

DOS CAMINOS ELEMENTARY SCHOOL
3635 APPIAN WAY
CAMARILLO, CA 93010

1. AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE REGIONAL NOTIFICATION CENTER (UNDERGROUND SERVICE ALERT) OF SOUTHERN CALIFORNIA - U.S.A. (AT 811) TO OBTAIN AN INQUIRY IDENTIFICATION NUMBER AND TO REQUEST THE UTILITY OWNERS TO MARK OR OTHERWISE INDICATE THE LOCATION OF THEIR SUBSURFACE FACILITIES. THE CONTRACTOR SHALL DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES, INCLUDING ALL SERVICE CONNECTIONS, WHICH HAVE BEEN MARKED BY THE RESPECTIVE OWNERS WHICH MAY AFFECT OR BE AFFECTED BY ITS OPERATIONS. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ALL UTILITIES AND ALL STRUCTURES FOUND AT THE SITE.
2. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS. THE CONTRACTOR SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER AND USING DUST FENCES OR OTHER METHODS AS DIRECTED BY THE DISTRICT REPRESENTATIVE THROUGHOUT THE CONSTRUCTION OPERATION.
3. THE CONTRACTOR SHALL KEEP A STRICT RECORD OF ALL CHANGES AND SUBMIT THIS RECORD TO THE DISTRICT REPRESENTATIVE. "AS-BUILT" PLANS SHALL BE PROVIDED TO THE DISTRICT.
4. ALL DAMAGE CAUSED TO PUBLIC STRUITS, INCLUDING HAUL ROUTES, ALLEYS, SIDEWALKS, CURBS OR STREET FURNISHINGS, OR TO PRIVATE PROPERTY SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR TO THE DISTRICT REPRESENTATIVE'S SATISFACTION.
5. THE CONTRACTOR SHALL REMOVE AND REPLACE ANY EXISTING BROKEN OR DAMAGED SIDEWALK, CURB, AND GUTTER AS DIRECTED BY THE DISTRICT REPRESENTATIVE.
6. SAWCUTTING OF EXISTING PAVEMENT SHALL BE TO A CLEAN STRAIGHT EDGE AS DIRECTED BY THE DISTRICT REPRESENTATIVE.
7. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO THE CONSTRUCTION OF CURBS, GUTTERS, SIDEWALKS AND PAVEMENTS.
8. WHERE JOINING THE EXISTING PAVEMENT, SAWCUT TO SOUND PAVEMENT AND OVERLAY AS REQUIRED TO PROVIDE PROPER GRADE AND 2% CROSS-SLOPE. ANY UNSOUND PAVEMENT SHALL BE REPLACED.
9. ALL MANHOLE RIMS, LIDS, VALVE BOXES AND OTHER APPURTENANCES SHALL BE SET TO FINISH GRADE BY THE CONTRACTOR AS PART OF THIS PROJECT.
10. A PRECONSTRUCTION CONFERENCE OF ALL INTERESTED PARTIES SHALL BE HELD PRIOR TO ANY CONSTRUCTION OR GRADING TO ANSWER ANY QUESTIONS OR TO CLARIFY ANY PORTION OF THESE GRADING PLANS.
11. ALL RECOMMENDATIONS MADE BY THE SOILS ENGINEER CONTAINED IN THE REPORT BY GEOTECHNIQUES, DATED MARCH 7, 2025, ITS ADDENDUM (REV. JANUARY 31, 2026) AND ANY SUPERSEDING ADDENDUM SHALL BE A PART OF THIS GRADING PLAN.
12. ALL DELETERIOUS MATERIAL, SUCH AS LUMBER, LOGS, BRUSH, OR ANY OTHER ORGANIC MATERIALS OR RUBBISH, SHALL BE REMOVED FROM ALL AREAS TO RECEIVE COMPACTED FILL.
13. UNSUITABLE MATERIAL, SUCH AS TOP SOIL, WEATHERED BED ROCK, ETC., SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER FROM ALL AREAS TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURES.
14. ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER AFTER REMOVAL OF UNSUITABLE MATERIAL AND EXCAVATION OF KEYWAYS AND BENCHES, AND PRIOR TO PLACEMENT OF SUBSURFACE DRAINAGE SYSTEMS OR ANY FILL.
15. ALL SOIL OR ROCK MATERIALS DEEMED UNSUITABLE FOR PLACEMENT IN COMPACTED FILL SHALL BE REMOVED FROM THE SITE. ANY MATERIAL SUCH AS CONCRETE OR IMPORTED MATERIALS SHALL BE APPROVED BY THE SOILS ENGINEER PRIOR TO USE IN COMPACTED FILL.

1. **MAPPING**

TOPOGRAPHIC MAPPING WAS COMPILED AT A SCALE OF 1"=20', WITH A 1 FOOT CONTOUR INTERVAL FROM DATA COLLECTED IN A FIELD SURVEY PERFORMED USING CONVENTIONAL EQUIPMENT AND PROCEDURES ON AUGUST 13, 2024, AT THE REQUEST OF PLEASANT VALLEY SCHOOL DISTRICT.

2. **BASIS OF BEARINGS AND COORDINATES**

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM NAD83, ZONE 5, EPOCH 2017-50 AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS) AND/OR CONTINUOUS OPERATING REFERENCE STATIONS (CORS) 779.9 & 50NT BEING NORTH 25-27-55 EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

3. **ELEVATIONS**

THE VERTICAL DATUM OF THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), PER GPS TIES & GEOID MODELING (GEOID18) TO CGPS STATION P729. ELLIPSOID HEIGHTS ARE CONSTRAINED PER CSRC. NO COUNTY BENCHMARKS WERE MEASURED IN THIS SURVEY.

4. **UTILITIES**

SURFACE UTILITY FEATURES SHOWN HEREON WERE LOCATED AS A PART OF THE FIELD SURVEY PERFORMED BY ECG BASED ON VISIBILITY ON THE DATE OF SURVEY. NO RESEARCH OR MAPPING OF SUBSURFACE UTILITIES HAS BEEN PERFORMED.



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

LOCATION MAP

N.T.S.

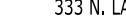
ADA	ASPHALT CONCRETE
ADA	AMERICANS WITH DISABILITIES ACT
ARCH.	ARCHITECT
BC	BEGIN CURVE
BCR	BEGIN CURB RETURN
BDY	BOUNDARY
BEG	BEGIN
BFP	BACKFLOW PREVENTER
BUDS	BUTTS
BVC	BOTTOM OF PIPE
BW	BEGIN VERTICAL CURVE
BW	BOTTOM OF WALL
B/W	BETWEEN
CB	CATCH BASIN
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
C.L. or CL	CENTERLINE
CL	CLASS
CLF	CHAIN LINK FENCE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
DBL	DOUBLE
DI	DROP INLET
DIA	DIAMETER
DWG	DRAWING
EBAA	EBAA IRON, INC.
EC	END CURVE
ECC	END CURB RETURN
ELEC	ELECTRIC
ELEV	ELEVATION
E'LY	EASTERLY
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EVV	END VERTICAL CURVE
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOWLINE
FS	FINISH SURFACE
FTS	FEET PER SECOND
FUT	FUTURE
GB	GRADE BREAK
GM	GAS METER
GV	GAS VALVE
HGL	HYDRAULIC GRADE LINE
HP	HIGH POINT
HW	HEADWALL
ICV	IRRIGATION CONTROL VALVE
INV	INVERT
IRR	IRRIGATION
LAT	LATERAL
LF	LINEAR FEET
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MOC	MIDDLE OF CURVE
N'LY	NORTHERLY
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CURB OR ON CURVE
O/C	ON CENTER
OHW	OVERHEAD WIRE
PB	PULL BOX
P.C.C.	PORTLAND CEMENT CONCRETE
	POINT OF COMPOUND CURVATURE
P.E.	POLYETHYLENE
PL	PROPERTY LINE
PMB	PROCESSED MISC. BASE
PRC	POINT OF REVERSE CURVATURE
PT	POINT
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
R.O.W.	RIGHT OF WAY
RT	RIGHT
RW	RECYCLED WATER
R/W	RIGHT OF WAY
SCO	SEWER CLEAN OUT
S	SEWER
SD or S.D.	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SDT	STANDARD DIMENSION RATIO
S'LY	SOUTHERLY
SMH	SEWER MANHOLE
SPWVC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
SS	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
SPWVC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
STD	STANDARD
SW	STRUCTURE
TC	TOP OF CURB
TEL	TELEPHONE
TG	TOP OF GRATE
TH	TRAFFIC INDEX
TMH	TELEPHONE MANHOLE
TOE	TOP OF SLOPE
TOP	TOP OF SLOPE OR PIPE
TRANS	TRANSITION
TP	TOP OF WALL
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VAR	VARIABLE
VAL	VALVE
W'LY	WESTERLY
WM	WATER METER
WSEL	WATER ELEVATION
WV	WATER VALVE
YR	YEAR

REVISIONS			
MARK	DATE	DESCRIPTION	BY

REVIEWED BY: _____

_____ DATE _____

_____ DATE _____

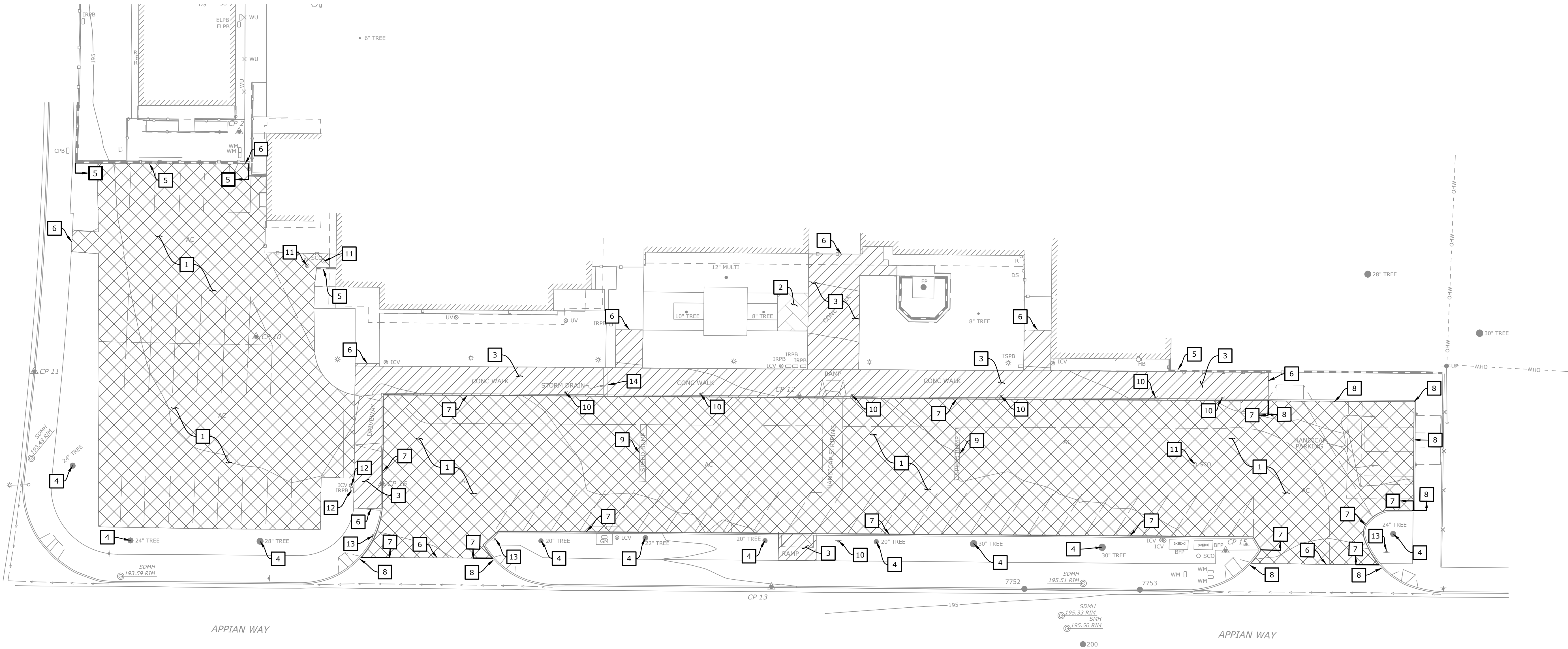


333 N. LANTANA ST., SUITE 287, CAMARILLO, CA 93010
PHONE: 805.322.4443, WEBSITE: WWW.ECGCIVIL.COM

TRISTAN J. SANTOS DATE: 02/04/2026
PROJECT ENGINEER
R.C.E. 71473

SCALE: HORIZ. 1"=50' VERT. 1"=10'

WORK ORDER	1002	SHEET NO. <u>1</u> OF <u>6</u>
DRAWN BY:	MEM	
CHECKED BY:	TJS	



GENERAL NOTES (DEMOLITION PLAN)

- DEMOLITION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE EXISTING STRUCTURES AND ALL OTHER OBJECTIONABLE MATERIAL FROM THE PROJECT SITE.
- THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE REMOVAL OF MATERIAL FROM THE SITE AND ALL OBJECTIONABLE MATERIALS COVERED BY THESE PLANS. DISPOSAL OF MATERIALS SHALL BE DONE IN A SAFE AND LEGAL MANNER AND SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE CONTRACTOR SHALL CONTINUOUSLY COORDINATE WITH THE DISTRICT'S REPRESENTATIVE TO SALVAGE, RELOCATE, AND/OR PROTECT ANY EXISTING ITEMS OR MATERIALS AS DIRECTED.
- PRIOR TO COMMENCING DEMOLITION OPERATIONS, THE CONTRACTOR SHALL COORDINATE SEQUENCING OF WORK IN ADVANCE WITH THE DISTRICT'S REPRESENTATIVE.
- THE CONTRACTOR SHALL CONTINUOUSLY CLEAN AND REMOVE DEMOLISHED MATERIALS FROM THE SITE EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. DO NOT ALLOW MATERIALS TO ACCUMULATE ON SITE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE ANY ITEMS DAMAGED DURING THE DEMOLITION PROCESS THAT ARE INTENDED TO REMAIN AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL THOROUGHLY REVIEW THE PLANS IN THEIR ENTIRETY PRIOR TO PROJECT DEMOLITION. PLAN DISCREPANCIES OR DEFICIENCIES SHALL BE REPORTED TO THE DISTRICT'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
- ALL EXISTING UTILITIES TO BE PROTECTED IN PLACE UNLESS OTHERWISE SHOWN. CONTRACTOR TO COORDINATE WITH ALL NECESSARY UTILITY COMPANIES.
- REFER TO LANDSCAPE DRAWINGS FOR ANY REQUIRED PLANTING & IRRIGATION DEMOLITION AND TREE REMOVAL. ALL AREAS TO RECEIVE LANDSCAPING TO BE CLEARED, GRUBBED, AND REMOVE EXISTING IRRIGATION AS NECESSARY.
- CONCRETE SIDEWALKS WILL BE REMOVED TO THE NEAREST CONSTRUCTION OR EXPANSION JOINT TO THE LIMITS OF REMOVAL AS SHOWN ON THE PLANS. CONTRACTOR TO PROVIDE SAWCUT LOCATION PLAN FOR APPROVAL BY DISTRICT'S REPRESENTATIVE.
- ADJUST EXISTING UTILITY LIDS, GRATES, COVERS TO FINISHED GRADE.
- DEMOLITION SHALL BE CONDUCTED TO LIMITS SHOWN & AS REQUIRED FOR NEW WORK.
- THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT AND SUPPORT THE UTILITIES OR SUBSTRUCTURES FOUND AT THE SITE WHETHER OR NOT SHOWN ON THE PLANS OR EXPOSED BY CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK (72-HOURS NOTICE REQUIRED). PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) TOLL FREE AT 8-1-1. CONTRACTOR SHALL PROTECT ALL EXISTING PROPERTIES FROM DAMAGE. CONTRACTOR SHALL RESTORE ALL EXISTING SURFACE AND SUBSURFACE FACILITIES DISTURBED BY CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, TREES, LANDSCAPING, IRRIGATION, TRAILS, ASPHALT CONCRETE ROAD PAVING, CURB AND GUTTER, CROSS GUTTER, SIDEWALK, AND UTILITIES. POTHOLE EXISTING UTILITIES PRIOR TO CONSTRUCTION AND ADVISE DISTRICT'S REPRESENTATIVE OF CONFLICTS. CONTACT PURVEYORS OF UTILITY SYSTEMS SUCH AS ELECTRIC, TELEPHONE, CABLE TV, GAS OR OTHERS TO RELOCATE FACILITIES TO ALLOW FOR THE CONSTRUCTION SHOWN ON THESE PLANS. EXCEPT AS OTHERWISE SHOWN THE DEPTHS OF UTILITIES ARE NOT KNOWN.
- UNLESS OTHERWISE NOTED ON DRAWINGS, ALL EXISTING WIRING, CONDUITS, JUNCTION BOXES AND OTHER ELECTRICAL DEVICES IN AREAS WHERE NEW WORK OCCURS SHALL BE REMOVED, EXCEPT WHEN SUCH DEVICES ARE REQUIRED TO MAINTAIN SERVICES TO OTHER AREAS, OR OTHERWISE NOTED. IN SUCH CASES, CONTRACTOR SHALL RELOCATE THESE DEVICES PER INSTRUCTIONS BY DISTRICT'S REPRESENTATIVE.

LEGEND

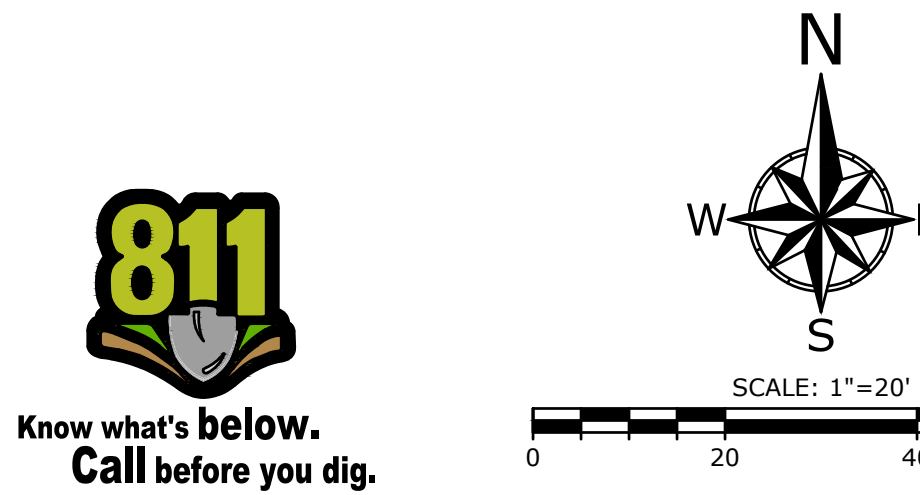
	PAVEMENT REMOVAL
	PAVER REMOVAL
	CONCRETE REMOVAL
	EXISTING LOT LINES
	PROPOSED SAWCUT LINE
	EXISTING SANITARY SEWER (PROTECT IN PLACE)
	EXISTING GAS LINE (PROTECT IN PLACE)
	EXISTING DOMESTIC WATER (PROTECT IN PLACE)
	EXISTING IRRIGATION WATER (PROTECT IN PLACE)
	EXISTING STORM DRAIN (PROTECT IN PLACE)
	EXISTING ELECTRICAL LINE (PROTECT IN PLACE)
	EXISTING CHAIN LINK FENCE (PROTECT IN PLACE)
	EXISTING WALL (PROTECT IN PLACE)

DEMOLITION NOTES

- EXISTING ASPHALT CONCRETE TO BE REMOVED.
- REMOVE AND REPLACE PAVER IN KIND. SEE GRADING PLAN FOR REVISED ELEVATIONS.
- EXISTING CONCRETE TO BE REMOVED.
- EXISTING TREE TO BE PROTECTED IN PLACE.
- EXISTING WALL TO BE PROTECTED IN PLACE.
- EXISTING CONCRETE TO BE PROTECTED IN PLACE.
- EXISTING CURB TO BE REMOVED.
- EXISTING CURB TO BE PROTECTED IN PLACE.
- EXISTING SPEED BUMPS TO BE REMOVED.
- EXISTING SIGNAGE AND POST TO BE REMOVED AND REPLACED IN KIND. REFER TO GRADING PLANS FOR NEW LOCATION.
- ADJUST EXISTING UTILITY TO FINISH SURFACE.
- REPOSITION 2" MAINLINE WIRES AND CAP. COVER WITH A NEW VALVE BOX. REPLACE THE 1" QUICK COUPLER WITH LIKE IN KIND IN A SEPARATE TRAFFIC RATED VALVE BOX AND COVER. ADJUST TO FINISH SURFACE.
- EXISTING SIGNAGE AND POST TO BE PROTECTED IN PLACE.
- EXISTING PARKWAY DRAIN TO BE REMOVED. ADJACENT STORM DRAIN LINE TO BE ADJUSTED PER GRADING PLAN.

CAUTION: UNDERGROUND STRUCTURES

ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE DISTRICT OR THOSE SHOWN ON RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE CONTRACTOR, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, UNDERSTANDS THAT THEY AGREE TO ASSUME LIABILITY, AND AGREE TO HOLD THE UNDERSIGNED HARMLESS FOR ANY LIABILITY FOR DAMAGE RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, OR LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON RECORDS EXAMINED. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING TO WORK.



BID SET DATE: 02-04-2026

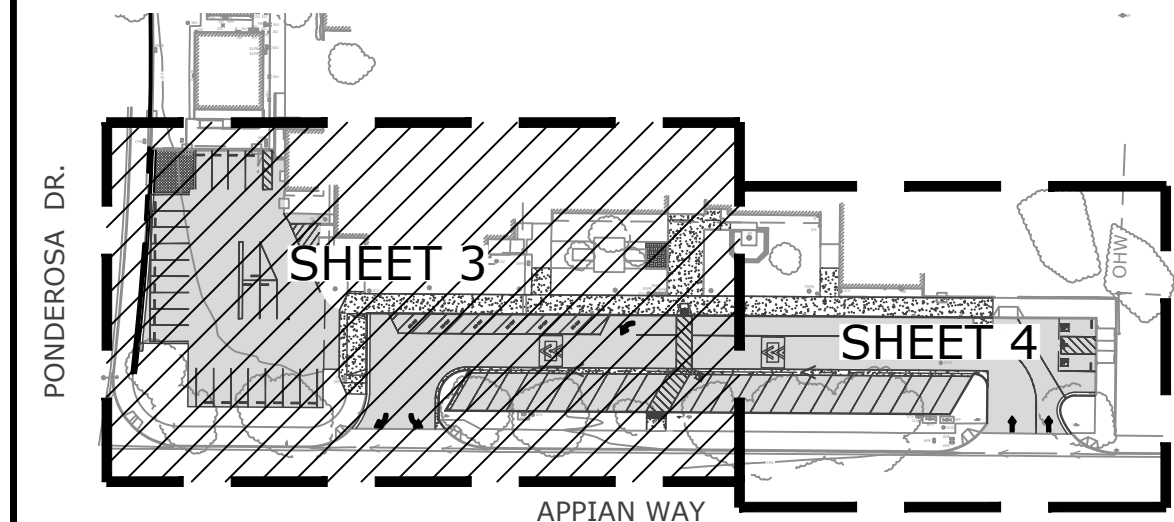
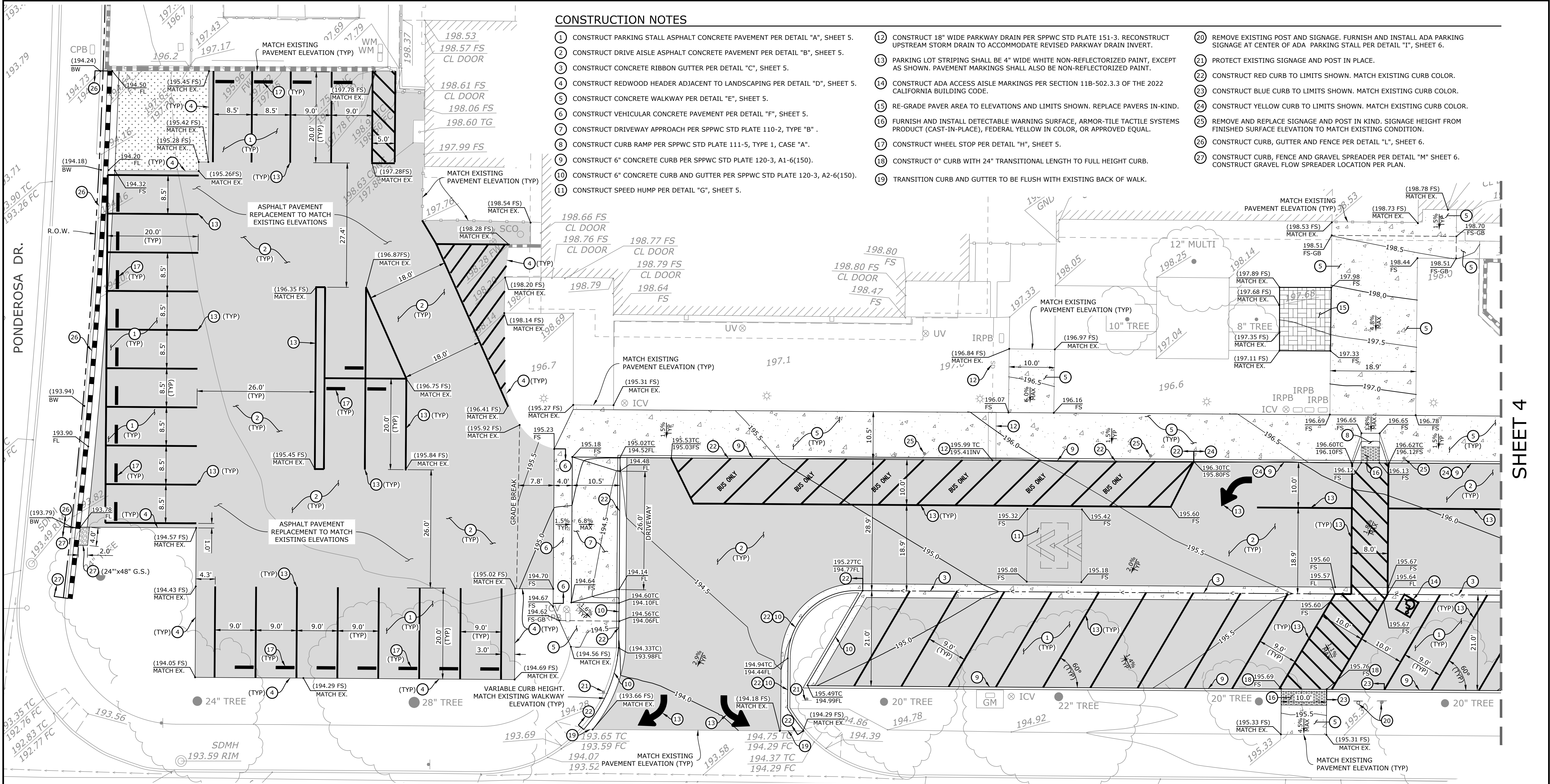
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TRISTAN J. SANTOS DATE: 02/04/2026
PROJECT ENGINEER
R.C.E. 71473

