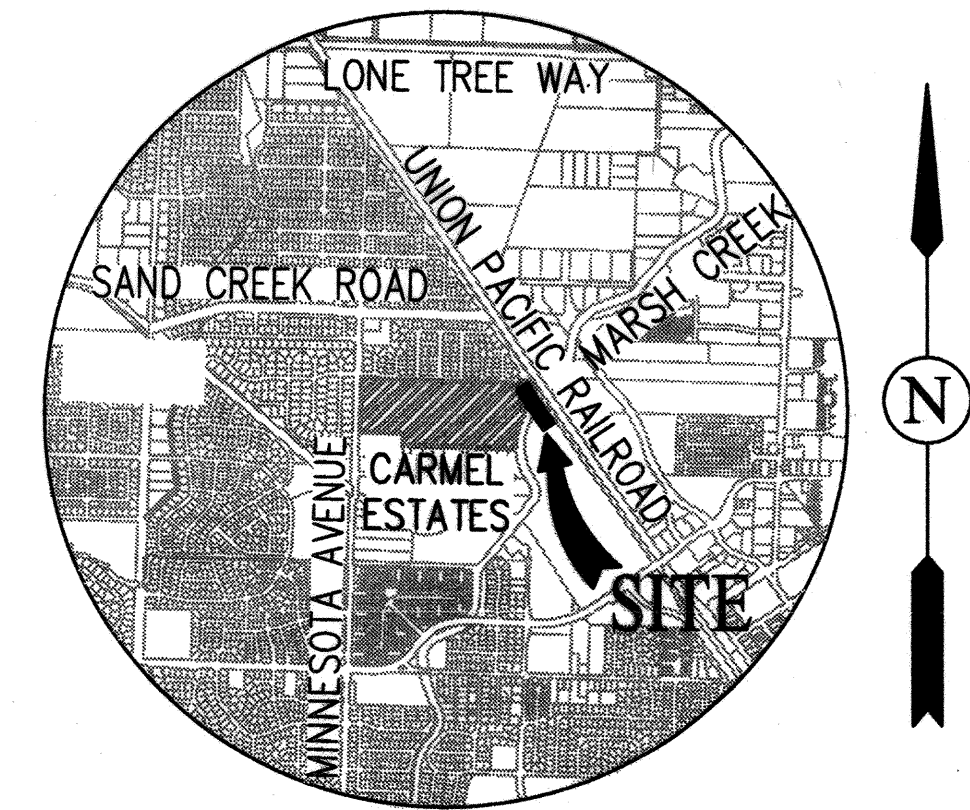


CARMEL ESTATES PEDESTRIAN BRIDGE GRADING & IMPROVEMENT PLAN SUBDIVISION 8311 BRENTWOOD, CALIFORNIA



VICINITY MAP
NOT TO SCALE

LEGEND

EXISTING	PROPOSED	FUTURE	DESCRIPTION
GENERAL			CENTER LINE PROPERTY LINE LOT LINE NOTE REFERENCE REVISION NUMBER DETAIL NUMBER
STREETS			CURB AND GUTTER SIDEWALK AC PAVEMENT WHEEL CHAIR RAMP DRIVEWAY BARRICADE GUARD RAIL
STORM DRAINS			STORM DRAIN MANHOLE CURB INLET FIELD INLET
SANITARY SEWERS			SANITARY SEWER MANHOLE LAMPHOLE SANITARY SEWER CLEANOUT SANITARY SEWER SERVICE
WATER			WATER LINE WATER VALVE CHECK VALVE BACKFLOW PREVENTER REDUCER BACTERIA SAMPLING STATION AIR RELIEF VALVE BLOW-OFF ASSEMBLY FIRE HYDRANT ASSEMBLY WATER METER
ELECTRICAL			ELECTRIC LINE STREET LIGHT CONDUIT STREET LIGHT, TYPE 'B' SINGLE LAMP STREET LIGHT, TYPE 'A' DUAL LAMP PULL BOX POWER POLE
SIGNAL			TRAFFIC SIGNAL WITH LUMINAIRE TRAFFIC SIGNAL WITH BACKPLATE AND LUMINAIRE
MISCELLANEOUS			GAS MAIN GAS VALVE TELEPHONE LINE CABLE TELEVISION LINE JOINT TRENCH STREET SIGN STREET NAME SIGN MONUMENT AND BOX FENCE TEMPORARY CAP SOUNDWALL CASING TEST STATION

ABBREVIATIONS

AB	AGGREGATE BASE	MH	MANHOLE
AC	ASPHALT CONCRETE	MAX.	MAXIMUM
AD	AREA DRAIN	MIN.	MINIMUM
ARV	AIR RELIEF VALVE	MTC	MEDIAN TOP OF CURB
BC	BEGIN CURVE	(N)	NORTH
BEG.	BEGIN	NTS	NOT TO SCALE
BM	BENCHMARK	OG	ORIGINAL GROUND
BO	BLOW-OFF VALVE	P	PAVEMENT ELEVATION
BVC	BEGIN VERTICAL CURVE	PCC	POINT OF COMPOUND CURVATURE
BW	BOTTOM OF WALL	PI	POINT OF INTERSECTION
BWK	BACK OF WALK	PVC	POINT OF INTERSECTION VERTICAL CURVE
C/L	CENTER LINE	PL	PROPERTY LINE
CATS	CASING TEST STATION	PRC	POINT OF REVERSE CURVATURE
CB	CATCH BASIN	PUE	PUBLIC UTILITY EASEMENT
CCWD	CONTRA COSTA WATER DISTRICT	PVC	POLYVINYL CHLORIDE
C&G	CURB & GUTTER	R	RADIUS
CI	CURB INLET	RET	RETURN
CO	CLEAN OUT	RIM	RIM ELEVATION
CP	CATHODIC PROTECTION	RT.	RIGHT
CY	CUBIC YARD	R/W	RIGHT OF WAY
DI	DUCTILE IRON	S	SLOPE
D/W	DRIVEWAY	(S)	SOUTH
E	ELECTRIC	SD	STORM DRAIN
(E)	EAST	SDMH	STORM DRAIN MANHOLE
EA	EACH	SHT	SHEET
EC	END CURVE	SS	SANITARY SEWER
ECOD	EAST CONTRA COSTA IRRIGATION DISTRICT	SSL	STRUCTURE SETBACK LINE
EL	ELEVATION	SSMH	SANITARY SEWER MANHOLE
ELEC.	ELECTROLIER	ST.	STREET
EP	EDGE OF PAVEMENT	STA	STATION
ES	EDGE OF SHOULDER	STD	STANDARD
ETW	EDGE OF TRAVELED WAY	T	TELEPHONE
EVC	END VERTICAL CURVE	TC	TOP OF CURB
EX	EXISTING	TD	TOP OF DIKE
F/C	FACE OF CURB	TEMP.	TEMPORARY
FF	FINISHED FLOOR	TW	TOP OF WALL
FG	FINISHED GRADE	TYP.	TYPICAL
FH	FIRE HYDRANT	VC	VERTICAL CURVE
FI	FIELD INLET	VERT.	VERTICAL
FL	FLOW LINE	W	WATER LINE
FS	FIRE SERVICE	(W)	WEST
G	GAS	W/	WITH
GA	GAGE OR GAUGE	WM	WATER METER
GB	GRADE BREAK	WS	WATER SERVICE
GV	GAS VALVE		
HC	HANDICAP		
HP	HIGH POINT		
INV	INVERT		
IRR.	IRRIGATION		
JT	JOINT TRENCH		
LF	LINEAL FEET		
LG	LIP OF GUTTER		
LP	LOW POINT		
LT.	LEFT		

SHEET INDEX

1. TITLE SHEET, LEGEND, ABBREVIATIONS, SHEET INDEX & VICINITY MAP
2. GENERAL NOTES
3. GRADING & IMPROVEMENT PLAN
4. EROSION CONTROL PLAN
5. EROSION CONTROL NOTES
6. S-1 GENERAL PLAN STRUCTURAL
7. S-2 GENERAL NOTES
8. S-3 ABUTMENT LAYOUT
9. S-4 ABUTMENT DETAILS No. 1
10. S-5 ABUTMENT DETAILS No. 2
11. S-6 STRUCTURAL SPECIFICATIONS No. 1
12. S-7 STRUCTURAL SPECIFICATIONS No. 2
13. S-8 RAILING DETAILS

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS MAP IS DETERMINED FROM FOUND MONUMENTS SHOWN HEREON: THE BEARING BEING NORTH 00°56'53" EAST BETWEEN STATION 2128 AND STATION 2147 AS SHOWN ON RECORD OF SURVEY NO. 2496 (118 LSM 41), CALIFORNIA COORDINATE SYSTEM ZONE III (NAD 83). DISTANCES SHOWN ARE GROUND. MULTIPLY DISTANCES SHOWN BY 0.99993477 TO OBTAIN GRID DISTANCES.

THIS PLAN HAS BEEN REVIEWED BY ENGEO, INC. AND APPEARS TO BE IN GENERAL CONFORMITY WITH THE RECOMMENDATION IN OUR REPORT DATED JULY 16, 2012. WE MAKE NO REPRESENTATION AS TO ACCURACY OF DIMENSIONS, MEASUREMENTS, CALCULATIONS, OR ANY PORTION OF THE DESIGN.

STEVE HARRIS, G.E. DATE 10-21-13
LIC. NO. 2804 EXPIRES 6-30-14

REVIEWED FOR CONFORMANCE WITH CITY OF BRENTWOOD STANDARDS AND REQUIREMENTS. APPROVAL FOR CONSTRUCTION IS SUBJECT TO THE INFORMATION SHOWN HEREIN. THE CITY OF BRENTWOOD AND THE UNDERSIGNED ARE NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY EXIST ON THESE PLANS.

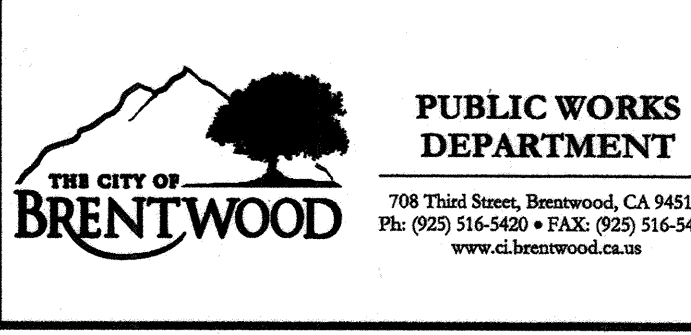
BALWINDER S. GREWAL, CITY ENGINEER DATE 10/22/13
R.C.E. No. 49122 EXPIRES 9-30-14

TRAFFIC ENGINEER	DATE	POLICE DEPT	DATE	MAINTENANCE DEPT	DATE	ECOD	DATE	FIRE DEPT	DATE

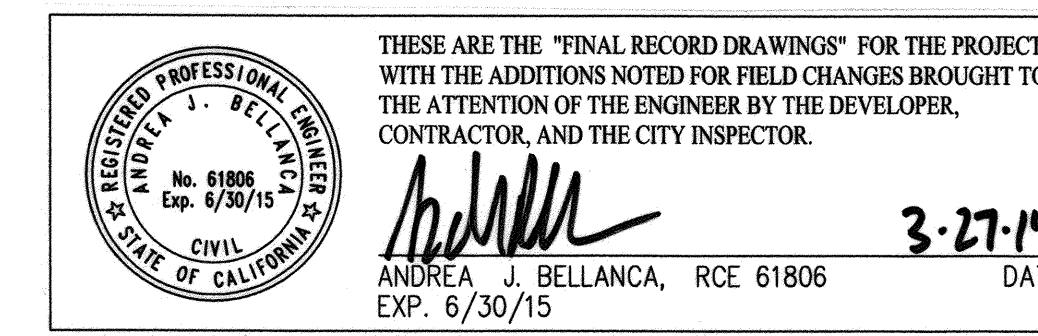
DESIGNED UNDER THE DIRECTION OF:	DATE 10-16-13
ANDREA J. BELLANCA R.C.E. No. 61806 REGISTRATION EXPIRES 6/30/15	
DESIGN: NGS	DATE: 10-16-2013
DRAWN: NGS	DATE: 10-16-2013
CHECKED: AJB	DATE: 10-16-2013



SHEET
1
OF 13 SHEETS



CARMEL ESTATES
SUBDIVISION 8311
PEDESTRIAN BRIDGE
TITLE SHEET, LEGEND, ABBREVIATIONS,
SHEET INDEX & VICINITY MAP
BRENTWOOD
CALIFORNIA



NO.	REVISIONS	BY	APP	DATE

GENERAL NOTES:

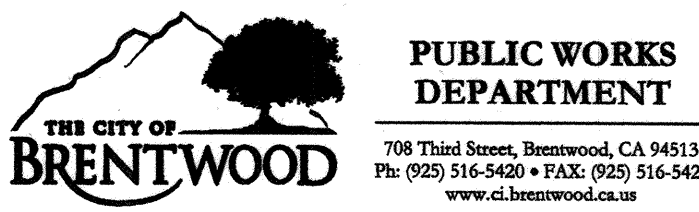
1. OWNER/SUBDIVIDER: MERITAGE HOMES
1671 E. MONTE VISTA AVE, #214
VACAVILLE, CALIFORNIA 95688
PHONE: (707) 359-2000
2. CIVIL ENGINEER: CARLSON, BARBEE & GIBSON, INC.
2633 CAMINO RAMON, SUITE 350
SAN RAMON, CALIFORNIA 94583
PHONE: (925) 866-0322
3. SOILS ENGINEER: ENGED, INC
2401 CAMINO RAMON, SUITE 100
SAN RAMON, CALIFORNIA 94583
PHONE: (925) 838-1600
4. BENCH MARK:
CONTRA COSTA COUNTY BENCHMARK #3025, BENCHMARK DISK
SET IN SIDEWALK AT NORTHWEST CORNER OF DAINTY AVENUE
BRIDGE OVER MARSH CREEK.
ELEVATION 79.226
5. THE SOILS ENGINEER OR HIS REPRESENTATIVE SHALL BE PRESENT DURING THE GRADING OPERATION.
6. THE ENGINEER ASSUMES NO RESPONSIBILITY BEYOND THE ADEQUACY OF HIS DESIGN CONTAINED HEREIN.
7. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT ANDREA BELLANCA WITH CARLSON, BARBEE, & GIBSON, INC. AT (925) 866-0322 FOR SUCH FURTHER EXPLANATION AS MAY BE NECESSARY.
8. CITY OF BRENTWOOD STANDARD DRAWINGS AND SPECIFICATIONS, SPECIFIC NOTES AND DETAIL DRAWINGS HEREON AND IN THE SOILS REPORT, TAKE PRECEDENCE OVER GENERAL DRAWINGS AND PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY DEVIATION FROM APPROVED PLANS DURING CONSTRUCTION WILL REQUIRE 2 WORKING DAYS PRIOR NOTICE TO THE ENGINEER AND APPROVAL OF THE CITY ENGINEER. AT LEAST ONE SET OF APPROVED PLANS SHALL BE ON THE SITE AT ALL TIMES FOR INSPECTION.
9. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONNEL. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL AND THE CITY OF BRENTWOOD HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
10. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY WORK DONE FROM PLANS THAT ARE NOT APPROVED BY THE CITY OF BRENTWOOD. ALL CORRECTIVE ACTION RESULTING FROM CHANGES TO THE PLANS PRIOR TO APPROVAL IS THE RESPONSIBILITY OF THE DEVELOPER.
11. EXCAVATIONS SHALL BE ADEQUATELY SHORED, BRACED AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM LACK OF ADEQUATE SHORING, BRACING AND SHEETING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL EFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE. WHERE THE EXCAVATION FOR A CONDUIT TRENCH, STRUCTURE AND/OR BORING OR JACKING PIT IS FIVE FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.
12. THE CONTRACTOR SHALL NOTIFY THE CONTRA COSTA COUNTY FLOOD CONTROL DISTRICT, AND ANY OTHER AGENCY PRIOR TO THE COMMENCEMENT OF WORK NEAR DISTRICT'S FACILITIES, AND SHALL COORDINATE ALL WORK WITH DISTRICT'S REPRESENTATIVES.
13. LOCATION AND HEIGHT OF ALL RETAINING WALLS SHALL BE AS SHOWN ON THESE PLANS. RETAINING WALLS HIGHER THAN ONE (3') FOOT SHALL BE STRUCTURALLY DESIGNED AND APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.
14. CONTRACTOR SHALL COMPLY WITH ALL STATE, COUNTY AND CITY LAWS AND ORDINANCES, AND REGULATIONS OF THE DEPARTMENT OF INDUSTRIAL RELATIONS, O.S.H.A., AND INDUSTRIAL ACCIDENT COMMISSION RELATING TO THE SAFETY AND CHARACTER OF WORK, EQUIPMENT, AND LABOR PERSONNEL.

