

CITY OF CUPERTINO

McCLELLAN RANCH

PEDESTRIAN, PARKING, AND LANDSCAPE IMPROVEMENTS



CUPERTINO

PROJECT NO. 2015-01

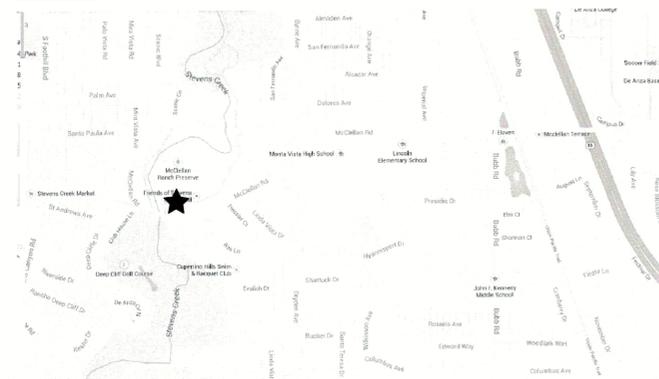
McCLELLAN RANCH
22221 McCLELLAN ROAD
CUPERTINO, CA 95014

PROJECT TEAM

LANDSCAPE ARCHITECT:
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225 MILLER AVENUE
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CIVIL ENGINEER:
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KEY MAP



LIST OF DRAWINGS

| | |
|------|--|
| L1.0 | NOTES AND LEGENDS |
| L1.1 | NOTES AND LEGENDS |
| C1.0 | CIVIL DEMOLITION PLAN |
| C1.1 | EROSION CONTROL PLAN |
| L1.2 | DEMOLITION PLAN |
| L1.3 | DEMOLITION PLAN |
| L1.4 | LIMIT OF WORK PLAN |
| L1.5 | WORK SEQUENCE PLAN - PHASE 1 AND 2 |
| L1.6 | WORK SEQUENCE PLAN - PHASE 3 AND 4 |
| C2.0 | CIVIL GRADING PLAN |
| L2.0 | LANDSCAPE CONSTRUCTION AND LAYOUT PLAN |
| L2.1 | LANDSCAPE CONSTRUCTION AND LAYOUT PLAN |
| L3.0 | FINE GRADING PLAN |
| L3.1 | FINE GRADING PLAN |
| L4.0 | PLANTING PLAN |
| L4.1 | PLANTING PLAN |
| L5.0 | IRRIGATION PLAN |
| L5.1 | IRRIGATION PLAN |
| C3.0 | CIVIL DETAILS |
| L6.0 | LANDSCAPE CONSTRUCTION DETAILS |
| L6.1 | LANDSCAPE CONSTRUCTION DETAILS |
| L6.2 | LANDSCAPE CONSTRUCTION DETAILS |
| L6.3 | PLANTING DETAILS |
| L6.4 | IRRIGATION DETAILS |
| L6.5 | IRRIGATION DETAILS |
| - | CONSTRUCTION BEST MANAGEMENT PRACTICES |



Reviewed By:

Carmen Lynaugh
Carmen Lynaugh
Public Works Project Manager



Approved By:

Timm Borden
Timm Borden, RLE #45512
Director of Public Works

File Name: S:\Active Job Files\Cupertino McClellan Ranch 14052A\CAD\CIDR\HAA\Phase 2\Plot\1.0 Notes and Legends.dwg Plotted By: MEGAN DALE Date Plotted: 6/3/2015 2:24 PM

LAYOUT LEGEND

| | |
|---|--------------------------------------|
| S.A.D. | SEE ARCHITECTURAL DRAWINGS |
| S.C.D. | SEE CIVIL ENGINEER DRAWINGS |
| S.S.D. | SEE STRUCTURAL ENGINEER DRAWINGS |
| ☒ | CENTER LINE |
|  | ALIGN |
|  | SJ / SCORE JOINT, SEE SPECIFICATIONS |
| EJ | EXPANSION JOINT, SEE SPECIFICATIONS |
|  | DETAIL NUMBER |
|  | SHEET NUMBER |
| EQ | EQUAL |
| (E) | EXISTING |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| OC | ON CENTER |
| QTY | QUANTITY |
| TYP | TYPICAL |
|  | TREE PRESERVATION FENCING |
|  | PEDESTRIAN CONCRETE |
|  | VEHICULAR CONCRETE - PHASE 2 |

GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE UNIFORM BUILDING CODE, CALTRANS STANDARDS, CAL-OSHA, SANTA CLARA COUNTY AND STATE REQUIREMENTS, THE GOVERNING BUILDING AUTHORITY AND ANY SPECIAL REQUIREMENTS OF THE BUILDING PERMIT. ALL CODES, STANDARDS AND SPECIFICATIONS SHALL BE AS AMENDED TO DATE. ANY VIOLATION WILL RESULT IN STOPPING OF ALL WORK UNTIL THE VIOLATION IS CORRECTED.
- THE DRAWINGS AND SPECIFICATIONS DESCRIBE IN GENERAL THE QUALITY AND CHARACTER OF THE MATERIALS, SHAPE AND CONFIGURATION OF IMPROVEMENTS AND THE DESIGN INTENT OF THE COMPLETED, INSTALLED WORK. MISCELLANEOUS ITEMS OF WORK, MATERIAL, EQUIPMENT, ETC., NECESSARY TO COMPLETE THE INSTALLATION SHALL BE PROVIDED BY THE CONTRACTOR WHETHER OR NOT MENTIONED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS SPECIFIED IN THE SOILS INVESTIGATION REPORT PREPARED BY COTTON, SHIRES AND ASSOCIATES, INC. DATED MAY 2013.
- CONTRACTOR SHALL PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER. BARRICADES, SIGNS, LIGHTS, ETC., REQUIRED FOR THE PROTECTION OF PUBLIC, PERSONNEL, PROPERTY AND MATERIAL SHALL BE PROVIDED FOR AND MAINTAINED DURING CONSTRUCTION BY THE CONTRACTOR, AND SHALL CONFORM TO ALL GOVERNING CODES, ORDINANCES AND REGULATIONS. THE CONTRACTOR SHALL EMPLOY ALL MEANS NECESSARY TO CONTROL DUST AT AND NEAR THE SITE OF WORK AND ALONG APPROACH ROUTES TO THE CONSTRUCTION SITE.
- CONTRACTOR SHALL PROVIDE ALL TOOLS, TRANSPORTATION, UTILITIES, TEMPORARY FACILITIES, AND OTHER SERVICES AS NECESSARY FOR PROPER EXECUTION OF THE WORK, AND SHALL ASSUME FULL RESPONSIBILITY FOR PROTECTION AND SAFEKEEPING OF THESE ELEMENTS DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR DESIGNATION OF THE MATERIAL STORAGE AREA AT THE JOB SITE.
- CONTRACTOR SHALL MAINTAIN "GOOD HOUSEKEEPING" PRACTICES AT THE JOB SITE. EXCESS BUILDING MATERIALS AND DEBRIS SHALL BE REMOVED PROMPTLY FROM THE JOB SITE AND DISPOSED OF AT AN APPROVED DUMPSITE. THE JOB SITE SHALL BE LEFT "BROOM CLEAN" AT THE END OF EACH WORKDAY. BEFORE ACCEPTANCE BY THE OWNER'S REPRESENTATIVE, THE COMPLETED CONSTRUCTION SHALL BE CLEARED, ANY APPLICABLE LABELS REMOVED, AND ALL OTHER TOUCHUP WORK COMPLETED. ALL FINISH MATERIALS SHALL BE PROTECTED AT ALL TIMES AGAINST SUBSEQUENT DAMAGE UNTIL FINAL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL FIELD INVESTIGATE, VERIFY AND BE RESPONSIBLE FOR ALL CONDITIONS, ELEVATIONS AND DIMENSIONS OF THE PROJECT, AS SHOWN ON OR REFERENCED ON THE DRAWINGS, AND NOTIFY THE OWNER'S REPRESENTATIVE ABOUT ANY CONDITION REQUIRING MODIFICATION OR CHANGE PRIOR TO BIDDING. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND CLEARLY UNDERSTAND THE EXISTING CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED PRIOR TO BIDDING. ENTERING INTO AN AGREEMENT WITH THE OWNER INDICATES THAT THE CONTRACTOR HAS VISITED THE SITE, FAMILIARIZED HIMSELF OR HERSELF WITH EXISTING CONDITIONS AND REVIEWED SAME WITH REQUIREMENTS OF CONTRACT DOCUMENTS. NO ALLOWANCES OF ANY KIND WILL BE MADE FOR ANY EXTRA COST DUE TO THE CONTRACTOR'S FAILURE TO INFORM THE OWNER OF DISCREPANCIES IN TIME TO ISSUE CORRECTIVE ADDENDA PRIOR TO BIDDING. THE CONTRACT DOCUMENTS ILLUSTRATE THE INTENT OF THE WORK TO BE PERFORMED.
- CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- THE EXISTENCE AND LOCATIONS OF ANY UNDERGROUND UTILITY PIPELINES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. CONTRACTOR SHALL USE CAUTION IN ALL EXCAVATION OPERATIONS.
- WHERE ELEVATIONS OF EXISTING UTILITIES ARE UNKNOWN, CONTRACTOR SHALL POTHOLE AND VERIFY PRIOR TO STARTING CONSTRUCTION. CONTRACTOR SHALL CONTACT OWNER'S REPRESENTATIVE IF THERE ARE CONFLICTS WITH THE DESIGN.
- UNDERGROUND UTILITIES INDICATED ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES INCLUDING TELEPHONE, WATER, GAS, TV, TRAFFIC SIGNAL, STREET LIGHTING, ETC. WITH THE APPROPRIATE AGENCY. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES RESPONSIBILITY THAT THE UNDERGROUND UTILITIES INDICATED WOULD BE THOSE ENCOUNTERED. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A. 800-642-2444) TWO WORKING DAYS MINIMUM PRIOR TO ANY EXCAVATION.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK TO AVOID CONFLICTS BETWEEN SEWER LATERALS, STORM DRAINS AND WATER MAINS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DIFFERENCES IN LOCATIONS OF EXISTING UTILITIES FROM THAT SHOWN, OR ANY CONFLICTS WITH THE DESIGN BEFORE CONTINUING WORK IN THAT AREA.
- UTILITY CONNECTIONS AND DISCONNECTIONS NECESSARY TO COMPLETE THE WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO MINIMIZE UTILITY SERVICE INTERRUPTIONS TO FACILITY OPERATIONS IN THE VICINITY OF CONSTRUCTION. COORDINATE ALL "DOWN TIME" WITH THE OWNER AND WITH THE APPROPRIATE AGENCY.
- ALL EXISTING UTILITY STRUCTURES (SHOWN OR NOT SHOWN ON THE DRAWINGS) WITHIN THE AREA OF WORK SHALL BE ADJUSTED OR RECONSTRUCTED TO THE FINISH GRADES SHOWN AND SPECIFIED.
- PROVIDE ADEQUATE COVER FOR THE PROTECTION OF ALL PROPOSED AND EXISTING UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT.
- ANY PERMANENT MONUMENTS OR POINTS DAMAGED OR DESTROYED SHALL BE REPLACED BY A LICENSED ENGINEER OR LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK UNDER CONTRACTS THAT MAYBE UNDERWAY CONCURRENTLY WITH THIS PROJECT.
- TRAFFIC CONTROL: PRIOR TO BEGINNING ANY WORK ON EXISTING STREETS, ADVANCE-WARNING SIGNS SHALL BE INSTALLED. TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH CALTRANS "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" CURRENT EDITION AND ANY ADDITIONAL CITY REQUIREMENTS. FAILURE TO COMPLY MAY RESULT IN IMMEDIATE STOPPAGE OF WORK UNTIL THE PROPER TRAFFIC CONTROL IS IN ORDER. CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN FOR CITY REVIEW AND APPROVED PRIOR TO ANYWORK REQUIRING TRAFFIC CONTROL.
- PROVIDE BARRICADES TO PROTECT THE GENERAL PUBLIC AND TO PREVENT UNCONTROLLED ACCESS TO THE SITE AT ALL TIMES.
- PROVIDE FOR EGRESS AND INGRESS TO ON-SITE FACILITIES THAT ARE TO REMAIN OPERATIONAL DURING ALL PHASES OF CONSTRUCTION.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF THE DIVISION OF INDUSTRIAL SAFETY PERTAINING TO "CONFINED SPACE". ANY MANHOLE, CULVERT, DROP INLET OR TRENCH, WHICH COULD CONTAIN AIR THAT IS NOT READILY VENTILATED, MAY BE CONSIDERED A "CONFINED SPACE".
- TRENCHES SHALL BE SHORED IN ACCORDANCE WITH CAL-OSHA "CONSTRUCTION SAFETY ORDERS" CURRENT EDITION.
- CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENT WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSSSLOPE, LOW SPOTS, OR HAZARDOUS CONDITIONS.
- CONSTRUCTION OPERATIONS: WASTEWATER GENERATED DURING CONSTRUCTION SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM. THIS INCLUDES WASTE FROM PAINTING, SAW CUTTING, CONCRETE WORK, ETC. THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO ELIMINATE DISCHARGE TO THE STORM DRAIN SYSTEM AND, IF NECESSARY, PROVIDE AN AREA FOR ON SITE WASHING ACTIVITIES DURING CONSTRUCTION, MATERIALS THAT COULD CONTAMINATE STORM RUNOFF SHALL BE STORED IN AREAS WHICH ARE DESIGNED TO PREVENT EXPOSURE TO RAINFALL AND NOT ALLOW STORM WATER TO RUN ONTO THE AREA. GRADING AND DRAINAGE FEATURES SHALL BE CONSTRUCTED SO THAT WATER FLOW DOES NOT DRAIN TO OTHER PROPERTIES.
- FLUSHING OF STREETS AND PARKING LOTS TO REMOVE DIRT AND CONSTRUCTION DEBRIS IS PROHIBITED UNLESS PROPER SEDIMENT CONTROLS ARE USED. PREFERABLY, AREAS REQUIRING CLEANING SHOULD BE SWEEPED.
- ANY REVISIONS OR ADDITIONAL WORK REQUIRED AS A RESULT OF FIELD CONDITIONS OR LOCAL GOVERNING AUTHORITIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE BEFORE WORK PERFORMED BY THE CONTRACTOR WITHOUT WRITTEN AUTHORIZATION SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR WHO SHALL BEAR ALL COSTS ATTRIBUTABLE THERETO. ANY AND ALL REVISIONS SHALL BE IN WRITTEN CHANGE ORDER FORM AND APPROVED AND AUTHORIZED BY THE OWNER BEFORE BEGINNING WORK.

LAYOUT NOTES

- THE CONTRACTOR IS RESPONSIBLE TO LAYOUT ALL IMPROVEMENTS AS SHOWN AND SPECIFIED.
- HORIZONTAL COORDINATES ARE SHOWN AT THE PRIMARY GEOMETRIC CONTROL POINTS FOR THE IMPROVEMENTS TO AID THE CONTRACTOR WITH THE ESTABLISHMENT OF THE HORIZONTAL LOCATION OF THE IMPROVEMENTS AND ARE BASED ON COORDINATES PROVIDED BY THE CIVIL ENGINEER.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND ENGINEERING PLANS AND DETAILS FOR THE LAYOUT DIMENSIONS, ANGLES AND ELEVATIONS FOR BUILDINGS AND STRUCTURES.
- THE CONTRACTOR SHALL FIELD VERIFY THAT ALL CONSTRUCTION CONTROL STAKES SET FOR IMPROVEMENTS ARE CONSISTENT WITH THE DESIGN INTENT OF THESE PLANS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCY, HORIZONTAL OR VERTICAL, BETWEEN THE CONSTRUCTION CONTROL STAKES SET AND THE DESIGN INTENT OF THESE PLANS.
- ALL COORDINATES REFERENCE TOP FACE OF CURB AND CENTER OF UTILITY, UNLESS OTHERWISE NOTED.
- REFER TO CIVIL DRAWINGS FOR INFORMATION ON DEMOLITION, GRADING, UTILITIES, ROAD ALIGNMENTS, ETC.

FINE GRADING LEGEND

| | |
|---|--|
| AD | AREA DRAIN |
| BW | BOTTOM OF WALL |
| TW | TOP OF WALL |
| TC | TOP OF CURB |
| BC | BOTTOM OF CURB |
| FFE | FINISH FLOOR ELEVATION |
| FG | FINISH GRADE |
| FL | FLOW LINE |
| GB | GRADE BREAK |
| (345.67) | EXISTING SPOT ELEVATION / GRADE FROM CIVIL ENGINEER/SURVEY |
|  | 355.12 PROPOSED SPOT ELEVATION |
|  | EXISTING CONTOURS |
|  | PROPOSED CONTOURS |



PROJECT/CLIENT NAME

City of Cupertino McClellan Ranch Preserve

McClellan Ranch Preserve
22221 McClellan Road
Cupertino, CA 95014

PROJECT NUMBER

14052A

SUBMITTAL

100% Construction Documentation

DATE

5 June 2015

CONSULTANTS

REVISIONS

| No. | Date | Description |
|-----|----------|--------------|
| | 5 JUN 15 | ISSUE TO BID |
| | | |
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Drawn By: LK / MD

Checked By: BL

REGISTRATION AND SIGNATURE



SHEET TITLE

Notes and Legends

L1.0

File Name: S:\Active Job Files\Cupertino McClellan Ranch 14052A\CAD\CD\RHAA\Phase 2\Plot\1.1 Notes and Legends.dwg Plotted By: MEGAN DALE Date Plotted: 6/3/2015 2:35 PM

PLANT LIST

| TREES QTY | ABBR. | BOTANICAL NAME | COMMON NAME | SIZE | SPACING | WATER USE |
|-----------|---------|---------------------------|---------------------|--------|----------|-----------|
| 1 | ARB MEN | <i>Arbutus menziesii</i> | Pacific Madrona | 15 GAL | PER PLAN | LOW |
| 1 | MYR CAL | <i>Myrica californica</i> | Pacific Wax Myrtle | 15 GAL | PER PLAN | LOW |
| 1 | PRU ILI | <i>Prunus ilicifolia</i> | Holly-Leafed Cherry | 15 GAL | PER PLAN | LOW |
| 1 | QUE KEL | <i>Quercus kelloggii</i> | Black Oak | 15 GAL | PER PLAN | LOW |
| 2 | QUE LOB | <i>Quercus lobata</i> | Valley Oak | 15 GAL | PER PLAN | LOW |

| SHURBS QTY | ABBR. | BOTANICAL NAME | COMMON NAME | SIZE | SPACING | WATER USE |
|------------|---------|---|-------------------------|-------|----------|-----------|
| 46 | ARC BAK | <i>Arctostaphylos bakeri</i> | Baker's Manzanita | 5 GAL | 36" O.C. | LOW |
| 5 | ARC DES | <i>Arctostaphylos desiflora</i> 'Howard McMinn' | Howard McMinn Manzanita | 5 GAL | 48" O.C. | LOW |
| 25 | ARC EDM | <i>Arctostaphylos edmundsii</i> 'Carmel Sur' | Carmel Sur Manzanita | 5 GAL | 42" O.C. | LOW |
| 61 | ART CAL | <i>Artemisia californica</i> 'Montara' | Montara Sagebrush | 1 GAL | 30" O.C. | VERY LOW |
| 66 | BAC PIL | <i>Baccharis pilularis</i> 'Pigeon Point' | Coyote Bush | 1 GAL | 36" O.C. | LOW |
| 16 | CAR CAL | <i>Carpenteria californica</i> | Bush Anemone | 5 GAL | 48" O.C. | LOW |
| 15 | CEA DAR | <i>Ceanothus</i> 'Dark Star' | Dark Star Ceanothus | 5 GAL | 48" O.C. | LOW |
| 6 | CEA JUL | <i>Ceanothus</i> 'Julia Phelps' | California Lilac | 5 GAL | 48" O.C. | LOW |
| 29 | CEA YAN | <i>Ceanothus G.H. 'Yankee Pt'</i> | Wild Lilac | 5 GAL | 48" O.C. | LOW |
| 52 | ENC CAL | <i>Encelia californica</i> | Brittlebush | 1 GAL | 18" O.C. | LOW |
| 151 | ERI CON | <i>Eriophyllum confertiflorum</i> | Golden Yarrow | 1 GAL | 18" O.C. | LOW |
| 366 | FES CAL | <i>Festuca californica</i> | California Fescue | 1 GAL | 18" O.C. | LOW |
| 4 | HET ARB | <i>Heteromeles arbutifolia</i> | Toyon | 5 GAL | PER PLAN | VERY LOW |
| 23 | HOL DIS | <i>Holodiscus discolor</i> | Creambrush | 5 GAL | 36" O.C. | LOW |
| 83 | IRI DOU | <i>Iris douglasiana</i> | Douglas Iris | 1 GAL | 18" O.C. | LOW |
| 111 | LEY CON | <i>Leymus condensatus</i> 'Canyon Prince' | Giant Rye Grass | 1 GAL | 30" O.C. | VERY LOW |
| 284 | LEY TRI | <i>Leymus triticoides</i> | Creeping Wild Rye | 1 GAL | 12" O.C. | LOW |
| 165 | MUH RIG | <i>Muhlenbergia rigens</i> | Deer Grass | 1 GAL | 30" O.C. | LOW |
| 87 | PEN HET | <i>Penstemon heterophyllus</i> 'Margarita BOP' | Chaparral Penstemon | 1 GAL | 24" O.C. | MED |
| 35 | RHA CAL | <i>Rhamnus californica</i> 'Mound San Bruno' | Coffeeberry | 5 GAL | 36" O.C. | LOW |
| 10 | RIB SAN | <i>Ribes sanguineum</i> | Flowering Currant | 5 GAL | 48" O.C. | LOW |
| 14 | SAL CLE | <i>Salvia clelandii</i> | Cleveland Sage | 1 GAL | 48" O.C. | LOW |
| 11 | SAL SPA | <i>Salvia spathacea</i> | Hummingbird Sage | 1 GAL | 36" O.C. | LOW |
| 60 | SID MAL | <i>Sidalcea malvaeflora</i> | Checkerbloom | 1 GAL | 24" O.C. | MED |
| 51 | SOL CAL | <i>Solidago californica</i> | California Goldenrod | 1 GAL | 18" O.C. | MED |
| 84 | ZAU CAL | <i>Zauschneria californica</i> | California Fuchsia | 1 GAL | 36" O.C. | LOW |

GRASSES
 SOD NATIVE BENTGRASS BY DELTA BLUEGRASS
 HYDROSEED NATIVE MIX

IRRIGATION LEGEND

| GPM | GALLONS PER MINUTE |
|-----|--|
| POC | POINT OF CONNECTION |
| | BACKFLOW PREVENTOR |
| | MASTER VALVE |
| | FLOW SENSOR |
| | CONTROLLER |
| | DRIP CONTROL VALVE |
| | BUBBLER CONTROL VALVE |
| | TREE BUBBLER |
| | QUICK COUPLING VALVE |
| | BALL VALVE |
| | MAINLINE PIPE |
| | LATERAL LINE PIPE |
| | SLEEVE AND SIZE |
| | SUBSURFACE DRIP IRRIGATION 18" O.C. 4" DEPTH |
| | SUBSURFACE DRIP IRRIGATION FOR TURF 12" O.C., 6" DEPTH |
| | CONTROLLER / STATION NUMBER GALLON PER MINUTE OF ZONE VALVE SIZE |

PIPE SIZE CHART

| SIZE | SCH 40 |
|--------|--------|
| 1" | 9-12 |
| 1 1/4" | 13-21 |
| 1 1/2" | 22-30 |
| 2" | 31-49 |
| 2 1/2" | 50-70 |

SEE SPECS
 SEE SPECS

COMMENTS

1-1/2" REDUCED PRESSURE BACKFLOW PREVENTER WITH CHECK VALVES AND PRESSURE REGULATOR

CAST IRON BODY, DIAPHRAGM TYPE VALVE, WITH FILTER

INLINE, NON-MAGNETIC IMPELLER TYPE, LINE SIZE

18-STATION

CAST IRON BODY, DIAPHRAGM TYPE VALVE, PRESSURE REGULATOR, AND FILTER

CAST IRON BODY, DIAPHRAGM TYPE VALVE

2 BUBBLERS PER TREE

TWO-PIECE, LINE SIZE

LINE SIZE

2" SCHEDULE 40 PVC

SCHEDULE 40 PVC

SCHEDULE 40 PVC

IRRIGATION NOTES

1. THIS PLAN IS DIAGRAMMATIC. ALL IRRIGATION PIPING AND EQUIPMENT SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID CONFLICTS WITH NEW PLANTING, NEW SITE OR ARCHITECTURAL ELEMENTS.