FB-26-04, ASPHALT PARKING LOT REMOVAL AND REPLACEMENT WITH ADA PATHWAY UPGRADES DOS CAMINOS ELEMENTARY SCHOOL			
DEMOLITION PLAN			
3635 APPIAN WAY, CAMARILLO, CA 93010			
SCALE: HORIZ. 1"=20'	VERT. 1"=20'	WORK ORDER 1002	SHEET NO. 2 OF 6
DRAWN BY: MEM	CHECKED BY: TJS	PROJECT ENGINEER	
R.C.E. 71473		DATE: 02/04/2026	

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LEGEND

	ASPHALT CONCRETE PAVEMENT
	CONCRETE PAVEMENT
	FLOW LINE
	DAYLIGHT LINE
	GRADE BREAK
	EXISTING CHAIN LINK FENCE (PROTECT IN PLACE)
	EXISTING WALL (PROTECT IN PLACE)
	EXISTING DOMESTIC WATER (PROTECT IN PLACE)
	EXISTING IRRIGATION WATER (PROTECT IN PLACE)
	EXISTING STORM DRAIN (PROTECT IN PLACE)
	EXISTING ELECTRICAL LINE (PROTECT IN PLACE)

GENERAL GRADING AND PAVING NOTES

- REMOVE EXISTING ASPHALT CONCRETE PAVEMENT WITHIN MARKED AREA. SAW CUT WITH CLEAN STRAIGHT EDGES. KEY CUT ASPHALT CONCRETE EDGES TO A DEPTH OF 1 1/2 TO 2 INCHES AND WIDTH OF 18 INCHES INTO ADJACENT ASPHALT CONCRETE PAVEMENT. COMPACT UPPER 8 INCHES BELOW PAVEMENT SECTION SUBGRADE TO A DISTANCE OF 1 FOOT BEYOND PERIMETER WHERE ALLOWABLE TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY.
- SUBGRADE AND COMPACTED AGGREGATE BASE COURSE SHALL BE FIRM AND UNYIELDING WHEN PROOF-ROLLED WITH A FULL WATER TRUCK.
- FURNISH AND INSTALL MIRAFI 600X ON FINISHED SUBGRADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- WITHOUT DRIVING DIRECTLY ON GEOTEXTILE, PLACE AND COMPACT AGGREGATE BASE TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY.
- PROTECT EXISTING UTILITY STRUCTURES AND CONCRETE IMPROVEMENTS IN PLACE, ADJUST EXISTING UTILITY LIDS, COVERS, AND OTHER APPURTENANCES TO MATCH FINISH GRADE.
- PROTECT EXISTING PAVEMENT FROM DISTRESS FROM CONSTRUCTION TRAFFIC. REPLACE DAMAGED CONCRETE AND ASPHALT PAVEMENT NOT IDENTIFIED FOR DEMOLITION.
- CONTRACTOR TO VERIFY PAVEMENT AREAS AND LOCATIONS OF EXISTING UTILITIES.
- CONTRACTOR TO MEMORIALIZE EXISTING PAVEMENT MARKINGS AT PLAYGROUND AREA.
- CONTRACTOR TO MATCH FINISHED GRADES TO ADJACENT EXISTING IMPROVEMENTS.
- APPLY TACK COAT TO ALL CONCRETE FACES/SURFACES JUST PRIOR TO AC LAY-DOWN.
- CONTRACTOR TO EFFECT POSITIVE DRAINAGE ON ALL NEW PAVEMENT SURFACES. DRAINAGE ON NEW PAVEMENT SURFACES SHALL BE ACHIEVED BY SHEET FLOW AND SHALL NOT BE CONCENTRATED.
- RESTORE ALL PAVEMENT MARKINGS AND PAINT CURBS IN PAVEMENT RECONSTRUCTION/NEW CONSTRUCTION AREAS WITH TRAFFIC-RATED PAINT.
- SEALCOAT ASPHALT CONCRETE SEAMS BETWEEN NEW AND EXISTING ASPHALT CONCRETE.

CONSTRUCTION NOTES

- CONSTRUCT PARKING STALL ASPHALT CONCRETE PAVEMENT PER DETAIL "A", SHEET 5.
- CONSTRUCT DRIVE AISLE ASPHALT CONCRETE PAVEMENT PER DETAIL "B", SHEET 5.
- CONSTRUCT CONCRETE RIBBON GUTTER PER DETAIL "C", SHEET 5.
- CONSTRUCT REDWOOD HEADER ADJACENT TO LANDSCAPING PER DETAIL "D", SHEET 5.
- CONSTRUCT CONCRETE WALKWAY PER DETAIL "E", SHEET 5.
- CONSTRUCT VEHICULAR CONCRETE PAVEMENT PER DETAIL "F", SHEET 5.
- CONSTRUCT DRIVEWAY APPROACH PER SPWVC STD PLATE 110-2, TYPE "B".
- CONSTRUCT CURB RAMP PER SPWVC STD PLATE 111-5, TYPE 1, CASE "A".
- CONSTRUCT 6" CONCRETE CURB PER SPWVC STD PLATE 120-3, A1-6(150).
- CONSTRUCT 6" CONCRETE CURB AND GUTTER PER SPWVC STD PLATE 120-3, A2-6(150).
- CONSTRUCT SPEED HUMP PER DETAIL "G", SHEET 5.
- CONSTRUCT 18" WIDE PARKWAY DRAIN PER SPWVC STD PLATE 151-3. RECONSTRUCT UPSTREAM STORM DRAIN TO ACCOMMODATE REVISED PARKWAY DRAIN INVERT.
- PARKING LOT STRIPING SHALL BE 4" WIDE WHITE NON-REFLECTORIZED PAINT, EXCEPT AS SHOWN. PAVEMENT MARKINGS SHALL ALSO BE NON-REFLECTORIZED PAINT.
- CONSTRUCT ADA ACCESS AISLE MARKINGS PER SECTION 11B-502.3.3 OF THE 2022 CALIFORNIA BUILDING CODE.
- RE-GRADE PAVER AREA TO ELEVATIONS AND LIMITS SHOWN. REPLACE PAVERS IN-KIND.
- FURNISH AND INSTALL DETECTABLE WARNING SURFACE, ARMOR-TILE TACTILE SYSTEMS PRODUCT (CAST-IN-PLACE), FEDERAL YELLOW IN COLOR, OR APPROVED EQUAL.
- CONSTRUCT WHEEL STOP PER DETAIL "H", SHEET 5.
- CONSTRUCT 0" CURB WITH 24" TRANSITIONAL LENGTH TO FULL HEIGHT CURB.
- TRANSITION CURB AND GUTTER TO BE FLUSH WITH EXISTING BACK OF WALK.
- REMOVE EXISTING POST AND SIGNAGE. FURNISH AND INSTALL ADA PARKING SIGNAGE AT CENTER OF ADA PARKING STALL PER DETAIL "I", SHEET 6.
- PROTECT EXISTING SIGNAGE AND POST IN PLACE.
- CONSTRUCT RED CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
- CONSTRUCT BLUE CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
- CONSTRUCT YELLOW CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
- REMOVE AND REPLACE SIGNAGE AND POST IN KIND. SIGNAGE HEIGHT FROM FINISHED SURFACE ELEVATION TO MATCH EXISTING CONDITION.
- CONSTRUCT CURB, GUTTER AND FENCE PER DETAIL "L", SHEET 6.
- CONSTRUCT CURB, FENCE AND GRAVEL SPREADER PER DETAIL "M" SHEET 6. CONSTRUCT GRAVEL FLOW SPREADER LOCATION PER PLAN.

REVISIONS			
MARK	DATE	DESCRIPTION	BY
REVIEWED BY:			
		DATE	
		DATE	



TRISTAN J. SANTOS DATE: 02/04/2026
PROJECT ENGINEER
R.C.E. 71473

FB-26-04, ASPHALT PARKING LOT REMOVAL AND REPLACEMENT WITH ADA PATHWAY UPGRADES DOS CAMINOS ELEMENTARY SCHOOL GRADING PLAN
3635 APPIAN WAY, CAMARILLO, CA 93010

SCALE: HORIZ. 1"=10'	VERT. 1"=10'
WORK ORDER 1002	MEMO
CHECKED BY: TJS	SHEET NO. 3 OF 6

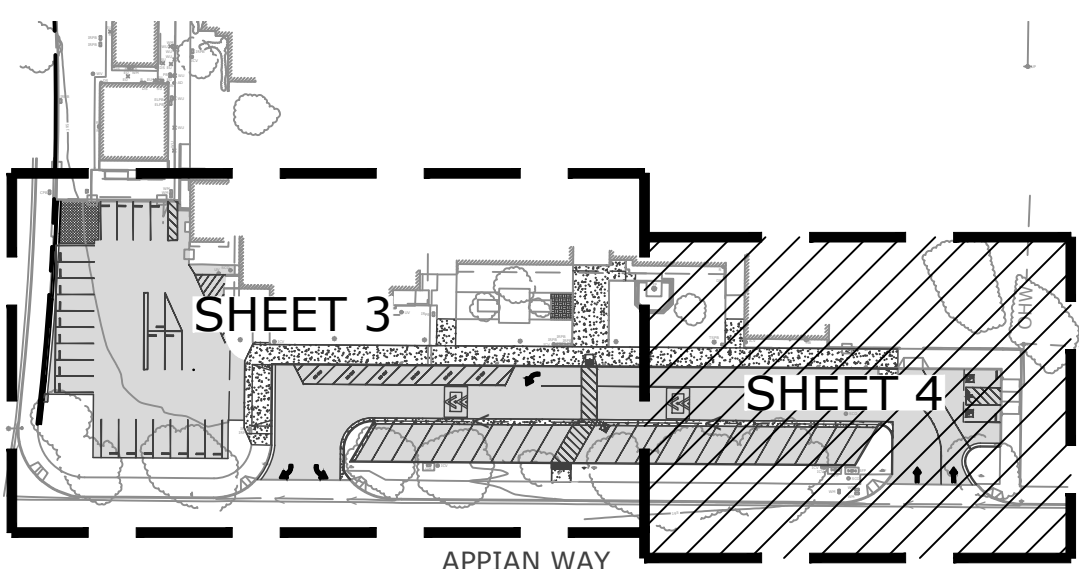


Know what's below.
Call before you dig.

DIAL TOLL FREE
8 1 1
AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

BID SET DATE: 02-04-2026



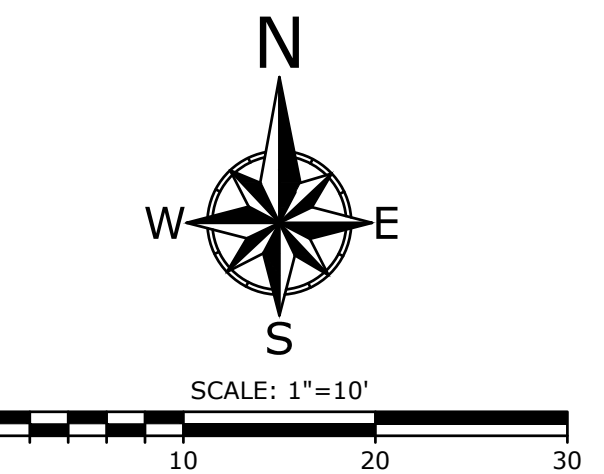
	ASPHALT CONCRETE PAVEMENT
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	EXISTING WALL (PROTECT IN PLACE)
	EXISTING DOMESTIC WATER (PROTECT IN PLACE)
	EXISTING IRRIGATION WATER (PROTECT IN PLACE)
	EXISTING STORM DRAIN (PROTECT IN PLACE)
	EXISTING UTILITY (PROTECT IN PLACE)

1. REMOVE EXISTING ASPHALT CONCRETE PAVEMENT WITHIN MARKED AREA. SAW CUT WITH CLEAN STRAIGHT EDGES. KEY CUT ASPHALT CONCRETE EDGES TO A DEPTH OF 1 1/4 TO 2 INCHES AND WIDTH OF 18 INCHES INTO ADJACENT ASPHALT CONCRETE PAVEMENT. COMPACT UPPER 8 INCHES BELOW PAVEMENT SECTION SUBGRADE TO A DISTANCE OF 1 FOOT BEYOND PERIMETER WHERE ALLOWABLE TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY.
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3. FURNISH AND INSTALL MIRAFI 600X ON FINISHED SUBGRADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. WITHOUT DRIVING DIRECTLY ON GEOTEXTILE, PLACE AND COMPACT AGGREGATE BASE TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY.
5. PROTECT EXISTING UTILITY STRUCTURES AND CONCRETE IMPROVEMENTS IN PLACE, ADJUST EXISTING UTILITY LIDS, COVERS, AND OTHER APPURTENANCES TO MATCH FINISH GRADE.
6. PROTECT EXISTING PAVEMENT FROM DISTRESS FROM CONSTRUCTION TRAFFIC. REPLACE DAMAGED CONCRETE AND ASPHALT PAVEMENT NOT IDENTIFIED FOR DEMOLITION.
7. CONTRACTOR TO VERIFY PAVEMENT AREAS AND LOCATIONS OF EXISTING UTILITIES.
8. CONTRACTOR TO MEMORIALIZE EXISTING PAVEMENT MARKINGS AT PLAYGROUND AREA.
9. CONTRACTOR TO MATCH FINISHED GRADES TO ADJACENT EXISTING IMPROVEMENTS.
10. APPLY TACK COAT TO ALL CONCRETE FACES/SURFACES JUST PRIOR TO AC LAY-DOWN.
11. CONTRACTOR TO EFFECT POSITIVE DRAINAGE ON ALL NEW PAVEMENT SURFACES. DRAINAGE ON NEW PAVEMENT SURFACES SHALL BE ACHIEVED BY SHEET FLOW AND SHALL NOT BE CONCENTRATED.
12. RESTORE ALL PAVEMENT MARKINGS AND PAINT CURBS IN PAVEMENT RECONSTRUCTION/NEW CONSTRUCTION AREAS WITH TRAFFIC-RATED PAINT.
13. SEALCOAT ASPHALT CONCRETE SEAMS BETWEEN NEW AND EXISTING ASPHALT CONCRETE.

1. CONSTRUCT PARKING STALL ASPHALT CONCRETE PAVEMENT PER DETAIL "A", SHEET 5.
2. CONSTRUCT DRIVE AISLE ASPHALT CONCRETE PAVEMENT PER DETAIL "B", SHEET 5.
3. CONSTRUCT CONCRETE RIBBON GUTTER PER DETAIL "C", SHEET 5.
5. CONSTRUCT CONCRETE WALKWAY PER DETAIL "E", SHEET 5.
6. CONSTRUCT VEHICULAR CONCRETE PAVEMENT PER DETAIL "F", SHEET 5.
9. CONSTRUCT 6" CONCRETE CURB PER SPWVC STD PLATE 120-3, A1-6(150).
10. CONSTRUCT 6" CONCRETE CURB AND GUTTER PER SPWVC STD PLATE 120-3, A2-6(150).
11. CONSTRUCT SPEED HUMP PER DETAIL "G", SHEET 5.
13. PARKING LOT STRIPING SHALL BE 4" WIDE WHITE NON-REFLECTORIZED PAINT, EXCEPT AS SHOWN. PAVEMENT MARKINGS SHALL ALSO BE NON-REFLECTORIZED PAINT.
14. CONSTRUCT ADA ACCESS AISLE MARKINGS PER SECTION 11B-502.3.3 OF THE 2022 CALIFORNIA BUILDING CODE.
17. CONSTRUCT WHEEL STOP PER DETAIL "H", SHEET 5.
19. TRANSITION CURB AND GUTTER TO BE FLUSH WITH EXISTING BACK OF WALK.
21. PROTECT EXISTING SIGNAGE AND POST IN PLACE.
22. CONSTRUCT RED CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
23. CONSTRUCT BLUE CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
24. CONSTRUCT YELLOW CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
25. REMOVE AND REPLACE SIGNAGE AND POST IN KIND. SIGNAGE HEIGHT FROM FINISHED SURFACE ELEVATION TO MATCH EXISTING CONDITION.
28. CONSTRUCT 18" WIDE PARKWAY DRAIN PER SPWVC STD PLATE 151-3. RECONSTRUCT UPSTREAM STORM DRAIN TO ACCOMMODATE REVISED PARKWAY DRAIN INVERT.



AT LEAST TWO DAYS
BEFORE YOU DIG

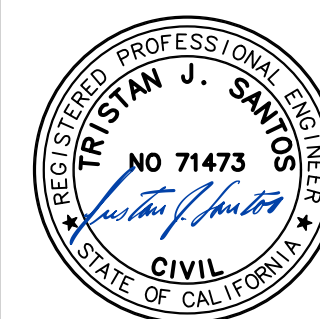


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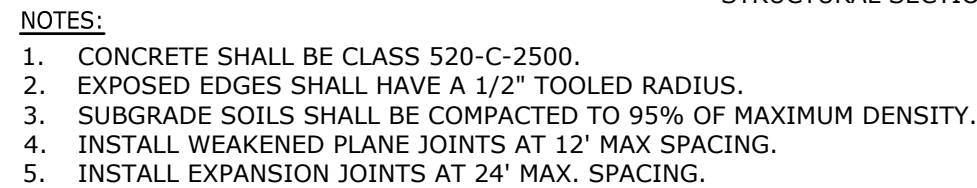
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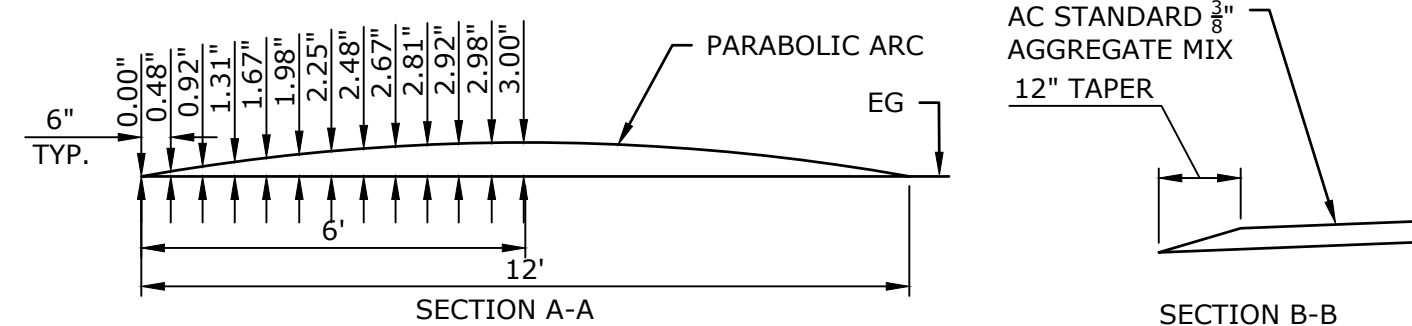
_____ DATE _____



SCALE: HORIZ. 1"=10' VERT. _____	
WORK ORDER 1002 DRAWN BY: MEM CHECKED BY: TIS	SHEET NO. 4 OF 6



SCALE: N.T.S.



1. INSTALLATION SHALL CONFORM TO THE LATEST CITY OF CAMARILLO STANDARD PLANS AND CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES STANDARDS.
2. SPEED HUMPS SHALL NOT BE PLACED OVER MANHOLES, MAINTENANCE COVERS, ETC.
3. EDGE OF SPEED HUMP SHOULD BE 5' OR MORE FROM EDGE OF DRIVEWAY OR CATCH BASIN.
4. ASPHALT JOINS SHALL BE ACCOMPLISHED BY GRINDING AND FILLING A 1"x24" CUT.
5. ACCEPTABLE TOLERANCE FOR 3" HEIGHT OF THE SPEED HUMP IS $\pm \frac{3}{8}$ ".
6. FURNISH AND INSTALL 4" AROUND BASE OF SPEED HUMP TO MATCH PARKING STALL STRIPING.

SCALE: N.T.S.



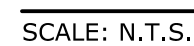
1. HEADER TO BE INSTALLED AFTER BASE.
2. EARTH BACKFILL MUST BE COMPACTED IN PLACE PRIOR TO PAVING.
3. ATTACH STAKES TO HEADER BOARDS WITH TWO 12 PENNY HOT DIPPED GALVANIZED NAILS (MIN).
4. REFER TO SSPWC SECTIONS 204-1 AND 800-1.5 FOR MATERIALS SPECIFICATIONS.

SECTION



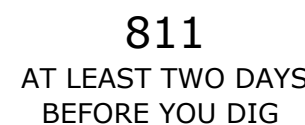
1. WEAKENED PLANE JOINTS AND EXPANSION JOINT LOCATIONS PER SPWVC STANDARD PLATES 112-2 AND 113-2. CONSTRUCT PER DETAILS "J" AND "K", SHEET 6.
2. SCARIFY EXPOSED SURFACE TO A MINIMUM DEPTH OF 12 INCHES, MOISTURE-CONDITION TO AT LEAST OPTIMUM MOISTURE AND COMPACTED TO A MINIMUM OF 95% OF THE LABORATORY MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
3. CALTRANS CLASS II AGGREGATE BASE COMPACTED TO 95% MAXIMUM, MOISTURE CONDITIONED AND COMPACTED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
4. PATH OF TRAVEL SHALL BE CONSTRUCTED TO ELEVATIONS SHOWN. MINIMUM FALL IN ANY DIRECTION ON CONCRETE SURFACE SHALL BE 0.5%. GRADE BREAKS SHALL BE MINIMIZED AND OCCUR AT INTERVAL DISTANCES OF NOT LESS THAN 12 FEET. MINIMUM CROSSFALL SHALL BE 1% EXCEPT IN TRANSITIONS TO LEVEL SECTION. TRANSITIONS TO LEVEL SECTIONS SHALL BE A MINIMUM LENGTH OF 6 FEET ON EACH APPROACH TO A LEVEL SECTION. MAXIMUM CROSSFALL SHALL NOT EXCEED 2.0%.
5. CONSTRUCT #4 DOWEL AT 18" OC, MIN. 6" INTO ADJACENT CONCRETE. EPOXY IN PLACE.

SCALE: N.T.S. PER-SPPWC SECTION 201, UNLESS OTHERWISE NOTED



1. WEAKENED PLANE JOINTS AND EXPANSION JOINT LOCATIONS PER SPSPWC STANDARD PLATES 112-2 AND 113-2. CONSTRUCT PER DETAILS "J" AND "K", SHEET 6.
2. OVER-EXCAVATE CONCRETE PATH OF TRAVEL AREA TO A MINIMUM DEPTH OF 12" BELOW EXISTING GRADE OR BOTTOM OF ANY MOVEMENTS, OR SUPPORTS OR AGGREGATE BASE SECTION (WHICH EVER IS DEEPER). PER RECOMMENDATIONS SPECIFIED IN THE GEOTECHNICAL REPORT. CALL FOR OBSERVATION OF EXCAVATION BOTTOM BY GEOTECHNICAL CONSULTANT. SCARIFY EXPOSED SURFACE TO A MINIMUM DEPTH OF 8 INCHES, MOISTURE-CONDITION TO AT LEAST OPTIMUM MOISTURE AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95% PER RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
3. AGGREGATE BASE SHALL HAVE A MINIMUM R-VALUE OF 78 AND MEET CALTRANS CLASS II SPECIFICATIONS, CONDITIONED AND COMPACTED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.

SCALE: N.T.S. PER-SPPWC SECTION 201, UNLESS OTHERWISE NOTED



TRISTAN J. SANTOS DATE: 02/04/2026
PROJECT ENGINEER
R.C.E. 71473

SCALE: HORIZ. _____ VERT. _____

WORK ORDER	1002
DRAWN BY:	MEM
CHECKED BY:	TJS

SHEET NO. 5 OF 6

GEOTECHNIQUES

1645 Donlon Street, Ste. 107
Ventura, California 93003
(805) 456-9585, (805) 658-8952

March 7, 2025 (rev. January 31, 2026)

Project No. 1025.009.01

Pleasant Valley School District
600 Temple Avenue
Camarillo, California 93021

Attention: Ms. Sandra Lovaas, Measure C Bond Manager

Subject: Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in the Pleasant Valley School District, in Camarillo, California

Dear Ms. Lovaas:

This geotechnical letter report provides recommendations for the preparation of subgrade in replacement and new pavement areas and construction of structural asphalt concrete pavement sections at Dos Caminos Elementary School and Monte Vista Middle School, in Camarillo, California. Our understanding of the proposed projects is based on discussions with Pleasant Valley School District ("PVSD") personnel, site observations, and observation of existing pavement sections and subgrade soil samples from selected locations at each campus from both this study and in conjunction with recent construction activity.

PROJECT SCOPE

Site improvements at the subject campuses will consist of new asphalt concrete courses or pavement sections (i.e., that include aggregate base course), on-grade concrete improvements, and any related underground utility repairs.

Minor grading will be performed as needed to improve local gradients to achieve ADA compliance or enhance positive drainage in improvement areas.

SITE CONDITIONS

Monte Vista Middle School West and North Parking Lots. Subgrade soil at Monte Vista Middle School typically consists of dark gray-brown clayey silt with fine sand (ML). Subgrade soils were observed to be several percentage points over optimum moisture content. Note that the existing pavement in the west parking lot and at the western half of the north parking lot appears to consist of the original design of about 2½ inches of asphalt concrete, and Petromat was not observed in the existing surficial asphalt concrete course in this area. The eastern half of the north parking lot was repaved in about 1999, with about 3-inches of asphalt concrete over about 11 inches of aggregate base. This portion of the north parking lot will be repaved with 3 inches of asphalt concrete over the existing approximate 11-inch aggregate base course.

Dos Caminos Elementary School. Subgrade soil at Dos Caminos Elementary School consists predominantly of clayey silt with sand (ML) and should be anticipated to be a few to several percentage points over optimum moisture content. The original pavement section in the front parking lot consisted of about 1½ inches of asphalt concrete over 4 inches of aggregate base; however, the original pavement was overlaid with Petromat and an additional 1½ inches of asphalt concrete. The north playground also was originally constructed with a 2½-inch thick asphalt concrete course that was subsequently overlaid with between about 1 and 2½ inches of additional asphalt concrete (the 2½ inch overlay thickness in the drive lane along north edge of playground), with no Petromat observed at the two potholed locations on the north playground.