15. ALL CONSTRUCTION MATERIALS AND METHODS SHALL COMPLY WITH THE ORDINANCES, SPECIFICATIONS AND STANDARDS OF THE CITY OF BRENTWOOD.
16. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF THE DIVISION OF INDUSTRIAL SAFETY PERTAINING TO "CONFINED SPACES." ANY MANHOLE, CULVERT, DROP INLET OR TRENCH (WHICH COULD CONTAIN AIR), THAT IS NOT READILY VENTILATED, MAY BE CONSIDERED A "CONFINED SPACE."
17. CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR THE CITY OF BRENTWOOD DEPARTMENT OF PUBLIC WORKS, AMBULANCE, POLICE DEPARTMENT AND THE FIRE DISTRICT AT THE JOB SITE.
DEPARTMENT OF PUBLIC WORKS: (925) 516-5598
AMBULANCE: 911
POLICE DEPARTMENT: (925) 634-6911
CCC FIRE DISTRICT: (925) 930-5500
18. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY AND TO MAINTAIN TRAFFIC CONTROL AT ALL TIMES.
19. IT SHALL BE UNDERSTOOD THAT THE TERM "CITY ENGINEER" AS USED HEREIN IS THE CITY ENGINEER OF THE CITY OF BRENTWOOD OR HIS AUTHORIZED REPRESENTATIVE.
20. ENCROACHMENT PERMITS REQUIRED FOR WORK WITHIN EXISTING PUBLIC RIGHTS OF WAY SHALL BE OBTAINED BY THE CONTRACTOR.
21. OBSTRUCTIONS INDICATED ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH WITH THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) AT LEAST 2 WORKING DAYS FOR UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION. PHONE 1(800)642-2444. NEITHER THE OWNER NOR THE ENGINEER ASSUMES RESPONSIBILITY THAT THE OBSTRUCTIONS INDICATED WILL BE THE OBSTRUCTIONS ENCOUNTERED.
22. THE CONTRACTOR SHALL NOT DESTROY ANY PERMANENT SURVEY POINTS WITHOUT THE CONSENT OF THE CITY ENGINEER. ANY PERMANENT MONUMENT OR POINTS DESTROYED SHALL BE REPLACED BY A REGISTERED ENGINEER OR LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING REQUIRED INSPECTIONS AND SHALL GIVE NOTICE TO THE CITY ENGINEER, SOILS ENGINEER, PROJECT ENGINEER, OR OTHER REQUIRED INDIVIDUALS OR AGENCIES A MINIMUM OF 2 WORKING DAYS PRIOR TO, BUT NOT LIMITED TO, THE FOLLOWING: 1) BEGINNING OF ANY GRADING ACTIVITY; 2) COMPLETION OF ROUGH GRADING; 3) COMPLETION OF FINAL GRADING; 4) COMPLETION OF ALL EROSION CONTROL MEASURES; 5) READINESS OF SITE FOR FINAL SITE INSPECTION.
24. THE CONTRACTOR SHALL CONTROL DUST BY WATERING EXPOSED SURFACES AS NEEDED, WITH INCREASED WATERING WHEN WIND SPEEDS EXCEED 10 MPH. DUST CONTROL MEASURES SHALL BE IMPLEMENTED AT ALL TIMES.
25. NO PERSON SHALL, WHEN HAULING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS, PAPER, OR ANY OTHER SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE, ALLOW MATERIAL TO BLOW OR SPILL OVER AND UPON SAID PUBLIC OR ADJACENT PRIVATE PROPERTY.
26. CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE CITY ENGINEER, THE OWNER OR THE OWNER'S REPRESENTATIVE, THE OWNER'S ENGINEER AND ALL UTILITY COMPANIES BEFORE START OF CONSTRUCTION. THE GRADING PLANS MUST BE SIGNED AND THE GRADING PERMIT MUST BE IN PLACE PRIOR TO PRE-CONSTRUCTION MEETING.
27. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL NECESSARY UTILITY RELOCATIONS WITH THE APPROPRIATE UTILITY COMPANIES.
28. ALL CONSTRUCTION STAKING SHALL BE DONE BY A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR. THE NUMBER AND LOCATION OF STAKES REQUIRED SHALL BE DETERMINED BEFORE THE CONSTRUCTION BEGINS. ALL STAKING REQUESTS SHALL BE DIRECTED TO THE ENGINEER A MINIMUM OF 2 WORKING DAYS PRIOR TO ACTUAL NEED. ANY ADDITIONAL STAKING OR RESTAKING WILL ONLY BE DONE AS DIRECTED AND AUTHORIZED BY THE OWNER OR HIS AUTHORIZED AGENT. THE CITY ENGINEER HAS THE AUTHORITY TO REQUIRE THE OWNER OR HIS AUTHORIZED AGENT TO PLACE ADDITIONAL STAKES OR RESTAKES AS HE DEEMS NECESSARY FOR PROPER CONSTRUCTION OR TO AVOID CONFLICTS.
29. ALL EXISTING ELEVATIONS SHOWN ARE AS MEASURED IN THE FIELD UNLESS OTHERWISE NOTED.
30. THIS PLAN IS FOR THE GRADING OF THE SITE AND THOSE PUBLIC IMPROVEMENTS SPECIFICALLY INDICATED ONLY. ALL OTHER IMPROVEMENTS ARE SHOWN FOR INFORMATION ONLY.

31. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT IN PLACE (BY ANY MEANS NECESSARY) ALL EXISTING UTILITIES UNLESS OTHERWISE SPECIFIED ON THESE PLANS OR AS DIRECTED BY THE ENGINEER.
32. ALL GRADING, SITE PREPARATION, AND PLACING AND COMPACTION OF FILL SHALL BE DONE IN ACCORDANCE WITH THE CITY OF BRENTWOOD GRADING ORDINANCE AND PER THE RECOMMENDATIONS OF THE SUBJECT SOILS REPORT, UNDER THE OBSERVATION OF THE SOILS ENGINEER. SUBSEQUENT TO COMPLETION OF THE WORK, THE SOILS ENGINEER SHALL SUBMIT A REPORT TO THE CITY ENGINEER STATING THAT ALL WORK HAS BEEN DONE TO HIS SATISFACTION AND BEFORE UNDERGROUND BEGINS.
33. IF ARCHEOLOGICAL OR PALEONTOLOGICAL ARTIFACTS OR REMAINS ARE DISCOVERED DURING CONSTRUCTION OF THE PROJECT, WORK IN THE VICINITY OF THE FIND SHALL STOP IMMEDIATELY UNTIL A QUALIFIED ARCHEOLOGIST OR PALEONTOLOGIST, AS APPROPRIATE, CAN EVALUATE THE SITE AND DETERMINE THE SIGNIFICANCE OF THE FIND. PROJECT PERSONNEL SHALL NOT COLLECT OR ALTER CULTURAL RESOURCES. IF HUMAN REMAINS ARE FOUND, THE COUNTY CORONER SHALL BE CONTACTED IMMEDIATELY. THE ARCHAEOLOGIST SHALL SUBMIT TO THE COMMUNITY DEVELOPMENT DEPARTMENT FOR REVIEW AND APPROVAL A REPORT OF THE FINDINGS AND METHOD OF CURATION OR PROTECTION OF THE RESOURCES. NO FURTHER SITE WORK WITHIN THE AREA OF DISCOVERY WILL BE ALLOWED UNTIL THE PRECEDING HAS OCCURRED.
34. NO GRADING OR RELATED WORK SHALL BE DONE PRIOR TO THE ISSUANCE OF A GRADING PERMIT.
35. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE FROM THE SITE ALL MATERIALS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION OPERATIONS. ALL ABANDONED IRRIGATION LINES SHALL BE REMOVED FROM THE SITE, BACKFILLED AND PROPERLY COMPACTED.
44. THE HOURS OF WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE THE REGULAR HOURS OF 7:00 AM TO 3:30 PM, MONDAY THROUGH FRIDAY. THE OWNER OR DEVELOPER MUST SUBMIT A WRITTEN REQUEST FOR APPROVAL BY THE CITY ENGINEER AT LEAST TWO (2) WORKING DAYS IN ADVANCE TO WORK DURING ANY OTHER HOURS, WEEKENDS, OR HOLIDAYS. WORK ON DAYS OTHER THAN REGULAR WORKDAYS REQUIRES ADDITIONAL COMPENSATION FOR OVERTIME INSPECTION AND WRITTEN APPROVAL FROM THE CITY.
- THE FOLLOWING SPECIAL HOURS OF WORK WILL BE ENFORCED FROM MONDAY THROUGH FRIDAY:
- 1) WORK AFFECTING TRAFFIC ON BALFOUR ROAD, BRENTWOOD BOULEVARD, FAIRVIEW AVENUE, LONE TREE WAY, SAND CREEK, CENTRAL BOULEVARD OR WALNUT BOULEVARD WILL BE LIMITED TO 9:00 AM TO 3:00 PM.
- 2) WORK ADJACENT TO OR WITHIN FIFTEEN HUNDRED FT. (1500') OF ANY SCHOOL WHILE SCHOOL IS IN SESSION WILL BE LIMITED TO 9:00 AM TO 3:00 PM.
- 3) WORK WITHIN THREE HUNDRED FEET (300') OF OCCUPIED RESIDENTIAL UNITS AND NOT AFFECTING BALFOUR ROAD, BRENTWOOD BOULEVARD, FAIRVIEW AVENUE, LONE TREE WAY OR WALNUT BOULEVARD SOUTH OF BALFOUR ROAD WILL BE LIMITED TO 8:00 AM TO 3:00 PM.
- 4) WORK IN EXCESS OF THREE HUNDRED FEET (300') FROM OCCUPIED RESIDENTIAL UNITS AND NOT AFFECTING BALFOUR ROAD, BRENTWOOD BLVD., FAIRVIEW AVENUE, LONE TREE WAY OR WALNUT BOULEVARD, SOUTH OF BALFOUR ROAD WILL BE LIMITED TO 7:00 AM TO 3:00 PM.
- 5) ALL SATURDAY WORK SHALL BE RESTRICTED TO 9:00 AM TO 3:00 PM.
45. THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS. HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY WHETHER OR NOT IT IS SHOWN HEREON, AND IS RESPONSIBLE FOR CORRECTING ANY DAMAGE TO SAID UTILITIES.
46. ALL CONSTRUCTION EQUIPMENT POWERED BY INTERNAL COMBUSTION ENGINES SHALL BE PROPERLY MUFFLED AND MAINTAINED. ENGINE EXHAUST SYSTEMS SHALL BE EQUIPPED WITH SPARK ARRESTORS. ALL STATIONARY NOISE-GENERATING CONSTRUCTION EQUIPMENT SHALL BE LOCATED AS FAR AS POSSIBLE FROM ANY EXISTING RESIDENCES.
47. LOCATION AND ELEVATION OF EXISTING IMPROVEMENTS SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (1-800-227-2600) TO OBTAIN A U.S.A. IDENTIFICATION NUMBER AND TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO ACTUAL LOCATION OF EXISTING FACILITIES.
48. IT SHALL BE THE RESPONSIBILITY OF THE APPLICANT/ENGINEER TO CONTACT THE VARIOUS UTILITY AGENCIES, ADVISE THE AGENCIES OF THE PROPOSED IMPROVEMENTS, AND PAY FOR THE COST OF RELOCATIONS, IF NEEDED.
49. A CONTRA COSTA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT PERMIT MUST BE OBTAINED PRIOR TO BEGINNING ANY WORK AND THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH ALL PROVISIONS OF THE PERMIT.

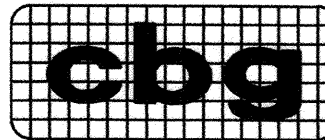
50. FILL MATERIAL PLACED INSIDE FLOOD CONTROL R/W SHALL CONFORM TO THE FOLLOWING LEVEE SPECIFICATION:

MODERATE PLASTICITY LEAN CLAYS OR CLAYEY SANDS SHALL BE USED. CLAYS SHOULD CLASSIFY AS CL IN ACCORDANCE WITH ASTM D2484 AND SHOULD HAVE A PLASTICITY INDEX OF EQUAL OR GREATER THAN 18. CLAYEY SANDS SHOULD CLASSIFY AS SC IN ACCORDANCE WITH ASTM D2487, AND SHOULD HAVE AT LEAST 30 PERCENT PASSING THE NO. 200 SIEVE, AND SHOULD HAVE A PLASTICITY INDEX OF EQUAL OR GREATER THAN 18. FILL MATERIAL SHOULD BE COMPACTED TO A MINIMUM 95 PERCENT OF THE MAXIMUM DRY DENSITY (ASTM D-1557). IMPORT MATERIAL SHALL BE CERTIFIED AS CLEAN.



PUBLIC WORKS
DEPARTMENT

708 Third Street, Brentwood, CA 94513
Ph: (925) 516-5420 • FAX: (925) 516-5421
www.ci.brentwood.ca.us



Carlson, Barbée
& Gibson, Inc.

CIVIL ENGINEERS • SURVEYORS • PLANNERS
2633 Camino Ramon, Suite 350 • San Ramon, CA 94583
925-866-0322 • Fax 925-866-8575
www.cbang.com

CARMEL ESTATES

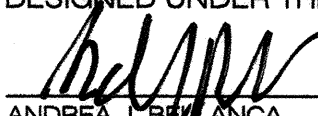
BRENTWOOD

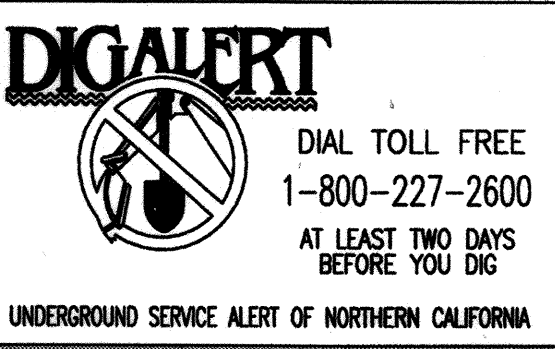
SUBDIVISION 8311
PEDESTRIAN BRIDGE

CALIFORNIA

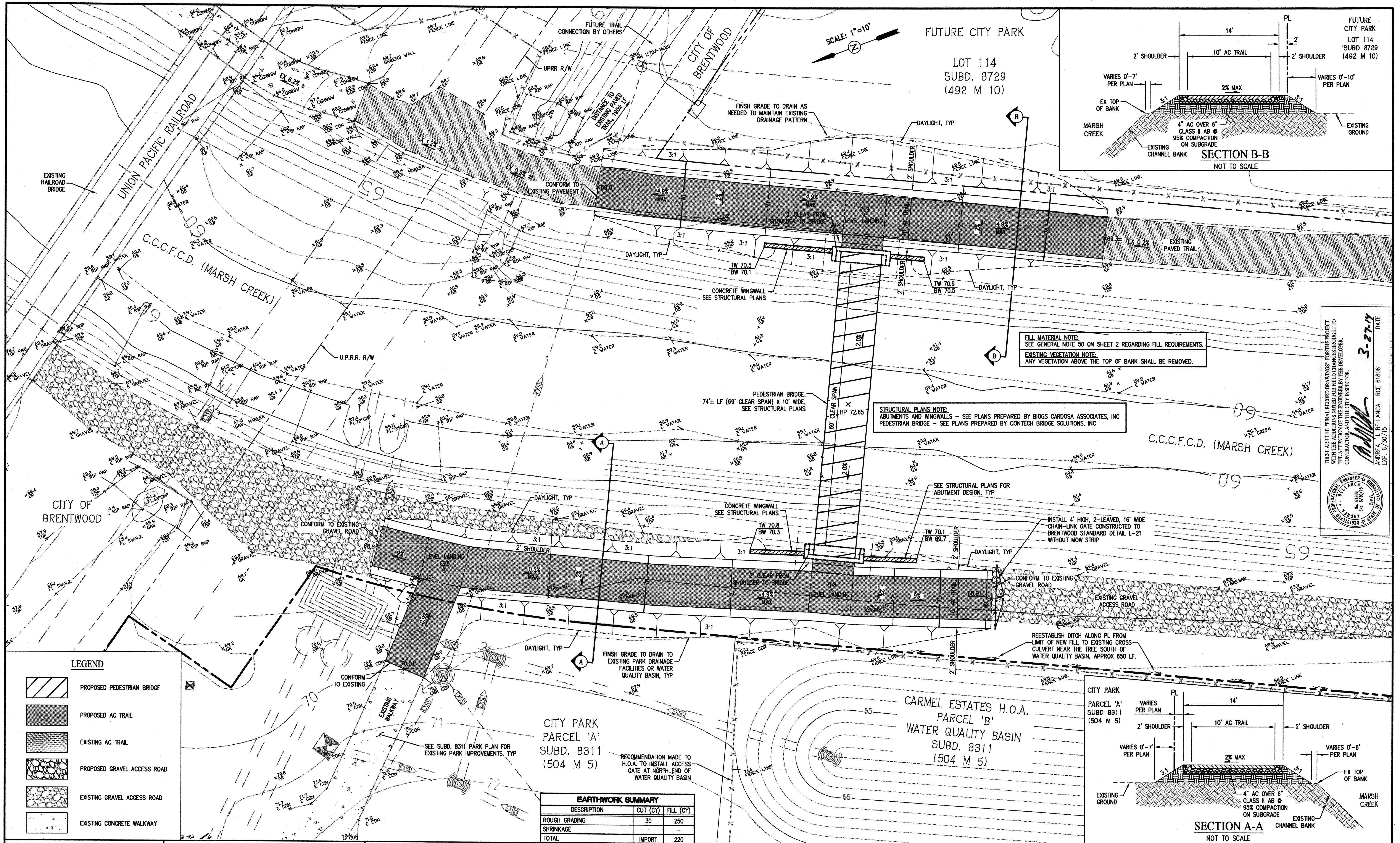
GENERAL NOTES

NO.	REVISIONS	BY	APP	DATE

DESIGNED UNDER THE DIRECTION OF:	
	10-16-13 DATE
ANDREA J. BELLANCA R.C.E. No. 61806 REGISTRATION EXPIRES 6/30/15	
DESIGN: NGS	DATE: 10-16-2013
DRAWN: NGS	DATE: 10-16-2013
CHECKED: AJB	DATE: 10-16-2013



REGISTERED PROFESSIONAL ENGINEER ANDREA J. BELLANCA No. 61806 Exp. 6/30/15 CIVIL STATE OF CALIFORNIA	SHEET 2 OF 13 SHEETS
---	--------------------------------------



PUBLIC WORKS DEPARTMENT
700 Third Street, Brentwood, CA 94513
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925-866-0322 • fax 925-866-8575
www.cbarg.com

CARMEL ESTATES

PEDESTRIAN BRIDGE

GRADING & IMPROVEMENT PLAN

BRENTWOOD CALIFORNIA

SUBDIVISION 8311

PEDESTRIAN BRIDGE

NO.	REVISIONS	BY	APP	DATE

DESIGNED UNDER THE DIRECTION OF:

Andrea J. Bellanca
R.C.E. No. 61806 REGISTRATION EXPIRES 6/30/13

DESIGN: NGS DATE: 10-16-2013
DRAWN: NGS DATE: 10-16-2013
CHECKED: AJB DATE: 10-16-2013

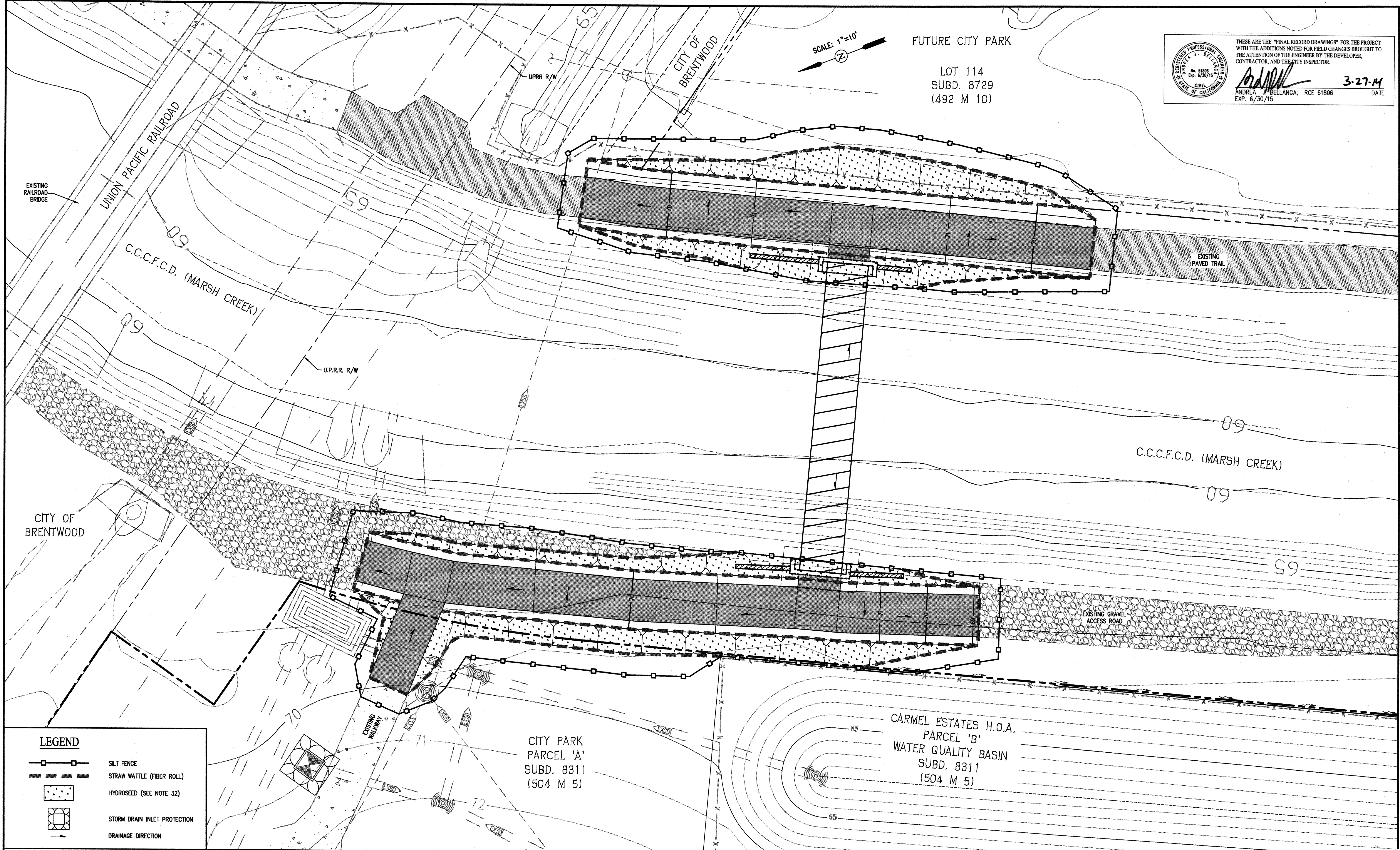
3

OF 13 SHEETS

8311 4/18/13

DATE: 10-16-13

SHEET



THESE ARE THE "FINAL RECORD DRAWINGS" FOR THE PROJECT WITH THE ADDITIONS NOTED FOR FIELD CHANGES BROUGHT TO THE ATTENTION OF THE ENGINEER BY THE DEVELOPER, CONTRACTOR, AND THE CITY INSPECTOR.

Andrea J. Bellanca
ANDREA J. BELLANCA, RCE 61806
EXP. 6/30/15

3-27-14
DATE

LEGEND

- SILT FENCE
- STRAW WATTLE (FIBER ROLL)
- HYDROSEED (SEE NOTE 32)
- STORM DRAIN INLET PROTECTION
- DRAINAGE DIRECTION

PUBLIC WORKS DEPARTMENT
708 Third Street, Brentwood, CA 94513
Ph: (925) 516-5450 • Fax: (925) 516-5451
www.ci.brentwood.ca.us

cbg **Carlson, Barbee & Gibson, Inc.**
CIVIL ENGINEERS • SURVEYORS • PLANNERS
2833 Camino Ramon, Suite 350 • San Ramon, CA 94583
925-886-0322 • fax 925-886-8875
www.cbng.com

CARMEL ESTATES
BRENTWOOD

PEDESTRIAN BRIDGE
EROSION CONTROL PLAN

SUBDIVISION 8311
PEDESTRIAN BRIDGE

CALIFORNIA

NO.	REVISIONS	BY	APP	DATE

DESIGNED UNDER THE DIRECTION OF:
Andrea J. Bellanca
ANDREA J. BELLANCA
R.C.E. No. 61806 REGISTRATION EXPIRES 6/30/13

10-16-13
DATE

DESIGN: NGS
DRAWN: NGS
CHECKED: AJB

DATE: 10-16-2013
DATE: 10-16-2013
DATE: 10-16-2013

SHEET
4
OF 5
SHEETS

10/16/2013 2:28 PM

EROSION CONTROL NOTES:

NOTES:

1. IT SHALL BE THE LEGALLY RESPONSIBLE PARTY'S (DISCHARGER) DUTY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO ENSURE THE ENTIRE SITE IS IN COMPLIANCE WITH THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD (SWRCB) ORDER NO. 2009-0009 DWQ, NPDES NO. CAS000002 AND THE CASQA CONSTRUCTION BMP GUIDANCE HANDBOOK.
2. THIS PLAN IS INTENDED TO BE UTILIZED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY AND IS NOT TO BE UTILIZED FOR FINAL ELEVATIONS OR PERMANENT IMPROVEMENTS.
3. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN AS NECESSARY IN THE FIELD. DOCUMENT AND REPORT ANY FIELD CHANGES AND NOTIFY THE CITY OR COUNTY REPRESENTATIVE OF THE FIELD CHANGES.
4. ALL MAINTENANCE AND OPERATION REQUIREMENTS SHALL COMPLY WITH THE CASQA CONSTRUCTION BMP GUIDANCE HANDBOOK.
5. DISCHARGERS SHALL EFFECT AND MAINTAIN PRECAUTIONARY MEASURES NECESSARY TO PROTECT ADJACENT WATERCOURSES AND PUBLIC OR PRIVATE PROPERTY FROM DAMAGE BY EROSION, FLOODING AND DEPOSITION OF MUD OR DEBRIS ORIGINATING FROM THE SITE.
6. THE CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF EROSION CONTROL FOR THE PROJECT AND SHALL INSTALL AND MAINTAIN ANY DEVICES AND MEASURES NECESSARY TO THE SATISFACTION OF THE CITY OR COUNTY ENGINEER AND THE REGIONAL WATER QUALITY CONTROL BOARD (RWQCB).
7. DISCHARGERS SHALL ESTABLISH AND MAINTAIN EFFECTIVE BMP PERIMETER CONTROLS AND STABILIZE ALL CONSTRUCTION ENTRANCES AND EXITS TO SUFFICIENTLY CONTROL EROSION AND SEDIMENT DISCHARGES FROM THE SITE YEAR-ROUND.
8. EROSION CONTROL MEASURES WILL BE PROPERLY IN PLACE YEAR-ROUND. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE DAY RAIN PROBABILITY EXCEEDS 50 PERCENT.
9. INSPECTIONS AND OBSERVATIONS SHALL OCCUR WEEKLY, AND AT LEAST ONCE EACH 24-HOUR PERIOD DURING EXTENDED STORM EVENTS, TO IDENTIFY AND RECORD BMPS THAT NEED MAINTENANCE TO OPERATE EFFECTIVELY, THAT HAVE FAILED OR THAT COULD FAIL TO OPERATE AS INTENDED.
10. DISCHARGERS SHALL IMPLEMENT MEASURES TO CONTROL ALL NON-STORMWATER DISCHARGES DURING CONSTRUCTION.
11. DISCHARGERS SHALL IMPLEMENT EFFECTIVE WIND EROSION CONTROL.
12. CONSTRUCTION TRAFFIC SPEEDS WILL BE LIMITED TO 15 MPH, OR LESS, AS REQUIRED BY THE CONTRACTOR.
13. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF SITE WORK. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE ENTRANCE. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY.
14. APPLY GRAVEL CONSTRUCTION ENTRANCE MATERIAL WITHIN MATERIAL STORAGE AREA.
15. APPLY GRAVEL CONSTRUCTION ENTRANCE MATERIAL WITHIN THE VEHICLE STORAGE AREA.
16. PLACE ALL EQUIPMENT OR VEHICLES, WHICH ARE TO BE FUELED, MAINTAINED AND STORED IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPS.
17. IMPLEMENT BMPS TO PREVENT THE OFF-SITE TRACKING OF LOOSE CONSTRUCTION AND LANDSCAPE MATERIALS.
18. PAVED STREETS WILL BE MONITORED DAILY AND FREQUENTLY CLEANED. STREETS WILL ALSO BE SWEEPED ON AT LEAST A WEEKLY BASIS OR MORE OFTEN, AS NEEDED, TO MAINTAIN CONTINUOUS LITTER AND TRACKING CONTROL. STREET WASHING WILL NOT BE DONE.
19. TRASH RECEPTACLES WILL BE PROVIDED THROUGHOUT THE SITE AND UTILIZED BY ALL WORKERS FOR MISCELLANEOUS TRASH. SITE REFUSE WILL BE PICKED UP ON A WEEKLY BASIS OR AS OFTEN AS NECESSARY IN ORDER TO KEEP THE SITE CLEAN.
20. COVER AND BERM LOOSE STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED (I.E. SOIL, SPOILS, AGGREGATE, FLY-ASH, STUCCO, HYDRATED LIME, ETC.).
21. CONTAIN AND SECURELY PROTECT STOCKPILED WASTE MATERIAL FROM WIND AND RAIN AT ALL TIMES UNLESS ACTIVELY BEING USED.
22. EXCAVATING, FILLING, BACKFILLING AND GRADING WORK SHALL NOT BE PERFORMED DURING UNFAVORABLE WEATHER CONDITIONS.
23. DISCHARGERS SHALL PROVIDE EFFECTIVE SOIL COVER FOR INACTIVE AREAS AND ALL FINISHED SLOPES, OPEN SPACE, UTILITY BACKFILL AND COMPLETED LOTS. INACTIVE AREAS OF CONSTRUCTION ARE AREAS OF CONSTRUCTION ACTIVITY THAT HAVE BEEN DISTURBED AND ARE NOT SCHEDULED TO BE RE-DISTURBED FOR AT LEAST 14 DAYS.
24. SLOPES WILL BE GRADED SO THAT WATER IS DIRECTED AWAY FROM THE SLOPE FACES AT THE END OF EACH WORKING DAY WHEN A CHANCE OF RAIN IS FORECAST.
25. ALL RILLS, GULLIES, ETC. WILL BE PROMPTLY REPAIRED AS PRACTICAL BY REGRADING OR INSTALLATION OF SOIL, GRAVEL OR SANDBAGS.

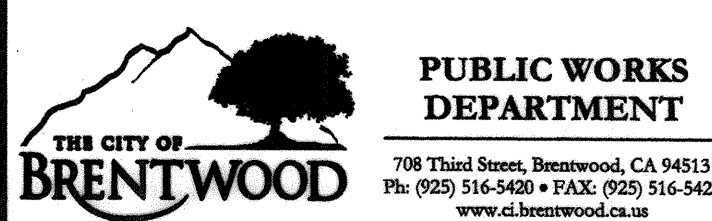
26. ALL DRAIN INLETS WILL BE PROTECTED AS THEY ARE COMPLETED, DURING THE ENTIRE COURSE OF CONSTRUCTION.
27. IF SEDIMENT BASINS ARE TO BE USED, DISCHARGERS SHALL, AT A MINIMUM DESIGN SEDIMENT BASINS ACCORDING TO THE METHOD PROVIDED IN CASQA'S CONSTRUCTION BMP GUIDANCE HANDBOOK.
28. AFTER EACH RAINSTORM, SILT AND DEBRIS SHALL BE REMOVED FROM CHECK DAMS, FIBER ROLLS, SILT FENCES AND SILT STACKS. SEDIMENT TRAPS/BASINS SHOULD ALSO BE OBSERVED AND PUMPED DRY AS NECESSARY TO ASSURE PROPER FUNCTION AND CAPACITY.
29. INTERIOR FIBER ROLLS MAY BE REMOVED AS THE AREA COMES UNDER CONSTRUCTION FOR FINISH GRADING AND LANDSCAPING INSTALLATION. PERIMETER PROTECTION SHOULD BE LEFT IN PLACE YEAR-ROUND.
30. GRAVEL CHECK DAMS MAY BE REMOVED FROM UNPAVED ROADWAYS AS THEY COME UNDER CONSTRUCTION.
31. A SWPPP IS NOT REQUIRED AS THE PROJECT SITE IS LESS THAN ONE ACRE.
32. HYDROSEED SHALL BE PER THE MIX TABLE BELOW OR APPROVED EQUAL.

HYDROSEED MIX TABLE		
COMMON NAME	SCIENTIFIC NAME	COMPOSITION (%)
CALIFORNIA BROME	BROMUS CARINATUS	25
BLUE WILD RYE	ELYMUS GLAUCUS	25
SMALL FESCUE	VULPIA MICROSTACHYS	25
CREeping WILD RYE	LEYMUS TRITICOIDES	25

APPLICABLE CALIFORNIA STORMWATER BMP HANDBOOK CONSTRUCTION DETAILS (BUT NOT LIMITED TO):

- EC-4HYDROSEEDING
- EC-7GEOTEXTILES & MATS
- EC-9EARTH DIKES AND DRAINAGE SWALES
- NS-8VEHICLE AND EQUIPMENT CLEANING
- NS-9VEHICLE AND EQUIPMENT FUELING
- NS-10VEHICLE AND EQUIPMENT MAINTENANCE
- SE-1SILT FENCE
- SE-5FIBER ROLLS (STRAW WATTLE)
- SE-10STORM DRAIN INLET PROTECTION
- TC-1STABILIZED CONSTRUCTION ENTRANCE/EXIT
- TC-3ENTRANCE/OUTLET TIRE WASH
- WE-1WIND EROSION CONTROL
- WM-1MATERIAL DELIVERY AND STORAGE
- WM-3STOCKPILE MANAGEMENT
- WM-8CONCRETE WASTE MANAGEMENT
- WM-9SANITARY/SEPTIC WASTE MANAGEMENT

NOTE: FOR ITEMS NOT SHOWN ON PLAN, LOCATIONS WILL BE COORDINATED BETWEEN THE CONTRACTOR, OWNER, AND INSPECTOR IN THE FIELD.



CARMEL ESTATES


BRENTWOOD

SUBDIVISION 8311
PEDESTRIAN BRIDGE

PEDESTRIAN BRIDGE
EROSION CONTROL NOTES

CALIFORNIA

NO.	REVISIONS	BY	APP	DATE


DESIGNED UNDER THE DIRECTION OF:

ANDREA J. BELLANCA
P.C.E. No. 61806 REGISTRATION EXPIRES 6/30/13

10-16-13
DATE

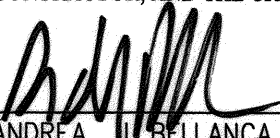
DESIGN: NGS
DATE: 10-16-2013

DRAWN: NGS
DATE: 10-16-2013


CHECKED: AJB
DATE: 10-16-2013



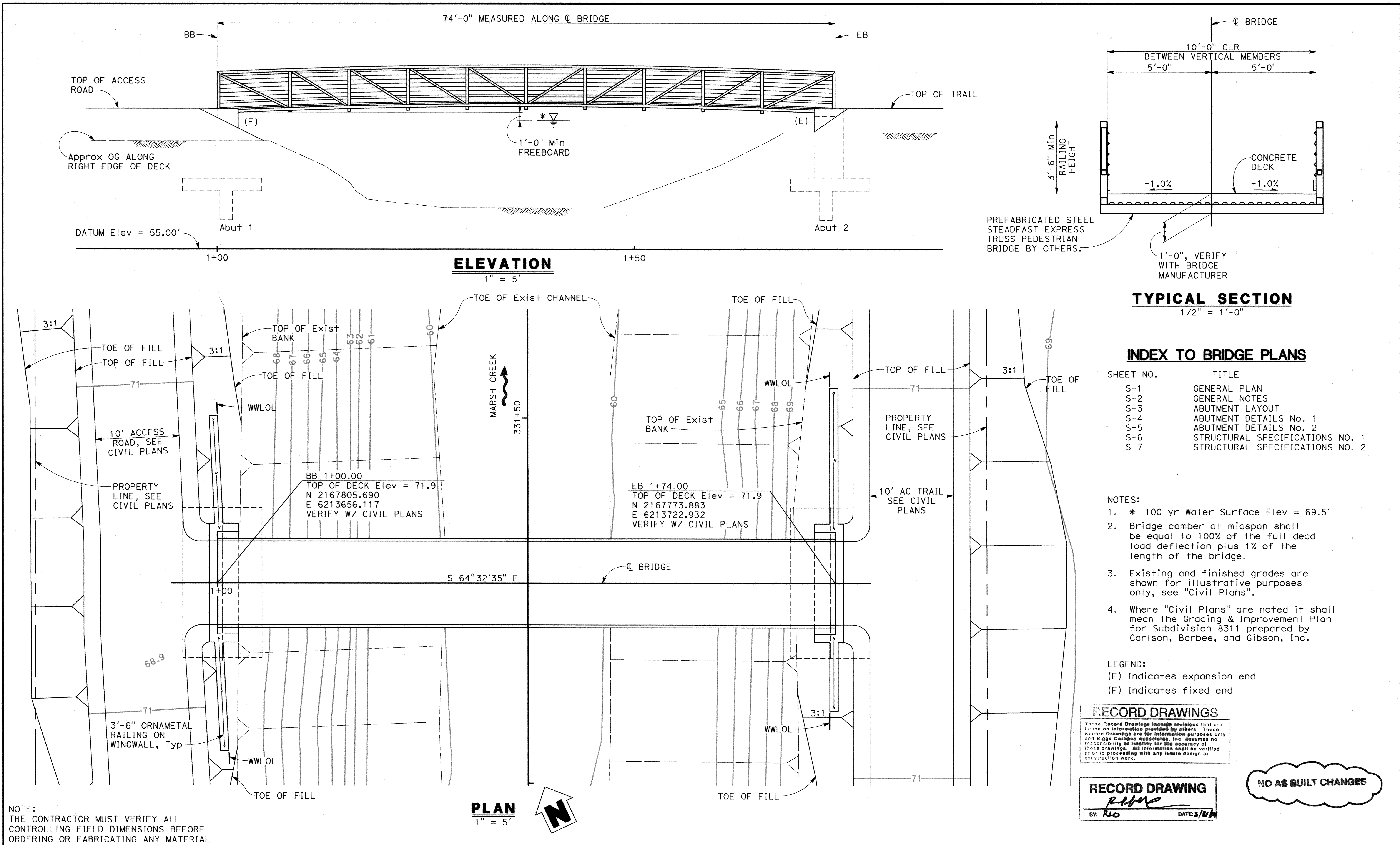
THESE ARE THE "FINAL RECORD DRAWINGS" FOR THE PROJECT WITH THE ADDITIONS NOTED FOR FIELD CHANGES BROUGHT TO THE ATTENTION OF THE ENGINEER BY THE DEVELOPER, CONTRACTOR, AND THE CITY INSPECTOR.