2. ALL EQUIPMENT SHALL CONFORM TO THE SPECIFICATIONS.

3. ALL EQUIPMENT SHALL CONFORM TO THE CITY OF CUPERTINO REQUIREMENTS.

4. CONTRACTOR SHALL NOT DAMAGE OR REMOVE EXISTING IRRIGATION EQUIPMENT. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY CONFLICTS.

5. THIS SYSTEM IS DESIGNED FOR A MINIMUM OPERATING PRESSURE OF 30 PSI. NOTIFY OWNER IF THERE ARE ANY DISCREPANCIES.

APPENDIX A: MAXIMUM APPLIED WATER ALLOWANCE

The following calculations will help you determine your site specific water budget and establish a planting mix that will allow you to meet your water budget. Your Estimated Total Water Use must be less than your Maximum Applied Water Allowance.

1.) Maximum Applied Water Allowance (MAWA)

$$MAWA = (ETo) (0.62) [(0.7 \times LA) + (0.3 \times SLA)]$$

ETo = Annual Net Reference Evapotranspiration (inches)
0.7 = ET Adjustment Factor
LA = Landscaped Area (square feet)
0.62 = Conversion factor (to gallons per square foot)
SLA = Portion of the landscape area identified as Special Landscape Area (square feet)
0.3 = the additional ET adjustment factor for Special Landscape Area (1.0 - 0.7 = 0.3)

| | | | |
|--|---|-----|----------------------|
| A.) Net Evapotranspiration Calculation | | | |
| 43.1 | | | |
| (Annual ETo) | | | |
| 23 | x | .25 | = |
| (Annual Rainfall) | | | 5.75 |
| | | | (Effective Rainfall) |
| Net Evapotranspiration Calculation = Annual ETo - Effective Rainfall = 37.35 | | | |

| | | | |
|---|---|-------------------|--------|
| B.) Adjusted Landscape Area Calculation | | | |
| 10959 | x | 0.7 | = |
| (Landscaped Area) | | Adjustment Factor | 6575.4 |
| 0 | x | 0.3 | = |
| (Special Landscaped Area) | | Adjustment Factor | 0 |
| Sum of Adjusted Landscape Area = 6575.4 | | | |

MAWA = 37.35 x 0.62 x 6575.4 = **152267 gallons**

2.) Estimated Total Water Use (ETWU)

A.) Net Evapotranspiration Calculation = Annual ETo - Effective Rainfall = 37.35

| | | | |
|---|---|-----|--------|
| B.) Adjusted Landscape Area Calculation | | | |
| 7460 | x | 0.3 | = |
| (Low water use plant sqft) | | | 2238 |
| 3499 | x | 0.6 | = |
| (Moderate water use plant sqft) | | | 2099.4 |
| 0 | x | 1.0 | = |
| (High water use plant sqft) | | | 0 |

Sum of Adjusted Landscape Area = 4,337

ETWU = 37.35 x 0.62 x 4,337 / 0.85 = **118166 gallons**

Irrigation Efficiency Factor

| Percent of total landscape irrigated with Drip | |
|--|------|
| 0-25% | 0.71 |
| 26-50% | 0.75 |
| 51-75% | 0.80 |
| 76-100% | 0.85 |

APPENDIX B: HYDROZONE TABLE

| Hydrozone* | Valve Number | Irrigation Method** | Area (Sq Ft) | % Overall Area |
|--------------|--------------|---------------------|--------------|----------------|
| LW | A1 | B | 635 | 5.79% |
| LW | A2 | D | 302 | 2.76% |
| LW | A3 | D | 9 | 0.08% |
| LW | A4 | B | 18 | 0.16% |
| LW | A5 | D | 4164 | 38.00% |
| MW | A6 | D | 1857 | 16.94% |
| MW | A7 | D | 397 | 3.62% |
| LW | A8 | B | 9 | 0.08% |
| LW | A9 | D | 558 | 5.09% |
| LW | A10 | D | 495 | 4.52% |
| MW | A11 | D | 1245 | 11.36% |
| LW | A12 | D | 1243 | 11.34% |
| LW | A13 | B | 27 | 0.25% |
| TOTAL | | | 10959 | 100.00% |

SUMMARY HYDROZONE TABLE

| Hydrozone* | Area (Sq. Ft.) | % of Landscape Area |
|----------------|----------------|---------------------|
| LW= | 7460 | 92% |
| MW= | 3499 | 8% |
| HW= | 0 | 0% |
| TOTAL = | | 100% |

| * Hydrozone Codes | ** Irrigation Method |
|--------------------------------|----------------------|
| HW = High Water Use Plants | B = Bubbler |
| MW = Moderate Water Use Plants | D = Drip |
| LW = Low Water Use Plants | |

PLANT NOTES

- ALL EXCAVATION AND SOIL PREPARATION PERFORMED WITHIN THE DRIP LINE OF EXISTING TREES SHALL BE DONE BY HAND.
- PROVIDE A MINIMUM OF ONE FOOT DEPTH OF NON-COMPACTED SOIL FOR WATER ABSORPTION AND ROOT GROWTH IN ALL PLANTED AREAS. SEE SPECIFICATION SECTION 32 90 00 FOR COMPLETE INFORMATION REGARDING SOIL PREPARATION AND AMENDMENT.
- ALL EXPOSED SOIL SURFACES SHALL RECEIVE A MINIMUM OF A 3" LAYER OF BARK MULCH. SEE SPECIFICATION SECTION 32 90 00 FOR COMPLETE INFORMATION REGARDING MULCH TYPE.
- NOTIFY OWNER'S REPRESENTATIVE PROMPTLY IF FIELD CONDITIONS ENCOUNTERED VARY FROM THOSE SHOWN ON PLAN.
- VERIFY LOCATIONS OF UTILITIES AND DEPTHS OF UTILITIES BEFORE DIGGING. SEE CIVIL, STRUCTURAL, ELECTRICAL, LANDSCAPE, ETC.
- KEEP SOIL AND MULCH AWAY FROM ROOT FLARE AT ALL TREES.
- PLANTING MASS HATCHING IS DIAGRAMMATIC. ACTUAL PLANTS SHOULD BE HELD BACK FROM EXISTING TREE TRUNKS BY APPROXIMATELY 5' IN ALL DIRECTIONS, OR MORE IF SHOWN ON PLAN.
- PLANT QUANTITY TOTALS ARE PROVIDED FOR CONTRACTOR'S CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES.
- GROUNDCOVERS ARE TO EXTEND UNDER TREE AND SHRUB PLANTINGS FOR FULL COVERAGE. HATCHING ON PLAN DOES NOT EXTEND UNDER SHRUB SYMBOLS FOR GRAPHIC CLARITY.



PROJECT/CLIENT NAME

City of Cupertino McClellan Ranch Preserve

McClellan Ranch Preserve
 22221 McClellan Road
 Cupertino, CA 95014

PROJECT NUMBER

14052A

SUBMITTAL

100% Construction Documentation

DATE

5 June 2015

CONSULTANTS

REVISIONS

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SHEET TITLE

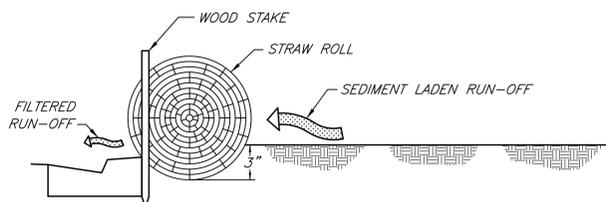
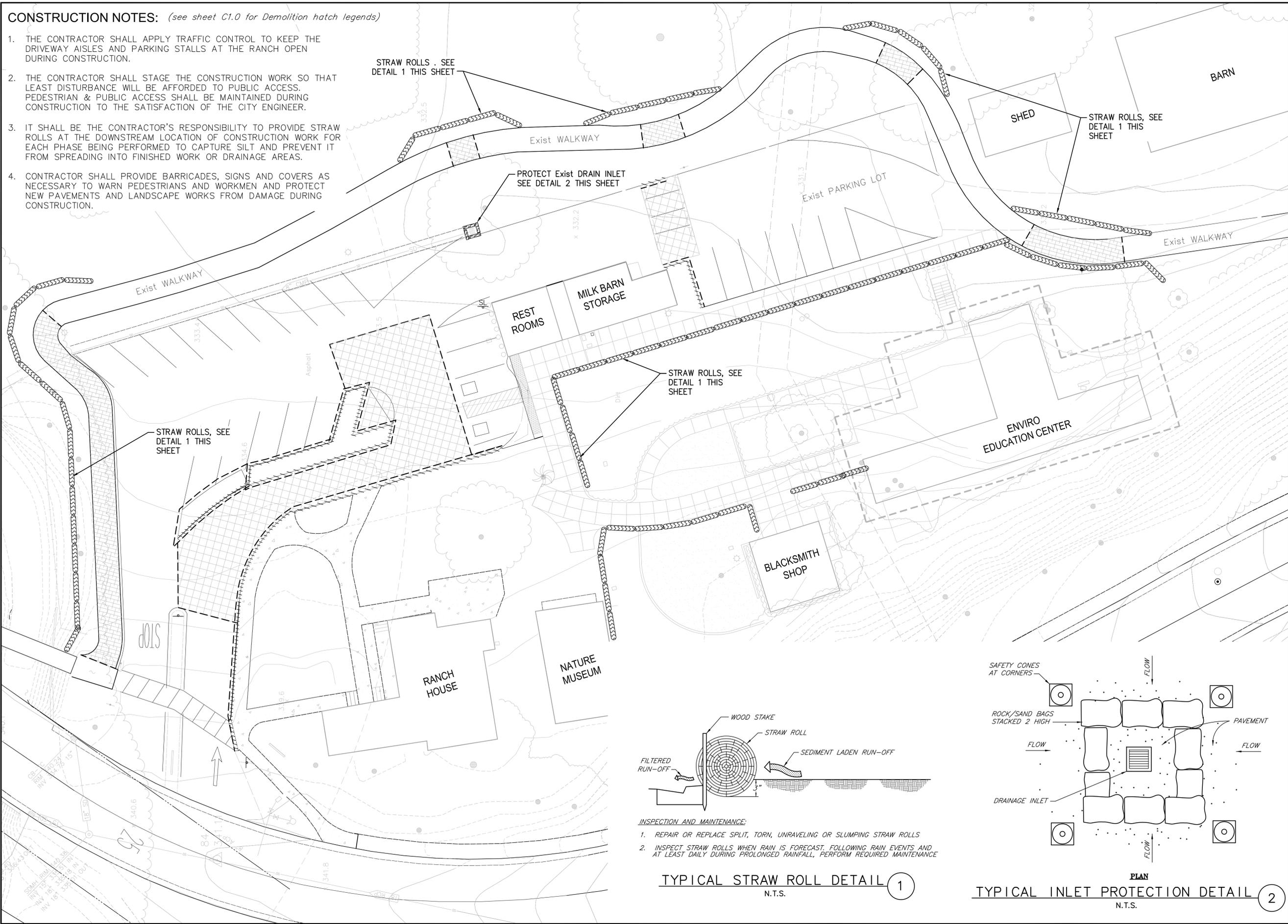
Notes and Legends

L1.1

CONSTRUCTION NOTES: (see sheet C1.0 for Demolition hatch legends)

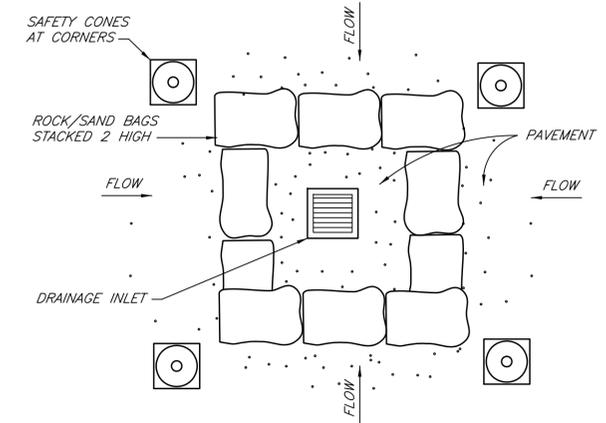
1. THE CONTRACTOR SHALL APPLY TRAFFIC CONTROL TO KEEP THE DRIVEWAY AISLES AND PARKING STALLS AT THE RANCH OPEN DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL STAGE THE CONSTRUCTION WORK SO THAT LEAST DISTURBANCE WILL BE AFFORDED TO PUBLIC ACCESS. PEDESTRIAN & PUBLIC ACCESS SHALL BE MAINTAINED DURING CONSTRUCTION TO THE SATISFACTION OF THE CITY ENGINEER.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE STRAW ROLLS AT THE DOWNSTREAM LOCATION OF CONSTRUCTION WORK FOR EACH PHASE BEING PERFORMED TO CAPTURE SILT AND PREVENT IT FROM SPREADING INTO FINISHED WORK OR DRAINAGE AREAS.
4. CONTRACTOR SHALL PROVIDE BARRICADES, SIGNS AND COVERS AS NECESSARY TO WARN PEDESTRIANS AND WORKMEN AND PROTECT NEW PAVEMENTS AND LANDSCAPE WORKS FROM DAMAGE DURING CONSTRUCTION.

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- INSPECTION AND MAINTENANCE:**
1. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING OR SLUMPING STRAW ROLLS
 2. INSPECT STRAW ROLLS WHEN RAIN IS FORECAST. FOLLOWING RAIN EVENTS AND AT LEAST DAILY DURING PROLONGED RAINFALL, PERFORM REQUIRED MAINTENANCE

TYPICAL STRAW ROLL DETAIL 1
N.T.S.



TYPICAL INLET PROTECTION DETAIL 2
N.T.S.

PROJECT/CLIENT NAME
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CONSULTANTS


MARK THOMAS & COMPANY, INC.
Providing Engineering, Surveying, and Planning Services
1960 Zanker Road
San Jose, CA 95112
(408) 453-5373

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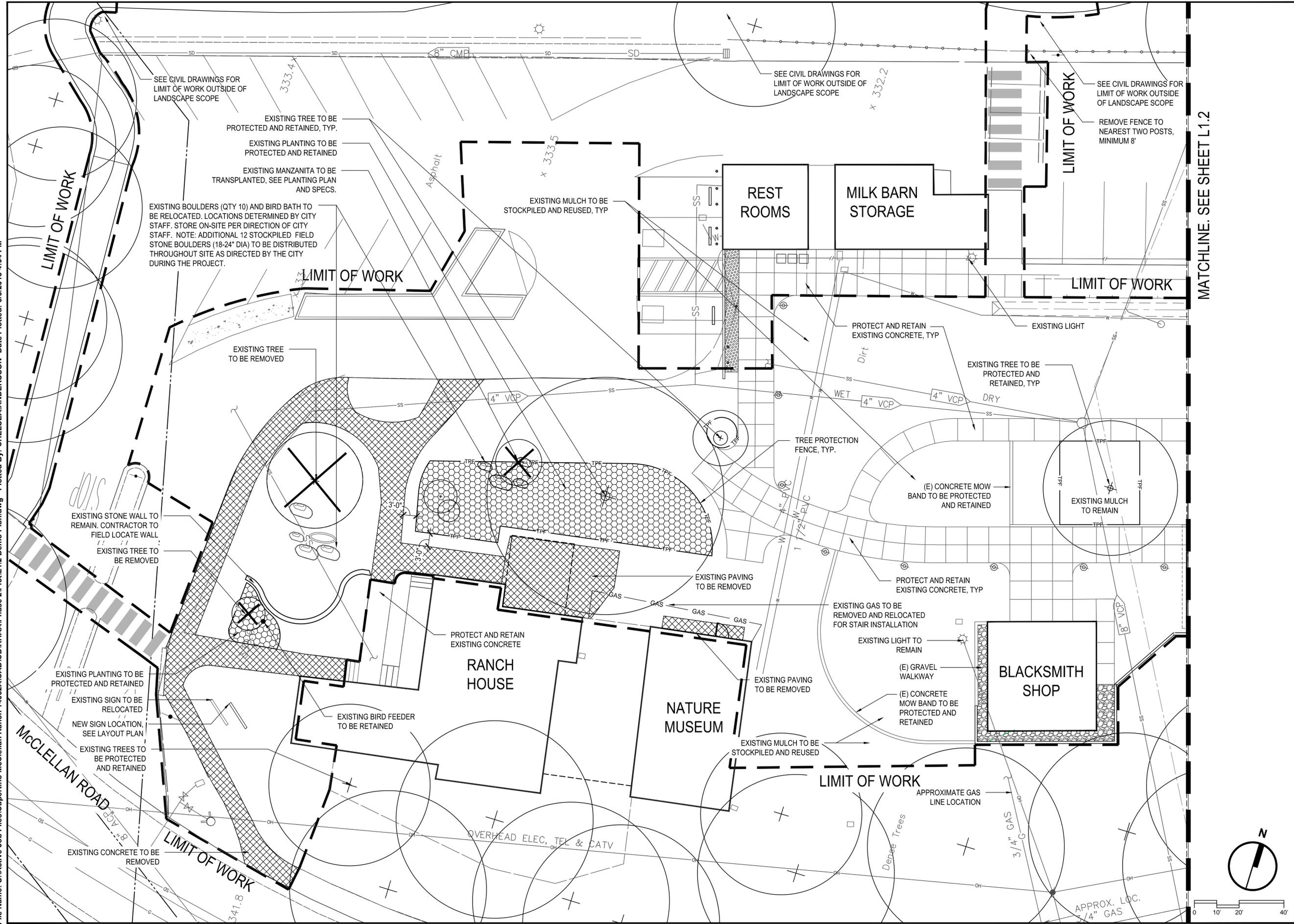
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SHEET TITLE
**EROSION
CONTROL PLAN**

C1.1

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PROJECT/CLIENT NAME
**City of Cupertino
McClellan Ranch
Preserve**

McClellan Ranch Preserve
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Cupertino, CA 95014