General Consideration for All Sites. Note that the moisture content of near-surface subgrade materials may vary with seasonal conditions including rainfall and irrigation intensity, or from other circumstances.

SITE SUBGRADE PREPARATION RECOMMENDATIONS

Areas to receive new asphalt concrete and on-grade concrete shall be underlain by a minimum of 12 inches of subgrade compacted to a minimum of 95 percent of the maximum dry density determined according to ASTM D1557, measured from the lowest point of the thickened edge or below the aggregate base course.

Preliminary Site Preparation

Site irrigation shall be discontinued as far in advance as practicable prior to clearing, demolition, and excavation operations. Root mass from trees and shrubs and the root mat in lawn areas should be completely removed, stripped, and wasted offsite prior to utility trench or subgrade excavation, or earthmoving operations. Excavations and depressions, either existing or from removal of root-balls, below grade structures or improvements, or footings, or from rutting from demolition and construction equipment trafficking shall not be filled in or smoothed over outside the presence of the Geotechnical representative.

Contractor shall fully mitigate or repair any rutting from demolition or earthmoving equipment.

Subgrade Preparation

Asphalt Concrete and On-Grade Concrete Areas. Subgrade for asphalt concrete or on-grade concrete shall be excavated to a level corresponding to lowest level of asphalt concrete pavement or on-grade concrete section (including base course). The excavation shall be deepened, as necessary to remove organics, topsoil, and deleterious material and extend a horizontal distance of an additional 1 foot beyond the asphalt concrete or new concrete in unimproved areas. The exposed surface shall be observed by the Geotechnical representative prior to scarification of the exposed excavation bottom. Depending on the moisture content of the soils exposed in the excavation bottom, the upper 1 foot of subgrade shall be moisture-conditioned or aerated to between 0 and 2 percent above optimum moisture content and processed by reducing scarified materials to pea-size or finer consistency. Excavation bottoms in silty and clayey subgrade areas likely shall require extended aeration periods (after scarification effecting pulverization) prior to compacting. Once the targeted moisture condition is achieved, processed materials shall then be compacted to a minimum of 95 percent of the maximum dry density determined by ASTM D1557, latest edition.

Areas to Receive Fill. The upper 1 foot in areas to receive fill shall be similarly scarified and compacted, as above, prior to fill placement.

Footing Areas. Footing areas to a distance of 2 feet beyond perimeter shall be overexcavated to a depth of 1 foot below bottom of footing. The bottom of the overexcavation shall be observed by the Geotechnical representative prior to placing fill. Fill shall be reduced to pea-sized or finer consistency, moisture conditioned or aerated, as needed, and compacted to a minimum of 95 percent of the maximum dry density determined by ASTM D1557, latest edition.

Alternatives to Subgrade Aeration and Subgrade Stabilization

An alternative to aeration consists of the treatment of onsite wet clayey materials with cement to reduce elevated in-place moisture content and to effect "bridging" over potentially yielding, unstable underlying subgrade materials. For silty and clayey subgrade treatment, 2 to 3 percent "quicklime" or 3 to 4 percent cement (by weight), shall be thoroughly mixed into the upper 1 foot of the excavation bottom in accordance with Sections 301-3.2.5 of the "Greenbook." The soil-cement mixture shall be moisture-conditioned and compacted to a minimum of 95 percent of the maximum dry density within 90 minutes of adding moisture to cement-treated soil and according to Section 301-3.2.7. The compacted soil-cement mixture shall be cured according to Section 301-3.2.10. At least 2 days of curing time shall be allowed prior to placement of general, select, or treated fill materials. This cement content is appropriate for low-contact pressure, lightweight equipment operation; heavier equipment and rubber tired equipment imposing higher contact pressures shall require higher cement concentrations—approaching 10 percent by weight (for a pavement recycler, for example)—and/or thicker treated zones in order to support heavier equipment loads during construction.

An alternative to cement treatment of subgrade consists of removal and replacement of the upper 1 foot of subgrade with aggregate base over Mirafi 600X, placed in accordance with the manufacturer's instructions, with the full thickness of aggregate base placed before trafficking with lightweight spreading and compacting equipment so that "bridging" is achieved and maintained over underlying very moist to saturated soil.

Cement-treatment and replacement with aggregate base alternatives both require that the Contractor employ appropriate minimal equipment loading (i.e., lightweight equipment and appropriate for materials affected) and trafficking reduction measures to maintain integrity of the compacted subgrade and overlying base courses through completion of concrete placement.

Contractor Awareness and Operations Considerations

The likelihood of encountering very moist subgrade soils should be factored into all aspects of demolition and construction to avoid exacerbating subgrade moisture conditions and inducing 'pumping' of subgrade materials.

Equipment loads during demolition and subgrade preparation in pavement and concrete improvement areas shall be minimized, as needed, to avoid increasing moisture content of exposed or underlying subgrade materials and in excavations and subsequently placed fill materials during fill placement and compaction. Examples of such excavating, spreading, processing and compacting equipment include low ground pressure track dozers or, to a greater extent, excavators or backhoes staged outside the excavation. Similar low or no-load means of compacting fill shall be used, as needed, including non-tired sheepfoot compactors for fine-grained subgrade materials. Care shall be exercised to avoid repeated passes over ingress or egress areas, and to avoid overworking or overloading any area such that pumping conditions

and elevated moisture contents and/or rutting are induced by demolition and/or construction operations.

Lightweight equipment shall be used for placing and compacting subsequent lifts and courses, as needed, until "bridging" over potentially unstable pumping subgrade soil is accomplished and risk of aggravating moisture conditions with other equipment is low (i.e., the "bridging" effect is not destroyed by subsequent heavy or repeated loadings).

Contractor shall proof-roll both compacted subgrade and aggregate base course with fully-loaded water truck with no deflections in presence of geotechnical representative prior to placing base and asphalt concrete, respectively.

Fill Placement and Compaction

Onsite soils are anticipated to be used as general fill once cleared of organic material, demolition or other debris, and any oversized rock. Earth materials placed as fill or within the upper 12 inches of subgrade in asphalt concrete and on-grade concrete areas shall consist of onsite excavated general fill or imported non-expansive materials with an Expansion Index less than 40. Unless noted otherwise herein, the upper 1 foot of subgrade materials shall be compacted to a minimum of 95 percent of the maximum dry density determined from ASTM D1557.

Subgrade and onsite soils used as fill and imported fill materials shall be placed and compacted at a moisture content of between 0 and 2 percent over optimum moisture content. Each layer shall be spread evenly in loose lifts no thicker than 8 inches and shall be thoroughly blade-mixed during the spreading to reduce soil consistency to pea-size or finer and to provide relative uniformity of material within each layer. Fill and backfill materials may need to be placed in thinner lifts to achieve the recommended compaction with the equipment being used. Soft or yielding materials shall be removed and be replaced with properly compacted fill material, prior to placing the next layer.

Rock, gravel and other oversized material greater than 3 inches in diameter, shall be removed from the subgrade and fill material being placed. Rock less than 3 inches in diameter shall not be nested and voids caused by inclusion of rock in the fill shall be filled with sand or other approved material. All roots larger than ½-inch diameter shall be removed and discarded.

All subgrade and fill materials, including scarified materials, shall be thoroughly processed to pea-sized or finer consistency prior to aeration and applying compactive effort. Blading or turning wet soils shall be necessary to effect uniform aeration throughout the targeted layer of soil. When the moisture content of the fill material is below that sufficient to achieve the recommended compaction, water shall be added to the fill during processing. While water is being added, the soil shall be bladed and mixed to provide relatively uniform moisture content throughout the material. .

Surfaces shall be finished to uniform grades and slopes in accordance with contract documents and in such a manner to drain properly, convey runoff to existing and new drainage improvements, and be free from depressions that may cause areas of standing water or concentrates runoff on finished surface.

FILL MATERIALS

Fill shall be free of organics, oversize material (e.g., greater than 3 inches in diameter), trash and debris, and other deleterious material. The expansion index of imported materials or onsite materials used as general fill shall be tested, as necessary, during earthmoving operations to verify that the expansion index of the material is suitable for its use as general or select fill.

Onsite Soils. Onsite soils are generally anticipated to consist predominantly of fine sand with silt and occasional clay that meets the requirements for general fill.

General Fill. General fill materials shall have an expansion index less than or equal to 40. If necessary, general fill may be blended with sand or dry cement just prior to compaction to reduce the expansion index.

There is a potential that silty and clayey onsite general fill materials, where encountered, could be sensitive to changes in moisture content. Control of moisture content, compaction layer thickness, and efficiency and appropriateness of equipment to soil type will likely be necessary to achieve and maintain the recommended compaction.

Imported Fill. Imported fill to be used as general fill shall meet the requirements of general fill material and shall be non-expansive. Imported fill materials shall be observed, tested as necessary, and accepted by Geotechniques prior to being brought to the site.

Aggregate Base. Aggregate base materials shall consist of imported material conforming to Caltrans Standard Specifications for Class 2 aggregate base, Section 26-1.02B [Caltrans, 2024] or Section 200-2.4 of the "Greenbook" (Public Works Standards, Inc.), latest edition) for Crushed Miscellaneous Base (CMB).

The aggregate base course beneath the concrete section shall be moisture conditioned to optimum moisture content before placing and spreading and shall be compacted to a minimum of 95 percent of the maximum dry density. Aggregate base materials shall be laterally confined during compaction to achieve the minimum compaction requirements adjacent to the thickened concrete edge.

Aggregate base materials used beneath on-grade concrete and as bedding or backfill in utility trenches or excavations *in areas other than previously or currently paved in asphalt concrete* shall not contain recycled asphalt.

Bedding Sand in Utility Trenches. Sand used as bedding and pipe zone sand in utility trenches shall conform to Caltrans Standard Specifications for sand bedding, Section 19-3.02F(2) (2024) and have a minimum Sand Equivalent (SE) of 30. The sand shall have a gradation that allows the material to maintain a compacted surface condition during construction operations until concrete placement or until pipe and/or subsequent lift placement (i.e., as bedding or pipe zone sand in utility trench).

ASPHALT CONCRETE AND ON-GRADE CONCRETE SECTION THICKNESS

Subgrade for asphalt concrete and on-grade concrete to receive rare fire truck traffic should be prepared as recommended previously (see "**SITE SUBGRADE PREPARATION RECOMMENDATIONS**"). Subgrade and aggregate base courses shall be firm and unyielding and proof-rolled in the presence of the Geotechnical representative prior to placement of the successive structural section course (i.e., aggregate base or asphalt concrete or concrete).

Surfaces shall be finished to uniform grades and slopes in accordance with contract documents and in such a manner to drain properly, convey runoff to existing and new drainage improvements, and be free from depressions that may cause areas of standing water or concentrates runoff on finished surface.

Dos Caminos Asphalt Concrete Pavement. Asphalt concrete pavement for the front (south) main and annex parking lots shall, at a minimum, consist of the following::

Pavement Area	Asphalt Concrete Thickness (inches)	Aggregate Base Thickness (inches)
Auto only traffic areas	3	6
Main and Annex Lot Areas to Receive Truck and//or Bus Traffic	4	8

Monte Vista Asphalt Concrete Parking Lot Pavements. The eastern half of the North Parking Lot shall receive a new 3-inch thick asphalt concrete course over existing aggregate base (with aggregate base compacted as needed to 95 percent relative compaction). Asphalt concrete pavement for auto parking areas and ingress/egress drive lanes and asphalt concrete pavement to receive routine bus and/or routine truck traffic shall, at a minimum, consist of the following:

Pavement Area	Asphalt Concrete Thickness (inches)	Aggregate Base Thickness (inches)
Auto Parking and Auto Drive Lanes Only	3	9
East Half of North Parking Lot	3	Existing Base
Ingress/Egress/Areas to Receive Bus and/or Truck Traffic	4	9

At both campuses, asphalt concrete using coarser aggregate (such as ¾-inch) with low loss from abrasion is preferred (over coarse C2) in the mix design for drive lanes to receive bus and truck traffic. Geotextile such as Mirafi 600x is recommended to be placed in accordance with manufacturer's instructions immediately below the aggregate base course in areas to receive at least 8 inches of aggregate base.

Aggregate base should be compacted to a minimum of 95 percent of the maximum dry density. Asphalt concrete should be compacted to a minimum of 95 percent of the maximum density.

ON-GRADE CONCRETE AND CONCRETE PAVEMENTS

On-grade concrete section thickness for exclusively pedestrian use such as shade structures or sidewalks, should consist, at a minimum, of 4 inches of concrete over 4 inches of aggregate base compacted to a minimum of 95 percent of the maximum dry density.

Concrete Pavement Structural Sections. On-grade concrete to receive vehicular traffic, including pavement that may be used for fire truck access, should consist of a minimum of 6 inches of concrete over a minimum of 6 inches of aggregate base compacted to 95 percent of the maximum dry density. (Note that concrete to receive fork-lift traffic and routine truck traffic for deliveries or in trash dumpster areas should be at least 7 inches thick, depending on traffic index [TI].) Concrete should have a minimum 28-day compressive strength of 3,500 psi, a minimum Modulus of Rupture of 530 psi, and should be reinforced with No. 4 bars at 18 inches each way. Reinforcement should be supported at mid-slab at time of concrete pour. (Note that this structural section is not intended for exclusively pedestrian use such as shade structures.)

UTILITY TRENCHES AND EXCAVATION

Utility trenches shall be braced or sloped in accordance with the requirements of (Cal) OSHA. Utility trench backfill shall be governed by the provisions of this report relating to minimum compaction recommendations.

