

MOSSDALE LANDING TRACT 3410

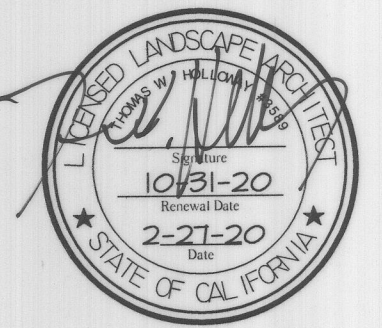
Streetscape and Easement Improvements

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www.kla-ca.com
151 N. Norlin St., Sonoma, CA 95370
(209)532-2856 (209)532-9510 fax



Revisions	Date	By
△ Modification		

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Mossdale Landing Tract 3410
Village Ave., Towne Centre Drive, and Easement
Lathrop, CA

City of Lathrop, Public Works
390 Towne Centre Dr.
Lathrop, CA 95330
209-941-7430
209-941-7449 Fax

The original size of this drawing is 24" x 36". If the plan is a different size than 24x36 do not scale off of the drawing.

Site Plan

Scale: 1" = 50'-0"
Date: September 26, 2017
Drawn/Checked: NAB / TWH
Project No.: IS-1711
Sheet Number:

L0.1

See sheets L1.2, L2.2, and L3.2

See sheets L1.1, L2.1, and L3.1

APPROVALS

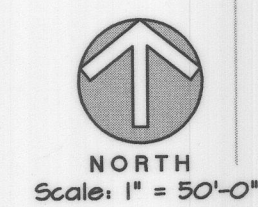
City of Lathrop Department of Public Works	
APPROVED BY:	DATE: 3-2-2020
Public Works Director	

City of Lathrop Department of Public Works	
APPROVED BY:	DATE: 3-2-2020
City Engineer	



Aerial Map

Not to scale



NORTH
Scale: 1" = 50'-0"

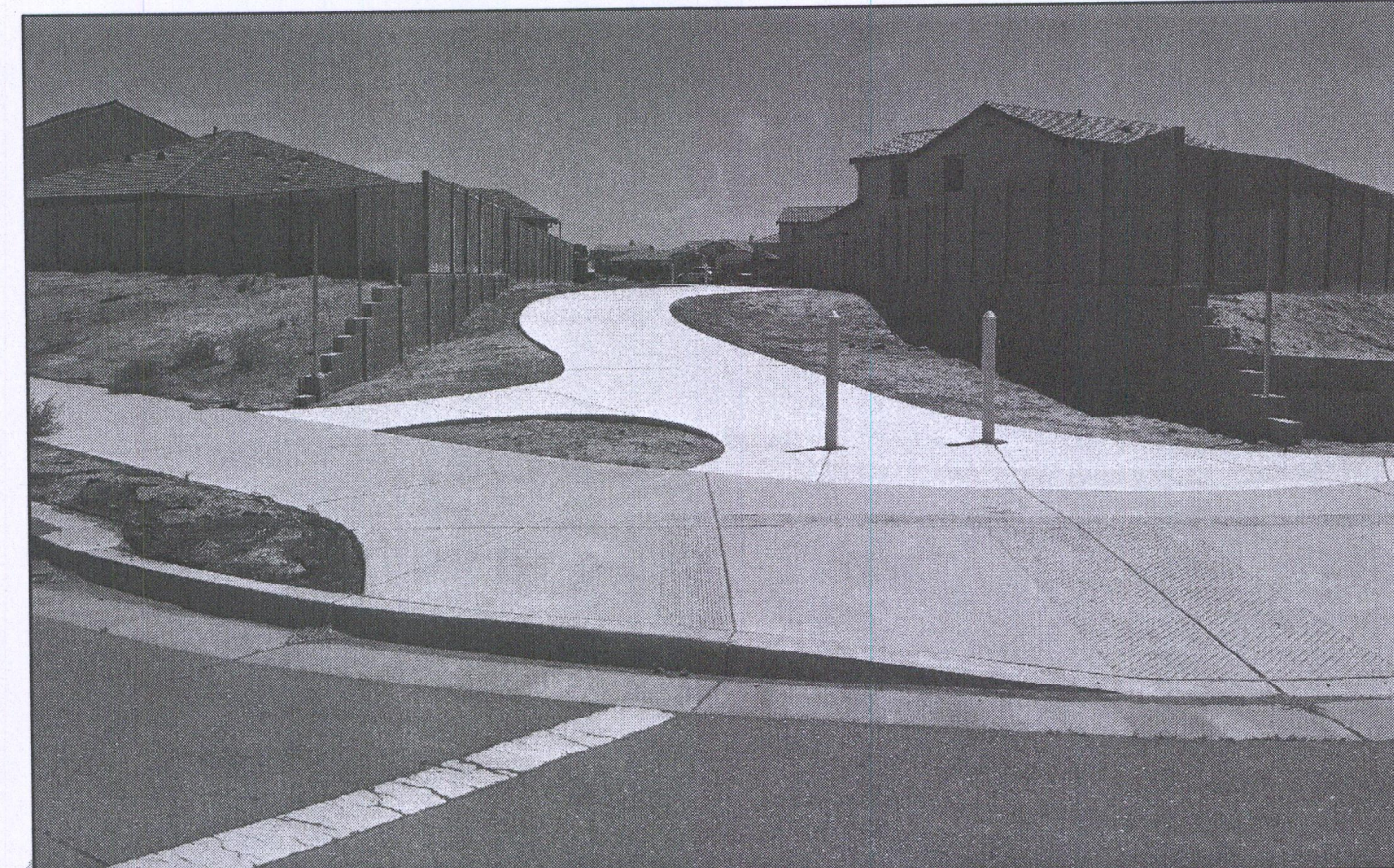




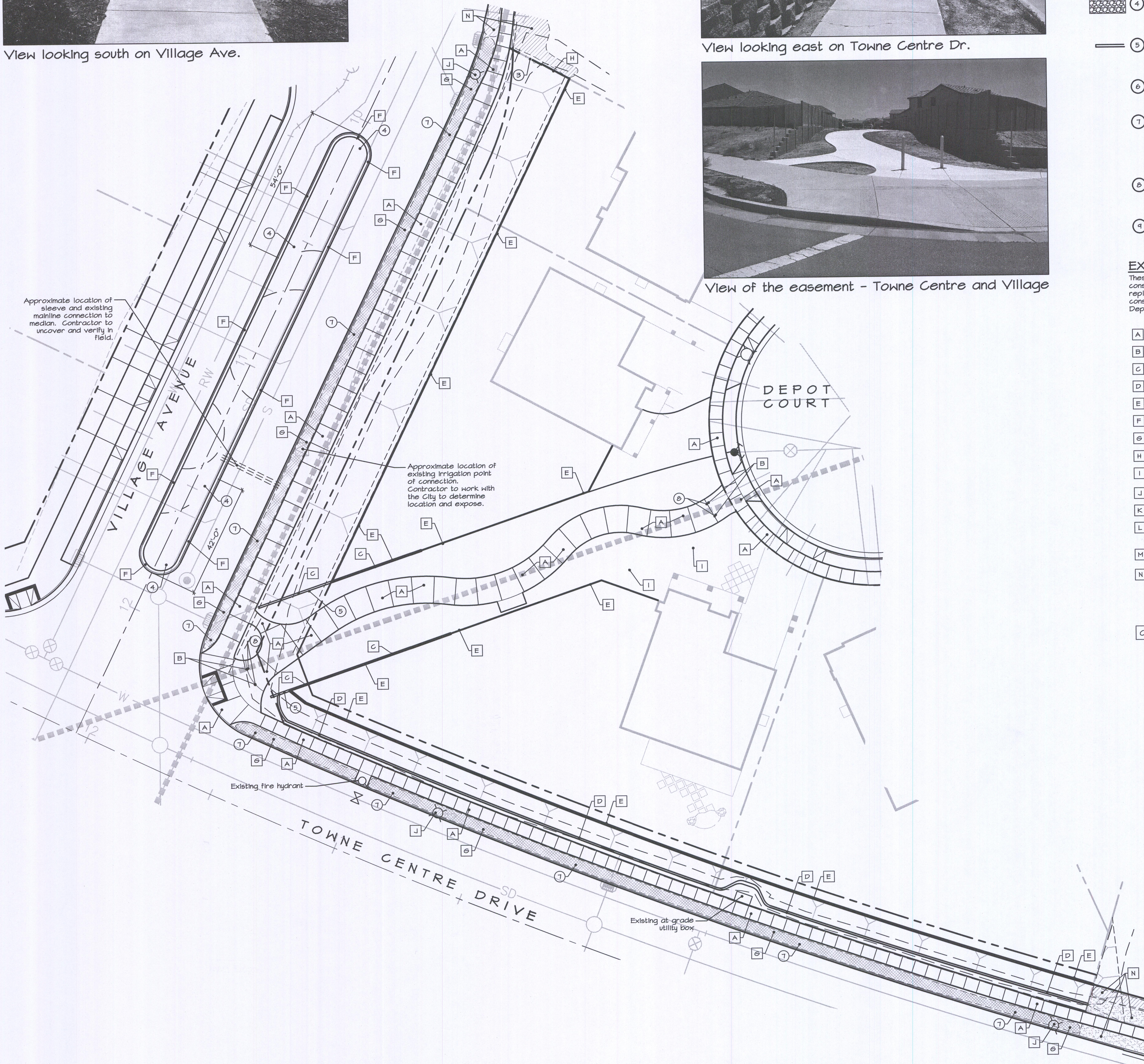
View looking south on Village Ave.



View looking east on Towne Centre Dr.



View of the easement - Towne Centre and Village



CONSTRUCTION CALLOUTS

Quantities provided in this list is for the convenience of the contractor and for the review by the City. The contractor shall bid the quantities in the plans as determined by independent take-offs, and not rely on these quantities. This is NOT a bid list.

- 1. A, B, and C, Sheet L1.3
Install natural gray medium broom finish concrete paving (and per City Standard Detail R-1C). Install troweled score joints at approx. 8' on center (unless otherwise notes on the plans) and expansion joints at approx. 24' on center, or as shown on plans. Cross slope shall not exceed 1.5% and longitudinal slope must be less than 5%. See also General Construction Notes on Sheet L1.
- 2. D, Sheet L1.3
Install Removable bollard Keystone Ridge (www.keystoneridgedesigns.com) model EVR-4 Groove Straight Removable Bollard with 4" rounded cap. Powder coat custom color RA16012 to match City street lights or approved equal. Final location of bollards to be approved by City. Padlock per City of Lathrop.
- 8 each
- 3. A, Sheet L4.1
Install 2x4 Pressure treated (P.T.) header between public and private landscape. Top of the header to join flush with the top of the concrete that it abuts.
City - 142 lf
- 4. B, Sheet L4.1
Install wet-set river cobble. Cobble to be 2"-4" Naga River Cobble set in natural gray concrete with minimal concrete showing. Set flat side of cobble up to keep the top surface as flat as possible to create a relatively flat surface. Coordinate with City of Lathrop prior to setting cobble. Cobble sample to be approved by City.
City - 512 sf
- 5. E, Sheet L1.3
Contractor to cut and remove existing steel fence posts in the masonry wall and grind flush with top of wall. Epoxy apply flat masonry cap to match the color of the wall. City of Lathrop to review and approve cap prior to order and application.
City - 35 sf
- 6. F, Sheet L1.3
Install pet waste bag dispenser. Model #T4015 Mini Dog Waste Station - pull bag style (no trash container). Waste bag dispenser available through Dog On It Parks, www.dog-on-it-parks.com, (877-344-3647). Color to be powdercoat black.
City - 1 each
- 7. No Detail
The geo-textile fabric that is stapled to the grade in various degrees of decay is to be completely removed from the site including all staples and other accessories, as well as the remains of wattles that are within the project area. This is inclusive of the areas specifically shown on the plans and any others that are not shown. These items are to be completely removed from the site and disposed of at an approved disposal facility with all fees paid by the contractor.
City - To be determined by the contractor and City
- 8. D and H, sheet L1.3
Remove existing bollards, saw cut existing concrete in approximately 18" square around bollard and remove. Replace with new removable bollard per Construction Callout #2 above. Top of new concrete to join flush with adjacent existing concrete.
City - 4
- 9. G, sheet L1.3
Saw cut and remove section of existing curb and gutter and replace with new concrete driveway apron in-line with meandering sidewalk. Contractor to coordinate extensively with City of Lathrop Public Works Department for location and extent of demolition. (as minimal as possible).

EXISTING SITE FACILITIES

These are existing items that are to remain and be protected throughout the construction process. The contractor shall be responsible for repair and/or replacement of any existing-to-remain facilities that may be damaged during the construction process. Contractor to walk the site with the City of Lathrop Public Works Dept. prior to any work taking place to review any pre-existing damage.

- A Concrete paving
- B Bollards - to be removed - see Construction Callout #
- C Block retaining wall - See also Construction Callout 5
- D Segmental block retaining wall
- E Wood lot line fence
- F Widened concrete curb around the median
- G Geo-textile fabric in decay. To be removed. See Construction Callout 7
- H Low wood retaining wall
- I Flush header board along the edge of privately maintained landscape
- J Street lights
- K Street and other signs
- L Utilities - These are locations that were visually observable. The contractor shall verify all utility locations and call 811 prior to any work taking place.
- M Cluster mailbox - The mailbox is to remain accessible by the residents and the USPS throughout the construction process.
- N Planting and Irrigation on private property adjacent to the project. Contractor shall care to remain completely outside of private residential areas and protect the existing planting and irrigation. Repair and replace as needed and as directed by the City of Lathrop. Planting and Irrigation within the parkway strip (between the street curb and sidewalk) may be modified as needed and as directed in these plans.
- O Existing driveway apron to be removed. Install new curb and gutter with planting parkway strip per City Standard Details. Coordinate with Public Works Department.

GENERAL DEMOLITION NOTES:

1. Confirm all limits and extent of demolition with City's representative and/or Landscape Architect on-site prior to start of demolition process.
2. Schedule Utility Service Alert (811 or 800-227-2600) for marking of all utilities within the project zone. All utilities shown on these plans is for reference only and have not been verified to be correct. This are shown for contractor convenience only.
3. Remove all vegetation within extents of new construction unless otherwise noted, verify with City's representative and/or Landscape Architect of any discrepancies. Contractor shall remain outside of private residential landscape areas and shall protect the existing to remain planting and irrigation in the front yard of adjacent homes.
4. The existing geo-textile fabric and wattles are to be completely removed from the site - See Construction Callout #7.
5. There are minimal existing facilities in the proposed project area. The existing site consists of a compact dirt through an existing residential neighborhood. Proposed grading is minimal and all new sidewalks, headers, etc, shall join flush with the top of existing sidewalks and curbs.
6. The adjacent existing concrete sidewalks, curbs, fences, and headers are to be protected throughout the construction process. If damaged, they shall be replaced to the satisfaction of the City of Lathrop. Any damage caused to fences, headers, or private landscape (planting and irrigation) shall be brought to the attention of the homeowner and the City, and shall be repaired immediately.
7. To the greatest extent possible, the grading of new sidewalks shall roughly follow the surface of the existing grade with minimal grading - See General Grading Notes, this sheet.
8. Unless otherwise noted on the drawings: all materials indicated to be removed shall become the property of the Contractor; disposal of such material shall become the responsibility of the Contractor and shall be made outside of the project site to an approved disposal site; all fees associated with the disposal are the responsibility of the Contractor.
9. There are some existing irrigation items within the median and parkway strip along Village Ave. These items are to be removed and disposed of. The existing sleeves under Village Ave. are to be located and preserved. The existing irrigation water meter is to be located and preserved as well.
10. Demolition shown is diagrammatic and general. Perform all demolition as required to construct a complete and finished project including all items in the way of new work whether or not specifically shown.