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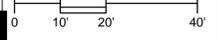
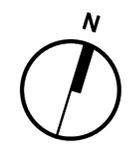
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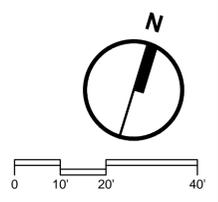
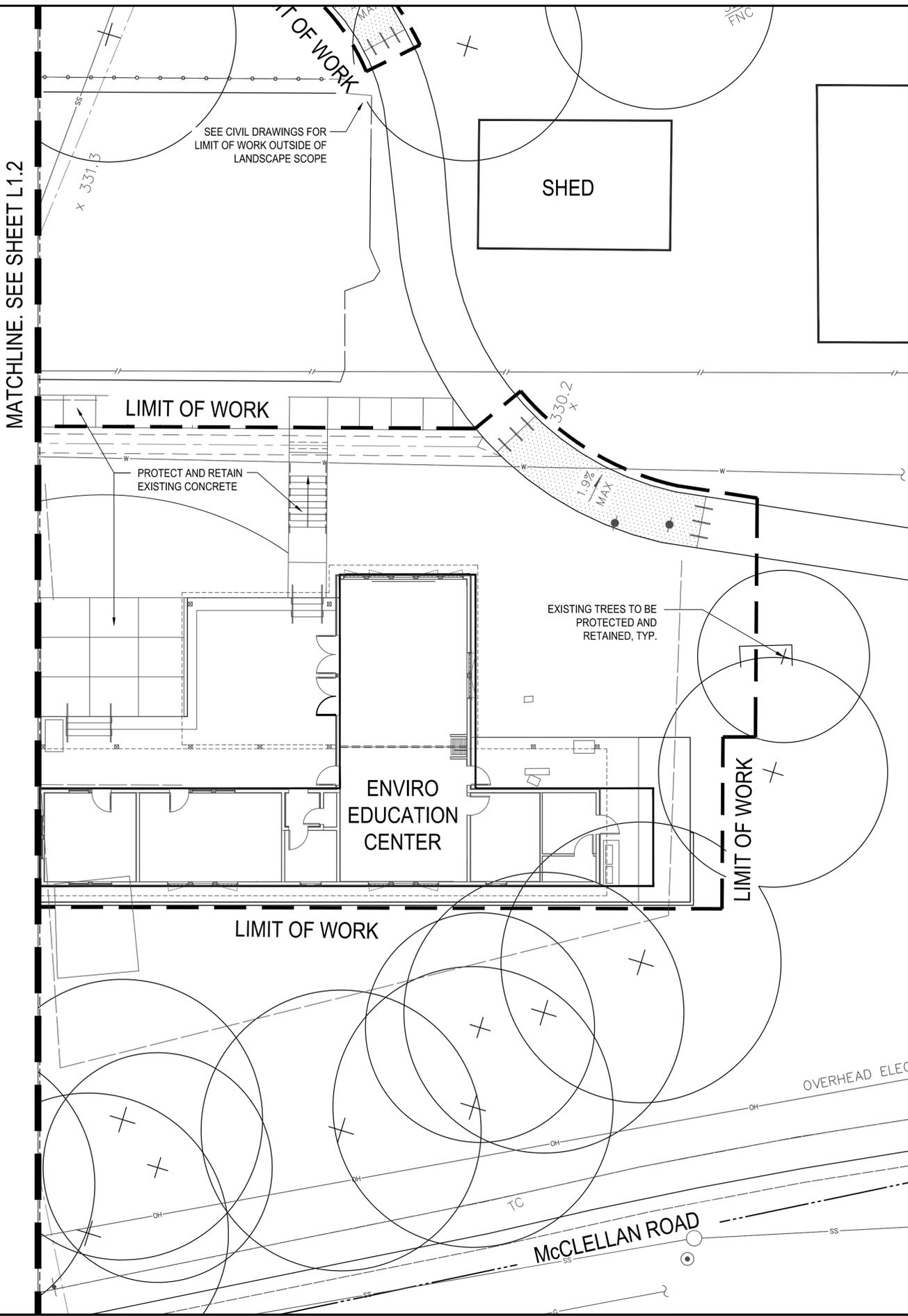
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SHEET TITLE
**Landscape
Demolition Plan**

L1.2



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PROJECT/CLIENT NAME
 City of Cupertino
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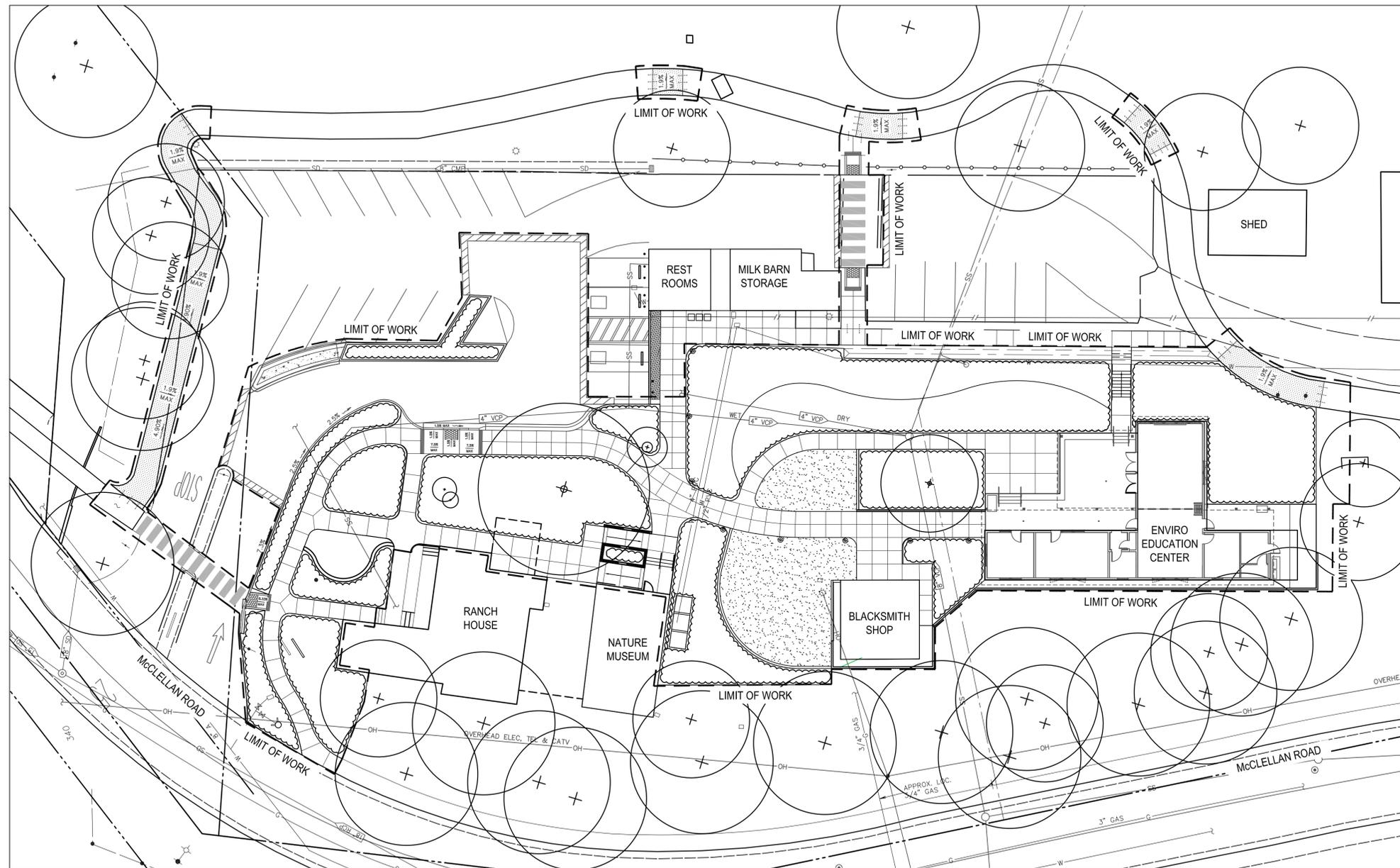
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 Checked By: BL

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SHEET TITLE
 Landscape
 Demolition Plan

L1.3

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PROJECT/CLIENT NAME

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SHEET TITLE

Limit of Work

L1.4

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PROJECT/CLIENT NAME

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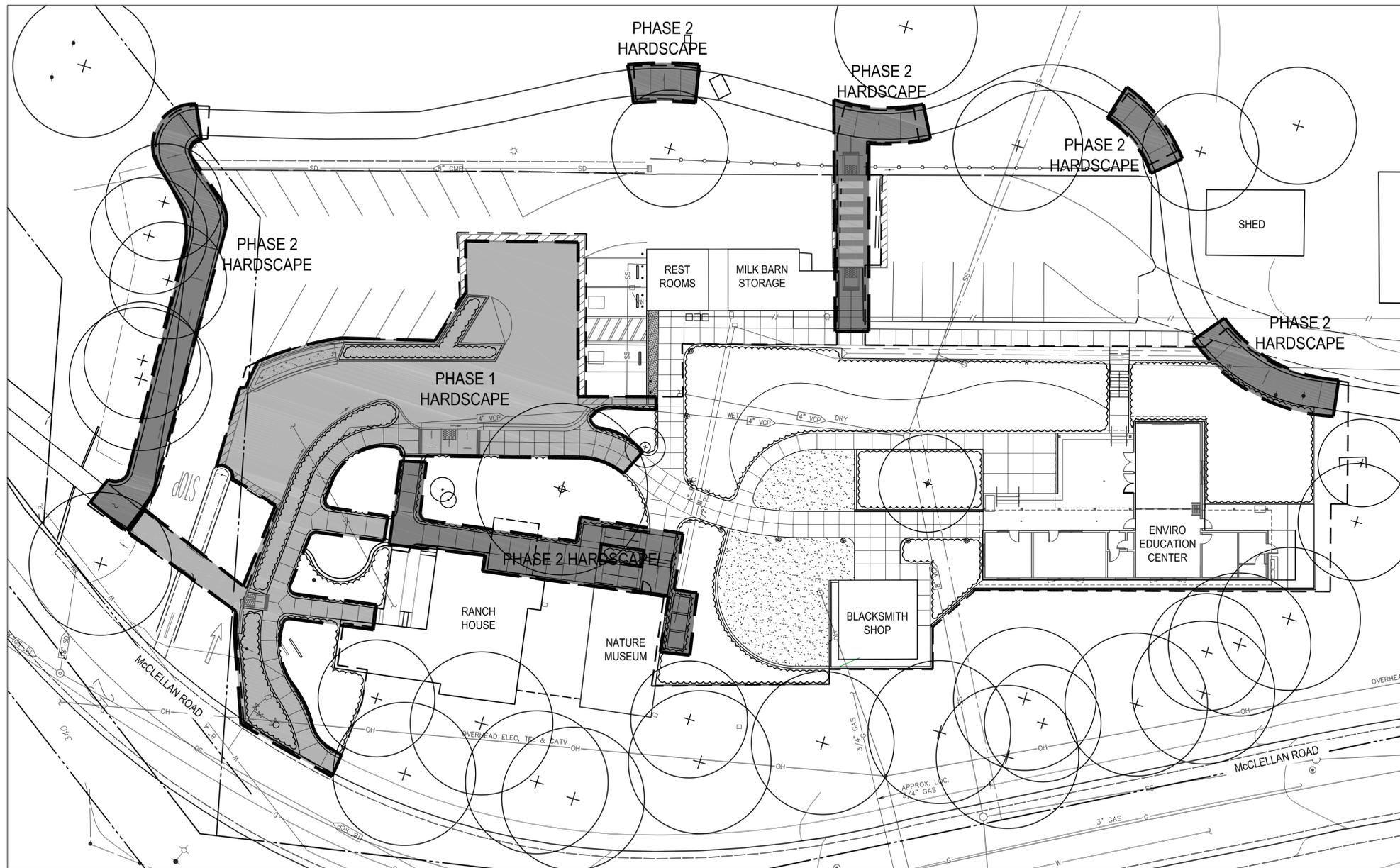
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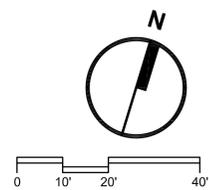
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**Work Sequence
 Plan - Phase 1 and 2**

L1.5



NOTES:
 1. WORK TO BE BUILT IN THE SEQUENCE OF PHASING SHOWN. NO WORK, STORAGE, OR DEMOLITION SHALL BEGIN IN AREAS UNTIL WORK IN PRIOR PHASE IS COMPLETE. ACCESSIBILITY TO ALL BUILDINGS AND FACILITIES SHALL REMAIN OPEN.
 2. CONTRACTOR MAY HAVE TO PROVIDE ON-SITE TRAFFIC AND PEDESTRIAN CONTROL TO KEEP CIRCULATION. CONTRACTOR TO COORDINATE DAILY WITH CITY ON MINOR IMPACTS TO SITE USERS.



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PROJECT/CLIENT NAME

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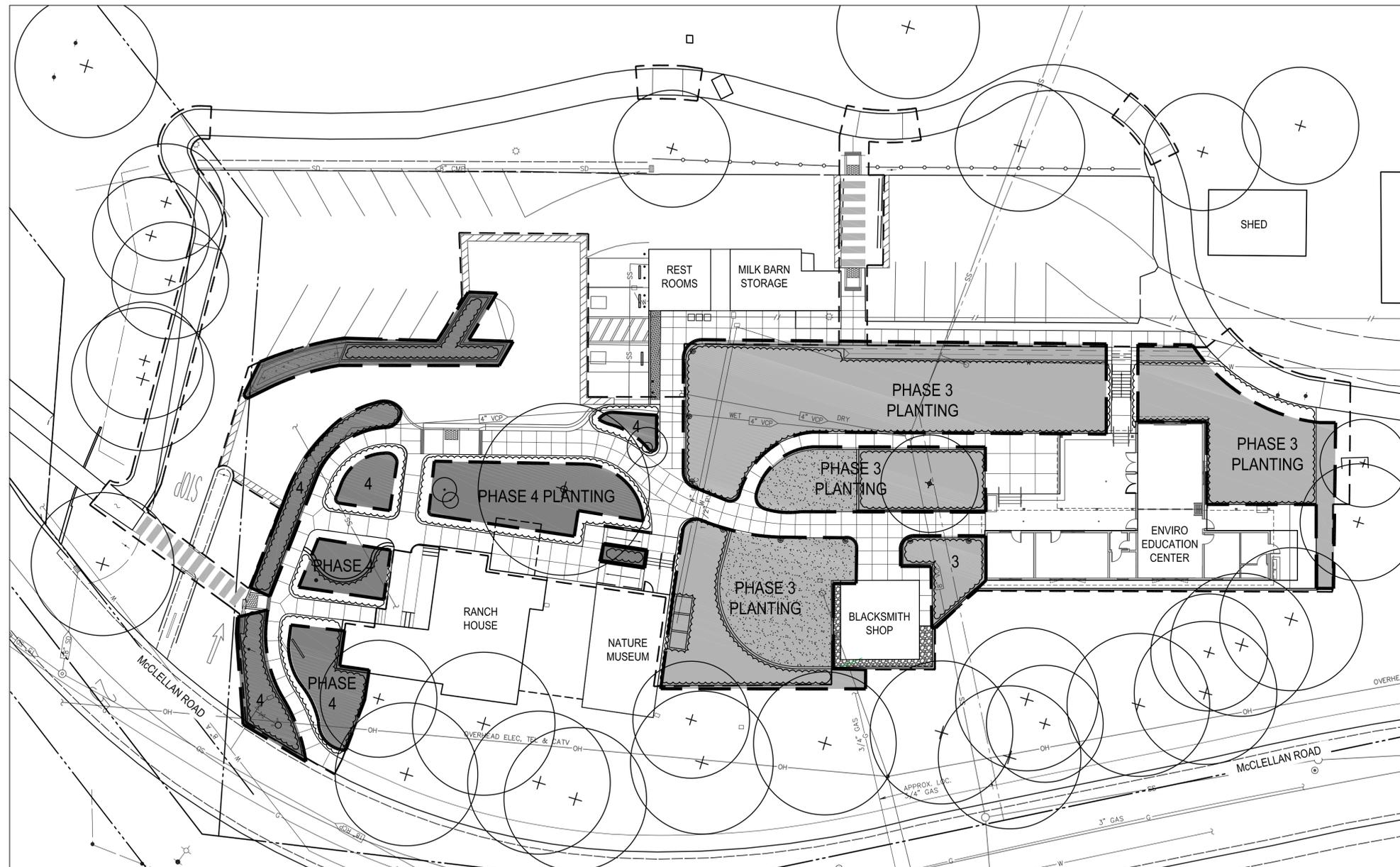
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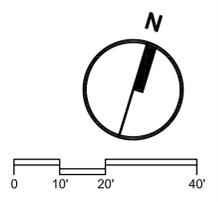
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**Work Sequence
 Plan - Phase 3 and 4**

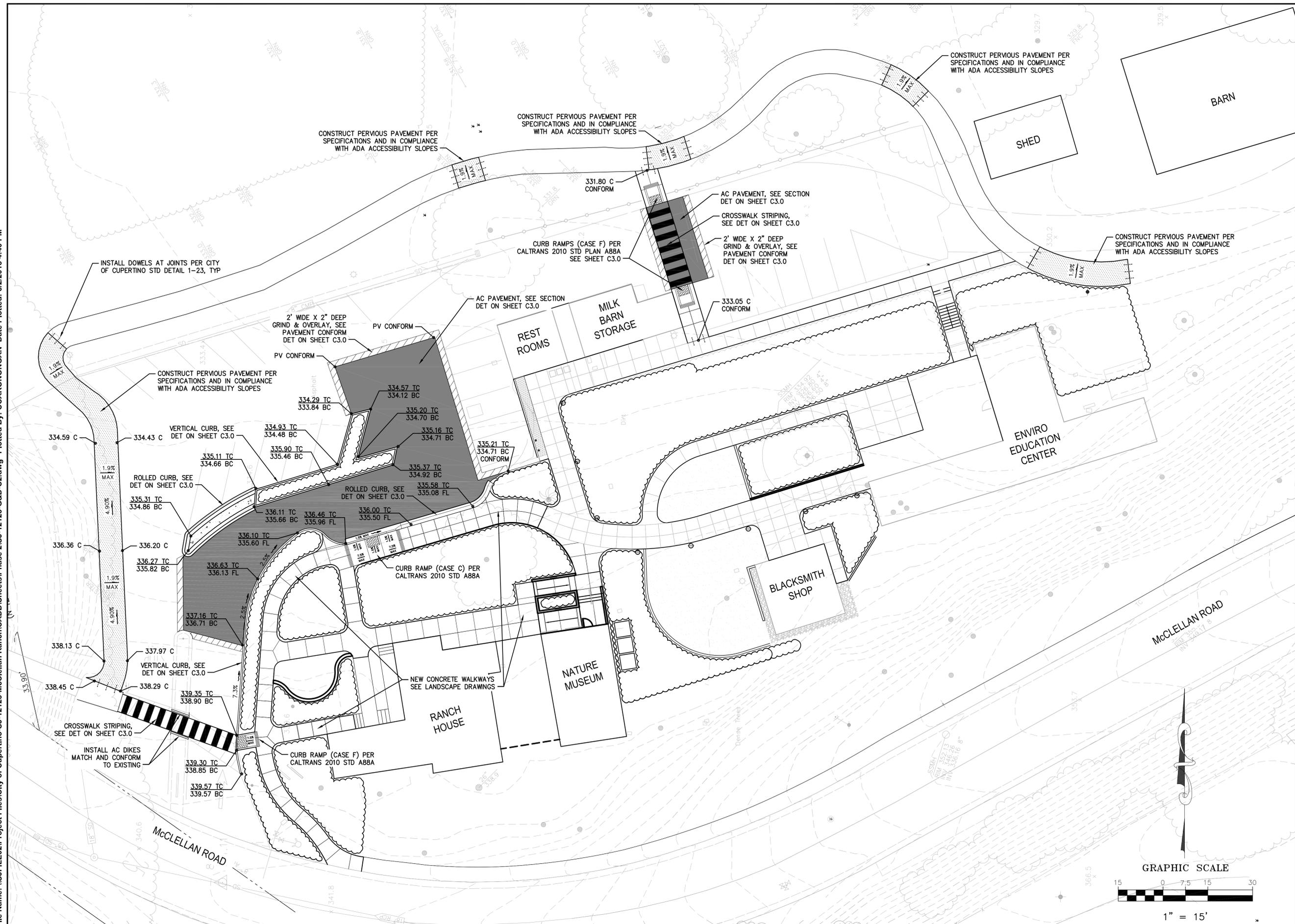
L1.6



NOTES:
 1. WORK TO BE BUILT IN THE SEQUENCE OF PHASING SHOWN. NO WORK, STORAGE, OR DEMOLITION SHALL BEGIN IN AREAS UNTIL WORK IN PRIOR PHASE IS COMPLETE. ACCESSIBILITY TO ALL BUILDINGS AND FACILITIES SHALL REMAIN OPEN.
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McClellan Ranch Preserve
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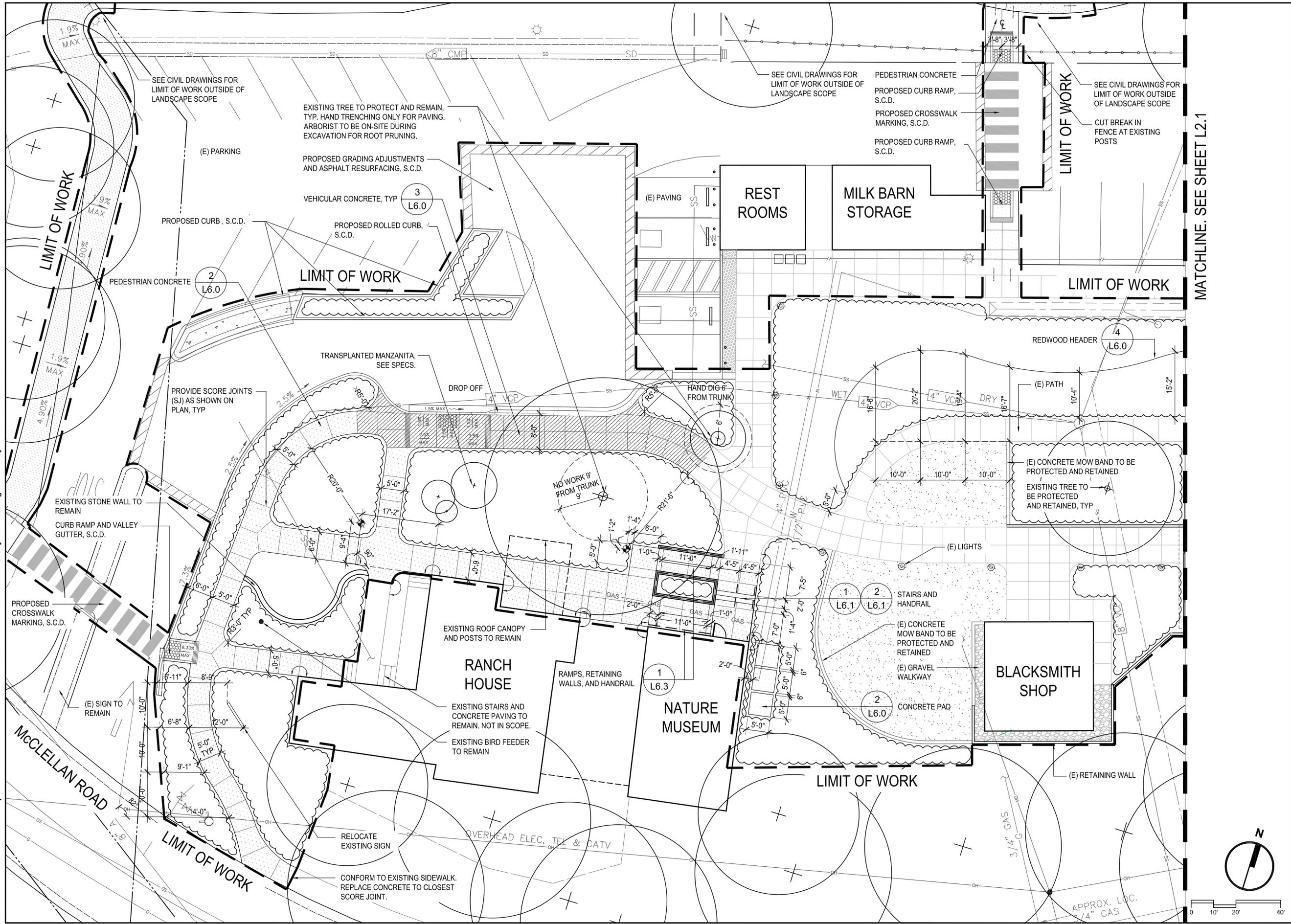
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SHEET TITLE
**CIVIL
GRADING PLAN**

