



# County of Santa Cruz

DEPARTMENT OF PARKS, OPEN SPACE & CULTURAL SERVICES

979 17<sup>TH</sup> AVENUE, SANTA CRUZ, CA 95062

(831) 454-7901

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## PLANS AND SPECIFICATIONS

# FLORAL COUNTY PARK PLAYGROUND AREA – SITE WORK June 2024

**PROJECT NO.:** #2024-RP0055

**VOLUME II:** Plans and Specifications

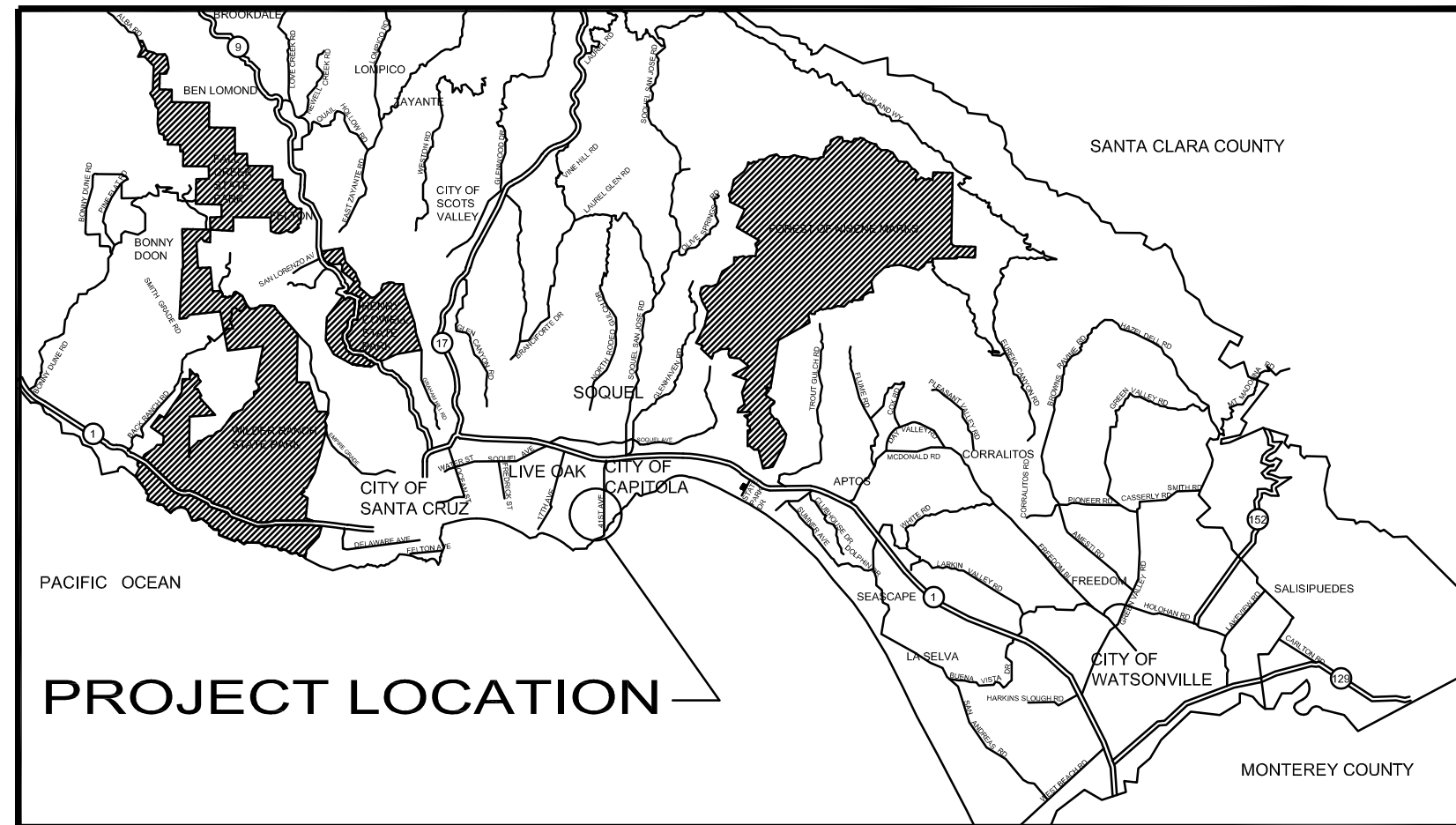
***THIS IS A PREVAILING WAGE PROJECT***

# FLORAL PARK PLAY AREA RENOVATION

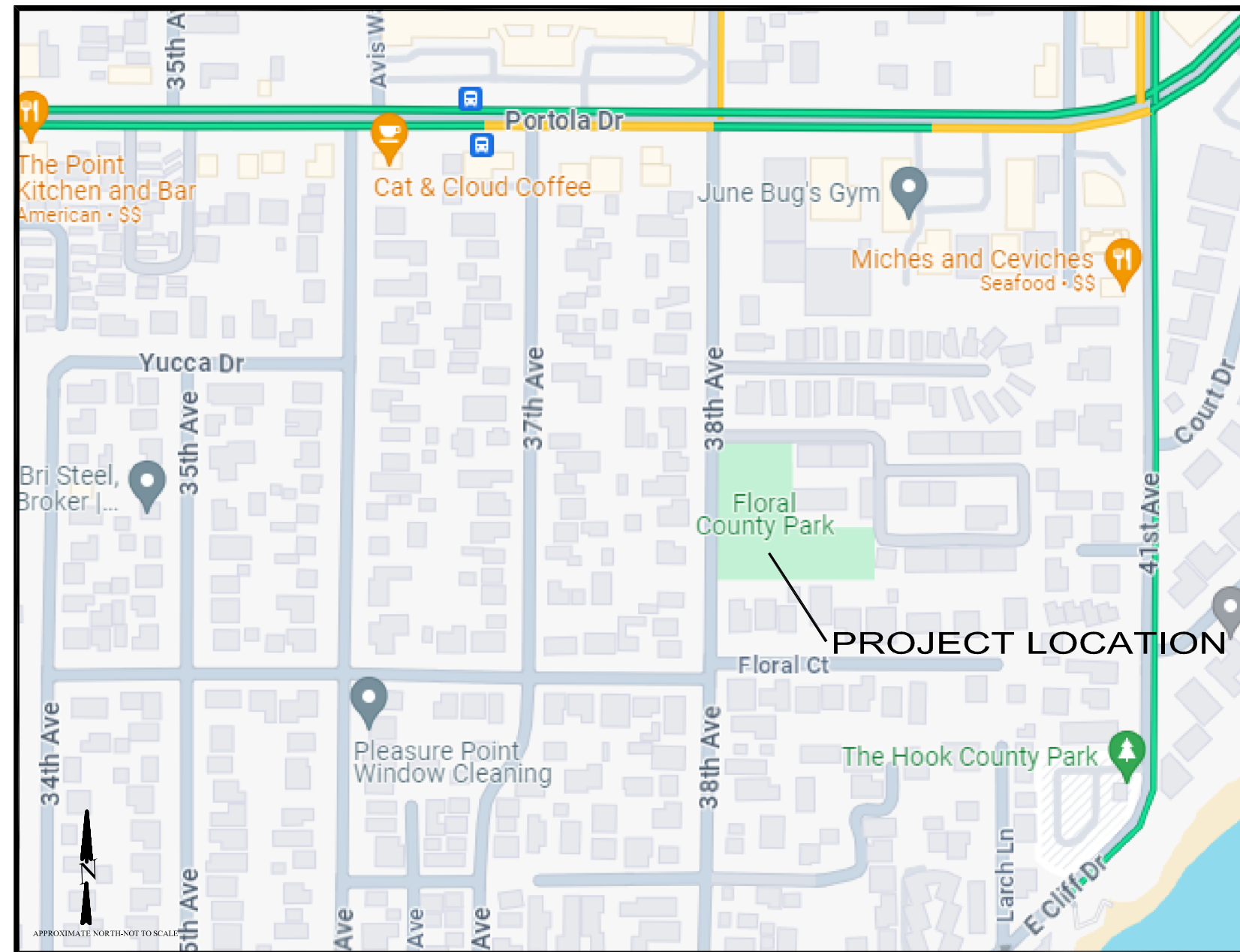
## CONSTRUCTION DOCUMENTS

### PARKS, OPEN SPACE AND CULTURAL SERVICES

#### VICINITY MAP



#### LOCATION MAP



#### PROJECT DESCRIPTION

THIS PROJECT INVOLVES DEMOLITION OF THE EXISTING PLAY STRUCTURE AND SAND PAVEMENT SURFACING, PAVER MODIFICATIONS, GRADING, AND INSTALLATION OF PLAY AREA DRAINAGE

#### SHEET INDEX

- C1.0 DEMOLITION PLAN
- C2.0 GRADING PLAN
- C2.1 GRADING PROFILES
- C3.0 DRAINAGE PLAN
- C4.0 DETAIL SHEET

#### SUMMARY TABLE

GROSS ACREAGE: 2,887 square feet

#### APPLICABLE CODES

2023 CALTRANS STANDARDS  
2022 CALIFORNIA BUILDING CODE (CBC)

#### BENCHMARK

SURVEY INFORMATION HAS BEEN PROVIDED BY BASELINE LAND SURVEYORS, INC., APTOS, CA 831-661-0502. DATED 03-21-08, REVISED 07-16-08.