GENERAL CONSTRUCTION NOTES:

1. All dimensions are taken from curb face or edge of paving, unless otherwise noted on the plan. The dimensions are shown for approximate line and all radii and curves are to have continuous and smooth transitions without abrupt changes or bends. Improvements to be staked, coordinate with City for staking consultant.
2. All forms and alignment of paving shall be reviewed and approved by the Landscape Architect and/or City prior to pouring (provide a minimum of 48 hours notice).
3. Site grading is to be minimal. See General Grading Notes on Sheet L1.1.
4. Contractor shall verify location of all utilities prior to construction and shall be liable for all damages incurred. Schedule Utility Service Alert (811 or 800-227-2600) for marking of all utilities within the project zone.
5. All construction and workmanship shall conform to the latest edition of the City of Lathrop Standard Specifications and Details.
6. The top of all new paving is to join flush with the top of existing concrete sidewalks and curbs. Where new concrete abuts existing concrete there shall be a continuous full depth joint expansion joint between new and existing.
7. The sidewalks shall follow the existing grade to the greatest extent possible to minimize grading. Longitudinal slopes shall not exceed 4% (designed for 3%) and cross slopes shall not exceed 1.5%. All portions of concrete shall have slope to eliminate the possibility of ponding water on the surface of the concrete.
8. These notes shall be used in conjunction with the plans and any discrepancies shall be brought to the attention of the Landscape Architect.
9. The contractor must check all dimensions, framing conditions, and the location of the site prior to commencing work. The Landscape Architect and/or City is to be notified immediately of any discrepancies or deficiencies.
10. Conditions not specifically shown shall be constructed similar to the details for the respective materials.
11. The drawings and specifications represent the finished structure. All bracing, temporary supports, shoring, etc. is the sole responsibility of the contractor.
12. Observation visits to the job site by the Landscape Architect do not include inspection of construction methods and safety conditions of the work-site. These visits shall not be construed as continuous and detailed inspections.
13. Design, materials, equipment, and products other than those described on the drawings or in the specifications may be considered for use, provided prior approval has been obtained from the City, Landscape Architect, and applicable governing authority.

GENERAL GRADING NOTES:

1. The improvements that are shown on these plans are within a streetscape and pavement that was partially constructed previously. Several of the sidewalks are existing and are to remain in place throughout the construction process. New paving (concrete, DE, aggregate, etc.) is to join flush with these existing walks.
2. Prior to construction and/or landscape grading, the contractor shall verify all utility locations, existing drainage structures, street improvements, with the City. It is the responsibility of the contractor to notify the City should there be any discrepancies between the plans and the actual site conditions.
3. The contractor is to design-build the paving and landscape spaces based on the existing conditions with the goal of performing minimal grading while meeting code requirements and working within the existing conditions. Within the easements, the site is generally sloping peaking in the middle with minimal slope (2%) sloping to the streets. The goal of the overall grading design is to maintain the relative nature of the site with the paving being placed on the surface with minimal grading.
4. The contractor shall meet with the City prior to grading operations to review the existing conditions and the overall project grading concepts.
5. Concrete walks to have minimum cross slope of 1% and maximum cross slope of 1.5% and shall not allow standing water. Overall slopes shall be toward the streets. All pedestrian paving shall meet all local codes and requirements.
6. Landscape areas shall slope away from sidewalks to avoid standing water directly adjacent to hollows. While the overall intention is to drain the landscape towards the streets, there may be a need for low points within landscape areas that percolate. Easement and streetscape areas shall not drain into adjacent residences.
7. There is no anticipation for providing drain inlets and drainage pipes. All drainage shall be surface flow toward the streets or occasional low points for percolation.
8. The existing grades around existing retaining walls (top and bottom) shall remain as they are. There is no intention of changing the site grading.
9. All finish grades shall be between 1/2" and 3" below the adjacent paving surfaces unless otherwise noted.

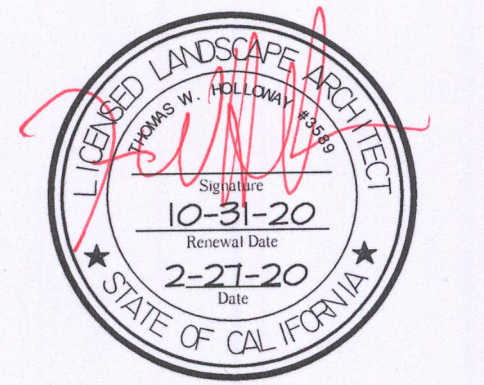
ADA NOTES:

- Path of Travel**
1. There is to be an accessible route of travel from public sidewalks to all general outdoor spaces.
 2. This walk must be a minimum of 4' wide. If there are any obstructions in the path of travel, there must be a minimum of 48" clearance around the obstruction (sign post, hydrant, etc.).
 3. There shall be no projections into this accessible route below 80" above the surface of the paving such as, but not limited to, signs, utilities, drinking fountains, rails, etc.
 4. Contractor to verify that all path of travel walkways meet the unobstructed criteria and make necessary corrections if this is not the case.
 5. There shall be no steps or grade separation (1/4" max.) along the accessible route.
 6. The paving that is included within this project is to join flush with existing street sidewalks. No ramps or flush transitions to vehicular paving are proposed.



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(209)532-2856 (209)532-9510 fax



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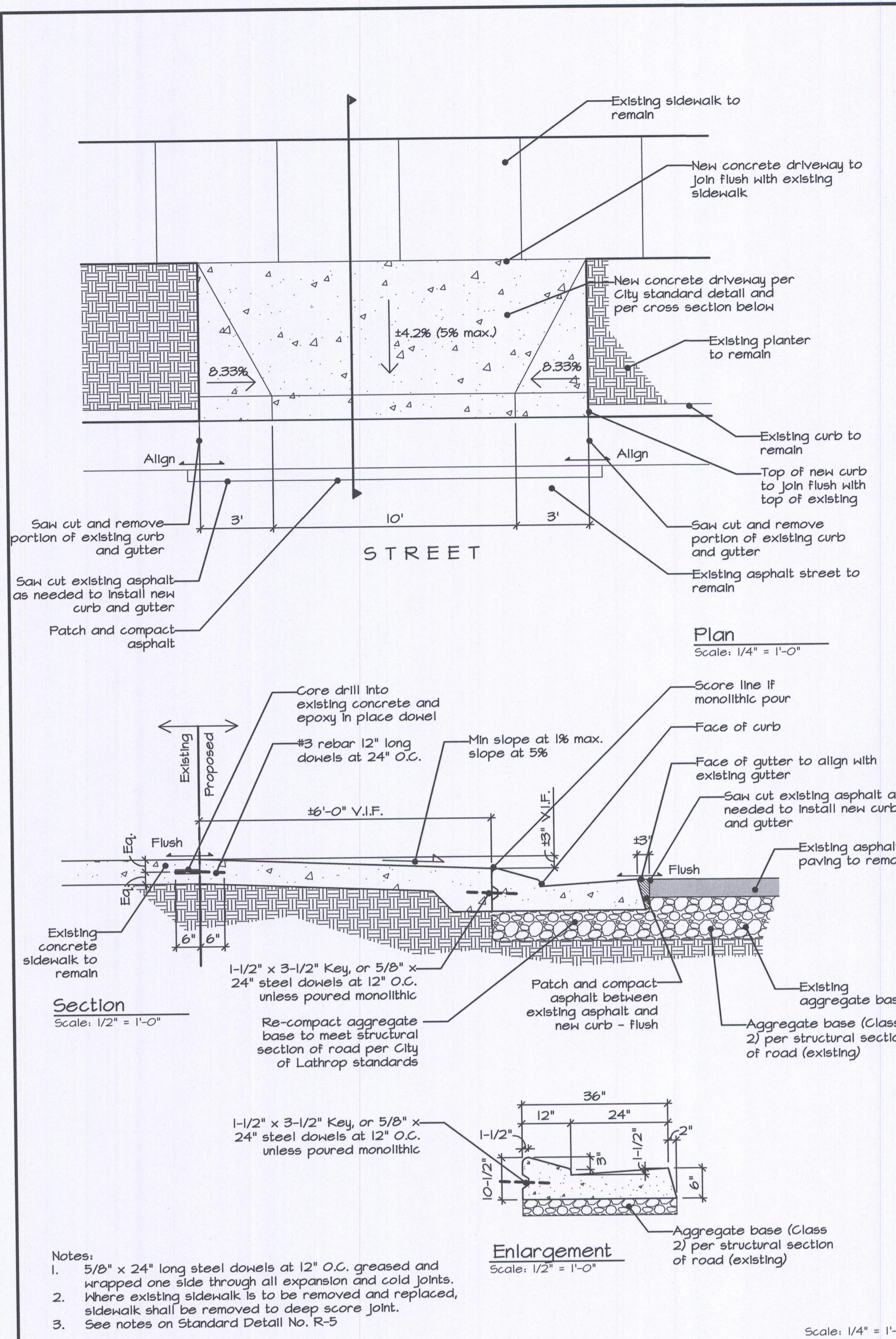
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Construction Plan

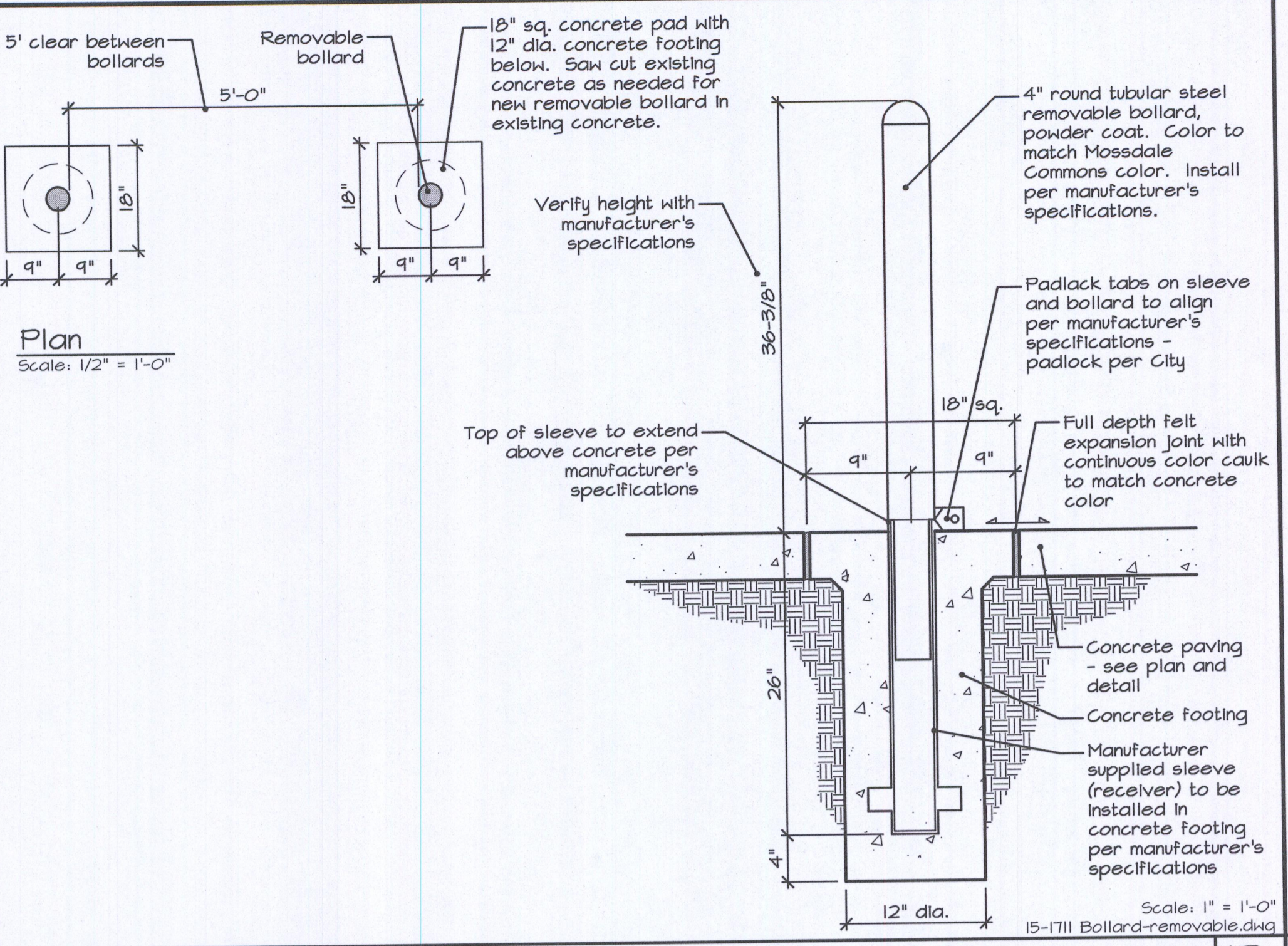
Scale:
1" = 20'-0"
Date:
September 26, 2017
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NAB / TWH
Project No.:
15-1711
Sheet Number:

L1.1

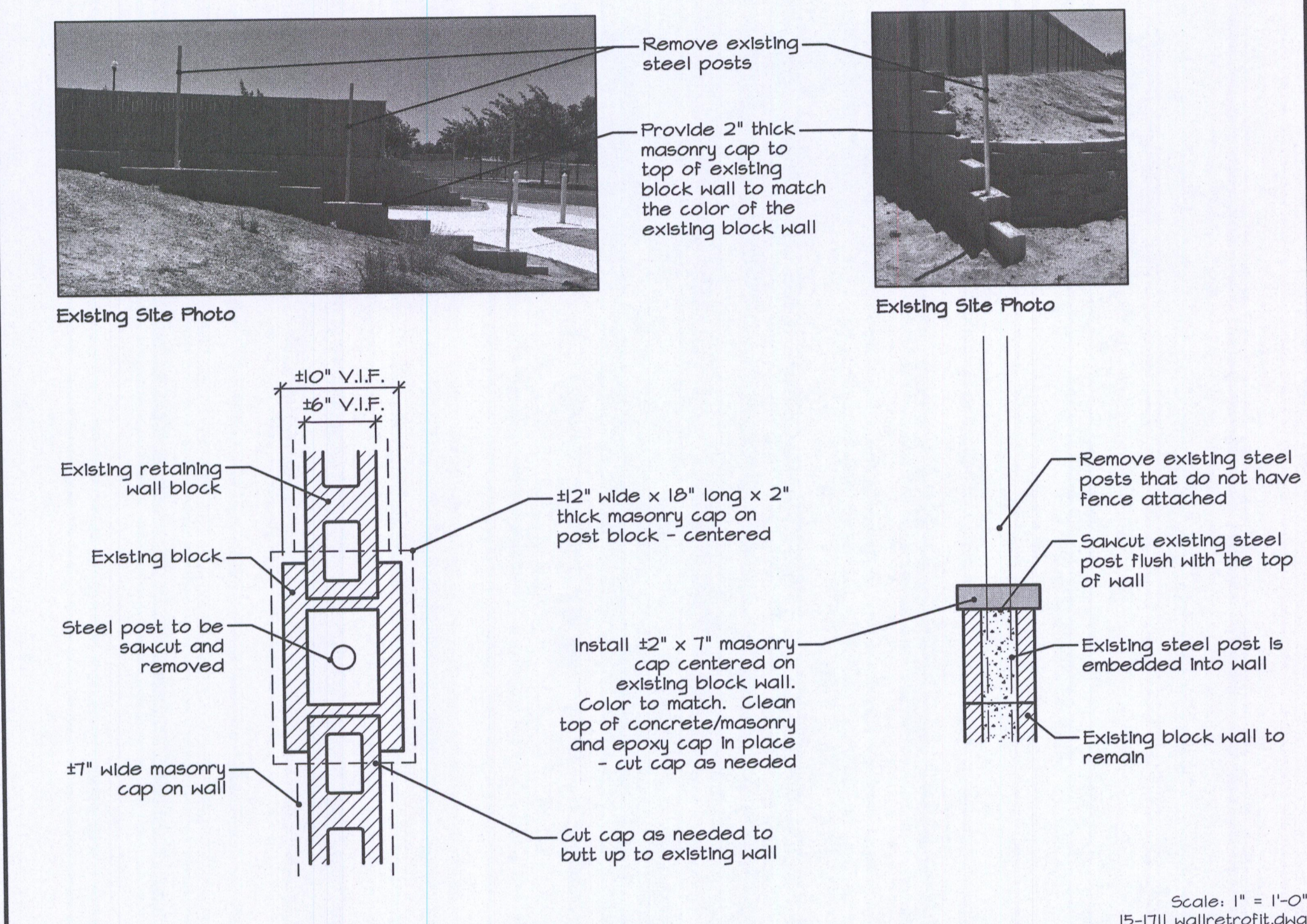




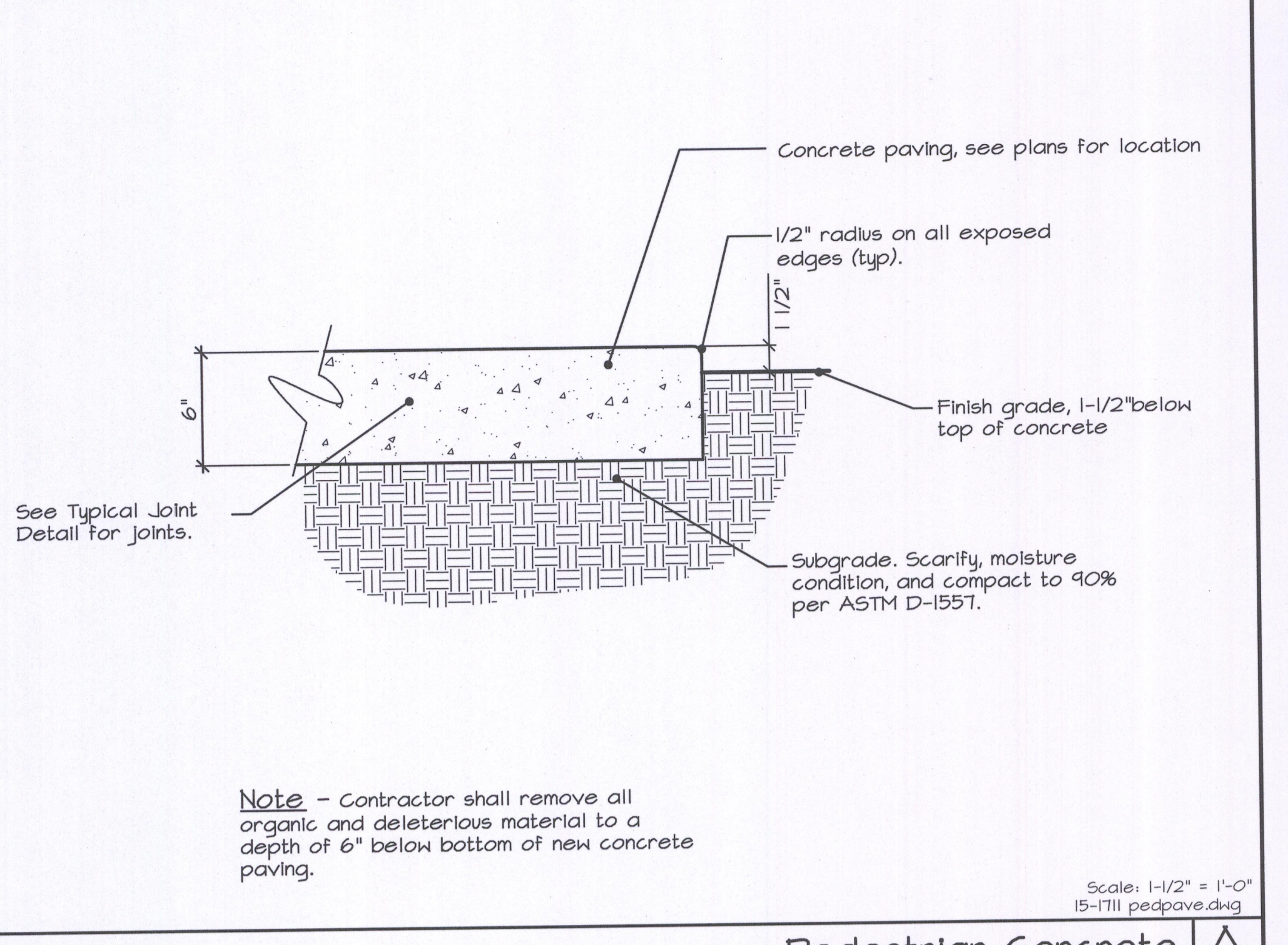
Roll Curb, Gutter, and Driveway **G**



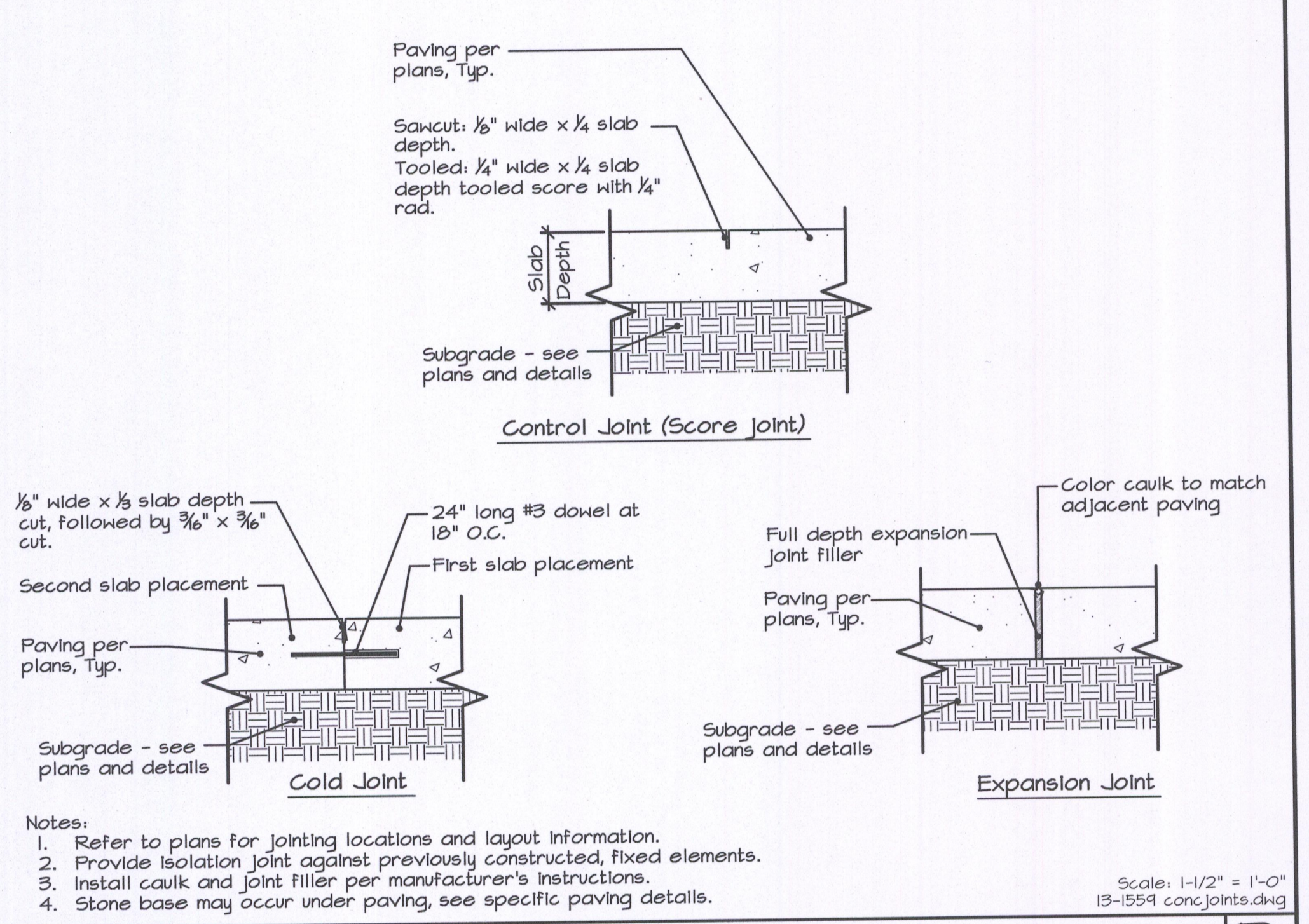
Removable Pipe Bollard **D**



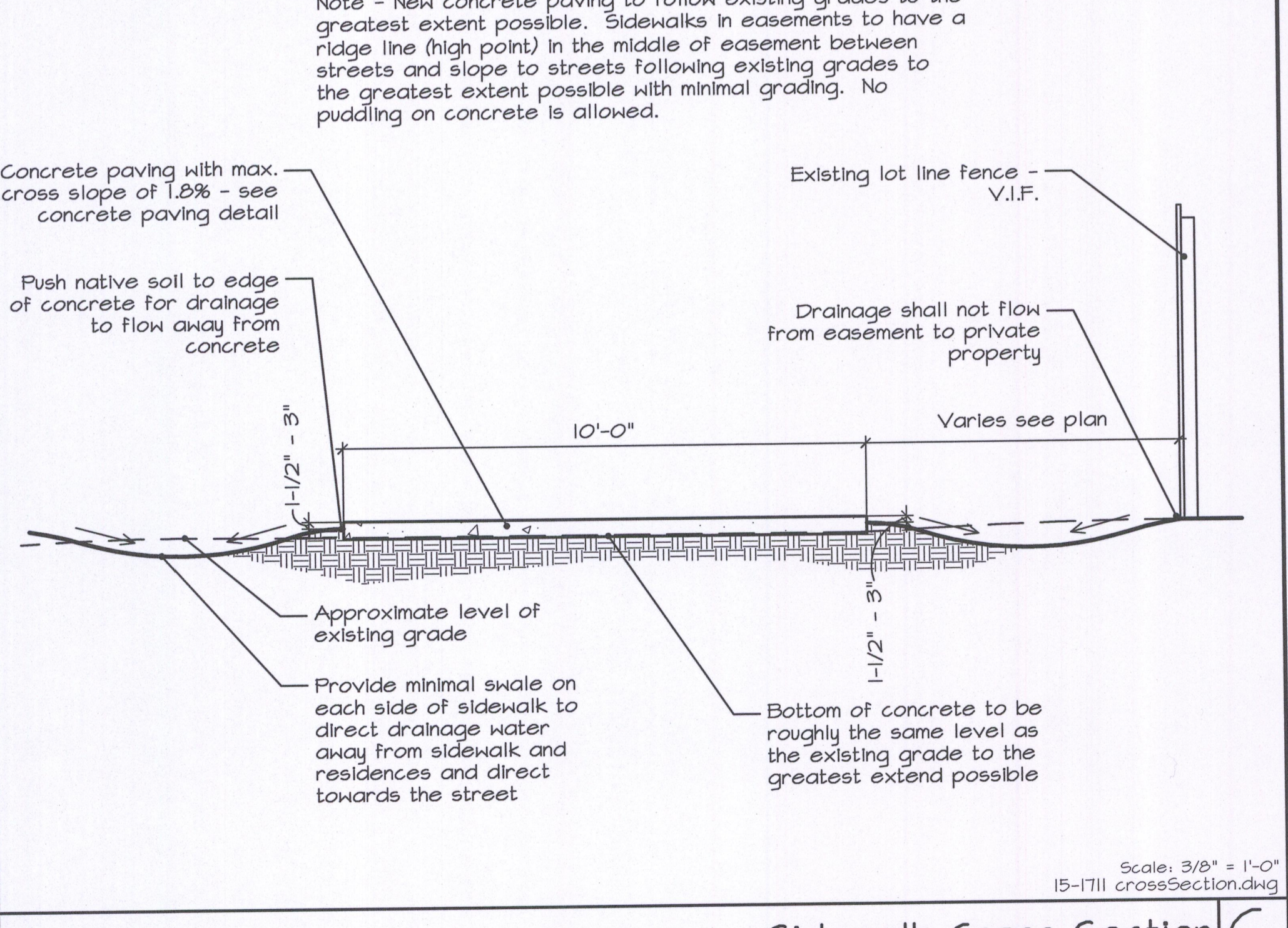
Retrofit of Existing Masonry Wall **E**



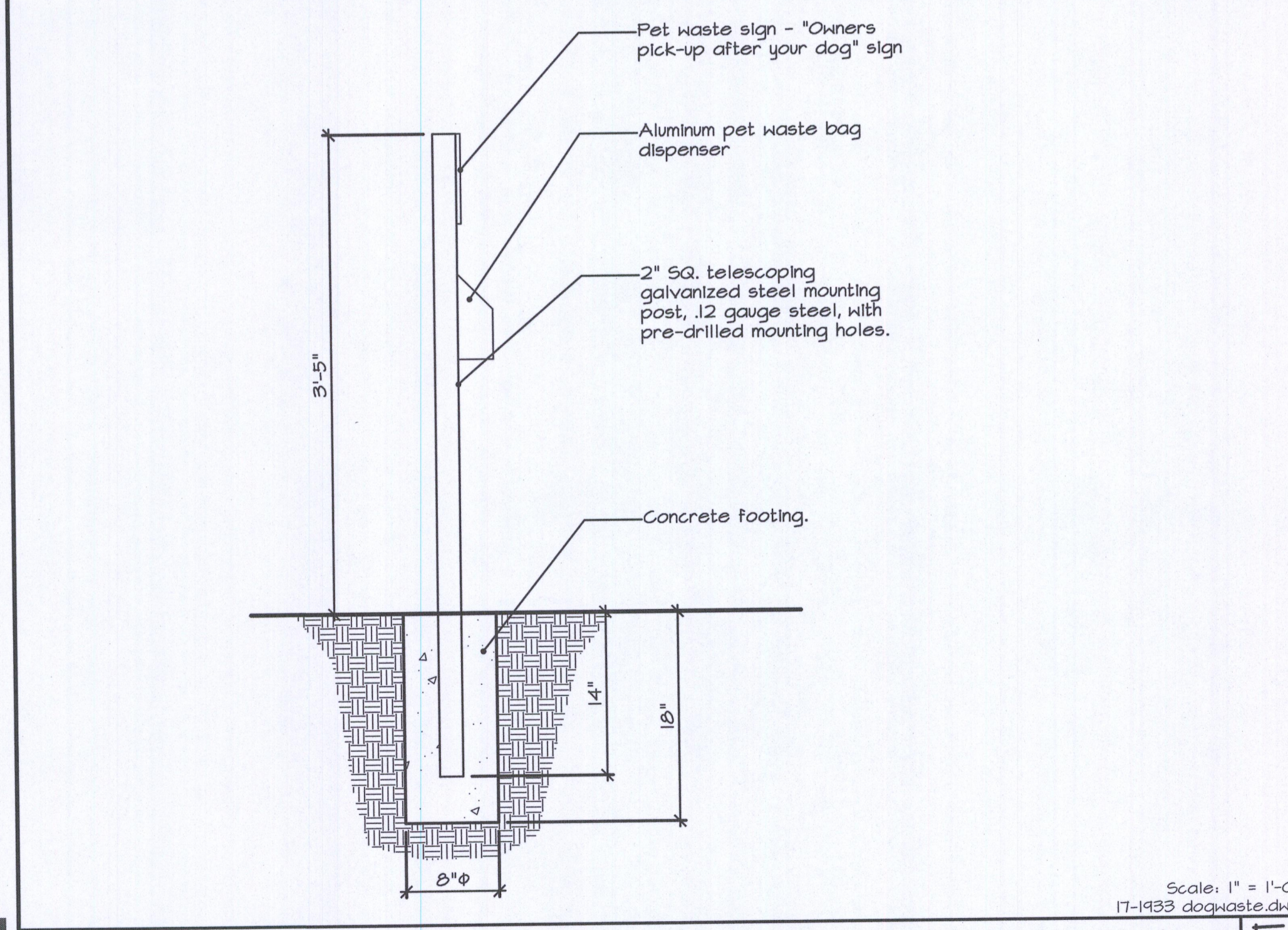
Pedestrian Concrete **A**



Typical Joints **B**



Sidewalk Cross Section **C**



Dog Waste Station **F**

GROVE

GROVE STRAIGHT BOLLARD
All Grove pieces are Exclusive By Design™.

KEYSHIELD™ METAL FINISH
The trademarked KEYSHIELD™ finish protects each piece of furniture from chipping, cracking, and UV damage while providing unparalleled corrosion resistance. Steel products are finished with a two-coat powder coating process applied to a 7-10 mil thickness. Substrate preparation includes sandblasting to a white finish to remove all surface contaminants. The new product then receives a corrosion-inhibiting phosphate coating prior to the application of the powder coating. The first coat applied to the substrate is zinc rich epoxy primer used exclusively on sandblasted parts. The second coat is a colored polyester powder coating. Both coats are electrostatically applied and oven cured according to powder coating manufacturing specifications to create a smooth, satin-like finish and a low-emitting non-toxic finish.

FULLY ASSEMBLED UNIT
The Grove straight bollard is manufactured in the USA as a fully assembled unit to provide ultimate stability and avoid damage during transit to the site, saving time and money.

MATERIALS
Commercial-grade materials, at least 20% recycled raw steel, 100% recyclable steel, completely welded for optimum strength and stability; sizes and dimensions according to Keystone Ridge Designs, Inc. CAD drawings; 4" schedule 40 pipe with dome cap; 11 ga x 3-3/4" tubing removable sleeve; 1/4" x 2" flat steel tabs for concrete stabilization or locking attachment.

	QVR-4 PERMANENT	QVR-4 REMOVABLE
HEIGHT	27"	36"
DIAMETER	4 1/2"	4 1/2"
SLEEVE	N/A	27"
WEIGHT	60 lbs.	65 lbs.

STANDARD FEATURES

- Color exclusive KEYSHIELD™ polyester powder coating finish
- Superior performance or removable
- Fully assembled unit
- Continuous weld seams
- Three-year warranty
- Made in the USA

CUSTOM OPTIONS

- Color custom KEYSHIELD™ powder coat
- Support: surface mount

FINISHMENTS

- Inlays/outlays, coordinating benches, laser recessed, planters, tables, and other furnishings.

PROPRIETARY STATEMENT
Keystone Ridge Designs, Inc. is proud to offer the design community exceptional site amenities. Due to the time and resources invested in designing, manufacturing and marketing Keystone Ridge Designs' products and services, we pursue design patents, copyrights, trademarks and service marks whenever possible. Any unlawful duplication or misrepresentation of Keystone Ridge Designs' products will be rigorously prosecuted.

670 Mercer Road | Butler, PA 16001-1840
Toll-free: 1-800-284-8208 | Phone: 724-284-1213 | Fax: 724-284-1253
www.keystonedesigns.com

Removable Bollard Catalogue Cut **H**



Revisions	Date	By

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Construction Details

Scale:
See Details

Date:
September 26, 2017

Drawn/Checked:
NAB / TWH

Project No.:
15-1711

Sheet Number:
L1.3



Revisions	Date	By
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Irrigation Plan

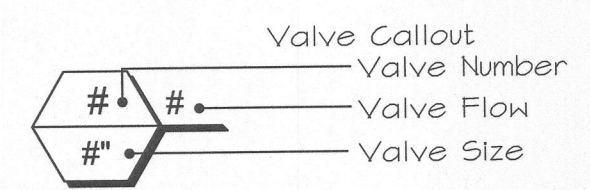
Scale:
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Sheet Number:
L2.1



IRRIGATION LEGEND

Symbol	Manufacturer	Description / Model No.
---	Approved	Schedule 40 PVC piping with emitters at trees per detail B, sheet L4.2. See Piping and Wiring detail for installation of PVC piping.
---	Approved	Install Schedule 40 PVC lateral line with IPS flex pipe and Toro LF20-PC bubbler to each plant. See Detail A, sheet L4.2. Contractor shall monitor the water during the maintenance period and make modifications to bubblers (GPM) at each plant to ensure that all plants are getting adequate water based on specific microclimate conditions. Each plant to receive the following minimum number of bubblers: 1 gallon shrubs (1) Toro LF20-PC Bubbler (2.0 GPH/0.033 GPM) - per plant 5 Gallon shrubs (2) Toro LF20-PC Bubbler (4.0 GPH/0.067 GPM) - per plant Bubblers to be spaced equally around plant.
M	Approved	Point of Connection - Tie to fire hydrant service under the direction and supervision of the City of Lathrop Public Works Department. Verify conditions in the field.
BF	Febco	1" LF25Y Reduced Pressure Backflow Preventer (lead free) - see plan for size. Detail G, sheet L4.2
R	Rainbird	XGZ-FRB-100-COM 1" drip valve kit. Detail E, sheet L4.2
R	Rainbird	XGZ-100-COM 1" drip valve kit with TB05-II battery operated controller. Install a single TB052CM2 2-station controller in valve box of BI per and wire to valves per manufacturer's specifications. Securely mount to inside of valve box for ease of access. Contractor to include TB052FU5 Field transmitter and provide to the City with all instruction manuals.
R	Rainbird	33-DLRC Quick Coupler. Detail G sheet L4.2
N	Nibco	T-1B Gate Valve. Line size. Detail D, sheet L4.2
MV	Rainbird	1" FEB Series Master Valve - detail F, sheet L4.2
FS	Calsense	FM1B 1" Flow Sensor. See plan for size. Install per manufacturer's specifications. Detail F, sheet L4.2
C	Calsense	C53000 Series 16 station pedestal mount controller model C53-16-S/C53-LR-LR-STUBBY/FM15 with communication options per the direction of the City of Lathrop. Install per manufacturer's specifications. Coordinate with Scott Daugs at 425-571-0534 at Calsense, final location to be approved by City.

---	Approved	Schedule 40 PVC Pressurized Mainline. See Plan for size. Detail H, sheet L4.2
---	Approved	Proposed location of mainline (not schematic)
---	Approved	Schedule 40 PVC Lateral Line. See Plan for size. Detail H, sheet L4.2
---	Approved	Schedule 40 PVC Sleeve (two per location) where sleeves is installed under existing concrete backfill with sand and compact to match existing surrounding soil.
---	Approved	Contractor to provide in the bid to bore under Rail Way to provide two 2" SCH 40 PVC sleeves with each containing one 1" SCH 40 PVC lateral line (one for shrub irrigation and one for tree irrigation)

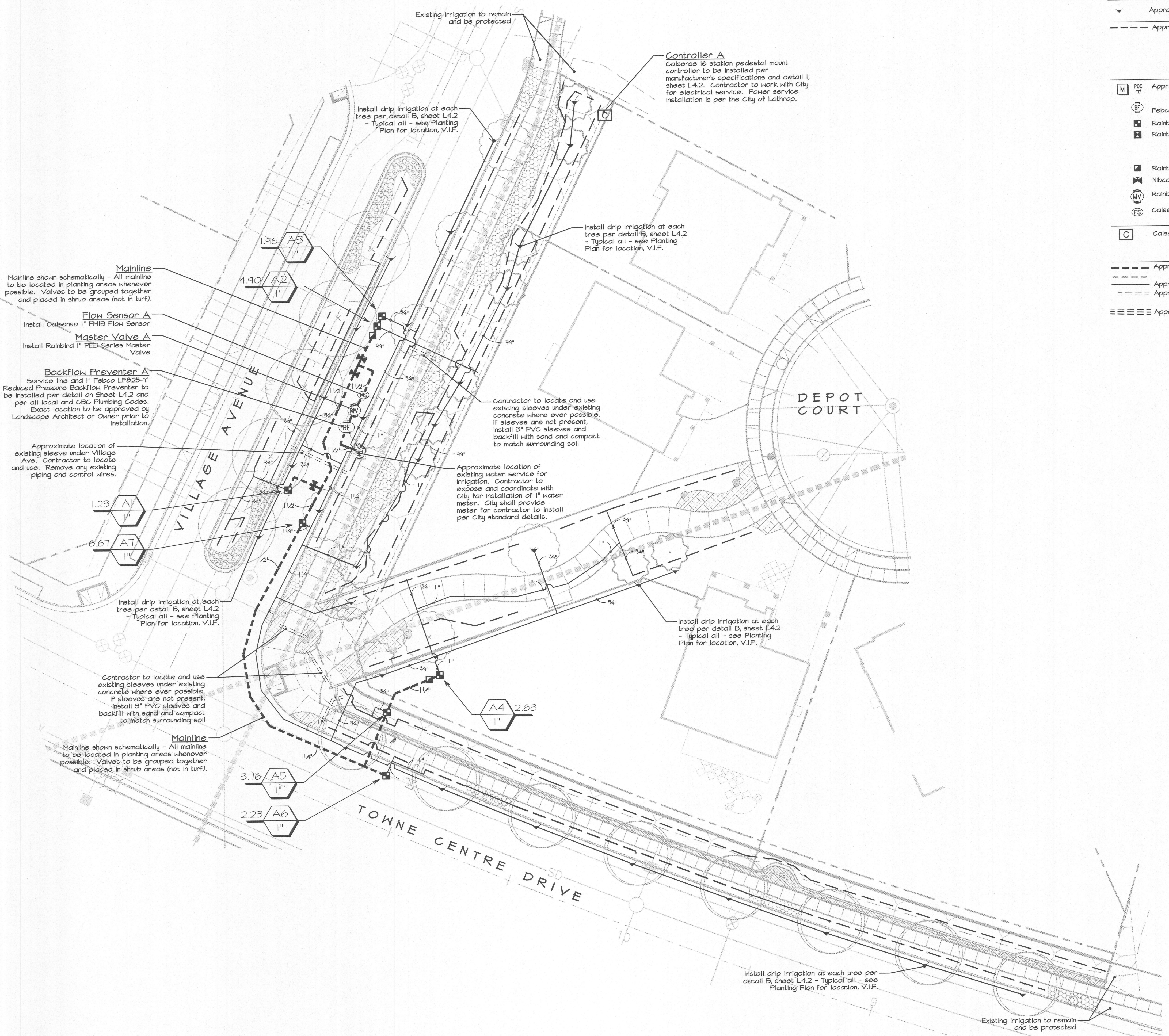


GENERAL IRRIGATION NOTES

- The contractor shall examine the conditions of the site prior to commencement of work. Any conditions that differ from what is shown on the plans that will affect the installation process shall be brought to the attention of the Landscape Architect and/or City prior to work. Commencement of work implies acceptance of the conditions of the site.
- Piping layout is diagrammatic. All Irrigation items shown within paved areas are for design clarification only and are to be installed in planting areas where possible. All valves are to be placed in shrub or groundcover areas (not D.S., aggregate, cobble, or synthetic lawn).
- All mainline piping and control wires under paving shall be installed in separate schedule 40 PVC sleeves. Sleeves to be installed at the size as indicated on the plans. Control wire sleeves shall be of sufficient size for the required number of wires. Provide two (2) piping sleeves at each location and min. one (1) control wire sleeve/conduit where needed. Piping and wiring to be in separate sleeves. See notes on sheet L2.2 for burring the sleeves under Rail Way. Contractor to locate and use existing sleeves to the greatest extent possible. If new sleeves need to be added under existing concrete, install the sleeves then backfill with sand and compact to match existing soil.
- Pipe sizes shall conform to those shown on the drawings with no smaller size substitutions. Larger size substitutions may be approved.
- All Backflow Prevention Devices and piping between the point of connection and Backflow Preventer shall be installed per local codes. The final location of the Backflow Preventer and the Automatic Controller shall be approved by the City's Representative. The contractor is to verify the codes and requirements of all governing agencies. Any discrepancy between requirements and the plans are to be brought to the attention of the Land. Arch. immediately.
- For the water connection at the existing fire hydrant on Iron Horse Trail coordinate with the City prior to work taking place. City will provide direction for tie-in.
- 120 VAC electrical power source at the controller location shall be provided by the City of Lathrop. Contractor to coordinate with the City for electrical service panel location and location of the irrigation controller.
- Prior to turnover of project, the irrigation contractor shall flush and adjust all valves and drip emitters to be adjusted to provide optimal water to each plant based on specific site conditions and water needs of each plant.
- It is the responsibility of the irrigation contractor to become familiar with all existing and proposed site elements and grades. The irrigation contractor shall repair, replace, or compensate for all items damaged by his work.
- The irrigation system design is based on a minimum operating pressure of 45 PSI and a maximum flow demand of 8.0 GPM. The irrigation contractor shall verify water pressures prior to installation. Any difference between the pressure indicated on the plans and that at the actual point of connection shall be brought to the attention of the landscape architect immediately.
- Any obstructions, changes in the project layout, or grade differences not shown on the plan but affecting the operation of the irrigation system are to be brought to the attention of the landscape architect prior to installation. The irrigation contractor shall be responsible for costs associated with correcting irrigation layout if plan is different from the site and he/she does not bring such differences to the attention of the landscape architect.
- All irrigation equipment not detailed or specified shall be installed per the manufacturer's recommendations and specifications.
- All drip tubing shall be installed 3" below grade. Emitters to be located 3" to 6" from the trunk of shrubs and equipped with a bug guard and galvanized tie-down stake.
- Weather sensor/automatic rain shutoff shall be installed on existing street light adjacent to the controller location per manufacturer's specifications. It must be placed to receive unimpeded rain and free from vandalism.
- An irrigation audit may be needed by the governing jurisdiction before an occupancy permit can be issued. It is the responsibility of the contractor to schedule and pay for the audit. The audit shall be conducted by a certified auditor. The contractor shall be responsible for making revisions to the irrigation in order to pass the audit.
- There is existing irrigation equipment on site along Village Ave, that was installed and abandoned prior to completion. None of this equipment (with the exception of sleeves) is allowed to be used on the final product. All existing equipment and piping is to be completely removed from the site and disposed at an approved disposal facility with fees paid by the contractor. The existing sleeves may remain and be used.

WATER EFFICIENT LANDSCAPE ORDINANCE

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Mainline
Mainline shown schematically - All mainline to be located in planting areas whenever possible. Valves to be grouped together and placed in shrub areas (not in turf).

Flow Sensor A
Install Calsense 1" FM1B Flow Sensor

Master Valve A
Install Rainbird 1" FEB-Series Master Valve

Backflow Preventer A
Service line and 1" Febco LF25-Y Reduced Pressure Backflow Preventer to be installed per detail on Sheet L4.2 and per all local and CDE Plumbing Codes. Exact location to be approved by Landscape Architect or Owner prior to installation.

Approximate location of existing sleeves under Village Ave - Contractor to locate and use. Remove any existing piping and control wires.

Install drip irrigation at each tree per detail B, sheet L4.2 - Typical all - see Planting Plan for location, V.I.F.

Install drip irrigation at each tree per detail B, sheet L4.2 - Typical all - see Planting Plan for location, V.I.F.

Contractor to locate and use existing sleeves under existing concrete where ever possible. If sleeves are not present, install 3" PVC sleeves and backfill with sand and compact to match surrounding soil

Approximate location of existing water service for irrigation. Contractor to expose and coordinate with City for installation of 1" water meter. City shall provide meter for contractor to install per City standard details.

Install drip irrigation at each tree per detail B, sheet L4.2 - Typical all - see Planting Plan for location, V.I.F.

Install drip irrigation at each tree per detail B, sheet L4.2 - Typical all - see Planting Plan for location, V.I.F.

Mainline
Mainline shown schematically - All mainline to be located in planting areas whenever possible. Valves to be grouped together and placed in shrub areas (not in turf).

Install drip irrigation at each tree per detail B, sheet L4.2 - Typical all - see Planting Plan for location, V.I.F.

Contractor to locate and use existing sleeves under existing concrete where ever possible. If sleeves are not present, install 3" PVC sleeves and backfill with sand and compact to match surrounding soil

Mainline
Mainline shown schematically - All mainline to be located in planting areas whenever possible. Valves to be grouped together and placed in shrub areas (not in turf).

Install drip irrigation at each tree per detail B, sheet L4.2 - Typical all - see Planting Plan for location, V.I.F.

Existing Irrigation to remain and be protected



Revisions

Date	By	Modification

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Mossdale Landing Tract 3410
 Village Ave., Towne Centre Drive, and Easement Lathrop, CA

City of Lathrop, Public Works
 390 Towne Centre Dr.
 Lathrop, CA 95330
 209-941-7430
 209-941-7449 Fax

The original size of this drawing is 24" x 36". If the plan is a different size than 24x36 do not scale off of the drawing.

Irrigation Plan

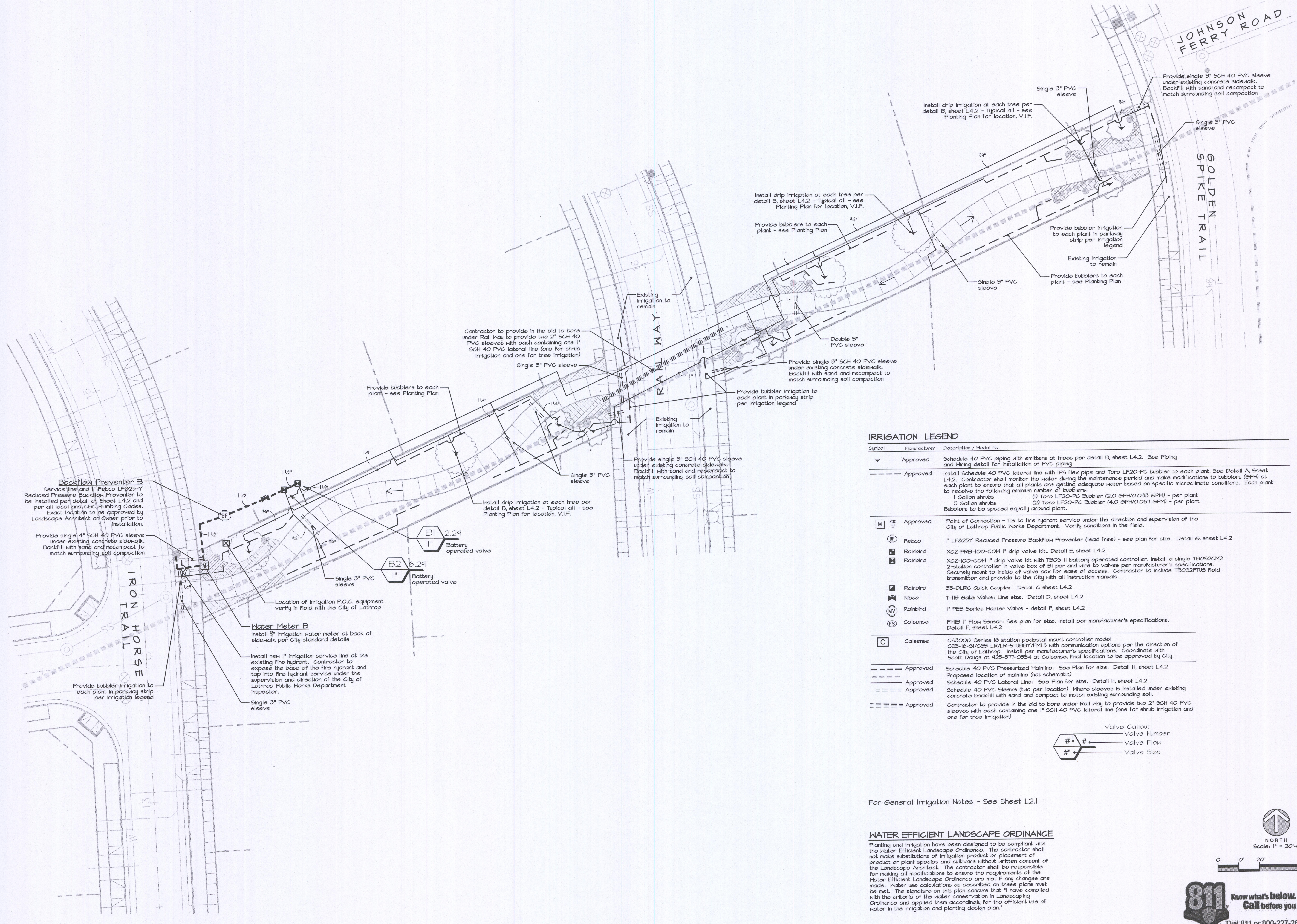
Scale:
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Date:
 September 26, 2017

Drawn/Checked:
 NAB / TWH

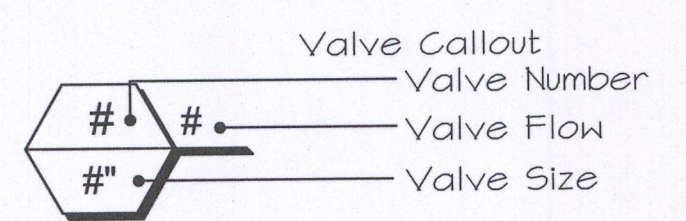
Project No.:
 15-1711

Sheet Number:
 L2.2



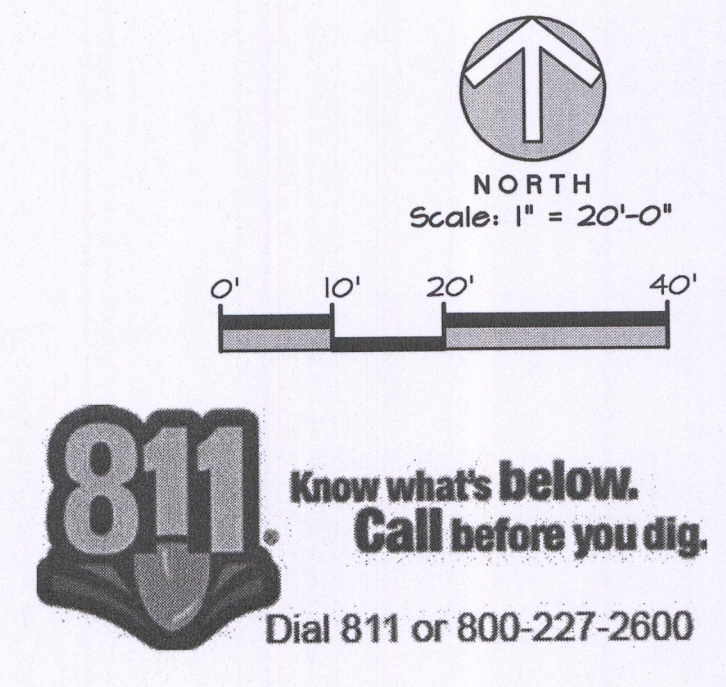
IRRIGATION LEGEND

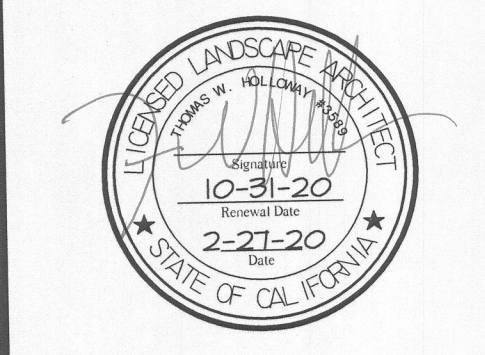
Symbol	Manufacturer	Description / Model No.
—	Approved	Schedule 40 PVC piping with emitters at trees per detail B, sheet L4.2. See Piping and Wiring detail for installation of PVC piping.
---	Approved	Install Schedule 40 PVC lateral line with IPS flex pipe and Toro LF20-PC bubbler to each plant. See Detail A, Sheet L4.2. Contractor shall monitor the water during the maintenance period and make modifications to bubblers (GPM) at each plant to ensure that all plants are getting adequate water based on specific microclimate conditions. Each plant to receive the following minimum number of bubblers: 1 gallon shrubs (1) Toro LF20-PC Bubbler (2.0 GPH/0.033 GPM) - per plant 3 gallon shrubs (2) Toro LF20-PC Bubbler (4.0 GPH/0.061 GPM) - per plant Bubblers to be spaced equally around plant.
M	Approved	Point of Connection - Tie to fire hydrant service under the direction and supervision of the City of Lathrop Public Works Department. Verify conditions in the field.
BF	Febco	1" LF825Y Reduced Pressure Backflow Preventer (lead free) - see plan for size. Detail G, sheet L4.2
R	Rainbird	XGZ-PRB-100-COM 1" drip valve kit. Detail E, sheet L4.2
S	Rainbird	XGZ-100-COM 1" drip valve kit with TB05-11 battery operated controller. Install a single TB052CM2 2-station controller in valve box of B1 per and wire to valves per manufacturer's specifications. Securely mount to inside of valve box for ease of access. Contractor to include TB052FTU5 field transmitter and provide to the City with all instruction manuals.
DLRC	Rainbird	33-DLRC Quick Coupler. Detail C sheet L4.2
T-113	Nibco	T-113 Gate Valve; Line size. Detail D, sheet L4.2
MV	Rainbird	1" PEB Series Master Valve - detail F, sheet L4.2
FS	Caisense	FM18 1" Flow Sensor; See plan for size. Install per manufacturer's specifications. Detail F, sheet L4.2
C	Caisense	CS3000 Series 16 station pedestal mount controller model CS316-SIG/CS-LR/LR-STUBBY/FM15 with communication options per the direction of the City of Lathrop. Install per manufacturer's specifications. Coordinate with Scott Dugas at 425-571-0534 at Caisense, final location to be approved by City.
---	Approved	Schedule 40 PVC Pressurized Mainline; See Plan for size. Detail H, sheet L4.2
---	Approved	Proposed location of mainline (not schematic)
---	Approved	Schedule 40 PVC Lateral Line; See Plan for size. Detail H, sheet L4.2
---	Approved	Schedule 40 PVC Sleeve (two per location) where sleeves is installed under existing concrete backfill with sand and compact to match existing surrounding soil.
---	Approved	Contractor to provide in the bid to bore under RAILWAY to provide two 2" SCH 40 PVC sleeves with each containing one 1" SCH 40 PVC lateral line (one for shrub irrigation and one for tree irrigation)



For General Irrigation Notes - See Sheet L2.1

WATER EFFICIENT LANDSCAPE ORDINANCE
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Revisions	Date	By
Modification		

Mossdale Landing Tract 3410
Village Ave., Towne Centre Drive, and Easement Lathrop, CA

City of Lathrop, Public Works
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Planting Plan

Scale: 1" = 20'-0"
Date: September 26, 2017
Drawn/Checked: NAB / THH
Project No.: 15-17111
Sheet Number:

L3.1

PLANT SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	CONT	QTY	Water Use	
CHI LIN	Chilopsis linearis	Desert Willow	15 gal	19	Low	
GEI PAR	Geljera parviflora	Australian Willow	15 gal	4	Low	
GEI PA2	Geljera parviflora	Australian Willow	24" box	7	Low	
PIS KEI	Pistacia chinensis 'Keith Davey'	Keith Davey Chinese Pistache	24" box	8	Low	
QUE COC	Quercus cocinea	Scarlet Oak	24" box	5	Low	
SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	QTY	Water Use	
BAC TNI	Baccharis pilularis 'Twin Peaks #2'	Twin Peaks Coyote Brush	1 gal	89	Low	
CAL KAR	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	1 gal	137	Low	
HES BRA	Hesperaloe parviflora 'Brakelights'	Brakelights Red Yucca	1 gal	16	Low	
LAN GR	Lantana x hybridus 'Gold Rush'	Gold Rush Bush Lantana	1 gal	138	Low	
NER LIT	Nerium oleander 'Little Red'	Little Red Oleander	5 gal	37	Low	
OLE LIT	Olea europaea 'Little Olive'	Little Olive Olive	5 gal	66	Low	
ROS HUN	Rosmarinus officinalis 'Huntington Carpet'	Huntington Carpet Rosemary	1 gal	33	Low	
GROUND COVERS	BOTANICAL NAME	COMMON NAME	CONT	SPACING	QTY	Water Use
FES MAI	Festuca mairei	Atlas Fescue	1 gal	30" o.c.	1,234 sf	Low

- Non-Living Groundcover**
- Bark Mulch**: Mulch to be nitrogen stabilized, max. 3/4", recycled material installed at min. 3" depth. Contractor to provide sample for approval prior to installation. "Gorilla-Hair" is not acceptable - no edging where bark is adjacent to native soil.
 - Synthetic lawn**: Install synthetic lawn - SYNfescue 254 available from SYNlawn (www.synlawn.com) per manufacturer specifications and per detail D, sheet L4.1. Alternate material may be applied with submittals.
 - Boulders**: Varied size (30"-48") placed in loose random groups to appear as natural rock outcroppings. Boulders to be approved by Landscape Architect or City prior to installation. Install per Detail I on Sheet L4.1.
 - D.S.**: Install min. 2" layer of tan decomposed granite (D.S.) and steel edging. Contractor to submit sample to Landscape Architect and City for approval prior to installation. See Detail C, Sheet L4.1.
 - D.S. edging**: to be Dura-Edge (800-888-7425) 1/8" thick x 4" steel edging with stakes per manufacturer. Color to be brown. See Detail E, Sheet L4.1.
 - Cobble**: Install 6" layer of 4"-8" Noya River Cobble per detail K, sheet L4.1. River cobble to match the wet-set cobble per Construction Callout #4 on sheet L1.1. Backfill bottom 3/8 of cobble depth with 1/2"-1/2" match pea gravel. Edging to be Dura Edge (800-888-7425) 3/4" x 4" steel edging with stakes per manufacturer. Color to be brown. See detail E, sheet L4.1. For cobble on slope the cobble is to be placed with top of cobble 1/2"-2" above concrete sidewalk and set into slope and secured in place with edging.
 - Aggregate**: Install min. 2" layer of Tan 3/8"-1" ornamental aggregate per detail F, sheet L4.1. Top of aggregate to be 1/2" below top of adjacent concrete. Specific aggregate to be approved by Landscape Architect and/or City prior to ordering. Install between sidewalk and wall - no edging except at ends.
 - Existing lawn to remain**
 - Existing groundcover to remain**
- Planting Detail References**
For Trees, refer to Detail G, Sheet L4.1
For Shrubs, refer to Detail H, Sheet L4.1
For Groundcovers, refer to Detail I, Sheet L4.1

TREE ROOT BARRIERS

All trees denoted with the root barrier symbol are to have a linear DeepRoot Model #UB 18-2 root barriers installed during tree installation along the inside edge of the adjacent sidewalk or curb. The following number of panels are to be installed with each tree on each side as indicated by the plans per the size of tree as installed:

- 15 gallon trees: 5 panels
- 24" box trees: 6 panels

Sizes not listed above are to be installed with the quantity of panels as specified by the manufacturer.

Root Solutions RS-18 may be used as an alternate. Use the same quantities per tree sizes as listed above. (800)554-0914