C2.0

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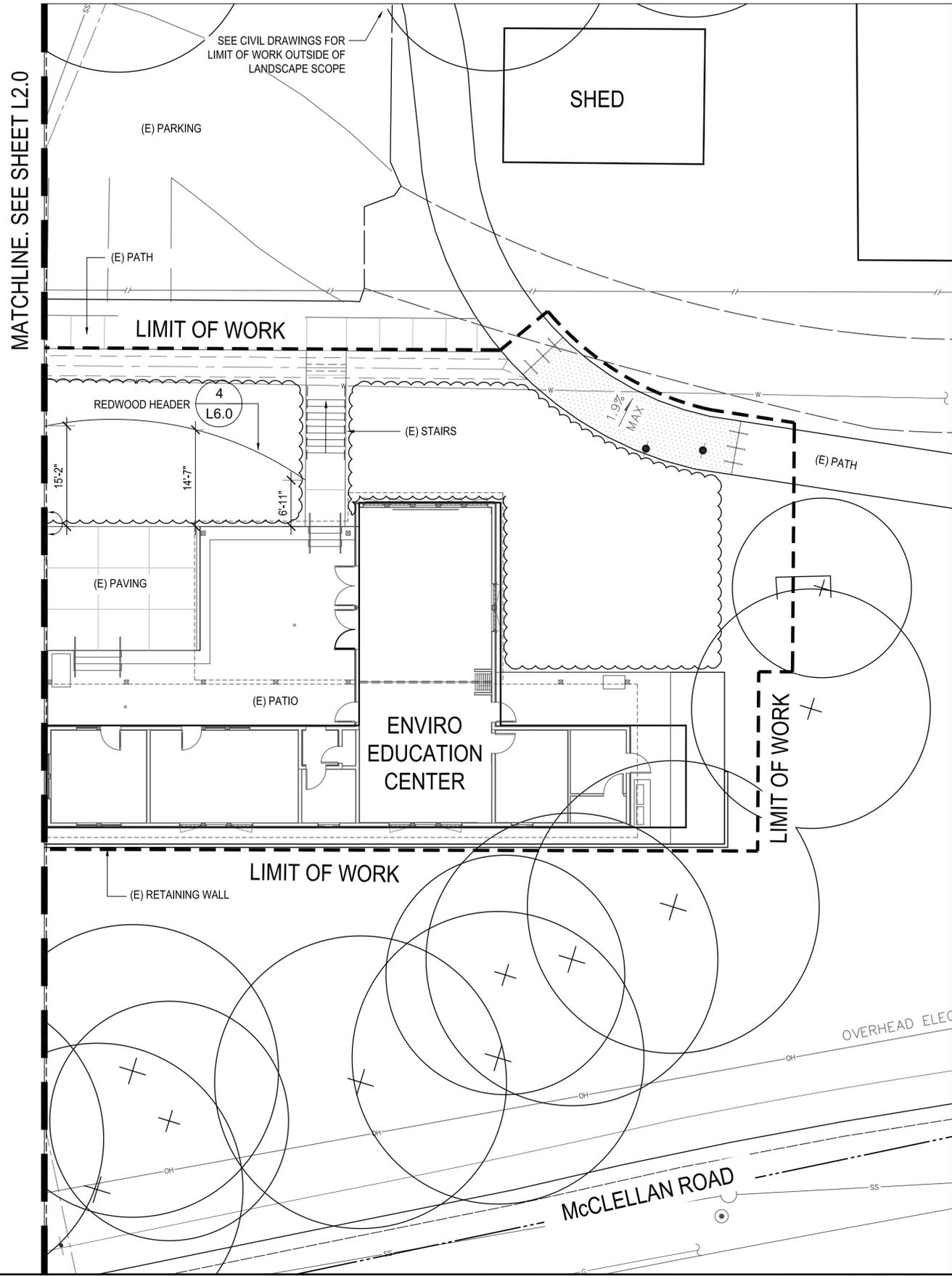
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Barbara J. Handberg
 Licensed Landscape Architect
 No. 10000
 State of California
 Exp. 03/31/2016
 Renewal Date 06/02/2015

SHEET TITLE
 Landscape Layout
 Plan

L2.0

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SHEET TITLE

Landscape Layout
Plan

L2.1

PROJECT/CLIENT NAME

**City of Cupertino
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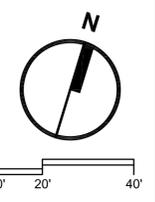
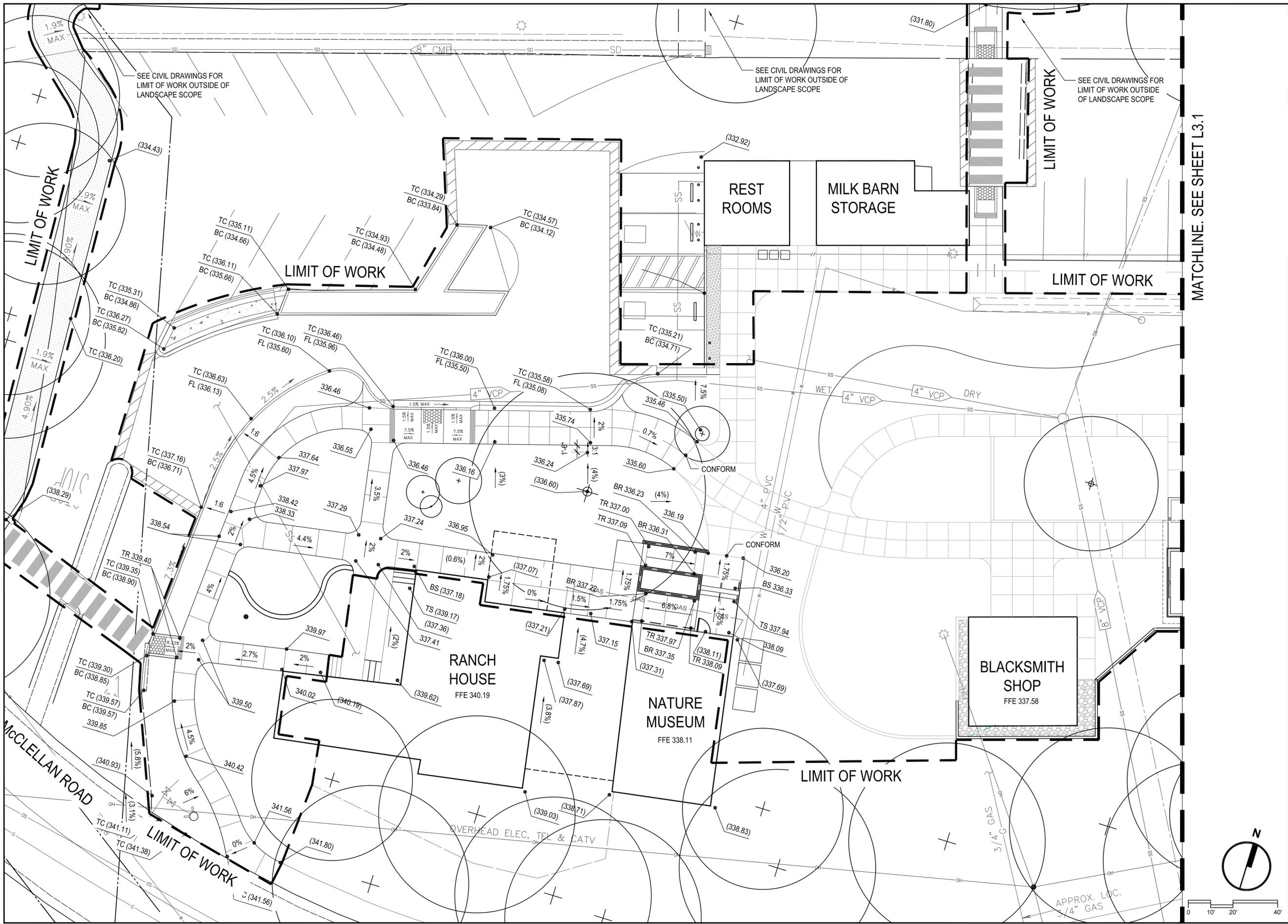


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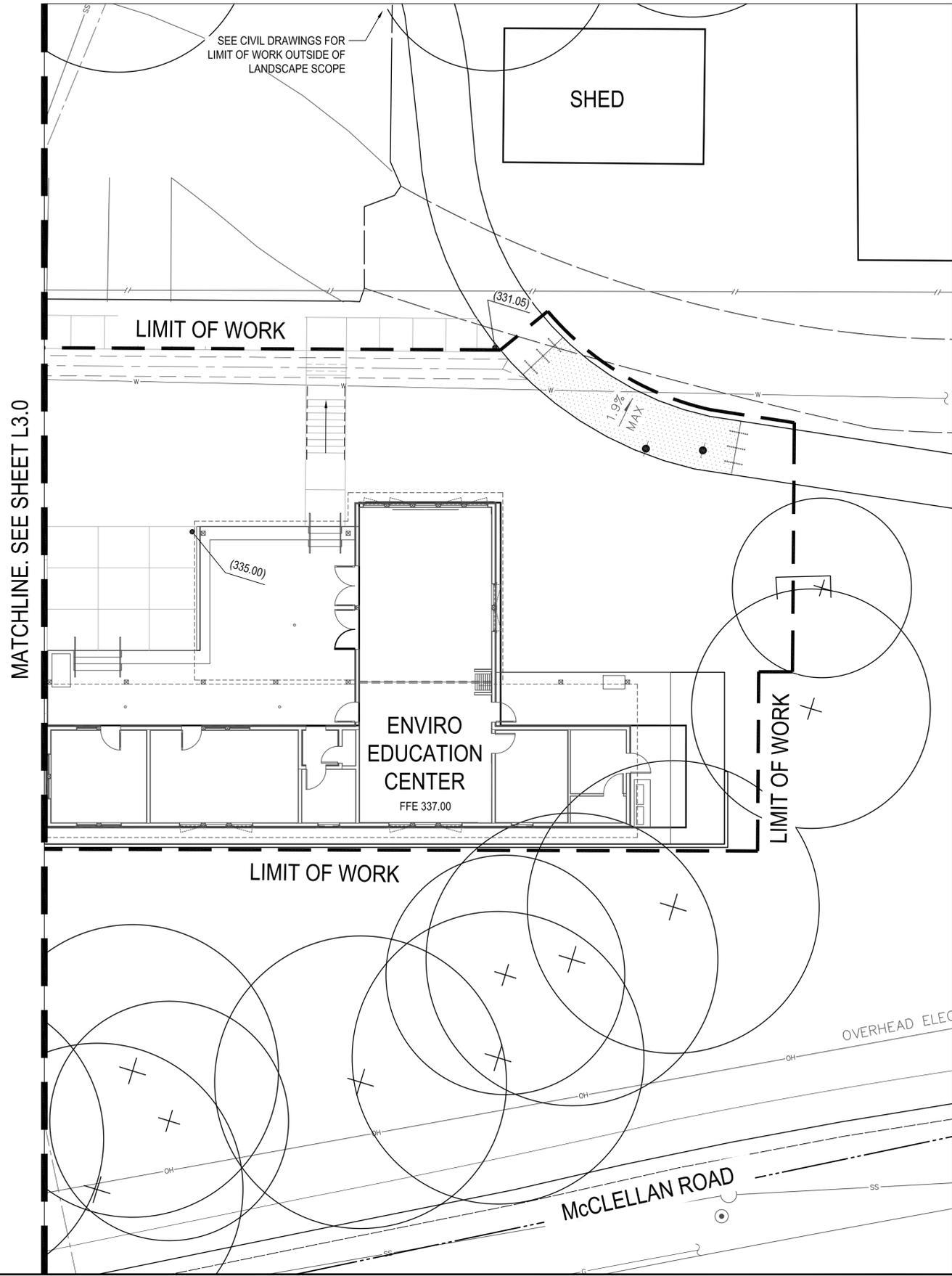
Fine Grading Plan

L3.0

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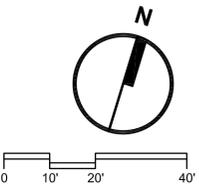
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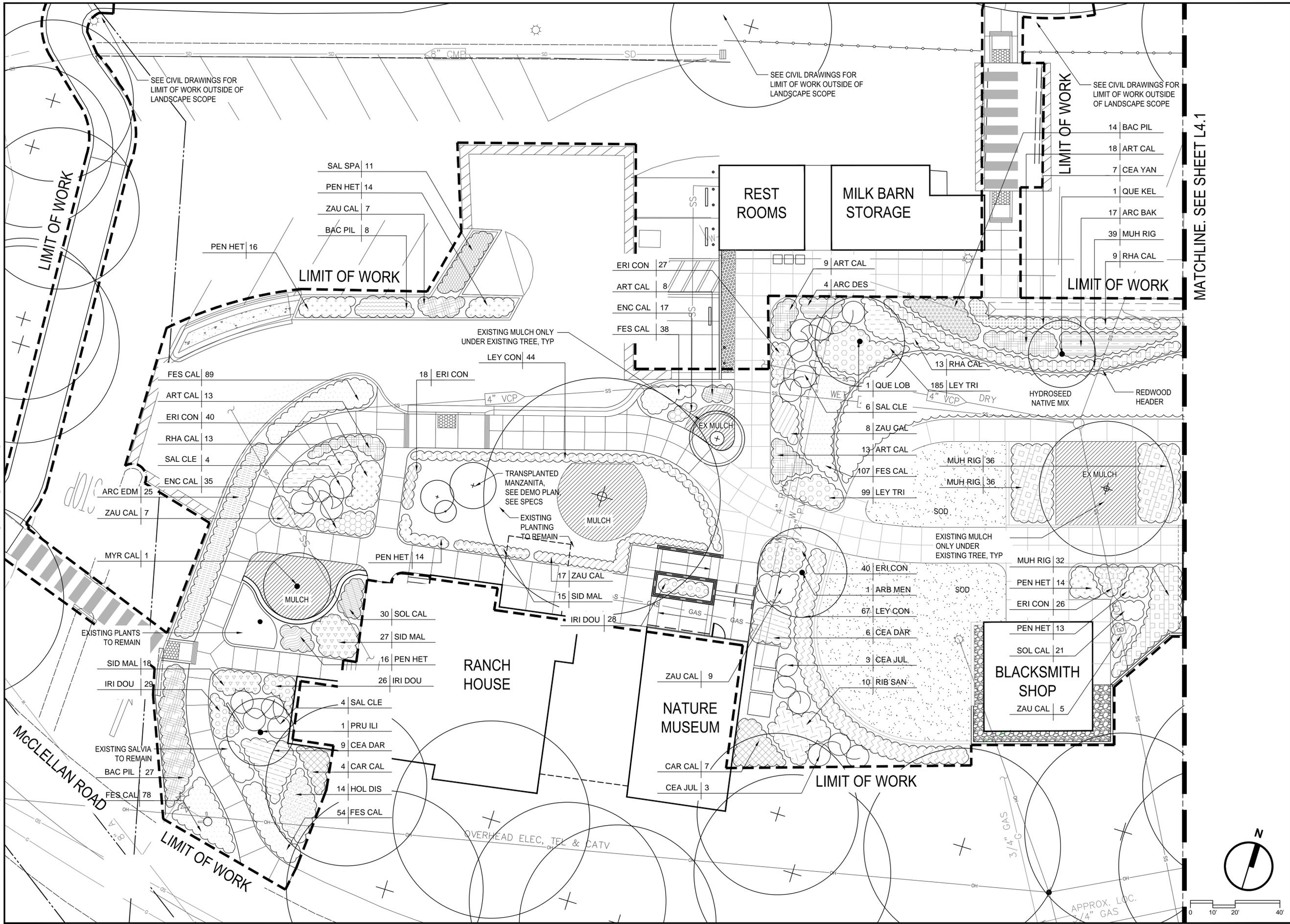
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SHEET TITLE
 Fine Grading Plan

L3.1



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PROJECT/CLIENT NAME
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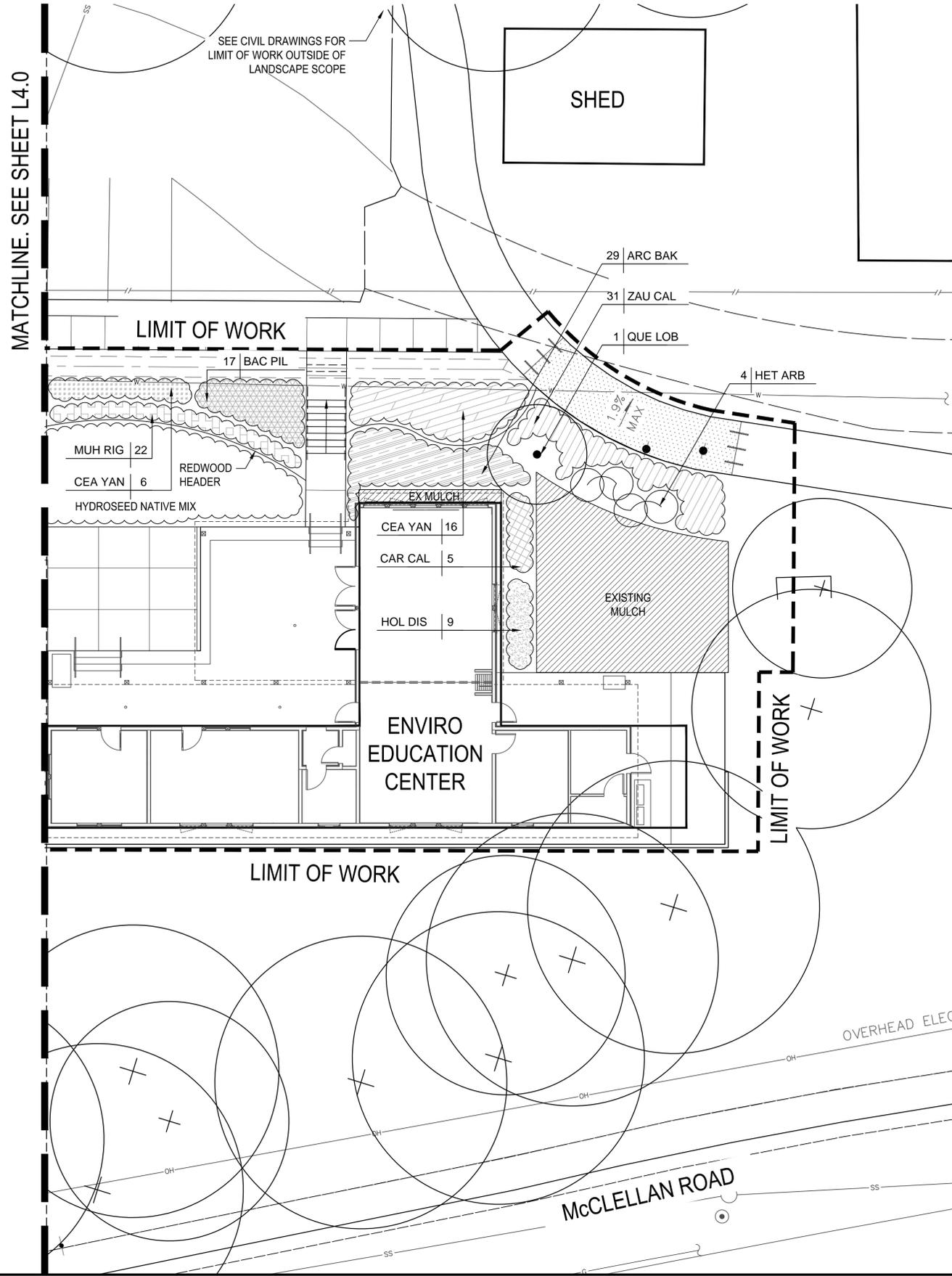
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SHEET TITLE
Planting Plan