ANDREA J. BELLANCA, RCE 61806
EXP. 6/30/15

3-27-14
DATE



5
OF 13 SHEETS



GENERAL NOTES
LOAD & RESISTANCE FACTOR DESIGN

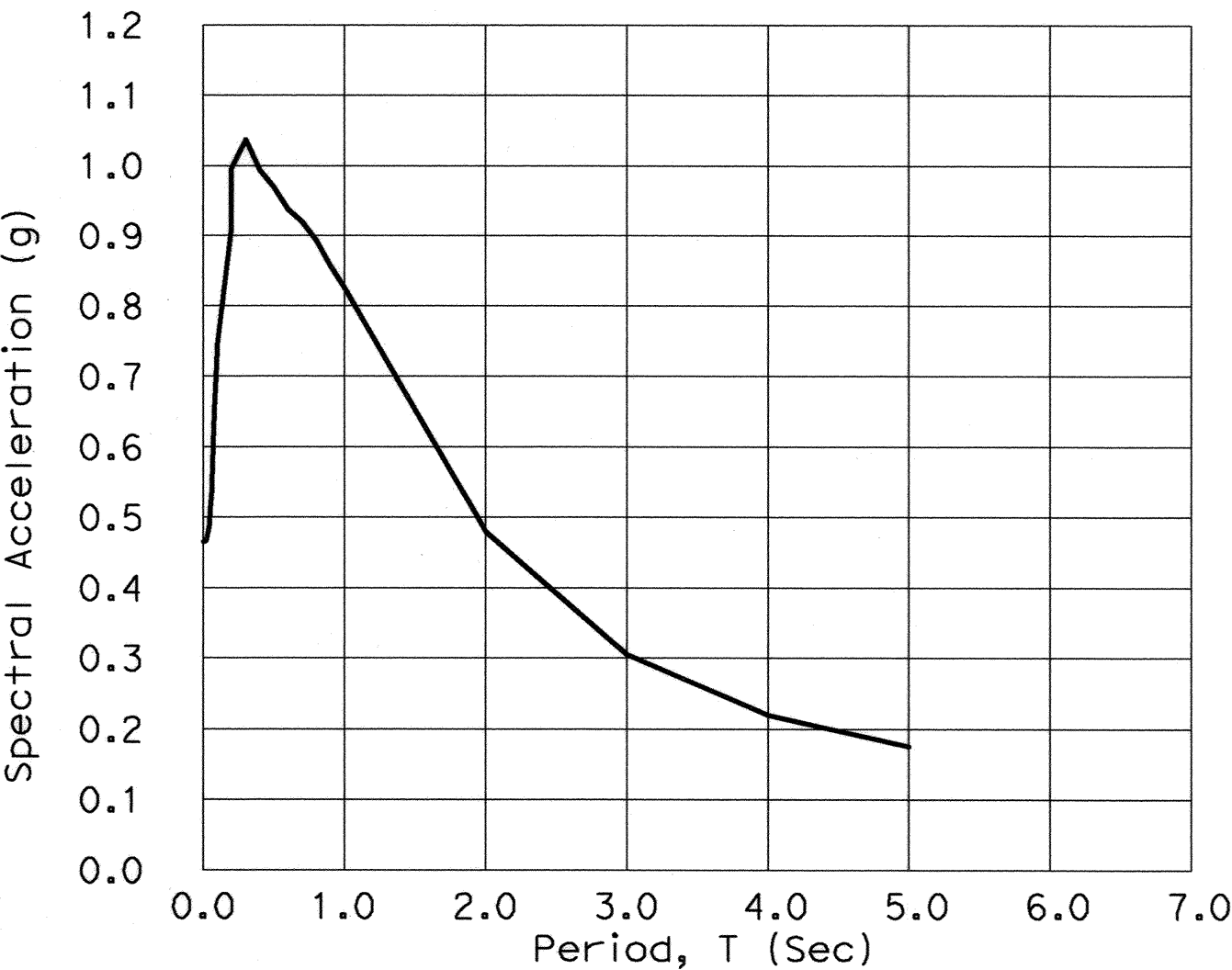
DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition, and Caltrans Amendments preface dated Dec. 2008, supplemented by LRFD Guide Specifications for the Design of Pedestrian Bridges dated December 2009.

SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC) Version 1.6 supplemented by the Caltrans Guide Specification for Seismic Design of Steel Bridges, First Edition

DEAD LOAD: Self weight of Prefabricated Bridge = 78 kips max (including concrete deck)

LIVE LOAD: 90 psf pedestrian load and H5 maintenance vehicle

SEISMIC LOAD: Soil profile: Type D, $V_{s30} = 180$ mps in upper 100 ft
Moment magnitude: $M_{max} = 6.5$
Peak ground acceleration: 0.45g



ARS DESIGN CURVE
NO SCALE

CONCRETE: $f_y = 60$ ksi
 $f'_c = 3.6$ ksi
 $n = 8$

STRUCTURAL STEEL: $f_y =$ ASTM A847 Grade 50
Plates and Shapes: $f_y = 50$ ksi ASTM A558, A606, A242
Steel Tubing: $f_y = 50$ ksi ASTM A847
High Strength Bolts: ASTM A325, Type 3
Nuts: ASTM A563, C3 or DH3
Washers: ASTM F436, Weathering

STRUCTURAL INSPECTIONS

Structural inspection and materials testing as required by CBC Section 1701 and Caltrans Bridge Construction Records and Procedures (CRAP) Manual shall be provided.

The Structural Inspector shall be a qualified person who shall demonstrate his competence for inspecting bridge structures to the satisfaction of the Building Official and Biggs Cardosa Associates, Inc.

The Structural Inspector shall inspect the work assigned for conformance with the applicable project drawings and specifications. The Structural Inspector shall furnish inspection reports in a timely manner to the Owner or Owner's designated representative, the Resident Engineer, the Structural Engineer of Record, the Contractor and other persons designated by the Owner or Owner's designated representative. All discrepancies shall be brought to the immediate attention of the Contractor for correction and, if uncorrected, to the Structural Engineer of Record and to the Owner.

The Structural Inspector shall submit a final signed report stating whether the work requiring inspection was, to the best of the inspector's knowledge, in conformance with the project plans and specifications and the applicable workmanship provisions of the 2006 Caltrans Standard Specifications.

STRUCTURAL OBSERVATION

In addition to other structural inspection requirements specified herein or in the Standard Specifications, Biggs Cardosa Associates, Inc. shall be provided with a current construction schedule to perform Structural Observation as required by CBC Section 1702.

Construction shall not proceed without the required Structural Observation performed by Biggs Cardosa Associates, Inc. Should Biggs Cardosa Associates, Inc. be also retained to provide the Structural Inspections, as required hereby and by the Standard Specifications, these Structural Observations requirements will be considered as having been met by the corresponding Structural Inspections performed by Biggs Cardosa Associates, Inc.

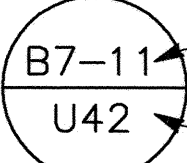
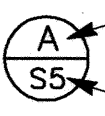
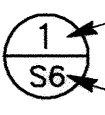
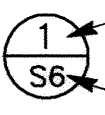
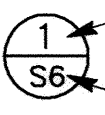
CONSTRUCTION LIABILITY

Contractor agrees that in accordance with generally accepted construction practices, Contractor will be required to assume sole and complete responsibility for the job site conditions during the course of construction of the project, including safety of all persons and property; that this requirement shall be made to apply continuously and not be limited to working hours, and Contractor further agrees to defend, indemnify and hold Design Professional harmless from any and all liability real or alleged in connection with the performance of work on this project except liability arising from the sole negligence of Design Professional.

DESIGN LIABILITY

These plans were prepared with the understanding that Biggs Cardosa Associates, Inc. is retained during construction for Working Drawings review, clarification of contract documents and Structural Observation of construction.

NOTES:

- Prior to bridge fabrication, the Contractor shall submit to the Engineer for approval the shop drawings and calculations for the prefabricated bridge proposed for use.
- Bridge camber at midspan shall be equal to 100% of the full dead load deflection plus 1% of the full length of the bridge.
- Contractor shall coordinate all embedded item locations with Bridge Manufacturer drawings.
- Provide 2" concrete cover to all reinforcing steel unless noted otherwise.
- Bridge railing shall not allow a sphere 4" diameter or larger to pass through.
- Contractor shall verify all existing dimensions, elevations and conditions prior to beginning construction and/or ordering materials. Any discrepancies shall be brought to the attention of the Engineer immediately.
- Prefabricated bridge length to be verified with in-place location of anchor bolts prior to bridge fabrication.
- All exposed edges of concrete shall be chamfered $\frac{3}{4}$ "
-  Indicates Caltrans Standard Plan sheet No.
-  Indicates Section No.
-  Indicates sheet No. shown on
-  Indicates Detail No.
-  Indicates sheet No. shown on

2010 STANDARD PLANS

A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE SURCHARGE AND WALL
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B11-7	CHAIN LINK RAILING

BENCH MARK AND DATUM

Elev (Ft)	DESCRIPTION/LOCATION
79.226 (NAVD88 DATUM)	CONTRA COSTA COUNTY BENCH MARK #3025, BENCH MARK DISC SET IN SIDEWALK AT NORTHWEST CORNER OF DAINY AVENUE BRIDGE OVER MARSH CREEK

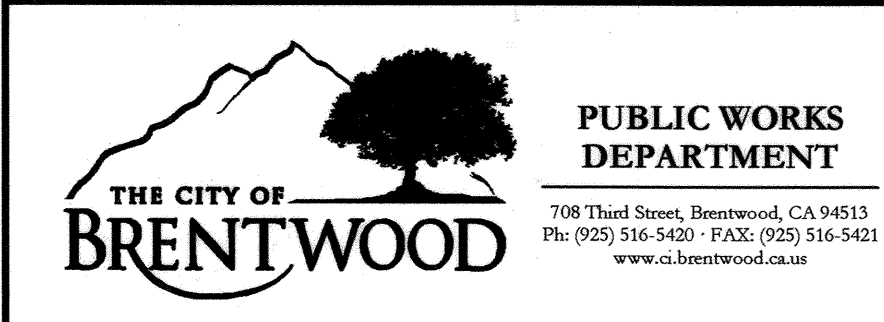
RECORD DRAWINGS

These Record Drawings include revisions that are based on information provided by others. These Record Drawings are for information purposes only and Biggs Cardosa Associates, Inc. assumes no responsibility or liability for the accuracy of these drawings. All information shall be verified prior to proceeding with any future design or construction work.

RECORD DRAWING

BY: *RL* DATE: 8/14/14

NO AS BUILT CHANGES



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95126
408-296-5515



CARMEL ESTATES

MARSH CREEK PEDESTRIAN BRIDGE
GENERAL NOTES

BRENTWOOD

SUBDIVISION 8311
PEDESTRIAN BRIDGE

CALIFORNIA

NO.	REVISIONS	BY	APP	DATE

DESIGNED UNDER THE DIRECTION OF:

RONALD L. OEN R.C.E. No. 46945 REGISTRATION EXPIRES 09-30-13	DATE
DESIGN: JAA	DATE: 9/18/13
DRAWN: TEH	DATE: 9/18/13
CHECKED: SEM	DATE: 9/18/13

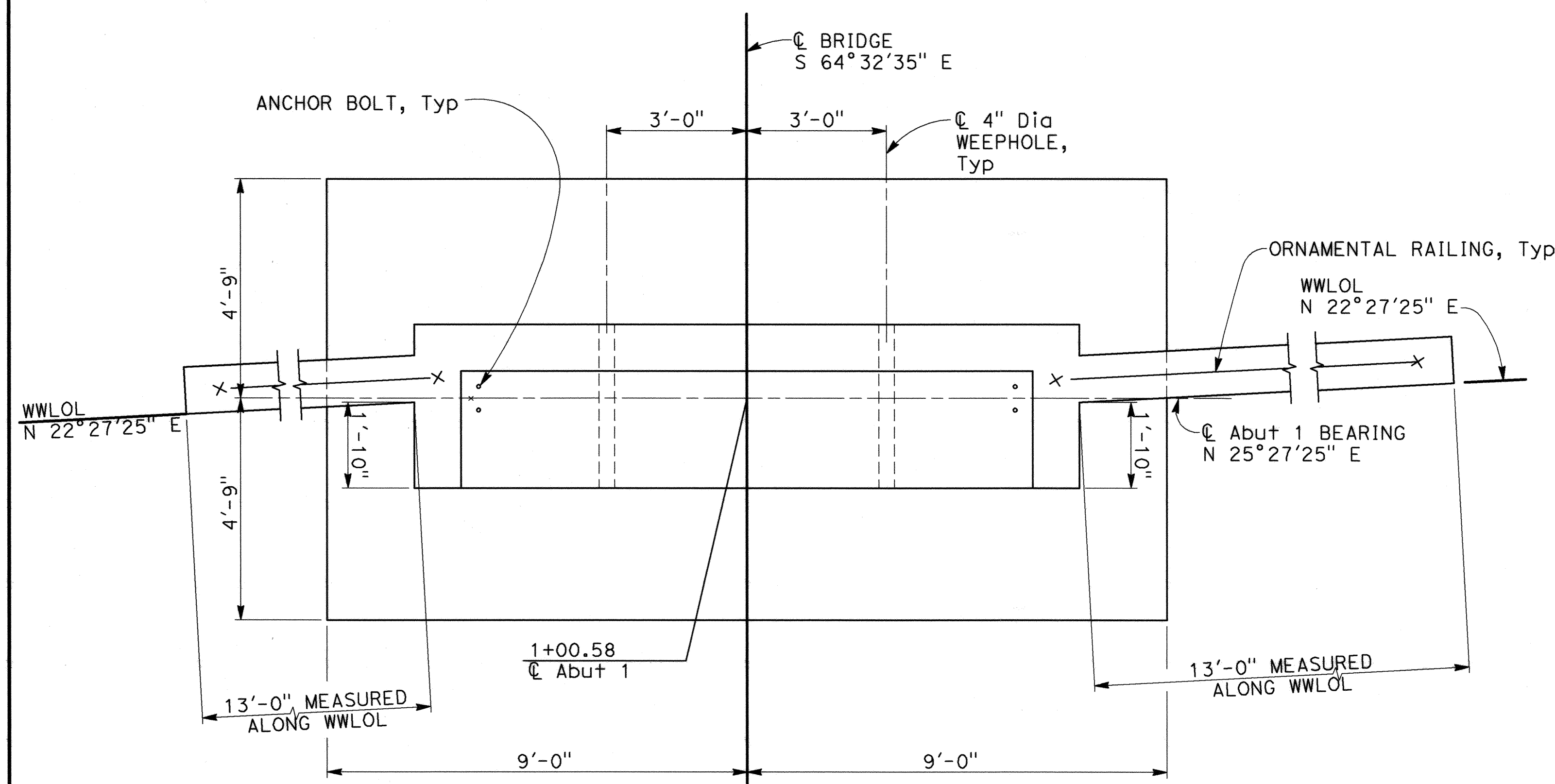


SHEET

8-2

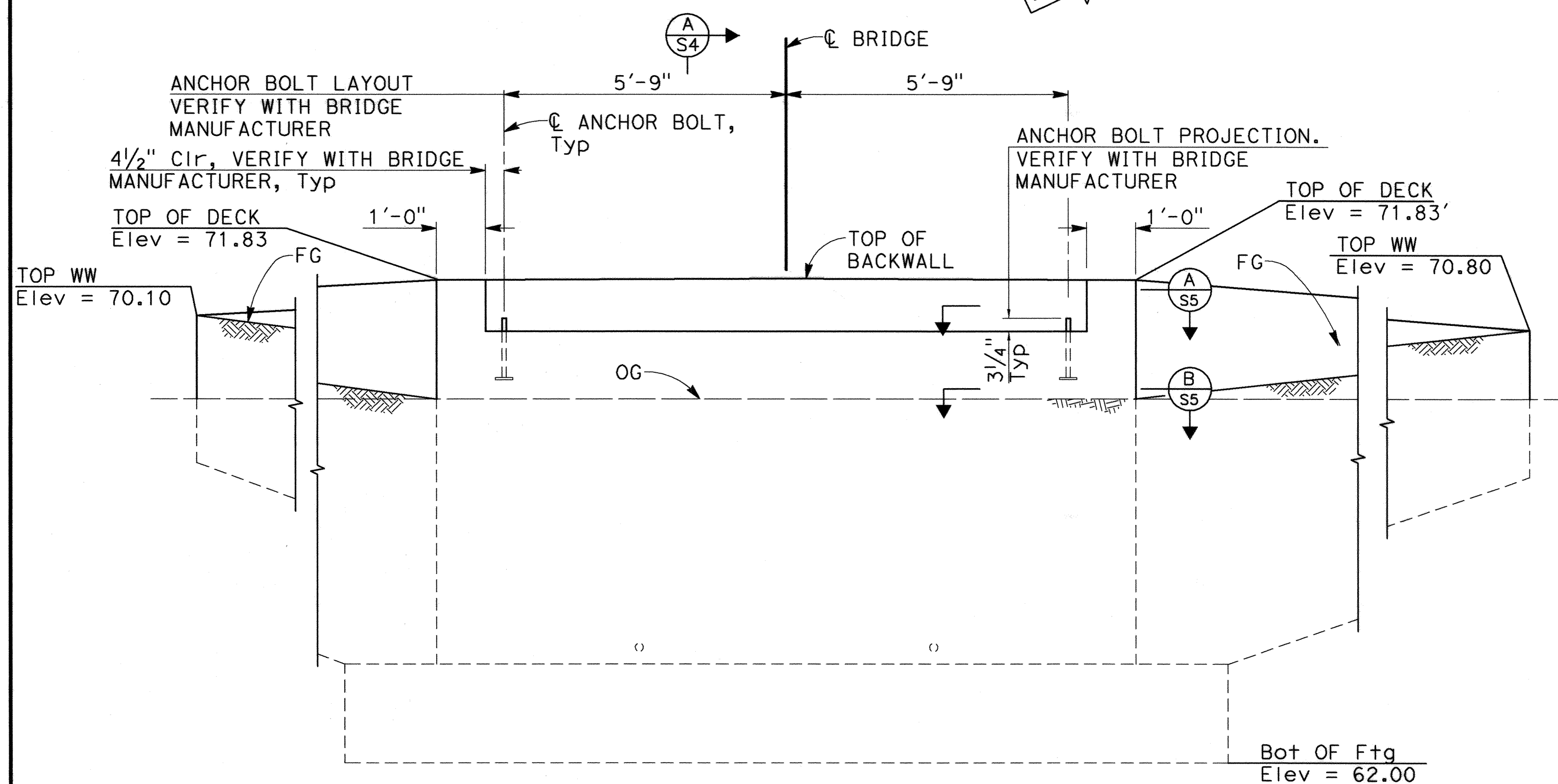
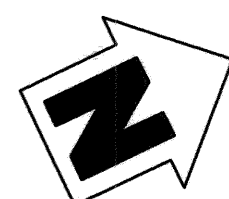
7 of