BENCHMARK:  
ELEVATIONS FOR THIS MAP ARE BASED ON SANTA CRUZ CO. BENCHMARK #13. BRASS CAP IN A 12" CONC. MON. LOCATED 45' W OF C/L OF 41ST AVE. & 12' S OF C/L OF R.R. TRACKS. ELEV. = 62.00' (HGVD 29)



#### CRUSHED STONE BASE PREPARATION

The construction of a crushed stone base for Poured-in-Place playground surfacing installations is critical to the long-term durability of the playground surface. Particular size stones and compaction rates are necessary. Completion of the crushed stone base to specification is to be done in advance of Surface America's crews arriving for installation of the Poured-in-Place System.

- The minimum depth of the crushed stone base is 4". Thicker bases are acceptable providing the necessary compaction rate is still achieved.
- The stone for the base must be crushed so it compacts to a 95% Standard Proctor Compaction (as per A.S.T.M. Test). The stones should be a homogeneous mixture of the following size stones:

| Sieve Size | % Passing by Weight |
|------------|---------------------|
| 1"         | 90 - 100            |
| 5/8"       | 50 - 80             |
| 1/4"       | 30 - 50             |
| # 4        | 15 - 35             |
| # 8        | 10 - 30             |
| # 30       | 3 - 5               |
| #200       | 0 - 3               |

- The crushed stone base should be sloped 2% to allow run-off of the excess water that doesn't percolate through the crushed stone.
- Poured-in-Place Systems are extremely porous. Most of the water enters the system and must be able to percolate through the crushed stone base so puddling is avoided above the crushed stone base in the bottom layer of the poured-in-place material.
- The crushed stone base must be thoroughly compacted by using a tamper, roller or combination of both. This is of critical importance so that settling of the crushed stone base does not happen after installation of the poured-in-place material. If post-installation settling occurs, of course, the poured-in-place system will follow the contour of the settled crushed stone, leaving an aesthetically inferior installation and possible causing cracking in the poured-in-place material because of excess stress where the crushed stone base has settled out.
- The crushed stone base must be a level plane that is smooth and comparable in look to the sub-surface of an asphalt road prior to the asphalt paving. This requires significant attention to accomplish. String lines must be used to ensure an even plane is constructed.

Any specific questions regarding crushed stone base construction are welcomed at Surface America.

#### GENERAL NOTES

1. THE CONTRACTOR SHALL MAKE A DETAILED AND THOROUGH STUDY OF THESE PLANS IN THEIR ENTIRETY PRIOR TO ANY WORK ON THE JOBSITE. THEY ARE TO VERIFY ALL EXISTING CONSTRUCTION CONDITIONS AND SHALL COORDINATE THESE DRAWINGS WITH ALL OTHER TRADE DISCIPLINES FOR THE COMPLETED WORK. THEY ARE ALSO TO UNDERSTAND THAT ANY FEATURE OF CONSTRUCTION NOT FULLY SHOWN OR DETAILED SHALL BE OF THE SAME TYPE AS SHOWN FOR SIMILAR CONDITIONS.
2. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE COUNTY PROJECT ENGINEER ANY DISCREPANCY OCCURRING ON THE DRAWINGS OR FOUND DURING COORDINATION WORK. NO CHANGES IN APPROVED PLANS SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE PROJECT ENGINEER. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE APPROVED BY THE PROJECT ENGINEER.
3. ANY REQUEST FOR ALTERATIONS OR SUBSTITUTIONS MUST BE PRESENTED DIRECTLY TO THE COUNTY DEPARTMENT OF PARKS DEPARTMENT PROJECT ENGINEER, ACCOMPANIED BY A DETAILED SKETCH, FOR REVIEW, BEFORE ANY APPROVAL WILL BE GIVEN AND BEFORE PROCEEDING WITH THE WORK.
4. ALL CONSTRUCTION SHALL CONFORM TO THE COUNTY OF SANTA CRUZ DESIGN CRITERIA, THE CALTRANS STANDARD PLANS, AND THE APPLICABLE PROVISIONS OF THE STATE STANDARD SPECIFICATIONS.
5. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS WERE OBTAINED FROM UTILITY COMPANIES AND RECORD DRAWINGS AND MAY NOT REPRESENT TRUE LOCATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF THESE UTILITIES PRIOR TO CONSTRUCTION, AND TO NOTIFY THE PROJECT ENGINEER IN CASE OF CONFLICT. TO CONTACT SUMMIT MUTUAL WATER COMPANY, CALL (408) 353-8579.
6. CALL U.S.A. (UNDERGROUND SERVICE ALERT) (800) 642-2444 BEFORE ANY EXCAVATION.
7. ALL PERMITS, CITY, COUNTY AND STATE, SHALL BE OBTAINED BY THE COUNTY OR CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE COUNTY TO OBTAIN ANY TEMPORARY CONSTRUCTION PERMITS FOR ACCESS TO PRIVATE RIGHT-OF-WAY, AND DRAINAGE OR WALL EASEMENTS FOR ANY PERMANENT WORK WITHIN THE PRIVATE RIGHT-OF-WAY.
8. CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO 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, AND CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL ENGINEER.
9. PRIOR TO ORDERING ANY MATERIALS, CONTRACTOR TO SUBMIT MATERIAL SUBMITTALS TO THE COUNTY PARKS PROJECT ENGINEER FOR REVIEW, PER THE SPECIAL PROVISIONS. CONTRACTOR TO POTHOLE FOR UTILITY AND WATER LINES PRIOR TO BREAKING GROUND. UTILITY RELOCATION AND COORDINATION SHALL BE COMPLETED BY CONTRACTOR PRIOR TO START OF ANY GRADING OR CONSTRUCTION.
10. APPLICABLE REVISED STANDARD PLANS HAVE BEEN PROVIDED IN THESE CONTRACT DOCUMENTS. THESE DOCUMENTS HAVE BEEN PREPARED UTILIZING THE 2023 CALTRANS STANDARD PLANS, THE 2023 CALTRANS SPECIAL PROVISIONS, THE SANTA CRUZ COUNTY ADOPTION OF THE CALTRANS STANDARDS AND SPECIFICATIONS, AND THE CALIFORNIA BUILDING CODE 2022 WHERE APPLICABLE.

#### PROJECT TEAM

BOARD OF SUPERVISORS:  
SUPERVISOR MANU KOENIG  
SUPERVISOR ZACH FRIEND  
SUPERVISOR JUSTIN CUMMINGS  
SUPERVISOR FELIPE HERNANDEZ  
SUPERVISOR BRUCE MCPHERSON

PARKS, OPEN SPACE AND CULTURAL SERVICES  
DIRECTOR, JEFF GAFFNEY  
PROJECT MANAGER, MARIANA COLIBRI-JURGO  
979 17th AVENUE, SANTA CRUZ, CA 95062  
PHONE: (831) 454-7901 FAX: (831) 454-7940

CIVIL ENGINEER  
BOWMAN & WILLIAMS PROJECT MANAGER, SAMANTHA VROOMEN  
3949 RESEARCH PARK COURT, SUITE 100, SOQUEL, CA 95073 PHONE: (408) 426-3560

COUNTY OF SANTA CRUZ  
PARKS OPEN SPACE & CULTURAL SERVICES  
979 17th Avenue  
Santa Cruz, California, 95062. (831) 454-7900  
JEFF GAFFNEY, DIRECTOR

FLORAL COUNTY PARK  
656 38TH AVENUE SANTA CRUZ, CA 95062

Cover Sheet

DRAWN: MP  
CHECKED: MCU  
DATE: 4/18/24  
SCALE: AS SHOWN  
APN: 032-301-01

SHEET: 1  
OF: 5

| DATE: | REVISIONS: | BY: |
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|       |            |     |