L4.0

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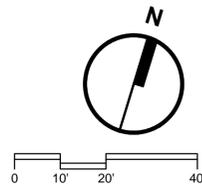
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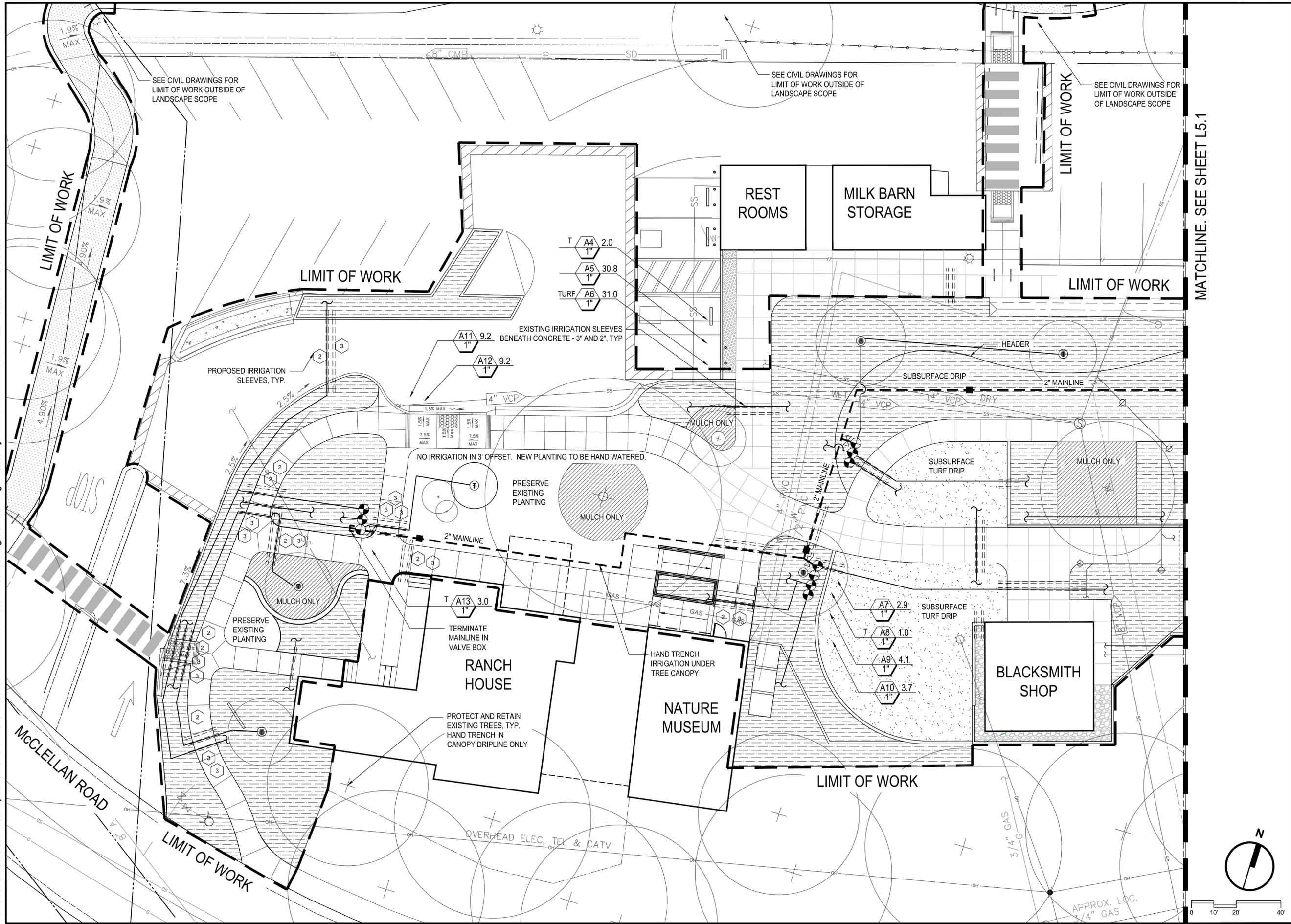
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Planting Plan

L4.1



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PROJECT/CLIENT NAME
**City of Cupertino
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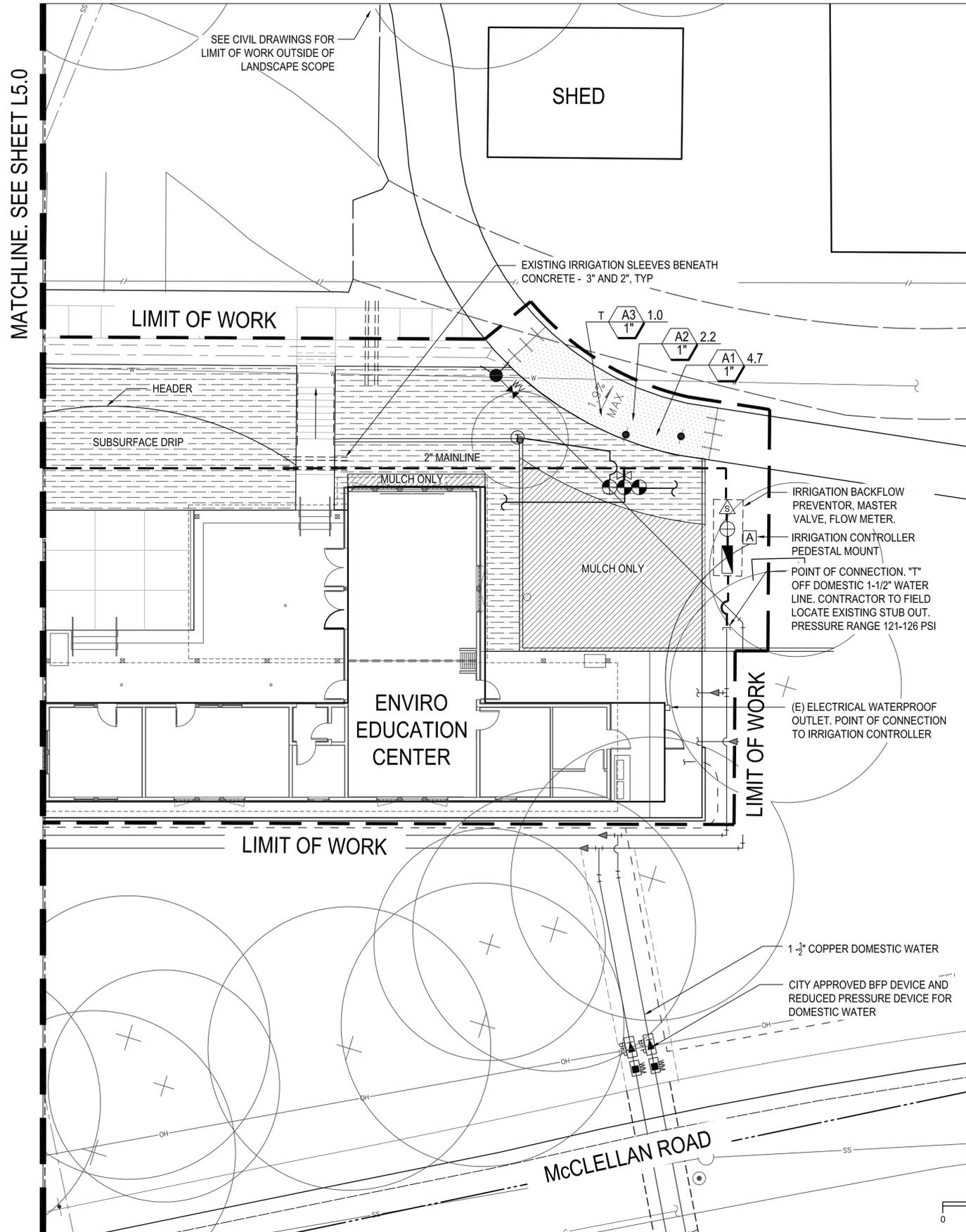
REGISTRATION AND SIGNATURE



SHEET TITLE
Irrigation Plan

L5.0

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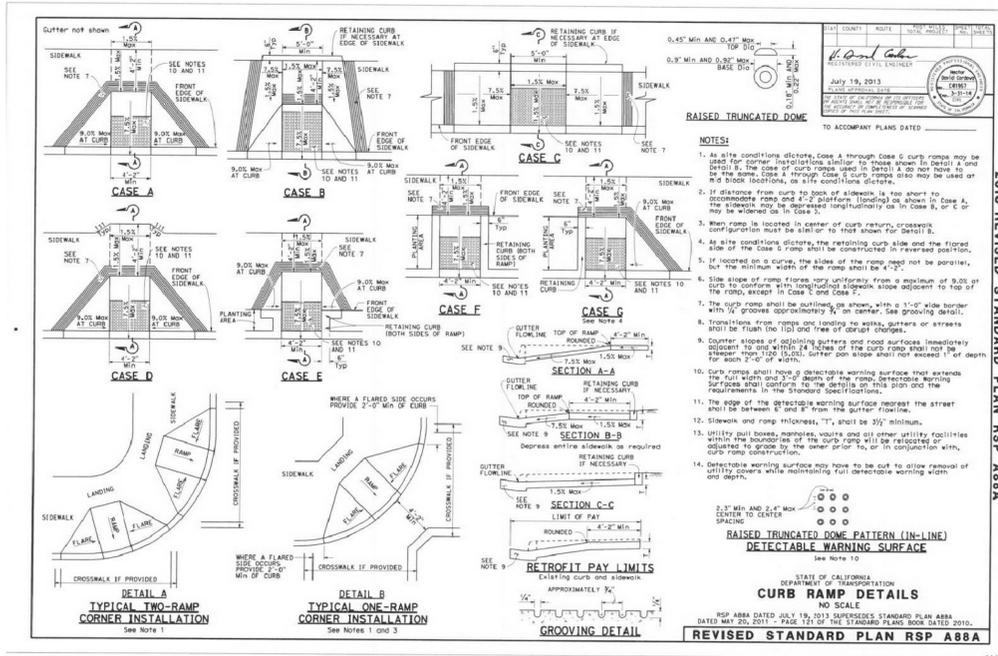
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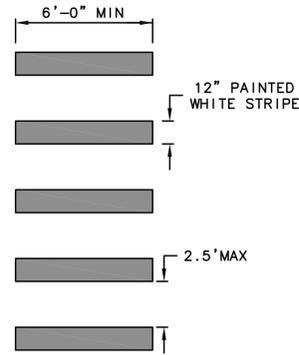
SHEET TITLE
 Irrigation Plan

L5.1

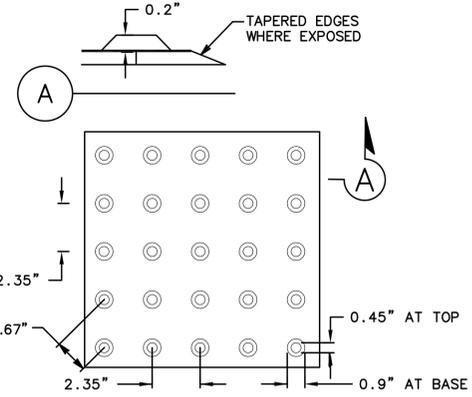
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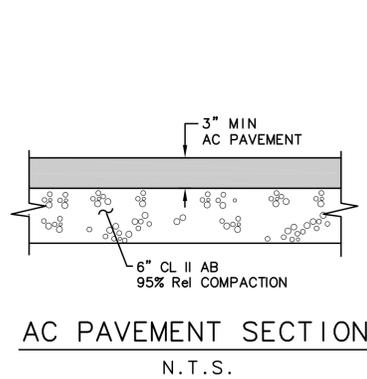
CALTRANS (2010) STD PLAN A88A
N.T.S.



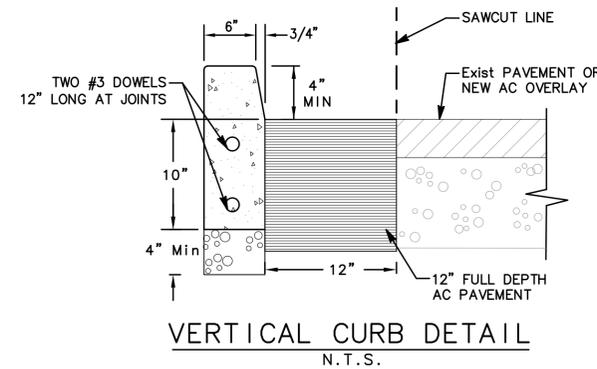
TYPICAL CROSS WALK STRIPING
N.T.S.



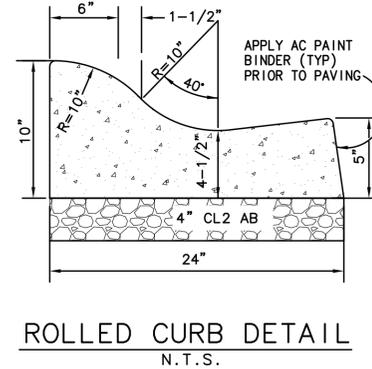
TRUNCATED DOMES
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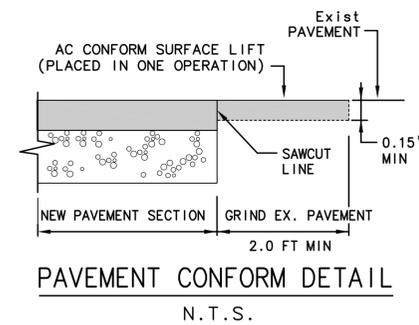
AC PAVEMENT SECTION
N.T.S.



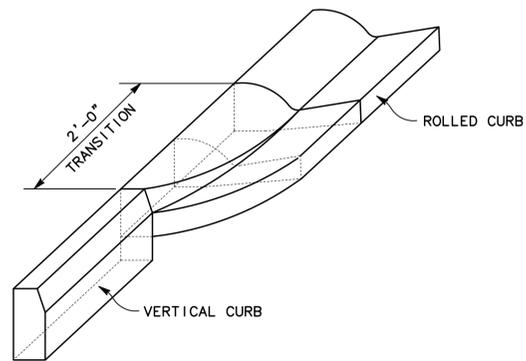
VERTICAL CURB DETAIL
N.T.S.



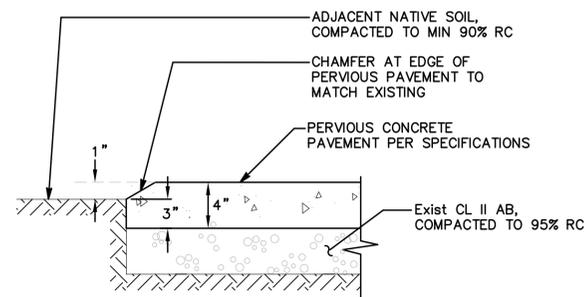
ROLLED CURB DETAIL
N.T.S.



PAVEMENT CONFORM DETAIL
N.T.S.



TRANSITION FROM VERTICAL CURB TO ROLLED CURB
N.T.S.



4" THICK PERVIOUS CONCRETE
N.T.S.

PROJECT/CLIENT NAME
City of Cupertino
McClellan Ranch
Preserve

McClellan Ranch Preserve
22221 McClellan Ranch Road
Cupertino, CA 95014

PROJECT NUMBER
14052A

SUBMITTAL
100% Construction
Documentation

DATE
5 June 2015

CONSULTANTS



MARK THOMAS & COMPANY, INC.
Providing Engineering, Surveying, and Planning Services
1960 Zanker Road
San Jose, CA 95112
(408) 453-5373

REVISIONS

| No. | Date | Description |
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Drawn By: CCC
Checked By: MF

REGISTRATION AND SIGNATURE



SHEET TITLE
CIVIL DETAILS

C3.0

File Name: S:\Active Job Files\Cupertino McClellan Ranch 14052A\CAD\CAD\IRHAA\Phase 2\Plot\6.0 Details.dwg Plotted By: MEGAN DALE Date Plotted: 6/3/2015 3:08 PM

PROJECT/CLIENT NAME
 City of Cupertino
 McClellan Ranch
 Preserve

McClellan Ranch Preserve
 22221 McClellan Road
 Cupertino, CA 95014

PROJECT NUMBER
 14052A

SUBMITTAL
 100% Construction
 Documentation

DATE
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CONSULTANTS

REVISIONS

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Drawn By: LK / MD
 Checked By: BL

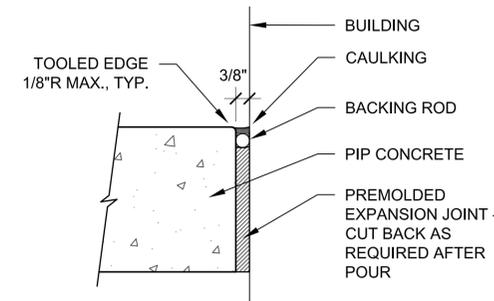
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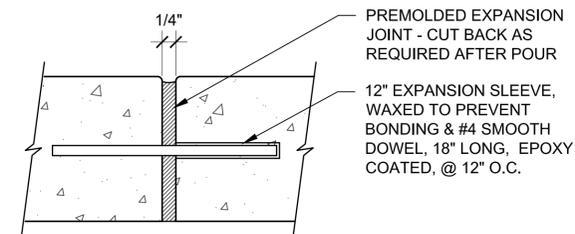
SHEET TITLE
 Construction Details

L6.0

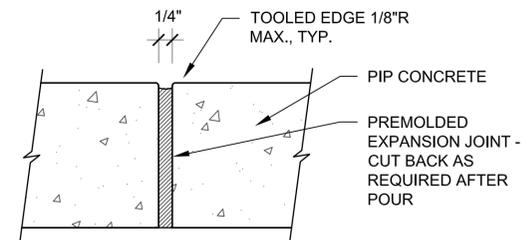
- NOTES:**
1. PROVIDE EJ'S AT ALL WALLS, COLUMNS AND SIMILAR VERTICAL STRUCTURES.
 2. DOWEL IS TYPICAL AT ALL EJ'S EXCEPT AGAINST CURBS, WALLS, COLUMNS OR SIMILAR VERTICAL STRUCTURES, UNLESS OTHERWISE NOTED ON THE DRAWING.



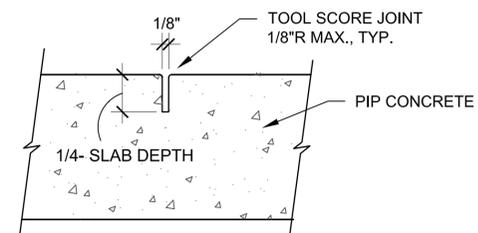
EXPANSION JOINT (CAULKED)



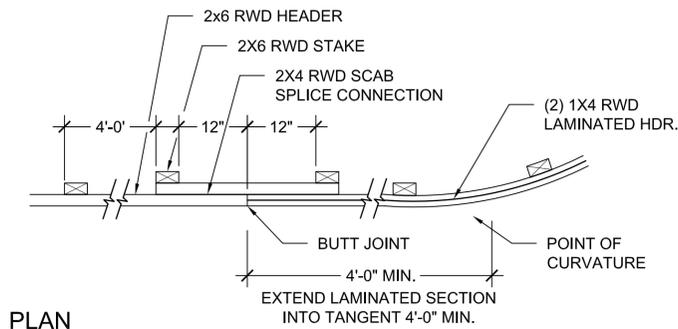
DOWEL @ EXPANSION JOINT



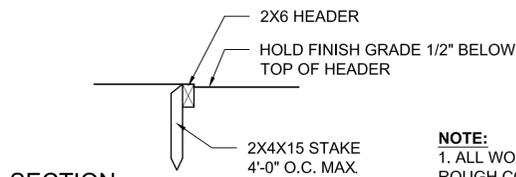
EXPANSION JOINT



TOOLED SCORE / CONTROL JOINT



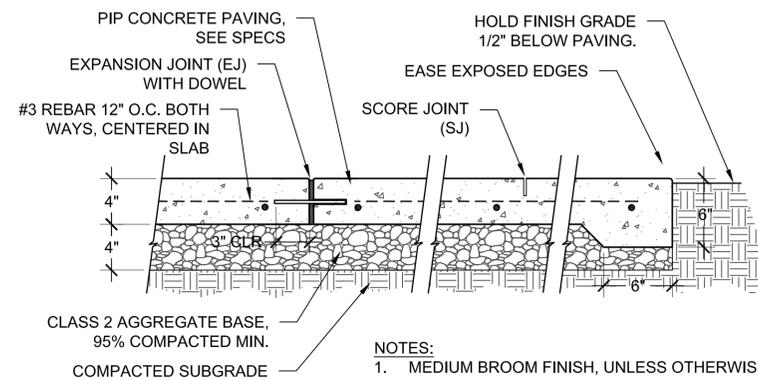
PLAN



SECTION

NOTE:
 1. ALL WOOD SHALL BE ROUGH CONST. HRT. REDWOOD.

