to finish grade before planting begins. Finish grade shall be 2" below surface of walks, curbs, and paved areas in planting areas where bark is to be installed. Grades shall be flush at catch basins. Surfaces shall be sloped with regard to drainage requirements so that water does not puddle or stand.
3. If additional soil is required, it shall be approved loam as similar to the existing soil as possible, free of debris and noxious weeds. Prior to placing additional soil, disc or scarify the sub-grade to a depth of at least 8" to permit bonding to the sub-grade. Spread and rototill a one inch layer of new soil, then proceed to place remaining soil and establish finish grade.
4. WITHIN 10 DAYS OF AWARD OF CONTRACT, LANDSCAPE CONTRACTOR MUST CONDUCT A SOILS TEST TO DETERMINE AMENDMENT QUANTITIES. FOR BID PURPOSES, ASSUME THE FOLLOWING SOIL PREPARATION FOR ALL PLANTING AREAS: APPLY NITRIFIED WOOD PRODUCT AMENDMENT AT A MINIMUM RATE OF 6 CUBIC YARDS PER 1000 SQ. FT. AND COMMERCIAL FERTILIZER (16-16-16 NPK OR EQUAL) AT A RATE OF 30 LBS. PER 1000 SQ.FT. FOR SHRUB AND GROUND COVER AREAS, 20 LBS. PER 1000 SQ.FT. FOR LAWN AREAS. ROTOTILL TO A DEPTH OF 6" TO 10". COMPACT AND SETTLE ALL AREAS BY APPLICATION OF HEAVY IRRIGATION TO A MINIMUM DEPTH OF 12".
5. Concrete headers shall be installed between all lawn and shrub/ground cover areas. Install per plans and details provided.
6. All plants shall be top quality nursery stock, free of disease and insect pests. Plants shall be normal size for container, vigorous, and true to name and variety. Plant holes shall be the same depth as the root ball, and three times the width for shrubs and four times the width for trees, see details.
7. Backfill for the plant holes shall be existing soil which has been previously amended. Apply Osmocote Controlled Release Formula fertilizer (18-6-12, 4 month formula) per manufacturer's recommendations.
8. When planted, crown of plant shall be 1-1/2" above finish grade. Prepare a water basin by forming a soil ring at least 3" high and as wide around the outer edge of the new plant hole. Water thoroughly to eliminate air pockets.
9. Upon completion of planting all containerized material, rake all shrub and ground cover areas to smooth grade, leaving watering basins intact. Prior to placement of bark mulch, all shrub and ground cover areas shall be treated with a pre-emergent herbicide (Ronstar or equal) per manufacturer's directions. Contractor to verify with manufacturer that pre-emergent will not adversely affect plant health.
10. Place a 3" layer of 'Walk-On' fir bark mulch, or approved equal, in all shrub and ground cover areas. Shredded redwood 'Gorilla Hair' is not acceptable.
11. Ground cover plants shall be planted in straight rows and evenly triangularly spaced at intervals noted in plant legend. Plant each rooted plant with its proportionate amount of rooting soil in a manner that will insure minimum disturbance of the root system.
12. For trees that require staking, use two 3" diameter treated lodgepole stakes set at minimum of 12" into undisturbed subgrade below the root ball. Place ties and stakes only to the level which will hold the tree upright; proper height is 6" above the point where the tree will snap to an upright position by itself if the top is pulled to one side as if wind loaded and then released. Ties shall be cinch-tie flexible vinyl (or equal) nailed to stake with galvanized nails, see details.
13. Sod Lawn and Biofiltration Sod: After soil preparation, carefully smooth all surfaces and roll to expose depressions and irregularities. Regrade as necessary. Lay first strip of sod slabs along a straight line. Butt joints tightly, do not overlap edges. For remaining strips, stagger joints much as laying bricks. Use a sharp knife to cut sod to fit curves, edges, sprinkler heads, etc. When a conveniently large area has been sodded, water lightly to prevent drying. After laying all sod, roll lightly to eliminate irregularities and to form good contact between sod and soil. Water thoroughly; soil should be moistened at least 8 inches deep. Repeat sprinkling at regular intervals to keep sod moist at all times until rooted. After sod is established, decrease frequency and increase amount of water per application as necessary.
14. Contractor shall furnish all labor, material, equipment, and services required to maintain the landscape in an attractive condition as specified herein for a period of 60 days after final acceptance by Owner. Maintenance Period shall commence after all planting and related work has been completed in accordance with Plans and Notes. A prime requirement is that all lawn areas shall show an even, healthy stand of grass which shall have been mown at least twice. Any materials found to be dead, missing, or in poor condition during the Maintenance Period shall be replaced within 10 days of written notification by the Owner. Contractor shall not be held responsible for damage arising from acts of God, vandalism, theft, or negligence by Owner during the Maintenance Period.

IRRIGATION NOTES

1. THIS PROJECT UTILIZES RECYCLED WATER; EQUIPMENT MARKED OR COLORED PURPLE TO INDICATE 'NON POTABLE' SHALL BE USED THROUGHOUT, AS INDICATED ON THE IRRIGATION SCHEDULE.
2. Installing Contractor shall verify all dimensions and areas prior to start of job. Intent is for full coverage of planting. Notify Landscape Architect of any discrepancies prior to trenching.
3. Plan is diagrammatic and not intended to show exact locations of piping and valves. Install valves and piping in landscape areas wherever possible. Install valves near curbs and sidewalks whenever possible. Sprinkler head spacings are shown accurately and shall be installed as indicated by the center of the symbol. Contractor is responsible for pipe sizing the Irrigation system correctly.
4. All materials shall be new and in perfect condition. No deviations from the specifications will be allowed without prior written approval of Landscape Architect.
5. Mainline shall be SCH 40 PVC or CL315 at a minimum depth of 18" below finish grade. Lateral lines shall be SCH 40 PVC at a minimum depth of 12" below grade. Use only the solvent supplied and recommended by the pipe manufacturer to make plastic pipe joints. Allow 15 minutes set-up curing time before moving or handling, and 24 hour curing time before water is placed in PVC pipe. Center load pipe with a small amount of backfill to prevent arching and whipping under pressure.
6. Where more than one pipe is installed in a trench, place pipe side by side at a minimum of 2" apart. Where soil conditions are rocky, place a 4" layer of fine material on bottom of trench prior to installation of pipe.
7. All valves shall be installed in Carson poly-plastic valve boxes with flush covers, or approved equal. All valve boxes to be Purple color to indicate recycled water use. Remote control valves shall be installed in Carson 1419 12" depth standard rectangular valve boxes; Drip zone remote control valves with filters and FRVs shall be installed in Carson 1220 12" depth jumbo rectangular valve boxes; Ball valves shall be installed in Carson 0011 10" diameter round valve boxes. Top of valve boxes shall be 1" above finish grade.
8. Install pop-up shrub heads and lawn spray heads 2" from curbs and walks.
9. Securely install controller as directed by manufacturer. Complete all electrical connections to controller. All control wire shall be #14 U.L. direct burial. Taped and bundled every 20'. Place at a minimum depth of 18", installing in common trenches with mainline whenever possible. Where wire crosses paving, encase wire in a SCH 40 PVC sleeve. For extra mainline, label, and leave in last valve box for future access.
10. At valves, both wires shall be brought into valve box and shall have an excess loop of 24" before being spliced into the solenoid pigtails using Pentite connectors.
11. After valves have been installed, test all mainlines for leaks at full line pressure for a period of 2 hours with couplings exposed and pipe sections center loaded. Before testing, fill line with water for at least 24 hours. Provisions shall be made for thoroughly bleeding the line of air and debris. Correct all defects and retest.
12. All excavations shall be backfilled with fine material to 4" above crown of pipe and tamped; then fill with earth and tamp. All trenches shall be left flush with adjoining grade and in a firm unyielding condition. Any subsequent settling shall be corrected by the Contractor.
13. Install systems without spray nozzles; open flush valves. Flush and operate each valve system at full pressure until all debris is removed. Install spray nozzles and close flush valves.
14. Test to determine that all sprinklers function according to manufacturer's data and give full coverage according to Intent of drawing. Replace and adjust as necessary. Additional heads shall be provided by the Contractor to cover areas shown to be deficient by test.
15. Contractor shall set initial program for the controller. Note that overhead irrigation must be scheduled to run between the hours of 8 p.m. and 10 a.m. Contractor shall provide Owner with the instruction manual, keys, and all associated accessories and documentation, and demonstrate its operation to the Owner.
16. Contractor shall prepare and submit to Owner a complete set of irrigation record drawings (aka 'As-Builts') indicating actual installed locations of irrigation equipment and mainline.
17. Contractor shall guarantee all parts and labor for one year with exception of damage caused by vandalism, theft, adverse natural conditions, or anything beyond the control of the Contractor.

IRRIGATION WELO COMPLIANCE NOTES

1. Contractor shall prepare a WELO Certificate of Completion Package per WELO Section 14.18.060 that includes irrigation schedules (establishment and established), maintenance schedule, water audit, as well as all other requirements needed prior to final acceptance.
2. Contractor shall include Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis prior to final acceptance per WELO Section 14.18.080.
3. All landscape irrigation audits shall be conducted by a third party certified landscape irrigation auditor. Landscape audits shall not be conducted by the person who designed the landscape or installed the landscape.
4. In large projects or projects with multiple landscape installations (i.e. production home developments) an auditing rate of 1 in 7 lots or approximately 15% of the projects irrigation valves shall satisfy this requirement.
5. Applies to new construction and rehabilitated landscape projects installed after December 1, 2015, as described in WELO Section 14.18.030.
6. The project applicant shall submit an irrigation audit report with the Certificate of Completion Package to the local agency that may include, but is not limited to: inspection, system tune up, system test distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and any other factors necessary for accurate programing.

350 ROSEVILLE PARKWAY
ROSEVILLE, CALIFORNIA

GENERAL NOTES

1. Landscape areas not covered with live material shall be covered with a 3" 'Walk-On' fir bark mulch layer.
2. Adjust location of plant material to avoid interference with building numbers and addresses at mature height.
3. Provide a minimum three foot clearance around all fire protection equipment and associated landscape apparatus.
4. All trees planted adjacent to fire lanes shall have their canopies maintained at 13'-6" or higher where they overhang into the required width of the fire lane.
5. Landscaping shall be placed and pruned as to retain the required clearance for ladder access to windows around the building and to not interfere at maturity with 13'-6" emergency vehicle access clearance.
6. Turf slopes cannot exceed 4:1.
7. Maintain a minimum distance of 18" between edge of lawn and trunk of tree(s).
8. Landscape contractor shall provide protection for all concrete surfaces when installing landscape materials. Staining of concrete from dirt, tire marks and damaged curbs will not be permitted. All damaged surfaces shall be cleaned or replaced.
9. Landscape contractor shall coordinate and install the sleeving and stubbing for irrigation crossing parking lots and paved areas.
10. Landscape contractor shall grade all landscape areas 2% min. to drain to the street. Landscape contractor is responsible to provide positive drainage away from all buildings. All planters and planter islands should be crowned to prevent standing water.
11. Root barriers are required in all locations where trees are placed closer than 48" from curbs, sidewalks, concrete or asphalt. Refer to detail for specification and installation.
12. Quantities found in the plant legend are for contractor convenience. In the event that the quantities in the legend differ from those found on the plans, the quantities found on the plans will take precedence.
13. Contractor to hand dig only under existing tree canopies, no mechanical excavation will be allowed, do not cut any roots 2" or larger in diameter, if it is necessary to prune roots 2" in diameter or larger, contractor shall hire the services of a licensed arborist to supervise and direct the work, follow all recommendations of the arborist.

"I have complied with the criteria of the Water Efficient Landscaping Ordinance and applied such criteria for the efficient use of water in the landscape design plan"


Jeffrey M. Ambrosia
10/01/19
Licensed Landscape Architect CA #4057

DRAWING INDEX

L-0.1	COVER SHEET
L-1.1 - L-1.4	IRRIGATION PLANS
L-2.1 - L-2.5	PLANTING PLANS
L-3.1 - L-3.3	SITE FURNISHINGS PLANS
L-4.1	IRRIGATION DETAILS
L-4.2	PLANTING AND IRRIGATION DETAILS
L-4.3	SITE FURNISHINGS DETAILS
L-4.4	WATER USE CALCULATIONS
L-4.5	IRRIGATION SCHEDULE

PG Exhibit D



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CAMPUS OAKS APARTMENTS - PHASE 2

LANDSCAPE DEVELOPMENT PLANS

350 ROSEVILLE PARKWAY
ROSEVILLE, CALIFORNIA

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Sheet Title

COVER SHEET

Seal



No.	Date	Revision
▲	09/18/20	Community/Pool Area Revisions
▲		
▲		
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Project Mgr.: JMA

Sheet No.:

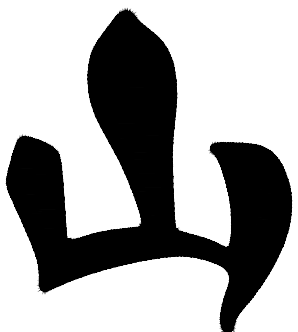
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L-0.1



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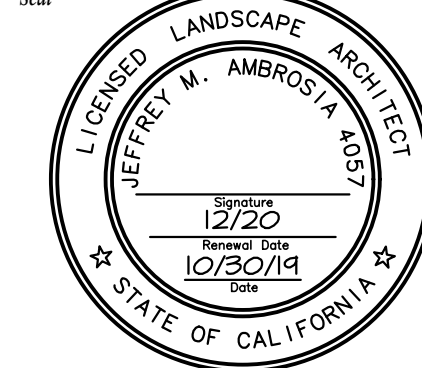
CAMPUS OAKS APARTMENTS - PHASE 2
LANDSCAPE DEVELOPMENT PLANS
350 ROSEVILLE PARKWAY
ROSEVILLE, CALIFORNIA

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Sheet Title

IRRIGATION PLAN

Seal



No.	Date	Revision
1	09/18/20	Community/Pool Area Revisions
2		
3		
4		

Project Mgr.: JMA Sheet No.:

Drawn By: TVZ

Scale: 1" = 20'

Date: 15 OCT 19

File Name: CO-1R of 18 sheets

L-1.1

IRRIGATION SCHEDULE

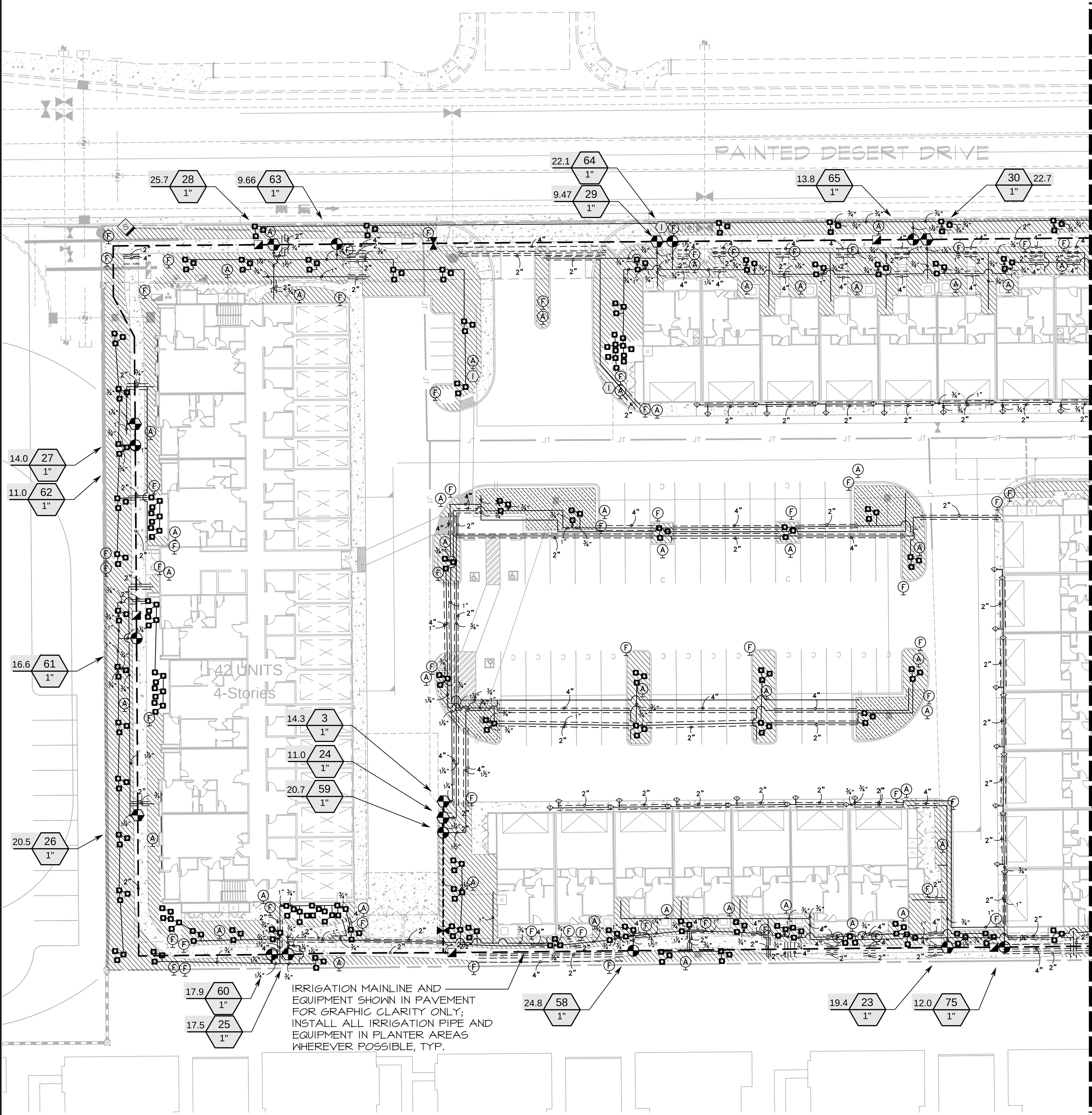
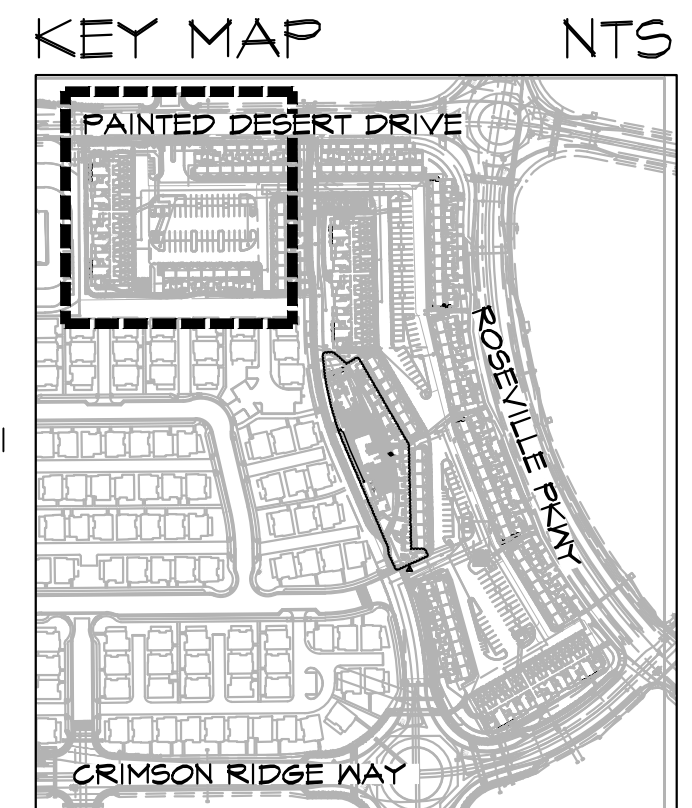
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
	Hunter PCB Flood Bubbler, 1/2" FIPT.	20
	Toro 570Z-6-COM-SB-PC Pressure-compensating stream bubbler with check valve on 6.0" Pop-Up. Toro 5B-4-180-PC 180 degree arc, 4 stream, 2' radius nozzle. Three bubblers per tree as shown on plan; spaced equally 24" from tree trunk.	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Netafim TL50V Netafim TL50V- 1/2" manual flush valve, barbed insert. Install in 10" box, with adequate blank or "cobra" tubing to extend valve out of valve box. 17mm fits Techline RW driplines.
	Netafim TLAVRV Air/Vacuum relief valve, 1/2" male pipe thread. Thread to Netafim TLO75FTEE 3/4" combination tee with 3/4" to 1/2" male pipe thread bushing.
	Rain Bird OPERIND Drip System Operation Indicator with purple cap, stem rises 6" for clear visibility when drip system is changed to a minimum of 20psi. Includes 16' of 1/4" distribution tubing with connection fitting pre-installed.

Area to Receive Dripline
Hunter Eco-Mat 17 mm
In Bio-Filtration Areas: 0.6 GPH fleece wrapped inline emitter tubing, with the blanket Eco-Mat. Evenly disperses water from under the surface. Emitters at 12" O.C. Dripline laterals spaced at 12" apart. Specify PLD-LOC fittings.