### GENERAL NOTES

- 1) THE CONTRACTOR SHALL MAKE A DETAILED AND THOROUGH STUDY OF THESE PLANS IN THEIR ENTIRETY PRIOR TO ANY WORK ON THE JOBSITE. HE/SHE IS TO VERIFY ALL EXISTING CONSTRUCTION CONDITIONS AND IS TO COORDINATE THESE DRAWINGS WITH ALL OTHER TRADE DISCIPLINES FOR THE COMPLETED WORK. HE/SHE IS ALSO TO UNDERSTAND THAT ANY FEATURE OF CONSTRUCTION NOT FULLY SHOWN OR DETAILED SHALL BE OF THE SAME TYPE AS SHOWN FOR SIMILAR CONDITIONS.
- 2) THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY DISCREPANCY OCCURRING BETWEEN THE DRAWINGS AND THE ON-SITE CONSTRUCTION THAT DOES NOT HAVE PRIOR WRITTEN APPROVAL OF THE PROJECT ENGINEER.
- 3) ANY REQUEST FOR ALTERATIONS OR SUBSTITUTIONS MUST BE PRESENTED DIRECTLY TO THE PROJECT ENGINEER, ACCOMPANIED BY A DETAILED SKETCH, FOR REVIEW, BEFORE ANY APPROVAL WILL BE GIVEN AND BEFORE PROCEEDING WITH THE WORK. ABSOLUTELY NO ALTERATIONS OF THESE DOCUMENTS OF ANY KIND WILL BE APPROVED ON ANY SHOP DRAWINGS.
- 4) ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS (CALTRANS), LATEST APPLICABLE EDITION, THE LATEST EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA", THE UNIFORM BUILDING CODE AND ALL OTHER FEDERAL AND STATE LAWS, WHICHEVER IS MOST STRINGENT.
- 5) NO CHANGES IN THE APPROVED IMPROVEMENT PLANS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE COUNTY OF SANTA CRUZ PARKS DEPARTMENT AND THE WRITTEN APPROVAL OF THE PROJECT ENGINEER.
- 6) ALL PERMITS, CITY, COUNTY AND STATE, SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- 7) THE CONTRACTOR SHALL NOTIFY THE COUNTY PARKS DEPARTMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- 8) THE DIRECTOR OF PARKS DEPARTMENT OR HIS AUTHORIZED REPRESENTATIVE SHALL HAVE THE AUTHORITY TO "STOP WORK" IF THE WORK IS NOT BEING DONE IN ACCORDANCE WITH THE APPROVED IMPROVEMENT PLANS.
- 9) ALL FIELD ENGINEERING SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A LAND SURVEYOR OR CIVIL ENGINEER QUALIFIED TO PRACTICE CONSTRUCTION SURVEYING IN THE STATE OF CALIFORNIA.
- 10) CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO 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, AND CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD PROJECT ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE PROJECT ENGINEER.
- 11) CONSTRUCTION SHALL COMPLY WITH APPLICABLE REQUIREMENTS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA".
- 12) WORK SHALL BE LIMITED TO 8:00 AM TO 5:00 PM WEEKDAYS. NON-NOISE PRODUCING ACTIVITIES, SUCH AS INTERIOR PAINTING, SHALL NOT BE SUBJECT TO THIS RESTRICTION.
- 13) PROTECT EXISTING PAVERS WHICH ARE TO REMAIN. REPAIR ANY DAMAGED AREAS AS REQUIRED TO RETURN THEM TO THEIR ORIGINAL CONDITION.
- 14) SAND REMOVED FROM PLAY AREA TO BE TRANSPORTED AND DUMPED BY CONTRACTOR AT QUAIL HOLLOW RANCH COUNTY PARK, 800 QUAIL HOLLOW RD, FELTON, CA 95018. LOCATION ACCESSIBLE BY DUMP TRUCK.

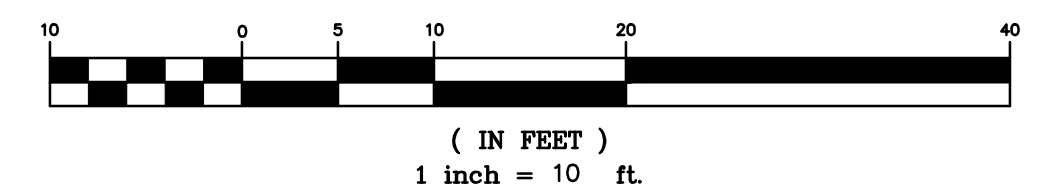
### LEGEND

- PROPERTY LINE
- - - EASEMENT OR SETBACK
- X-X- TREE PROTECTION FENCE LINE
- 290- EXISTING MAJOR CONTOUR
- 287- EXISTING MINOR CONTOUR
- SS- EXISTING SANITARY SEWER LINE
- SD- EXISTING STORM DRAIN LINE
- W- EXISTING WATER LINE
- EXISTING TREE
- EXISTING STORM DRAIN CATCH BASIN
- ▨ EXISTING PAVERS
- ▩ EXISTING CONCRETE PAVEMENT
- ▭ TO BE DEMOLISHED