Prior to excavation, the grass and root mat shall be stripped and wasted (or set aside for reuse at surface upon completion of backfilling trench) along the trench alignment and in excavation stockpile areas.

Excavations and trenches shall be sufficiently wide to accommodate equipment size needed for proper compaction of bedding, pipe zone and backfill materials. Trench and excavation bottoms shall be excavated to a firm uniform bottom free of loose, disturbed material and observed by the Geotechnical representative prior to placement of bedding. Aggregate base materials may be used as bedding, as required, to mitigate soft, yielding excavation bottoms, where encountered.

Trench backfill shall be moisture conditioned between 0 and 2 percent over optimum moisture content prior to placing in trench. Backfill shall be compacted to a minimum of 90 percent relative compaction as determined from ASTM D1557, and 95 percent within the upper 1 foot of subgrade in pavement or on-grade concrete areas, or within a 1h:1v influence zone of footings¹.

Rock larger than 3 inches in maximum dimension shall be excluded from backfill. Jetting of trench backfill materials shall not be permitted.

Trench backfill materials shall consist of bedding and pipe zone sand placed a minimum thickness of 4 inches below the pipe invert and to a height of 12 inches above the top of the pipe. Bedding and pipe zone sand shall consist of fine to medium or coarse sand with a minimum Sand Equivalent (SE) of 30. General fill or pipe zone sand shall be placed as backfill above the pipe zone in 8-inch loose lifts and compacted to the minimum relative compaction summarized above. General backfill materials shall meet the preceding recommendations of this report, "Fill Placement and Compaction" and "Fill Materials."

CLOSURE

The recommendations in this letter are specific to the scope of the proposed on-grade concrete, replacement playground and pavement asphalt concrete, underground utility and site

¹ Where this is not feasible because of access constraints or for expediency, a 1½-sack cement and sand slurry may be used.

improvements summarized herein. The presence of hazardous and/or toxic materials is not within the scope of services provided for this study.

We appreciate the opportunity to be of service to Pleasant Valley School District. Please call if you have any questions concerning this letter report.

Sincerely,

Geotechniques



Carole Wockner, P.E.
Principal Engineer
R.C. E. No. 74407, exp 09/30/27

**Bid FB-26-04, Parking Lot Pavement and ADA Pathway Replacement Project,
Dos Caminos Elementary School**

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Section 32 16 00	Curbs, Gutters, Sidewalks

Division 33 - Utilities

Section 33 40 00	Storm Drainage Utilities
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SECTION 31 10 00

SITE CLEARING

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section requires the selective removal and subsequent off-site disposal of the following:
 - 1. Removal and disposal of all abandoned pipe and conduit except for pipe or conduit indicated specifically on plans for abandonment in place.
 - 2. Removal and offsite disposal of grass and root mat.
 - 3. Demolition of asphalt concrete and pavements as indicated on the drawings to straight, neatly saw cut surface.
 - 4. Trees as indicated on plans, completed including roots.
 - 5. All other removals which may or may not been shown on plans as required for the project construction.

1.02 SITE CONDITIONS

- A. Protections: Contractor shall provide temporary barricades and other forms of protection to protect general public from injury due to demolition work.
- B. Traffic: Conduct demolition operations and debris removal to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Access must be coordinated with District's Representative.
- C. Utility Services: Maintain all existing utilities to remain in service and protect them against damage during demolition operations.
- D. Environmental Controls: Use water sprinkling, temporary enclosures, and other methods to limit dust and dirt migration. Comply with governing regulations and County Air Pollution Control District pertaining to environmental protection. Do not use water when it may create hazardous or objectionable conditions such as flooding and pollution.

1.03 REFERENCES

- A. Standard Specifications for Public Works Construction (Green Book), latest edition.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.01 DEMOLITION

- A. General: Perform demolition work in a systematic manner. Use such methods as required to complete work indicated on drawings in accordance with governing regulations.
- B. Provide services for effective air and water pollution controls as required by County Air Pollution Control District regulations.
- C. Prior to commencing grading operations, soil containing debris, organics, pavement, or other unsuitable materials, shall be stripped from the foundation and pavement areas. Demolition areas shall be cleared of old foundations, slabs, abandoned utilities, tree roots, and soil disturbed during the demolition process. Depressions or disturbed areas left from the removal of such material shall be replaced with compacted fill under observation by the Geotechnical representative.
- D. Concrete sidewalks will be removed to the nearest construction or expansion joint to the limits of removal as shown on the plans. Exact locations will be determined in the field by the District's Representative.

3.02 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove from Project site debris, rubbish, and other materials resulting from demolition operations. Transport and legally dispose of off site.
- B. If hazardous materials are encountered during demolition operations, contact District's Representative.
- C. Burning of removed materials is not permitted on project site.

3.03 HAZARDOUS MATERIALS

- A. Except as otherwise specified, in the event Contractor encounters on the Project site material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or other hazardous materials which have not been rendered harmless, Contractor shall immediately stop Work in the area affected and report the condition to the District's Representative in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Contractor if in fact the material is asbestos, PCB, or other hazardous materials and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos, PCB, or other hazardous materials, or when such materials have been rendered harmless.

- B. Construction involving asbestos cement (transite) pipe shall be performed by qualified personnel in accordance with the standards and specifications set forth by American Water Works Association (AWWA), the Occupational Safety and Health Act (OSHA) and the Environmental Protection Agency (EPA), as well as location jurisdictional codes.

3.04 CLEANUP AND REPAIR

- A. General: Upon completion of demolition work, remove tools, equipment and demolished materials from site.
 - 1. Repair demolition performed in excess of that required. Return elements of construction and surfaces to existing condition prior to start of operations. Repair adjacent construction or surfaces soiled or damaged by demolition work.

END OF SECTION 31 10 00

SECTION 31 20 00 EARTHWORK

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes: Excavation, Compaction and Fill.

1.02 REFERENCE

- A. Standard Specifications for Public Works Construction (SSPWC), latest edition.
- B. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California, dated March 7, 2025 (rev. January 31, 2026), Project No. 1025.009.01, prepared by Geotechniques, and shall be superseded by the most current version.
- C. Caltrans Standard Specifications 2018, and shall be superseded by the most current version.

1.03 QUALITY ASSURANCE

- A. Codes and Standards: Perform earthwork in compliance with applicable requirements of governing authorities having jurisdiction.
 - 1. Standard Specifications for Public Works Construction (SSPWC), latest edition.
 - 2. CAL/OSHA Construction Safety Order Requirements.
- B. Soil Testing Service
 - 1. The District's Representative will engage a soil testing service to include testing soil materials proposed for use in the Work and for quality control testing during grading operations.
 - 2. Samples of materials shall be furnished to the testing service by the Contractor at least one week before their anticipated use.
 - 3. Work for this Section includes smoothing out areas for density tests and otherwise facilitate testing work, as directed.
 - 4. Shoring Systems: Pre-engineered systems, clearly labeled as such, may be used. Refer to the Geotechnical Recommendations for further requirements.

1.04 PROJECT CONDITIONS

- A. The Contractor shall visit the site and familiarize with existing site conditions.
- B. Additional test borings and other exploratory operations may be made by the Contractor at no cost or liability to the District.
- C. Existing Utilities:
 - 1. Where uncharted or incorrectly charted piping or other utilities are encountered during excavation, consult District's Representative immediately for directions. Cooperate with the District's Representative in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the District's Representative at no cost to the District. Disturbed trench sections shall be replaced in kind.
 - 2. Contractor to coordinate with the District's Representative to obtain all required permits and schedule inspections.
- D. Protection of Subgrade: Do not allow equipment to pump, rut, or disturb subgrade, stripped areas, or other areas prepared for Project.
- E. Contractor shall implement measures to prevent soil erosion, and where possible, sediment shall be retained onsite.
- F. Contractor shall implement all necessary recommendations contained in the Geotechnical Recommendations.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.01 SITE PREPARATION

- A. General:
 - 1. Remove vegetation, improvements, or obstructions interfering with installation of new construction. Transport and legally dispose of off site. Removal includes stumps and roots. Contractor shall utilize the best construction method to minimize the erosive effect from the removal of site vegetation.
 - 2. Excavation bottoms and depressions resulting from demolition or removal of below-grade structures or root balls shall be observed by the Geotechnical representative prior to filling.
 - 3. Carefully and cleanly cut roots and branches of trees indicated to be left standing, where such roots and branches obstruct new construction. Paint cuts over one inch in size with tree pruning compound. Care shall be taken so as not to scar any area of the tree's bark.

4. In order to protect from sediment transfer or contamination from urban run-off during construction, the following grading and erosion control practices shall be followed:
 - a. If grading occurs during the rainy season (November through April), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation.
 - b. Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm run-off.
 - c. Grading operations on site shall be conducted so as to prevent damaging effects of sediment production and dust on the site and on adjoining properties.
 - d. When vegetation has to be removed on site, the methods shall be one that minimizes the erosive effects from the removal.
 - e. Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area shall be fenced to define the project.
 - f. Temporary mulching, seeding, or other suitable stabilization shall be used to protect areas during construction or other land disturbance activities on site.
 - g. Topsoil, removed from the surface in preparation for grading and construction activities on Campus is to be stored on or near the site and protected from erosion while grading operations are underway, provided that such storage may not be located where it would cause suffocation of root systems of trees to be preserved. After completion of such grading, topsoil is to be restored to exposed cut and fill embankments of building pads so as to provide a suitable base of seeding and planting.
 - h. Sediment basins, sediment traps, or similar control measures shall be installed before extensive clearing and grading operations begin for site development.
 - i. Water or dust palliatives shall be applied to exposed earth services as necessary to control dust emissions.
 - j. Revegetation or stabilization of exposed earth surfaces shall take place as soon as possible.

B. Removals

1. Clear the site of trees, shrubs, and other vegetation, which is indicated to be removed.

2. Completely remove stumps, roots, and other debris to avoid problems with future utilities.
3. Use only hand methods for grubbing inside the drip line of trees indicated to be left standing.
4. Existing fills, soil containing debris, organics, pavement, or other unsuitable materials shall be excavated and removed prior to commencing grading operations. Demolition areas shall be cleared of old foundations, slabs, abandoned utilities, landscaping, and soils disturbed during the demolition process. Depressions or disturbed areas left from the removal of such material shall be replaced with compacted fill after observation by the Geotechnical representative.
5. The limits and depths for removal of existing materials for subgrade preparation shall be consistent with the Geotechnical recommendations. Removals shall be wide enough to accommodate the compaction equipment being used.
6. Revegetation or stabilization of exposed earth surface shall take place as soon as possible.

C. Removal of Improvements

1. Remove above-grade and below-grade improvements necessary to permit construction and other work as indicated.
2. Remove from site and legally dispose of off-site, existing fill materials, soil debris, or other unsuitable materials prior to commencing grading operations.

3.02 EXCAVATION

- A. Excavation for Pavements: Cut surface under pavements to comply with cross-sections, elevations and grades as shown.
- B. Excavation for Planting Areas: Conform to cross-sections, elevations and dimensions shown, within a tolerance of plus or minus 0.10 foot.

3.03 COMPACTION

- A. General: Control soil compaction during construction providing minimum percentage of density specified for each area, under the provisions of the Geotechnical Recommendations.
- B. Percentage of Maximum Density Requirements: Compact soil to not less than the percentages of maximum dry density specified in the Geotechnical Recommendations and in accordance with ASTM D1557-91 method of compaction.
- C. Moisture Control:

1. When moisture content of exposed scarified soil and/or fill material is below that sufficient to achieve recommended compaction, water shall be added to the soil and/or fill. While water is being added, soil shall be bladed and mixed to provide relatively uniform moisture content throughout the material.
2. When moisture content of exposed scarified soil and/or fill material is excessive, material shall be aerated by blading or other methods. Fill placed in pavement areas shall be compacted at near optimum moisture content. Jetting is not permitted for compaction.

3.04 FILL

- A. In all excavations, use satisfactory excavated or borrow material sampled and tested by the District's Testing Laboratory. Fill selection shall be per Geotechnical Recommendations.
- B. Fill excavations as promptly as Work permits, but not until completion of the following:
 1. Observation of excavation bottom by Geotechnical Representative.
 2. Acceptance by District's Representative of construction below finish grade including, where applicable, waterproofing, damp-proofing, and drainage pipe.
 3. Examination, testing, approval and recording locations of underground utilities.
 4. Removal of concrete formwork.
 5. Removal of shoring and bracing and backfilling of voids with satisfactory materials.
 6. Removal of trash and debris.
 7. Permanent or temporary horizontal bracing is in place on horizontally supported walls.
 8. Protect excavations by methods required to prevent cave-in or loose soil from falling into excavation.
 9. Protect improvements and structures from lateral and vertical movements adjacent to excavations.
- C. Continual dust control, as required by the District, and in accordance with County Air Pollution Control District's Standards shall be required for the project construction.

3.05 GRADING

- A. General: To provide support for slabs and walls, all existing fill and unsuitable natural soils shall be excavated and replaced as properly compacted fill.
- B. Compaction: After grading, compact subgrade surfaces to the depth and percent relative compaction for each area classification.
- C. Fill placement and grading operations shall be performed only under the observation of the District's Testing Laboratory.
- D. The exterior grades around building areas shall be sloped to drain away from the buildings to prevent ponding of water adjacent to foundations.
- E. Grading operation shall be conducted so as to prevent damaging effects of sediment product and dust on the site and adjoining properties.

3.06 DISPOSAL OF EXCESS AND WASTE MATERIALS

Transport excess excavated material and legally dispose of offsite.