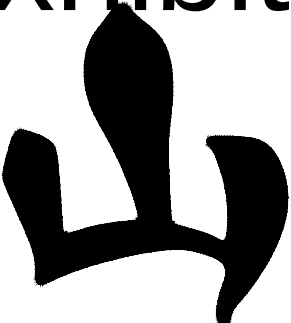
Area to Receive Dripline
Netafim TLRW-06-12-NP
Techline TLRW Landscape Dripline with Purple Stripe for Non-Potable Water Applications. 0.6 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. Install Netafim TLS-6 tubing staples at 4' O.C. Changes in direction shall be made with Netafim barbed TL fittings. Install 1" below finished grade. Designed for Reclaimed Water Use Only.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Toro P220-27-0 GLOBE Electric, 1", 1-1/2", 2" and 3" Plastic In-Line Remote Control Valve. Equipped to withstand pressure up to 220 PSI. Filter screen on 2" and 3" models. Standard Solenoid. Globe Body Style. With EZ Reg Pressure Regulator.
	Toro P220S-26-04 Electric, 1" Plastic Control Valve with the following: Rainbird PRB-QKCHK-100 40 psi pressure regulating basket strainer and Imperial technical service NFDEC single station two-wire decoder.
	Signature 7645 1" Quick coupler valve with purple locking cover 1" BSP. Provide two (2) 7640 keys with 8810 swivel at turnover.
	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"
	POC1-N215-CC20-320 2" SiteOne Green Tech point of connection assembly to include liquid filled pressure gauge.
	SA6-WT3-H2096/ETEXL-1/RSE/GR-K/NTW-H20-1 SiteOne Green Tech controller assembly with WeatherTRAK Pro 3 two wire controller in top entry VIT enclosure with Rain Sensor assembly with two years of cellular service.
	Recycled Water Sign Recycled water warning sign - T Christy Model ID-Sign 3.5 (12"x18") aluminum with 1-1/2" square aluminum post.
	Water Meter 2" 8" Recycled Water Line, POoper civil plans.



—————	Irrigation Lateral Line: Purple PVC Schedule 40
—————	Irrigation Mainline: Purple PVC Schedule 40
—————	Irrigation Mainline: Purple PVC Class 315 SDR 13.5
—————	Pipe Sleeve: PVC Schedule 40
	Valve Callout
	Valve Number
	Valve Flow
	Valve Size

MATCHLINE, SEE SHEET L-1.2



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CAMPUS OAKS APARTMENTS - PHASE 2
LANDSCAPE DEVELOPMENT PLANS
350 ROSEVILLE PARKWAY
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Sheet Title
IRRIGATION PLAN



No. Date Revision
1 09/18/20 Community/Pool Area Revisions

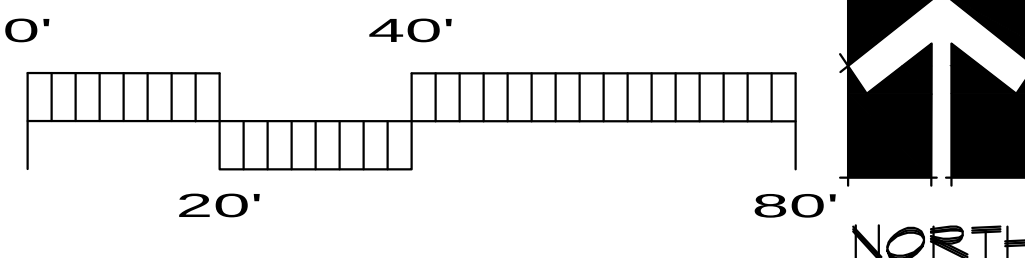
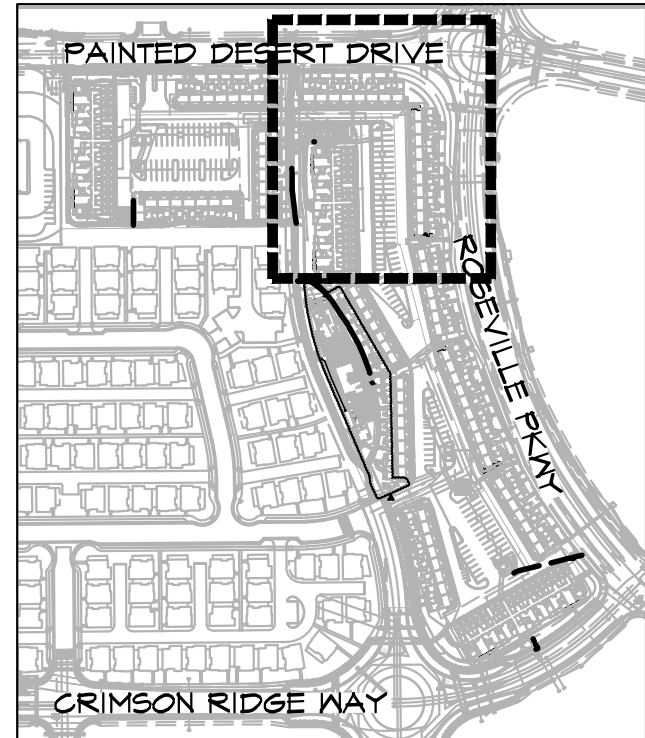
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Drawn By: TVZ
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Date: 15 OCT 19
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L-1.2

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM
1	Toro P2205-26-04	"	Area for Dripline	5.21
2	Toro P2205-26-04	"	Area for Dripline	7.48
3	Toro P2205-26-04	"	Area for Dripline	14.28
4	Toro P2205-26-04	"	Area for Dripline	8.57
5	Toro P2205-26-04	"	Area for Dripline	10.82
6	Toro P2205-26-04	"	Area for Dripline	21.69
7	Toro P2205-26-04	"	Area for Dripline	23.39
8	Toro P2205-26-04	"	Area for Dripline	15.63
9	Toro P2205-26-04	"	Area for Dripline	11.36
10	Toro P2205-26-04	"	Area for Dripline	18.50
11	Toro P2205-26-04	"	Area for Dripline	18.82
12	Toro P2205-26-04	"	Area for Dripline	22.39
13	Toro P2205-26-04	"	Area for Dripline	19.11
14	Toro P2205-26-04	"	Area for Dripline	20.52
15	Toro P2205-26-04	"	Area for Dripline	34.29
16	Toro P2205-26-04	"	Area for Dripline	30.29
17	Toro P2205-26-04	"	Area for Dripline	29.80
18	Toro P2205-26-04	"	Area for Dripline	7.81
19	Toro P2205-26-04	"	Area for Dripline	20.48
20	Toro P2205-26-04	"	Area for Dripline	23.55
21	Toro P2205-26-04	"	Area for Dripline	23.30
22	Toro P2205-26-04	"	Area for Dripline	16.06
23	Toro P2205-26-04	"	Area for Dripline	19.41
24	Toro P2205-26-04	"	Area for Dripline	11.01
25	Toro P2205-26-04	"	Area for Dripline	17.52
26	Toro P2205-26-04	"	Area for Dripline	20.47
27	Toro P2205-26-04	"	Area for Dripline	14.00
28	Toro P2205-26-04	"	Area for Dripline	25.71
29	Toro P2205-26-04	"	Area for Dripline	9.47
30	Toro P2205-26-04	"	Area for Dripline	22.73
31	Toro P2205-26-04	"	Area for Dripline	14.51
32	Toro P2205-26-04	"	Area for Dripline	9.44
33	Toro P2205-26-04	"	Area for Dripline	22.17
34	Toro P2205-26-04	"	Area for Dripline	25.36
35	Toro P2205-26-04	"	Area for Dripline	26.88
36	Toro P2205-26-04	"	Area for Dripline	24.23
37	Toro P2205-26-04	"	Area for Dripline	22.26
38	Toro P2205-26-04	"	Area for Dripline	21.71
39	Toro P2205-26-04	"	Area for Dripline	19.30
40	Toro P2205-26-04	"	Area for Dripline	20.99
41	Toro P2205-26-04	"	Area for Dripline	12.78
42	Toro P2205-26-04	"	Area for Dripline	17.24
43	Toro P2205-26-04	"	Area for Dripline	28.59
44	Toro P220-27-O GLOBE	"	Bubbler	6.90
45	Toro P220-27-O GLOBE	"	Bubbler	20.70
46	Toro P220-27-O GLOBE	"	Bubbler	24.84
47	Toro P220-27-O GLOBE	"	Bubbler	13.80
48	Toro P220-27-O GLOBE	"	Bubbler	22.08
49	Toro P220-27-O GLOBE	"	Bubbler	11.04
50	Toro P220-27-O GLOBE	"	Bubbler	16.56
51	Toro P220-27-O GLOBE	"	Bubbler	8.28
52	Toro P220-27-O GLOBE	"	Bubbler	5.52
53	Toro P220-27-O GLOBE	1-1/2"	Bubbler	35.88
54	Toro P220-27-O GLOBE	"	Bubbler	20.70
55	Toro P220-27-O GLOBE	"	Bubbler	20.70
56	Toro P220-27-O GLOBE	"	Bubbler	1.38
57	Toro P220-27-O GLOBE	"	Bubbler	20.70
58	Toro P220-27-O GLOBE	"	Bubbler	24.84
59	Toro P220-27-O GLOBE	"	Bubbler	20.70
60	Toro P220-27-O GLOBE	"	Bubbler	17.94
61	Toro P220-27-O GLOBE	"	Bubbler	16.56
62	Toro P220-27-O GLOBE	"	Bubbler	11.04
63	Toro P220-27-O GLOBE	"	Bubbler	9.66
64	Toro P220-27-O GLOBE	"	Bubbler	22.08
65	Toro P220-27-O GLOBE	"	Bubbler	13.80
66	Toro P220-27-O GLOBE	"	Bubbler	20.70
67	Toro P220-27-O GLOBE	"	Bubbler	8.28
68	Toro P220-27-O GLOBE	"	Bubbler	17.94
69	Toro P220-27-O GLOBE	"	Bubbler	26.22
70	Toro P220-27-O GLOBE	"	Bubbler	5.52
71	Toro P220-27-O GLOBE	"	Bubbler	24.99
72	Toro P220-27-O GLOBE	"	Bubbler	23.46
73	Toro P220-27-O GLOBE	"	Bubbler	26.22
74	Toro P220-27-O GLOBE	"	Bubbler	20.00
75	Toro P220-27-O GLOBE	"	Bubbler	12.00
76	Toro P220-27-O GLOBE	"	Bubbler	23.00
77	Toro P220-27-O GLOBE	"	Bubbler	21.00

KEY MAP NTS

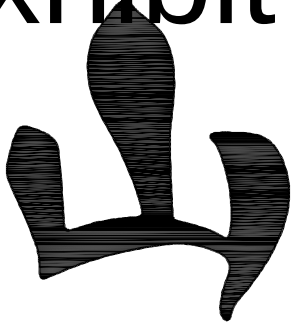


SEE SHEET L-1.1 FOR
IRRIGATION SCHEDULE

PLANTING STRIP BETWEEN
SIDEWALK AND BACK OF CURB BY
OTHER; WILL BE SERVED BY THE
MASTER DEVELOPMENT'S CFD
POINT OF CONNECTION.

MATCHLINE, SEE SHEET L-1.1

MATCHLINE, SEE SHEET L-1.3



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CAMPUS OAKS APARTMENTS - PHASE 2
LANDSCAPE DEVELOPMENT PLANS
350 ROSEVILLE PARKWAY
ROSEVILLE, CALIFORNIA

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Sheet Title

IRRIGATION PLAN

Seal



No.	Date	Revision
△	09/18/20	Community/Pool Area Revisions
△	12/4/20	Pool Fence Detail
△		
△		

Project Mgr.: JMA Sheet No.:

Drawn By: TVZ

Scale: 1"= 20'

Date: 15 OCT 19

File Name: CO-1R of 19 sheets

L-1.3

CRITICAL ANALYSIS

Generated: 2020-09-17 14:27
P.O.C. NUMBER: 01
Water Source Information: 8" Recycled Water Line, POC per civil plans.

FLOW AVAILABLE
Water Meter Size: 2"
Flow Available: 120.00 gpm

PRESSURE AVAILABLE
Static Pressure at POC: 60.00 psi
Elevation Change: 5.00 ft
Service Line Size: 8"
Length of Service Line: 20.00 ft
Pressure Available: 58.00 psi

DESIGN ANALYSIS
Maximum Multi-valve Flow: 60.00 gpm
Flow Available at POC: 120.00 gpm
Residual Flow Available: 60.00 gpm

Critical Station: 65
Design Pressure: 30.00 psi
Friction Loss: 4.90 psi
Fittings Loss: 0.49 psi
Elevation Loss: 0.00 psi
Loss through Valve: 3.82 psi
Pressure Req. at Critical Station: 34.22 psi
Loss for Fittings: 1.30 psi
Loss for Main Line: 13.05 psi
Loss for POC to Valve Elevation: 0.00 psi
Loss for Backflow: 0.00 psi
Loss for Master Valve: 1.70 psi
Loss for Water Meter: 2.70 psi
Critical Station Pressure at POC: 57.97 psi
Pressure Available: 58.00 psi
Residual Pressure Available: 0.03 psi

Sleeving Schedule

ALL PIPE SLEEVES TO BE SCHEDULE 40 PVC.
ALL PLASTIC LINES SHALL BE INSTALLED
IN SLEEVES UNDER PAVED AREAS. SLEEVES
SHALL EXTEND AT LEAST 12 INCHES BEYOND
THE EDGES OF THE PAVEMENT. SIZE OF
SLEEVES SHALL BE AS FOLLOWS:

PIPE OR WIRE SIZE	REQUIRED SLEEVE
3/4" 1" PIPE	1-2" PVC SLEEVE
1-1/4", 1-1/2", 2", 2-1/2" PIPE	1-4" PVC SLEEVE
3" 4" PIPE	1-6" PVC SLEEVE
6" PIPE	1-8" PVC SLEEVE
1-25 CONTROL WIRES	1-2" PVC SLEEVE
26-55 CONTROL WIRES	2-2" PVC SLEEVES

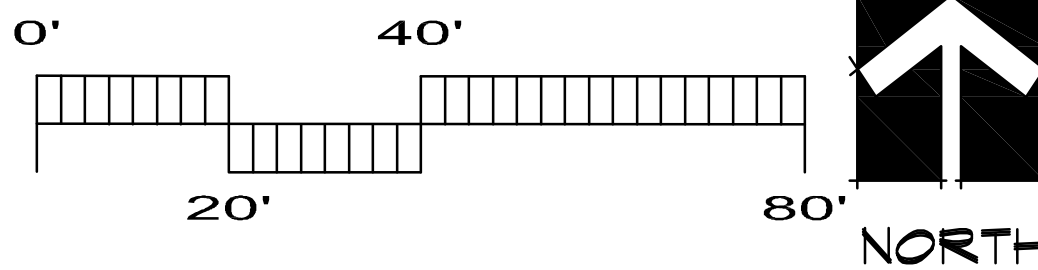
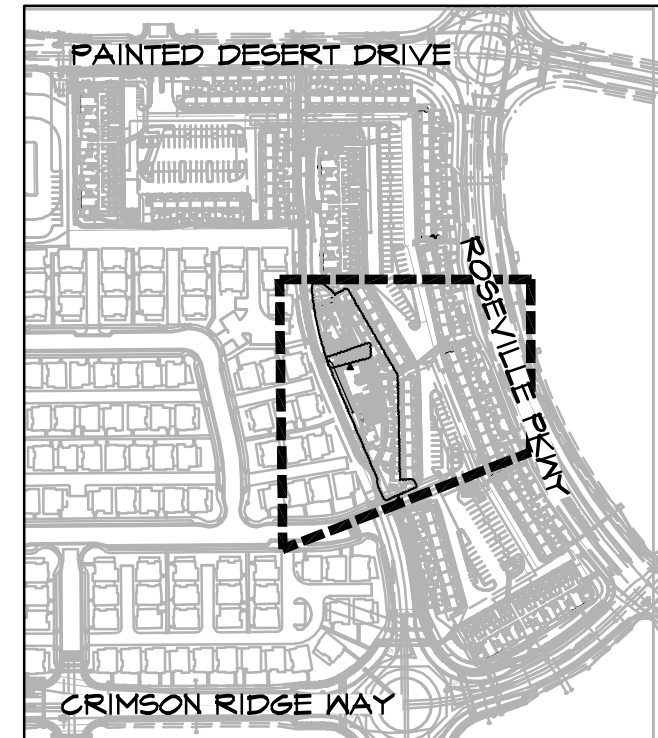
Pipe Sizing Schedule

PIPE SIZE	CL 200 (GPM)	CL 315 (GPM)	SCH 40 (GPM)
3/4"			5-8
1 INCH			9-13
1-1/4"			14-23
1-1/2"			24-32
2 INCHES			33-53
2-1/2"		50-74	
3 INCHES		75-109	
4 INCHES		110-180	
6 INCHES	200-425		

1. ALL PIPE 2" AND SMALLER SHALL BE SCH 40.
ALL PIPE 2-1/2" TO 4" SHALL BE CLASS 315.
ALL PIPE 5" AND GREATER SHALL BE CLASS 200.

SEE SHEET L-1.1 FOR
IRRIGATION SCHEDULE

KEY MAP NTS

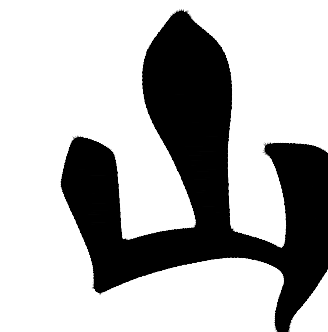


MATCHLINE, SEE SHEET L-1.2

MATCHLINE, SEE SHEET L-1.3

I HAVE COMPLIED WITH THE CRITERIA OF THE WATER
EFFICIENT LANDSCAPING ORDINANCE AND APPLIED
SUCH CRITERIA FOR THE EFFICIENT USE OF WATER IN
THE IRRIGATION PLAN."

Jeffrey M. Ambrosia
Licensed Landscape Architect CA #4057
10/01/19



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CAMPUS OAKS APARTMENTS - PHASE 2 LANDSCAPE DEVELOPMENT PLANS 350 ROSEVILLE PARKWAY ROSEVILLE, CALIFORNIA

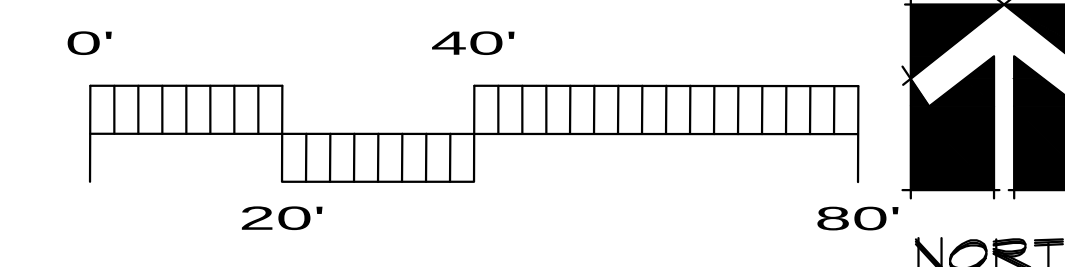
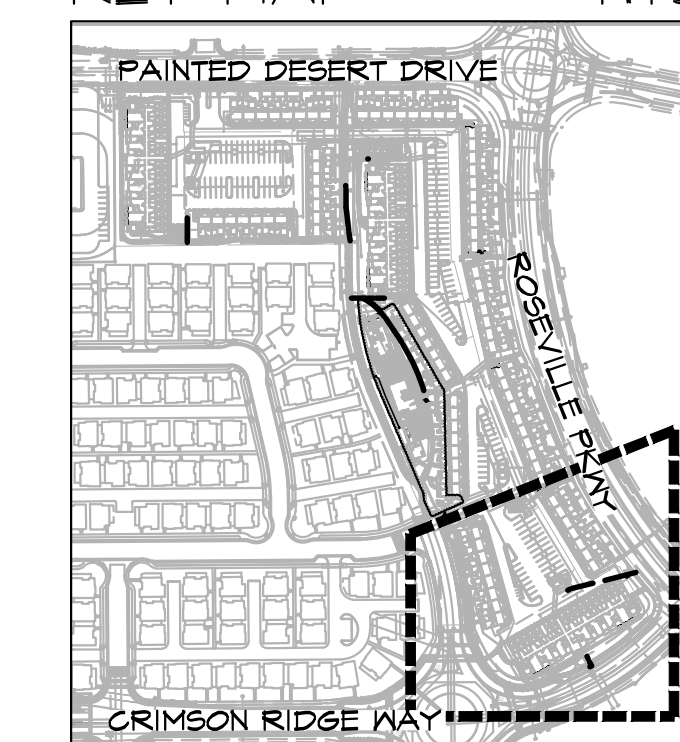
CITY OF ROSEVILLE RECYCLED WATER SPECIAL ON SITE IRRIGATION NOTES

1. THE INSTALLATION OF THE RECYCLED WATER SYSTEM SHALL CONFORM TO THE REGULATIONS FOR THE CONSTRUCTION OF RECYCLED WATER SYSTEMS WITHIN THE CITY OF ROSEVILLE AND THE ACCOMPANYING PLANS AND SPECIFICATIONS.
2. ALL ON SITE RECYCLED AND POTABLE WATER PIPING INSTALLED ON THIS PROJECT SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF ROSEVILLE CONSTRUCTION STANDARDS FOR RECYCLED WATER INFRASTRUCTURE AND THE IRRIGATION SPECIFICATIONS.
3. CITY OF ROSEVILLE ENVIRONMENTAL UTILITIES DEPARTMENT SHALL BE NOTIFIED TWO DAYS PRIOR TO THE START OF CONSTRUCTION AT (R) 714-5150 AND EACH WORKDAY THEREAFTER UNTIL COMPLETION OF PROJECT FOR COMMERCIAL IRRIGATION SYSTEMS.
4. NO FACILITY IS TO BE BACKFILLED UNTIL INSPECTED BY THE CITY OF ROSEVILLE ENVIRONMENTAL UTILITIES DEPARTMENT AND/OR PARKS DEPARTMENT INSPECTOR.
5. ALL RECYCLE WATER INFRASTRUCTURE, BOTH ON-SITE AND OFF-SITE, SHALL BE INSPECTED BY CITY OF ROSEVILLE ENVIRONMENTAL UTILITIES AND/OR PARKS DEPARTMENT, FOR INSPECTION OF RECYCLED WATER SYSTEM CONTACT ENVIRONMENTAL UTILITIES AT 714-5150 FORTY-EIGHT (48) HOURS IN ADVANCE. POINTS OF INSPECTION ARE:
 - a. PRE-CONSTRUCTION MATERIALS INSPECTION.
 - b. IRRIGATION SYSTEM INSTALLATION BEFORE LINES ARE COVERED.
 - c. PRESSURE TESTING.
 - d. SYSTEM CROSS CONNECTION CONTROL TEST.
 - e. SIGNAGE.
6. ALL RECYCLED WATER PIPING SHALL BE PURPLE COLORED PVC UNLESS OTHERWISE SPECIFIED. WHERE PURPLE PVC IS NOT USED, PIPE SHALL BE IDENTIFIED (MARKED) IN ACCORDANCE WITH THE CITY OF ROSEVILLE CONSTRUCTION STANDARDS.
7. MARKINGS ON THE PURPLE COLORED PVC PIPE SHALL INCLUDE THE FOLLOWING:

* RECYCLED WATER - DO NOT DRINK*, NOMINAL PIPE SIZE, PVC-120, PRESSURE RATINGS IN POUNDS PER SQUARE INCH AT 78 DEGREES, ASTM DESIGNATIONS SUCH AS 1185, 2241, 1612, 9134. PRINTING SHALL BE PLACED CONTINUOUSLY ON TWO SIDES OF THE PIPE.
8. ALL RECYCLED WATER SPRINKLER CONTROL VALVES, VALVE RISERS, SPRINKLER RISERS, AND SHING JOINTS SHALL BE TAGGED WITH IDENTIFICATION TAGS OR ADHESIVE LABELS.
 - a. TAGS SHALL BE WEATHERPROOF PLASTIC, 3" X 4", PURPLE COLOR WITH THE WORDS "RECYCLED WATER - DO NOT DRINK" IMPRINTED ON ONE SIDE, AND "AGUA RECYCLADA ON THE OTHER SIDE. IMPRINTING SHALL BE PERMANENT AND BLACK IN COLOR. USE TAGS AS MANUFACTURED BY T. CHRISTY ENTERPRISES OR APPROVED EQUAL.
 - b. ONE TAG SHALL BE ATTACHED TO EACH VALVE AS FOLLOWS:
 - i. ATTACH VALVE DIRECTLY OR WITH PLASTIC TIE-WRAP, OR
 - ii. ATTACH TO SOLENOID WIRE DIRECTLY OR WITH PLASTIC TIE-WRAP.
 - c. RECYCLED WATER WARNING LABELS OR STICKERS THAT ARE CONSISTENT WITH CITY OF ROSEVILLE CONSTRUCTION STANDARDS FOR THE IRRIGATION RECYCLED WATER INFRASTRUCTURE SPECIFICATIONS MUST BE ATTACHED TO ALL PIPING NOT IN COMPLIANCE.
 - d. ALL SPRINKLER HEADS MUST BE DESIGNED FOR RECYCLED WATER USAGE, WITH PURPLE RECYCLED WATER WARNING CAPS.
 - e. SPRINKLER RISERS AND SHING JOINTS SHALL BE IDENTIFIED WITH PURPLE ADHESIVE 3" X 3" LABELS. EACH LABEL SHALL STATE "RECYCLED WATER-DO NOT DRINK" IN ENGLISH AND SPANISH.
9. ALL RECYCLED WATER CONTROL VALVE BOXES SHALL BE PURPLE AND HAVE A WARNING LABEL PERMANENTLY MOLDED INTO OR AFFIXED ONTO THE LID WITH RIVETS, BOLTS, ETC. WARNING LABELS SHALL BE CONSTRUCTED OF A PURPLE WEATHERPROOF MATERIAL WITH THE WARNING PERMANENTLY STAMPED OR MOLDED INTO THE LABEL. THE WARNING SHALL CONTAIN THE FOLLOWING INFORMATION:
 - a. "RECYCLED WATER"
 - b. "DO NOT DRINK" IN ENGLISH AND SPANISH.
10. RECYCLED WATER QUICK COUPLING VALVES SHALL HAVE A PURPLE RUBBER OR VINYL COVER. THE COVER SHALL BE OF A LOCKING TYPE AND HAVE A WARNING PERMANENTLY STAMPED OR MOLDED AS FOLLOWS: RECYCLED WATER - DO NOT DRINK" IN ENGLISH AND SPANISH.
11. PLASTIC WARNING TAPE SHALL BE USED IN ALL POTABLE WATER PIPING. POTABLE WATER WARNING TAPE SHALL BE A MINIMUM OF 3 INCHES WIDE AND SHALL RUN CONTINUOUSLY FOR THE ENTIRE LENGTH OF EACH LINE. THE TAPE SHALL BE ATTACHED TO THE TOP OF THE PIPE WITH NYLON TIE-WRAP BRANCH THE WARNING TAPE AND THE PIPE EVERY FIVE FEET ON CENTER. WARNING TAPE OF THE POTABLE WATER PIPING SHALL BE BLUE IN COLOR WITH WORDS "CAUTION, POTABLE WATER LINE BURIED BELOW" IMPRINTED IN MINIMUM HIGH HIGH LETTERS. BLACK IN COLOR. IMPRINTING SHALL BE CONTINUOUS AND PERMANENT.
12. ALL PRESSURE MAIN LINE PIPING FROM THE RECYCLED WATER SYSTEM SHALL BE INSTALLED TO MAINTAIN 10 FEET MINIMUM HORIZONTAL SEPARATION FROM ALL POTABLE WATER PIPING. WHERE RECYCLED AND POTABLE WATER PRESSURE MAIN LINE PIPING CROSS, THE RECYCLED WATER PIPING SHALL BE INSTALLED ON THE POTABLE WATER PIPING OD TO OD, WHERE THE RECYCLED WATER PRESSURE MAIN LINE MUST PASS ABOVE POTABLE WATER PIPING. THE RECYCLED WATER PIPING SHALL BE INSTALLED IN A CLASS 200 PURPLE COLORED PVC SLEEVE WHICH EXTENDS A MINIMUM OF FIVE FEET ON EITHER SIDE OF THE POTABLE WATER PIPING. A 12" VERTICAL SEPARATION OD TO OD MUST BE MAINTAINED. CONVENTIONAL (WHITE) PVC PIPE MAY BE USED FOR SLEEVING MATERIAL IF IT IS TAPED WITH THREE-INCH WIDE PURPLE WARNING TAPE, WHICH READS "RECYCLED WATER-DO NOT DRINK".
13. ALL PRESSURE MAIN LINE PIPING FROM THE RECYCLED WATER SYSTEM SHALL BE INSTALLED TO MAINTAIN A TEN FOOT MINIMUM HORIZONTAL SEPARATION FROM ALL SANITARY SEWER CROSS, WHERE RECYCLED AND SEWER CROSS, THE RECYCLED WATER PIPING SHALL BE INSTALLED A MINIMUM OF ONE FOOT ABOVE SEWER.
14. FOR ON-SITE RECYCLED WATER PIPING, THE MINIMUM DEPTH FROM FINISH GRADE TO TOP OF PIPE SHALL BE AS FOLLOWS:
 - a. INTERMITTENT PRESSURE LINES (ALL SIZES) 12"
 - b. CONSTANT PRESSURE LINES 25" AND SMALLER 18"
 - c. CONSTANT PRESSURE LINES 3" AND LARGER 24"
15. PRESSURE AND CROSS CONNECTION TESTING FOR ON-SITE RECYCLED WATER SYSTEMS:
 - a. ALL TESTING OF RECYCLED WATER SYSTEMS MUST BE PERFORMED UTILIZING A POTABLE WATER SOURCE VIA A CONSTRUCTION WATER CONNECTION PER CITY OF ROSEVILLE CONSTRUCTION STANDARDS. NO RECYCLED WATER MAY CONNECT TO A RECYCLED WATER SYSTEM UNTIL ALL TESTING IS SUCCESSFULLY COMPLETE.
 - b. THE SOURCE OF POTABLE WATER USED FOR TESTING MUST HAVE A METER AND AN APPROVED BACK FLOW PREVENTION DEVICE. THESE CAN BE OBTAINED THROUGH THE CITY OF ROSEVILLE.
 - c. THE CONTRACTOR SHALL PROVIDE A MEANS TO PLUMB IN PRESSURE AND CROSS CONNECTION TESTING APPARATUS AT THE POINT OF HIGHEST ELEVATION FOR BOTH POTABLE AND RECYCLED WATER PRESSURE RECYCLED WATER SYSTEMS.
 - d. THE CONSTANT PRESSURE RECYCLED WATER SYSTEM INCLUDING ALL APPURTENANCES SHALL BE TESTED AT 125 PSI AT HIGHEST POINT OF ELEVATION FOR 1 HOUR WITH NO DETECTABLE LEAKAGE.
 - e. PRESSURE TESTING MUST BE SUCCESSFULLY COMPLETE PRIOR TO CROSS CONNECTION TESTING.
 - f. THE RECYCLED WATER SYSTEM SHALL BE TESTED FOR CROSS-CONNECTION IN ACCORDANCE WITH UNIFORM PLUMBING CODE APPENDIX J PRIOR TO USE.
 - g. FOR PROJECTS BEING PERFORMED IN PHASES, A CROSS CONNECTION TEST SHALL BE PERFORMED ON EACH PHASE INDEPENDENTLY BEFORE IT IS PUT INTO SERVICE. THE POTABLE WATER SOURCE USED FOR TESTING EACH PHASE MUST BE INDEPENDENT OF OTHER PREVIOUSLY COMPLETED PHASES.
 - h. AT THE TIME A CROSS CONNECTION TEST IS TO BE PERFORMED, CONSTRUCTION ON BOTH THE POTABLE AND THE RECYCLED WATER SYSTEMS BEING TESTED MUST BE COMPLETE, AND BOTH SYSTEMS FULLY OPERATIONAL AND FUNCTIONING AS DESIGNED.
 - i. CROSS CONNECTION TESTING SHALL BE PERFORMED ON THE SYSTEM BY CITY FORCES WITH THE ASSISTANCE OF THE CONTRACTOR. THE TEST WILL BE COORDINATED THROUGH THE ENVIRONMENTAL UTILITIES OR PARKS DEPARTMENT INSPECTOR. FORTY EIGHT (48) HOURS NOTICE IS REQUIRED BEFORE THE TEST. DEPENDING ON THE COMPLEXITY OF THE SITE, A PRELIMINARY FIELD MEETING MAY ALSO BE REQUIRED.
16. COVERAGE TEST:
 - a. ADJUST SPRAY HEADS TO ELIMINATE OVERSPRAY ONTO NATIVE OAK AREAS AND INTO AREAS NOT UNDER THE CONTROL, THE CUSTOMER SUCH AS POOL DECKS, PRIVATE PATIOS, STREETS, SIDEWALKS, AND OTHER SIMILAR FACILITIES.
17. METER INSTALLATION:
 - a. ONCE THE ON-SITE RECYCLED WATER SYSTEM HAS BEEN PROPERLY INSPECTED AND PASSED PRESSURE AND CROSS CONNECTION TESTING, A METER MAY BE INSTALLED. THE METER MUST BE PURCHASED FROM THE CITY OF ROSEVILLE AND INSTALLED BY CITY FORCES. COORDINATE METER PURCHASE AND INSTALLATION WITH THE ENVIRONMENTAL UTILITIES OR PARKS DEPARTMENT INSPECTOR.
18. NO CONNECTION SHALL BE MADE TO THE CITY'S EXISTING RECYCLED WATER SYSTEM UNTIL THE NEW FACILITIES HAVE BEEN SUCCESSFULLY PRESSURE AND CROSS CONNECTION TESTED, TAPS TO THE EXISTING RECYCLED SYSTEM WILL BE MADE BY CITY FORCES ONLY.
19. FAILURE TO COMPLY WITH THE ABOVE GUIDELINES VIOLATES THE CITY OF ROSEVILLE DESIGN AND CONSTRUCTION STANDARDS FOR RECYCLED WATER INFRASTRUCTURE AND WILL RESULT IN TERMINATION OF SERVICE UNTIL THE APPROPRIATE CORRECTIVE STEPS HAVE BEEN TAKEN.

SEE SHEET L-1.1 FOR
IRRIGATION SCHEDULE

KEY MAP NTS



PLANTING STRIP BETWEEN
SIDEWALK AND BACK OF CURB BY
OTHER; WILL BE SERVED BY THE
MASTER DEVELOPMENT'S CFD
POINT OF CONNECTION.

IRRIGATION CONTROLLER
ASSEMBLY, SEE IRRIGATION
LEGEND.

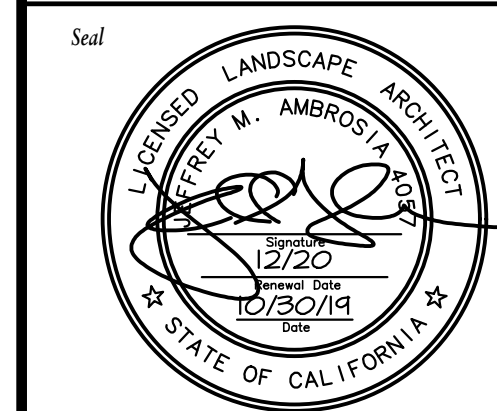
POINT OF CONNECTION
ASSEMBLY, SEE IRRIGATION
LEGEND.

IRRIGATION POINT OF
CONNECTION (P.O.C.): 2"
RECYCLED WATER METER
PER CIVIL PLANS

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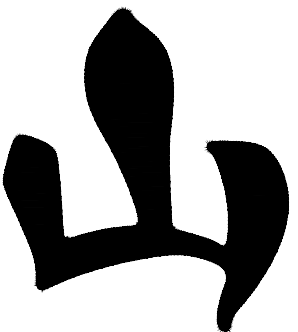
IRRIGATION PLAN



No.	Date	Revision
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2		
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Project Mgr:	JMA	Sheet No.:	
Drawn By:	TVZ		
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L-1.4



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CAMPUS OAKS APARTMENTS - PHASE 2
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350 ROSEVILLE PARKWAY
ROSEVILLE, CALIFORNIA

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Sheet Title

PLANTING PLAN

Seal



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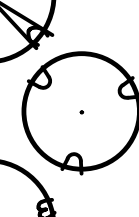
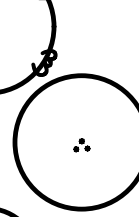
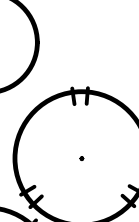
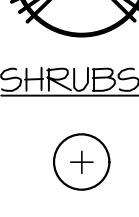
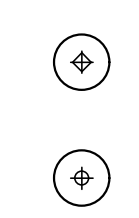
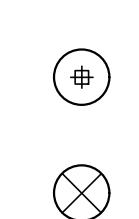
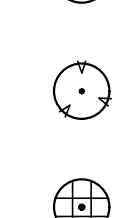
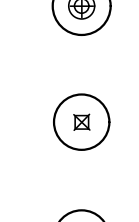
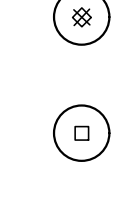
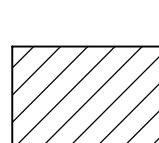
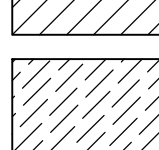
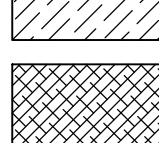
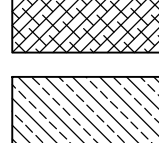
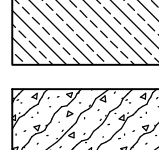
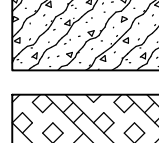
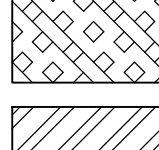
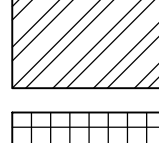
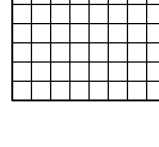
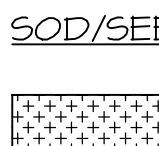
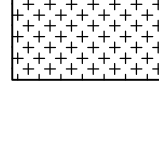
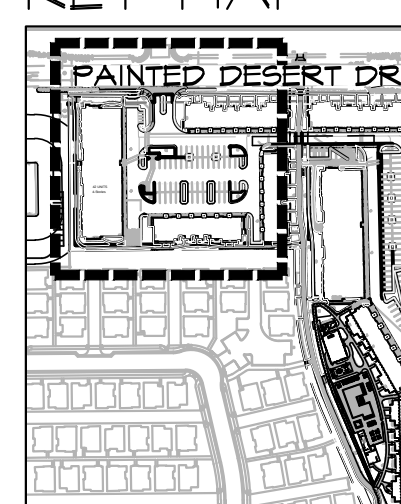
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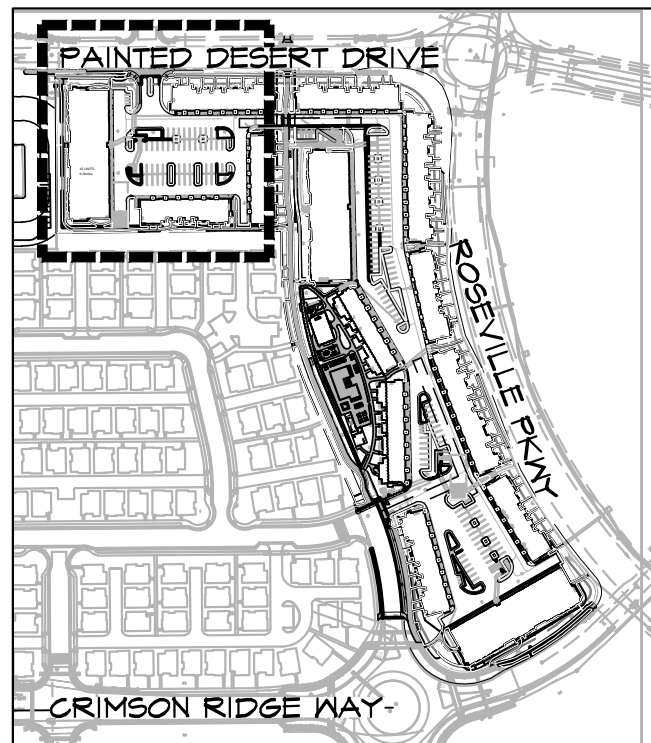
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L-2.1

PLANT SCHEDULE

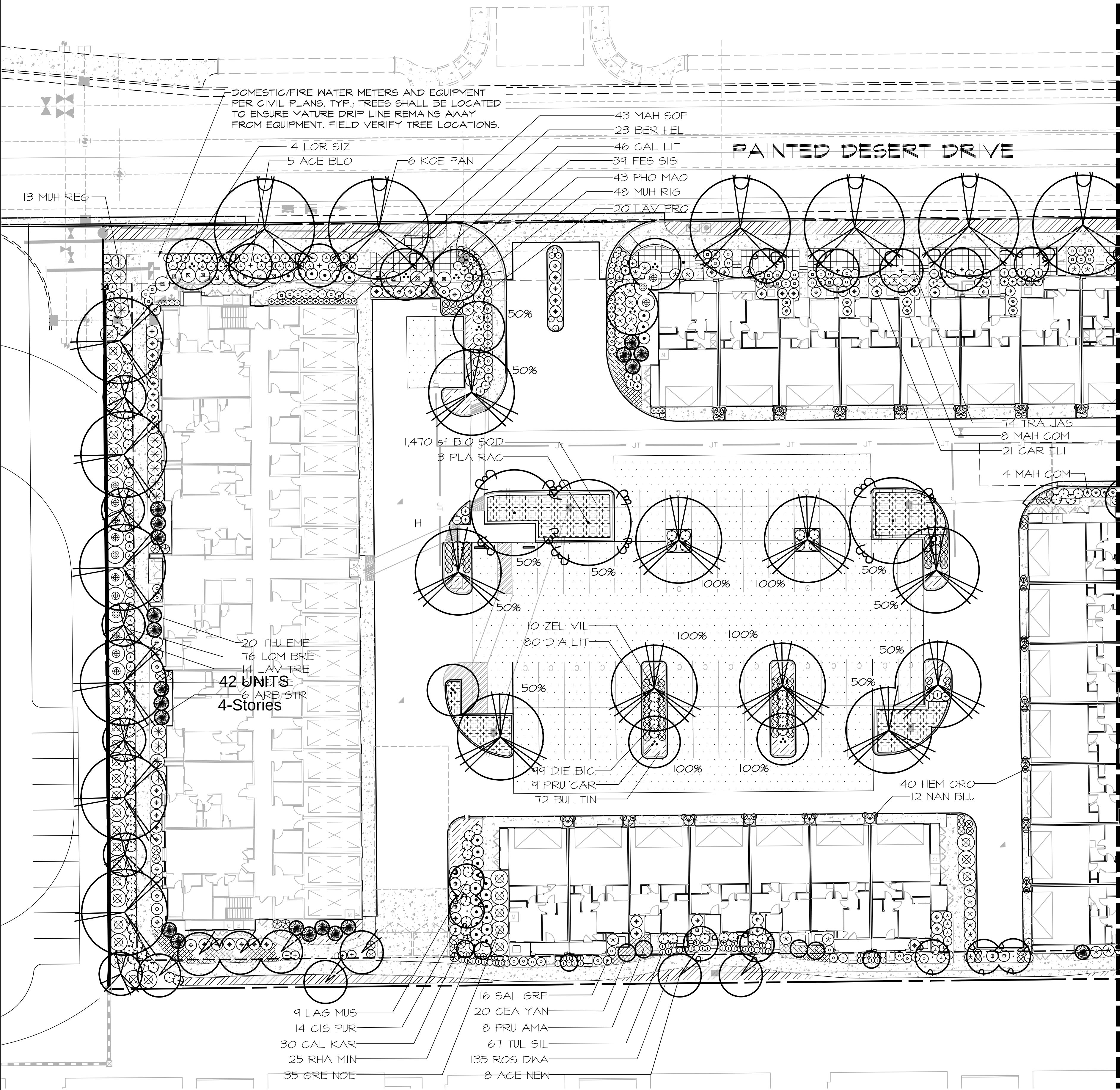
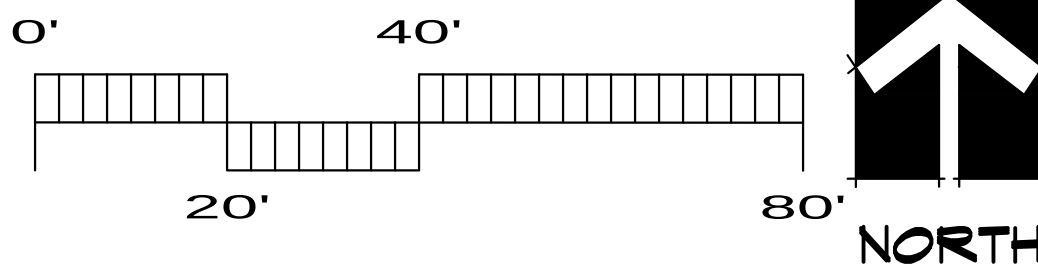
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	PIS KEI	<u>GRASSES</u>	
	PLA RAC		<u>CODE</u>
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	PRU SER		MUH REG
	QUE GAR		MUH RIG
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	CAR ELI		BUL TIN
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	DIA LIT		CIS SUN
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	GRE NOE		ROS DWA
	LAV TRE		TRA JAS
	LOR SIZ		<u>SOD/SEED</u>
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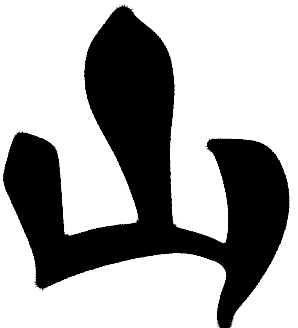
KEY MAP



NTS

SEE SHEET L-2.5 FOR
FULL PLANT SCHEDULE





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CAMPUS OAKS APARTMENTS - PHASE 2
LANDSCAPE DEVELOPMENT PLANS
350 ROSEVILLE PARKWAY
ROSEVILLE, CALIFORNIA

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PLANTING PLAN

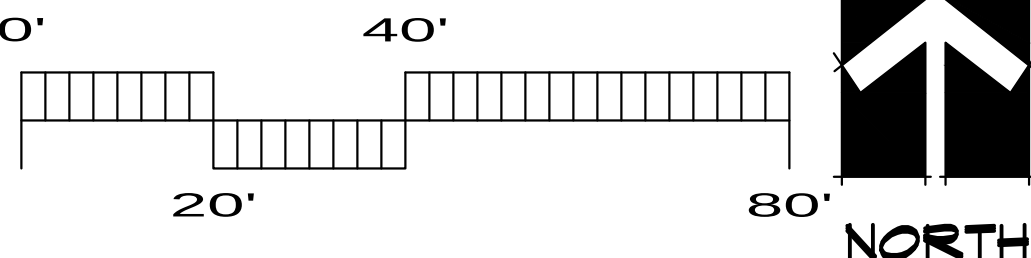
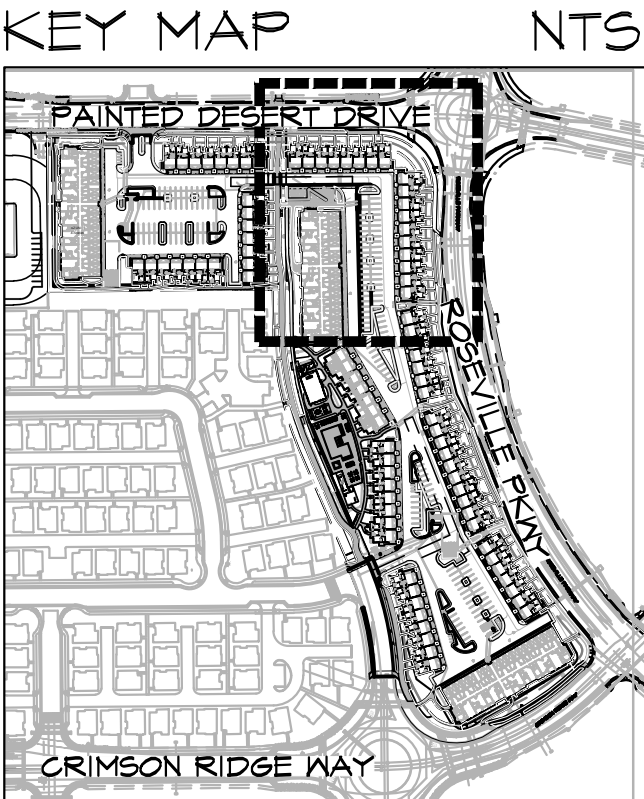


No.	Date	Revision
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PLANT SCHEDULE

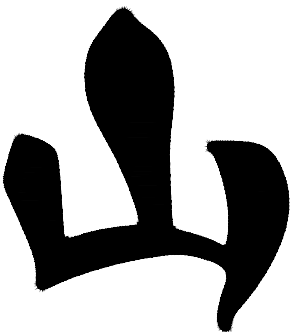
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	MAH COM		
	MAH SOF		
	PHO MAO		
	PHO FRA		
	RHA MIN		



SEE SHEET L-2.5 FOR
FULL PLANT SCHEDULE

MATCHLINE, SEE SHEET L-2.1

MATCHLINE, SEE SHEET L-2.3



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Sheet Title

PLANTING PLAN

Seal



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Project Mgr.: JMA Sheet No.:

Drawn By: TVZ

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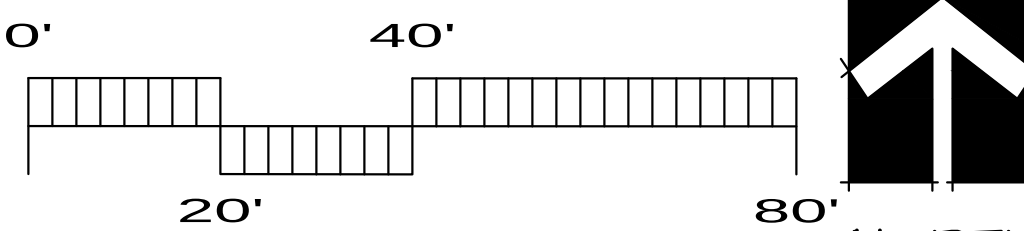
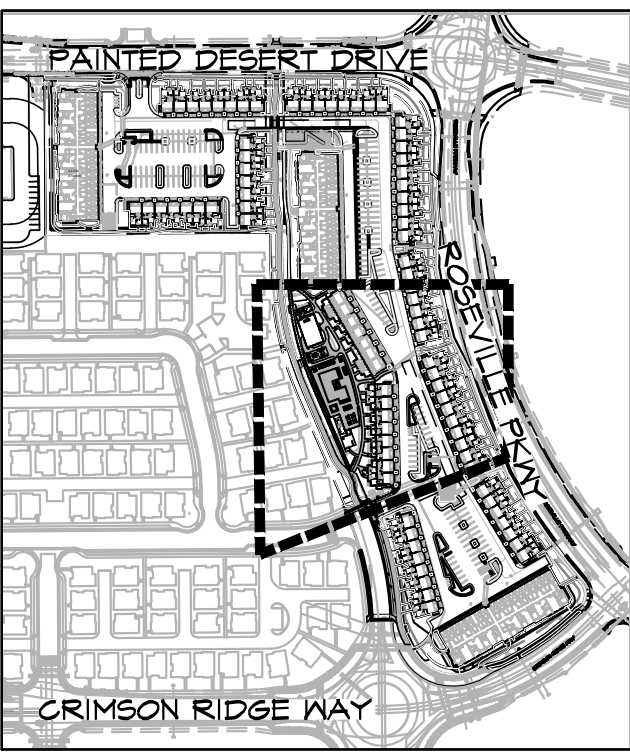
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PLANT SCHEDULE

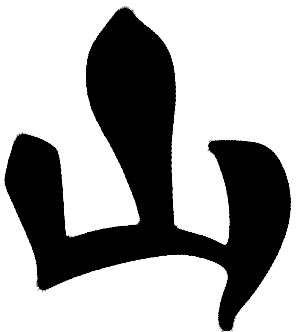
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SHRUBS	CODE	GRASSES	CODE
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KEY MAP



SEE SHEET L-2.5 FOR
FULL PLANT SCHEDULE





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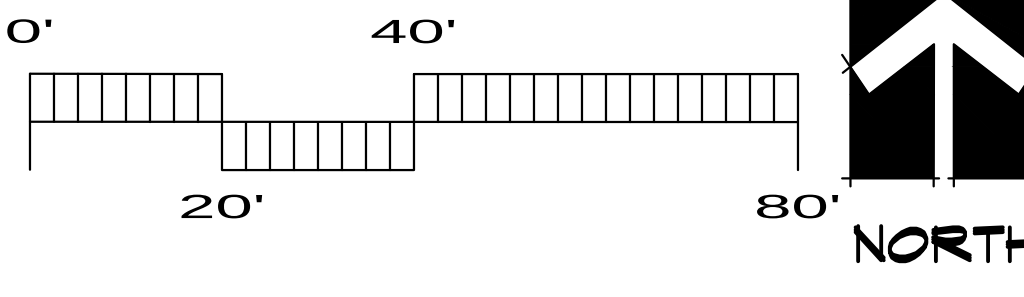
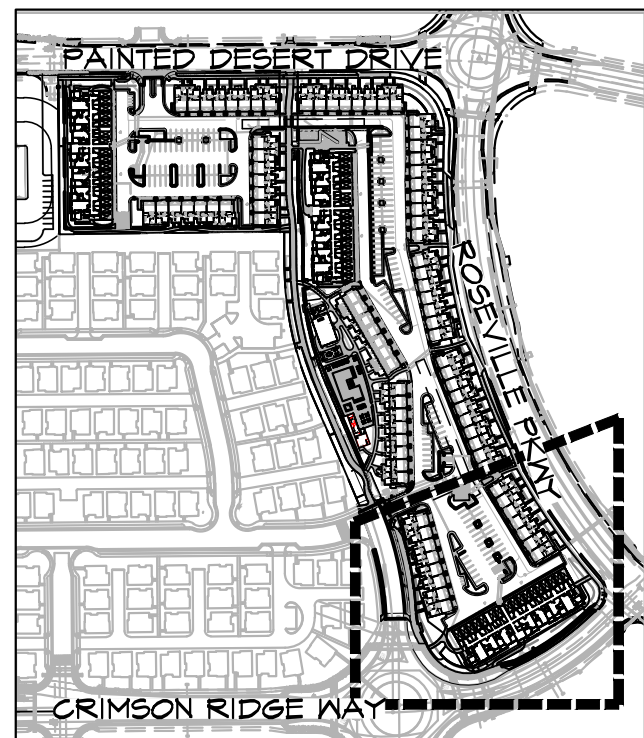
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L-2.4

PLANT SCHEDULE

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	ULM PRO		BER AQU
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	DIE BIG		CODE
	DOD PUR		BIO SOD
	GRE NOE		
	LAV TRE		
	LOR SIZ		
	MAH COM		
	MAH SOF		
	PHO MAO		
	PHO FRA		
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KEY MAP



SEE SHEET L-2.5 FOR
FULL PLANT SCHEDULE

RECYCLED WATER METER AND IRRIGATION
POC PER IRRIGATION PLANS, TREES SHALL
BE LOCATED TO ENSURE MATURE DRIP LINE
REMAINS AWAY FROM EQUIPMENT. FIELD
VERIFY TREE LOCATIONS.

MATCHLINE, SEE SHEET L-2.3

ROSEVILLE PARKWAY

CRIMSON RIDGE WAY

3 CAR ELI
17 LAG MUS
114 TRA JAS
82 CAL LIT
106 LOM BRE
47 SAL GRE
4 NYS SYL
5 LOR SIZ
95 RHA MIN

7 MAH SOF
63 LAV PRO
3 ULM PRO
11 PHO FRA
34 MUH REG
33 PHO MAO

1 PRU CAR
48 DIE BIG
4 PLA RAC
854 sf BIO SOD

21 NAN BLU
7 CAR ELI

54 FES SIS
179 NAN HAR
35 CAL KAR
3 QUE GAR

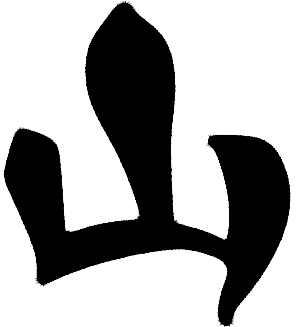
20 BER HEL
9 PRU SER

24 CIS PUR
5 ARB STR
2 PRU AMA

ACE NEW
21 MAH COM

24 DIA LIT
1 LAV TRE
2 ZEL VIL

25% 25% 100% 100% 50% 50% 50% 25%



YAMASAKI
LANDSCAPE ARCHITECTURE

JEFF AMBROSIA, ASLA C4057

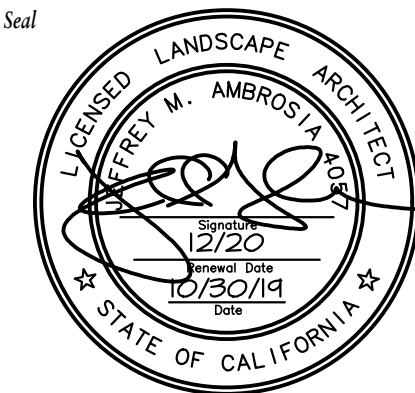
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CAMPUS OAKS APARTMENTS - PHASE 2
LANDSCAPE DEVELOPMENT PLANS
350 ROSEVILLE PARKWAY
ROSEVILLE, CALIFORNIA

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Sheet Title

PLANT SCHEDULE



No.	Date	Revision
1	09/18/20	Community/Pool Area Revisions
2		
3		
4		
5		

Project Mgr.: JMA	Sheet No.:
Drawn By: TVZ	
Scale: ---	L-2.5
Date: 15 OCT 19	
File Name: CO-PL	of 18 sheets

PLANT SCHEDULE

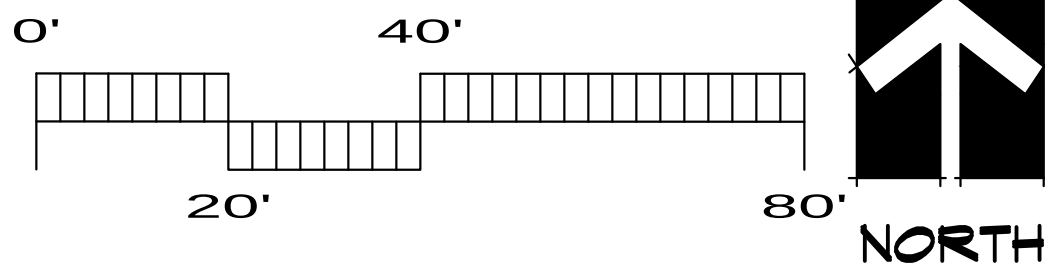
TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	WUCOLS
	ACE BLO	9	Acer palmatum 'Bloodgood' / Bloodgood Japanese Maple	15 gal	M
	ACE NEW	30	Acer rubrum 'New World' / New World Red Maple	24"box	M
	ARB STR	19	Arbutus unedo Standard / Strawberry Tree	24"box	L
	KOE PAN	9	Koelreuteria paniculata / Golden Rain Tree	24"box	M
	LAG MUS	66	Lagerstroemia x 'Muskogee' / Grape Myrtle	24"box	L
	NYS SYL	16	Nyssa sylvatica / Sour Gum	24"box	M
	PIS KEI	10	Pistacia chinensis 'Keith Davey' / Keith Davey Chinese Pistache	24"box	L
	PLA RAC	10	Platanus racemosa / California Sycamore	24"box	M
	PRU CAR	32	Prunus caroliniana / Carolina Laurel Cherry	24"box	L
	PRU AMA	42	Prunus serrulata 'Amanogawa' / Japanese Flowering Cherry	15 gal	M
	PRU SER	9	Prunus serrulata 'Kanzan' / Japanese Flowering Cherry	24"box	M
	QUE GAR	14	Quercus garryana / Oregon White Oak	24"box	L
	THU EME	52	Thuja occidentalis 'Emerald' / Emerald Arborvitae	15 gal	M
	ULM PRO	22	Ulmus propinqua 'Emerald Sunshine' / Elm	24"box	M
	ZEL VIL	29	Zelkova serrata 'Village Green' / Sawleaf Zelkova	24"box	M
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	WUCOLS
	BER HEL	112	Berberis thunbergii 'Helmond Pillar' / Columnar Red Barberry	5 gal	M
	CAL LIT	307	Callistemon citrinus 'Little John' / Dwarf Bottle Brush	1 gal	L
	CAR ELI	85	Carpenteria californica 'Elizabeth' / Bush Anemone	5 gal	L
	CIS PUR	57	Cistus x purpureus / Orchid Rockrose	5 gal	L
	DIA LIT	229	Dianella revoluta 'Little Rev' / Little Rev Flax Lily	1 gal	L
	DIE BIC	256	Dietes bicolor / Fortnight Lily	5 gal	L
	DOD PUR	10	Dodonaea viscosa 'Purpurea' / Purple Leafed Hopseed Bush	5 gal	L
	GRE NOE	83	Grevillea x 'Noellii' / Grevillea	5 gal	L
	LAV TRE	33	Lavatera maritima / Tree mallow	5 gal	L
	LOR SIZ	65	Loropetalum chinense 'Sizzling Pink' / Sizzling Pink Fringe Flower	5 gal	M
	MAH COM	106	Mahonia aquifolium 'Compacta' / Compact Oregon Grape	1 gal	M
	MAH SOF	128	Mahonia eurybracteata 'Soft Caress' / Soft Caress Mahonia	1 gal	M
	PHO MAO	249	Phormium tenax 'Maori Maiden' / New Zealand Flax	5 gal	L
	PHO FRA	15	Photinia x fraseri / Photinia	15 gal	M
	RHA MIN	262	Raphiolepis umbellata 'Minor' / Yedda Hawthorn	5 gal	L

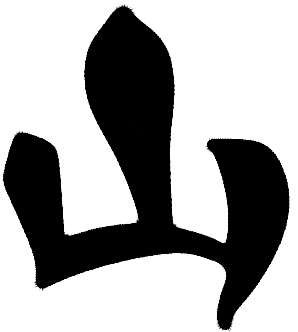
ACCENT PLANTS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	WUCOLS
	HEM ORO	230	Hemerocallis x 'Stella de Oro' / Yellow Daylily	1 gal	M
	LAV PRO	247	Lavandula x intermedia 'Provence' / Provence French Lavender	1 gal	L
	LOM BRE	424	Lomandra longifolia 'Breeze' / Dwarf Mat Rush	1 gal	L
	NAN BLU	91	Nandina domestica 'Blush Pink' / Heavenly Bamboo	1 gal	L
	SAL GRE	184	Salvia greggii 'Heatwave Blaze' / Heatwave Blaze Salvia	1 gal	L
	TUL SIL	209	Tulbaghia violacea 'Silver Lace' / Silver Lace Society Garlic	1 gal	L
GRASSES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	WUCOLS
	CAL KAR	152	Calamagrostis x acutiflora 'Karl Foerster' / Feather Reed Grass	1 gal	M
	FES SIS	133	Festuca idahoensis 'Siskiyou Blue' / Siskiyou Blue Fescue	1 gal	L
	MUH REG	153	Muhlenbergia capillaris 'Regal Mist' / Pink Muhly	1 gal	L
	MUH RIG	313	Muhlenbergia rigens / Deer Grass	1 gal	L
VINES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	WUCOLS
	CLY CAL	22	Clytostoma callistegioides / Violet Trumpet Vine	5 gal	M
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING
	BER AQU	84	Berberis aquifolium repens / Creeping Barberry	1 gal	36" o.c.
	BUL TIN	186	Bulbine frutescens 'Tiny Tangerine' / Tiny Tangerine Bulbine	1 gal	36" o.c.
	CEA YAN	53	Ceanothus griseus horizontalis 'Yankee Point' / California Lilac	1 gal	60" o.c.
	CIS SUN	211	Cistus pulchellus 'Sunset' / Rockrose	1 gal	60" o.c.
	NAN HAR	296	Nandina domestica 'Harbour Dwarf' / Dwarf Heavenly Bamboo	1 gal	30" o.c.
	ROS RED	30	Rosa x 'Flower Carpet Red' / Rose	5 gal	48" o.c.
	ROS DWA	390	Rosmarinus officinalis 'Prostratus' / Dwarf Rosemary	1 gal	48" o.c.
	TRA JAS	299	Trachelospermum jasminoides / Star Jasmine	1 gal	48" o.c.
SOD/SEED	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING
	BIO SOD	4,021 sf	Biofiltration Sod / Available from Delta Bluegrass	sod	

PARKING LOT SHADE CALCULATIONS - CITY OF ROSEVILLE

TREE	INTERIOR PLANTER 100%	SOUTH, EAST AND WEST 50%	CORNER AND NORTH 25%
ZELKOVA SERRATA	16 x (962)= 15,392 SF	9 x (481)= 4,329 SF	3 x (240)= 720 SF
PLATANUS RACEMOSA		8 x (481)= 3,848 SF	2 x (240)= 480 SF
PRUNUS CAROLINIANA	2 x (314)= 628 SF	6 x (157)= 942 SF	
SUBTOTALS:	16,020 SF	9,119 SF	1,200 SF

TOTAL SHADE PROVIDED: 26,339 SF
AREA OF PAVING SUBJECT TO SHADING REQUIREMENTS: 46,135 SF
AREA REQUIRED TO BE SHADED: 46,135 x 50% = 23,068 SF
SHADE PROVIDED EXCEEDS AMOUNT REQUIRED: 26,339 > 23,068





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CAMPUS OAKS APARTMENTS - PHASE 2
LANDSCAPE DEVELOPMENT PLANS
350 ROSEVILLE PARKWAY
ROSEVILLE, CALIFORNIA

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Sheet Title
SITE FURNISHINGS
PLAN



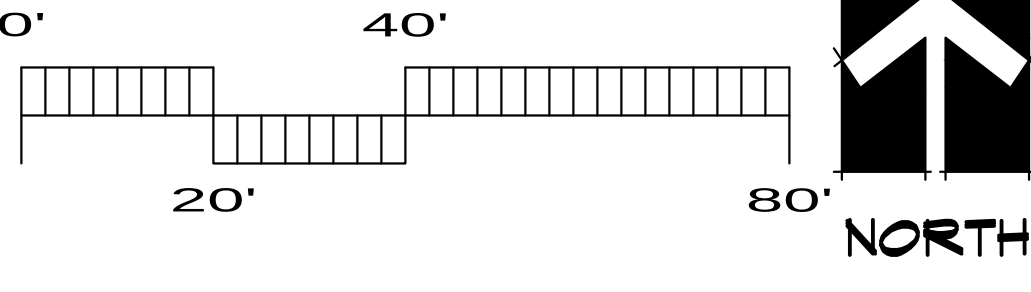
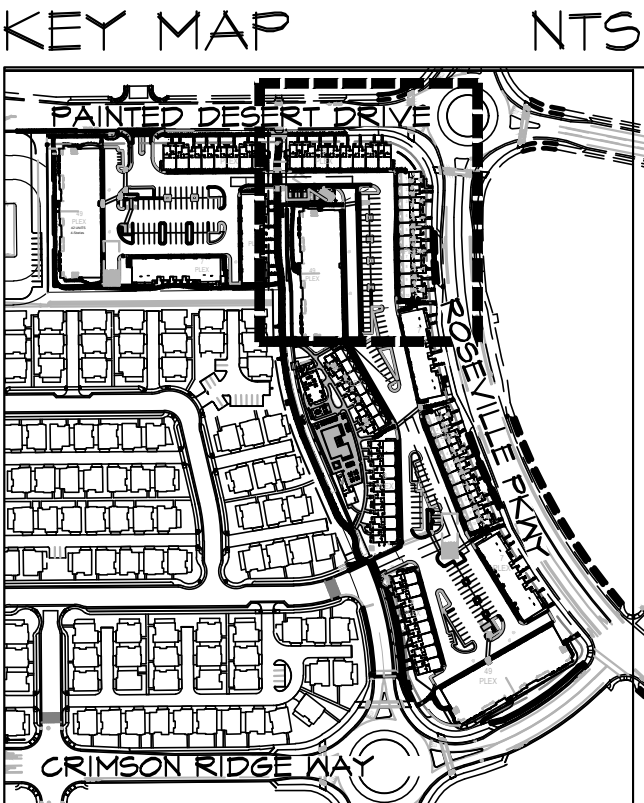
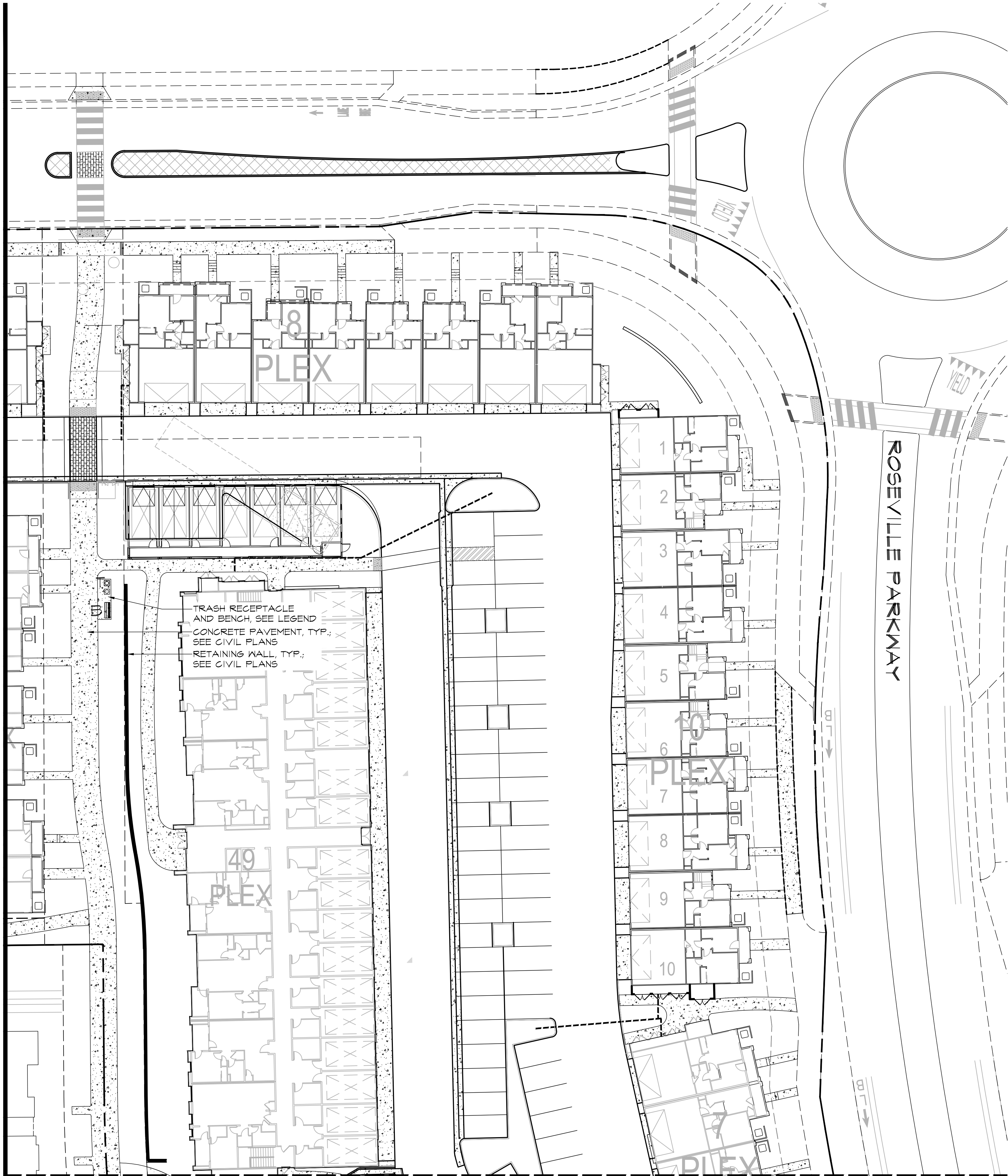
No.	Date	Revision
1	09/18/20	Community/Pool Area Revisions
2		
3		
4		
5		

Project Mgr.: JMA	Sheet No.: L-3.1
Drawn By: TVZ	
Scale: 1"= 20'	
Date: 15 OCT 19	
File Name: CO-SF	of 18 sheets

SITE FURNISHINGS LEGEND

SYMBOL	QUANTITY	DESCRIPTION	DETAIL
T	5	TRASH RECEPTACLE - Victor Stanley Ironsites Collection 22-gallon Receptacle with standard formed lid, Model #S-42, powdercoat Black color. Surface mount on concrete pavement with anchor bolts per manufacturer's instructions including recommended minimum clear footprint. Anchor bolts to be min. 8" from edge of concrete. Available from Victor Stanley, contact Patty Torboli, (800) 368 2513 ext. 365, patty@victorstanley.com.	---
B	3	BENCH - Victor Stanley Classic Collection 6' Metal Bench, Model #C-140, powdercoat Black frame, lpe wood slats. Surface mount on concrete pavement per manufacturer's instructions including recommended minimum clear footprint. Available from Victor Stanley, contact Patty Torboli, (800) 368 2513 ext. 365, patty@victorstanley.com.	---

EXTENT OF SITE FURNISHINGS





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LANDSCAPE ARCHITECTURE

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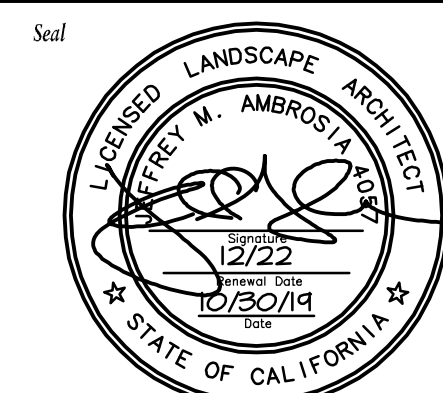
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ROSEVILLE, CALIFORNIA

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Sheet Title
SITE FURNISHINGS PLAN

Seal



No.	Date	Revision
△	09/18/20	Community/Pool Area Revisions
△	02/08/21	Pool Fence Detail
△		
△		

Project Mgr.:	JMA	Sheet No.:	
Drawn By:	TVZ		
Scale:	1" = 20'		
Date:	15 OCT 19		
File Name:	CO-SF	of	19 sheets

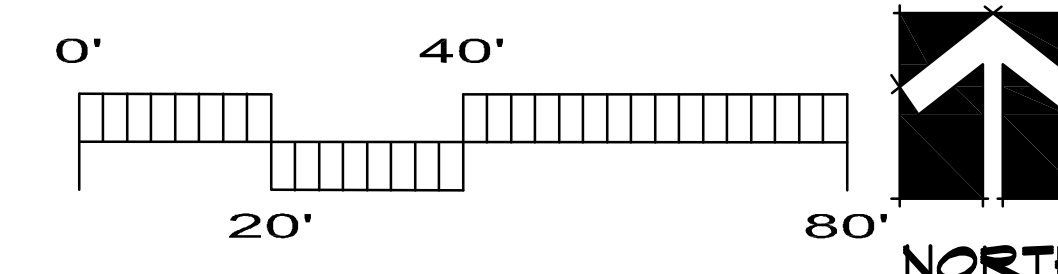
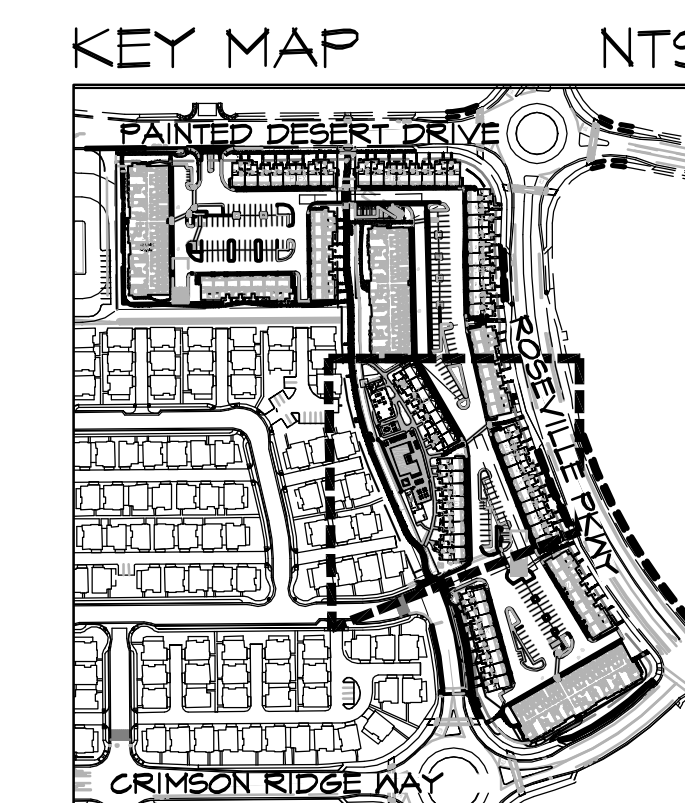
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SITE FURNISHINGS LEGEND

SYMBOL	QUANTITY	DESCRIPTION	DETAIL
	5	TRASH RECEPTACLE - Victor Stanley Ironsites Collection 22-gallon Receptacle with standard formed lid, Model #S-42, powdercoat Black color. Surface mount on concrete pavement with anchor bolts per manufacturer's instructions including recommended minimum clear footprint. Anchor bolts to be min. 8" from edge of concrete. Available from Victor Stanley, contact Patty Torboli, (800) 368 2573 ext. 365, patty@victorstanley.com .	---
	3	BENCH - Victor Stanley Classic Collection 6' Metal Bench, Model #C-140, powdercoat Black frame, lpe wood slats. Surface mount on concrete pavement per manufacturer's instructions including recommended minimum clear footprint. Available from Victor Stanley, contact Patty Torboli, (800) 368 2573 ext. 365, patty@victorstanley.com .	---
	1	SHADE TRELLIS - Extruded aluminum trellis, color to match clubhouse trellis. Available from Patio Perfections or approved equal. Patio Perfections to secure permits and generate shop drawings and footing design prior to construction. Contractor to coordinate installation.	B - L-4.3
	98 LF	6' ACOUSTICAL SOUND BARRIER FENCE - Trex Seclusions composite fencing system. Install posts in concrete footings per manufacturer's instructions. Install with 6" wide concrete strip continuous, flush with finish grade.	A - L-4.3

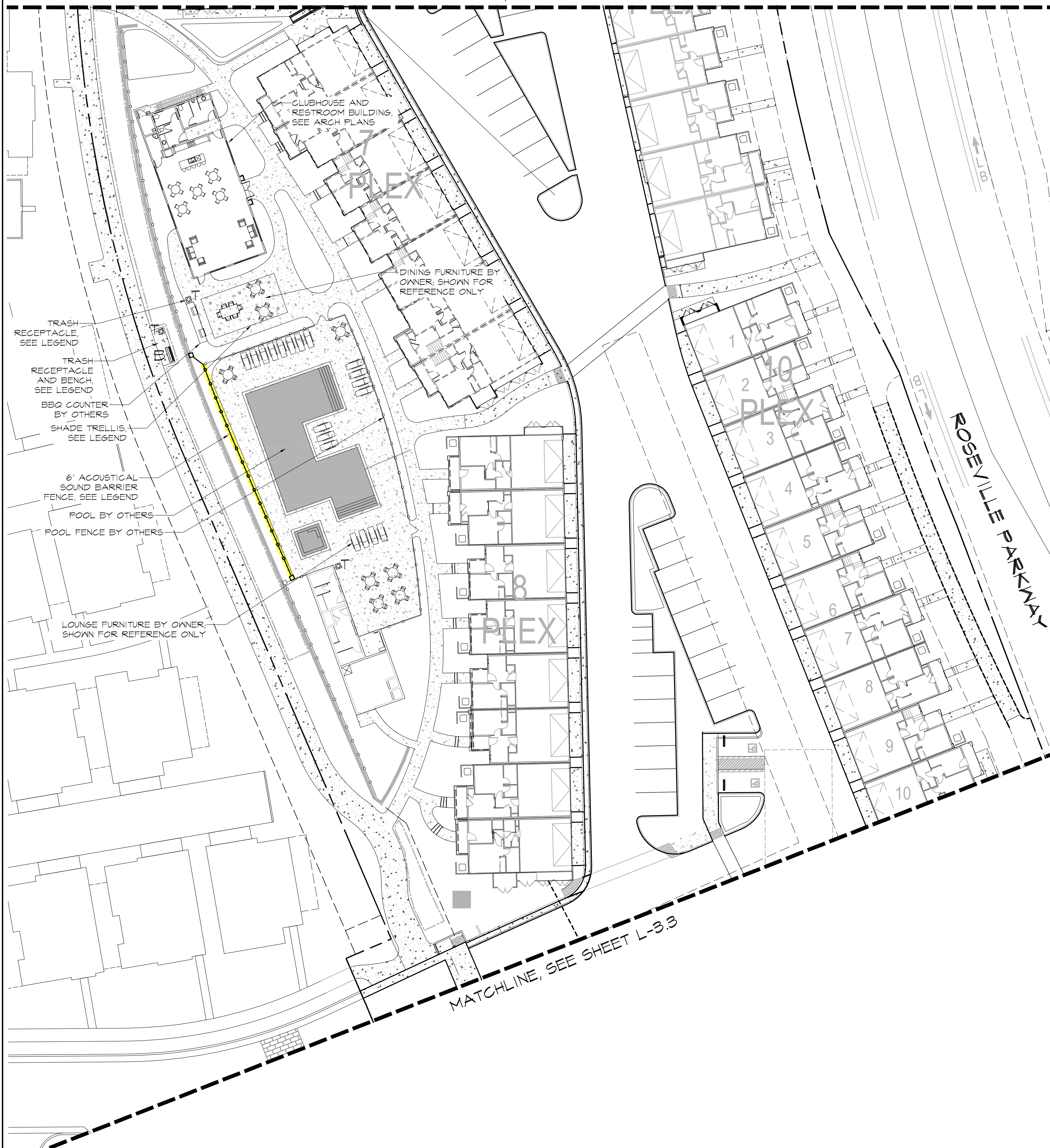


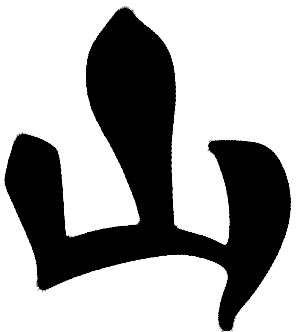
NOTE: ALL IMPROVEMENTS WHICH FALL UNDER THE PURVIEW OF THE CBC ARE SHOWN HEREON FOR REFERENCE ONLY AND SHALL REQUIRE A SEPARATE BUILDING PERMIT. PLEASE CONTACT THE CITY OF ROSEVILLE BUILDING DEPARTMENT FOR FURTHER INFORMATION TO OBTAIN ALL NECESSARY PERMITS.



MATCHLINE, SEE SHEET L-3.1

MATCHLINE, SEE SHEET L-3.3





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Sheet Title

SITE FURNISHINGS
PLAN

Seal

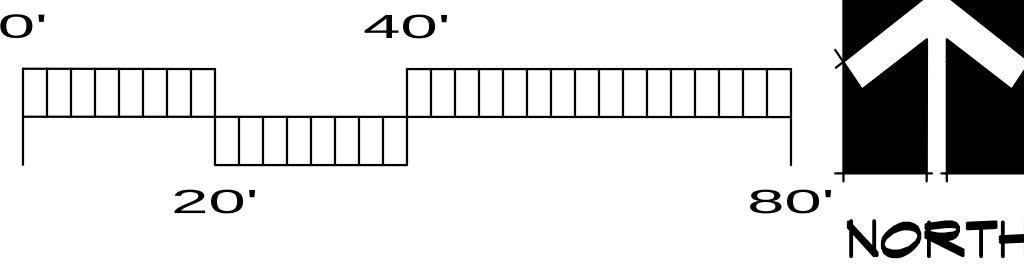
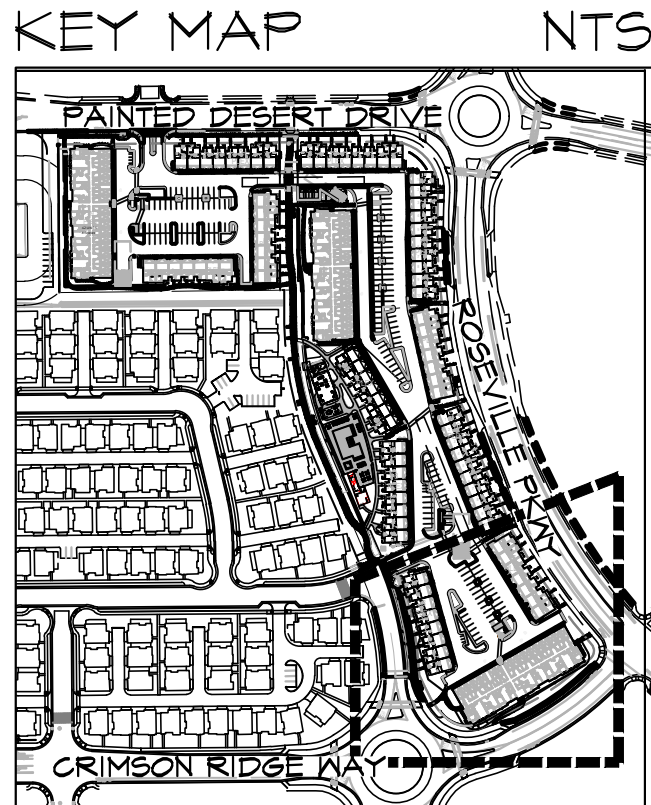
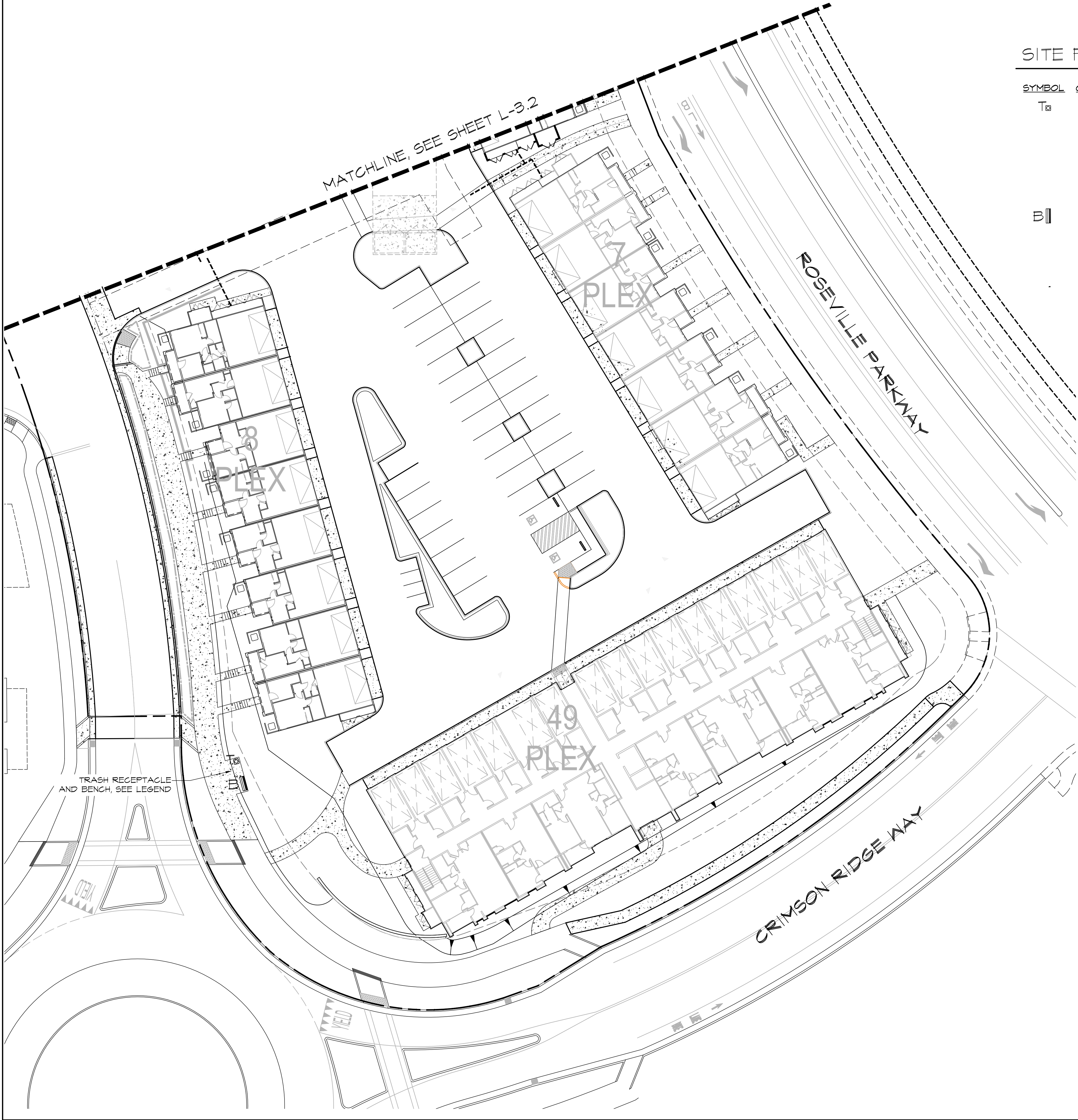


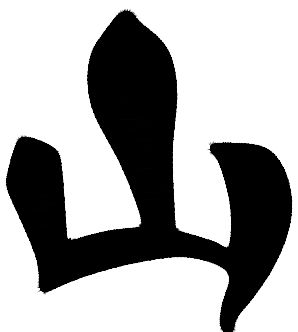
No.	Date	Revision
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Drawn By: TVZ	L-3.3
Scale: 1" = 20'	
Date: 15 OCT 19	
File Name: CO-SF	of 18 sheets

SITE FURNISHINGS LEGEND

SYMBOL	QUANTITY	DESCRIPTION	DETAIL
T	5	TRASH RECEPTACLE - Victor Stanley Ironsites Collection 22-gallon Receptacle with standard formed lid, Model #S-42, powdercoat Black color. Surface mount on concrete pavement with anchor bolts per manufacturer's instructions including recommended minimum clear footprint. Anchor bolts to be min. 8" from edge of concrete. Available from Victor Stanley, contact Patty Torboli, (800) 368 2573 ext. 365, patty@victorstanley.com .	---
B	3	BENCH - Victor Stanley Classic Collection 6' Metal Bench, Model #C-140, powdercoat Black frame, lpe wood slats. Surface mount on concrete pavement per manufacturer's instructions including recommended minimum clear footprint. Available from Victor Stanley, contact Patty Torboli, (800) 368 2573 ext. 365, patty@victorstanley.com .	---





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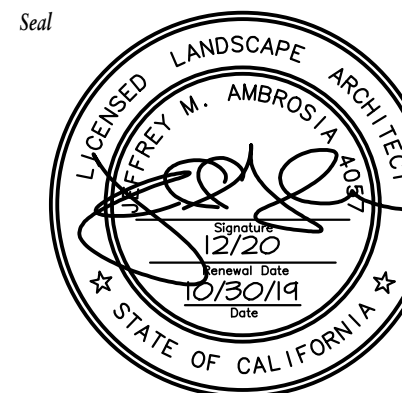
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Sheet Title
IRRIGATION
DETAILS



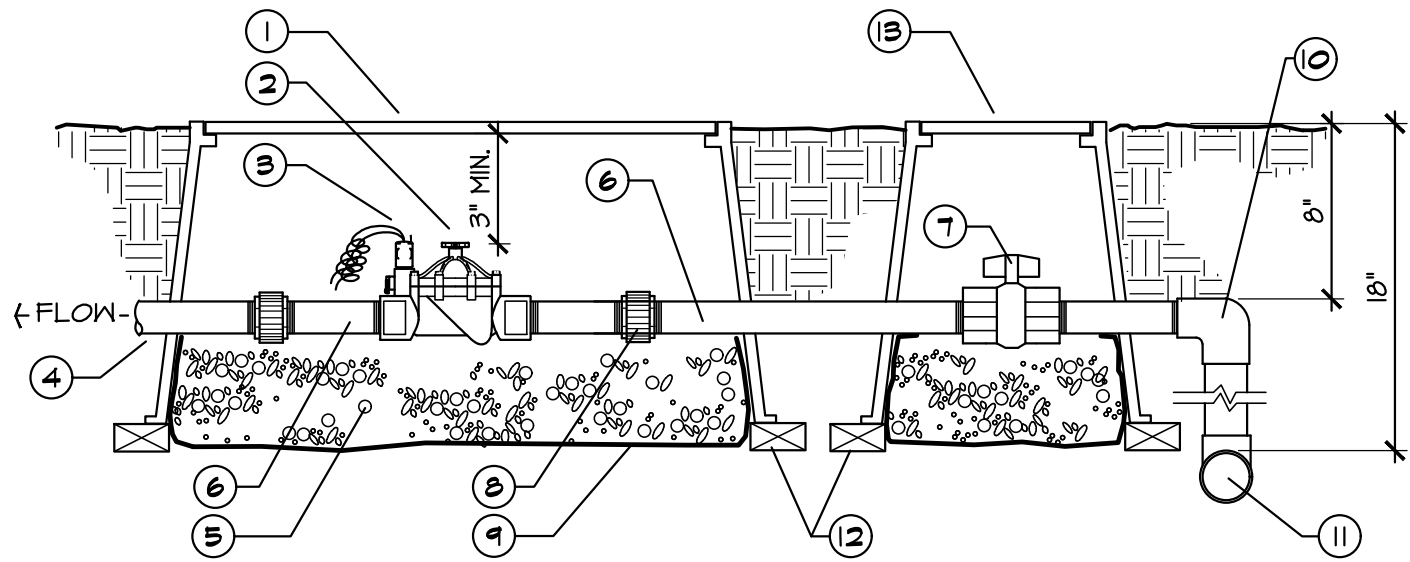
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▲	09/18/20	Community/Pool Area Revisions
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Project Mgr: JMA
Drawn By: TVZ

Scale: AS SHOWN
Date: 15 OCT 19

File Name: CO-DT of 18 sheets

Sheet No.:
L-4.1



LEGEND

- ① JUMBO RECTANGULAR VALVE BOX
② REMOTE CONTROL VALVE
③ SOLENOID
④ PVC LATERAL
⑤ 6" PEA GRAVEL SUMP
⑥ PVC SCH 80 NIPPLE, TYP.
- ⑦ PVC BALL VALVE
⑧ PVC UNION (THREADED)
⑨ FILTER FABRIC
⑩ SCH. 80 ST ELL
⑪ PVC MAIN LINE
⑫ STANDARD BRICK
⑬ 10" ROUND VALVE BOX

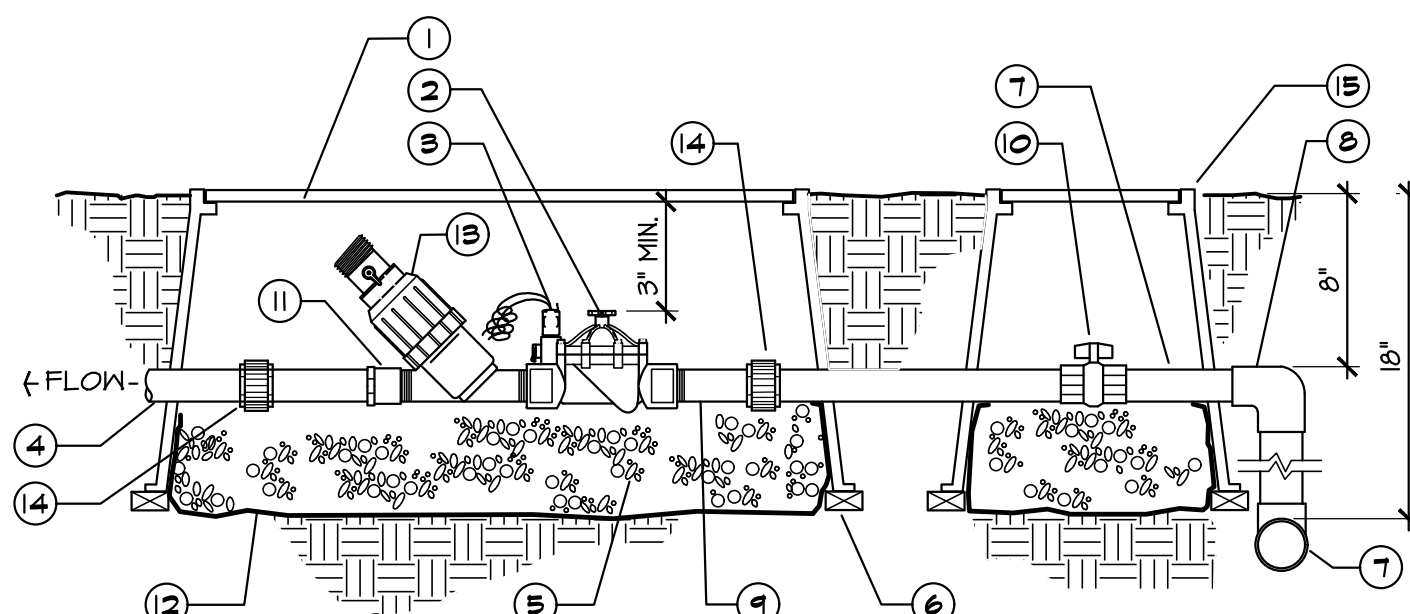
NOTES:

- Use Teflon Tape on all threaded manifold components
- Use a PVC Ball Valve with every valve or manifold of valves.
- Line sump with filter fabric and leave exposed above gravel 2" min.

REMOTE CONTROL VALVE

VLV-RMT-2

SCALE: N.T.S.



LEGEND

- ① RECTANGULAR JUMBO VALVE BOX
② REMOTE CONTROL VALVE
③ SOLENOID
④ PVC LATERAL
⑤ 6" PEA GRAVEL SUMP
⑥ STANDARD BRICK
⑦ PVC MAINLINE
⑧ ELL
- ⑨ SCH. 80 PVC TOE NIPPLE
⑩ PVC BALL VALVE
⑪ FEMALE ADAPTER
⑫ FILTER FABRIC
⑬ FILTER
⑭ UNION
⑮ 10" ROUND VALVE BOX

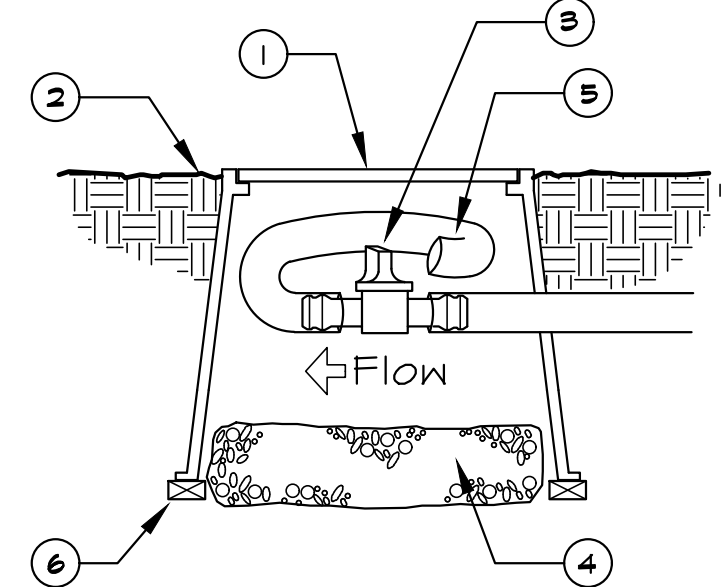
NOTES:

- Use Teflon Tape on all threaded manifold components
- Use a PVC Ball Valve with every valve
- Line sump with filter fabric and leave exposed over gravel 2" min.

REMOTE CONTROL VALVE FOR DRIP

VLV-PRV-2

SCALE: N.T.S.



LEGEND

- ① 4" ROUND VALVE BOX
② FINISH GRADE
③ PVC BALL VALVE
④ PEA GRAVEL SUMP
⑤ 18" OF BLANK DRIP TUBING
⑥ STANDARD BRICK, 3 REQUIRED

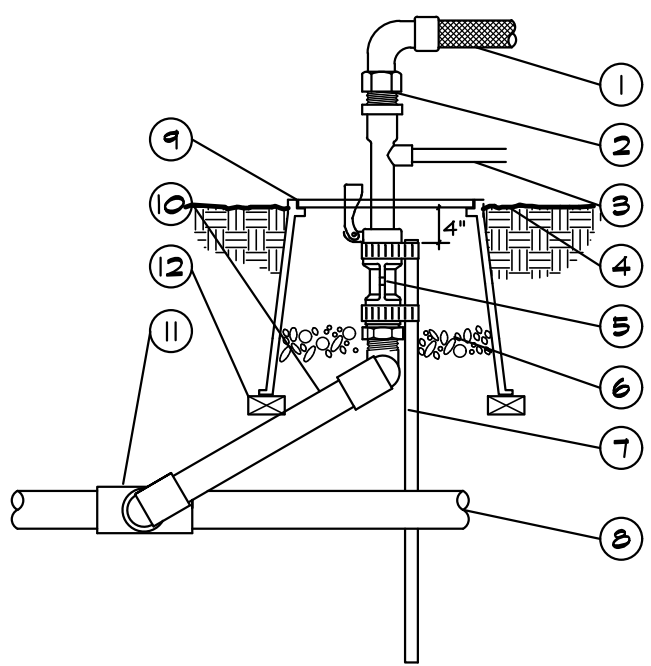
NOTES:

- Use Teflon Tape on all threaded manifold components
- Line sump with filter fabric and leave exposed over gravel 2" min.

FLUSH VALVE

DRP-FV

SCALE: N.T.S.



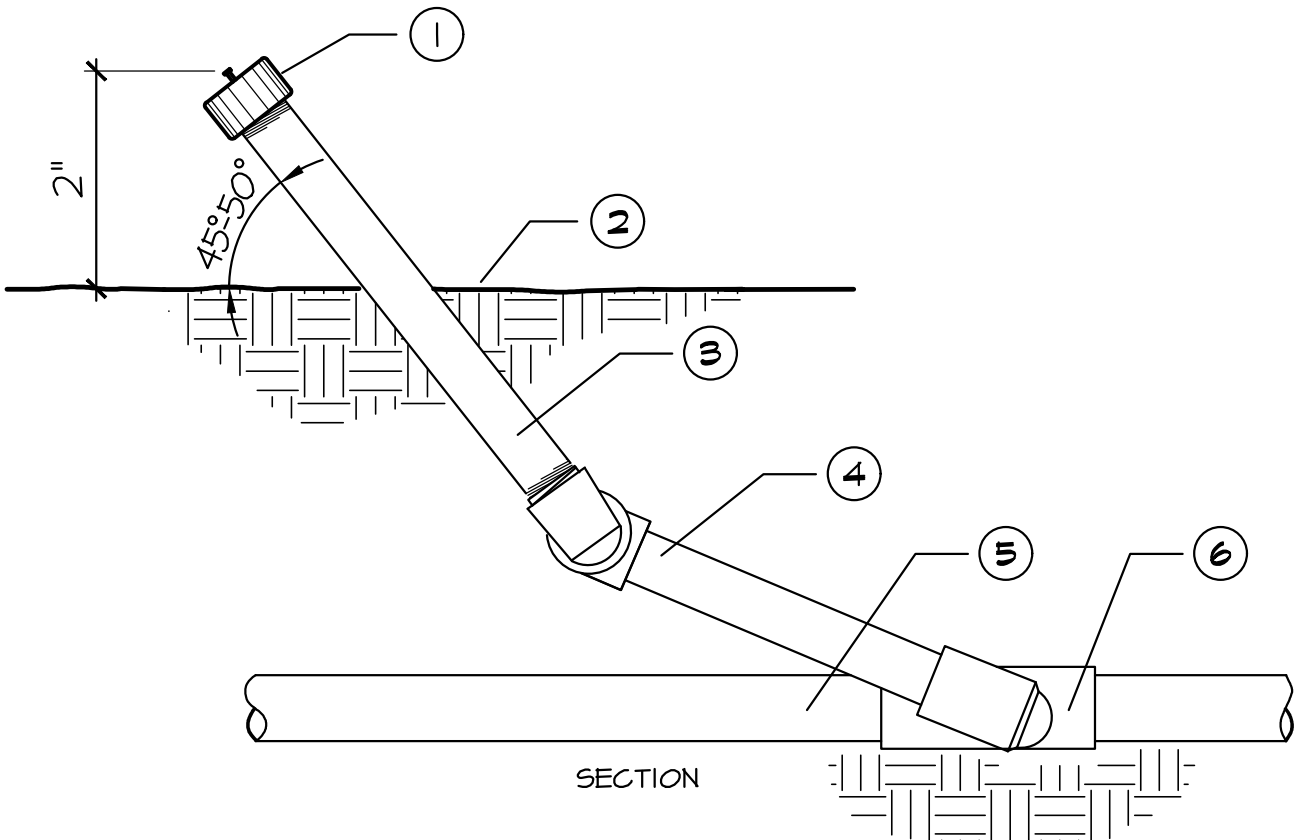
LEGEND

- ① GARDEN HOSE
② SWIVEL HOSE ELL
③ COUPLER
④ FINISHED GRADE
⑤ QUICK COUPLING VALVE
⑥ 6" MIN. PEA GRAVEL SUMP
⑦ #4 REBAR WITH HOSE CLAMPS
⑧ MAINLINE
⑨ 4" ROUND VALVE BOX
⑩ PVC SWING JOINT ASSEMBLY
⑪ TEE
⑫ STANDARD BRICK, 3 REQUIRED.