### SHEET INDEX

- C1.0 DEMOLITION
- C2.0 GRADING PLAN AND PROFILES
- C3.0 DRAINAGE PLAN
- C4.0 DETAIL SHEET

### GRAPHIC SCALE

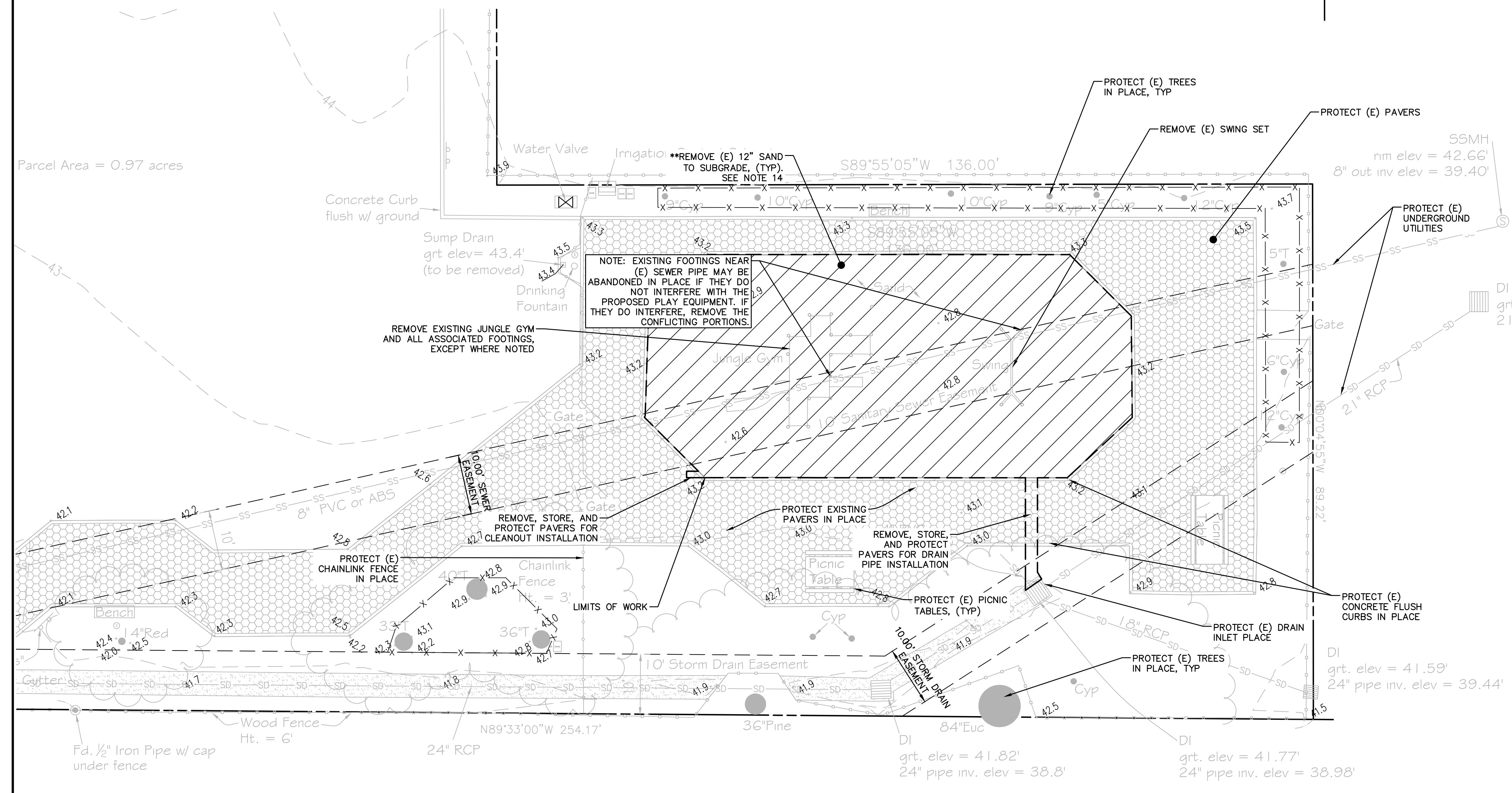


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APN 032-301-01

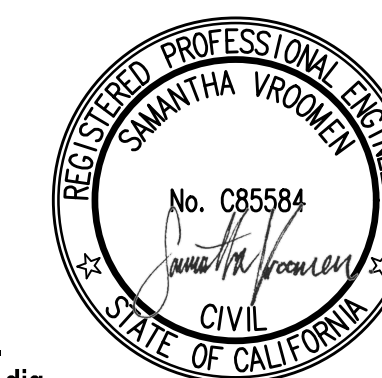
|                 |  |  |                |                 |  |
|-----------------|--|--|----------------|-----------------|--|
| REVISED         |  | BOWMAN & WILLIAMS<br>CONSULTING CIVIL ENGINEERS<br>AND LAND SURVEYORS<br>3949 RESEARCH PARK COURT, SUITE 100<br>SQUEL, CA 95073-2094<br>(831) 426-3560 |                | DEMOLITION PLAN |  |
| SCALE 1" = 10'  |  | DRAWN JCG  | JOB NO. 29383  | SHEET C1.0      |  |
| DATE 06/05/2024 |  | CHECKED SHV  | INDEX          | OF 5            |  |
| DESIGN KAB/JCG  |  | DWG NAME   | FILE NO. 29383 |                 |  |

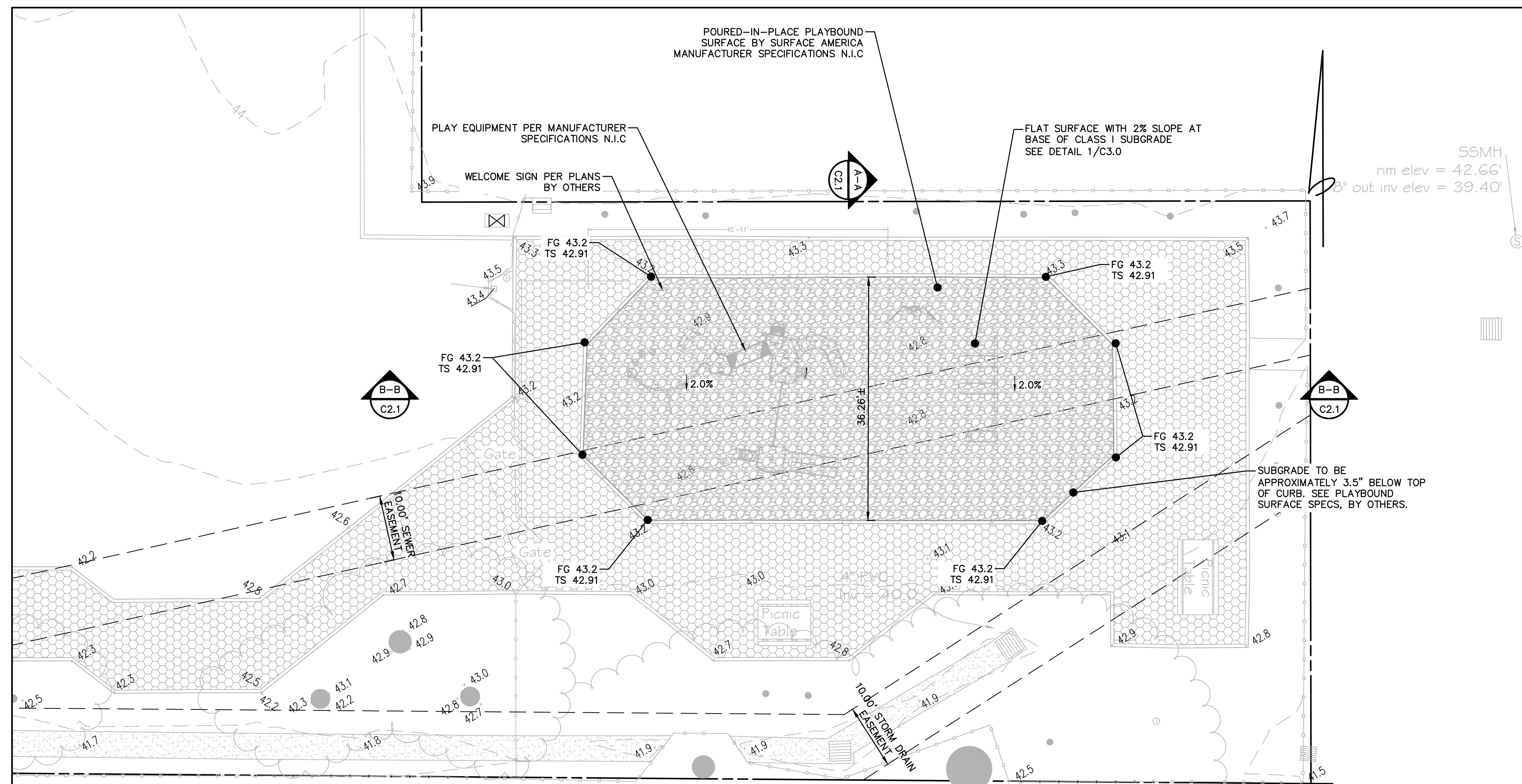


## DEMOLITION PLAN

SURVEY INFORMATION HAS BEEN PROVIDED BY BASELINE LAND SURVEYORS INC., APTOS, CA, 831-661-0502. DATED 03-21-08, REVISED 07-16-08.

BENCHMARK: ELEVATIONS FOR THIS MAP ARE BASED ON SANTA CRUZ CO. BENCHMARK #13, BRASS CAP IN A 12" CONC. MON. LOCATED 45' W OF C/L OF 41ST AVE. & 12' S OF C/L OF R.R. TRACKS. ELEV. = 62.00' (NGVD 29)





**EARTHWORK AND GRADING NOTES**

- 1) WORK SHALL CONSIST OF ALL CLEARING, GRUBBING, STRIPPING, PREPARATION OF LAND TO BE FILLED, EXCAVATION, SPREADING, COMPACTION AND CONTROL OF FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADES, AND SLOPES, AS SHOWN ON THE APPROVED PLANS.
- 2) WORK SHALL CONFORM TO SECTION 19 OF THE CALTRANS STANDARD SPECIFICATIONS OF THE LATEST EDITION, AND SHALL ALSO BE DONE IN CONFORMANCE WITH THE REQUIREMENTS OF THE COUNTY OF SANTA CRUZ CODE. THE MOST STRINGENT GUIDELINE SHALL PREVAIL.
- 3) THE CONTRACTOR SHALL GRADE TO THE LINE AND ELEVATIONS SHOWN ON THE PLAN AND SHALL SECURE THE SERVICES OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER TO PROVIDE STAKES FOR LINE AND GRADE.
- 4) THE EXCESS SOIL FROM GRADING OPERATIONS SHALL BE HAULED OFF SITE AND DISPOSED AT THE LOCAL LANDFILL, OR TAKEN TO A SITE WITH AN ACTIVE GRADING PERMIT.
- 5) IF ARCHEOLOGICAL RESOURCES OR HUMAN REMAINS ARE ACCIDENTALLY DISCOVERED DURING THE CONSTRUCTION OF THE IMPROVEMENTS, WORK SHALL BE HALTED WITHIN 50 METERS (150 FEET) OF THE FIND UNTIL IT CAN BE EVALUATED BY A QUALIFIED PROFESSIONAL ARCHEOLOGIST. IF THE FIND IS DETERMINED TO BE SIGNIFICANT, APPROPRIATE MITIGATION MEASURES SHALL BE FORMULATED AND IMPLEMENTED.

**NOTE:**  
 TS INDICATES TOP OF SUBGRADE ELEVATION. PLAYBOUND SURFACE IS OUTSIDE THE SCOPE OF WORK. THE SUBGRADE PREP USES PERMEABLE ROCK INSTEAD OF BASEROCK. PERMEABLE ROCK IS NOT TYPICALLY TO BE COMPACTED. COMPACT TO 90% RCE PER COUNTY PARKS. THE COUNTY PARKS DEPARTMENT REPRESENTATIVE UNDERSTANDS AND ACCEPTS THE RESPONSIBILITY FOR ANY LOSS OF SURFACE INTEGRITY DUE TO THE USE OF PERMEABLE ROCK AS THE SUBGRADE BASE.