OF 13 SHEETS



ABUTMENT 1 PLAN

1/2 = 1'-0"

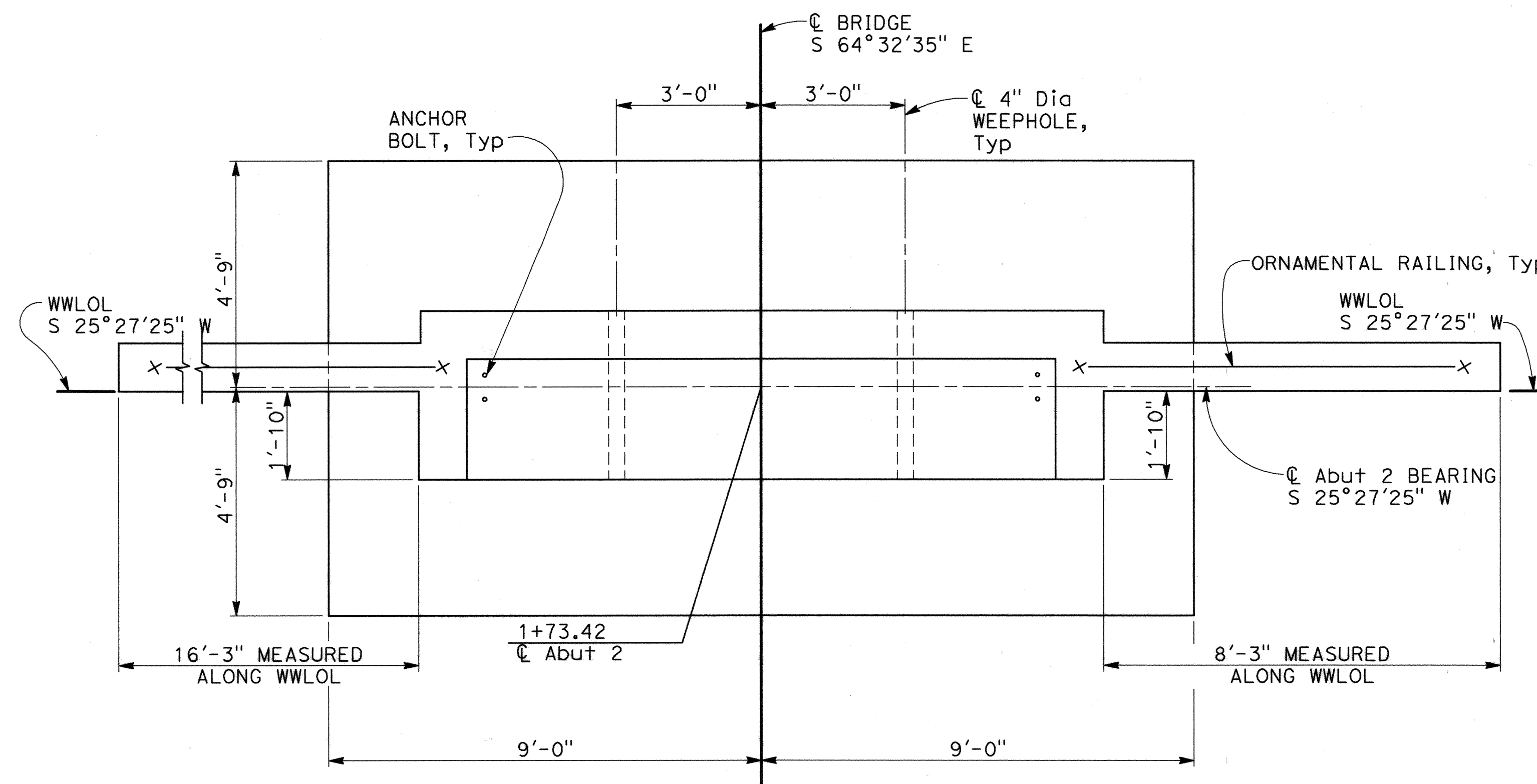


ABUTMENT 1 ELEVATION

1/2 = 1'-0"

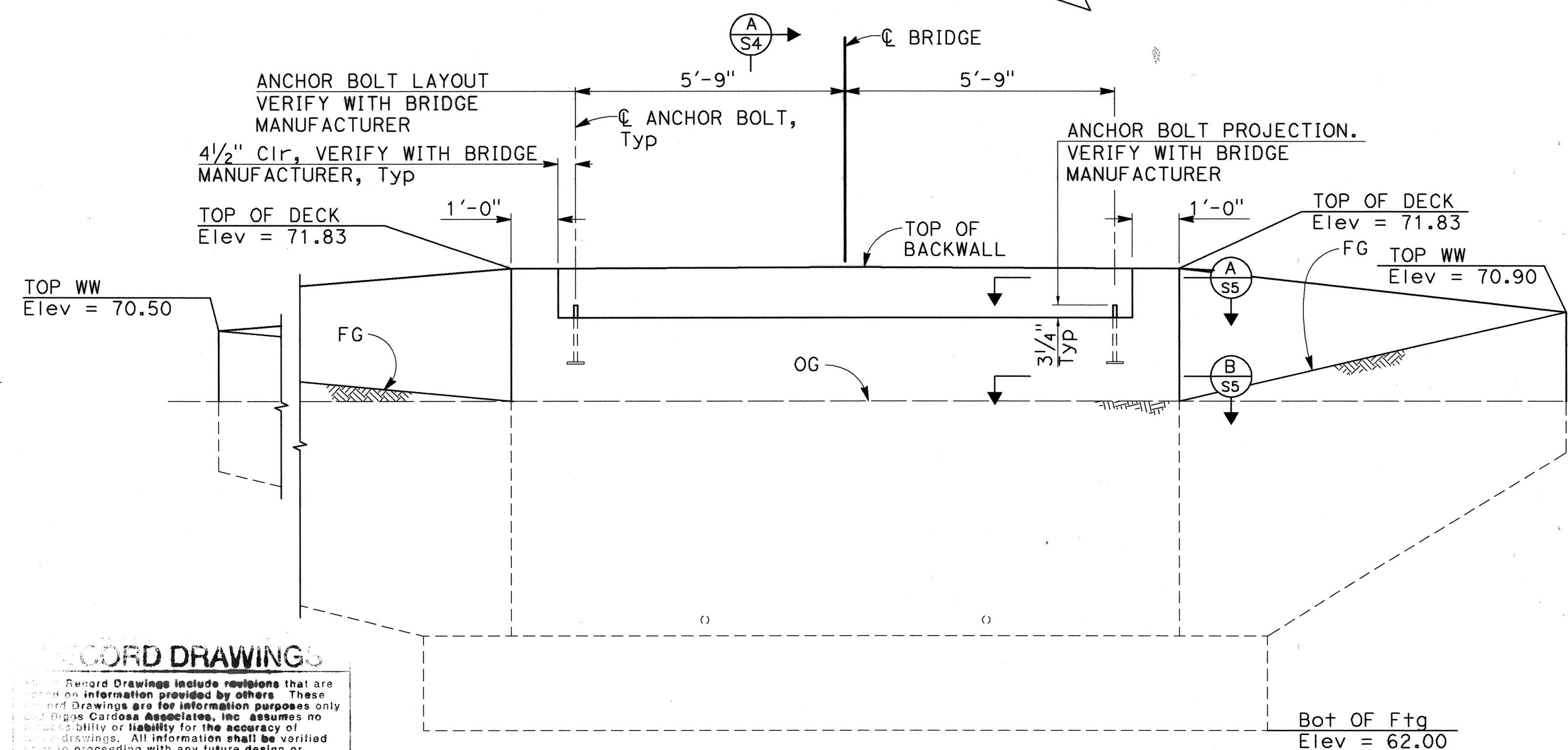
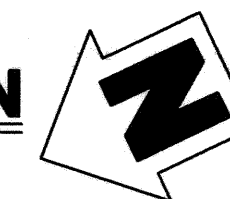
NOTE:
THE CONTRACTOR MUST VERIFY ALL
CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL

NOTE:
Ornamental railing not
shown for clarity



ABUTMENT 2 PLAN

1/2 = 1'-0"



ABUTMENT 2 ELEVATION

1/2 = 1'-0"

NOTE:
Ornamental railing not
shown for clarity

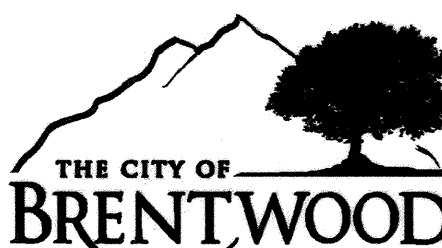
NO AS BUILT CHANGES

RECORD DRAWINGS

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RECORD DRAWING

BY: RLO DATE: 3/11/14



PUBLIC WORKS
DEPARTMENT

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**BIGGS CARDOSA
ASSOCIATES INC**
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95126
408-296-5515



CARMEL ESTATES

**MARSH CREEK PEDESTRIAN BRIDGE
ABUTMENT LAYOUT**

BRENTWOOD

SUBDIVISION 8311
PEDESTRIAN BRIDGE

CALIFORNIA

NO.	REVISIONS	BY	APP	DATE

DESIGNED UNDER THE DIRECTION OF:

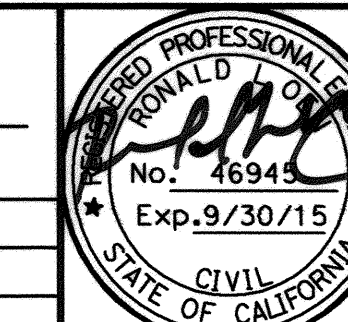
RONALD L. OEN
R.C.E. No. 46945 REGISTRATION EXPIRES 09-30-13

DATE: 9/18/13

DESIGN: JAA DATE: 9/18/13

DRAWN: SMH DATE: 9/18/13

CHECKED: SEM DATE: 9/18/13



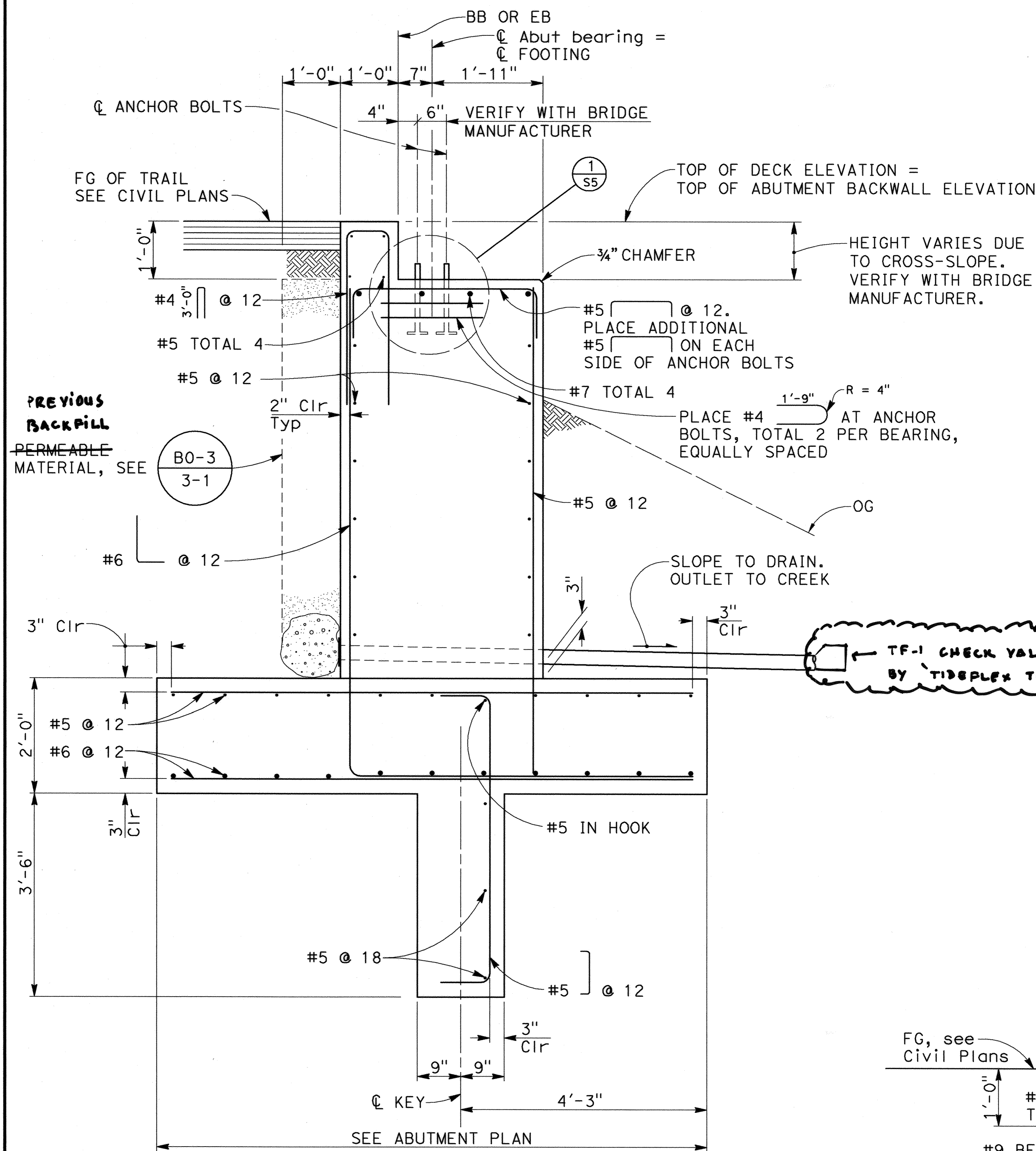
SHEET

S-3

OF 13 SHEETS

(2012102S3) 2012102

8311 9/13



SECTION A
 3/4" = 1'-0" S4

ORNAMENTAL RAILING, SEE ORNAMENTAL RAILING SPECIFICATIONS ON "STRUCTURAL SPECIFICATIONS No. 1" SHEET

#5 TRIM BARS, TOTAL 2

FG, see Civil Plans

#5 AT INSIDE FACE
 #4 AT OUTSIDE FACE

#6 AT INSIDE FACE
 #4 AT OUTSIDE FACE

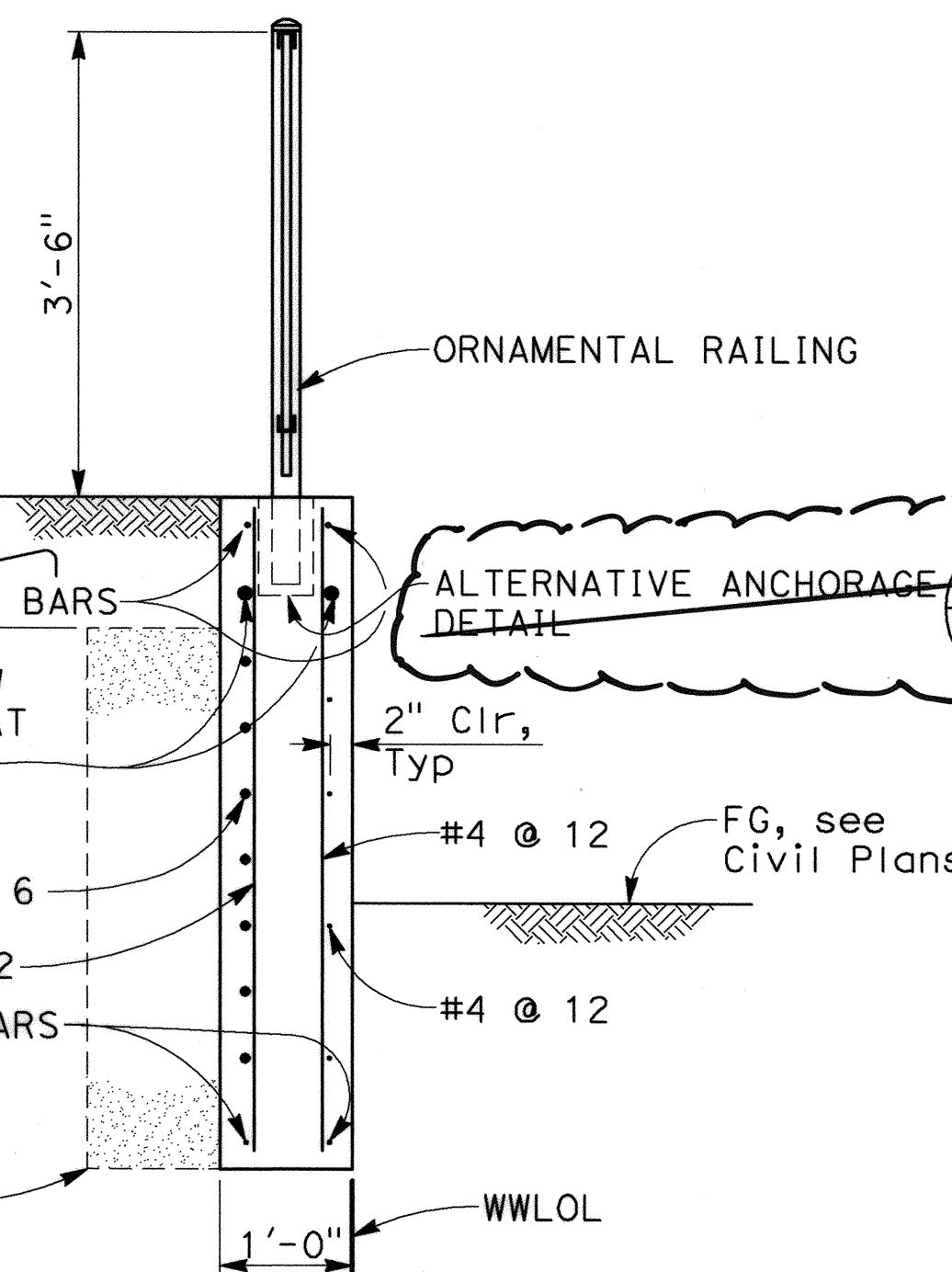
#4 TRIM BARS TOTAL 2
 FACE OF ABUTMENT

Note:
 Structure backfill shall conform to the requirements of "Earthwork" on the "STRUCTURAL SPECIFICATIONS No. 1" sheet.