QUICK COUPLING VALVE

VLV-QKCPL

SCALE: N.T.S.



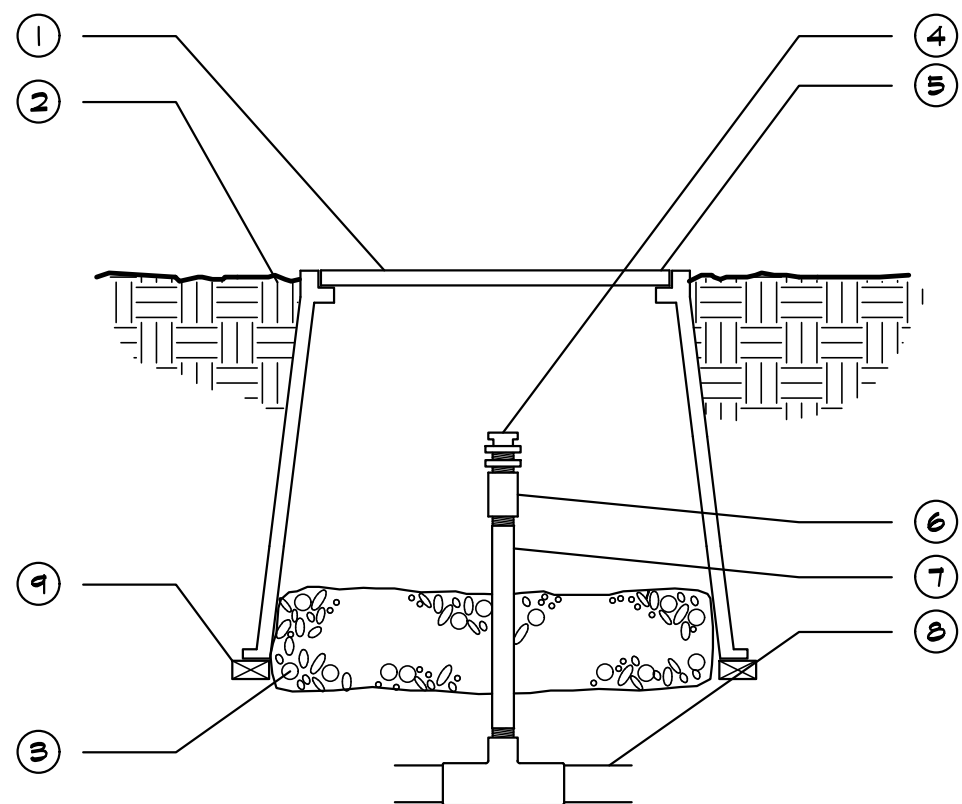
LEGEND

- ① ADJUSTABLE FLOOD BUBBLER - INSTALLED AT AN ANGLE (45-55 degrees)
② FINISHED GRADE
③ SCH 80 RISER
④ 12" SWING JOINT MARLEX ASSEMBLY
⑤ LATERAL PIPE
⑥ LATERAL TEE

BUBBLER AT GARAGE PLANTER AREAS

BBLR-at-Garages

SCALE: N.T.S.



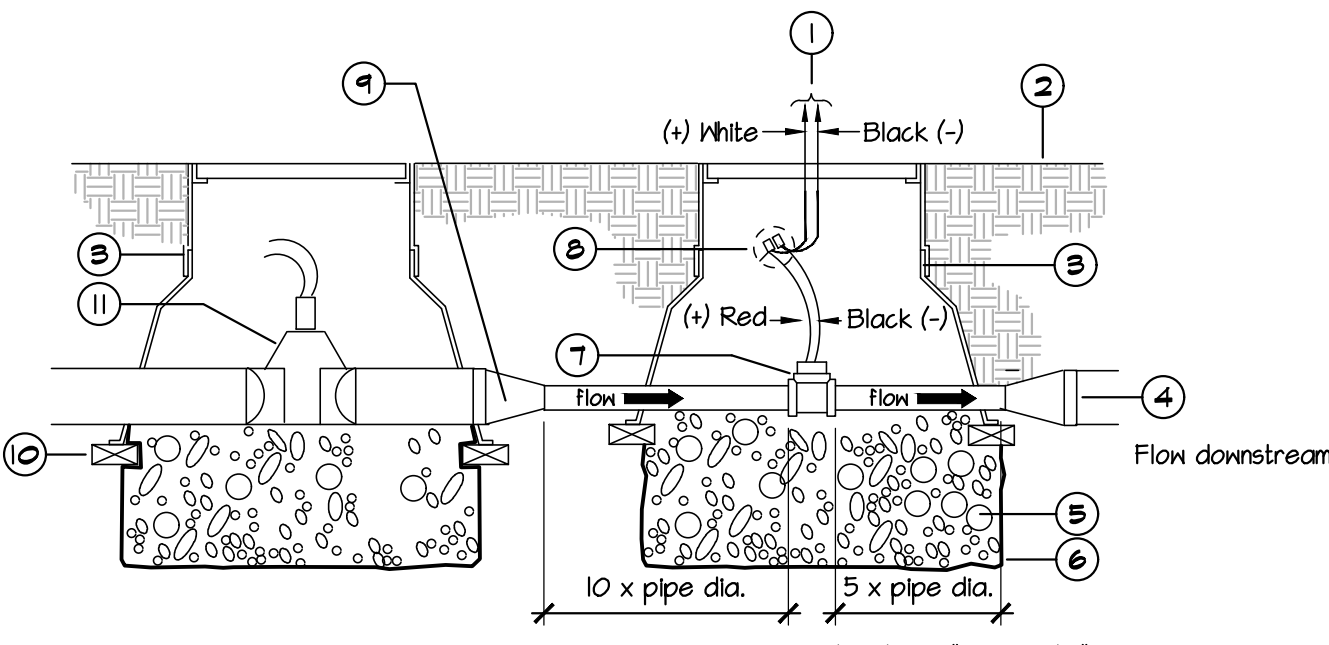
LEGEND

- ① 6" ROUND VALVE BOX
② FINISH GRADE
③ PEA GRAVEL SUMP WRAPPED WITH LANDSCAPE FABRIC 6" DEEP
④ AIR/VACUUM RELIEF VALVE
⑤ VALVE BOX SET TO 2 1/2" ABOVE GRADE IN PLANTER AREAS, & 1 1/2" ABOVE GRADE IN SOD AREAS.
- ⑥ 1/2" PVC COUPLING (TXT)
⑦ 1/2" SCH 80 RISER
⑧ PVC PIPING AND FITTINGS
⑨ STANDARD BRICK

AIR/VACUUM RELIEF

NTFM-AIRVAC

SCALE: N.T.S.



LEGEND

- ① Sensor cable - Two #20 foil shield w/drain, black jacket, direct burial black, white. Allow 2' of extra cable.
② Finished grade or surface.
③ Valve box with extensions as required.
④ Fitting or reducing coupling at distance equal to 5 x pipe diameter from flow sensor.
⑤ 3/4" pea gravel sump, 6" deep.
- ⑥ Filter fabric.
⑦ Flow sensor body.
⑧ Waterproof connections * Note polarity on sensor to sensor cable hookup.
⑨ Fitting or reducing coupling at distance equal to 10 x pipe diameter from flow sensor.
⑩ Standard brick.
⑪ Master valve.

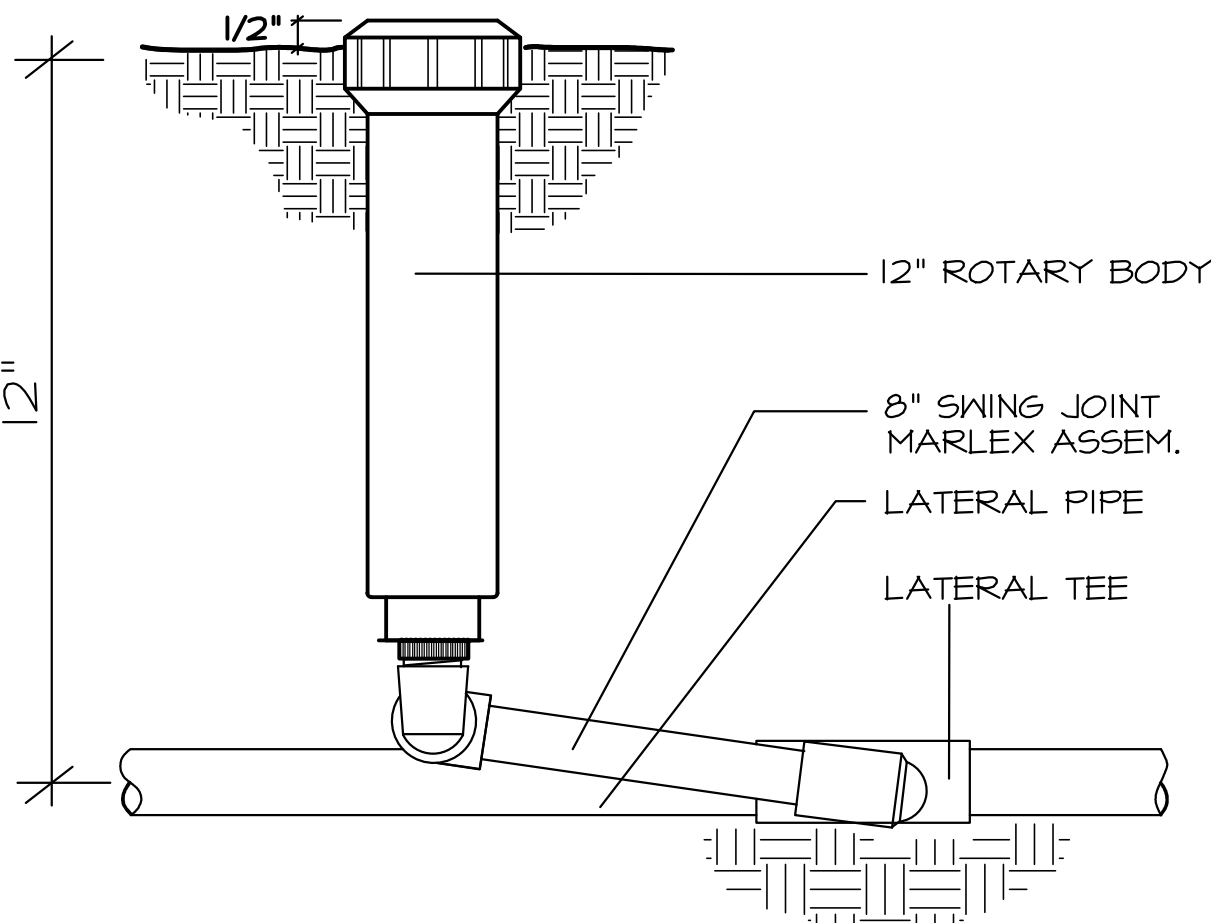
NOTES:

- * Note: Flow Sensor must be installed with Insert (top) positioned vertically and Body (tee) positioned horizontally.
- * Note: Flow Sensor Cable must be run in 1" PVC conduit from flow sensor to controller enclosure.
- * Note: Contractor to follow all Master Valve and Flow Sensor Companies' Details and Installation procedures for installation.

FLOW SENSOR/MASTER VALVE

FLW-SENS-MST-VLV

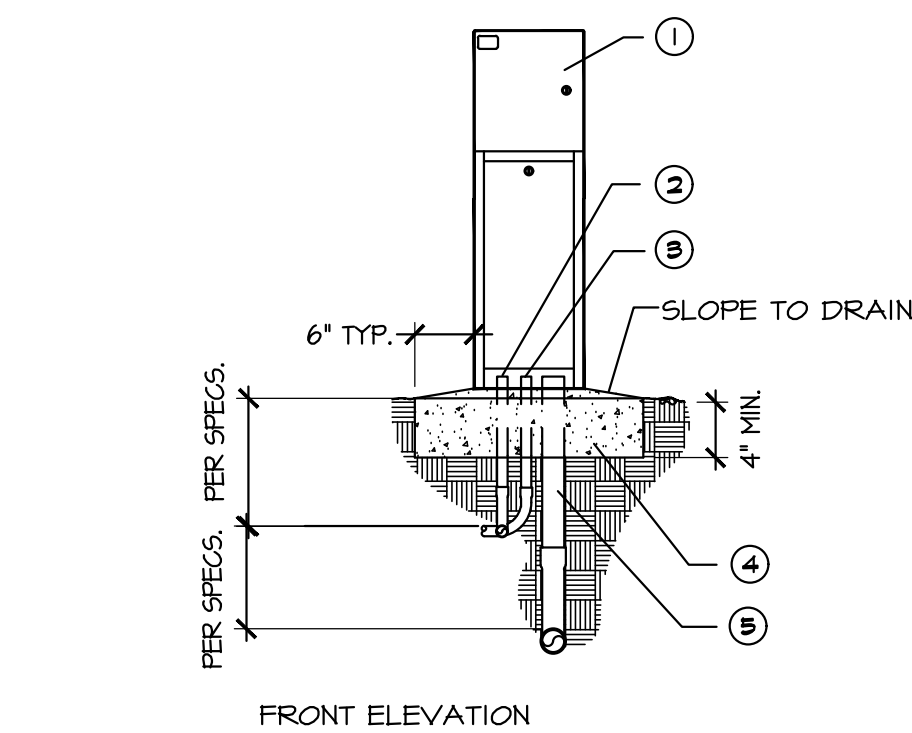
SCALE: N.T.S.



12" POP-UP ROTARY NOZZLE

HDS-1.0

SCALE: N.T.S.



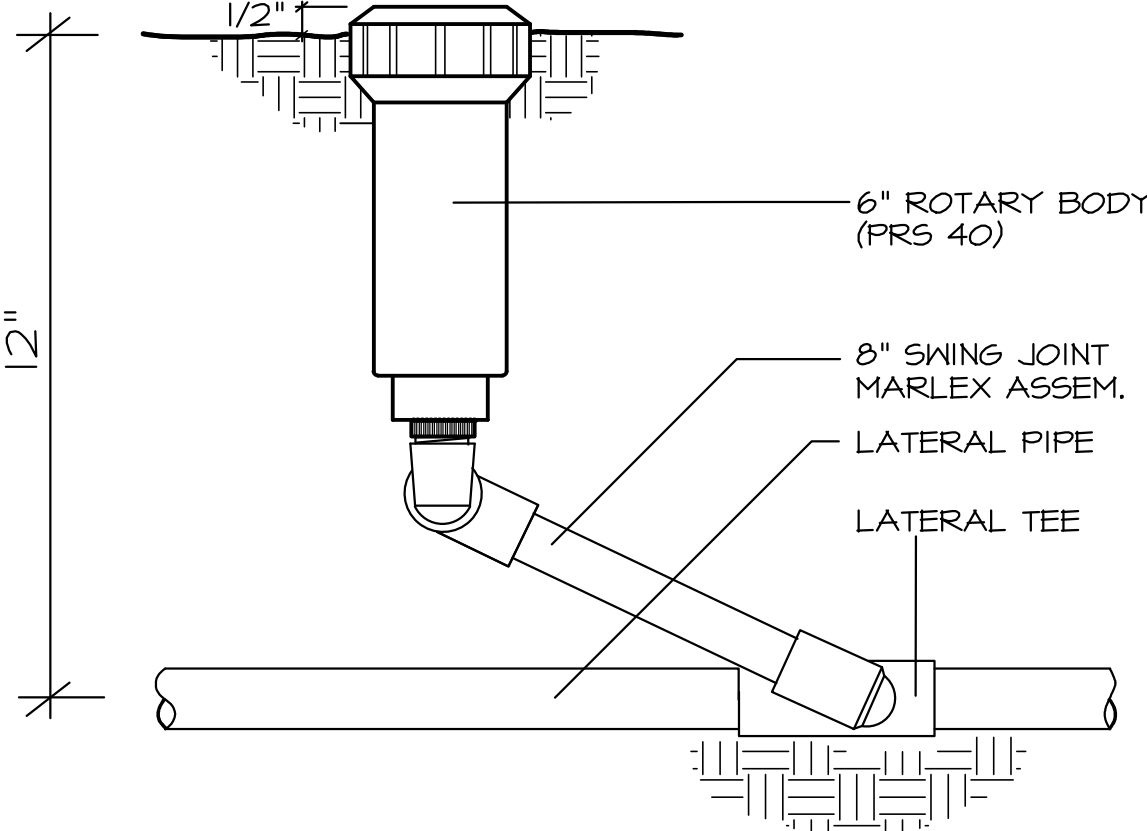
LEGEND

- ① IRRIGATION CONTROLLER PEDESTAL- INSTALL PER MANUFACTURER
② CONDUIT WITH 120V POWER PER LOCAL AND NATIONAL ELECTRICAL CODES
③ CONDUIT FOR COMM CABLE
④ 4" MIN. CONCRETE PAD
⑤ CONDUIT FOR VALVES AND SENSOR WIRES

PEDESTAL MOUNT CONTROLLER

CTRL-PED

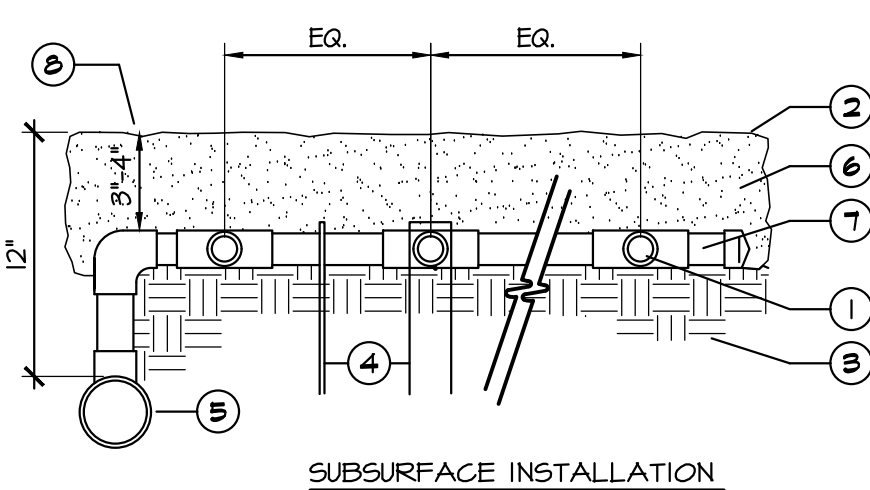
SCALE: N.T.S.



6" POP-UP ROTARY NOZZLE

HDS-0.5

SCALE: N.T.S.