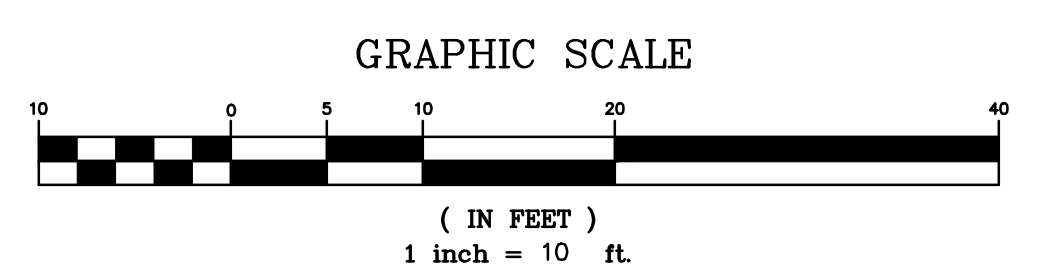
**EARTHWORK QUANTITIES**

|      | CUT (CU. YDS) | FILL (CU. YDS) | NET (CU. YDS) |
|------|---------------|----------------|---------------|
| SITE | 0             | 10.4           | 10.4 (FILL)   |

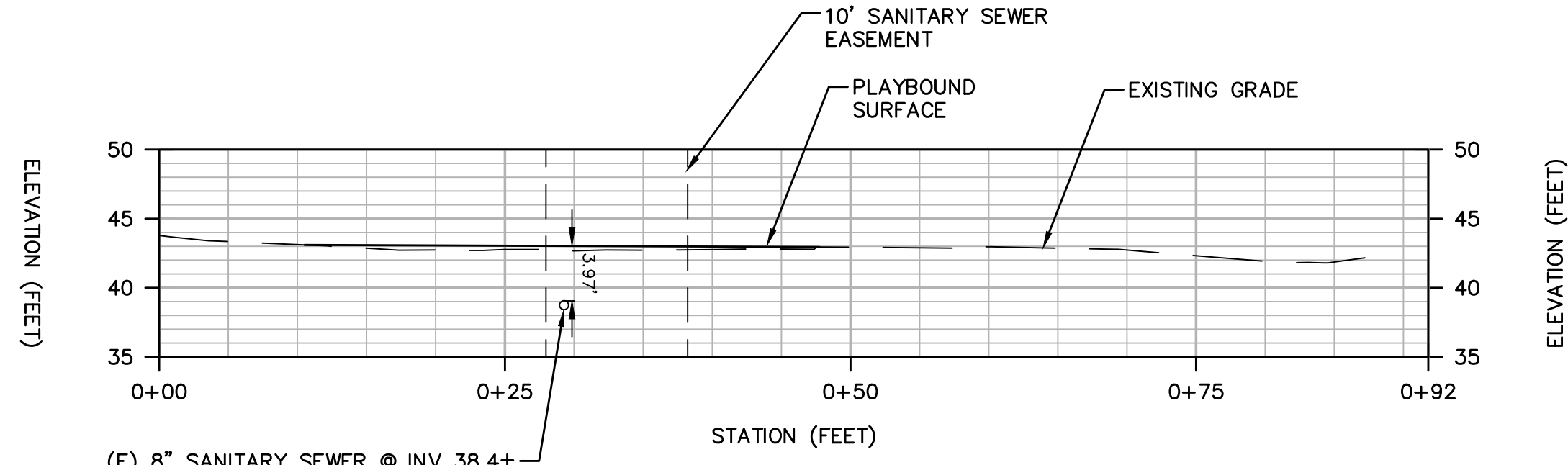
EARTHWORK VOLUMES SHOWN ARE FOR PERMITTING PURPOSES. EARTHWORK VOLUMES SHOWN ON THESE PLANS ARE TAKEN AS THE DIFFERENCE BETWEEN EXISTING GRADE AS SHOWN ON THE TOPOGRAPHIC SURVEY AND THE FINISH GRADES SHOWN HEREON. ACTUAL EARTHWORK VOLUMES MAY VARY. THE QUANTITIES SHOWN DO NOT TAKE IN ACCOUNT SITE SCARIFICATION OR THE SPOILS ASSOCIATED WITH DEMOLITION.  
 \* VOLUME DOES NOT ACCOUNT FOR THE EXCAVATION OF SAND AND FILL/RECOMPACTION AND EXCLUDES THE VOLUME OF PLAYBOUND SURFACE AS THAT IS NOT WITHIN THE SCOPE OF THIS WORK.

**LEGEND**

|  |                              |
|--|------------------------------|
|  | PROPERTY LINE                |
|  | EASEMENT OR SETBACK          |
|  | EXISTING MAJOR CONTOUR       |
|  | EXISTING MINOR CONTOUR       |
|  | EXISTING SANITARY SEWER LINE |
|  | EXISTING STORM DRAIN LINE    |
|  | EXISTING WATER LINE          |
|  | EXISTING TREE                |
|  | EXISTING SD CATCH BASIN      |
|  | EXISTING PAVERS              |
|  | EXISTING CONCRETE PAVEMENT   |
|  | CLASS 1 PERMEABLE SUBGRADE   |
|  | TOP OF SUBGRADE              |

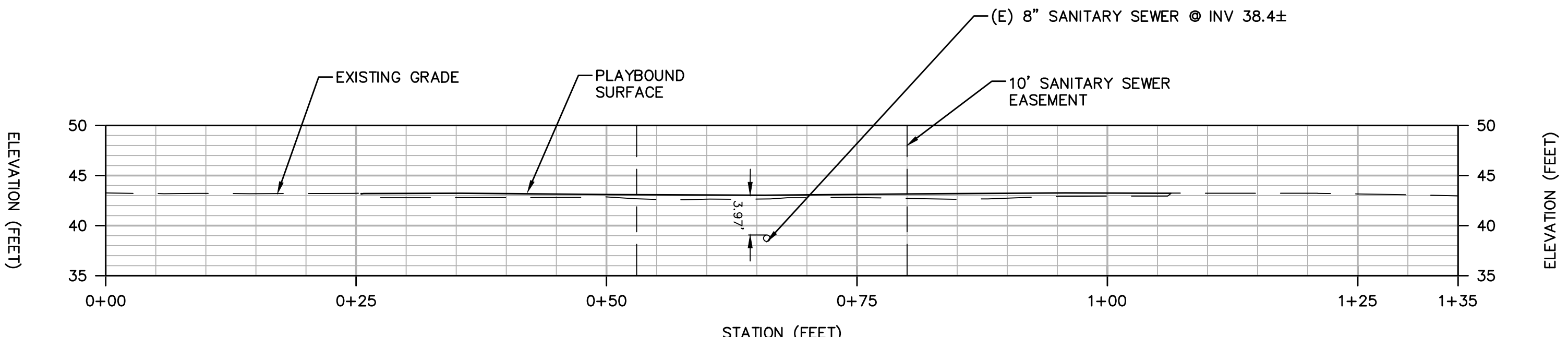


**GRADING PLAN**



**SECTION A-A**

SCALE: 1" = 10'-0"