EXTEND ORNAMENTAL RAILING TO 4" Max Clr FROM VERTICAL BRIDGE MEMBER

TOP OF BACKWALL

OG



SECTION B
 3/4" = 1'-0" S4

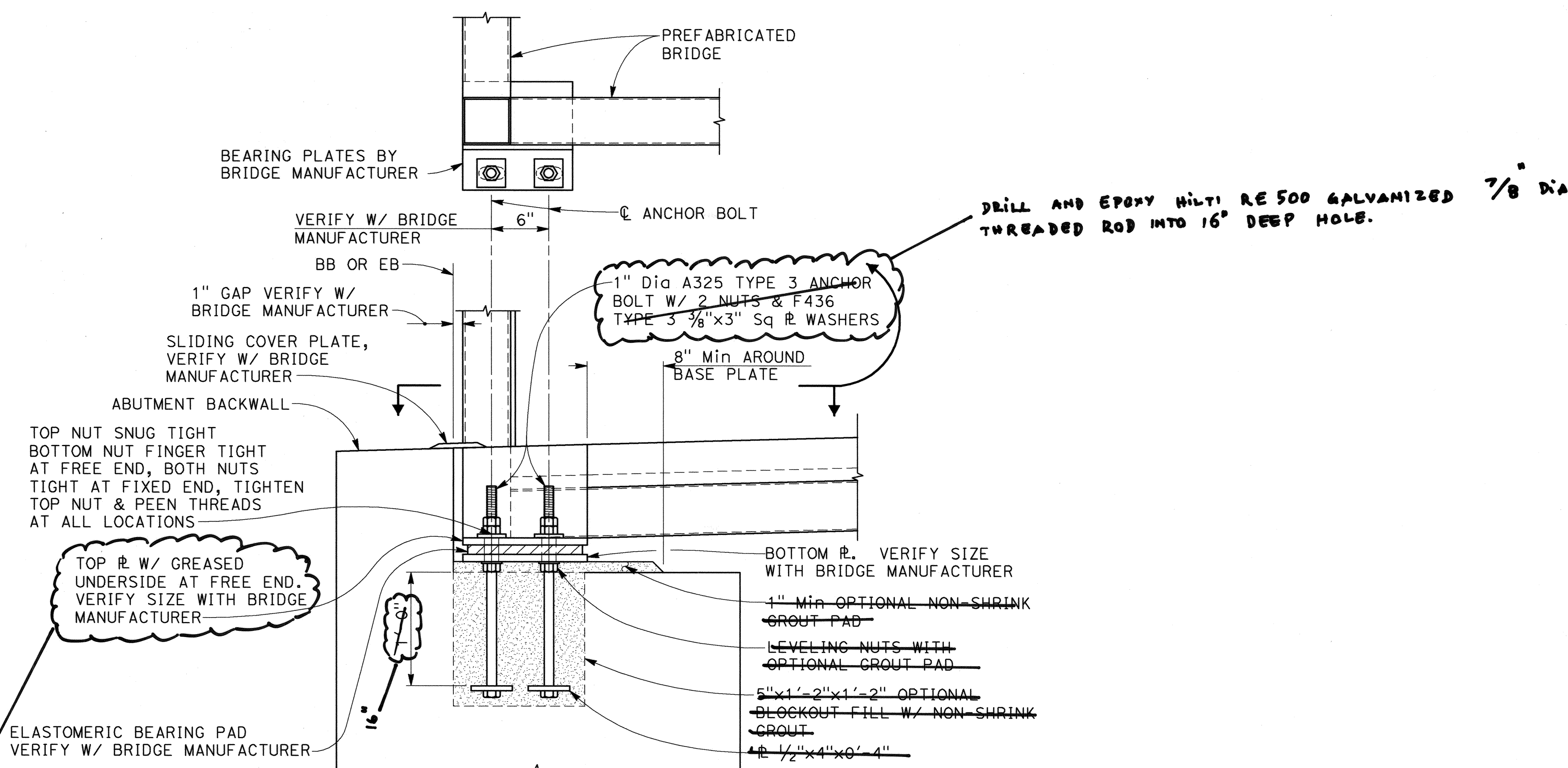
WINGWALL ELEVATION
 3/4" = 1'-0"

RECORD DRAWINGS
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RECORD DRAWING
 BY: RLO DATE: 9/30/14

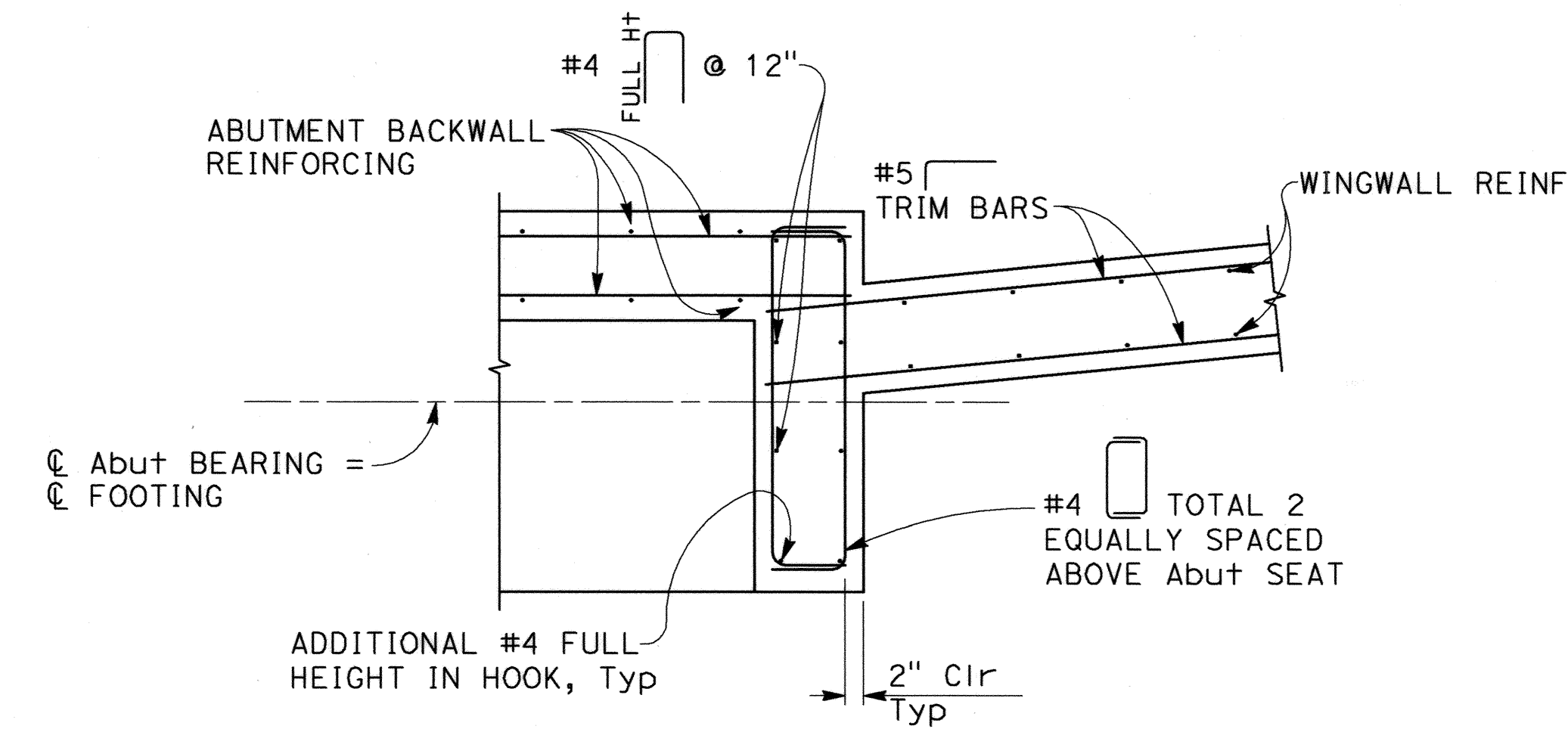
NOTE:
 THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

<p>THE CITY OF BRENTWOOD PUBLIC WORKS DEPARTMENT 708 Third Street, Brentwood, CA 94513 Ph: (925) 516-5420 FAX: (925) 516-5421 www.ci.brentwood.ca.us</p>	<p>BIGGS CARDOSA ASSOCIATES INC STRUCTURAL ENGINEERS 885 The Alameda San Jose, California 95126 408-296-5515</p>	<p>CARMEL ESTATES MARSH CREEK PEDESTRIAN BRIDGE ABUTMENT DETAILS No. 1 BRENTWOOD CALIFORNIA</p>	<p>SUBDIVISION 8311 PEDESTRIAN BRIDGE</p>	NO.	REVISIONS	BY	APP	DATE	DESIGNED UNDER THE DIRECTION OF:		<p>SHEET S-4 OF 13 SHEETS</p>

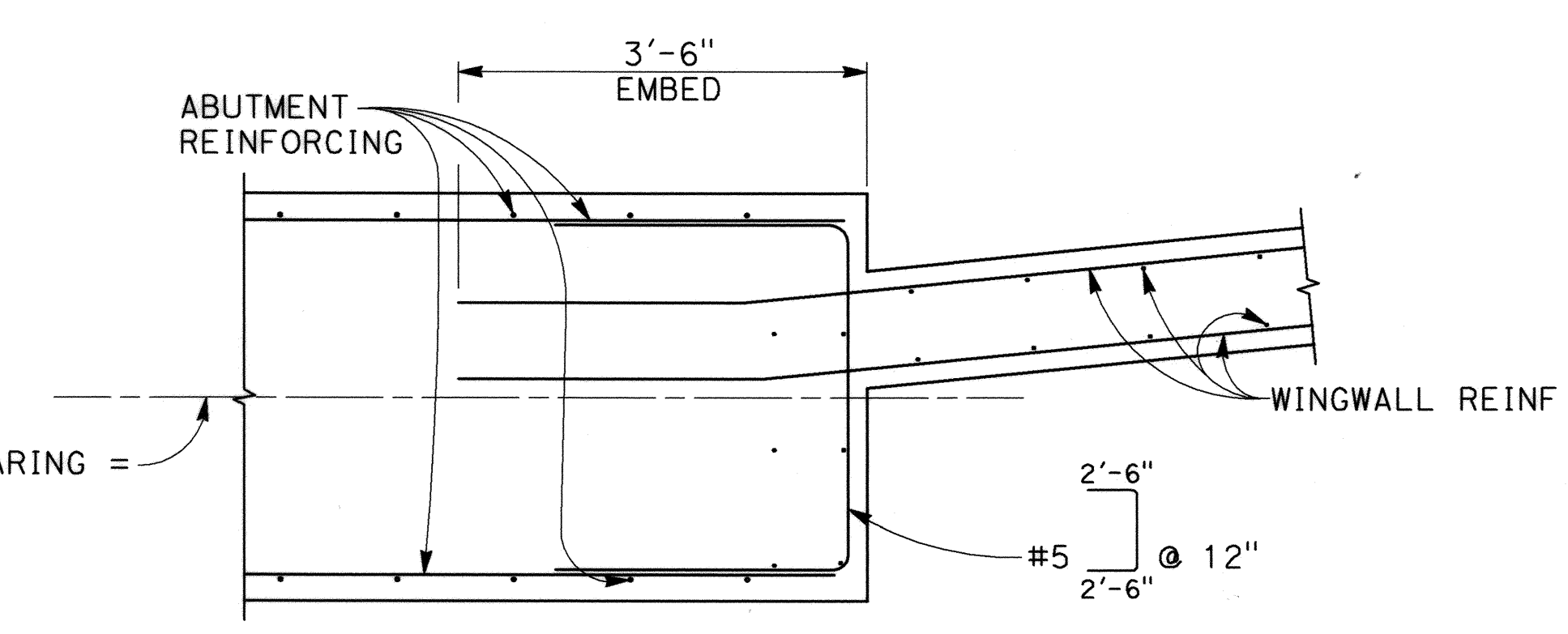


DETAIL 1
 1 1/2" = 1'-0" (S5)

PAINT THE TOP AND INSIDE OF ANCHOR HOLE OF THE BRIDGE BASE PLATE (BOTTOM OF BASEPLATE DOES NOT NEED TO BE PAINTED SINCE IT IS ALREADY SITTING ON THE BEARING PAD), AS WELL AS THE ANCHOR ROD EXTENSION ABOVE THE ABUTMENT SEAT UP TO THE TOP OF WASHER, AND THE BOTTOM CONTACT SURFACE OF THE WASHER WITH A ONE-COAT SYSTEM CONSISTING OF A HIGH-QUALITY AIR-DRYING RUST-INHIBITIVE SHOP-PRIMER WHICH IS APPLIED TO A NOMINAL DRY FILM THICKNESS OF 1.5 TO 2 MILS.



SECTION A
 3/4" = 1'-0" (S5)



SECTION B
 3/4" = 1'-0" (S5)

RECORD DRAWINGS

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RECORD DRAWING

BY: *RLO* DATE: 9/2/14

NOTE:
 THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

STRUCTURAL SPECIAL PROVISIONS

General

The work embraced herein shall be done in accordance with the State of California Standard Specifications and Standard Plans dated 2010, including all Revised Standard Specifications to date, insofar as the same may apply and in accordance with the following special provisions. The Revised Standard Specifications are available at the office of the Engineer and at the following web site:

http://www.dot.ca.gov/hq/esc/oe/specifications/SSPs/2010-SSPs/_rss

Construction inspection of all bridge construction operations and materials testing will be provided by the Engineer, except as provided in these special provisions.

Where applicable, if a reference is made in these special provisions or the Standard Specifications to the "Department", the reference shall mean the Engineer.

Where applicable, if a reference is made in these special provisions or the Standard Specifications to the "State," the reference shall mean the owner.

When a reference is made in these special provisions or the Standard Specifications to the "Laboratory", the reference shall mean the established laboratory of the Materials and Research Department of the Department of Transportation of the State of California, or laboratories authorized by the Engineer to test materials and work involved in the contract.

In case of conflict between the Standard Specifications and these special provisions, the special provisions shall take precedence over and be used in lieu of such conflicting provisions.

Materials

Concrete

Concrete shall conform to the provisions in Section 90, "Concrete," of the Standard Specifications and these special provisions.

Concrete shall have a minimum 28-day compressive strength of 3600 psi and shall be considered to be designated by compressive strength.

Non-Shrink Grout

Non-shrink grout shall be flowable, with a minimum 7-day compressive strength of 5000 psi. Non-shrink grout shall be Masterflow 928 Grout as manufactured by Chemrex or approved equal.

Welding

Welding shall conform to Section 11-3, "Welding" of the Standard Specifications and these special provisions. Flux core welding electrodes conforming to the requirements of AWS A5.20 E6XT-4 or E7XT-4 shall not be used to perform any type of welding for this project.

Welding quality control shall conform to the requirements in the AWS welding codes, the Standard Specifications and these special provisions.

The welding of fracture critical members (FCMs) shall conform to the provisions specified in the Fracture Control Plan (FCP).

Obstructions

Attention is directed to Section 15, "Existing Facilities," of the Standard Specifications and these special provisions.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 5 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include but are not limited to the following:

NOTIFICATION CENTER	TELEPHONE NUMBER
Underground Service Alert-Northern California (USA)	1-800-642-2444 1-800-227-2600
Underground Service Alert-Southern California (USA)	1-800-422-4133 1-800-227-2600

The Contractor shall pothole prior to the start of construction to verify the location and/or elevation of all underground utility facilities within close proximity to the work, as approved by the Engineer. The Contractor shall obtain a permit from the City prior to performing any potholing. All potholing shall completely expose the out-to-out widths of the existing utility, such that the size and lateral extents of the utility can be verified.

No potholing shall be performed without a representative of the utility company present at the site. No work shall be performed in the vicinity of said facilities until said facilities have been located.

Earthwork

Earthwork shall conform to the provisions in Section 19, "Earthwork," of the Standard Specifications, the Foundation Exploration Report prepared by ENGEO dated July 13, 2006, the Supplemental Bridge Recommendations prepared by ENGEO dated July 16, 2012 and these special provisions. Copies of the Geotechnical Reports are available for review at the office of the Geotechnical Engineer.

ENGEO Inc, hereinafter described as the Geotechnical Engineer, should be consulted 48 hours prior to any earthwork. All earthwork shall comply with requirements of the aforementioned geotechnical reports by ENGEO Inc and these special provisions.

In the event that any unusual conditions not covered by these specifications are encountered during grading operations, the Geotechnical Engineer shall be immediately notified.

Concrete Structures

Portland cement concrete structures shall conform to the provisions in Section 51, "Concrete Structures", of the Standard Specifications and these special provisions.

Reinforcing Steel

Reinforcement shall conform to the provisions in Section 52, "Reinforcement," of the Standard Specifications and these special provisions.

Machine Bolts, Anchor Bolts, Studs and Threaded Rods

- a. Bolts, studs and threaded rods shall conform to ~~ASTM A325, Type 3~~ **ASTM A 36**
- b. Nuts shall conform to ~~ASTM A563, C3 or D13~~ **ASTM A 36**
- c. Washers shall conform to ~~ASTM F436, Weathering~~ **ASTM A 36**

Miscellaneous Metal

Miscellaneous metal shall conform to the provisions for miscellaneous bridge metal in Section 75, "Miscellaneous Metal," of the Standard Specifications and these special provisions.

Prefabricated Steel Truss Bridge

Furnish Prefabricated Bridge
Prefabricated steel truss pedestrian bridge shall be a Steadfast Express Pedestrian Bridge System by Contech Construction Products Inc or approved equal.