LEGEND

- ① DRIPLINE, SEE PLANS FOR SPACING
② FINISHED GRADE
③ SUBGRADE
④ STAPLES
⑤ SUPPLY LATERAL
⑥ AMENDED SUBGRADE
⑦ HEADER
⑧ DRIPLINE DEPTH SHRUBS = 6"

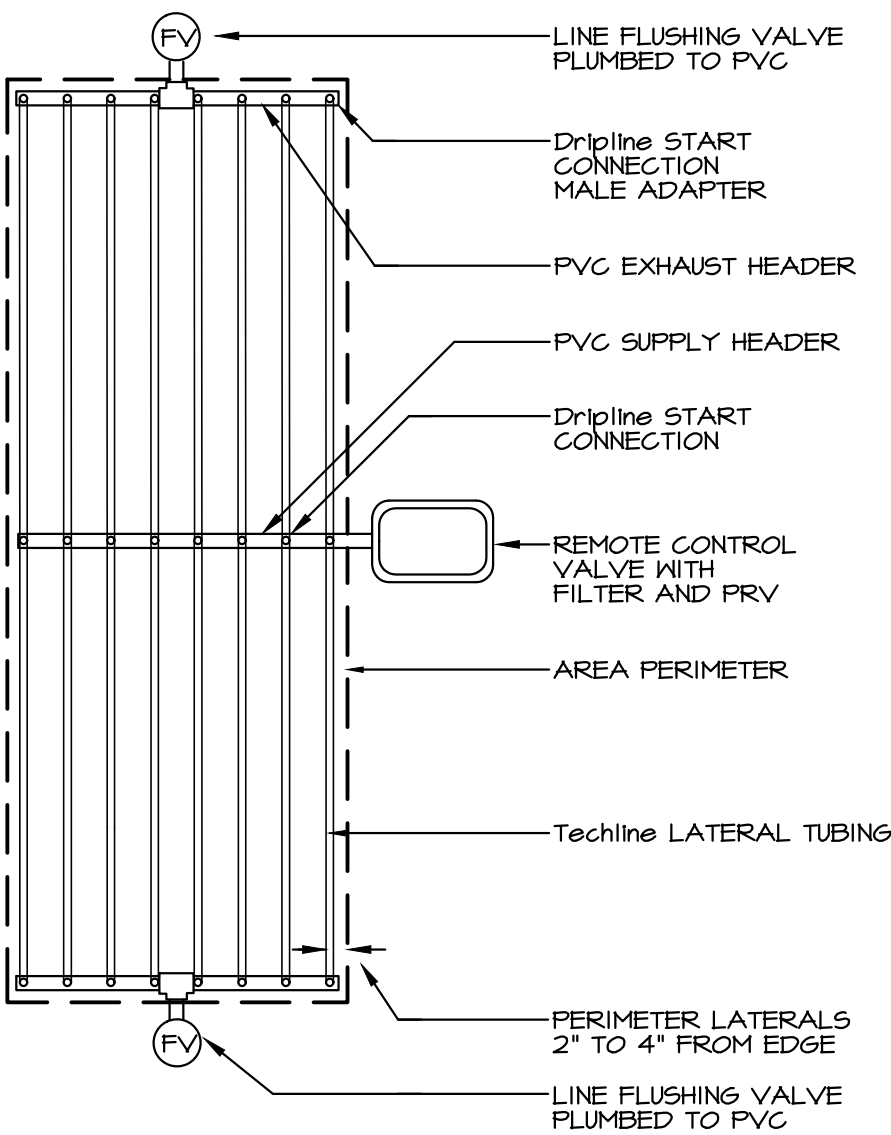
NOTES:

- Choose header style based on flow and header layout requirements.
- Staples are required at all blank tubing headers and dripline, per manufactures specifications and recommendations.
- Staples are not required on PVC headers.

SUBSURFACE HEADER & DRIPLINE INSTALLATION

NTFM-DPTH

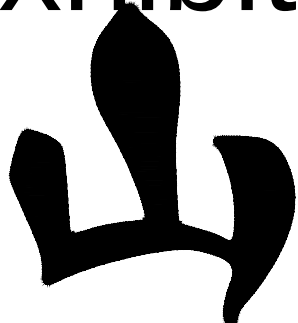
SCALE: N.T.S.



NETAFIM TECHLINE CV LAYOUT

DRP-NTFM

SCALE: N.T.S.



YAMASAKI
LANDSCAPE ARCHITECTURE

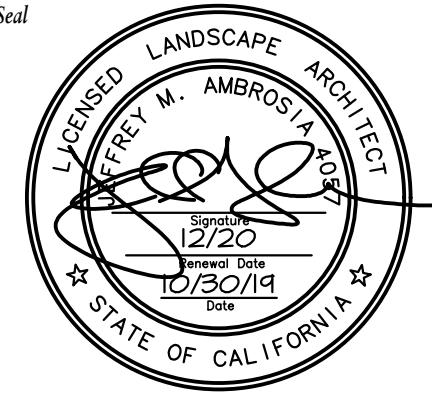
JEFF AMBROSIA, ASLA C4057

1223 HIGH STREET
AUBURN, CALIFORNIA 95603
(530) 885-0040
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www.yamasaki-la.com

CAMPUS OAKS APARTMENTS - PHASE 2
LANDSCAPE DEVELOPMENT PLANS
350 ROSEVILLE PARKWAY
ROSEVILLE, CALIFORNIA

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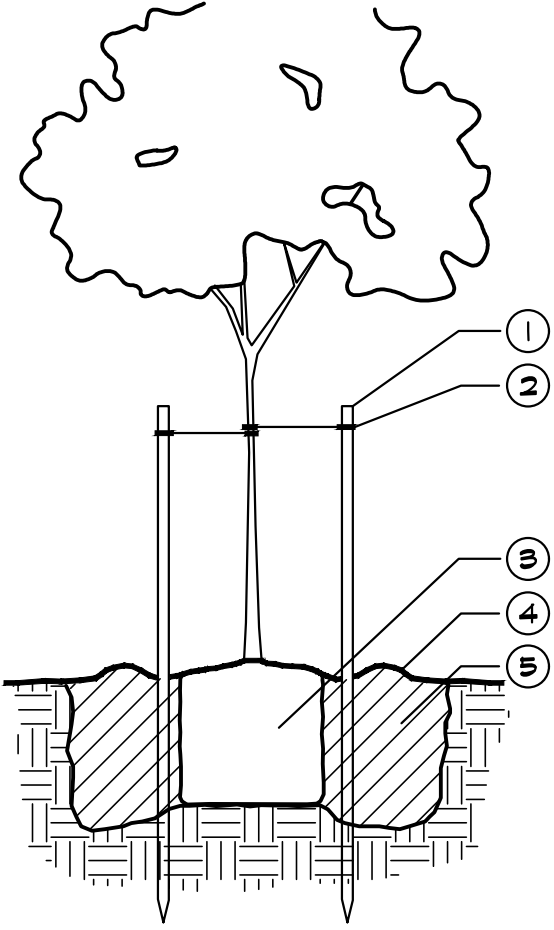
Sheet Title
PLANTING AND IRRIGATION DETAILS



No.	Date	Revision
△	09/18/20	Community/Pool Area Revisions
△		
△		
△		

Project Mgr.:	JMA	Sheet No.:	
Drawn By:	TVZ		
Scale:	AS SHOWN		L-4.2
Date:	15 OCT 19		
File Name:	CO-DT	of	18 sheets

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LEGEND

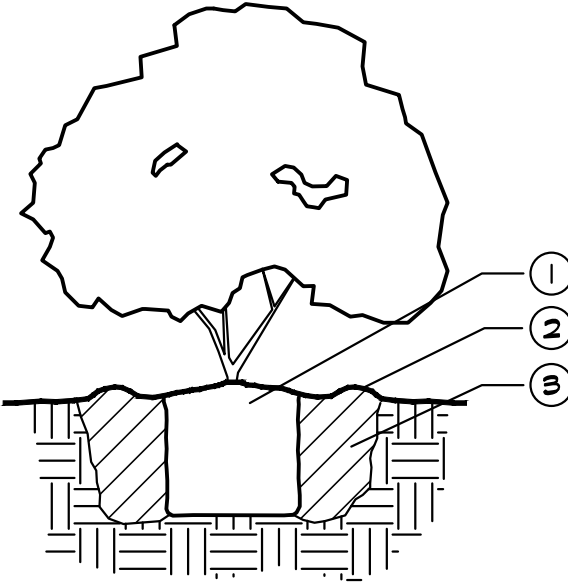
- 1 TREE STAKE
- 2 TREE TIE
- 3 ROOTBALL
- 4 SOIL RING
- 5 AMENDED BACKFILL

NOTES:

- WIDTH OF HOLE SHALL BE 3 TIMES THE WIDTH OF THE ROOTBALL.
- DEPTH OF THE HOLE SHALL BE HEIGHT OF THE ROOTBALL WITH 1/2" OF TOP OF ROOTBALL HIGHER THAN SURROUNDING FINISH GRADE
- CUT TREE STAKES WITHIN 2" OF TIES
- WATER BACKFILL HEAVILY TO REDUCE AIR POCKETS
- REMOVE NURSERY STAKE PRIOR TO THE END OF THE MAINTENANCE PERIOD
- MAINTAIN A MINIMUM DISTANCE OF 18" BETWEEN EDGE OF LAWN AND TRUNK OF TREE(S)

TREE PLANTING AND STAKING

PLT-TREEI SCALE: N.T.S.



LEGEND

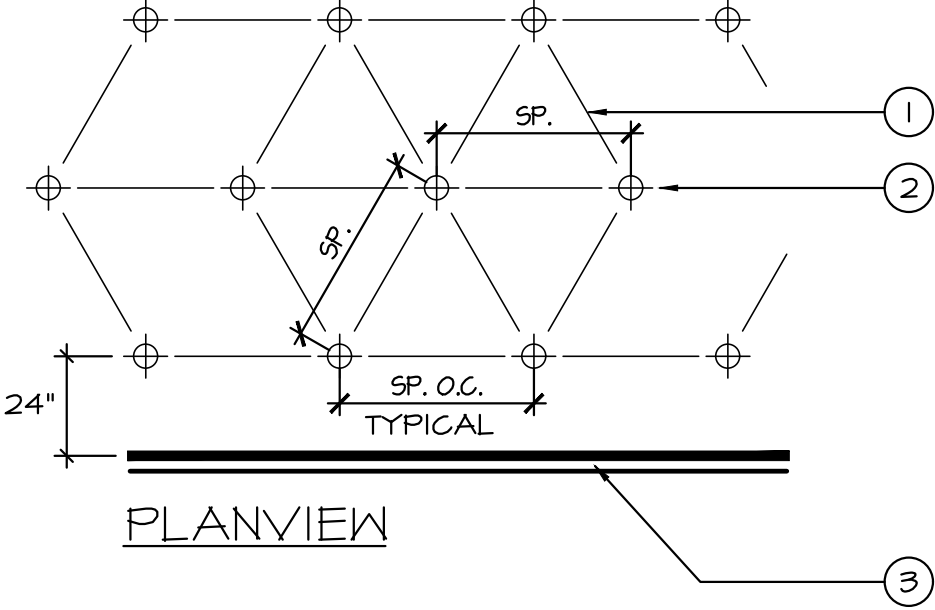
- 1 ROOTBALL
- 2 SOIL RING
- 3 AMENDED BACKFILL

NOTES:

- WIDTH OF HOLE SHALL BE 3 TIMES THE WIDTH OF THE ROOTBALL
- DEPTH OF THE HOLE SHALL BE DEPTH OF THE ROOTBALL WITH 1/2" OF TOP OF ROOTBALL HIGHER THAN SURROUNDING FINISH GRADE
- WATER BACKFILL HEAVILY TO REDUCE AIR POCKETS

SHRUB PLANTING

PLT-SHRBI SCALE: N.T.S.

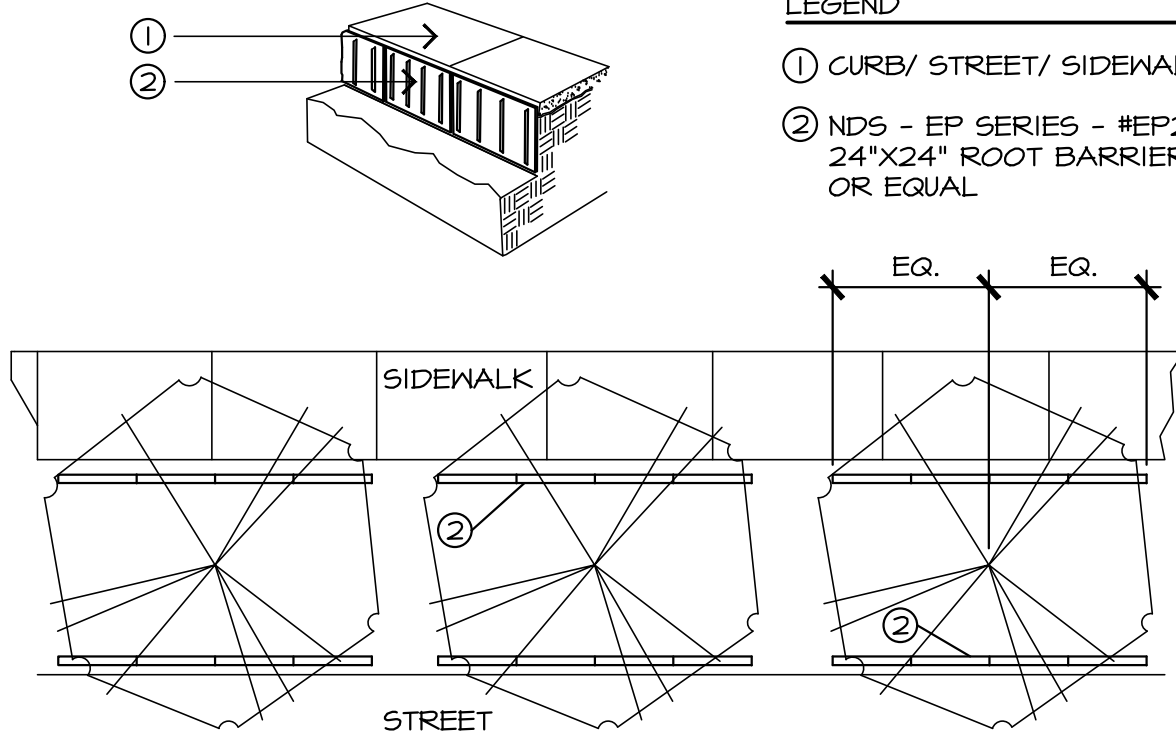


LEGEND

- 1 GROUNDCOVER SPACING: SEE PLANTING PLAN LEGEND.
- 2 GROUNDCOVER CENTERS.
- 3 WALL, WALK OR EDGE OF GROUNDCOVER PLANTING.

GROUNDCOVER PLANTING

PLT-GRDCVR SCALE: N.T.S.



LEGEND

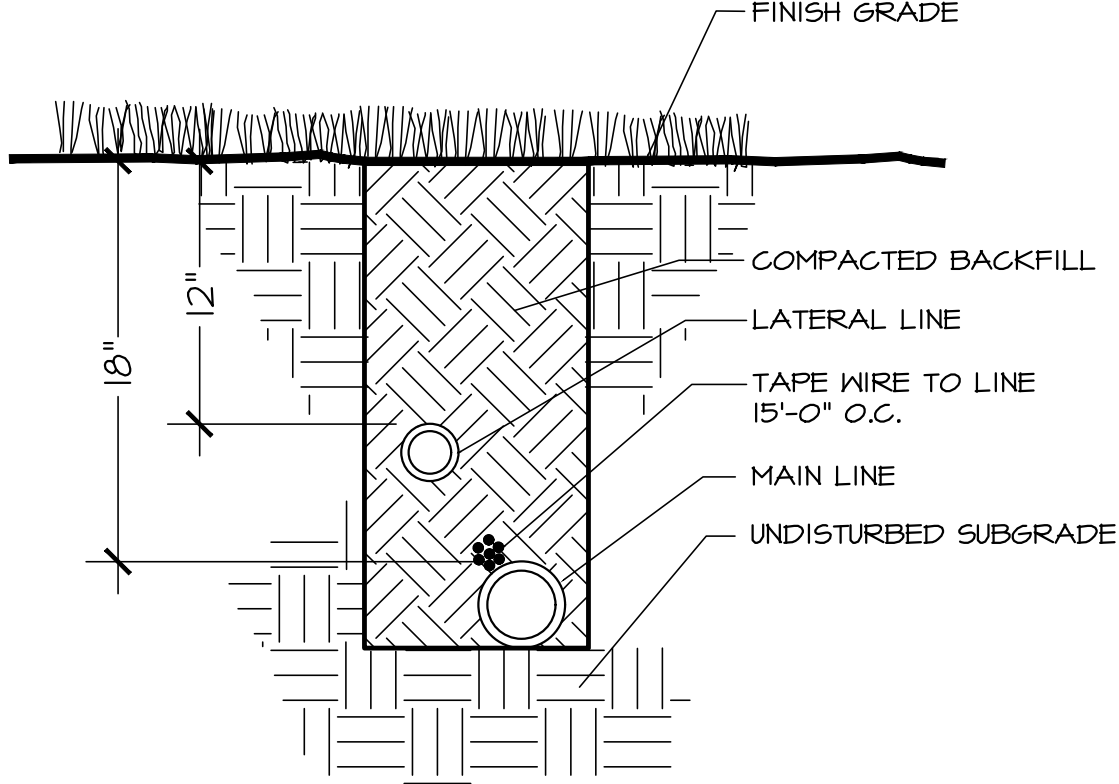
- 1 CURB/ STREET/ SIDEWALK
- 2 NDS - EP SERIES - #EP2450 24"x24" ROOT BARRIER PANELS OR EQUAL

NOTES:

- Install (4) 24" panels on each side of tree
- Center the panels on trunk of tree
- Root barriers are required in all locations where trees are placed closer than 48" from curbs, sidewalks, concrete or asphalt, and where shown on plans.
- Set top of root barrier 4" below top of walk or curb, or 2" below finished grade, whichever is lower.

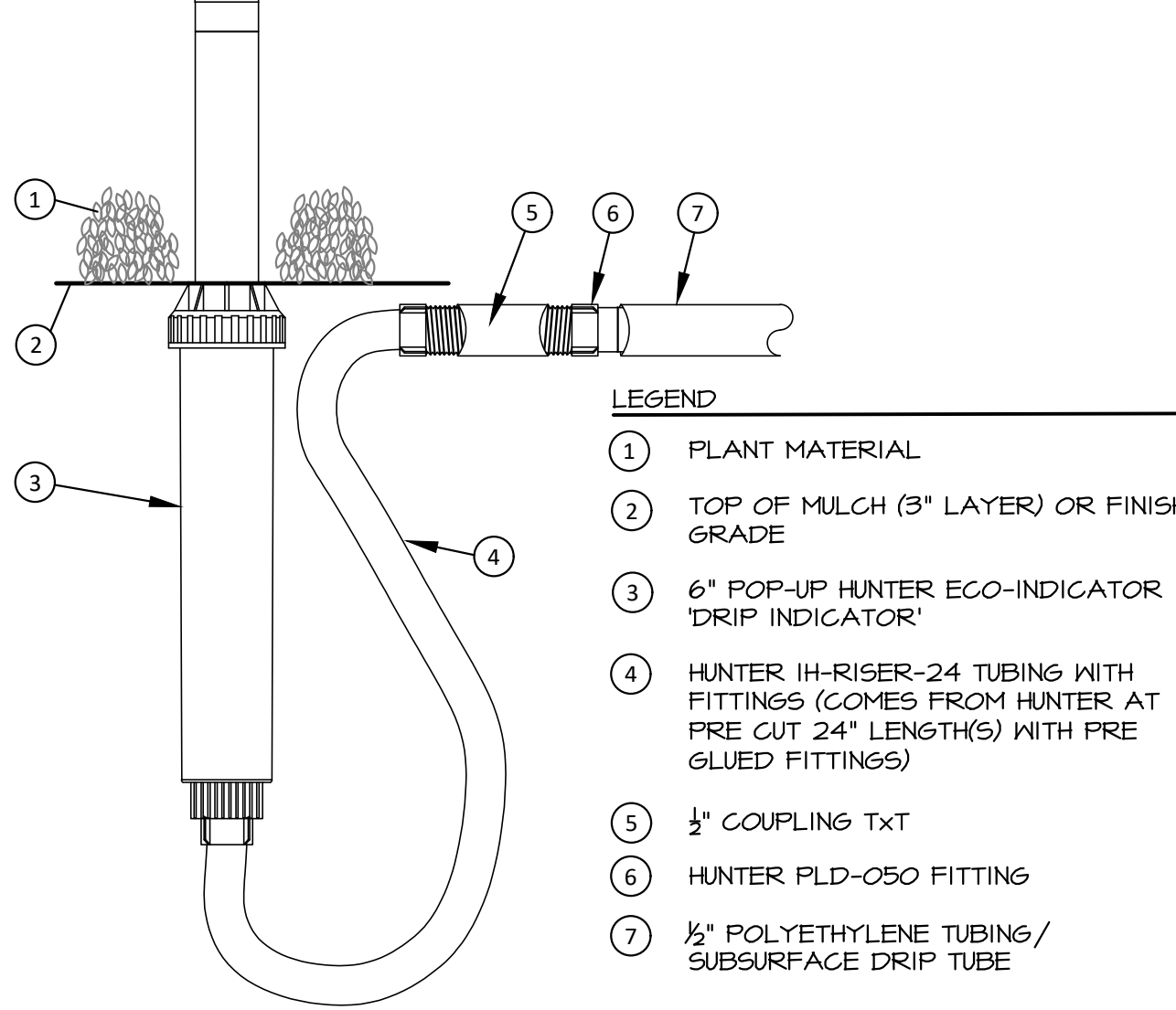
TREE ROOT BARRIER

PLT-BARR SCALE: N.T.S.



IRRIGATION TRENCH

TRNCHI SCALE: N.T.S.



LEGEND

- 1 PLANT MATERIAL
- 2 TOP OF MULCH (3" LAYER) OR FINISH GRADE
- 3 6" POP-UP HUNTER ECO-INDICATOR 'DRIP INDICATOR'
- 4 HUNTER IH-RISER-24 TUBING WITH FITTINGS (COMES FROM HUNTER AT PRE CUT 24" LENGTH(S) WITH PRE GLUED FITTINGS)
- 5 1/2" COUPLING T x T
- 6 HUNTER PLD-050 FITTING
- 7 1/2" POLYETHYLENE TUBING/ SUBSURFACE DRIP TUBE

NOTE:

1. INSTALL INDICATOR AT THE END OF EACH DRIP ZONE SYSTEM OR AT EACH END OF A CENTER FEED SYSTEM.
2. INSTALL INDICATOR MINIMUM 24" FROM PLANT MATERIAL.

6" POP-UP DRIP INDICATOR

DRP IND SCALE: N.T.S.