**SECTION B-B**

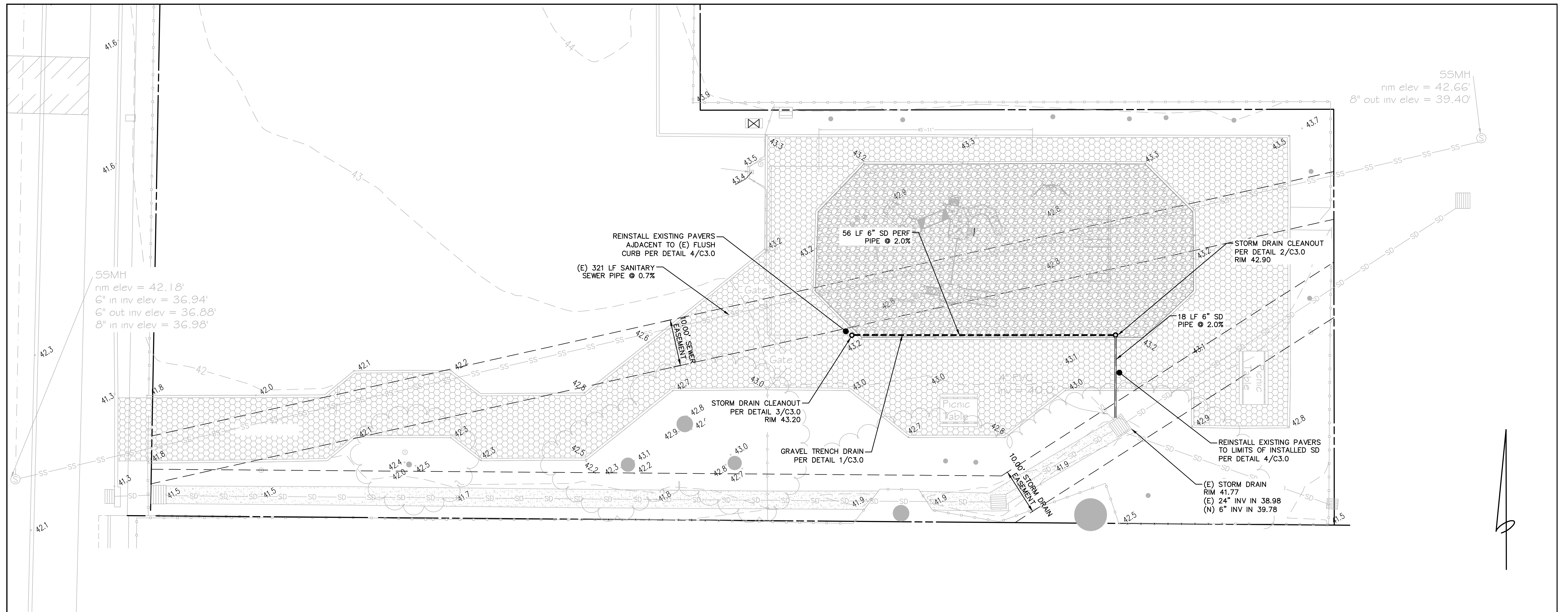
SCALE: 1" = 10'-0"

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**811**  
 Know what's below. Call before you dig.

REGISTERED PROFESSIONAL ENGINEER  
 SAMANTHA VROOMEN  
 No. 085584  
 CIVIL  
 STATE OF CALIFORNIA

|   |             |                      |      |
|---|-------------|----------------------|------|
| <b>BOWMAN &amp; WILLIAMS</b><br>CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS<br>3949 RESEARCH PARK COURT, SUITE 100<br>SOQUEL, CA 95073-2094<br>(831) 426-3560 |             | <b>GRADING PLAN</b>  |      |
| COSC DEPARTMENT OF PARKS<br>656 30TH AVE.<br>SUITE IN<br>SANTA CRUZ, CALIFORNIA   |             | SHEET<br><b>C2.0</b> |      |
| SCALE 1" = 10'  | DRAWN JCG   | JOB NO. 29383        | OF 5 |
| DATE 06/05/2024   | CHECKED SHV | INDEX                |      |
| DESIGN KAB/JCG  | DWG NAME    | FILE NO. 29383       |      |



## DRAINAGE PLAN

### UNDERGROUND NOTES

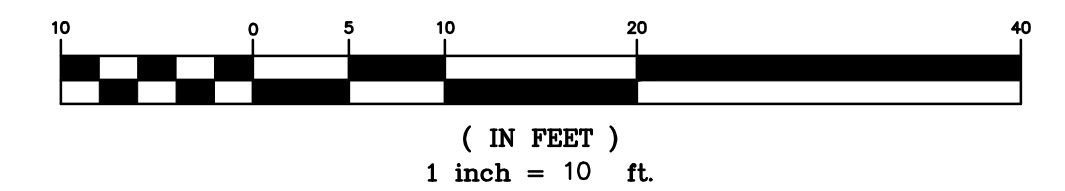
- ALL KNOWN EXISTING UTILITY LINES ARE SHOWN FOR INFORMATION ONLY AND HAVE COME FROM VARIOUS SOURCES OF RELIABILITY. CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING UTILITIES OR FACILITIES TO REMAIN IN PLACE, WHETHER OR NOT SUCH LINES OR FACILITIES ARE SHOWN ON THESE PLANS, AND SHALL BEAR FULL RESPONSIBILITY FOR ANY DAMAGE THERETO. CONTRACTOR IS ADVISED TO CONTACT A UNDERGROUND SERVICE LOCATOR FOR MARKING UNDERGROUND LINES PRIOR TO BEGINNING WORK (U.S.A. (UNDERGROUND SERVICE ALERT) 800-642-2444), AND TO NOTIFY THE PROJECT ENGINEER IN CASE OF CONFLICT. THE PROJECT INSPECTOR SHALL BE PRESENT WHILE THE UNDERGROUND SERVICE LOCATOR IS ON-SITE.
- CONTRACTOR SHALL EXPOSE AND VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO SANITARY AND STORM SEWERS, AND WATER LINES BEFORE CONSTRUCTING NEW FACILITIES.
- MATERIALS FOR PIPE, STORM WATER INLETS, AND CLEANOUTS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH APPLICABLE UDC AND CPC SECTIONS, AND THESE PLANS AND DETAILS SHOWN HEREON. SANITARY SEWER PIPE DESIGNATED "SS" SHALL BE PVC OR SDR 26 BELL AND SPIGOT GASKET, SMOOTH INTERIOR PIPE OR APPROVED EQUAL. STORM DRAIN PIPE DESIGNATED "SD" SHALL BE PVC OR SDR 26 BELL AND SPIGOT GASKET, SMOOTH INTERIOR PIPE OR APPROVED EQUAL. RWL SHALL BE SCH 40 AND SHALL BE CONNECTED TO SD WITH WYE FITTINGS.
- ALL DRAINAGE PIPE SHALL BE SHIPPED, STORED AND INSTALLED PER THE PIPE MANUFACTURERS RECOMMENDATIONS.
- ALL CONCRETE DRAINAGE INLETS CALLED OUT ON THE PLANS SHALL BE:
  - CHRISTY BRAND PRECAST CONCRETE V12 OR THE EQUIVALENT, OR
  - DURA DRAIN P-4 MANUFACTURED BY KRISTAR, OR
  - ADS NYOPLAST.
 ALL STRUCTURES SHALL BE STORED, HANDLED AND INSTALLED PER THE MANUFACTURERS RECOMMENDATION.
- STORM DRAIN TRENCH BACKFILL SHALL CONFORM TO COUNTY OF SANTA CRUZ STANDARD SPECIFICATIONS SECTION AND THE DETAILS SHOWN HEREON. JETTING OF BACKFILL MATERIALS TO ACHIEVE COMPACTION IS NOT ALLOWED.
- ALL WATER PIPING SHALL BE AWWA C900 OR APPROVED EQUAL ALL VALVES, ANGLES, AND THRUST BLOCKS SHALL BE INSTALLED PER CURRENT CPC SPECIFICATIONS. ANY TRENCHING OR DIGGING UNDER TREE CANOPIES SHALL BE DONE BY HAND IN ORDER TO PREVENT DAMAGE TO ROOTS. ROOTS THAT REQUIRE REMOVAL SHALL BE CUT CLEANLY WITH HAND TOOLS, USE WHITE LATEX PAINT ON CUTS GREATER THAN 3" IN DIAMETER.

NOTE: REMOVE AND REINSTALL EXISTING PAVERS WHERE THE NEW PIPE RUN TO CONNECT TO THE EXISTING DRAIN

### LEGEND

|  |                              |
|--|------------------------------|
|  | PROPERTY LINE                |
|  | EASEMENT OR SETBACK          |
|  | PERFORATED PIPE              |
|  | STORM DRAIN PIPE             |
|  | EXISTING MAJOR CONTOUR       |
|  | EXISTING MINOR CONTOUR       |
|  | EXISTING SANITARY SEWER LINE |
|  | EXISTING STORM DRAIN LINE    |
|  | EXISTING WATER LINE          |
|  | EXISTING TREE                |
|  | EXISTING SD CATCH BASIN      |
|  | EXISTING PAVERS              |
|  | EXISTING CONCRETE PAVEMENT   |
|  | CLASS 1 SUBGRADE             |