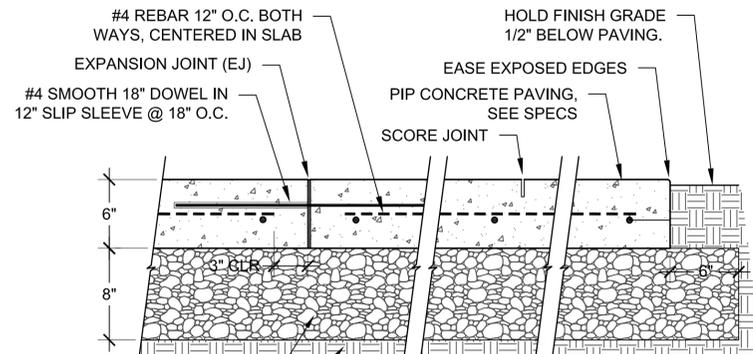
4 WOOD HEADER
 NTS



SECTION

- NOTES:**
1. MEDIUM BROOM FINISH, UNLESS OTHERWISE NOTED ON PLANS.
 2. PROVIDE SCORE JOINTS (SJ) AS SHOWN ON PLAN.
 3. PROVIDE (EJ) MAX. 18' O.C. BOTH DIRECTIONS, UNLESS OTHERWISE NOTED ON PLANS, AND ADJACENT TO BUILDINGS, WALLS, & OTHER VERTICAL ELEMENTS.

2 CONCRETE PAVING (PEDESTRIAN)
 SCALE: 1 1/2" = 1'-0"



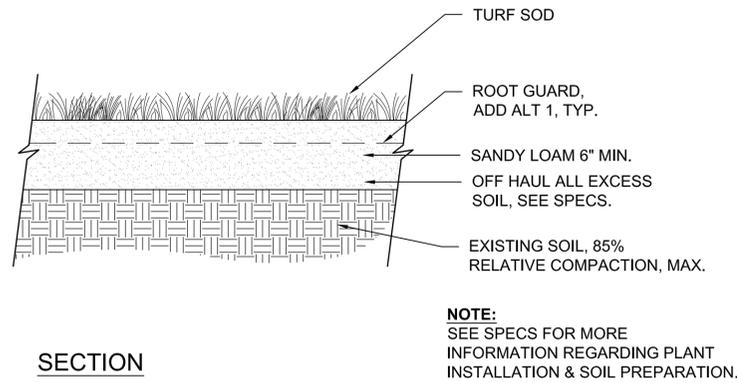
SECTION

- NOTES:**
1. MEDIUM BROOM FINISH, UNLESS OTHERWISE NOTED ON PLANS.
 2. PROVIDE SCORE JOINTS (SJ) AS SHOWN ON PLAN.
 3. PROVIDE (EJ) MAX. 18' O.C. BOTH DIRECTIONS, UNLESS OTHERWISE NOTED ON PLANS, AND ADJACENT TO BUILDINGS, WALLS, & OTHER VERTICAL ELEMENTS.

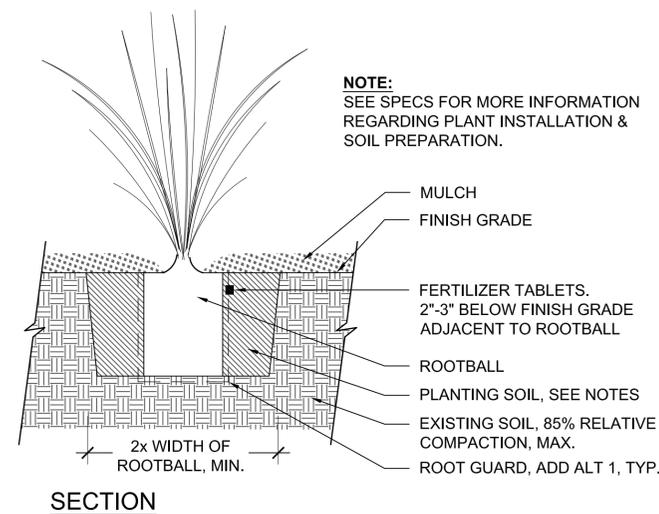
3 CONCRETE PAVING (VEHICULAR)
 SCALE: 1 1/2" = 1'-0"

1 CONCRETE EXPANSION AND CONTROL JOINTS
 NTS

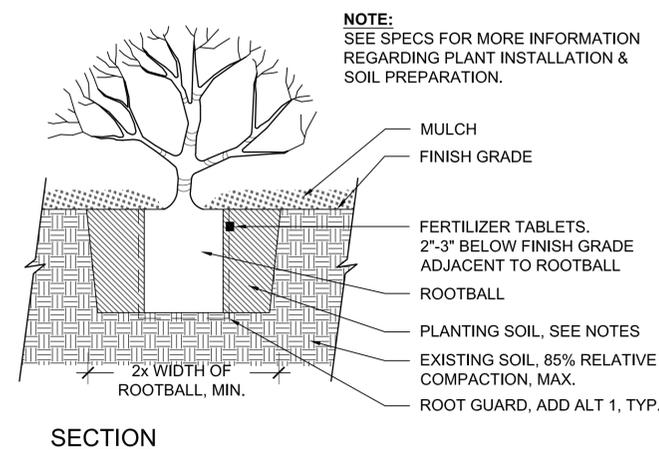
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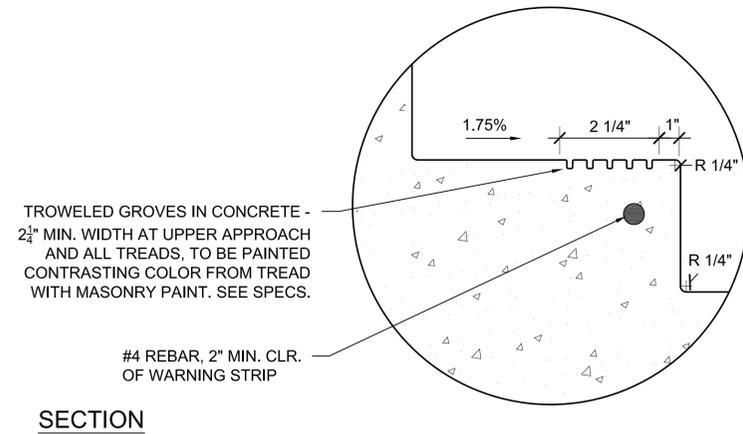
6 TURF
NTS



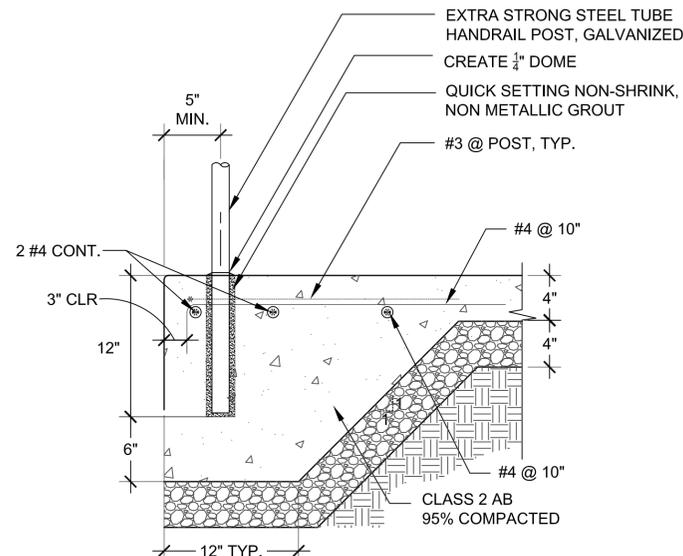
7 ORNAMENTAL GRASSES
NTS



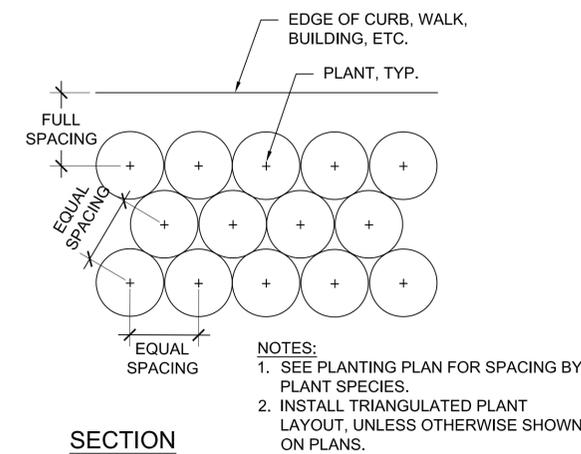
8 SHRUB PLANTING
NTS



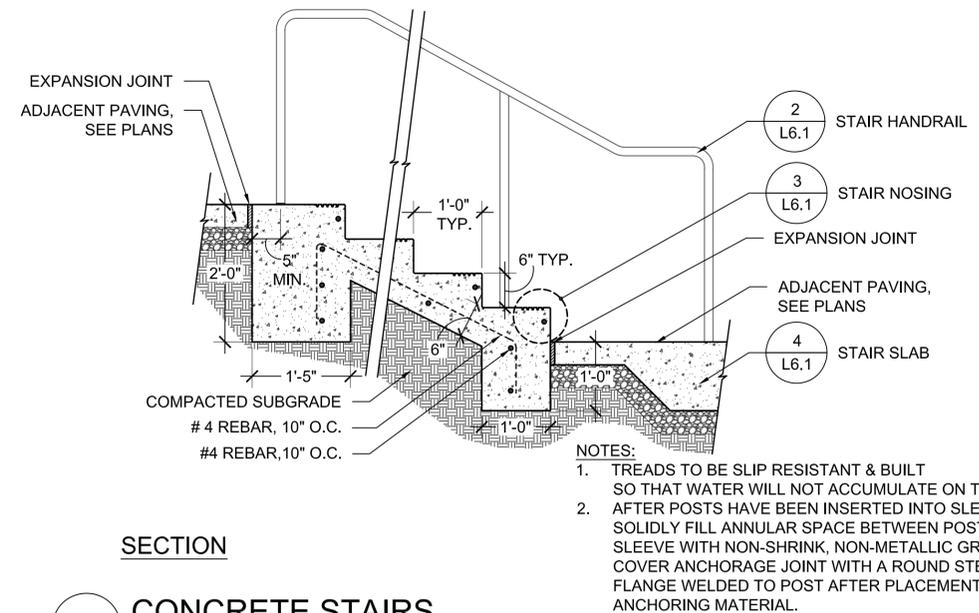
3 STAIR NOSING DETAIL
SCALE: NTS



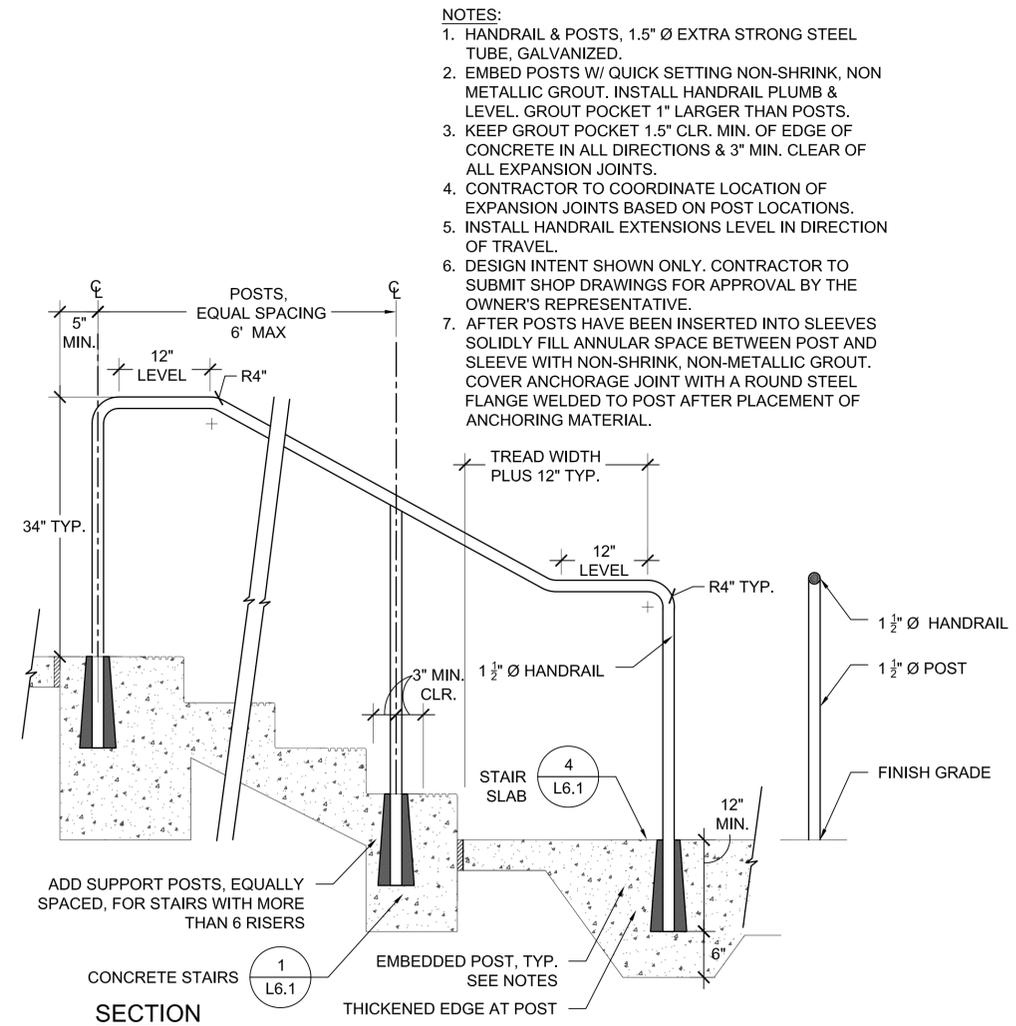
4 STAIR SLAB
SCALE: 1 1/2" = 1'-0"



5 GROUNDCOVER LAYOUT
NTS



1 CONCRETE STAIRS
SCALE: 3/4" = 1'-0"



2 STAIR HANDRAIL
SCALE: 1" = 1'-0"

REVISIONS

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Drawn By: LK / MD
Checked By: BL

REGISTRATION AND SIGNATURE



SHEET TITLE
Construction Details

L6.1

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PROJECT/CLIENT NAME
 City of Cupertino
 McClellan Ranch
 Preserve

McClellan Ranch Preserve
 22221 McClellan Road
 Cupertino, CA 95014

PROJECT NUMBER
 14052A

SUBMITTAL
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 Documentation

DATE
 5 June 2015

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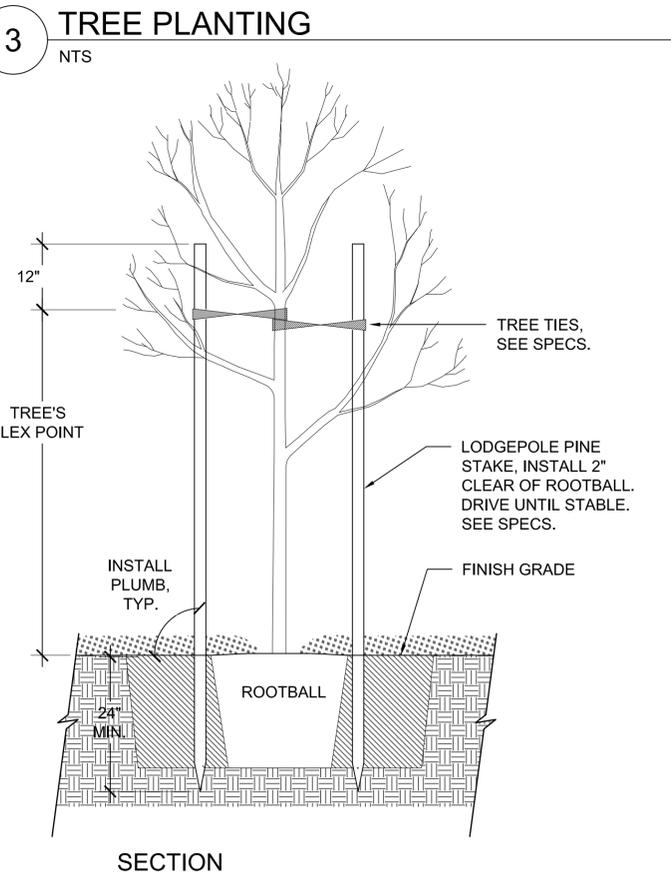
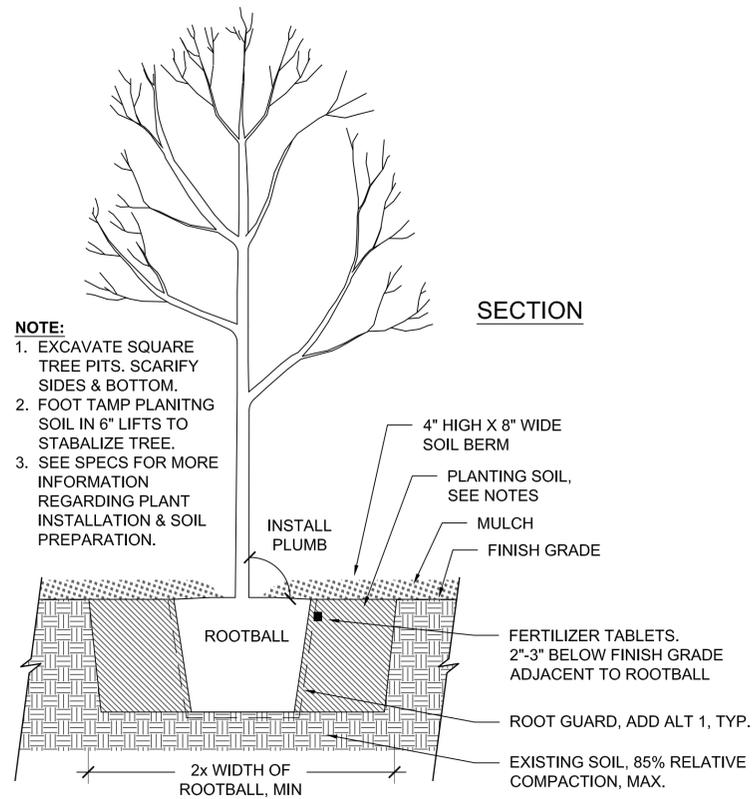
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REGISTRATION AND SIGNATURE