3.07 FIELD QUALITY CONTROL

- A. Quality Control Testing During Construction: District 's Testing Laboratory will observe, test and approve subgrades and fill layers before further construction Work can be performed. The District's Representative will determine the frequency of tests. Subgrade: Allow at least one field density test of subgrade to be made for every 2000 sq. ft. of paved area, but in no case less than 3 tests.
- B. Field examination and testing will be performed by the District's Testing Laboratory. The Contractor shall cooperate with such testing and shall give the District's Representative advance notice of grading scheduling.
- C. Frequency of Tests for Trenching: As specified in Geotechnical Recommendations and as determined by the District's Representative.
- D. If in the opinion of the District's Representative, based on soil testing reports and observations, subgrades or fills which have been placed are below specified density, provide corrective work as specified at no additional expense to the District, and pay for retesting of the soil.

3.08 PROTECTION

- A. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- B. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.
- C. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify

surface, reshape, compact to required density and provide other corrective work as specified, with retesting, prior to further construction.

END OF SECTION 31 20 00

SECTION 31 23 33 TRENCHING AND BACKFILLING

PART 1 GENERAL

1.01 SUMMARY

PART 1 - References, submittals, and existing utilities.

PART 2 - Trench backfill materials.

PART 3 - Excavating trenches, backfilling, and compacting requirements.

1.02 REFERENCES

- A. Standard Specifications for Public Works Construction (SSPWC), latest edition.
- B. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California (Dated March 7, 2025 Project No. 1025.009.01), prepared by Geotechniques, and shall be superseded by the most current version.
- C. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California (Rev. Dated January 31, 2026, Project No. 1025.009.01), prepared by Geotechniques, and shall be superseded by the most current version.
- D. Caltrans Standard Specifications 2018, and shall be superseded by the most current version.

1.03 SUBMITTALS

- A. Materials source and specifications.
- B. Sand equivalent test reports per ASTM D2419.
- C. Certificates.
- D. Drawings for shoring, bracing, sloping, or other provisions for worker protection for any excavation shall conform to the requirements of the CAL/OSHA Construction Safety Orders Requirements.

1.04 EXISTING UTILITIES

- A. Drawings show existing major underground utilities from reference drawings. Prior to excavation, the Contractor shall notify the District's Representative to obtain any additional information which may be applicable to the Work.

- B. Any incident of a utility being inadvertently damaged by the Contractor shall be immediately shutoff and then be immediately repaired by the Contractor at no cost to the District.
- C. Contractor to pothole all utility connections and verify exact size, location and material prior to beginning construction and notify engineer of any discrepancies.

PART 2 MATERIALS

2.01 APPROVALS

Imported material shall be approved by the District's Representative prior to being brought to the site. Provide a sample of the material in sufficient quantity for the District's Representative's use in evaluating the material.

2.02 TRENCH BACKFILL MATERIAL

- A. Sand bedding shall have a sand equivalent (SE) of 30 or greater. The SE shall be evaluated during grading. Materials shall conform to SSPWC Section 217-1 and the specification of the Geotechnical Recommendations.
- B. Backfill material shall conform to the requirements of Section 217-2 of the SSPWC.
- C. Aggregate base course shall be per Plan.
- D. Topsoil removed from trenches shall be stockpiled at locations approved by the District's Representative.

2.03 SOURCE QUALITY CONTROL

- A. Inspection and testing shall be performed by the District's Representative.

PART 3 EXECUTION

3.01 PREPARATION

Identify required lines, levels, contours, and datum.

3.02 TRENCH EXCAVATION

- A. Strip grass and root mat and separate from stockpiled soil to be used as backfill over pipe zone sand. Spread stockpiled soils to aerate, if necessary.
- B. Trench/excavation width should be wide enough to accommodate the compaction equipment being used.
- C. All saw cutting shall be neat, straight cuts and shall conform to Section 306-3 of the SSPWC. All cuts shall be square unless otherwise specifically noted on plans.

D. Trench excavation shall conform to Section 306-3 of the SSPWC and the following requirements:

1. The bottom of the trench shall be graded and prepared to provide a firm and uniform bearing throughout the entire length of the pipe barrel. Suitable excavations shall be made to receive the bell of the pipe and the joint shall not bear upon the bottom of the trench. All adjustments to line and grade shall be made by scraping away or filling in with sand under the body of the pipe and not by wedging or blocking.
2. If the trench is excavated below the required grade, correct any part of the trench excavated below the grade, at no additional cost to the District per the Geotechnical Recommendations. Place the backfill material over the full width of trench in compacted layers not exceeding 6 inches deep to the established grade with allowance for the pipe base. If shoring is required, the trenches shall be shored and braced in accordance with the Trench Construction Safety Orders of the Division of Industrial Safety.
3. When subgrade is encountered that in the opinion of the District's Representative is unsuitable for pipe support, the District's Representative may order the excavation to be carried to an approved depth below the bottom of the pipe and backfilled with sand, to the lines and grades shown on the drawings and specified by the District's Representative.
4. The minimum width of the trench at the top of the pipe zone shall be as necessary to install the pipe. The utility lines shall be centered in the trench. In the event of (1) actual physical interference between existing crossing subsurface utilities and the proposed utility lines and (2) vertical discrepancy in connecting proposed utility lines to existing utility system, a minimum clearance of 0.5 feet between the utility line and the crossing, interfering utility shall be provided, unless otherwise indicated on the plans.
5. Where existing utilities or tree roots are to be protected, trench excavation shall be by hand. No mechanical excavating equipment shall be used within 6 inches of any utility or root.
6. Trenching machinery may be used for excavations provided the specified trench width can be maintained.

3.03 TRENCH BACKFILL

- A. Pipe bedding and trench backfill materials: Sand bedding and backfill for utilities shall consist of material having a sand equivalent of at least 30. The backfill material shall be placed within the pipe zone that extends from the bottom of the pipe to at least 12 inches above the top of the pipe for the full width of the trench. The horizontal distance between the spring line of the pipe and the side walls of the trench shall be such that bedding material can be properly placed and compacted below the haunches of the pipe. Pipe bedding and pipe zone backfill

shall be compacted to at least 95 percent relative compaction. Backfill material placement shall conform to provisions of Geotechnical Recommendations.

- B. Trench backfill placed above the pipe zone shall consist of suitable onsite or imported soil per Geotechnical Recommendations. Mechanical compaction of trench backfill shall be performed and water consolidation (jetting) methods of compaction shall not be permitted.
- C. Trench Backfilling shall conform to the requirements of Sections 306-12 of the SSPWC and Geotechnical Recommendations.
- D. During the process of laying pipe in trenches, sufficient material shall be carefully placed and hand tamped about the pipe to hold it firmly to established line and grade. Oversized material, broken rock or shale, if encountered, shall not be used for backfill.
- E. No motor driven mechanical compacting equipment shall be used over pipelines until the backfill has been compacted to 12 inches over the crown of the pipe.
- F. All backfill material shall be deposited in horizontal layers not exceeding the thickness specified in Section 306-12 of the SSPWC and not exceeding 8 inches in thickness. The distribution of materials shall be such that all material following compaction and consolidation will form a homogeneous mass free of voids, pockets, streaks or other imperfections. Backfilling shall be done with earth free from lumps, hardpan, chunks, paving material, organic matter or other deleterious substances.
- G. Jetting of bedding or backfill material to obtain specific moisture content or for compaction shall not be permitted. If encountered, existing fill in the utility excavation shall be excavated and recompact or removed and replaced with new fill materials per requirements of Section 2.02.
- H. Compaction of all backfill material for trenches, pavements or structures, shall be per provisions of the Geotechnical Recommendations. Appropriate warning detector tape shall be placed over all utilities.
- I. Prior to final cleanup or resurfacing, the District's Representative shall take compaction tests in any backfill area and at any depth, with the Contractor providing equipment and operator to assist in such test. If any such compaction test fails, the Contractor shall correct such failure and pay for any retesting that is required. The District's Representative shall make as many tests as he feels is required to receive a satisfactory and acceptable job.

3.04 STOCKPILING

- A. Stockpiling of imported materials or excavated materials shall direct surface water away from approved stockpile site to prevent erosion.
- B. After stockpiles are removed, leave area in a clean and neat condition.

3.05 FIELD QUALITY CONTROL

Inspection and testing shall be performed by District's Representative.

END OF SECTION 31 23 33

SECTION 32 11 23
AGGREGATE BASE COURSES

PART 1 GENERAL

1.01 SUMMARY

Aggregate base course for pavements, gutters, and all-weather access road.

1.02 RELATED SECTIONS

- A. Section 31 20 00 Earthwork.
- B. Section 32 12 16 Asphalt Concrete Paving.
- C. Section 32 13 13 Concrete Work.
- D. Section 32 14 13 Concrete Pavers.
- E. Section 32 18 13 Synthetic Turf Installation

1.03 REFERENCES

- A. Standard Specifications for Public Works (SSPWC), latest edition.
- B. ASTM Standards.
- C. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California (Dated March 7, 2025 Project No. 1025.009.01), prepared by Geotechniques, and shall be superseded by the most current version.
- D. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California (Rev. Dated January 31, 2026, Project No. 1025.009.01), prepared by Geotechniques, and shall be superseded by the most current version.
- E. Caltrans Standard Specifications 2018, and shall be superseded by the most current version.

1.04 SUBMITTALS:

- A. Submit material samples and reports in accordance with requirements of the District.
- B. Submit samples in sufficient quantities for material testing.

PART 2 PRODUCTS

2.01 MATERIALS

Aggregate Base Material shall be Class 2 Aggregate Base conforming to Caltrans Standard Specifications Section 26-1.02 or Section 200-2.4 of the "Greenbook" (International Conference of Building Officials [ICBO], latest edition) for Crushed Miscellaneous Base (CMB).

PART 3 EXECUTION

3.01 EXAMINATION

Verify substrate has been inspected; gradients and elevations are correct, and dry.

3.02 AGGREGATE BASE PLACEMENT

- A. Aggregate base placement shall conform to the provisions of the SSPWC, Section 301-2.
- B. Level and contour surfaces to elevations and gradients indicated.
- C. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
- D. Where the required aggregate base thickness is 6 inches or less, the watered base may be spread and compacted in one layer. Where the required thickness is more than 6 inches, the aggregate base material shall be spread and compacted in 2 or more layers of approximately equal thickness. The maximum compacted thickness of any one layer shall not exceed 6 inches. Aggregate base shall be compacted to a minimum of 95 percent of the maximum dry density determined by ASTM D1557, latest edition.
- E. Aggregate base course shall be dense and unyielding upon proof-rolling with full water truck.
- F. Per the geotechnical report, geotextile (Mirafi 600x) shall be placed in accordance with manufacturer's instructions immediately below the aggregate base course in areas to receive bus and truck traffic.

3.03 TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch.
- B. Scheduled Compacted Thickness shall conform to the provisions of the SSPWC Section 301-2.2.

3.04 FIELD QUALITY CONTROL

- A. Inspection and testing shall be performed by the District's Testing Laboratory. Compaction testing will be performed in accordance with ASTM D1557, latest edition.
- B. If tests indicate work does not meet specified requirements, remove work, replace and retest at Contractor's expense.

END OF SECTION 32 11 23

SECTION 32 12 16
ASPHALT CONCRETE PAVING

PART 1 GENERAL

1.01 SUMMARY

Asphaltic concrete paving for parking lots and driveway pavements.

1.02 RELATED SECTIONS

- A. Section 31 20 00 Earthwork.
- B. Section 32 11 23 Aggregate Base Course.

1.03 REFERENCES

- A. Standard Specifications for Public Works Construction (SSPWC), latest edition.
- B. ASTM Standards.
- C. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California (Dated March 7, 2025 Project No. 1025.009.01), prepared by Geotechniques, and shall be superseded by the most current version.
- D. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California (Rev. Dated January 31, 2026, Project No. 1025.009.01), prepared by Geotechniques, and shall be superseded by the most current version.
- E. Caltrans Standard Specifications 2018, and shall be superseded by the most current version.

1.04 SUBMITTALS

Submit asphalt concrete mix design(s) for approval of the District Representative.

1.05 TESTING AND INSPECTION

- A. Testing and inspection of asphalt pavement mix(es) and testing of placed stabilizing base course and asphalt pavement will be performed by the District's Testing Laboratory. Testing and inspection will be performed so as to minimize disruption of work.

- B. Allow the District's Testing Laboratory access to the mixing plant for verification of weights or proportions, character of materials used and determination of temperatures used in the preparation of asphaltic concrete mix.

PART 2 PRODUCTS

2.01 GENERAL

Provide the aggregate base, and bituminous surface conforming to the requirements of the Standard Specifications for Public Works Construction (SSPWC).

2.02 PAVING MATERIALS

- A. Asphalt Concrete: Asphalt concrete material shall be C1-PG 64-10 per SSPWC Section 203-6. The grading and proportioning of aggregates shall be such that the combined mineral aggregate conforms to the specified requirements.
- B. Asphalt Emulsion: SSPWC Section 203-3, Grade SS-1h.
- C. Prime Coat: Grade SC-70 per SSPWC Section 203-2.
- D. Aggregates for base course shall conform to requirements of Specification Section 32 11 23, Aggregate Base Course.

2.03 ASPHALT PAVEMENT MIX

- A. Combine mineral constituents in proportions to produce a mixture conforming to requirements of the SSPWC Section 203-6.
- B. Percentage by weight of asphalt cement in mixture shall be in accordance with SSPWC Section 203-6.
- C. Maintain thorough and uniform mixture.
- D. Bring asphalt and mineral constituents to required temperatures before mixing. Ensure aggregates are sufficiently dry so as not to cause foaming in mixture.