### GRAPHIC SCALE

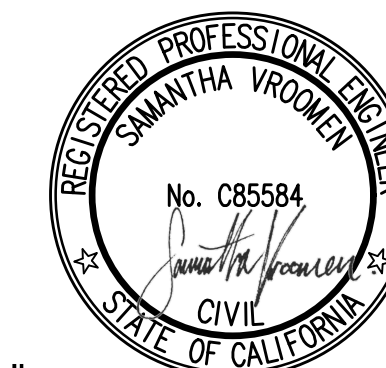


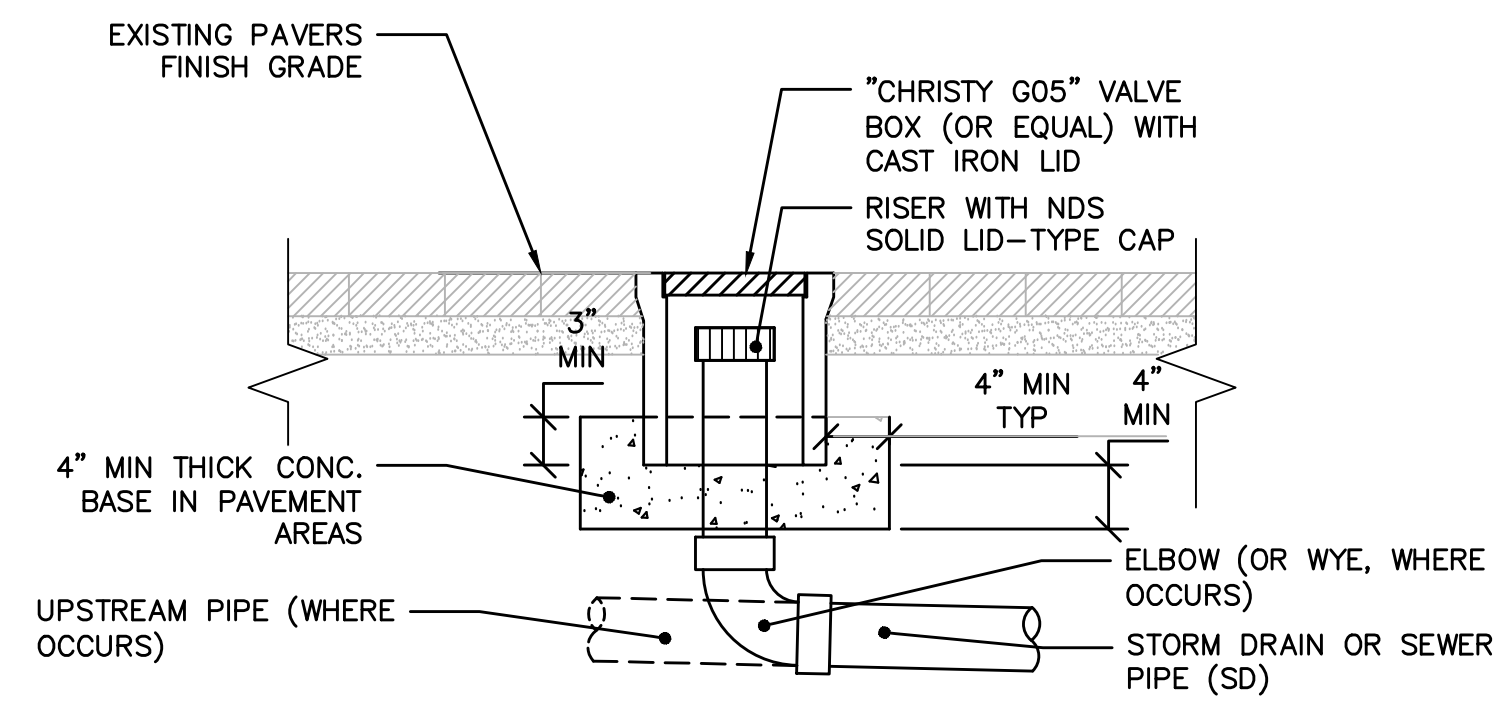
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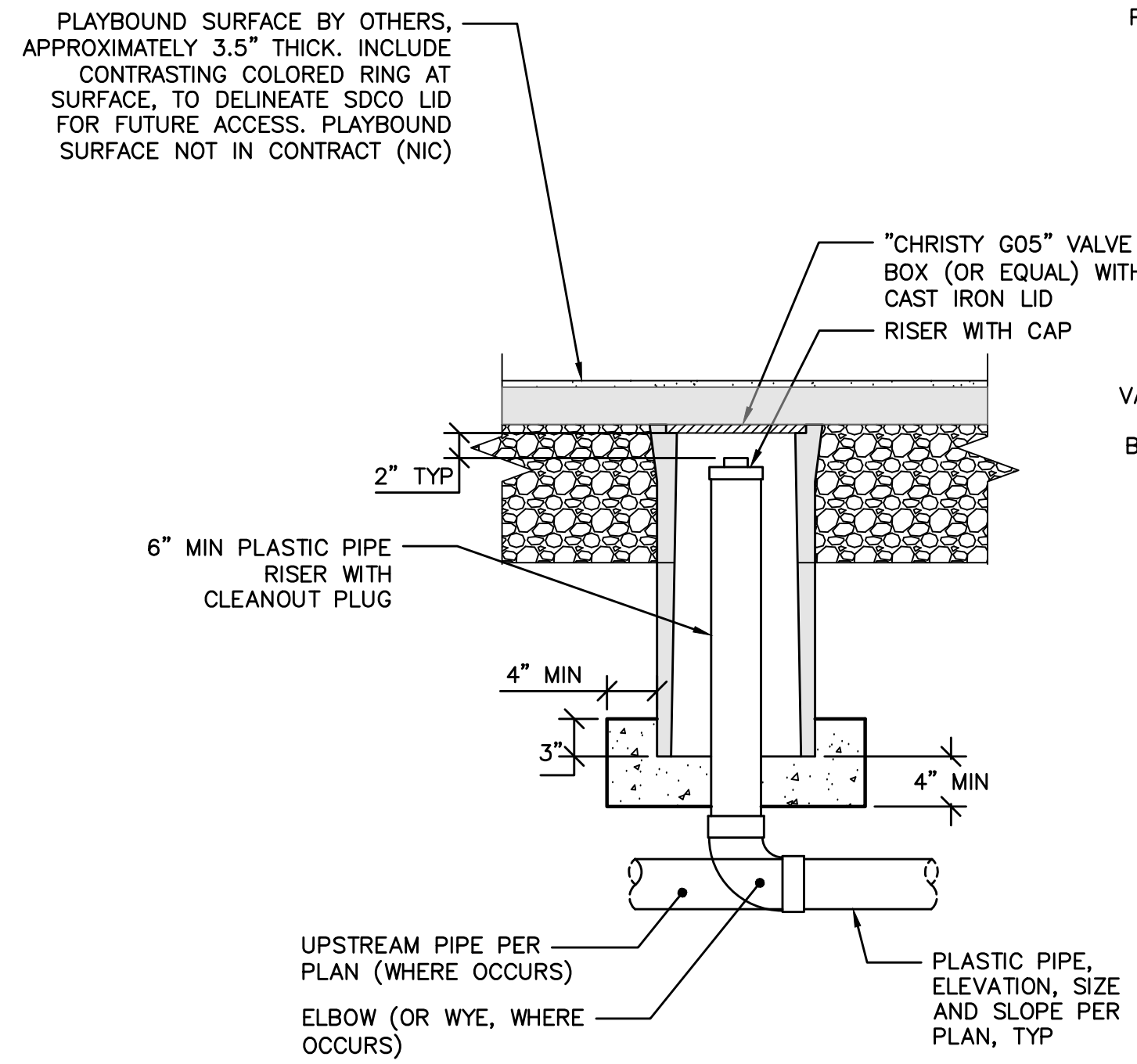
APN 032-301-01

|  |  |             |  |  |  |       |  |
|--|--|-------------|--|--|--|-------|--|
| REVISIONS  |  | DRAWN JCG   |  | JOB NO. 29383  |  | SHEET |  |
|  |  | CHECKED SHV |  | INDEX  |  | C3.0  |  |
| DATE 06/05/2024  |  | DWG NAME    |  | FILE NO. 29383   |  | OF 5  |  |
| DESIGN KAB/JCG   |  |             |  |  |  |       |  |
| <b>BOWMAN &amp; WILLIAMS</b><br>CONSULTING CIVIL ENGINEERS<br>AND LAND SURVEYORS<br>3949 RESEARCH PARK COURT, SUITE 100<br>SOQUEL, CA 95073-2094<br>(831) 426-3560 |  |             |  | <b>DRAINAGE PLAN</b><br><br>COSC DEPARTMENT OF PARKS<br>656 38TH AVE.<br>SUITE 411<br>SANTA CRUZ, CALIFORNIA |  |       |  |