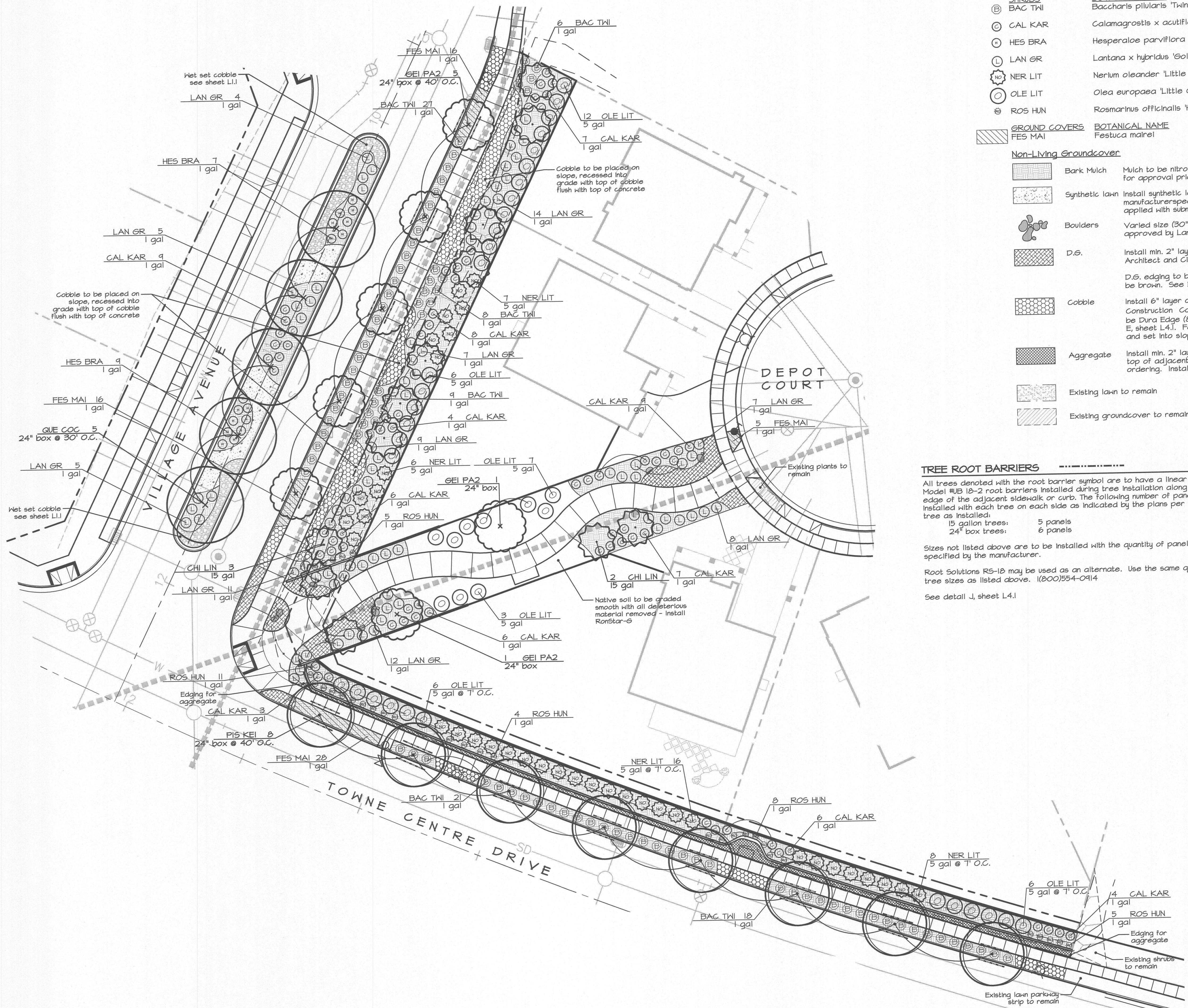
See detail J, sheet L4.1

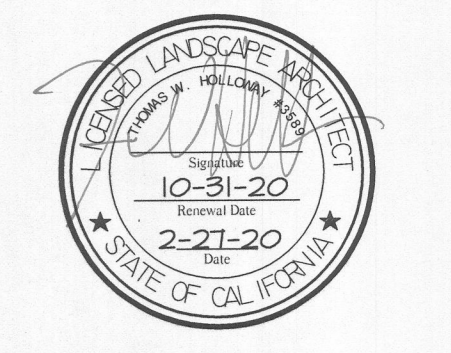
GENERAL PLANTING NOTES

- The contractor shall examine the conditions of the site prior to commencement of work. Any conditions that differ from what is shown on the plans that will affect the installation process shall be brought to the attention of the City or Land Arch. prior to work. Commencement of work implies acceptance of the conditions of the site.
- The contractor shall verify all plant quantities prior to installation. Plant quantities are listed for the convenience of the contractor; number of symbols shall have priority over quantity given.
- The contractor shall be responsible for the purchasing of all material to meet the specifications of the plans including plants, soil, fertilizer, stakes, D.S., cobble, etc. The contractor shall also be responsible for the protection of these materials until the project has been completely turned over to the City.
- All plant material shall be subject to approval or rejection by the Landscape Architect or City's Representative prior to installation. Installed and then rejected material shall be replaced by the contractor at his/her expense.
- The contractor shall include in the bid for a continued maintenance period of ninety (90) days after completion and acceptance of the project by the City's Rep.
- All trees provided in the Planting Schedule/Legend are to be installed as single "standard form" trees unless specifically otherwise noted in the Planting Schedule/Legend. "Multi-Trunk" and "Low-Branching" trees delivered to the site will not be accepted unless specifically noted to be installed as such.
- All soil preparation shall be installed per the soil agronomy report to be provided and paid for by the Landscape Contractor. The report is to be immediately forwarded to the Land Arch. upon completion. The contractor shall make the testing lab aware that amendments are to be placed in pits only for native style plant species.
- A nitrogen stabilized commercial-grade mulch with maximum 3/4" dia. chip size shall be uniformly broadcast over all shrub areas (not D.S., cobble, aggregate, synthetic lawn) to a depth as specified on the Planting Legend. See plan. Some areas of the easement will not be covered with mulch (native soil only).
- The planting pits for trees and shrubs shall be excavated per the details on the Landscape Details sheet (L4.1). Broadcast soil amendments are not specified for this project - just the planting pits. The backfill mix for use in all tree and shrub pits shall consist of the following:
 - 6 parts "on-site" soil
 - 4 parts organic amendment (nitrogen-stabilized compost with max. 1/2" dia. chip size)
 - 1 lb./yd. of mix 12-12-12 commercial fertilizer
 - 2 lbs./cu. yd. of mix Iron Sulfate
 - 10 lbs./cu. yd. of mix Agricultural Gypsum
- Fertilizer tablets shall be BEST, 21 gram fertilizer tablets (20-10-5) placed in all planting pits in quantities as follows:
 - 1 gallon: 1 tablet
 - 5 gallon: 3 tablets
 - 15 gallon: 4 tablets
 - 24"-Box: 4 tablets
 - 36"-Box: 15 tablets
- For weed control prior to planting, the Landscape Contractor shall thoroughly irrigate the site to promote germination of weed seeds that may be in the soil. After germination has taken place spray the site with Round-Up (or equal) in the amount, and let sit for the time specified by the manufacturer. Reapply Round-Up if needed. After all green weeds have been eradicated, apply Ronstar-G (or equal) Pre-Emergent weed control in the amounts specified by the manufacturer.
- All plant material to be nursery grown in similar climate. All plant material shall be vigorous and of normal habit of growth and shall be free of girdling roots, sun scald, abrasions, diseases, insects, insect eggs and larvae. Plants shall equal or exceed the standards as outlined by the American Standards for Nursery Stock and to applicable California Agriculture Code.

WATER EFFICIENT LANDSCAPE ORDINANCE

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Planting Plan

Scale: 1" = 20'-0"

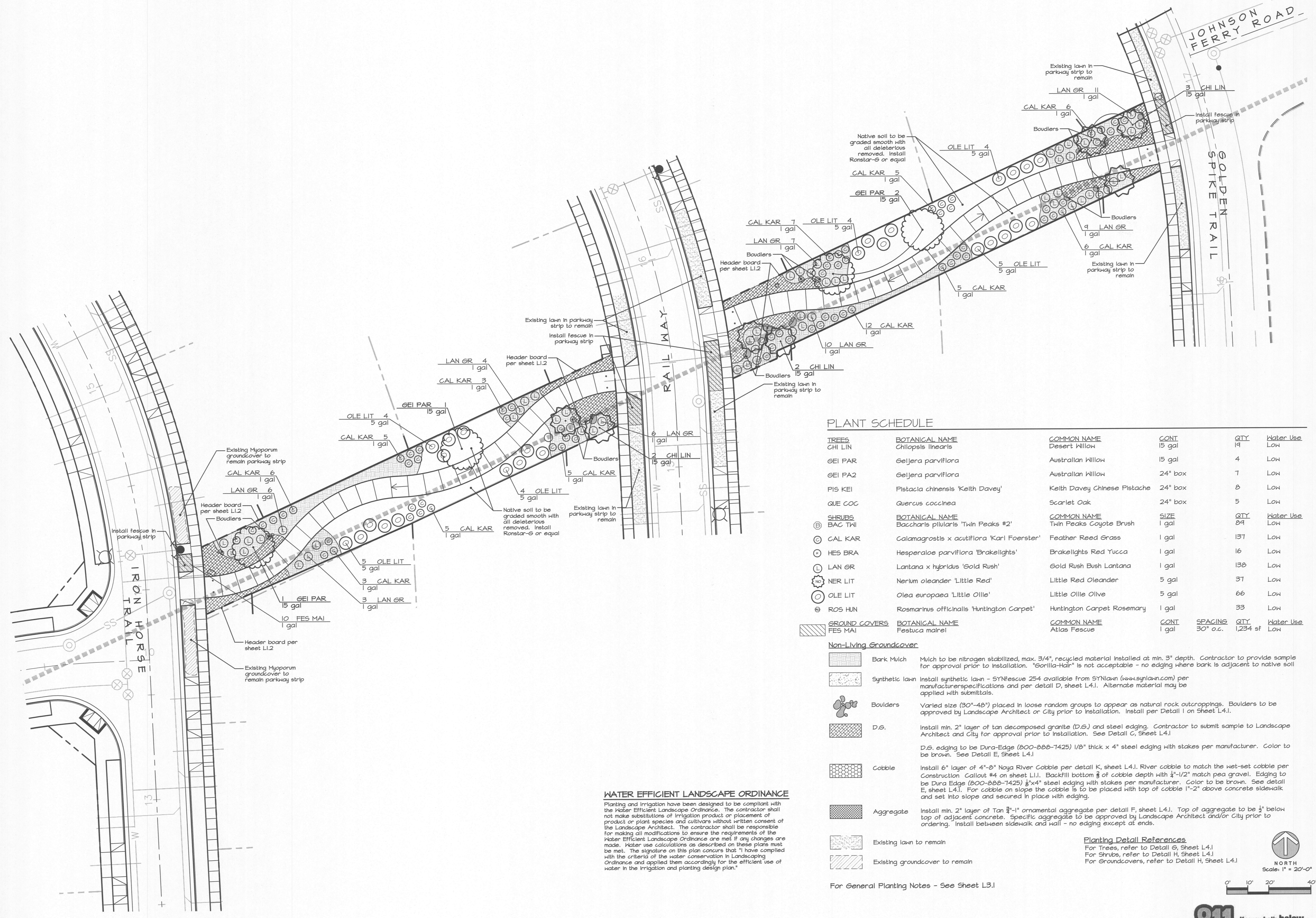
Date: September 26, 2017

Drawn/Checked: NAB / TWH

Project No.: 15-1711

Sheet Number:

L3.2



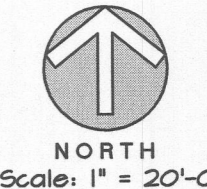
PLANT SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	CONT	QTY	Water Use	
CHI LIN	Chilopsis linearis	Desert Willow	15 gal	19	Low	
GEI PAR	Geijera parviflora	Australian Willow	15 gal	4	Low	
GEI PA2	Geijera parviflora	Australian Willow	24" box	7	Low	
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SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	QTY	Water Use	
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CAL KAR	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	1 gal	137	Low	
HES BRA	Hesperaloe parviflora 'Brakelights'	Brakelights Red Yucca	1 gal	16	Low	
LAN GR	Lantana x hybridus 'Gold Rush'	Gold Rush Bush Lantana	1 gal	138	Low	
NER LIT	Nerium oleander 'Little Red'	Little Red Oleander	5 gal	37	Low	
OLE LIT	Olea europaea 'Little Ollie'	Little Ollie Olive	5 gal	66	Low	
ROS HUN	Rosmarinus officinalis 'Huntington Carpet'	Huntington Carpet Rosemary	1 gal	33	Low	
GROUND COVERS	BOTANICAL NAME	COMMON NAME	CONT	SPACING	QTY	Water Use
FES MAI	Festuca mairei	Atlas Fescue	1 gal	30" o.c.	1,234 sf	Low

Non-Living Groundcover

- Bark Mulch** Mulch to be nitrogen stabilized, max. 3/4", recycled material installed at min. 3" depth. Contractor to provide sample for approval prior to installation. "Gorilla-Hair" is not acceptable - no edging where bank is adjacent to native soil
- Synthetic lawn** Install synthetic lawn - SYNfescue 254 available from SYNlawn (www.synlawn.com) per manufacturers specifications and per detail D, sheet L4.1. Alternate material may be applied with submittals.
- Boulders** Varied size (30"-48") placed in loose random groups to appear as natural rock outcroppings. Boulders to be approved by Landscape Architect or City prior to installation. Install per Detail I on Sheet L4.1.
- D.G.** Install min. 2" layer of tan decomposed granite (D.G.) and steel edging. Contractor to submit sample to Landscape Architect and City for approval prior to installation. See Detail C, Sheet L4.1.
D.G. edging to be Dura-Edge (800-888-7425) 1/8" thick x 4" steel edging with stakes per manufacturer. Color to be brown. See Detail E, Sheet L4.1.
- Cobble** Install 6" layer of 4"-8" Naya River Cobble per detail K, sheet L4.1. River cobble to match the wet-set cobble per Construction Callout #4 on sheet L1.1. Backfill bottom 3" of cobble depth with 1/4"-1/2" match pea gravel. Edging to be Dura Edge (800-888-7425) 1/8"x4" steel edging with stakes per manufacturer. Color to be brown. See detail E, sheet L4.1. For cobble on slope the cobble is to be placed with top of cobble 1"-2" above concrete sidewalk and set into slope and secured in place with edging.
- Aggregate** Install min. 2" layer of Tan 3/4"-1" ornamental aggregate per detail F, sheet L4.1. Top of aggregate to be 2" below top of adjacent concrete. Specific aggregate to be approved by Landscape Architect and/or City prior to ordering. Install between sidewalk and wall - no edging except at ends.
- Existing lawn to remain**
- Existing groundcover to remain**

Planting Detail References
 For Trees, refer to Detail G, Sheet L4.1
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 For Groundcovers, refer to Detail I, Sheet L4.1



Scale: 1" = 20'-0"
 0' 10' 20' 40'

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For General Planting Notes - See Sheet L3.1



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Landscape Details

Scale: See details
 Date: September 26, 2017
 Drawn/Checked: NAB / TKH
 Project No.: 15-1711
 Sheet Number:

L4.1

<p>Notes:</p> <ol style="list-style-type: none"> Boulders to be selected or approved prior to installation by Landscape Architect or owner. Boulders to be free of chips and scrapes. Boulders to be placed in or about the location shown on the plans (Planting Plan). Any additional boulder locations are to be approved by the Landscape Architect or owner prior to installation to avoid an even and/or repetitious placement, unless otherwise noted. Boulder groupings are to include several different sizes and are to be placed around each other in such a way as to appear as a natural outcrop. <p>See plan for rock type or type approved by Land. Arch. or owner. To be located with final position specified in-field by Landscape Architect.</p> <p>Finish grade</p> <p>Not to Scale 02-M1010</p>	<p>Boulder Placement</p> <p>1/4" long 10 gauge stakes per manufacturer</p> <p>Isometric View Not to Scale</p> <p>Factory installed stake loops</p> <p>Planting - see plan</p> <p>See planting plan</p> <p>Factory installed stake loops</p> <p>1/4" long 10 gauge stakes per manufacturer</p> <p>Metal edging see plan for specification</p> <p>Section Not to Scale 02-M1010</p> <p>Contractor to touch up any damaged areas with rust-resistant paint - provided by manufacturer</p>	<p>Metal Edging</p> <p>NOTE - 3 different types of headers are shown on this detail. Only install the option that is called out on the plans.</p> <p>6" wide concrete banding 1/2" bullnose on all exposed edges</p> <p>#3 rebar continuous in center of max. cuts.</p> <p>6" concrete</p> <p>Stakes Redwood header</p> <p>2x4 redwood header board nail to stakes.</p> <p>1x4 lap-screwed to header</p> <p>24" long 1x2 stakes at 48" O.C. - Double stakes where header boards join.</p> <p>2x4 Redwood or Pressure Treated</p> <p>Stakes Trex</p> <p>1x4 lap-screwed to header</p> <p>Install continuous edging along turf area. To be 2x4 Trex edging. Join and anchor per manufacturer's specifications.</p> <p>24" long 1x2 stakes at 48" O.C. - Double stakes where Trex butts together.</p> <p>Header Options Not to Scale 02-M1012</p>	<p>Header Options</p> <p>3"-4" River cobble in flat position relatively flush with top of adjacent curb.</p> <p>Cobble to be set tight with minimal concrete visible. See plan for cobble selection.</p> <p>3"-4" thick concrete slurry slab - install rock while concrete is in plastic state.</p> <p>Finish grade</p> <p>Slope 1:26</p> <p>3"-4" thick concrete slurry slab - install rock while concrete is in plastic state.</p> <p>Compacted subgrade</p> <p>Not to Scale 15-T111</p>
<p>Linear root barrier</p> <p>symbol on plans: </p> <p>NOTE: All trees denoted with the root barrier symbol are to have a linear DeepRoot Model #UB 18-2 root barriers installed during tree installation along the edge of the adjacent sidewalk or curb. The following number of panels are to be installed with each tree on each side as indicated by the plans per the size of tree as installed.</p> <p>15 gallon trees: 5 panels each hardscape side 24" box trees: 6 panels each hardscape side</p> <p>Sizes not listed above are to be installed with the quantity of panels as specified by the manufacturer.</p> <p>Root Solutions RS-18 may be used as an alternate. Use the same quantities per tree sizes as listed above. (600)554-0114</p> <p>Sidewalk or other paving.</p> <p>Root barrier to be placed directly adjacent to concrete sidewalk or curb with vertical ribs on tree side of barrier.</p> <p>Linear root barrier on all sides of the tree that are adjacent to hardscape - see plan.</p> <p>Cover rootbarrier with 1" of soil. Place rootbarrier 1" from hardscape. Hardscape per plans.</p> <p>Linear root barrier</p> <p>Engagement</p> <p>Tree planting - see tree planting and staking detail. All trees planted in lawn areas or groundcover areas that could be maintained with a line trimmer to be installed with ArborBoard available from Dimex Corporation 800-394-3716 www.asconnectedging.com</p> <p>Continuous layer of soil filter fabric between soil and aggregate. No filter fabric should be visible.</p> <p>3" layer of 3/4" angular decorative clean rock with no fines - to be approved prior to installation.</p> <p>Aggregate shall be held 1/2" below top of paving elevation.</p> <p>Curb and/or paving see plan</p> <p>Finish grade</p> <p>Install edging continuous along cobble area. See plan for selection of edging. If not specified install 1/2" wide by 4" deep steel edging (contractor to provide substantial, or equal, with steel anchoring stakes at 36" O.C. join and anchor per manufacturer's specifications).</p> <p>Edging at planter only and not adjacent to curb or concrete</p> <p>Staking per edging manufacturer or per edging detail</p> <p>Decorative aggregate to be recessed into grade so that top of aggregate is relatively flush with grade</p> <p>Not to Scale 02-M1008</p>	<p>Trunk Protection and Linear Root Barrier</p> <p>When required, all trees planted in turf areas to be installed with ArborBoard available from Dimex Corporation 800-394-3716 www.asconnectedging.com</p> <p>Top of Root Ball to be 2" above finish grade</p> <p>Keep mulch 6" from trunk. Mulch per planting notes. Mulch in 36" dia. circle when planted in turf.</p> <p>Finish grade</p> <p>Tree stakes to be placed to protect the tree from cars etc. first, and perpendicular to prevailing wind, second, Remove stakes within the year or after the tree can stand on its own.</p> <p>Earth mound when not located in turf. Maintain level grade when in turf. Hold turf 18" from trunk.</p> <p>Planting tablets to be evenly distributed in backfill. See general planting notes for quantity.</p> <p>Original rootball. Loosen rootball to butterfly over planting mound. Do not cut or shape rootball.</p> <p>Prepared backfill mix. Hand press only to compact. See general Planting Notes and soil test recommendations.</p> <p>Planting pit for all trees to be twice the width of root ball. Scarify edges of pit.</p> <p>Not to Scale 02-M1000</p>	<p>Decorative Aggregate with Edging</p> <p>6" thick layer of river cobble (see plan for diameter) - cobble to be approved prior to installation.</p> <p>Cobble shall be allowed to extend 1" above top of paving elevation.</p> <p>Top of curb and/or sidewalk, V.I.F.</p> <p>Edging at planter only and not adjacent to curb or concrete.</p> <p>Backfill bottom 1/3 of cobble with 3/4"-1/2" pea gravel to match the river cobble</p> <p>Cobbles to be recessed into grade so that top of cobble is relatively flush with grade</p> <p>Not to Scale 15-T111 river-cobble.dwg</p>	<p>Net-set Cobble</p> <p>2"-3" layer of tan decomposed granite with smooth continuous finish. Contractor to submit sample to Landscape Architect and/or owner for approval.</p> <p>Install steel edging with stakes per detail this sheet. See planting plan for edging product. If not specified on plan install Glenite Duratex Permaloc #1 thick by 4" deep 10 gauge steel edging with min. 1/2" long stakes installed per manufacturer's specifications. Contractor to submit sample for approval.</p> <p>Decomposed granite (D.G.) shall be held 1/2" below top of curb elevation</p> <p>Curb and asphalt paving or sidewalk per civil. See plan for layout</p> <p>See plan for layout</p> <p>Finish grade</p> <p>D.G. to be recessed into grade so that top of D.G. is relatively flush with grade</p> <p>Edging at planter only and not adjacent to curb or concrete</p> <p>No soil fabric</p> <p>Not to Scale 02-M1008</p>
<p>Cobble with Edging</p> <p>6" thick layer of river cobble (see plan for diameter) - cobble to be approved prior to installation.</p> <p>Cobble shall be allowed to extend 1" above top of paving elevation.</p> <p>Top of curb and/or sidewalk, V.I.F.</p> <p>Edging at planter only and not adjacent to curb or concrete.</p> <p>Backfill bottom 1/3 of cobble with 3/4"-1/2" pea gravel to match the river cobble</p> <p>Cobbles to be recessed into grade so that top of cobble is relatively flush with grade</p> <p>Not to Scale 15-T111 river-cobble.dwg</p>	<p>Broadleaf Tree Planting and Staking</p> <p>When required, all trees planted in turf areas to be installed with ArborBoard available from Dimex Corporation 800-394-3716 www.asconnectedging.com</p> <p>Top of Root Ball to be 2" above finish grade</p> <p>Keep mulch 6" from trunk. Mulch per planting notes. Mulch in 36" dia. circle when planted in turf.</p> <p>Finish grade</p> <p>Tree stakes to be placed to protect the tree from cars etc. first, and perpendicular to prevailing wind, second, Remove stakes within the year or after the tree can stand on its own.</p> <p>Earth mound when not located in turf. Maintain level grade when in turf. Hold turf 18" from trunk.</p> <p>Planting tablets to be evenly distributed in backfill. See general planting notes for quantity.</p> <p>Original rootball. Loosen rootball to butterfly over planting mound. Do not cut or shape rootball.</p> <p>Prepared backfill mix. Hand press only to compact. See general Planting Notes and soil test recommendations.</p> <p>Planting pit for all trees to be twice the width of root ball. Scarify edges of pit.</p> <p>Not to Scale 02-M1000</p>	<p>Broadleaf Tree Planting and Staking</p> <p>When required, all trees planted in turf areas to be installed with ArborBoard available from Dimex Corporation 800-394-3716 www.asconnectedging.com</p> <p>Top of Root Ball to be 2" above finish grade</p> <p>Keep mulch 6" from trunk. Mulch per planting notes. Mulch in 36" dia. circle when planted in turf.</p> <p>Finish grade</p> <p>Tree stakes to be placed to protect the tree from cars etc. first, and perpendicular to prevailing wind, second, Remove stakes within the year or after the tree can stand on its own.</p> <p>Earth mound when not located in turf. Maintain level grade when in turf. Hold turf 18" from trunk.</p> <p>Planting tablets to be evenly distributed in backfill. See general planting notes for quantity.</p> <p>Original rootball. Loosen rootball to butterfly over planting mound. Do not cut or shape rootball.</p> <p>Prepared backfill mix. Hand press only to compact. See general Planting Notes and soil test recommendations.</p> <p>Planting pit for all trees to be twice the width of root ball. Scarify edges of pit.</p> <p>Not to Scale 02-M1000</p>	<p>Decomposed Granite with Edging</p> <p>2"-3" layer of tan decomposed granite with smooth continuous finish. Contractor to submit sample to Landscape Architect and/or owner for approval.</p> <p>Install steel edging with stakes per detail this sheet. See planting plan for edging product. If not specified on plan install Glenite Duratex Permaloc #1 thick by 4" deep 10 gauge steel edging with min. 1/2" long stakes installed per manufacturer's specifications. Contractor to submit sample for approval.</p> <p>Decomposed granite (D.G.) shall be held 1/2" below top of curb elevation</p> <p>Curb and asphalt paving or sidewalk per civil. See plan for layout</p> <p>See plan for layout</p> <p>Finish grade</p> <p>D.G. to be recessed into grade so that top of D.G. is relatively flush with grade</p> <p>Edging at planter only and not adjacent to curb or concrete</p> <p>No soil fabric</p> <p>Not to Scale 02-M1008</p>
<p>Synthetic Lawn</p> <p>1x6 composite wood perimeter and seam board nailed into soil with 12" nails at 12" O.C.</p> <p>Finish grade with mulch on top</p> <p>Edging only if specifically called out in plans - see plans for selection</p> <p>Compacted 3" layer of aggregate base - class 2 road base, 1/4" minus with fines mixed in</p> <p>Natural soil subgrade - not compacted beyond native soil</p> <p>Synthetic lawn with weed barrier backing system</p> <p>Staple or nail turf to composite nailer board at perimeter and seams</p> <p>Concrete paving per plan</p> <p>1x6 composite wood perimeter and seam board nailed into soil with 12" nails at 12" O.C.</p> <p>Aggregate</p> <p>Composite wood joint fasteners</p> <p>Staple/ nail turf into composite nailer board at seams and perimeter</p> <p>Aggregate</p> <p>Composite wood joint fasteners</p> <p>Notes: The grass must be installed and seamed with adjacent pieces running in the same direction. Seams should be glued with suitable seaming glue and seaming cloth. Specifications: 15' wide roll with 40 gallons per hour per square yard drain rate. Notes: 1. Installation to be completed in accordance with specifications by factory authorized installers. 2. Do not scale drawings. 3. Contractor's notes for product and company information visit www.caddetails.com/info reference number 1431-153. 4. Synthetic turf area to be graded smooth per the civil plans or the landscape plans. Contractor to obtain approval of the grading prior to installation of synthetic lawn.</p> <p>Composite Nailer Board Plan View Not to Scale 02-M1015</p>	<p>Shrub Planting</p> <p>Set root crown 2" above surrounding finish grade.</p> <p>Bark mulch.</p> <p>Temporary earth berm through end of maintenance period where drip is used.</p> <p>Shrub rootball.</p> <p>Backfill: organic amendment as required in soils report; fertilizer per soils report. Install backfill in 6" lifts, water to settle.</p> <p>Planting tablets to be evenly distributed in backfill. See general planting notes for quantity.</p> <p>Scarify pit bottom and sides.</p> <p>Rootball width</p> <p>2 x Rootball Width</p> <p>Not to Scale 02-M1004</p>	<p>Shrub Planting</p> <p>Set root crown 2" above surrounding finish grade.</p> <p>Bark mulch.</p> <p>Temporary earth berm through end of maintenance period where drip is used.</p> <p>Shrub rootball.</p> <p>Backfill: organic amendment as required in soils report; fertilizer per soils report. Install backfill in 6" lifts, water to settle.</p> <p>Planting tablets to be evenly distributed in backfill. See general planting notes for quantity.</p> <p>Scarify pit bottom and sides.</p> <p>Rootball width</p> <p>2 x Rootball Width</p> <p>Not to Scale 02-M1004</p>	<p>Synthetic Lawn</p> <p>1x6 composite wood perimeter and seam board nailed into soil with 12" nails at 12" O.C.</p> <p>Finish grade with mulch on top</p> <p>Edging only if specifically called out in plans - see plans for selection</p> <p>Compacted 3" layer of aggregate base - class 2 road base, 1/4" minus with fines mixed in</p> <p>Natural soil subgrade - not compacted beyond native soil</p> <p>Synthetic lawn with weed barrier backing system</p> <p>Staple or nail turf to composite nailer board at perimeter and seams</p> <p>Concrete paving per plan</p> <p>1x6 composite wood perimeter and seam board nailed into soil with 12" nails at 12" O.C.</p> <p>Aggregate</p> <p>Composite wood joint fasteners</p> <p>Staple/ nail turf into composite nailer board at seams and perimeter</p> <p>Aggregate</p> <p>Composite wood joint fasteners</p> <p>Notes: The grass must be installed and seamed with adjacent pieces running in the same direction. Seams should be glued with suitable seaming glue and seaming cloth. Specifications: 15' wide roll with 40 gallons per hour per square yard drain rate. Notes: 1. Installation to be completed in accordance with specifications by factory authorized installers. 2. Do not scale drawings. 3. Contractor's notes for product and company information visit www.caddetails.com/info reference number 1431-153. 4. Synthetic turf area to be graded smooth per the civil plans or the landscape plans. Contractor to obtain approval of the grading prior to installation of synthetic lawn.</p> <p>Composite Nailer Board Plan View Not to Scale 02-M1015</p>



Revisions

Date	By
10-31-20	
2-21-20	

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Mossdale Landing Tract 3410
Village Ave., Towne Centre Drive, and Easement Lathrop, CA

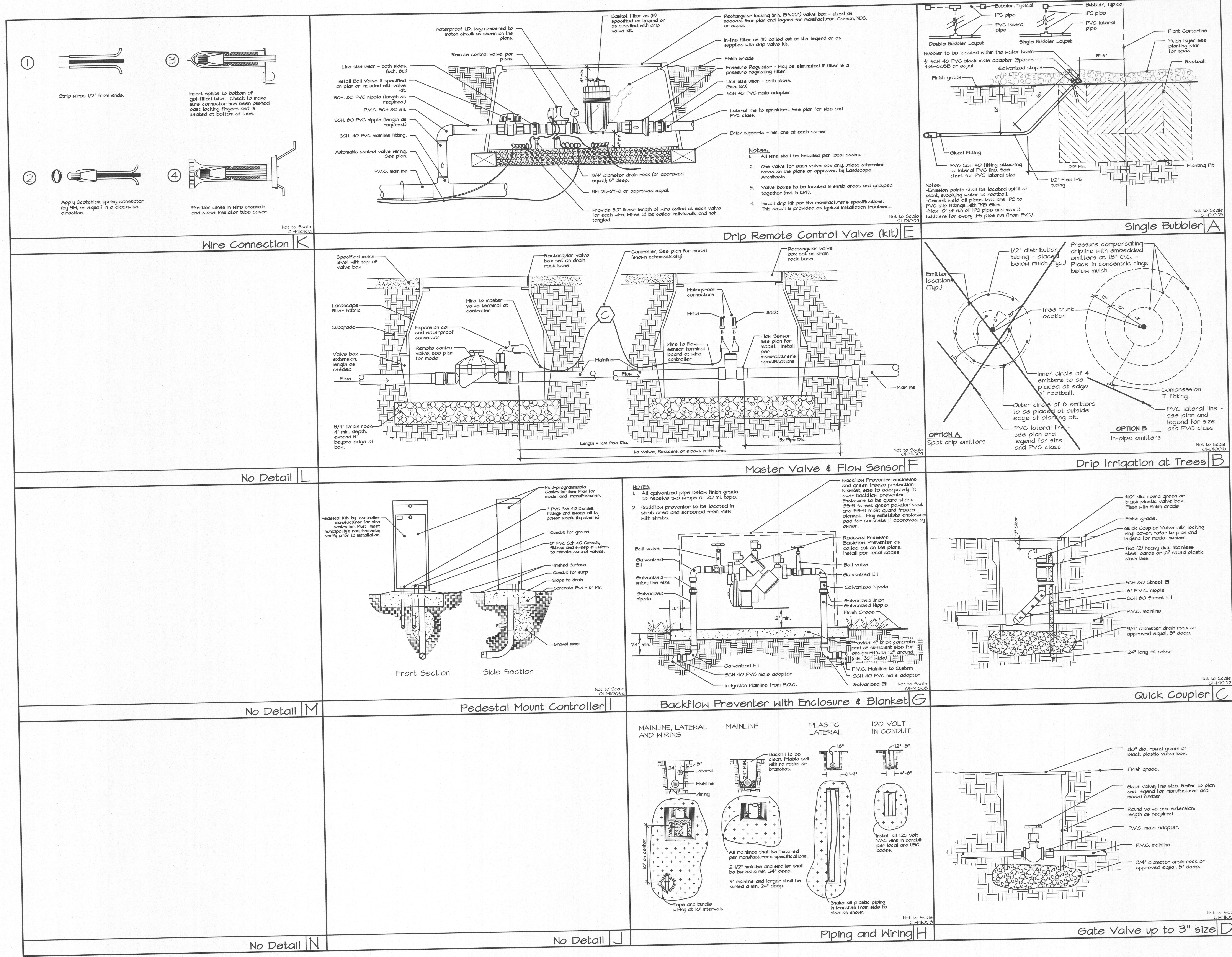
City of Lathrop, Public Works
390 Towne Centre Dr. Lathrop, CA 95330
209-941-7430
209-941-7449 Fax

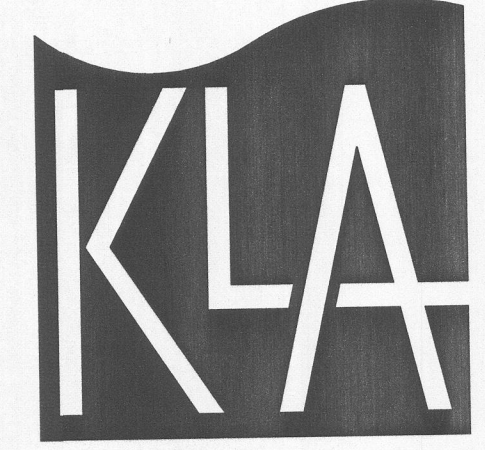
The original size of this drawing is 24" x 36". If the plan is different size than 24x36 do not scale off of the drawing.

Landscape Details

Scale: See details
Date: September 26, 2017
Drawn/Checked: NAB / TWH
Project No.: 15-111
Sheet Number: L4.2

L4.2





KLA LANDSCAPE ARCHITECTURE PLANNING

www.kla-ca.com
151 N. Norlin St., Sonoma, CA 95370
(209)532-2856 (209)532-9510 fax



Revisions table with columns: Revisions, Date, Modification, By

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Mossdale Landing Tract 3410
Village Ave., Towne Centre Drive, and Easement Lathrop, CA

City of Lathrop, Public Works
390 Towne Centre Dr. Lathrop, CA 95330
209-941-7430
209-941-7449 Fax

The original size of this drawing is 24" x 36". If the plan is a different size than 24x36 do not scale off the drawing.

WELO Calculations and Notes

Scale:
Date: September 26, 2017
Drawn/Checked: NAB / TWH
Project No.: IS-1711
Sheet Number:

L4.3

Hydrozone Table and ETWU - A

Annual ETO for Lathrop - 51.2

Ornamental Landscape

Table with columns: Hydro-zone, Valves, Planting Type, Water Use, Plant Factor, Hydrozone Area (square feet), ETAF, ETAF x Area (square feet), Type of Irrigation, Irrig. eff., ETWU

Summary table for Ornamental Landscape: Total Ornamental, 15,912 sf, 4,561, 144,799.7 gal.

Landscape Area - Ornamental Landscape 15,912 sf
ETAF x Area - Ornamental Landscape 4,561 sf
Ornamental Landscape Irrigation Efficiency 0.81 efficient
Estimated Total Water Usage (ETWU) - No SLA 144,799.7 gallons
Maximum Applied Water Allowance (MAWA) 227,299.7 gallons

MAWA = (ET0)(.62)((.45xLA)+(55xSLA))
MAWA = 51.2 * .62 *((.45 x 15912)+(55x??))
MAWA = 31.7 *(160.4)
MAWA = 227,299.7

ETWU is less than MAWA - System meets Water Efficient Landscape Ordinance

Hydrozone Table and ETWU - B

Annual ETO for Lathrop - 51.2

Ornamental Landscape

Table with columns: Hydro-zone, Valves, Planting Type, Water Use, Plant Factor, Hydrozone Area (square feet), ETAF, ETAF x Area (square feet), Type of Irrigation, Irrig. eff., ETWU

Summary table for Ornamental Landscape: Total Ornamental, 6,620 sf, 1,668.6, 52,965.5 gal.

Landscape Area - Ornamental Landscape 6,620 sf
ETAF x Area - Ornamental Landscape 1,668.6 sf
Ornamental Landscape Irrigation Efficiency 0.81 efficient
Estimated Total Water Usage (ETWU) - No SLA 52,965.5 gallons
Maximum Applied Water Allowance (MAWA) 94,565.4 gallons

MAWA = (ET0)(.62)((.45xLA)+(55xSLA))
MAWA = 51.2 * .62 *((.45 x 6620)+(55x??))
MAWA = 31.7 *(2419.0)
MAWA = 94,565.4

ETWU is less than MAWA - System meets Water Efficient Landscape Ordinance

Irrigation Valve Table

Table with columns: Valve #, Hydro-zone, Size, Planting Type, Irrigation Type, Irrig. eff., Precip. Rate, GPM, Pressure

Establishment Period Irrigation Schedule

This schedule is based on providing irrigation to keep the soil extra moist as needed to promote root growth for plant establishment. Specific microclimate conditions and observed water needs, soil, slope, sun exposure, etc. will require adjustment of this schedule in the field to meet the unique needs of each circuit. Controller is to be connected to weather sensor and will adjust schedule (run times) automatically after the optimal schedule has been set.

Table with columns: Hydrozone, Circuits, Plant Material, Winter (Nov, Dec, Jan, Feb, March), Spring/Fall (Apr, May, Oct), Summer (Jun, July, Aug, Sept)

Established Landscape Irrigation Schedule

This schedule is based on typical seasonal weather conditions. Specific microclimate conditions and observed water needs, soil, slope, sun exposure, etc. will require adjustment of this schedule in the field to meet the unique needs of each circuit. Controller is to be connected to weather sensor and will adjust schedule (run times) automatically after the optimal schedule has been set.

Table with columns: Hydrozone, Circuits, Plant Material, Winter (Nov, Dec, Jan, Feb, March), Spring/Fall (Apr, May, Oct), Summer (Jun, July, Aug, Sept)

Irrigation Schedule

- 1. See the Irrigation base schedule as included with the irrigation plans and notes. This is a guide - The landscape contractor may need to make modifications based on actual site and landscape conditions. Revised schedule shall be submitted with the Certificate of Completion.
2. Overhead irrigation shall be scheduled between 8:00PM and 10:00AM unless otherwise noted on the plans or more strict watering hours are required by the local jurisdiction.
3. The irrigation run times, length of run, and frequency of run times may need to be adjusted based on infiltration rate of the soil, slope, etc. to avoid run-off.
4. The specific parameters of the site conditions are to be input into the 'smart' controller.

Irrigation Audit

- 1. All irrigation audits shall be conducted by a certified landscape irrigation auditor or local agency landscape irrigation auditor.
2. The irrigation system shall be audited after it has been installed and 'fine-tuned'. The audit report is to be included with the Certificate of Completion and shall include, but not be limited to:
- System test for distribution uniformity.
- Recommendations for any adjustments that may be needed.
- Preparation of an irrigation schedule.
3. The contractor shall make the adjustments as recommended in the irrigation audit.

Certificate of Completion

- 1. The contractor shall provide to the governing jurisdiction and the landscape architect a Certificate of Completion that at a minimum includes the following:
- Date of completion and date of the Certificate.
- Project Name and Address (or specific location).
- Project Applicant name, telephone number, and mailing address.
- Property owner name, telephone number, and mailing address.
2. The landscape contractor shall sign a statement that says the landscape and irrigation has been installed per the approved Landscape Document Package (plans, details, notes, calculations as contained within this plan set.
3. If there have been modifications to the layout and/or design of the landscape and irrigation, the contractor shall include with the Certificate of Completion a set of as-built plans or record drawings that reflect the modifications. The modified landscape and irrigation must remain in compliance with the WELO.
4. The Certificate of Completion shall include the initial irrigation audit that shows the irrigation is in compliance with the irrigation efficiency requirements of WELO (see audit information within this set of notes). The soil analysis report and recommendations and verification that the recommendations have been implemented shall also be submitted, if not included with the Landscape Documentation Package.

MAINTENANCE SCHEDULE

A regular maintenance schedule shall be set up for this project to provide for the health and growth of the plant material as well as the efficiency of the irrigation system. The following is a minimum list of items that are to be addressed and maintained on a regular basis.

- 1. The irrigation system shall be maintained on a regular basis to ensure efficiency. All heads, valves, and other equipment shall be checked and adjusted to avoid overspray. All leaks are to be repaired as soon as possible. Replaced and repaired irrigation equipment is to be done with originally specified equipment or equipment with matching precipitation rates.
2. Irrigation emission devices are to be checked and repaired as needed to ensure minimal overspray, no leaks, and efficient operation. Drip emission devices (emitters) may need to be adjusted as the planting matures and the water needs change. Emitters are to be reviewed annually (at a minimum) with replacements provided for plants that may be getting too much or too little water.
3. The controller is to be checked and adjusted as needed to ensure there is minimal run-off while meeting the water requirements of the plants.
4. Shrubs and trees are to be pruned to maintain form and remove dead or dying branches. Trees are to be pruned for form and safety and suckering is to be removed on a regular basis.
5. A regular program of weed and pest control is to be established and followed. Pesticides and herbicides are to be applied only when needed and by a state licensed professional.
6. Bark mulch is to be reapplied as needed to ensure full coverage to maintain water retention in the soil and deter weed growth - see plan for depth of mulch.

WATER EFFICIENT LANDSCAPE ORDINANCE

Planting and irrigation have been designed to be compliant with the Water Efficient Landscape Ordinance. The contractor shall not make substitutions of irrigation product or placement of product or plant species and cultivars without written consent of the Landscape Architect. The contractor shall be responsible for making all modifications to ensure the requirements of the Water Efficient Landscape Ordinance are met if any changes are made. Water use calculations as described on these plans must be met. The signature on this plan concurs that I have complied with the criteria of the water conservation in Landscaping Ordinance and applied them accordingly for the efficient use of water in the irrigation and planting design plan.

Water Efficient Landscape Ordinance (WELO) Notes:

- 1. These plans have been prepared to be in compliance with the State-mandated Water Efficient Landscape Ordinance (WELO), which went into effect on December 1, 2015. The following notes reference the requirements of the ordinance and the responsibility of the contractor to install the landscape per the plans, details, and notes; provide the required documentation to the local agency; and provide follow-up correction as required to meet the water efficiency requirements.
2. The landscape contractor shall coordinate with the local jurisdiction to determine who will review and receive the WELO documentation that is required to be provided by the contractor.

Landscape Documentation Package

- 1. Project information and signatures - The signature of the landscape architect on these landscape plans is applicable to the statement - "I agree to the best of my ability to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Document Package".
2. Water Efficient Landscape Worksheet - See MAWA and ETWU, as well as hydrozone information table on this sheet.
3. Soil management report - See Notes requirements as described below.
4. Landscape Design Plan - See Planting Plans and Details contained within this set of documents.
5. Irrigation Design Plan - See Irrigation Plans and Details contained within this set of documents.
6. Grading Design Plan - To be provided by the civil engineer - See civil engineer's plans.

Soil Management Report

- 1. After mass grading the contractor shall provide for a soil analysis that shall comply with the requirements provided below. The analysis report is to be forwarded to the landscape architect, owner, and governing jurisdiction.
2. Soil samples shall be collected in accordance with laboratory protocol including adequate sampling depth.
3. At least one sample shall be provided for each 20,000 sf of landscape unless otherwise noted by the landscape architect. Samples shall be taken from different areas of the site as directed by the landscape architect. For multiple landscape installations (i.e. production home developments) a soil sampling rate of 1 in 7 lots or approximately 15%. Large landscape projects shall sample at a rate equivalent to 1 in 7 lots.
4. The Soil Analysis shall include the following:
- Soil texture
- Infiltration Rate (determined by lab test or soil texture infiltration rate table).
- pH
- Total soluble salts
- Sodium
- Percent organic matter
- Recommendations for soil amendments, fertilizer, etc. for the type of landscape planting proposed.
5. Soil Analysis shall be conducted by an approved soil testing lab. The following are acceptable (but not required) labs:
Sunland Analytical, 11414 Sunrise Gold Circle, Suite 10, Rancho Cordova, CA 95742, (916)852-8557, www.sunland-analytical.com
Soil and Plant Lab, 1101 S. Winchester Blvd., Suite 6-173, San Jose, CA 95128, (408)121-0330, www.soilandplantlaboratory.com
Soil and Plant Lab, 4741 East Hunter Ave., Suite A, Anaheim, CA 92807, (714)282-8771, www.soilandplantlaboratory.com.
6. The recommendations of the soil analysis are to be implemented in the landscape soil preparation. The contractor shall provide documentation, prior to planting, verifying that recommendations have been implemented to the landscape architect and the governing jurisdiction.

Landscape Design (Planting)

- 1. The landscape has been designed and plants selected to be compliant with the requirements of the WELO. The contractor shall not make changes without written approval by the landscape architect. If the contractor deviates from the plan and it is not acceptable to the landscape architect, the contractor will be required to make changes at his/her expense to bring the landscape into compliance.
2. Plants have been placed in hydrozones of similar water use requirements. The extent of the hydrozones are delineated by the groups of irrigation circuits as listed in the Hydrozone Table, included with these plans.
3. Turf is not allowed on slopes greater than 25% (4:1).
4. Mulch is required in all planting area except for turf, creeping or rooting groundcovers, direct seeding applications, cobble areas, or other areas specifically noted on the plans. The mulch shall be a minimum of 3", but the depth as listed in the planting legend shall take priority.
5. Stabilizing mulches shall be used on all slopes exceeding 4:1. See plan or coordinate with landscape architect.
6. Soil amendments shall be incorporated per the soil report. Compost must be applied at a rate of 4 yards per 1,000 square feet of permeable area. Compacted soils must be transformed to a friable condition.
7. The signature on the landscape plans is applicable to the statement - "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plan."

Irrigation Design

- 1. The irrigation water service shall be on a separate meter or submeter than the domestic service, this is required for residential landscapes over 5,000 square feet and non-residential landscapes over 1,000 square feet.
2. The irrigation controller (clock) shall be a "smart" controller using evapotranspiration or soil moisture sensor data to automatically adjust run times based on landscape area water needs.
3. The irrigation system has been designed for each emission device to operate within the manufacturer's recommended pressure range for optimal performance. If the water pressure at the service connection is different than what is shown on the plans the contractor shall notify the landscape architect prior to installation of the irrigation system. Contractor shall check available water pressure before any irrigation installation. Pressure regulation is required to ensure correct and efficient operation. Pressure regulators or booster pumps shall be installed if needed to modify available pressure for the optimal performance of the irrigation emission devices. All emission devices must meet the American National Standards Institute Standard. See specifications on the plans and refer to note #3 above.
4. A rain sensor shall be installed and tied to the controller - See plan for selection. Gate valves shall be installed directly downstream of the service connection(s).
5. An approved backflow preventer shall be installed at the irrigation service connection. See plan.
6. Check valves shall be installed in all heads at the low points of a circuit where water within the piping may drain out of the head when the system is done operating - See plan.
7. Flow sensors shall be installed to detect and report high flow conditions for landscape areas greater than 5,000 square feet.
8. Master Valves shall be installed to prevent water waste in the event of breakage or vandalism to the irrigation system, except where sprinklers can be individually controlled.
9. The irrigation circuits have been designed to correspond to the planting hydrozones. Changes to the irrigation layout and types of emission devices are not to be made without the written consent of the landscape architect.
10. The overall irrigation system has been designed to be a minimum of 75% efficient. Total water demand of established landscape has been designed to use less water than the Maximum Applied Water Allowance (MAWA). See Irrigation Schedule and Irrigation Water Audit Notes.
11. The irrigation system has been designed so that each circuit has matched precipitation rates within the circuit and high distribution uniformity. The contractor shall not substitute without written consent of the landscape architect.
12. Swing joints shall be installed on all pop-up heads per the plans and details.
13. Areas less than 10' in width have been irrigated with subsurface, drip, or low volume irrigation. If construction site modifications reduce spray irrigated planter areas less than 10' contact the landscape architect.
14. Overhead spray irrigation heads and nozzles are not allowed within 24" of non-permeable paving. This requirement does not apply to irrigation that is adjacent to permeable paving or non-permeable paving that drains into landscape before entering the storm drain system.
15. Sloped planting areas greater than 25% (4:1) have been designed with irrigation whose precipitation rate does not exceed .75"/hour, or another means has been employed and described on the plans.
16. Trees may be designed with a separate deep root bubbler system - See the plans.
17. The signature on the irrigation plans is applicable to the statement - "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan."

Grading Design

- 1. See the grading and drainage plan as prepared by the civil engineer. The landscape contractor shall maintain the drainage patterns as specified in the grading plans.
2. The site has been graded so that irrigation and normal run-off remains within the property lines, unless otherwise noted on the grading plans.
3. The landscape areas may include bioswales or filtration swales. The landscape contractor shall install these per the requirements of the civil engineer's plans and details with the planting per these plans. Any modifications must be approved in writing by the civil engineer and the landscape architect.