PART 3 EXECUTION

3.01 GENERAL

Execute Work in accordance with SSPWC Section 302 and the Geotechnical Recommendations.

3.02 PREPARATION

- A. Ensure grading of subgrade to required elevation. Subgrade preparation shall be per SSPWC Section 301.
- B. Before final rolling, shape entire section, add additional sub-soil if necessary, and compact subgrade to provide grades, elevation and cross-section indicated. Points

of finished subgrade surface shall be within 0.04 foot of elevations indicated on the Drawings.

3.03 BASE COURSE

Place aggregate base in accordance with requirements of SSPWC Section 301 and to the thickness shown on the Drawings. Grade and compact in 6-inch layers to at least 95 percent of compaction (ASTM D1557).

3.04 MAINTENANCE

Maintain the base course until the asphaltic pavement is in place. Maintenance shall include drainage, rolling, shaping and water as necessary to maintain the course in proper condition. Maintain sufficient moisture at the surface to prevent a dusty condition. Areas of completed base course that are damaged shall be conditioned, reshaped and re-compacted in accordance with the requirements of the Specifications without additional cost to the District.

3.05 TACK COAT

- A. Prior to the application of the asphalt concrete, a paint binder (tack coat) shall be applied to all surfaces of walkway, curbs, gutters, manholes and drainage structures which will be in contact with asphalt pavement per SSPWC Section 302-5.4.
- B. Coat surfaces of catch basins which are to remain free of asphalt with oil, or provide equivalent protection, to prevent asphalt adhesion.

3.06 PRIME COAT

Prior to the application of the asphalt concrete, a prime coat shall be applied at a rate of 0.20 to 0.40 gallons per square yard.

3.07 ASPHALT CONCRETE

- A. Requirements: The bituminous concrete shall consist of mineral aggregate, uniformly mixed with bituminous material in a central plant in accordance with SSPWC Section 203-6. The percentage of asphalt binder shall be in accordance with SSPWC Section 203-6. The mixing plant and construction equipment shall conform to the requirements of SSPWC Sections 203-6 and 302-5.
- B. Placing: Deliver bituminous mixtures to the work site temperatures specified in SSPWC Section 302-5.5. Spread and place in accordance with SSPC Section 302-5.5. Asphalt surface shall be fog-sealed.
- C. Compaction: Initial or breakdown rolling and the final rolling of the uppermost layer of the asphalt concrete shall be in accordance with SSPWC Section 302-5.6. Compaction by vehicular traffic shall not be permitted.

3.08 JOINING PAVEMENT

- A. Carefully make joints between old and new pavements or between successive days work in such manner as to insure a continuous bond between old and new sections of the course in accordance with SSPWC Section 302.
- B. Expose and clean edges of existing pavement. Cut edge to straight, vertical surfaces. Paint all joints with a uniform coat of tack coat before the fresh mixture is placed. Prepare joints in the new pavement in accordance with SSPWC Section 302-5.7.

3.09 JOINING NON-PAVED AREAS

Where paving will join landscape or other non-hardscape area a redwood header shall be installed.

3.10 TOLERANCES

- A. Flatness: Maximum variation of 1/8 inch when measured with a 10-foot straight edge. Asphalt substrate shall not vary from planned cross slope by more than +/- 0.2%. Finished asphalt shall be smooth and planar and shall not vary greater than 1/8", plus or minus, under a 10-foot straight edge in any direction. Contractor shall be responsible for providing a survey of new asphalt surfaces that are acceptable to District or District's representative, and to water flood the surface with a water truck in the presence of District or District's representative. If after 20 minutes, "birdbaths" are evident in a depth more than 1/8", the contractor and the District or District's representative will determine the best method of correction at no cost to District.
- B. Variation from True Elevation: Within 1/4 inch.

3.11 FIELD QUALITY CONTROL

- A. Inspection and testing shall be performed by the District's Testing Laboratory.
- B. Field inspection and testing will be performed by the District's Testing Laboratory. The Contractor shall cooperate with such testing and shall give the District's Representative advance notice of paving scheduling. Sufficient "Advance Notice" shall be determined by the District's Representative.
- C. If tests indicate materials do not meet specified requirement, replace material and retest at no additional cost to the District.
- D. Frequency of Test: As determined by the District's Testing Laboratory.

3.12 PROTECTION

After placement, protect pavement from mechanical injury.

END OF SECTION 32 12 16

SECTION 32 16 00
CURBS, GUTTERS, SIDEWALKS

PART 1 – GENERAL

1.01 SUMMARY

- A. Concrete for curbs, gutters, sidewalks.

1.02 RELATED SECTIONS

- A. Section 31 20 00 – Earthwork

1.03 REFERENCES

- A. Standard Specifications for Public Works Construction (SSPWC), latest edition.
- B. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California (Dated March 7, 2025 Project No. 1025.009.01), prepared by Geotechniques, and shall be superseded by the most current version.
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- D. ASTM standards.

1.04 SUBMITTALS

- A. Submit the following:
 - 1. Product Data: Provide data on admixtures and curing compounds.
 - 2. Concrete mix design(s).
 - 3. Certificates from the batch plant.

1.05 QUALITY ASSURANCE

- A. Perform Work in accordance with the SSPWC, latest edition; and ASTM Standards, latest edition.
- B. Obtain cementitious materials from same source throughout.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Do not place concrete when base surface temperature is less than 40 degrees F or surface is wet.

PART 2 – PRODUCTS

2.01 FORM MATERIALS

- A. Form Materials: Section 303-5 of the SSPWC.

2.02 CONCRETE MATERIALS

- A. Concrete Material for Curbs, Walk (Path of Travel), Pavement, and Cast-in-Place Catch Basin:
 - 1. Class 520-C-2500 for walkways, curbs, and gutters. Portland cement concrete per Standard Specifications for Public Works Construction Section 201-1.1.2.
 - 2. Vehicular concrete shall have a minimum 28-day compressive strength of 3,500 psi, and a minimum Modulus of Rupture of 530 psi.
 - 3. Concrete reinforcements shall be constructed per the Project Plans and Specifications.

2.03 ACCESSORIES

- A. Curing Compound shall conform to SSPWC Section 201-4. Pigmented compound shall not demonstrate any residual coloring of the concrete after one week.

2.04 CONCRETE MIX

- A. Mix and deliver concrete in accordance with ASTM C94.
- B. Use accelerating admixtures in cold weather only when approved by the District's Representative. Use of admixtures will not relax cold weather placement requirements.
- C. Use calcium chloride only when approved by the District 's Representative.
- D. Use set retarding admixtures during hot weather only when approved by the District 's Representative.

2.05 CONCRETE REINFORCEMENT

- A. Concrete reinforcement shall conform to SSPWC Section 201-2.

2.06 SOURCE QUALITY CONTROL

- A. Provide certificates of compliance from the batch plant.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify compacted subgrade is acceptable and ready to support imposed loads.
- B. Verify gradients and elevations of subgrade are correct.

3.02 PREPARATION

- A. Moisten subgrade to minimize absorption of water from fresh concrete. Compact subgrade material to a depth of 12" beneath aggregate base below concrete pavements to 95% relative compaction.
- B. Coat surfaces of catch basin frames with oil to prevent bond with concrete pavement.
- C. Notify District's Representative a minimum of 24 hours prior to commencement of concrete placement operations.

3.03 FORMING

- A. Place and secure forms to correct location, dimension, and profile.
- B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
- C. Place joint filler vertical in position, in straight lines. Secure to formwork during concrete placement.

3.04 PLACING CONCRETE

- A. Place concrete in accordance with SSPWC Section 303-5.
- B. Install ½" thick fiberboard expansion joint and snap cap. Seal with Sikaflex self-leveling sealant after removal of snap cap (typical).
- C. Construct weakened plane joints conforming to SSPWC Section 303-5.4.3, one inch deep, at intervals not exceeding 10 feet.
- D. The top edges of curbs shall have 0.5" radius.

3.05 FINISHING

- A. Concrete finishes to conform with SSPWC Section 303-5.

3.06 FIELD QUALITY CONTROL

- A. Inspection and testing shall be performed by the District's Testing Laboratory.
- B. District 's Testing Laboratory will perform slump and compressive strength tests.
- C. Contractor shall maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.07 PROTECTION

- A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, vandalism and mechanical injury.
- B. It is the Contractor's responsibility to replace all concrete work subject to vandalism and graffiti at no extra cost to the District.

END OF SECTION 32 16 00

**SECTION 33 40 00
STORM DRAINAGE UTILITIES**

PART 1 GENERAL

1.01 SUMMARY

- A. Storm drainage piping, fittings, accessories, and bedding.
- B. Catch basins.
- C. Inlet and outlet structures.

1.02 RELATED SECTIONS

- A. Section 31 20 00 Earthwork.
- B. Section 31 23 33 Trenching and Backfilling.

1.03 REFERENCES

- A. Standard Specifications for Public Works Construction (SSPWC), latest edition.
- B. ASTM Standards.
- C. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California (Dated March 7, 2025 Project No. 1025.009.01), prepared by Geotechniques, and shall be superseded by the most current version.
- D. Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in Pleasant Valley School District, in Camarillo, California (Rev. Dated January 31, 2026, Project No. 1025.009.01), prepared by Geotechniques, and shall be superseded by the most current version.

1.04 SUBMITTALS

- A. Submit the following in accordance with provisions in Division 1:
 - 1. Product Data: Provide data indicating pipe, pipe accessories and catch basin grates.
 - 2. Manufacturer's Installation Instructions: Indicate special procedures required to install Products specified.
 - 3. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
 - 4. Layout diagram for storm drain components per plan.

1.05 PROJECT RECORD DOCUMENTS

- A. Submit record drawings. Accurately record locations of pipe runs, connections, catch basins, structures, and invert elevations.
- B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.06 FIELD MEASUREMENTS

- A. Verify that field measurements and elevations are as indicated on drawings.
- B. Complete pothole work per plans and notify the District's Representative of any discrepancy prior to commencing construction.

1.07 COORDINATION

- A. Coordinate the work with connection to existing storm drain mains, and trenching.

PART 2 PRODUCTS

2.01 PIPE MATERIALS AND ACCESSORIES

- A. Polyvinyl Chloride (PVC) Pipe for Gravity Sewer: ASTM 3034-SDR35 Ring-Tite Polyvinyl Chloride (PVC) gravity sewer pipe and fittings; inside nominal diameter as indicated on Drawings. PVC pipe shall use "locked-in" rubber sealing ring conforming to ASTM D-3212. Joints using flexible Elastomeric Seals. Minimum pipe stiffness at 5% deflection shall be 46 psi for all sizes when tested in accordance with ASTM Method of Test D2412.

2.02 CATCH BASINS

Precast catch basins shall include frame and grate, as manufactured by Precon Products or approved equal.

2.04 METAL

Catch basin frame and grate shall be cast iron. All other exposed metal parts are to be galvanized in accordance with SSPWC, Section 210-3.

2.05 CONCRETE

Trench backfill slurry shall be Class100-E-100) per SSPWC Section 201.

2.06 BEDDING MATERIALS

- A. Refer to Specification Section 31 23 33 Trenching and Backfilling for Bedding Material.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that trench cut is ready to receive Work and excavations, dimensions, and elevations are as indicated on Drawings.

3.02 PREPARATION

- A. Hand trim excavations to required elevations. Correct over excavation with compacted bedding material.
- B. Remove large stones or other hard matter which could damage piping or impede consistent backfilling or compaction.

3.03 BEDDING

- A. Excavate pipe trench in accordance with Specification Section 31 23 33. Hand trim excavation for accurate placement of pipe to elevations indicated on Drawings.
- B. Place bedding material in trench bottom, level materials in continuous layer. Bedding shall be 4" thickness for pipe diameters less than or equal to 24" and 6" thickness for pipe diameters greater than 24" and shall be per SSPWC Section 217-1.2.

3.04 INSTALLATION - PIPE

- A. Install pipe, fittings, and accessories in accordance with manufacturer's instructions and per SSPWC Section 207.
- B. Lay pipe to slope gradients noted on drawings; with maximum variation from true slope of 1/8 inch in 10 feet.
- C. Install backfill along sides and over top of pipe. Provide backfill over top of pipe to minimum compacted thickness of 12 inches, compacted to a minimum of 95 percent of maximum dry density.
- D. Refer to Specification Section 31 23 33 for Trenching Requirements. Do not displace or damage pipe when compacting.
- E. The compaction of the backfill material along the sides and one foot above the pipe shall be done with hand tampers or equal to protect the pipe.

3.05 INSTALLATION - CATCH BASINS

- A. Form bottom of excavation clean and smooth to correct elevation.
- B. Form and place cast-in-place concrete base with provisions for storm drainage pipe end sections.

- C. Level top surface of concrete base to receive shaft sections.
- D. Establish elevations and pipe inverts for inlets and outlets as indicated on drawings.
- E. Compact top 12" of native materials below the bottom of catch basins to minimum 95 percent of maximum dry density.

3.06 FIELD QUALITY CONTROL

- A. Inspection shall be performed by the District's Representative.
- B. Request inspection prior to and immediately after placing backfill cover over pipe.
- C. If tests indicate work does not meet specified requirements, remove work, replace and retest at no cost to the District.

3.07 PROTECTION

- A. Protect pipe and backfill cover from damage or displacement until backfilling operation is in progress.

END OF SECTION 33 40 00