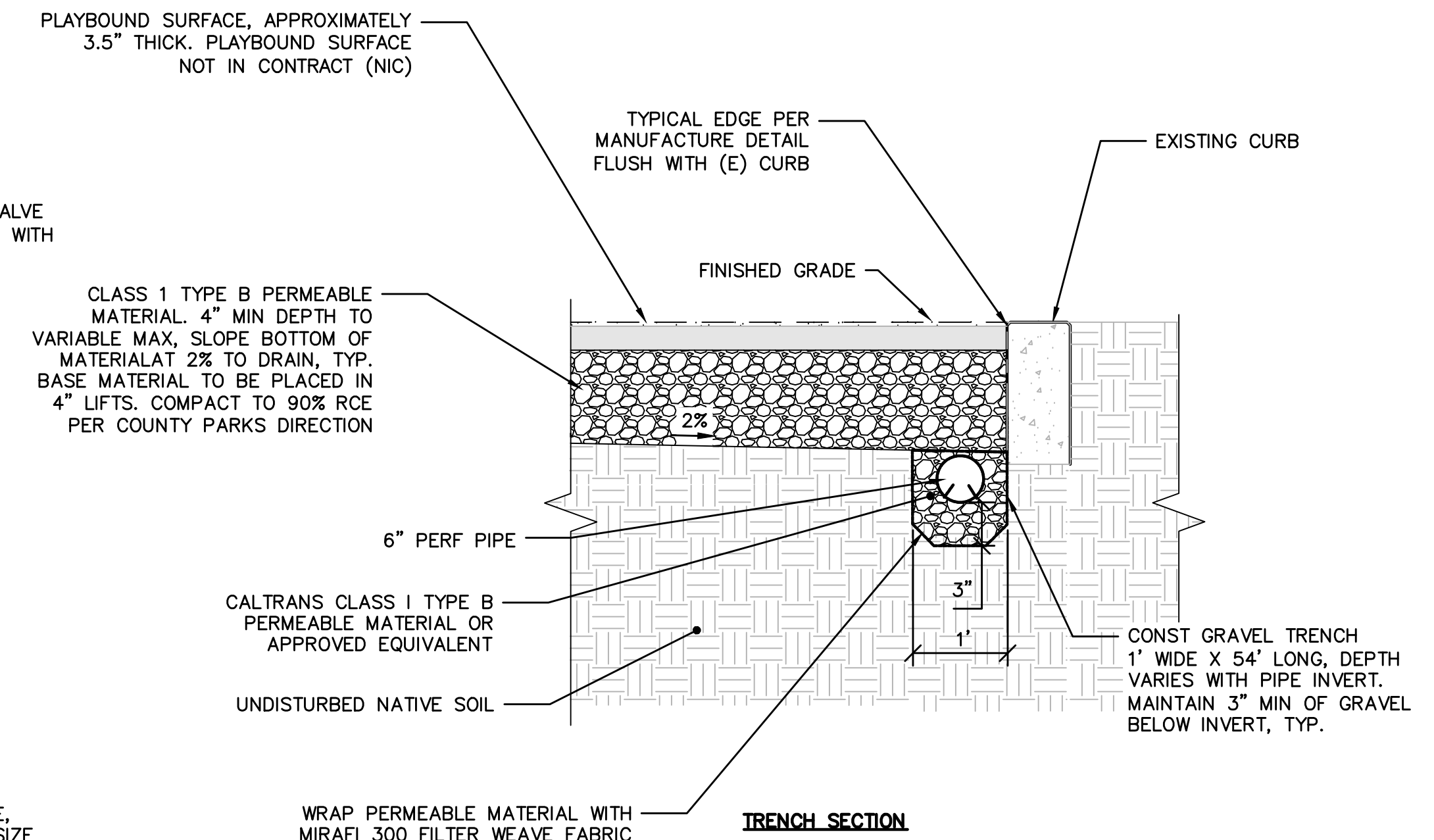




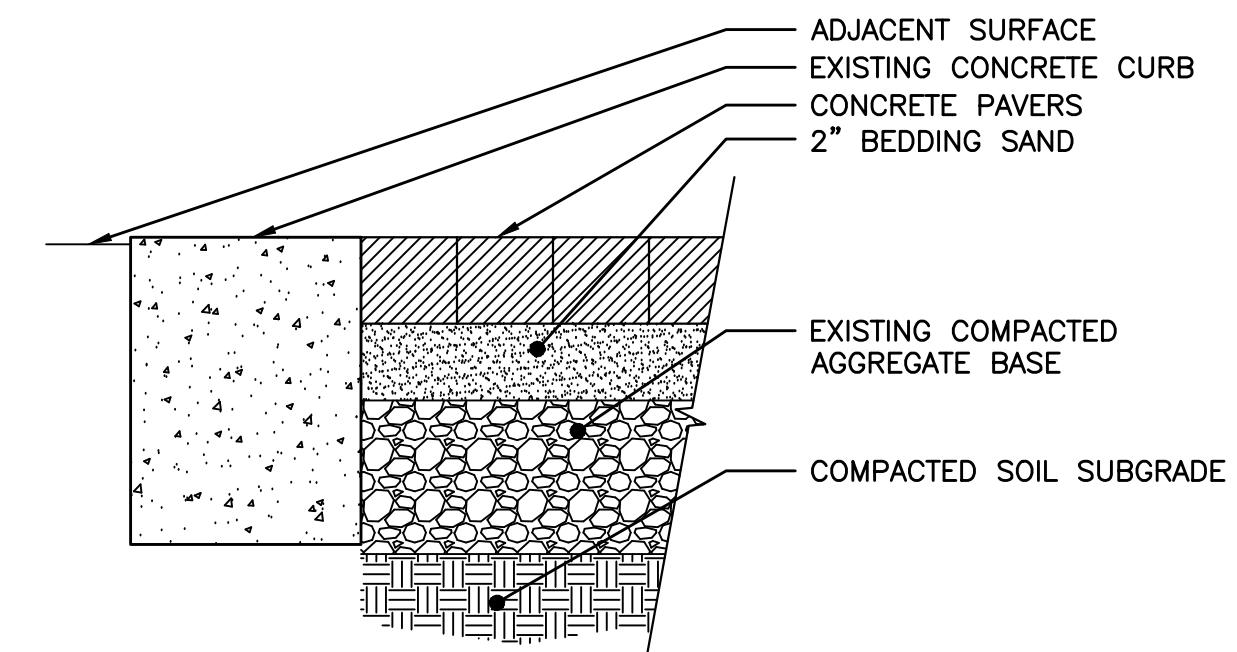
**3**  
**C3.0** **STORM DRAIN CLEANOUT**  
SCALE: N.T.S.



**2**  
**C3.0** **CLEANOUT IN PLAYBOUND SURFACE**  
SCALE: 1" = 1' - 0"



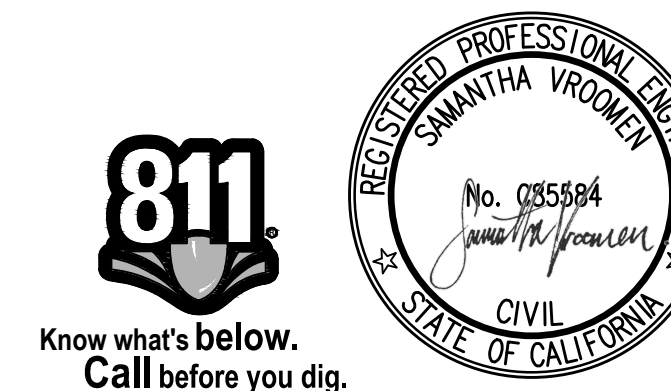
**1**  
**C3.0** **GRAVEL TRENCH DRAIN**  
SCALE: 3/4" = 1' - 0"



**4**  
**C3.0** **INTERLOCKING PAVING**  
SCALE: N.T.S.

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|--|-------------|--|-------------|
| <b>BOWMAN &amp; WILLIAMS</b><br>CONSULTING CIVIL ENGINEERS<br>AND LAND SURVEYORS<br>3949 RESEARCH PARK COURT, SUITE 100<br>SOQUEL, CA 95073-2094<br>(831) 426-3560 |             | <b>DETAIL SHEET</b><br>COSC DEPARTMENT OF PARKS<br>656 38TH AVE.<br>SANTA CRUZ, CALIFORNIA |             |
| SCALE AS SHOWN   | DRAWN JCG   | JOB NO. 29383  | SHEET       |
| DATE 06/05/2024  | CHECKED SHV | INDEX  | <b>C4.0</b> |
| DESIGN KAB/JCG   | DWG NAME    | FILE NO. 29383   | OF 5        |