The bridge design shall be in accordance with AASHTO LRFD Bridge Design Specifications, 4th Edition, and Caltrans Amendments, preface December 2008, supplemented by the LRFD Guide Specifications for the Design of Pedestrian Bridges dated December 2009. Complete design calculations for the prefabricated steel truss bridge, including the reinforced concrete deck and metal decking, showing all stresses and deflections for dead and live loads shall be submitted to the Engineer for approval prior to bridge fabrication, along with shop drawings showing all structural members and connections. Calculations and shop drawings shall be signed by a registered Civil engineer of the State of California.

All workmanship, fabrication and shop connections shall be in accordance with the applicable requirements of the 2010 California Building Code, Specifications for Design, Fabrication and Erection of Structural Steel for Buildings by the American Institute of steel Construction (AISC), latest edition, and the latest edition of the Bridge Design Specifications. In case of conflict, the most stringent requirement shall govern.

Welded tubular structure design shall be in accordance with the Structural Welding Code (ANSI/AWS D1.1). Welding of high strength bolts and nuts is not permitted.

The bridge shall be designed for a 90 psf uniform live loading on the full deck area, or for one 10,000-pound vehicle load, whichever loading produces maximum stresses in the structural members being designed. Diagonal truss elements shall be tubular members with one (1) diagonal per panel and plumb end vertical members. Deflection due to unfactored pedestrain live load shall not exceed 1/360 of span length. Seismic design of bridge shall be in accordance with the Caltrans Seismic Design Criteria (SDC) Version 1.6 supplemented by the Caltrans Guide Specification for Seismic Design of Steel Bridges, First Edition. Seismic design criteria shall be per the Site Specific Acceleration Response Spectrum as shown on the plans. The bridge shall be designed for wind loads in accordance with the LRFD Guide Specifications for the Design of Pedestrian Bridges dated December 2009.

Pedestrian railing for the bridge shall consist of continuous full-length tubular members and steel angle safety rails on both sides. Safety rails shall have a clear spacing sufficient to prevent passage of a 4" sphere between rails. The uppermost rail shall be the tubular top chord of the bridge truss, the top of which is to be 3'-6" min above finished deck surface. All safety rails shall be attached to the interior side of structure posts, and shall consist of 1.25 inch by 1.25 inch angles with a minimum thickness of 3/16 inches. A full-length steel toe plate shall be provided on each side of the structure, on the interior side of railings.

The prefabricated steel truss bridge shall have a vertical camber dimension at midspan equal to 100% of the full dead load deflection plus 1% of the full length of the bridge. The amount of dead load camber shall be determined by Contractor and approved by the Engineer. The bridge shall be shop-fabricated.

The bridge material shall be high strength, self-weathering, low alloy, atmospheric corrosion-resistant ASTM A847, cold formed, welded square and rectangular tubing using ASTM A588, ASTM A606 or ASTM A242 plate and structural shapes (Fy=50,000 psi). Structural steel shall not be painted. The minimum corrosion index of atmospheric corrosion resistant steel, as determined in accordance with ASTM G101, shall be 6.0. All exposed surfaces of corrosion-resistant steel shall be cleaned in accordance with Steel Structures Painting Council Surface Preparation Specifications No. 6, Commercial Blasting Cleaning, SSPC-SP 6 latest edition.

Shop welding shall utilize E80 series electrodes, which have the same weathering characteristics as corrosion resistant steel. Welding shall be performed by certified welders per AWS "Standard Qualification Procedure" to perform type of work required. All welding shall be in conformance with the AWS Welding Code.

Welding quality control shall conform to the requirements in the AWS welding codes, the Standard Specifications and these special provisions.

Contractor shall be responsible for verifying all field conditions and shall order the bridge structure to fit the actual field conditions.

The bridge manufacturer shall warrant the steel structure to be free of design, material, and workmanship defects for a period of ten years from the delivery date.

Erect Prefabricated Bridge

Erection of prefabricated bridges shall conform to Section 55, "Steel Structures," of the Standard Specifications and these special provisions.

A minimum of two weeks prior to the delivery and unloading of the prefabricated bridge, the Contractor shall submit to the Engineer and receive approval for a "Bridge Delivery and Erection Plan". This plan shall detail the proposed delivery route to the site, traffic control, a site plan for equipment at the site for unloading and erection, and special safety measures to be taken on the day of delivery. The plan shall also indicate the proposed date and time of delivery and estimated duration of unloading and erection.

The Contractor shall be responsible for unloading the prefabricated bridge from the delivery truck when it arrives at the job site from the manufacturer, bolting field splice connections, and placing the prefabricated bridge on the bridge foundations.

The prefabricated bridge shall be placed on the bridge foundations in conformance with the plans and these special provisions. Extreme care shall be exercised in handling, moving and erecting operations to avoid twisting, racking or other distortion that would result in damage to the bridge. The bridge lift points shall be at the points specified by the bridge manufacturer and approved by the Engineer.

ORNAMENTAL RAILING

Ornamental railing shall be Imperial Fence - Style A with flat head post caps, 3/4" x 16 ga tubular pickets, 2-1/2" x 16 ga fence posts, and a nominal height of 3'-6" as manufactured by Master Halco, Inc. (www.masterhalco.com) or approved equal. All railing elements and accessories shall be hot-dip galvanized prior to fabrication, and shall receive a polyester powder coat per the manufacturer recommendations. Color shall be black.

WORKING DRAWINGS

In addition to other submittal requirements specified in the Standard Specifications or these special provisions, the Contractor shall submit to Biggs Cardosa Associates, Inc. for their review working drawings for the following items:

- Concrete Mix Designs and Aggregate Gradations
 - Reinforcing Steel Shop drawings
 - Prefabricated Steel Truss Bridge, Plans, Calculations and Specifications
 - Ornamental Railing Shop Drawings
- Unless otherwise specified in the Standard Specifications of these special provisions, the Contractor shall submit three sets of prints for review. Fabrication shall not proceed until shop drawings have been reviewed by Biggs Cardosa Associates, Inc.

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RECORD DRAWING
BY: RLO DATE: 9/18/13



PUBLIC WORKS
DEPARTMENT

708 Third Street, Brentwood, CA 94813
Ph: (925) 516-5420 FAX: (925) 516-5421
www.ci.brentwood.ca.us

BIGGS CARDOSA
ASSOCIATES INC
STRUCTURAL ENGINEERS

885 The Alameda
San Jose, California 95126
408-296-5515



CARMEL ESTATES

MARSH CREEK PEDESTRIAN BRIDGE
STRUCTURAL SPECIFICATIONS No. 1

BRENTWOOD

SUBDIVISION 8311
PEDESTRIAN BRIDGE

CALIFORNIA

NO.	REVISIONS	BY	APP	DATE

DESIGNED UNDER THE DIRECTION OF:	
RONALD L. OEN R.C.E. No. 46945 REGISTRATION EXPIRES 09-30-13	DATE
DESIGN: JAA	DATE: 9/18/13
DRAWN: SMH	DATE: 9/18/13
CHECKED: SEM	DATE: 9/18/13



SHEET
S-6
OF 13 SHEETS

CONSTRUCTION QUALITY CONTROL // SPECIAL INSPECTION

Construction Quality Control of the structures shall be implemented through Special Inspections. Construction Quality Control shall be employed by the Owner and performed by the Structural Engineer of Record (Biggs Cardosa Associates, Inc.) or a qualified party independent of the Contractor to maintain and certify that the structural work has been constructed as indicated, specified and intended per the project plans and specifications. The party performing the Special Inspection Services shall submit a signed letter of construction conformance to the Owner, oversight agency (City, County, etc) and Structural Engineer of Record at the completion of the project for acceptance. Special Inspections shall entail and be required during construction on the following types of work:

Concrete Structures

- During the taking of test specimens and continuously during the placement of all reinforced concrete
- Sample concrete: ASTM C172, except slump shall comply with ASTM C94
- Test slump: ASTM C143, one test at point of truck discharge for 100 CY or fraction thereof for each type of concrete; additional tests required when concrete consistency seems to have changed
- Test concrete temperature: test hourly when air temperature is 50°F (4°C) and below, and when 85°F (27°C) and above; and each time a set of compression test specimens are made.
- Take compression test specimens: ASTM C31, take one set of 3 standard cylinders for each 100 CY of concrete or fraction thereof for each type of concrete taken each day. Mold and store cylinders for laboratory cured test specimens except when field-cure test specimens are required.

Reinforcing steel

- Verify that mill certificates show reinforcing steel in compliance with special provisions.
- Periodically inspect the placement of reinforcing steel for concrete.

Bolts installed in concrete

- Periodically inspect installation of bolts and continuously inspect placement of concrete around such bolts

Bridge Inspector

The Bridge Inspector shall be a qualified person who shall demonstrate his competence for inspecting bridge structures to the satisfaction of the Building Official and Biggs Cardosa Associates, Inc.

Duties and Responsibilities of the Bridge Inspector

- The Bridge Inspector shall observe the work assigned for conformance with the applicable project drawings and specifications.
- The Bridge Inspector shall furnish inspection reports to the Owner or Owner's designated representative, the Resident Engineer, the Structural Engineer of record, the Contractor and other persons designated by the Owner or Owner's designated representative. All discrepancies shall be brought to the immediate attention of the Contractor for correction and, if uncorrected, to the proper design authority and to the Owner.
- The Bridge Inspector shall submit a final signed report stating whether the work requiring bridge inspection was to the best of the inspector's knowledge in conformance with the project plans and specifications and the applicable workmanship provisions of the Standard Specifications.

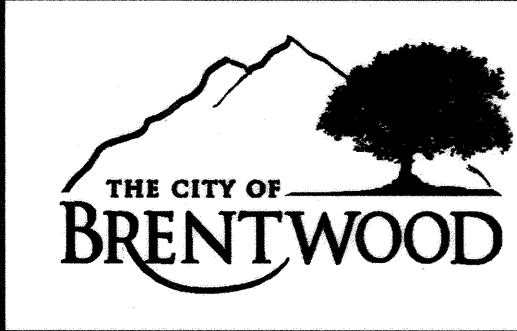
STRUCTURAL OBSERVATION

If Construction Quality Control of the structures is to be performed by the oversight agency, at the option of the oversight agency, the letter of construction conformance may be deferred to the Structural Engineer of Record provided that Construction Quality Assurance is employed by the Owner and provided by the Structural Engineer of Record. Structural Observation by the Structural Engineer of Record will constitute sufficient observation of the construction and specified materials testing to ensure that the structural work has been constructed as indicated, specified and intended per the project plans and specifications.

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RECORD DRAWING
BY: RLO DATE: 5/5/14

NO AS BUILT CHANGES




THE CITY OF
BRENTWOOD

PUBLIC WORKS
DEPARTMENT

708 Third Street, Brentwood, CA 94513
Ph: (925) 516-5420 • FAX: (925) 516-5421
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BIGGS CARDOSA ASSOCIATES, INC.
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95126
408-296-5515



CARMEL ESTATES

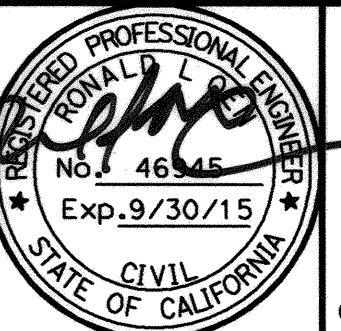
**SUBDIVISION 8311
PEDESTRIAN BRIDGE**

**MARSH CREEK PEDESTRIAN BRIDGE
STRUCTURAL SPECIFICATIONS No. 2**

BRENTWOOD CALIFORNIA

NO.	REVISIONS	BY	APP	DATE

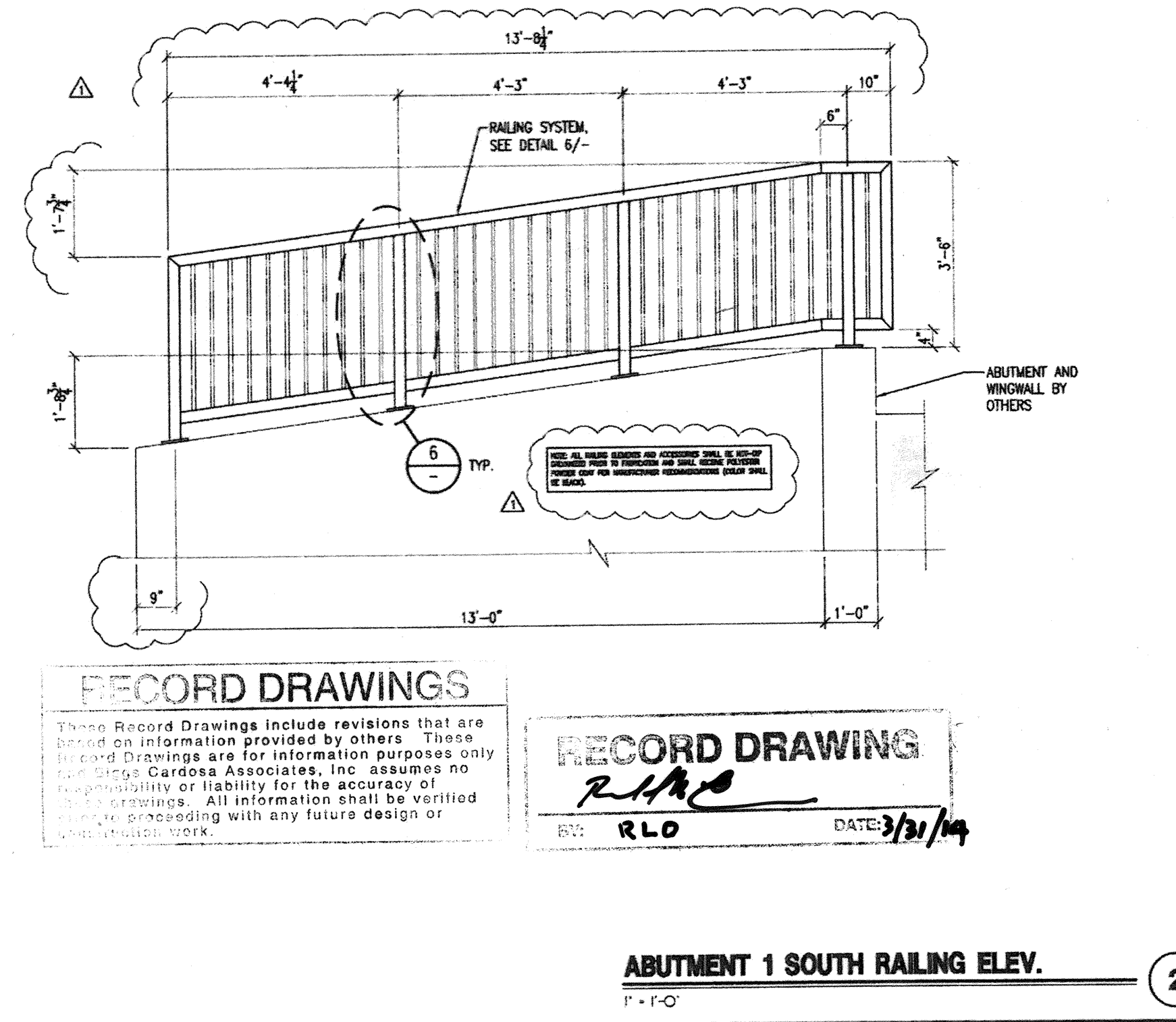
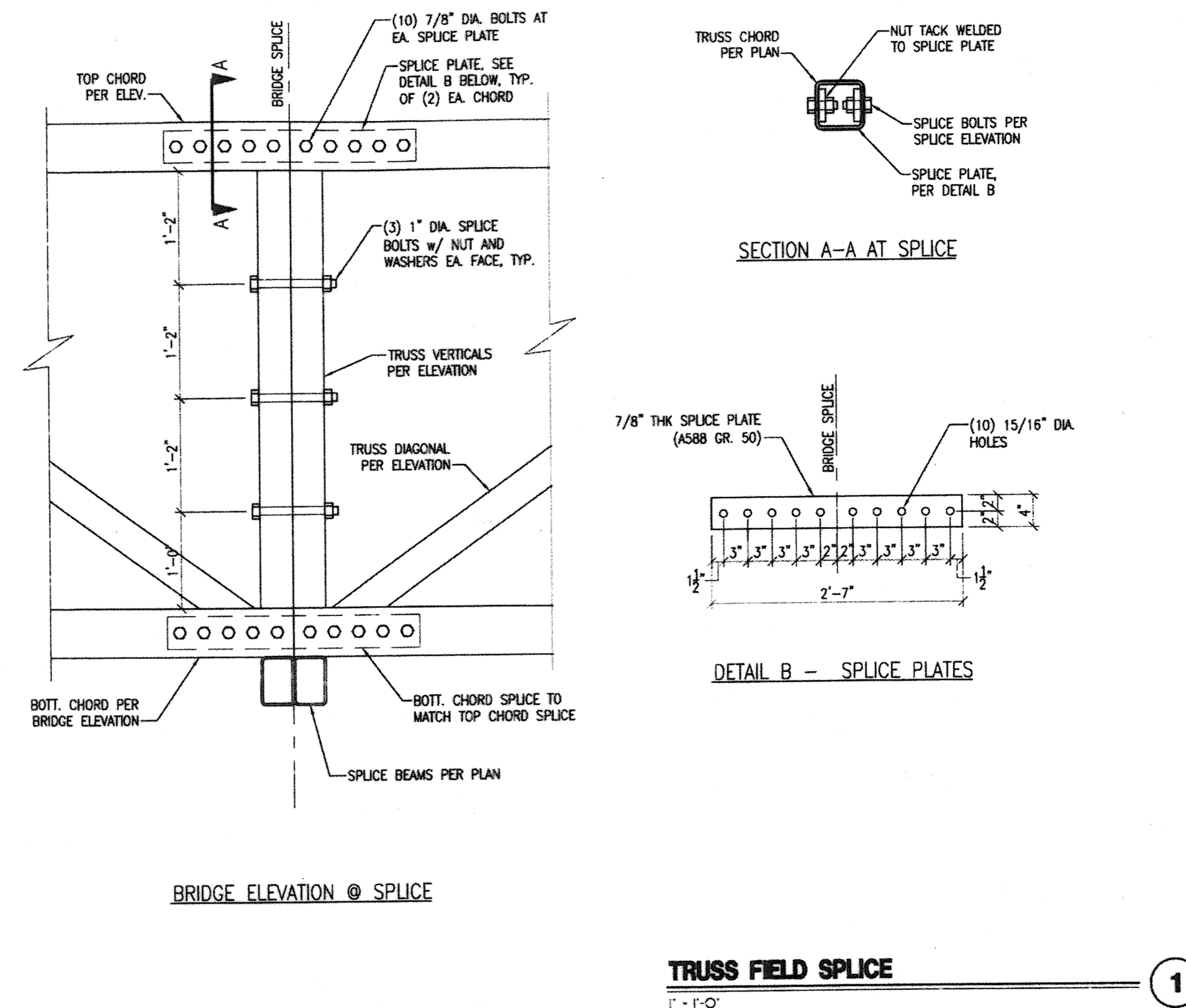
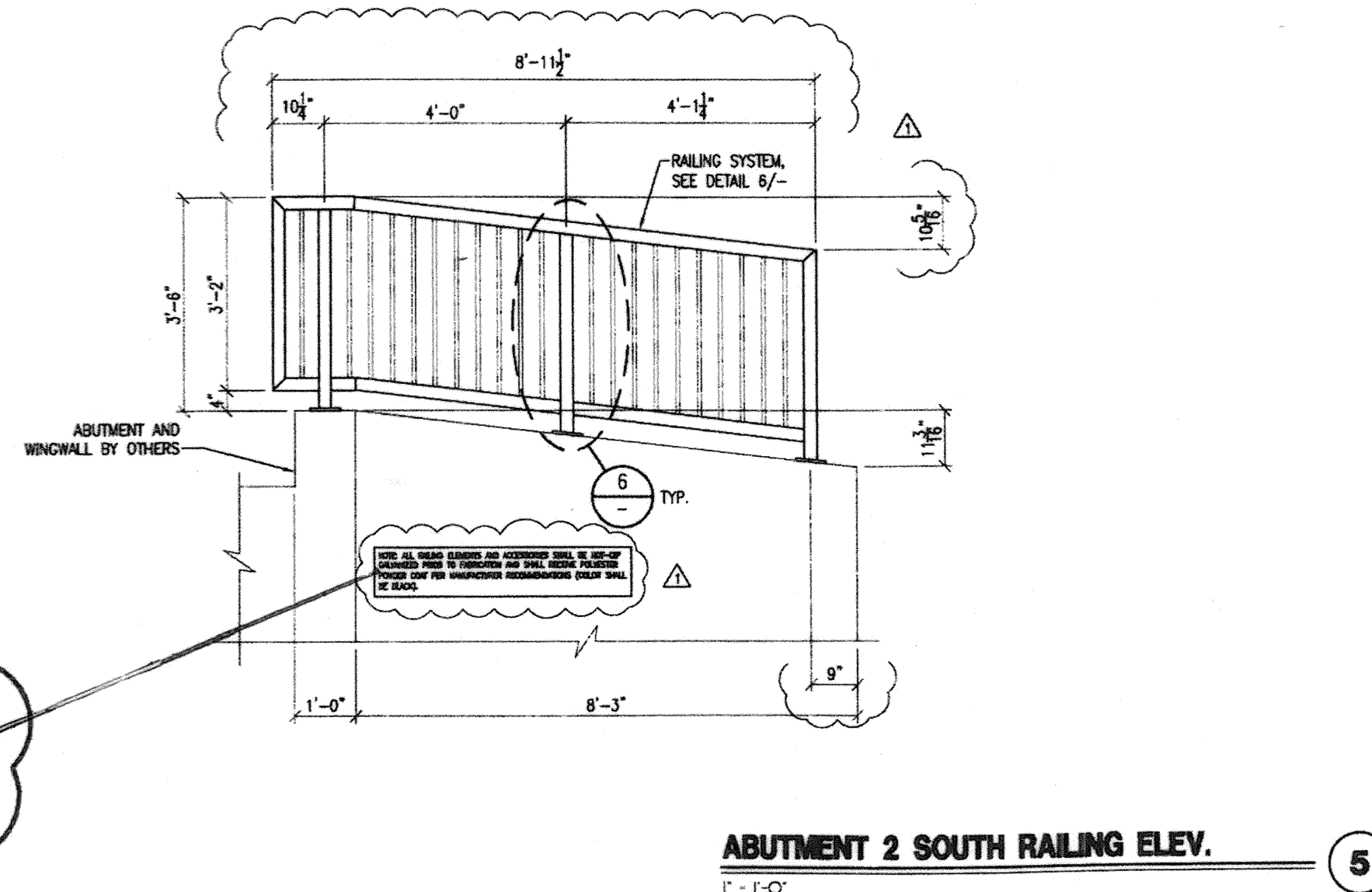
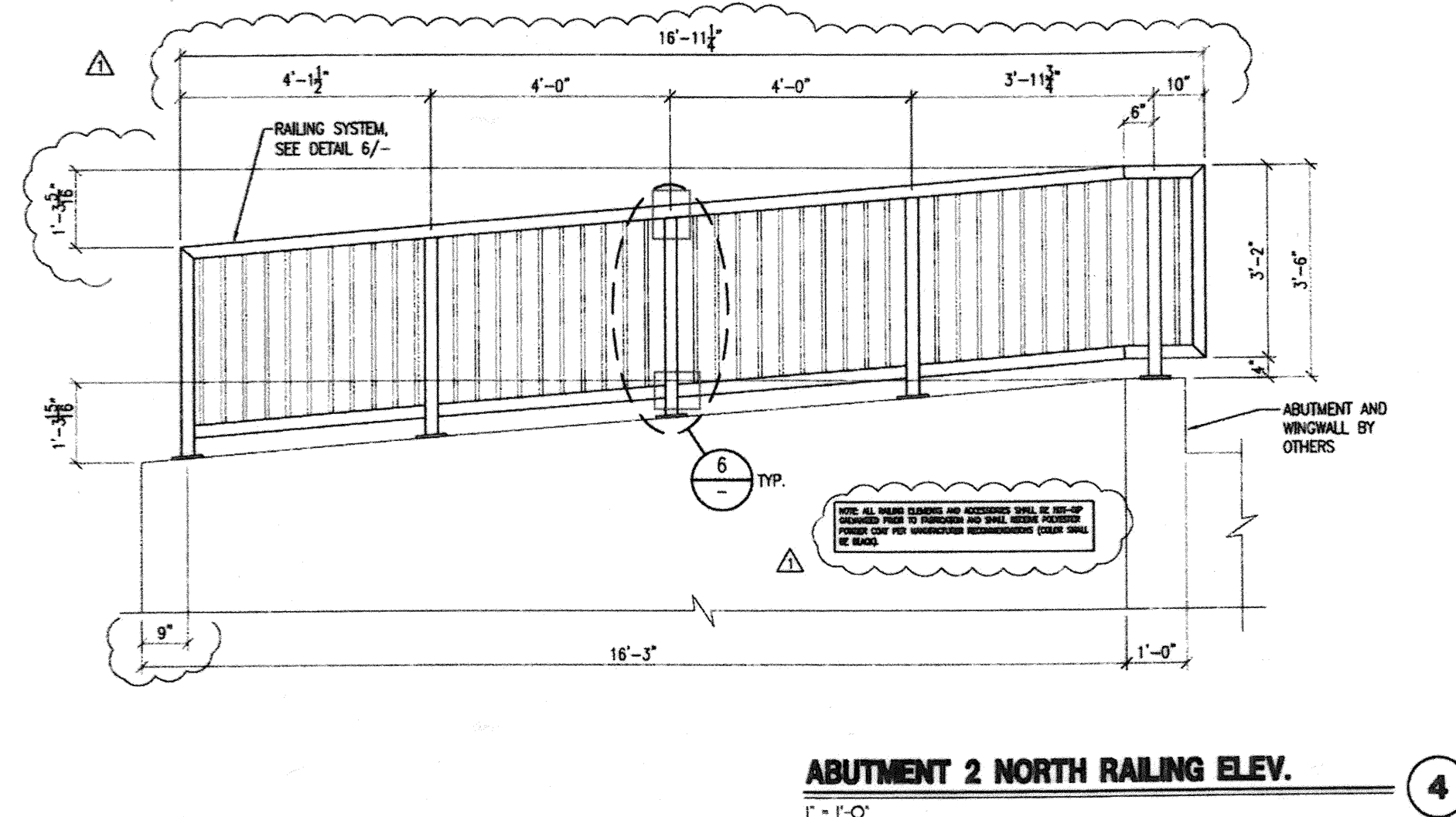
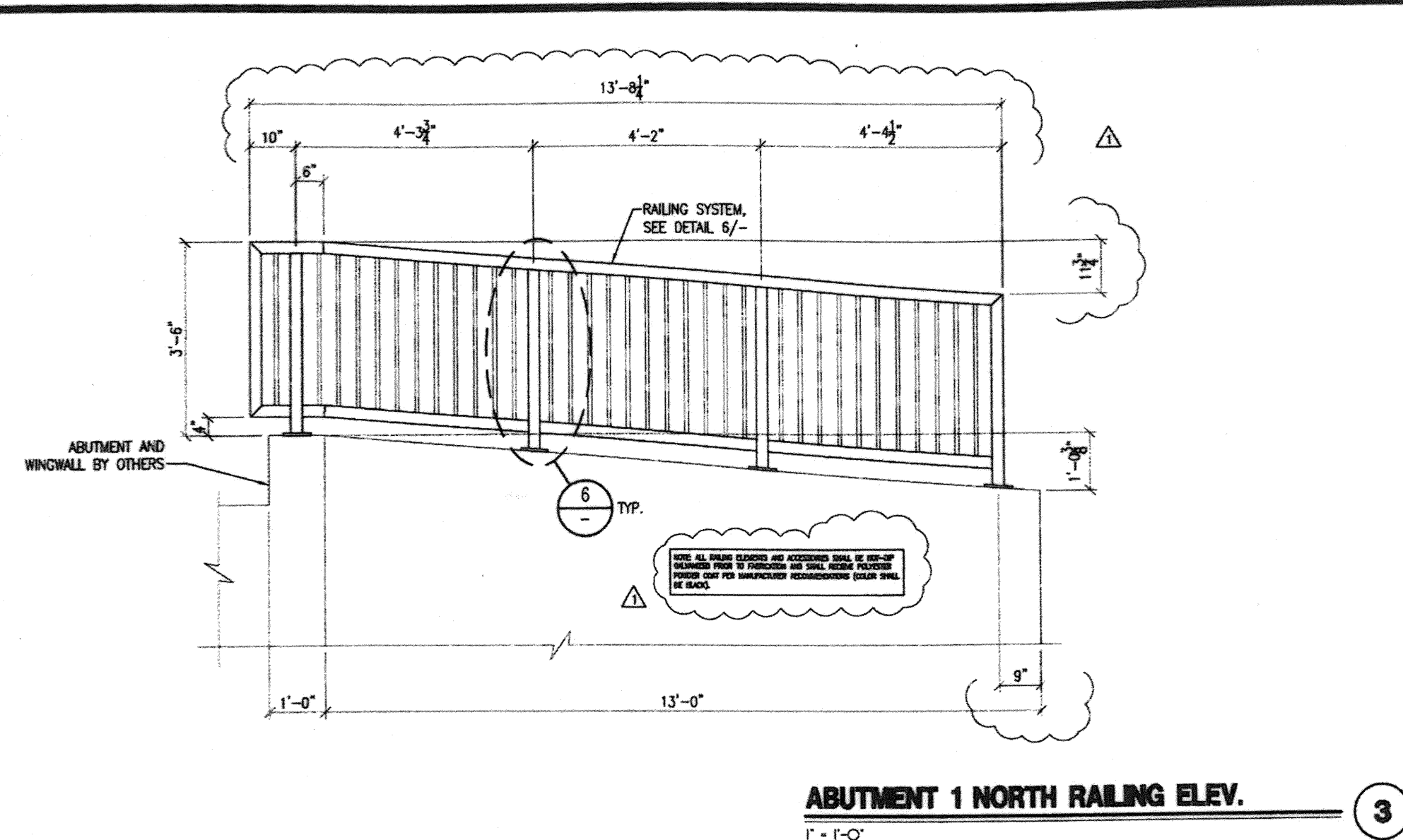
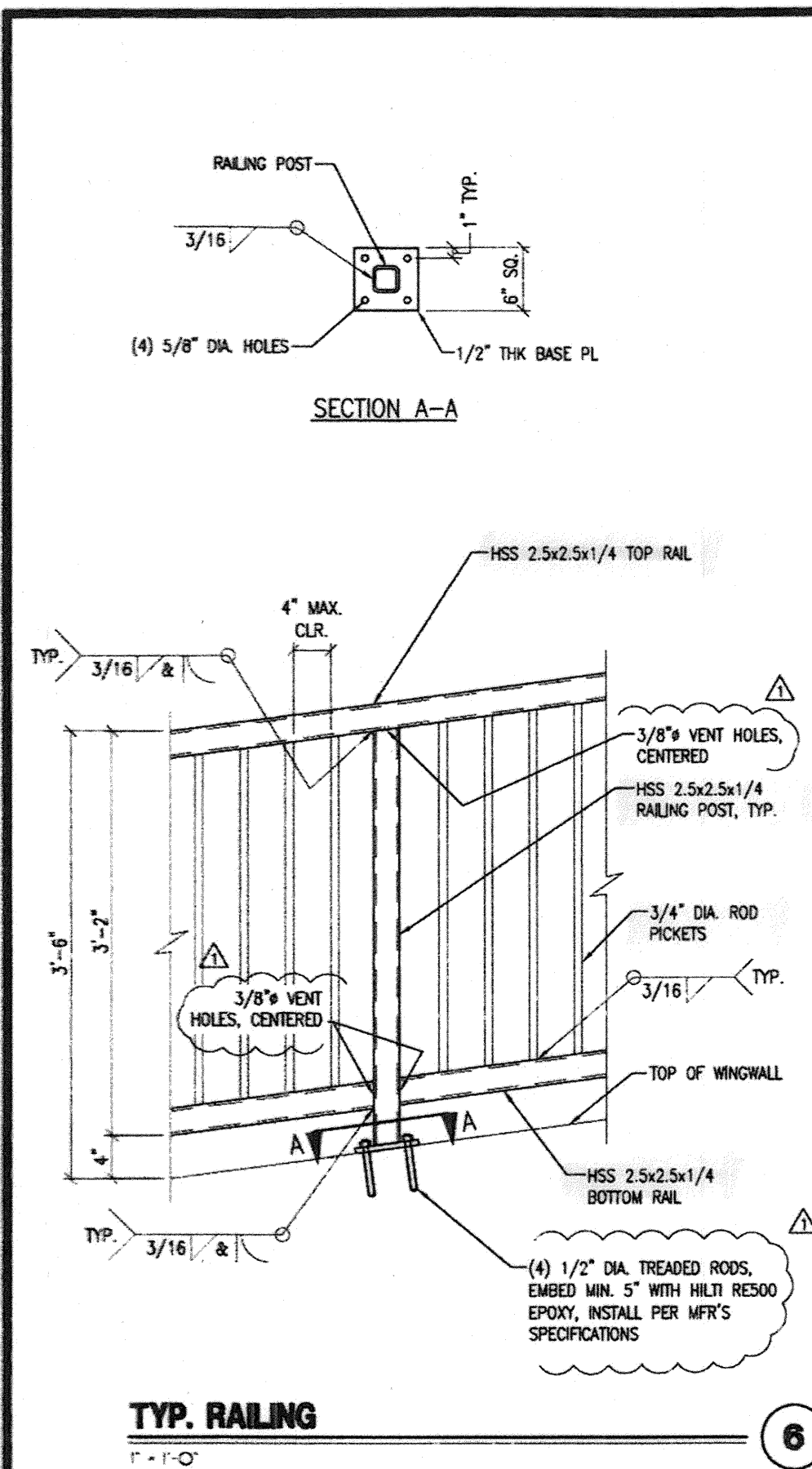
DESIGNED UNDER THE DIRECTION OF:	
RONALD L. OEN R.C.E. No. 46945 REGISTRATION EXPIRES 09-30-13	DATE
DESIGN: JAA	DATE: 9/18/13
DRAWN: SMH	DATE: 9/18/13
CHECKED: SEM	DATE: 9/18/13



REGISTERED PROFESSIONAL ENGINEER
No. 46945
CIVIL
STATE OF CALIFORNIA

SHEET
S-7
OF 13 SHEETS

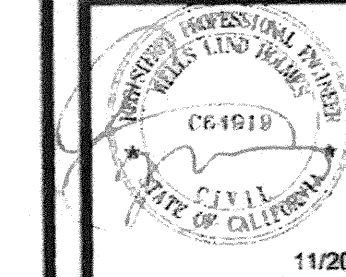
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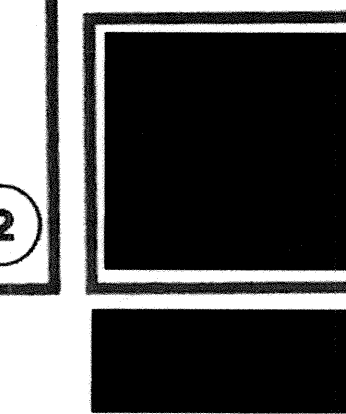
DATE	DESIGNED BY	DRAWN BY	CHECKED BY
10-28-13	WJA	WJA	WJA
REV	DATE	BY	DESCRIPTION
1	11-20-13	WJA/WJA	PLAN CHECK REVISIONS

VECTOR ENGINEERS
 SANDY, UTAH
 (801) 991-7775
 LAYTON, UTAH (801) 987-2054

EXCEL BRIDGE MANUFACTURING CO.
 74'x10' CARMEL ESTATES BRIDGE - BRENTWOOD, CA
 (EXCEL JOB NO. 138-05)
STRUCTURAL DETAILS



U0009-273-131



NOTE:
 THE CONTRACTOR MUST VERIFY ALL
 CONTROLLING FIELD DIMENSIONS BEFORE
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 PUBLIC WORKS DEPARTMENT 708 Third Street, Brentwood, CA 94515 Ph: (925) 516-5420 FAX: (925) 516-5421 www.ci.brentwood.ca.us	BIGGS CARDOSA ASSOCIATES INC STRUCTURAL ENGINEERS 865 The Alameda San Jose, California 95126 408-286-5515	CARMEL ESTATES MARSH CREEK PEDESTRIAN BRIDGE RAILING DETAILS BRENTWOOD CALIFORNIA	SUBDIVISION 8311 PEDESTRIAN BRIDGE	NO.	REVISIONS	BY	APP	DATE	DESIGNED UNDER THE DIRECTION OF:
				1					RONALD L. OEN R.C.E. No. 46945 REGISTRATION EXPIRES 09-30-13 DATE: 9/18/13 DESIGN: JAA DRAWN: SMH CHECKED: SEM

REGISTERED PROFESSIONAL ENGINEER
 RONALD L. OEN
 No. 46945
 Exp. 9/30/15
 CIVIL
 STATE OF CALIFORNIA

SHEET
S-8
 OF 13 SHEETS