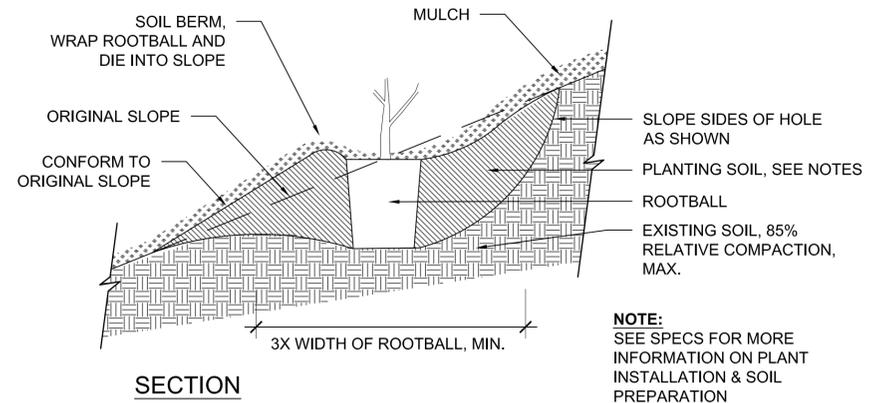


SHEET TITLE
 Construction Details

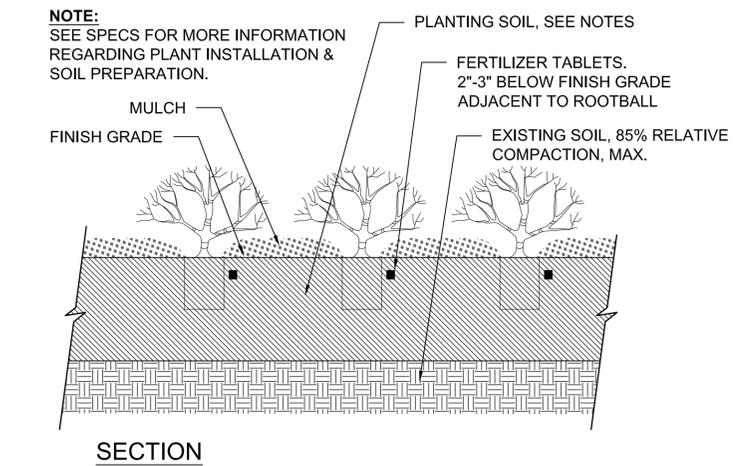
L6.2



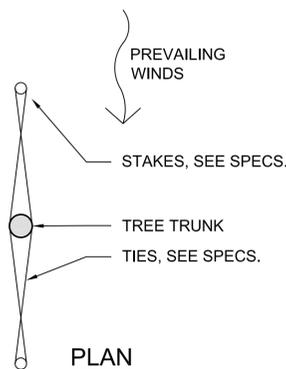
4 TREE STAKING
 NTS



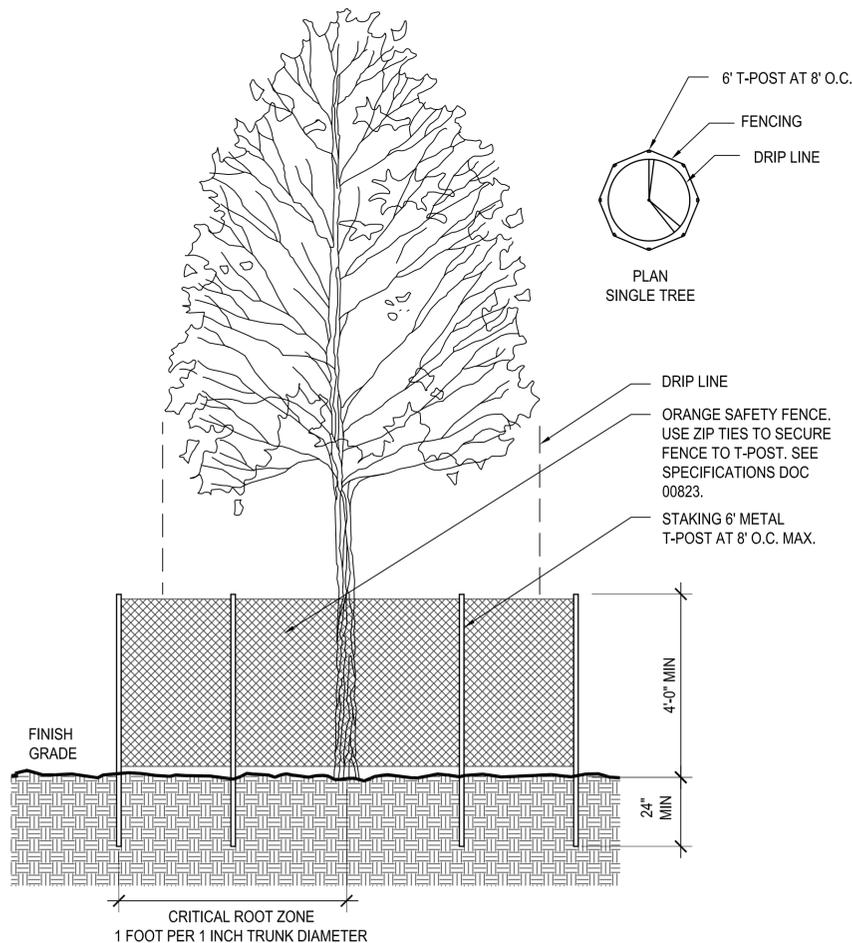
1 PLANTING ON SLOPE
 NTS



2 SHRUB PLANTING W/ BERM
 NTS



PLAN



5 TREE PRESERVATION FENCING
 NOT TO SCALE

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PROJECT/CLIENT NAME

**City of Cupertino
 McClellan Ranch
 Preserve**

McClellan Ranch Preserve
 22221 McClellan Road
 Cupertino, CA 95014

PROJECT NUMBER

14052A

SUBMITTAL

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DATE

5 June 2015

CONSULTANTS

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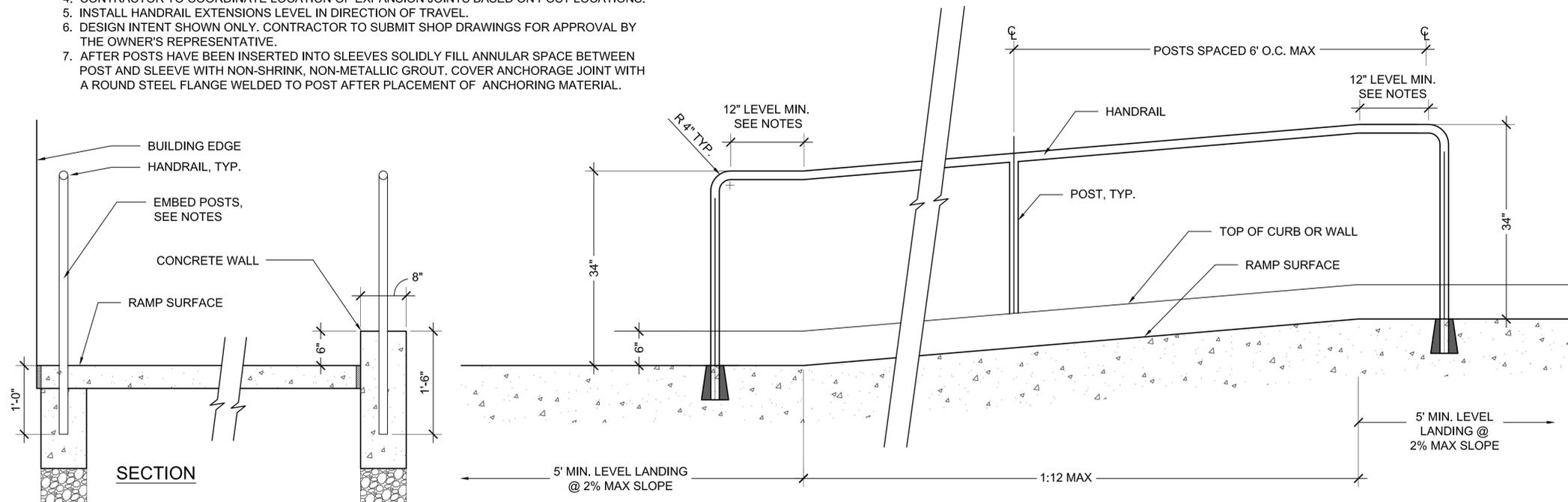
SHEET TITLE

Construction Details

L6.3

NOTES:

- HANDRAIL & POSTS, 1-1/2" Ø EXTRA STRONG STEEL TUBE, GALVANIZED
- EMBED POSTS W/ QUICK SETTING NON-SHRINK GROUT. INSTALL HANDRAIL PLUMB & LEVEL. GROUT POCKET 1" LARGER THAN POSTS.
- PROVIDE THICKENED EDGE TO CONCRETE PAVING SECTION AT GROUT POCKET. KEEP GROUT POCKET 1.5" CLR. MIN. OF EDGE OF CONCRETE IN ALL DIRECTIONS & 6" MINIMUM CLEAR OF ALL EXPANSION JOINTS
- CONTRACTOR TO COORDINATE LOCATION OF EXPANSION JOINTS BASED ON POST LOCATIONS.
- INSTALL HANDRAIL EXTENSIONS LEVEL IN DIRECTION OF TRAVEL.
- DESIGN INTENT SHOWN ONLY. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY THE OWNER'S REPRESENTATIVE.
- AFTER POSTS HAVE BEEN INSERTED INTO SLEEVES SOLIDLY FILL ANNULAR SPACE BETWEEN POST AND SLEEVE WITH NON-SHRINK, NON-METALLIC GROUT. COVER ANCHORAGE JOINT WITH A ROUND STEEL FLANGE WELDED TO POST AFTER PLACEMENT OF ANCHORING MATERIAL.



1 RAMP HANDRAIL
 SCALE: 1" = 1'-0"

File Name: S:\Active Job Files\Cupertino McClellan Ranch 14052A\CAD\IRRAI\Phase 2\PlotL6.4 Irrigation Details.dwg Plotted By: MEGAN DALE Date Plotted: 6/3/2015 3:10 PM

PROJECT/CLIENT NAME
City of Cupertino
McClellan Ranch
Preserve

McClellan Ranch Preserve
 22221 McClellan Road
 Cupertino, CA 95014

PROJECT NUMBER
 14052A

SUBMITTAL
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CONSULTANTS

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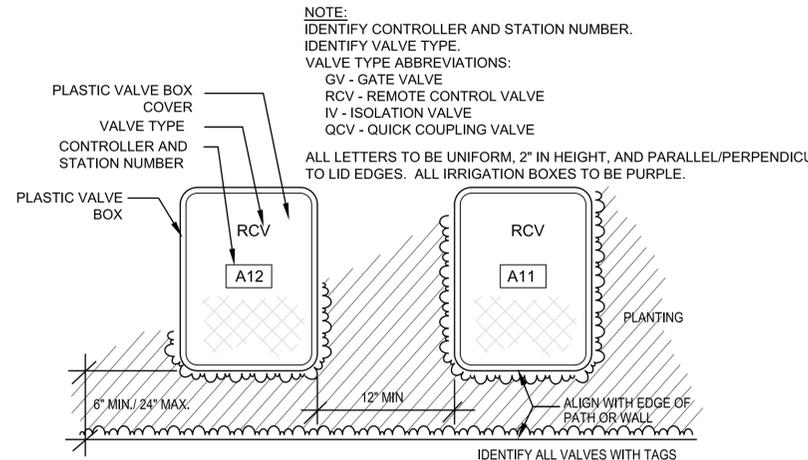
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REGISTRATION AND SIGNATURE



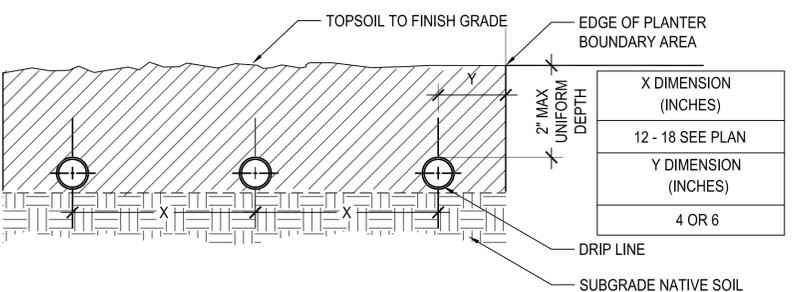
SHEET TITLE
 Irrigation Details

L6.4



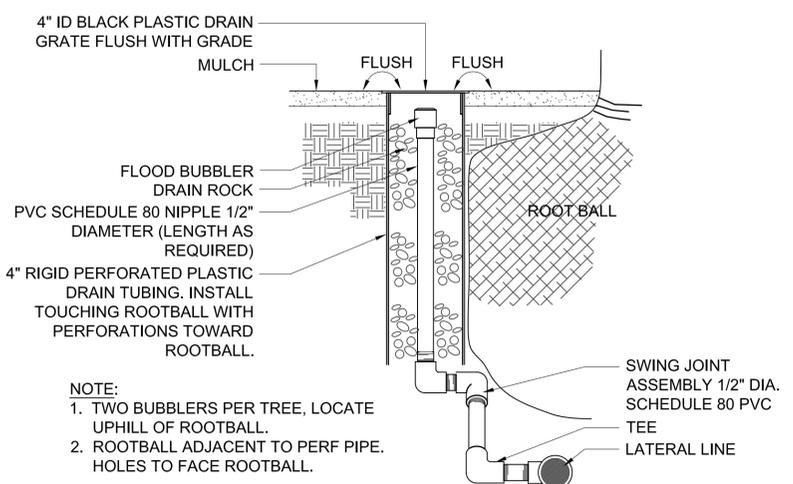
7 CONTROL VALVE BOXES

SCALE: NTS
 FILE: FILE



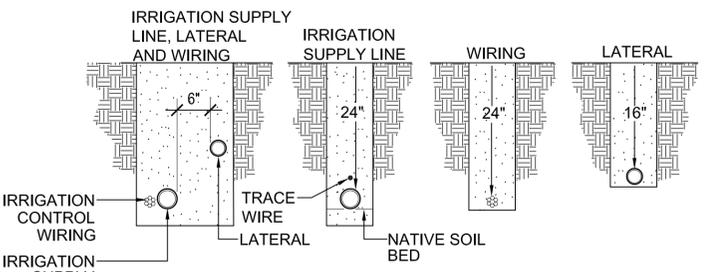
8 DRIP LINE INSTALLATION

SCALE: NTS
 FILE: FILE



9 TREE WATERING SYSTEM

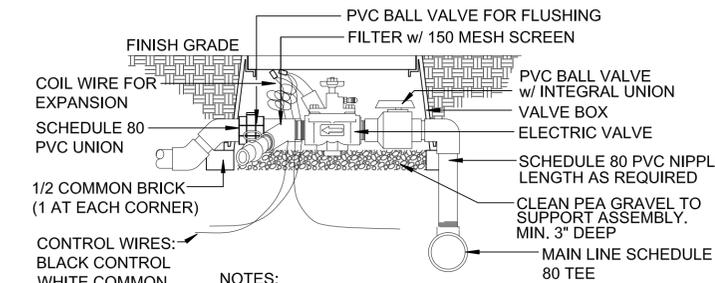
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4 TRENCHING

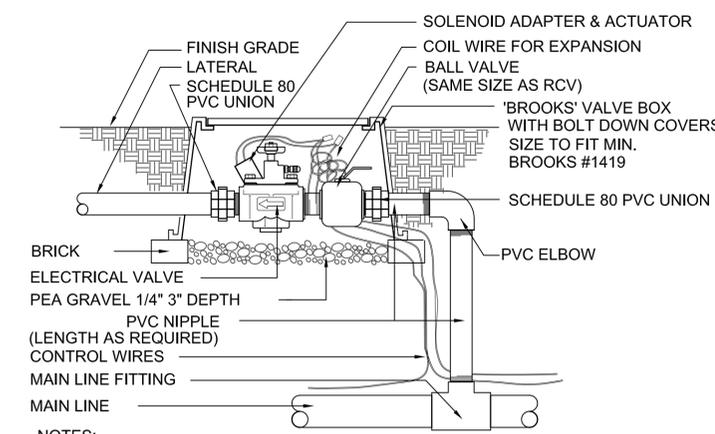
SCALE: NTS
 FILE: FILE

- NOTES:**
- LAY IRRIGATION SUPPLY LINE ON NATIVE SOIL BED UNLESS SAND BED IS SPECIFIED
 - BUNDLE AND TAPE WIRE EVERY TEN FEET
 - PROVIDE 36 inch COVER OVER ALL PIPE AND PIPE SLEEVES UNDER ROADWAYS, PARKING LOTS, ENTRANCES TO PARKING LOTS AND FIRE ACCESS LANES PER NFPA 24, SECTION 10.44.
 - PROVIDE SEPARATE SLEEVES FOR ALL WIRES CROSSING UNDER ROADWAYS, PARKING LOTS AND FIRE ACCESS LANES PER NFPA 24, SECTION 10.44.
 - PIPES TO BE PURPLE AND INDICATE NON-POTABLE WATER.



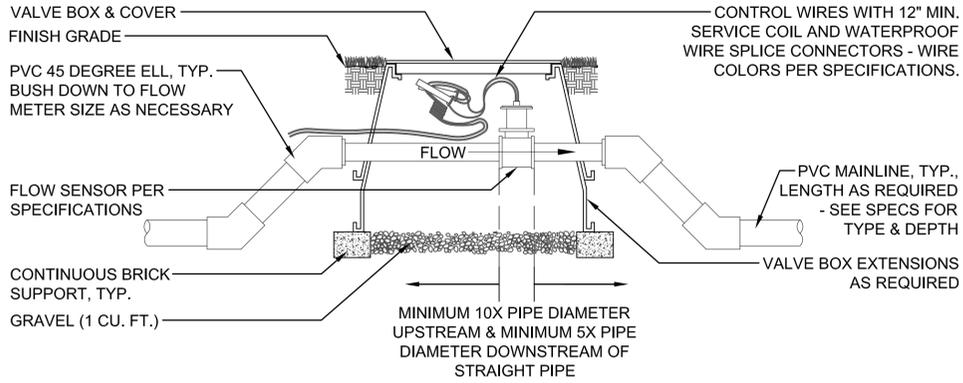
5 EMITTER REMOTE CONTROL VALVE

SCALE: NTS
 FILE: FILE



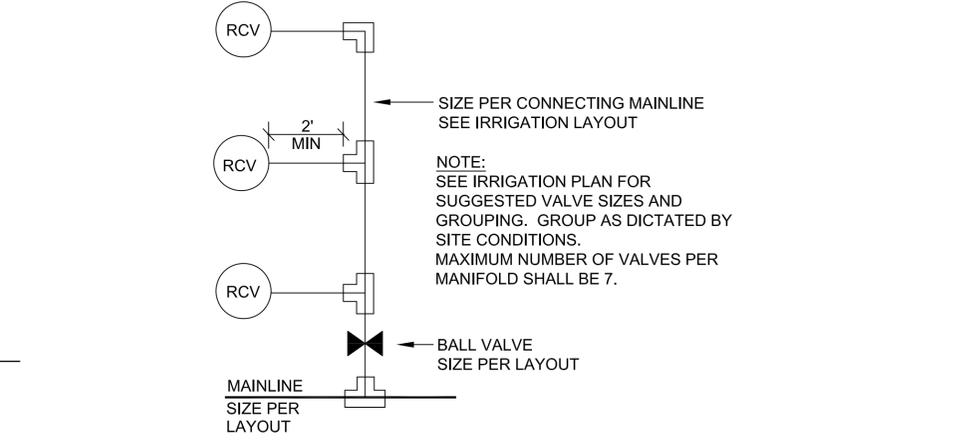
6 REMOTE CONTROL VALVE

SCALE: NTS
 FILE: FILE



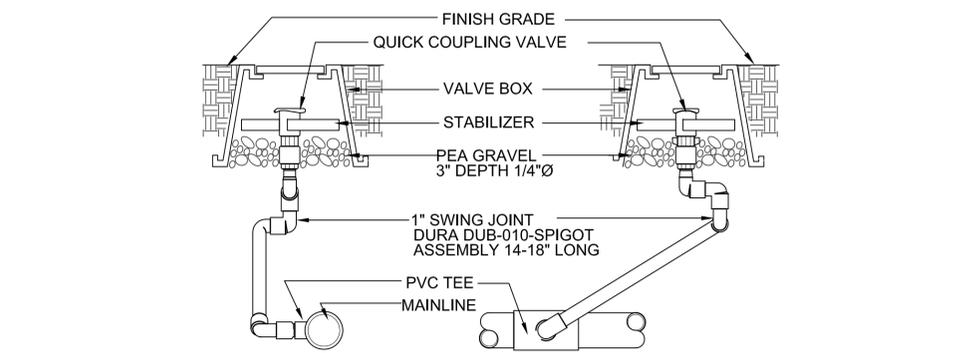
1 FLOW SENSOR

SCALE: NTS
 FILE: FILE



2 VALVE GROUPING

SCALE: NTS
 FILE: FILE



3 QUICK COUPLER VALVE

SCALE: NTS
 FILE: FILE

File Name: S:\Active Job Files\Cupertino McClellan Ranch 14052A\CAD\CDR\HAA\Phase 2\Plot\6.5 Irrigation Details.dwg Plotted By: CHELSEA ANDERSSON Date Plotted: 6/2/2015 4:42 PM

PROJECT/CLIENT NAME
**City of Cupertino
 McClellan Ranch
 Preserve**

McClellan Ranch Preserve
 22221 McClellan Road
 Cupertino, CA 95014

PROJECT NUMBER
 14052A

SUBMITTAL
**100% Construction
 Documentation**

DATE
5 June 2015

CONSULTANTS

REVISIONS

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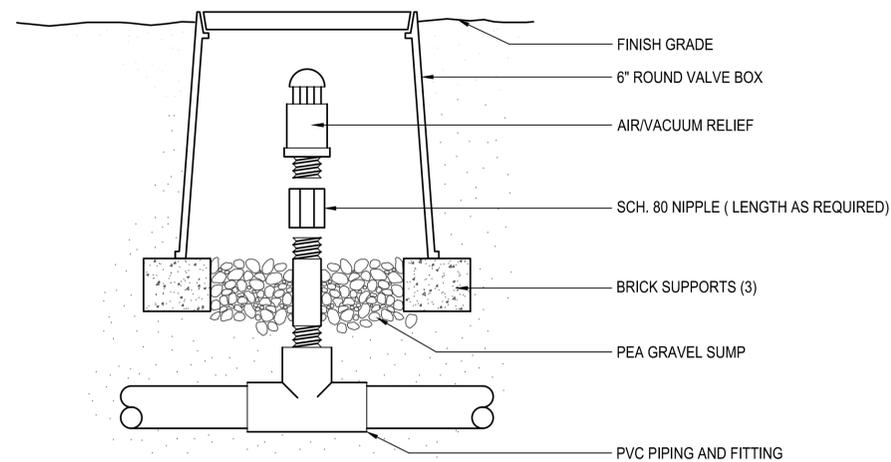
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REGISTRATION AND SIGNATURE

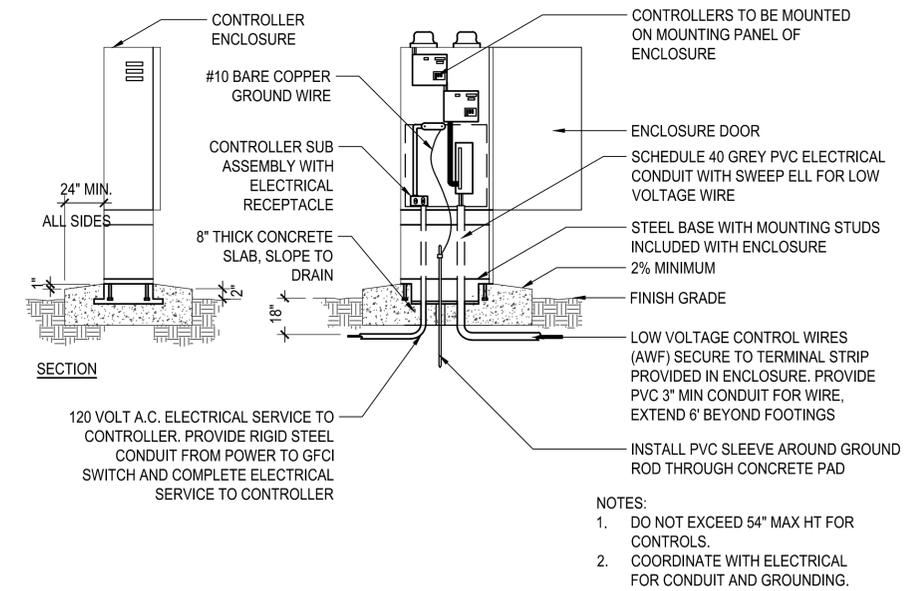


SHEET TITLE
Irrigation Details

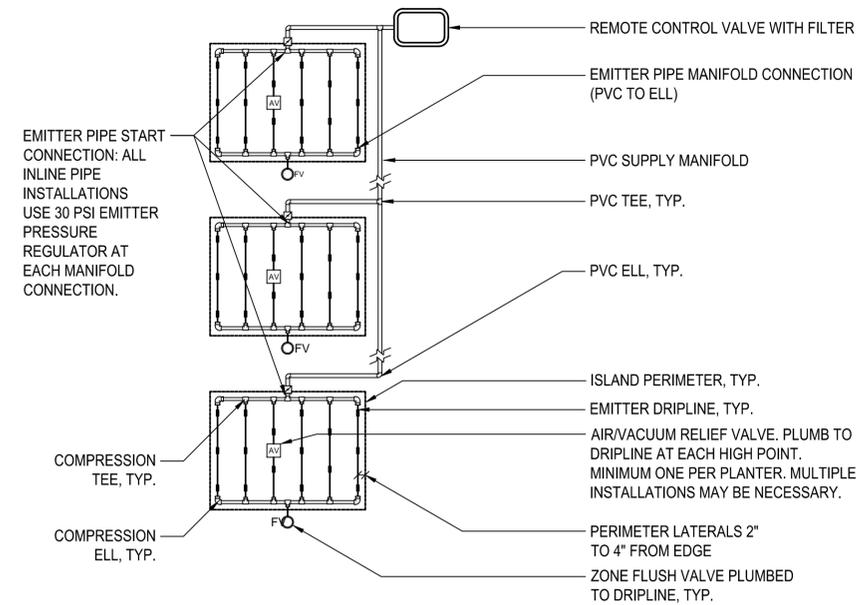
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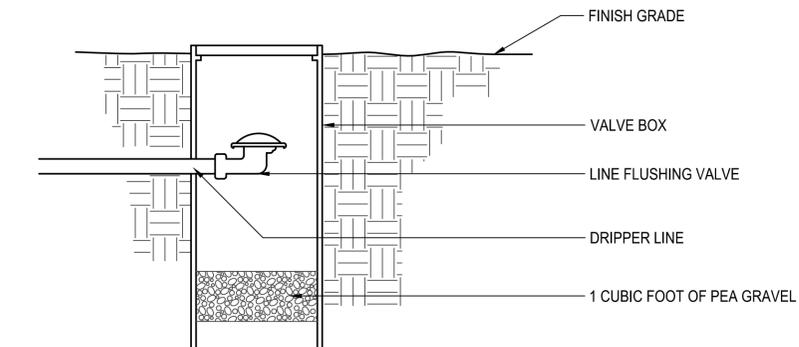
4 AIR/VACUUM RELIEF
 SCALE: 1 - 1/2" = 1' - 0"
 FILE:



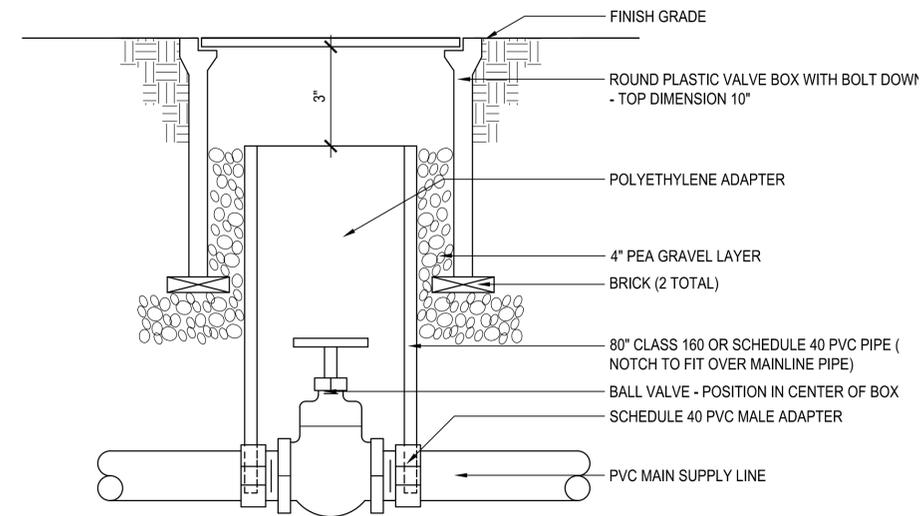
5 PEDESTAL MOUNTED IRRIGATION CONTROL
 SCALE: 3" = 1' - 0"
 FILE:



1 IN-LINE EMITTER ISLAND LAYOUT
 SCALE: 3/4" = 1' - 0"
 FILE:



2 LINE FLUSHING VALVE
 SCALE: 1 - 1/2" = 1' - 0"
 FILE:



3 BALL VALVE
 SCALE: 1 - 1/2" = 1' - 0"
 FILE:

In the Santa Clara Valley, storm drains flow directly to our local creeks, and on to San Francisco Bay, with no treatment.

Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or bays.

Proper management of construction sites reduces pollution significantly.

This sheet summarizes the "Best Management Practices" (BMPs) for storm water pollution prevention.

ORDINANCE OF THE CITY OF CUPERTINO FOR STORM WATER POLLUTION PREVENTION & WATERCOURSE PROTECTION: Chapter 9.18

9.18.040 Discharge into the storm drain prohibited
It shall be unlawful to discharge, or cause, allow, or permit to be discharged into any storm drain or natural outlet or channel all waste, including but not restricted to, sewage, industrial wastes, petroleum products, coal tar or any refuse substance arising from the manufacture of gas from coal or petroleum, chemicals, detergents, solvents, paints, contaminated or chlorinated swimming pool water, pesticides, herbicides and fertilizers.

9.18.070 Accidental Discharge
All persons shall notify the Director of Public Works by telephone immediately upon accidentally discharging wastes to enable countermeasures to be taken by the City to minimize damage to storm drains and the receiving waters. This notification shall be followed, within ten (10) days of the date of occurrence, by a detailed written statement describing the causes of the accidental discharge and the measures being taken to prevent further occurrences. Such notifications will not relieve persons of liability for violations of this chapter or for any fines imposed on the city on account thereof under Section 13350 of the California Water Code, or for violations of Section 5650 of California Fish and Wildlife Code, or any other applicable provisions of State or Federal laws.

9.18.220 Violation*
Any person who violates any provision of this Chapter shall be guilty of a misdemeanor and upon conviction thereof shall be punished as provided in Chapter 1.12 of the City of Cupertino Municipal Code.

Chapter 1.12: General Penalty, Section 1.12.010, paragraph D, states*:

- Unless otherwise specified by this code, an infraction is punishable by:
1. A fine not to exceed \$100 for a first violation
 2. A fine not to exceed \$200 for a second violation
 3. A fine not to exceed \$500 for a third violation of the same chapter within one year.

9.18.240 Civil penalty for illicit discharges*
Any person who discharges pollutants, in violation of this Chapter, by the use of illicit connections shall be civilly liable to the City in a sum not to exceed twenty-five thousand dollars per day per violation for each day in which such violation occurs.

*Excerpts – For complete CODE language refer to the City of Cupertino Municipal Code.

Cupertino
Building Dept:
408-777-3228
Public Works Dept:
408-777-3354

Santa Clara County
Recycling Hotline:
800-533-8414
www.reducewaste.org
www.recyclestuff.com
Small Business Hazardous Waste:
408-299-7300

Cupertino Sanitary Sewer Distr
408-253-7071

Santa Clara Valley Urban Runoff Pollution Prevention Prgm
800-794-2482

State Office of Emergency Services
1-800-852-7550 (24 hrs)

Report spills to 911

General Construction and Site Supervision

Storm Drain Pollution from Construction Activities

Construction sites are common sources of storm water pollution. Materials and wastes that blow or wash into a storm drain, gutter, or street have a direct impact on local creeks and the Bay.

As a contractor, or site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

General Principles

- Keep an orderly site and ensure good housekeeping practices are used.
- Maintain equipment properly.
- Cover materials when they are not in use.
- Keep materials away from streets, storm drains and drainage channels.
- Ensure dust control water doesn't leave site or discharge to storm drains.

Advance Planning To Prevent Pollution

- Schedule excavation and grading activities for dry weather periods. To reduce soil erosion, plant temporary vegetation or place other erosion controls before rain begins. Use the *Erosion and Sediment Control Manual*, available from the Regional Water Quality Control Board, as a reference.
- Control the amount of runoff crossing your site (especially during excavation!) by using berms or temporary or permanent drainage ditches to divert water flow around the site. Reduce stormwater runoff velocities by constructing temporary check dams or berms where appropriate.
- Train your employees and subcontractors. The city can provide brochures about these issues for you to distribute to workers at your construction site. Inform your subcontractors about the stormwater requirements and their own responsibilities. Use *Blueprint for a Clean Bay*, a construction best management practices guide available at our Building Dept. counter.

Good Housekeeping Practices

- Designate one area of the site for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, bermed if necessary. Make major repairs off site.
- To prevent off-site tracking of dirt, provide entrances with stabilized aggregate surfaces. Or provide a tire wash area.
- Keep materials out of the rain – prevent runoff contamination at the source. Cover exposed piles of soil or construction materials with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- Keep pollutants off exposed surfaces. Place trash cans and recycling receptacles around the site to minimize litter.
- Clean up leaks, drips and other spills immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down.
- Cover and maintain dumpsters. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. Never clean out a dumpster by hosing it down on the construction site.
- Place portable toilets away from storm drains. Make sure portable toilets are in good working order. Check frequently for leaks.

Materials/Waste Handling

- Practice Source Reduction – minimize waste when you order materials. Estimate carefully.
- Recycle excess materials, whenever possible, such as concrete, asphalt, scrap metal, solvents, degreasers, cleaned vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires.
- Dispose of all wastes properly. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or stream bed.

Permits

- In addition to local grading and building permits, you will need to obtain coverage under the State's General Construction Activity Stormwater Permit if your construction site's disturbed area totals 5 acres or more. Information on the General Permit can be obtained from the Regional Water Quality Control Board. (This criteria will change to one acre as of Mar. 2003.)

Landscaping, Gardening, and Pool Maintenance

Landscaping/Garden Maintenance

- Protect stockpiles and landscaping materials from wind and rain by storing them under tarps or secured plastic sheeting.
- Schedule grading and excavation projects during dry weather.
- Use temporary check dams or ditches to divert runoff away from storm drains.
- Protect storm drains with sandbags, gravel-filled bags, straw wattles, or other sediment controls.
- Re-vegetation is an excellent form of erosion control for any site.
- Store pesticides, fertilizers, and other chemicals indoors or in a shed or storage cabinet.
- Use pesticides sparingly, according to instructions on the label. Rinse empty containers, and use insecticide as product. Dispose of rinsed, empty containers in the trash. Dispose of unused pesticides as hazardous waste.
- In Cupertino, residents with curbside recycling can collect lawn, garden and tree trimmings in yardwaste totes. Yardwaste will be collected and composted by the city's contractors. Residents are encouraged to compost yardwaste on-site themselves. Or take yardwaste to a landfill where it will be composted.
- Landscaping contractors should take clippings and pruning waste to a landfill that composts yard waste (BFF's Newby Island and Zanker Rd. landfill are the nearest).
- Do not blow or rake leaves into the street.

Storm Drain Pollution from Landscaping and Swimming Pool Maintenance

Many landscaping activities expose soils and increase the likelihood that earth and garden chemicals will run off into the storm drains during irrigation or when it rains. Swimming pool water containing chlorine and copper-based algacides should never be discharged to storm drains. These chemicals are toxic to aquatic life.

Pool/Fountain/Spa Maintenance

When it's time to drain a pool, spa, or fountain, please be sure to call the Cupertino Sanitary District before you start for further guidance on flow rate restrictions, backflow prevention, and handling special cleaning waste (such as acid wash). Discharge flows should be kept to the low levels typically possible through a garden hose. Higher flow rates may be prohibited by local ordinance.

- Never discharge pool or spa water to a street or storm drain; discharge to a sanitary sewer cleanout.
- If possible, when emptying a pool or spa, let chlorine dissipate for a few days and then recycle/reuse water by draining it gradually into a landscaped area.
- Do not use copper-based algacides. Control algae with chlorine or other alternatives, such as sodium bromide.

Filter Cleaning

- Never clean a filter in the street or near a storm drain. Rinse cartridge and diatomaceous earth filters onto a dirt area, and spade filter residue into soil. Dispose of spent diatomaceous earth in the garbage.
- If there is no suitable dirt area, call Cupertino Sanitary for instructions on discharging filter backwash or rinsewater to the sanitary sewer.

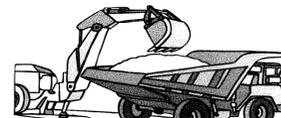
Earth-Moving Activities

Storm Drain Pollution from Earth-Moving Activities

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains when handled improperly. Sediments in runoff can clog storm drains, smother aquatic life, and destroy habitats in creeks and the Bay. Effective erosion control practices reduce the amount of runoff crossing a site and slow the flow with check dams or roughened ground surfaces.

Practices During Construction

- Remove existing vegetation only when absolutely necessary. Plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- Protect downslope drainage courses, streams, and storm drains with wattles, or temporary drainage swales. Use check dams or ditches to divert runoff around excavations. Refer to the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual* for proper erosion and sediment control measures.
- Cover stockpiles and excavated soil with secured tarps or plastic sheeting.



Dewatering Operations

Storm Drain Pollution from Dewatering Activities

Be sure to call your city's storm water inspector at 408-472-9907 before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, and sediment trap may be required. Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.

Check for Sediment or Toxic Pollutants

- Check for odors, discoloration, or an oily sheen on groundwater.
- Ask your city inspector whether the groundwater must be tested by a certified laboratory.
- Depending on the test results, you may be allowed to discharge pumped groundwater to the storm drain OR you may be required to discharge to the sanitary sewer or collect and haul the water off-site for treatment and disposal at an appropriate treatment facility.
- When discharging to a storm drain, protect the inlet using a barrier of burlap bags filled with drain rock, or cover inlet with filter fabric anchored under the grate.
- Contact Cupertino Sanitary District at 253-7071 prior to discharging to the sanitary sewer.

Heavy Equipment Operation

Storm water Pollution from Heavy Equipment on Construction Sites

Poorly maintained vehicles and heavy equipment that leak fuel, oil, antifreeze or other fluids on the construction site are common sources of storm drain pollution. Prevent spills and leaks by isolating equipment from runoff channels, and by watching for leaks and other maintenance problems. Remove construction equipment from the site as soon as possible.

Site Planning and Preventive Vehicle Maintenance

- Designate one area of the construction site well away from streams or storm drain inlets, for auto and equipment parking, refueling, and routine vehicle and equipment maintenance. Contain the area with berms, sand bags, or other barriers.
- Maintain all vehicles and heavy equipment in spect frequently for and repair leaks.
- Perform major maintenance, repair jobs, and vehicle and equipment washing off-site, where cleanup is easier.
- If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in separate containers, and properly dispose of hazardous waste (recycle whenever possible).
- Do not use diesel oil to lubricate equipment parts, or clean equipment. Use only water for any on-site cleaning.
- Cover exposed fifth wheel hitches and other oily or greasy equipment during rain events.
- Spill Cleanup
 - Clean up spills immediately.
 - Never hose down "dirty" pavement or impermeable surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, a dry rag) whenever possible and properly dispose of absorbent materials.
 - Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
 - Use as little water as possible for dust control. Ensure water used doesn't leave silt or discharge to storm drains.
 - Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
 - Call 911 for significant spills.
 - If the spill poses a significant hazard to human health and safety, property or the environment, you must also report it to the State Office of Emergency Services.

The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. You may be held responsible for any environmental damage caused by your subcontractors or employees.

Painting and Application of Solvents and Adhesives

Storm Drain Pollution from Paints, Solvents, and Adhesives

All paints, solvents, and adhesives contain chemicals that are harmful to wildlife in local creeks, San Francisco Bay, and the Pacific Ocean. Toxic chemicals may come from liquid or solid products or from cleaning residues or rags. Paint material and wastes, adhesives and cleaning fluids should be recycled when possible, or disposed of properly to prevent these materials from flowing into storm drains and watercourses.

Handling Paint Products

- Keep all liquid paint products and wastes away from the gutter, street, and storm drains.
- Painting Cleanup
 - Never clean brushes or rinse paint containers into a street, gutter, storm drain, French drain, or creek.
 - For water-based paints, paint out brushes to the extent possible, and rinse into an inside sink drain that goes to the sanitary sewer.
 - For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent. Filter and reuse thinners and solvents, where possible. Dispose of excess liquids and residue as hazardous waste.
 - When thoroughly dry, empty paint cans, used brushes, rags, and drop cloths may be disposed of as garbage.



Paint Removal

- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- Chemical paint stripping residue, and chips and dust from marine paints, or paints containing lead, mercury or tributyl tin must be disposed of as hazardous wastes. Lead based paint removal requires a state-certified contractor.
- When stripping or cleaning building exteriors with high-pressure water, block storm drains. Direct washwater onto a dirt area and spade into soil. Or, check with Cupertino Sanitary District to find out if you can mop or vacuum the washwater and dispose of it in a sanitary sewer drain. Sampling of the washwater may be required.
- Washwater from painted buildings constructed before 1978 can contain high amounts of Lead, even if paint chips are not present. Before you begin stripping paint or cleaning pre-1978 building exteriors with water under high pressure, test paint for lead by taking paint scrapings to a local laboratory. (See Yellow Pages for a state-certified laboratory.)
- If there is loose paint on the building, or if the paint tests positive for lead, block storm drains. Check with Cupertino Sanitary District to determine whether you may discharge water to the sanitary sewer, or if you must send it offsite for disposal as hazardous waste.

Paint Disposal, Return or Donation

- Dispose of unwanted liquid paint, thinners, solvents, glues, and cleaning fluids as hazardous waste (call the Small Business Hazardous Waste Prgm: 299-7300).
- Or return to supplier. (Unopened cans of paint may be able to be returned. Check with the vendor regarding its "buy-back" policy.)
- Donate excess paint (call 299-7300 to donate).

Roadwork and Paving



Storm Drain Pollution from Roadwork

Road paving, surfacing, and pavement removal happen right in the street, where there are numerous opportunities for asphalt, saw-cut slurry, or excavated material to illegally enter storm drains. Extra planning is required to store and dispose of materials properly and guard against pollution of storm drains, creeks, and the Bay.

During Construction

- Avoid paving and seal coating in wet weather, or when rain is forecast, to prevent fresh materials from contacting stormwater runoff.
- Cover and seal catch basins and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- Protect drainage ways by using earth dikes, sand bags, or other controls to divert or trap and filter runoff.
- Never wash excess material from exposed aggregate concrete or similar treatments into a street or storm drain. Collect and recycle, or dispose to dirt area.
- Cover stockpiles (asphalt, sand, etc.) and other construction materials with plastic tarps. Protect from rainfall and prevent runoff with temporary roofs or plastic sheets and berms.
- Park paving machines over drip pans or absorbent material (cloth, rags, etc.) to catch drips when not in use.
- Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags), or dig up, remove, and properly dispose of contaminated soil.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. ???
- Avoid over-application by water trucks for dust control.

Fresh Concrete and Mortar Application

Storm Drain Pollution from Fresh Concrete and Mortar Applications

Fresh concrete and cement-related mortars that wash into lakes, streams, or estuaries are toxic to fish and the aquatic environment. Disposing of these materials to the storm drains or creeks can block storm drains, cause serious problems, and is prohibited by law.

General Business Practices

- Wash out concrete mixers only in designated washout areas in your yard, away from storm drains and waterways, where the water will flow into a temporary waste pit in a dirt area. Let water percolate through soil and dispose of settled, hardened concrete as garbage. Whenever possible, recycle washout by pumping back into mixers for reuse.
- Wash out chutes onto dirt areas that do not flow to streets or drains.
- Always store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Protect dry materials from wind.
- Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall, and runoff.
- Do not use diesel fuel as a lubricant on concrete forms, tools, or trailers.

During Construction

- Don't mix up more fresh concrete or cement than you will use in a two-hour period.
- Set up and operate small mixers on tarps or heavy plastic drop cloths.
- When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- Protect applications of fresh concrete and mortar from rainfall and runoff until the material has dried.
- Wash down exposed aggregate concrete only when the washwater can (1) flow onto a dirt area, (2) drain onto a bermed surface from which it can be pumped and disposed of properly, or (3) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
- When breaking up pavement, be sure to pick up all the pieces and dispose of properly. Recycle large chunks of broken concrete. See www.reducewaste.org for info on recyclers.
- Never bury waste material. Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- Never dispose of washout into the street, storm drains, drainage ditches, or streams.



Small Business Hazardous Waste Disposal Prgm
Businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use this program.
Call 408-299-7300 for a quote.



UPDATED JANUARY 2011

APPROVED BY:
TIMM BORDEN, RCE 45512 12/31/12
DIRECTOR OF PUBLIC WORKS

1/26/2011
DATE

CONSTRUCTION BEST MANAGEMENT PRACTICES

CITY OF CUPERTINO
DEPARTMENT OF PUBLIC WORKS

SHEET:
OF SHEETS
FILE: