

LANDSCAPE PLANTING MIX

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Table B-1 Landscape Planting Mix

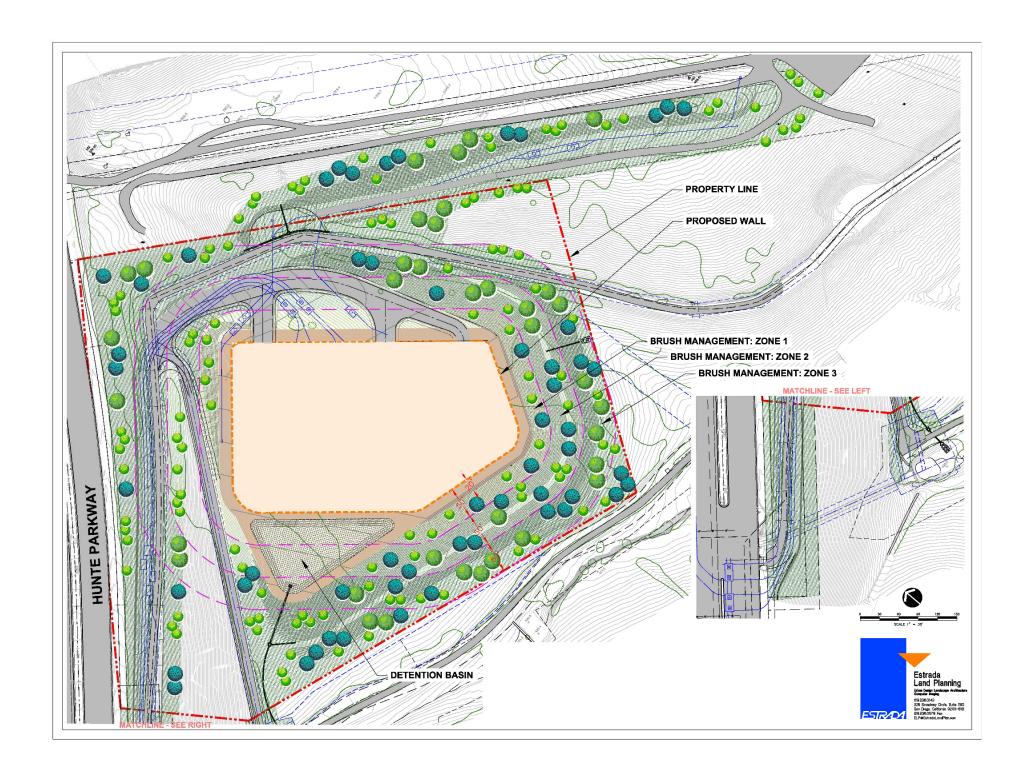
Scientific Name	Common Name	Container Size/Application Rate
Trees		
Quercus agrifolia oxyadenia	Coast live oak	15 gallon
Heteromeles arbutifolia	Toyon	5 gallon
Quercus ergelmanni	Blue Oak	15 gallon
Shrubs		
Adenostoma fasiculatum	Chamise	1 gallon
Agave shawii	Coastal agave	1 gallon
Arctostaphylos glauca	Big berry manzanita	1 gallon
Artemisia californica	California sagebrush	1 gallon
Baccharis pilularis 'Pigeon point'	Dwarf coyote bush	1 gallon
Ceonothus leucodermis	Buck brush	1 gallon
Cercocarpus betuloides	Mountain mahogany	1 gallon
Comarostaphylis diversifolia	Summer holly	1 gallon
Cotoneaster dammeri lowfast	Bearberry cotoneaster	1 gallon
Dudleya pulvenrulenta	Chalk lettuce	1 gallon
Galvezia speciosa	Bush snapdragon	1 gallon
Helianthemum scoprium	Sun rose	1 gallon
Heteromeles arbutifolia	Toyon	1 gallon
Malosma laurina	Laurel sumac	1 gallon
Rhamnus crocea	Redbery	1 gallon
Prunus ilicifolia	Holly-leafed cherry	1 gallon
Rhus ovata	Sugar bush/laurel whitethorn	1 gallon
Rhus trilobata	Squaw bush	1 gallon
Thymus serphyllum 'Reiters'	Creeping thyme	1 gallon
Seeds		
Acmispan glaber	Deerweed	2 pounds/acre
Camissonia bistorta	California suncup	0.1 pounds/acre
Deinandra fasciculata	Golden tarplant	1 pounds/acre
Dichelostemma capitatum	Blue dicks	1 pounds/acre
Elymus glaucus ssp. glaucus	Blue wildrye	3 pounds/acre

Scientific Name	Common Name	Container Size/Application Rate
Eriogonus faciculatum var. fasciculatum	Coast California buckwheat	3 pounds/acre
Eriophyllum confertiflorum	Golden yarrow	2 pounds/acre
Eschscholzia californica	California poppy	1 pounds/acre
Pseudognaphalium canescens	Everlasting cudweed	2 pounds/acre
Helianthemum scoparium	Pak rush-rose	1 pounds/acre
Isocoma menziesii	Coast goldenbush	3 pounds/acre
Lupinus bicolor	Miniature lupine	1 pounds/acre
Nassella pulchra	Purple needlegrass	2 pounds/acre
Osmadenia tenella	Osmadernia	0.1 pounds/acre
Sisyrinichium bellum	Blue-eyed grass	2 pounds/acre

Source: SDG&E 2013

CONCEPTUAL LANDSCAPE PLAN

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LEGEND

Proposed Contours

Existing Contours

--- Brush Management Zone Fire Buffer Line (50', 100', 150' From Fence)

Property Line

Decomposed Granite Surfacing

Payed Road

Plant material (Planted from containers):

Trees

	Botanical Name	Common Name	Size
•	Quercus agrifolia 'oxyadenia'	Coast Live Oak	15 Gal
80	Heteromeles arbutifolia	Toyon	5 Gal
	Quercus engelmannii	Blue Oak	15 Gal

ZONE 1:

Shrubs: 1 Per 100 s.f. Minimum

Big Berry Manzanita 1 Gal Arctostaphylos glauca Artemisia californica California Sagebrush 1 Gal Buck Brush 1 Gal Ceonothus leucodermis Cercocarpus betuloides Mountain Mahogany 1 Gal Cotoneaster dammeri 'Lowfast' Bearberry cotones 1 Gal Dudleva pulvenrulenta Chalk Lettuce 1 Gal 1 Gal Helianthemum scoprium Sun Rose Malosma laurina Laurel Sumac 1 Gal Redberry Holly-leafed Cherry Rhamnus crocea 1 Gal Prunus ilicifolia 1 Gal Rhus ovata Sugar Bush/Laurel Whitethor 1 Gal Rhus trilobata Squaw Bush 1 Gal Thymus serphyllum 'Reiters' Creeping Thyme 1 Gal

ZONE 2:

Prunus ilicifolia

Rhus trilobata

Rhus ovata

Shrubs: 1 Per 100 s.f. Minimum Chamise 1 Gal Agave shawii Coastal Agave 1 Gal 1 Gal Arctostaphylos glauca Big Berry Manzanita 1 Gal Artemisia californica California Sagebrush Baccharis pilularis 'Pigeon Point' Dwaft Covote Bush 1 Gal Ceonothus leucodermis Buck Brush 1 Gal Mountain Mahogany Cercocarpus betuloides 1 Gal Comarostaphylis diversifolia Summer Holy 1 Gal Bush Snapdragon 1 Gal Galvezia speciosa Helianthemum scoprium Sun Rose 1 Gal Heteromeles arbutifolia Toyon 1 Gal Laurel Sumac 1 Gal Malosma laurina

Holly-leafed Cherry

Squaw Bush

Sugar Bush/Laurel Whitethorn

1 Ga

1 Gal

LEGEND

ZONE 3:

Shrubs: 1 Per 100 s.f. Minimum Adenostoma fasiculatum Coastal Agave Agave shawii 1 Gal Arctostaphylos glauca Big Berry Manzanita 1 Gal 1 Gal Artemisia californica California Sagebrush Baccharis pilularis 'Pigeon Point' Dwaft Coyote Bush 1 Gal Ceonothus leucodermis Buck Brush 1 Gal Cercocarpus betuloides Mountain Mahogany 1 Gal Comarostaphylis diversifolia Summer Holy 1 Gal 1 Gal Galvezia speciosa Bush Snapdragon Helianthemum scoprium Sun Rose 1 Gal Heteromeles arbutifolia 1 Gal Laurel Sumac Malosma laurina 1 Gal Prunus ilicifolia Holly-leafed Cherry 1 Gal Sugar Bush/Laurel Whitethorn 1 Gal Rhus trilobata Squaw Bush 1 Gal DETENTION BASIN: Shrubs: 1 Per 100 s.f. Minimum

1 Gal Carex spp. Sedge Common Rush 1 Gal Juncus patens Muhlengergia rigens Deer Grass 1 Gal 1 Gal Sambucus nigra spp. mexicana Blue Elderberry Scirpus cernuus Fiber Optics Plant 1 Gal

Cobble layer, 4" depth layer at and around the basin.

Hydroseed Mix: (Applied in 2 step process with seeds at bottom and MBFM on top)

Cammissonia cheiranthifolia Beach Evening Primrose Deinandra fasciculata Fascicled Tarplant Coastal Sunflower Encelia californica Eriophyllum confertiflorum Golden Yarrow Eschscholzia californica California Poppy Gnaphalium bicolor Bicolor Cudweed Isocoma menziesi Coast Goldenbush San Diego Marsh Elder Iva havesiana Goldfields Lasthenia californica Layia platyglossa Tidy Tips Lupinus bicolor Miniature Lupine Nassella pulchera Purple Needlegrass Phacelia campanularia California Blue Bells Sisyrinchium bellum Blue-Eves Grass Viguiera lacinata San Diego Sunflower

Landscape Concept:

ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE STANDARDS OF THE CITY OF CHULA VISTA LANDSCAPE STANDARDS. ALL TREES TO BE LOCATED AT LEAST THEIR MAXIMUM HEIGHT OR 1/2 WIDTH, WHICH EVER IS GREATER FROM SUBSTATION WALLS AND OVERHEAD LINES, IF ANY.

Planting:

The landscape surrounding the substation on the perimeter slopes and other disturbed areas will be composed of plants native to the project vicinity. The concept is to re-establish naturally occurring vegetation in the area in a manner that is consistent with the natural growth patterns. This planting will provide a visual continuity with the adjacent native landscape, and will become established to survive without supplemental irrigation after a 3 to 5 year establishment period. Engleman Oak and Coast Live Oak will be planted from containers to establish natural screening where possible. A native hydroseed will be applied to create a groundcover of native annuals, perennials and low woody shrubs. 1-gallon size native shrubs will be planted to supplement the hydroseed and establish the woody species such as Toyon, Sugar Bush, Coffee Berry, and Laurel Sumac. The goal of the planting is to be self-sustaining after the initial establishment period.

Fuel Modification Fire Buffers

Fuel modification zones will be established within 150 feet of the substation fence.

Zone 1 will consist of a 50' wide from the substation fence that included 20' wide un-planted gravel or Decomposed Granite buffer between the planting areas and the substation fence. This area also functions as the perimeter security camera zone, and for maintenance and fire fighting access. The pervious gravel material is to match the color of the natural soil. 30' wide planting area with low groundcover and not invasive materials. In individual trees maybe planted at an average rate of no less than one tree per 200 lineal feet, no closer than 15' from a property line or top of slope, and a minimum of 30' between mature canopies. This area will require continued maintenance to thin or remove dense growth of trees and shrubs, keep the groundcover low, and prevent build up of highly combustible materials

Zone 2 is the area 51' too 100' from the substation fence . This area will consist of low groundcover and widely spaced clusters of shrubs (clusters not exceeding a total of 400 s.f.). Tree are planted a minimum distance of no less than 20' shall be maintained between the tree majure's canopies. The trees will be limbed up to maintain vertical separation from the understory shrub of 3x the height or 6' to lowest branch, whichever is greater.

Zone 3 is the area beyond 100' from the substation fence. This area will consist of low to medium high groundcover and randomly cluster of shrubs (succulent type plant material may exceed the height requirements, 48" high). Tree maybe located within this zone, provided that they are planted in clusters of trees of no more than three. Minimum distance of no less than 20' shall be maintained between the free cluster's mature canopies. The trees will be limbed up to maintain vertical separation from understory shrubs.

Permanent automatic irrigation system will be required for zone 1 and zone 2. Large radius and overhead spray type sprinklers will be used to provide full coverage to planted/hydroseeded areas. Zone 3 shall be serviced by a temporary, aboveground automatic irrigation system which will turned off after 5 year establishment plan, but will remain in place. The overhead irrigation will be operated between the hours of 6:00 PM and 8:00 AM. The irrigation system will be monitored by flow sensor and master valve to detect and shut down valves that are malfunctioning. Check valves, high flow shut off, rain sensor and pressure regulation will help conserve water.

The substation landscape and access road landscaping will be permanently maintained by SDG&E to promote a natural appearing, self-sustaining landscape. Substation maintenance will involve operating the irrigation as needed to supplement natural rainfall until plant cover is established. It is anticipated that the irrigation will only be operated in January through May to replicate natural rainfall. Bare areas will be reseeded yearly with the original native seed mix until satisfactory plant cover is established. Weeds will be removed and erosion controlled and repaired.

Access road maintenance will include weed removal, maintaining Erosion Control BMP's and re-seeding bare soil areas with the native hydroseed mix yearly, in late October, until cover has been established.



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- WORK SHALL BE DONE IN ACCORDANCE WITH THESE APPROVED PLANS AND APPROVED REVISIONS. ANY CHANGES OR REVISIONS THEREFROM SHALL BE APPROVED BY THE CITY ENGINEER AND MITIGATION MONITOR PRIOR TO ANY REQUEST FOR INSPECTION.
- ALL GRADING SHALL BE INSPECTED AND TESTED BY OR LINDER THE DIRECTION OF A QUALIFIED SOILS ENGINEER. THE SOILS ENGINEER SHALL: INSPECT THE EXCAVATION, AND SHALL OBSERVE AND TEST THE PLACEMENT, AND COMPACTION OF FILL AND AND SHALL USBERVE AND TEST THE PLACEMENT, AND COMPACTION OF FILL AND BACKFILL AND COMPACTION OF TRENCHES; SUBMIT GEOTECHNICAL OR SOILS REPORTS AS REQUIRED AND DETERMINE THE SUITABILITY OF ANY FILL MATERIAL UPON COMPLETION OF GRADING OPERATIONS. THE SOILS ENGINEER SHALL STATE THAT OBSERVATIONS AND TESTS WERE MADE BY, OR UNDER DIRECTION OF THE SOILS ENGINEER, AND THAT EMBANKMENTS AND EXCAVATIONS WERE CONSTRUCTED IN ACCORDANCE WITH THE GEOTECHNICAL ASPECTS OF THE APPROVED GRADING PLANS, ANY APPROVED REVISIONS THERETO SUBJECT LAND DEVELOPMENT PERMIT AND ORDINANCE NO. 1797 AS AMENDED THAT ALL EMBANKMENTS AND EXCAVATIONS ARE ACCEPTABLE FOR THEIR INTENDED
- THE CONTRACTOR SHALL PROPERLY GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER. CONTRACTOR SHALL CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE, AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED TO THE SATISFACTION OF THE CITY ENGINEER AND THE
- ALL AREAS TO BE FILLED SHALL BE PREPARED PRIOR TO FILLING, AND FILL SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN THE SOILS REPORT. ALL VEGETABLE MATTER AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED, BY THE CONTRACTOR, FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED. LOOSE FILL AND UNSUITABLE SOILS SHALL BE REMOVED TO SUITABLE FIRM NATURAL GROUND. THE EXPOSED SOILS SHALL BE SCARIFIED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND THEN COMPACTED TO A MINIMUM OF 90% LABORATORY MAXIMUM DRY DENSITY, PER ASTM-D1557. SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE, SPREAD, WATER AND COMPACT THE FILL IN STRICT ACCORDANCE WITH THE SPECIFICATIONS.
- CUT AND FILL SLOPES SHALL BE CUT AND TRIMMED TO THE FINISHED GRADE TO PRODUCE SMOOTH SURFACES AND UNIFORM CROSS SECTIONS. THE SLOPES OF EXCAVATIONS AND EMBANKMENTS SHALL BE SHAPED, TRIMMED, AND PLANTED IN ACCORDANCE WITH THE PLANTING NOTES AND AS DIRECTED BY THE ENGINEER OF WORK AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS AND OTHER WASTE MATERIALS EXPOSED ON THE EXCAVATION OR EMBANKMENT SLOPES WHICH ARE LIABLE TO BECOME LOOSENED, SHALL BE REMOVED AND DISPOSED OF. THE TOE AND TOP OF ALL SLOPES SHALL BE ROUNDED IN ACCORDANCE WITH ORDINANCE NO. 1797, THESE GRADING PLANS, AND THE STANDARD DRAWINGS CVDS 26 AND 27. SLOPE SETBACKS AND GRADES SHALL CONFORM TO CVDS 25.
- IF THERE ARE EROSION SCARS ON EXISTING SLOPES WHICH OTHERWISE WOULD NOT BI ELIMINATED BY THE PROPOSED GRADING, THESE SCARS ARE TO BE ELIMINATED BY TRIMMING, FINE GRADING AND PLANTING. IF THE SCARS ARE IN AREAS OF NATIVE VEGETATION, THE REPAIRS SHOULD BE PERFORMED WITH AN EFFORT TO AVOID OR MINIMIZE IMPACTS TO NATIVE VEGETATION. ALL SUCH REPAIRS IN AREAS OF NATIVE VEGETATION SHALL BE REVIEWED AND APPROVED BY THE CITY'S MITIGATION MONITORING COORDINATOR PRIOR TO THE BEGINNING OF THE REPAIR WORK.
- TREES, BRUSH, GRASS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE COLLECTED PILED OR OTHERWISE DISPOSED OF OFF THE SITE BY THE CONTRACTOR SO AS TO LEAVE THE AREAS THAT HAVE BEEN CLEARED WITH A NEAT AND FINISHED APPEARANCE FREE FROM UNSIGHTLY DEBRIS. APPEAVAL OF LOCATIONS FOR DEBRIS FILL SHALL BE OBTAINED FROM THE SOILS ENGINEER PRIOR TO THE DISPOSAL OF ANY SUCH MATERIAL.
- SUBDRAIN LOCATIONS SHOWN ARE APPROXIMATE AND ARE RECOMMENDED FOR ALL SIGNIFICANT FILL CANYONS. THE ACTUAL LOCATION AND EXTENT OF SUBDRAINS SHALL BE DETERMINED BY THE GEOTECHNICAL CONSULTANT AT THE TIME OF CONSTRUCTION.
- BY REFERENCE HERE, THE REPORT "GEOTECHNICAL INVESTIGATION PROPOSED SDG&E OTAY RANCH SUBSTATION" PREPARED BY KLEINFELDER, INC. ON SEPTEMBER 8, 2014 IS INCLUDED AS PART OF THESE PLANS
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES. LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND SHOWN FOR GENERAL
- WHERE GRADING DOES NOT OCCUR. ALL EXISTING PLANT MATERIAL IS TO BE PROTECTED IN PLACE. NO CONSTRUCTION EQUIPMENT WILL BE ALLOWED TO TRAVEL THROUGH AND DAMAGE ANY OF THESE AREAS. ALL AREAS TO BE RETAINED IN A NATURAL CONDITION SHALL BE FENCED UNDER THE DIRECTION OF THE PROJECT BIOLOGIST. CONTRACTOR WILL BE RESPONSIBLE TO REPAIR ANY AND ALL DAMAGE/IMPACTS TO THESE AREAS.
- THE CONTRACTOR SHALL FURNISH TO THE ENGINEER OF WORK AS—BUILT PLANS FOR ALL NEW IMPROVEMENTS AND GRADING SHOWN ON THESE PLANS FOR SUBMITTAL TO THE CITY ENGINEER FOR APPROVAL IN ACCORDANCE WITH SECTION 15.04.140 OF THE CHULA VISTA
- IN THE CASE OF CONFLICTS. THE REQUIREMENTS OF THE EARTHWORK SPECIFICATIONS PREPARED FOR THE PROJECT BY THE SOILS ENGINEER SHALL GOVERN THE REQUIREMENTS OF THIS PLAN AND THESE NOTES AND THESE PLANS SHALL BE REVISED ACCORDINGLY.

	DEPARTMENT OF ENVIRONMENTAL HEALTH LAND AND WATER QUALITY DIVISION		Į
	GLENN LEEKS I ENVIRONMENTAL HEALTH SPECIALIST	DATE:	
İ	OTAY WATER DISTRICT]
	PROJECT NO		"
	RPZ		S
	DAN MARTIN, P.E.	DATE:	N E I.I T
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\01 S	DATE	ALL EXISTIN	

DIAL TOLL FREE

-800-422-413 Mote: Quantities not adjusted for bulk or shrink, totals do not include remedial earthwork, overexcavation or import soils from substation access road. Earthwork, overexcavation or import soils from substation access road. Earthwork volumes shown hereon are approximate. Actual volumes are dependent upon actual percent of bulk and shrinking, Quantity of remedial excavation, Quantity of overexcavation, and existing suprace topography. Earthwork volumes

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA DIG ALERT NOTICE"

ECTION 4216/4217 OF THE GOVERNMENT CODE EQUIRES THAT DIG ALERT IDENTIFICATION UMBER BE ISSUED BEFORE A "PERMIT TO XCAVATE" WILL BE VALID, FOR YOUR DIG ALER D. NUMBER, CALL UNDERGROUND SERVICE ALERT OLL FREE 1-800-422-4133 AT LEAST TWO ORKING DAYS BEFORE YOU DIG

AS BUILT		Ĺ					WITH THE SAID PLANS, ALL APPROPRIATE STANDARDS DISCRETIONARY APPROVAL(S) FOR THE PROJECT.		
DATE			N THESE PLANS ARE PLOTTED FROM				* *		
SIGNATURE				IMATE LOCATIONS. UNDERGROUND /E NOT BEEN REPORTED OR ARE NOT	SIGNED: _			DATE:	
Printed Name			CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PERTINENT			NAM	E:	P.E. No	
y Registration Expires Discipli			ILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.					MY REGISTRATION EXPIRES:	
CONSTRUCTION RECORD	F	REFERENCES	ERENCES By REVISIONS				App'd	BENCHMARK	
								FLEVATIONS SHOWN ARE ON THE NAVDRE	

GRADING PLANS FOR

IN THE CITY OF CHULA VISTA, CALIFORNIA

APN

643-070-10

LEGAL DESCRIPTION

GENERAL NOTES

THAT PORTION OF LOT 9 OF OTAY RANCHO, IN THE CITY OF CHULA VISTA, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 862, FILED IN THE OFFICE OF THE SAN DIEGO COUNTY RECORDER, FEB. 7, 1900, BEING MORE PARTICULARLY DESCRIBED IN THE GRANT DEED RECORDED JUNE 28, 2011, DOCUMENT NO. 2011—0.326.39 JUNE 28, 2011-0326939.

7. ALL FLOWS SHOWN ARE FOR 100-YEAR STORM

MITIGATION MONITOR

EARTHWORK QUANTITIES

CUT 61,800 CY / FILL 83,800 CY

SHOWN ARE NOT FOR BID OR PAYMENT PURPOSES.

"ENGINEER OF WORK CERTIFICATE

HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE

IMPROVEMENTS SHOWN ON THIS SET OF PLANS (SHEET XXXXX-01 THRU 22)

HAVE BEEN INSTALLED AND CONSTRUCTED IN SUBSTANTIAL CONFORMANCE

1. THE SOILS REPORT TITLED "UPDATE GEOTECHNICAL INVESTIGATION PROPOSED SDG&E SALT

4. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING GRADING OPERATIONS. ANYTHING DAMAGED OR DESTROYCH SHALL BE REPLACED OR REPAIRED TO CONDITION EXISTING PRIOR TO

5. THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MOUNUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL MONUMENTS; AND IF DESTROYED, A LAND SURVEYOR, OR A CIVIL ENGINEE AUTHORIZED TO PRACTICE LAND SURVEYING SHALL REPLACE SUCH MONUMENTS WITH THE APPROPRIATE MONUMENTS. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF CHULA VISTA SURVEY SECTION MUST BE NOTIFIED, IN WRITING, AT LEAST THREE (3) DAYS PRIOR TO THE CONSTRUCTION. THE DEVELOPER/CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.

THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.

8. ALL SEDIMENTATION BASINS, OUTLET PIPES AND DITCHES ARE PRIVATE UNLESS OTHERWISE NOTED AND HAVE NOT BEEN REVIEWED FOR ADEQUACY BY THE CITY ENGINEERING DEPARTMENT.

9. THE OWNER MUST OBTAIN AN EXCAVATION PERMIT FROM THE DIVISION OF OCCUPATIONAL

10. GRADING EQUIPMENT SHALL NOT USE OR BLOCK TRAFFIC LANES DURING GRADING ACTIVITY. TRUCK OPERATIONS IN AND OUT OF CONSTRUCTION AND STAGING AREAS SHALL BE CONTROLLED AS REQUIRED BY THE CITY. TRUCK AND EQUIPMENT ROUTES IN AND OUT OF THE SITE, SHALL BE APPROVED BY THE CITY PRIOR TO START OF WORK. AT THE END OF THE WORKING DAY, STREETS SHALL BE CLEANED OF DIRT AND CONSTRUCTION DEBRIS TO THE SATISFACTION OF THE CITY INSPECTOR AND THE

11. DUST GENERATED BY CONSTRUCTION ACTIVITIES SHALL COMPLY WITH LOCAL DUST CONTROL, ANY REQUIREMENTS OF ANY MITIGATION MONITORING PROGRAMS, AND UNIFORM BUILDING CODE (UBC) REQUIREMENTS, WHICH INCLUDE DUST CONTROL MEASURES FOR CONSTRUCTION SITES. DUST REDUCING MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, REGULAR WATERING OF GRADED SURFACES AND RESTRICTION OF ALL CONSTRUCTION VEHICLES AND EQUIPMENT TO TRAVEL ALONG ESTABLISHED AND REGULARLY WATERED

SAFETY AND HEALTH (D.O.S.H.) FOR CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE FIVE FEET OR DEEPER INTO WHICH A PERSON IS REQUIRED TO DESCEND. SAID PERMIT IS REQUIRED FOR PRIOR TO ISSUANCE OF A GRADING PERMIT BY THE CITY OF CHULA

2. STORM DRAINS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. APPROVAL OF PLAN DOES NOT CONSTITUTE APPROVAL OF SIZES, LOCATIONS, AND TYPE OF SEWER AND DRAINAGE FACILITIES, OR ANY SURFACE IMPROVEMENTS WITHIN FUTURE STREET RICHTS-OF-WAY SHOWN ON THESE PLANS. SEPARATE APPROVALS AND PERMITS FOR THESE SHALL BE REQUIRED IN CONJUNCTION WITH IMPROVEMENT PLANS.

3. WRITTEN PERMISSION SHALL BE OBTAINED FOR ANY OFF-SITE GRADING

THE SOILS REPORT THEED OPDATE GEOTECHNICAL INVESTIGATION PROPOSED SIGKE SALE CREEK SUBSTATION CHULA VISTA, CALIFORNIA" PREPARED BY KLEINFELDER, INC., DATED OCTOBER 3, 2014 SHALL BE CONSIDERED TO BE PART OF THIS GRADING PLAN. ALL GRADING SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN SAID REPORT.



OWNERS CERTIFICATE

IT IS AGREED THAT FIELD CONDITIONS MAY REQUIRE CHANGES TO THESE PLANS. IT IS FURTHER AGREED THAT THE OWNER (DEVELOPER) SHALL HAVE THE ENGINEER OF WORK MAKE SUCH CHANGES, ALTERATIONS OR ADDITIONS TO THESE PLANS WHICH THE ENGINEER OF WORK DETERMINES ARE NECESSARY AND DESIRABLE FOR THE PROPER COMPLETION OF THE IMPROVEMENTS. ALL PLAN CHANGES SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION. I FURTHER AGREE TO COMMENCE WORK ON ANY IMPROVEMENTS SHOWN ON THESE PLANS WITHIN EXISTING CITY RIGHT—OF—WAY WITHIN 60 DAYS AFTER ISSUANCE OF THE CONSTRUCTION PERMIT AND TO PURSUE SUCH WORK ACTIVELY ON EVERY NORMAL WORKING DAY UNTIL COMPLETED, IRRESPECTIVE AND INDEPENDENT OF ANY OTHER WORK ASSOCIATED WITH THIS PROJECT OR UNDER MY CONTROL.

BASIS OF BEARINGS

TOPOGRAPHY

BENCHMARK

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF HUNTE PARKWAY AS

SHOWN ON MAP NO. 15233. I.E. N78*26'26"W

SOURCE OF TOPOGRAPHY IS: DEVELOPED BY PHOTOGRAMMETRIC METHODS BASED ON AERIAL SURVEY BY PROJECT DESIGN CONSULTANTS, 701 B STREET, #800, SAN

CONSULTANTS, 701 B STREET, #800, SAN DIEGO, CA 92101 ON OCTOBER 4, 2006.

ELEVATIONS SHOWN ARE ON THE NAVD88
DATUM, DETERMINED LOCALLY BY POINT CV
GPS5095 AS SHOWN ON THE PUBLISHED CITY
OF CHULA VISTA GEODETIC CONTROL
NETWORK RECORD OF SURVEY No. 14841.
SAID ELEVATION OF 557.522 FEET.

NAME

ADDRESS:

PHONE:

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF THE PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF CHULA VISTA AND OTAY WATER DISTRICT IS CONFINED TO REVIEW ONLY AND DOES NOT RELIEVE ME AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN

DATE: __

15070 AVENUE OF SCIENCE, SUITE 100 SAN DIEGO, CA 92128

SCOTT R. VINTON

RCE No. <u>54703</u> DATE

SOILS ENGINEER'S CERTIFICATE

THESE GRADING PLANS HAVE BEEN REVIEWED BY ME OR UNDER MY DIRECTION AND CONFORM TO THE RECOMMENDATIONS MADE IN THE SOILS REPORT MENTIONED ABOVE.

EXPIRES: 12-31-15



CEG NO.1651 EXPIRES: 8-31-16



SHEET INDEX SHT# SDGE SHT# TITLE OF SHEE TITLE SHEET, NOTES, PROPERTY LINE AND EASEMENTS KEY MAP AND TYPICAL SECTIONS, SECTIONS GRADING & DRAINAGE PLAN 900-900.3 901-901.3 902-902.4 STORM DRAIN & ACCESS ROAD PROFILES 903-903.1 904-904.1 EROSION CONTROL PLANS 907 908–908.1 GLOBAL OIL CONTAINMENT BASIN GATE DETAILS 909 DETAILS 905-905.5 HORIZONTAL CONTROL SCREEN WALL PROFILE PLANS

California Council of Civil Engineers & Land Surveyors Construction contractor agrees that in accordance with generally accepted construction practices construction contractor will be required to assume sole and complete responsibility for practices construction contractor will be required to assume sole and complete responsibility of bild set conditions during the course of construction of the project including safety of all persons and property that this requirement shall be made to apply continuously and not be limited to normal working hours and construction contractor further agrees to defend, indemnify and hold design professional harmless from any and all failbility, real or alleged, in connection with we performance of work on this project excepting liability arising from the sole negligence of design WORK TO BE DONE

THE WORK TO BE DONE CONSISTS OF THE ITEMS INDICATED UNDER THE "LEGEND" SHOWN BELOW, AND IS TO BE DONE IN ACCORDANCE WITH THESE FLANS AND THE FOLLOWING LIST OR PRINTED MATERIALS AS CURRENTLY ADDPTED BY THE CITY OF CHULA WISTA CITY COUNCIL INCLUDING THE

STANDARD DRAWINGS

- SAN DIEGO AREA REGIONAL STANDARD DRAWINGS, FILED AUGUST 2012. STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, DATED MAY 2010. WATER AGENCY STANDARDS (SDWAS). FEBRUARY 2008. DESIGN AND CONSTRUCTION STANDARDS OF CITY OF CHULA VISTA. 2002.

STANDARD SPECIFICATIONS

- STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK") (2012 EDITION)
- SAN DIEGO REGIONAL SUPPLEMENT TO THE 2012 EDITION OF THE "GREENBOOK" DATED SEPTEMBER 2012
- 3. STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS (2010 EDITION) 4. STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) MANUAL ON UNIFORM
- TRAFFIC CONTROL DEVICES (MUTCD) (2012 EDITION) 5. DESIGN AND CONSTRUCTION STANDARDS OF THE CITY OF CHULA VISTA (2008 EDITION)

ALL REFERENCES ARE TO BE MADE PART OF THESE PLANS. ANY CHANGES OR REVISIONS THEREFROM, SHALL BE APPROVED BY THE CITY ENGINEER, OR HIS DESIGNEE, PRIOR TO ANY REQUEST FOR INSPECTION.

LEGEND

DESCRIPTION BOUNDARY/PROPERTY LINE	REF DWG	<u>SYMBOL</u>
EASEMENT LINE		
EXISTING CONTOUR		520
FINISH CONTOUR	_	517
CUT SLOPE	XXX	<u>Y 2:1 Y</u>
FILL SLOPE	(B)	2:1
LIMITS OF GRADING/DAYLIGHT LINE	<u> </u>	<i></i>
CUT/FILL LINE		C/F C/F -
SETTLEMENT MONUMENT	31	®
6" CLASS 2 BASE		
PAVEMENT (4" AC/ 8" AB)		
TYPE "G" CURB & GUTTER	SDRSD G-2	
METAL BEAM GUARD RAILING	CALTRANS A77A1	• • •
DRIVEWAY	SDRSD G-14B	
MSE RETAINING WALL		XXXX
MASONRY PERIMETER WALL		
STORM DRAIN CLEANOUT	SDRSD SC-01	
DRAINAGE DITCHES	SDRSD D75, TYPE B OR D	$\Rightarrow \Rightarrow \Rightarrow$
RIBBON GUTTER	(<u>E</u> 31)	**************************************
RIP-RAP ENERGY DISSIPATOR (ROCK CLASS AS SHOW		
TRENCH DRAIN	$\frac{G}{31}$	/////////
STORM DRAIN PIPE (SIZE & MATERIAL AS SHOWN)	SDRSD D-60	===
CUTOFF WALL FOR SLOPE>20%	SDRSD SP-07	= =
CONCRETE COLLAR	SDRSD D-62	<u>=i</u> =
TYPE B CURB INLET (LENGTH AS SHOWN)	SDRSD D-02	50
TYPE A-4 MANHOLE	SDRSD D-09	
TYPE F CATCH BASIN	SDRSD D-07	
TYPE G-1 CATCH BASIN	SDRSD D-08	
STRAIGHT HEADWALL	SDRSD D-32	
	SDRSD D-34	
U-TYPE HEADWALL		
WING TYPE HEADWALL	SDRSD D-34	=(
IRRIGATION METER (RECLAIMED)	WATER AGENCY STDS WS-01	R
FIRE HYDRANT	WATER AGENCY STDS WF-02	
FIRE SERVICE	WATER AGENCY STDS WF-05	(RP)FS
DETAIL CALLOUT		DETAIL LETTER



CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT SDG&E SALT CREEK SUBSTATION

Drawing No. XXXXX-01

-SHEET NUMBER

W.O. No.XX-XXX

nspector_

ate completed.

LEVATIONS SHOWN ARE ON THE NAVD88 DATU ETERMINED LOCALLY BY POINT CV GPS5095 / HOWN ON THE PUBLISHED CITY OF CHULA VIS' EODETIC CONTROL NETWORK RECORD OF SURVE IO. 14841. SAID ELEVATION OF 557.522 FEE

SCALE AS NOTED Vertical

ans Prepared Unde SCOTT R. VINTON

NOITE VERTICAL FIVE

Checked By

Drawn By ubmitted. pproved.

OWD NO XXXX

SPECIAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE QUANTITIES SHOWN HEREON AND BALANCING THE EARTHWORK ONSTE. IF DISCREPANCIES ARISE, THE ENGINEER OF WORK SHALL PROVIDE AREAS OF ADJUSTMENT TO THE CONTRACTOR. WHERE TRENCHES ARE WITHIN EASEMENTS, STREETS, OR 10° OF ANY BUILDING, SOILS REPORTS SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATE THAT THE TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION OF THE SOILS ENGINEER AND IN ACCORDANCE WITH THE EARTHWORK SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL SLOPES ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE IS ANY QUESTION REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER AT (858)385-2200.
- 3. THE PALEONTOLOGICAL MONITOR SHALL BE PRESENT DURING THE GRADING OF THE PLIOCENE SAN DIEGO FORMATION (TSD) ON THE SITE. THE MONITOR SHALL HAVE THE AUTHORITY TO TEMPORARILY DIRECT, DIVERT, OR HALT GRADING TO ALLOW RECOVERY OF FOSSIL REMAINS.
- 4. THE CONTRACTOR SHALL UNCOVER ALL UTILITIES THAT MAY BE JOINED, CROSSED, OR PARALLELED TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATION PRIOR TO ANY PARALLELED IN VERIFIED BOTH HORIZONTAL AND VERTICAL LOCATION PRIOR TO ANY CONFLICT OR DISCREPANCY SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION. OTHERWISE THE CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR ANY ADDITIONAL CONSTRUCTION OR RELOCATION COSTS.
- ALL FILL AREAS, WHICH ARE FENCED, SHALL REMAIN FENCED. TEMPORARY AND/OR FINAL FENCING SHALL BE PROVIDED AS SHOWN ON THE PLANS.
- 6. ALL APPROVED GEOTEXTILE ENGINEERING FABRIC SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- 7. A 6" MINIMUM THICKNESS BEDDING BLANKET UNDERLAIN BY A LAYER OF GEOTEXTILE (MIRAFI 700X OR EQUIVALENT) SHALL BE CONSTRUCTED BENEATH ALL RIP RAP. THE BEDDING BLANKET SHALL MEET THE FOLLOWING SPECIFICATIONS:
 - G. FRACTION PASSING THE NO. 3/8 IN. STANDARD SIEVE SHALL BE 100% BY WEIGHT B. ANY SOURCE OF ON-SITE MATERIAL DEEMED SUITABLE BY THE SOILS ENGINEER.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING, RELOCATING, AND OR REMOVAL OF EXISTING UTILITIES.
- 9. THE CONTRACTOR SHALL REPLACE ALL DESTROYED OR DAMAGED SURFACE IMPROVEMENTS WITH IMPROVEMENTS EQUAL OR SUPERIOR.
- 10. ALL CONTOURS AND ELEVATIONS SHOWN HEREON REPRESENT FINISH GRADE. CONTRACTOR SHALL MAKE THE APPROPRIATE ALLOWANCES FOR PAVEMENT SUBGRADE, PAD UNDERCUT,
- 11. THE ENGINEER PREPARING THESE PLANS. WILL NOT BE RESPONSIBLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS AND THE

NOTIFICATIONS

1. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITY PIPES AND STRUCTURES SHOWN THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITY PIES AND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORD, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN HEREON, HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT UNDERGROUND SERVICE ALERT (PHONE 1-800-422-4133) TWO (2) WORKING DAYS IN ADVANCE OF ANY EXCAVATION FOR THE MARK OUT OF THE LOCATION OF UTILITIES AND NOTIFICATION OF COMMENCEMENT OF WORK.

FOR ANY QUESTIONS REGARDING THE MARK OUT OF UNDERGROUND UTILITIES, THE CONTRACTOR SHOULD CONTACT THE RESPECTIVE UTILITY COMPANY:

STREET LIGHT OR SIGNAL LIGHT CONDUIT, CITY OF CHULA VISTA: (619) 397-6163 SEWER OR STORM DRAIN, CITY OF CHULA VISTA:

VERIFICATION (619) 691-5024

NOTIFICATION (619) 397-6000
GAS & ELECTRIC, SAN DIEGO GAS & ELECTRIC CO.: (800)227-2600/(619) 230-7800

WATER, OTAY WATER DISTRICT (619) 670-2222

TELEPHONE, PACIFIC BELL: (619) 266-4683
TELEVISION, COX CABLE OF SAN DIEGO/CHULA VISTA CABLE:

(619)263-9251/(619)476-0177 ULTRONICS & WORLDWIDE SATELLITE (619) 422-0776

- 2. CONTRACTOR SHALL NOTIFY THE CITY ENGINEER'S OFFICE (PHONE 619- 585-5737) AND THE MITIGATION MONITOR AT THE PLANNING DIVISION (PHONE 619- 691-5101) 48 HOURS (2 WORKING DAYS) PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.
- 3. THE CONTRACTOR SHALL GIVE 24 HOURS (ONE WORKING DAY) NOTICE ON CALLS FOR INSPECTION. PHONE: (619) 397-6128.
- 4. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION

LANDSCAPING NOTES

- ALL SLOPES SHALL BE PLANTED AND IRRIGATED IN ACCORDANCE WITH PLANS APPROVED BY THE CITY OF CHULA VISTA DIRECTOR OF PARKS AND RECREATION AND CITY ENGINEER. PLANS SHALL CONFORM TO THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT AND TAX FORTH AS THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND CONTRACT ORDINANCE NO. 1797, BOTH AS
- FINISH GRADING AND PLANTING SHALL BE ACCOMPLISHED ON ALL SLOPES PRIOR TO OCTOBER 1 OR IMMEDIATELY UPON COMPLETION OF ANY SLOPES GRADED BETWEEN OCTOBER 1 AND APRIL 1. PADS OR OTHER RELATIVELY LEVEL AREAS SHALL BE PLANTED AS DIRECTED BY THE CITY'S DIRECTOR OF PARKS AND RECREATION.
- 3. PRIOR TO GRADING, CONTRACTOR SHALL FIELD VERIFY EXISTING IRRIGATION SYSTEMS TO DETERMINE WHICH ARE OPERABLE. UNLESS OTHERWISE NOTED ON THESE PLANS, ALL EXISTING IRRIGATION SYSTEMS ARE TO BE PROTECTED IN PLACE AND REMAIN OPERABLE, PARKS AND RECREATION DEPARTMENT (LANDSCAPING COORDINATION NAME AND PHONE NO., PER SEC. 5-300).

EROSION CONTROL NOTES

PRIOR TO COMPLETION OF FINAL IMPROVEMENTS, TEMPORARY EROSION CONTROL SHALL BE PREFORMED AND INSTALLED BY THE CONTRACTOR AS INDICATED BELOW:

- 1. THE EROSION CONTROL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSPECTION AND MODIFICATION OF THE EROSION CONTROL DEVICES DURING THE RAINY SEASON. THE CONTRACTOR, PERMITTEE OR OWNER SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF THE EROSION CONTROL DEVICES DURING THE RAINY SEASON. IN THE EVENT OF FAILURE OR REFUSAL TO PROPERLY MAINTAIN SAID DEVICES, THE CITY ENGINEER OR MITIGATION MONITOR MAY CAUSE EMERCENCY MAINTENANCE WORK TO BE DONE TO PROTECT ADJACENT PRIVATE AND PUBLIC PROPERTY, THE COST (INCLUDING AN INITIAL MODIFICATION OF THE PROPERTY OF THE COMMENT. MOBILIZATION AMOUNT) OF WHICH SHALL BE CHARGED TO THE OWNER.
- 2. SEDIMENTATION BASINS MAY NOT BE REMOVED OR MADE INOPERATIVE WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER AND MITIGATION MONITOR.
- 3. TEMPORARY EROSION CONTROL DEVICES, WHICH INTERFERE WITH THE WORK, SHALL BE RELOCATED OR MODIFIED AS THE WORK PROGRESSES, AS RECOMMENDED BY THE ENGINEER OF WORK AND AS APPROVED BY THE CITY ENGINEER AND MITIGATION MONITOR.
- 4. ALL REMOVABLE PROTECTION DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40 PERCENT. AFTER EACH RAINSTORM EXCEEDING 1/4 INCH IN A 12-HOUR PERIOD, SILT AND DEBRIS SHALL BE REMOVED FROM CHECK DAMS AND DESILTING BASINS AND BASINS SHALL BE PUMPED DRY AS DEEMED NECESSARY BY THE CITY ENGINEER AND MITIGATION MONITOR.
- 5. EFFECTIVE PLANTING SHALL BE INSTALLED, FULLY GERMINATED, AND SHALL EFFECTIVELY COVER THE REQUIRED SLOPES PRIOR TO FINAL APPROVAL. THE PLANTING MIX SHALL BE APPROVED, BY THE DIRECTOR OF PARKS AND RECREATION, PRIOR TO INSTALLATION. SPRINKLER SYSTEMS ARE REQUIRED ON ALL SLOPES OVER FIVE FEET IN HEIGHT.
- A 12 INCH HIGH BY 3 FEET WIDE BERM SHALL BE MAINTAINED ALONG THE TOP OF THE SLOPE OF THOSE FILLS ON WHICH GRADING IS NOT IN PROGRESS. CONCENTRATED WATER SHALL NOT BE CARRIED CLOSER THAN 10 FEET FROM THE TOP OF SLOPES.
- 7. SILT BASINS, TRAPS, OR SANDBAGS SHALL BE PROVIDED AT EVERY STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM.
- 8. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPE, THE CONTRACTOR SHALL INSURE THAT WATER DRAINING TO THE SUMPS IS DIRECTED INTO THE INLET, AND THAT A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY ORADING SHOWN ON THESE PLANS, THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. SANDBAGS OR DIKES.
- THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREETS DUE TO CONSTRUCTION ACTIVITY.
- 10. THE CONTRACTOR SHALL CHECK AND MAINTAIN LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
- 11. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH RAINFALL EXCEEDING 1/4" IN A 12-HOUR PERIOD AND WHEN SILT REACHES A DEPTH OF 1.0'
- 12. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
- 13. DEVICES SHOWN ON THESE PLANS SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE PUBLIC WORKS INSPECTOR AND MITIGATION MONITOR.
- 14. THE CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER AND MITIGATION MONITOR AFTER EACH RAINFALL WHICH PRODUCES RUNOFF.
- 15. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE CITY ENGINEER OR MITIGATION MONITOR DUE TO INCOMPLETE GRADING OPERATIONS OR UNFORSEEN CIRCUMSTANCE WHICH MAY ARISE.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A
- 17. ALL EROSION CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREON.
- 18. GRADED AREA AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY.
- 19. IN CASE EMERGENCY WORK IS REQUIRED, CONTACT (DEVELOPER'S NAME & PHONE NO.)
- 20. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT MAY RESULT FROM GRADING OPERATIONS BY APPROPRIATE MEANS (SANDBAGS, HAY BALES, TEMPORARY DESILTING BASINS, SILT FENCES, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE TOTAL PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY OWNER.

NOTE: EROSION CONTROL FOR INACTIVE AREAS OF CONSTRUCTION

CONTRACTOR SHALL PROVIDE SOIL STABILIZATION BMPS TO ANY AREAS OF CONSTRUCTION THA HAVE BEEN DISTURBED AND ARE NOT SCHEDULED TO BE RE-DISTURBED FOR AT LEAST 14 DAYS.

SOME OF THE SOIL STABILIZATION BMPS THAT CAN BE UTILIZED, AND CAN BE USED IN CONJUNCTION WITH EACH OTHER, OR USED WITH OTHER SOIL STABILIZATION AND SEDIMENT CONTROL BMPS TO REDUCE EROSION AND SEDIMENT AND POLLUTION TRANSPORT ARE:

• HYDRAULIC MULCH (SS-3)

Horizontal

AS SHOWN

- HYDROSEEDING (SS-4) SOIL BINDERS (SS-5)
- STRAW MULCH (SS-6)
- ROLLED EROSION CONTROL PRODUCTS (SS-7)

DESCRIPTION: ELEVATIONS SHOWN ARE ON THE NAVDB8 DATUM, DETERMINED LOCALLY BY POINT CV GPS5095 AS SHOWN ON THE PUBLISHED CITY OF CHULA VISTA GEODETIC CONTROL NETWORK RECORD OF SURVEY

WOOD MULCH (SS-8)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STATEMENT

DEVELOPMENT OF THIS PROJECT SHALL COMPLY WITH ALL REQUIREMENTS OF STATE WATER RESOURCES CONTROL BOARD (SWRCB) (NPDES GENERAL PERMIT NO. CASO00002, WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES OF STORM WATER RUNOFF ASSOCIATED WITH DISCHARGE REQUIREMENTS FOR DISCHARGES OF STORM WATER RUNGET ASSOCIATED WITH CONSTRUCTION ACTIVITY). IN ACCORDANCE WITH SAID PERMIT, A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND A MONITORING PROGRAM PLAN SHALL BE DEVELOPED AND IMPLEMENTED CONCURRENT WITH THE COMMENCEMENT OF GRADING ACTIVITIES. THE SWPPP SHALL SPECIFY BOTH CONSTRUCTION AND POST-CONSTRUCTION STRUCTURAL AND NON-STRUCTURAL POLLUTION PREVENTION MEASURES. THE SWPPP SHALL ASSOCIATED AND MAINTENANCE OF POST-CONSTRUCTION POLLUTION PREVENTIONS MEASURES. NCLUDING SHORT-TERM AND LONG-TERM FUNDING SOURCES AND THE PARTY OR PARTIES THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION OF SAID MEASURES.

A COMPLETE AND ACCURATE NOTICE—OF—INTENT (NOI) WILL BE FILED WITH THE SWRCB. A COPY OF THE ACKNOWLEDGMENT FROM THE SWRCB THAT A NOI HAS BEEN RECEIVED FOR THIS PROJECT SHALL BE FILED WITH THE CITY OF CHULA VISTA WHEN RECEIVED; FURTHER, A COPY OF THE COMPLETED NOI FROM THE SWRCB SHOWING THE PERMIT NUMBER FOR THIS PROJECT SHALL BE FILED WITH THE CITY OF CHULA VISTA WHEN RECEIVED.

IN ADDITION, THE UNDERSIGNED AND SUBSEQUENT OWNER(S) OF ANY PORTION OF THE PROPERTY COVERED BY THIS GRADING PERMIT NO. PG -_____ SHALL COMPLY WITH SPECIAL PROVISIONS REGARDING THE REVOCATION OF CANCELLATION OF NPDES GENERAL PERMIT COVERAGE, AS SET FORTH IN SWROB ORDER NO. CASO00002, AND ANY SUBSEQUENT AND ADDITIONAL PROPERTY OF THE AMENDMENTS THERETO AND REISSUANCES THEREOF.

OWNER OF LAND SIGNATURE OF LAND OWNER, CORPORATE OFFICE, GENERAL PARTNER, OR PROPRIETOR DATE PRINTED NAME OF ABOVE PERSON

ABBREVIATIONS

PERMIT IDENTIFICATION NUMBER

APPROX AC	APPROXIMATE ASPHALT CONCRETE	FS FG	FINISH SURFACE FINISH GRADE	RC	RELATIVE COMPACTION
AB	AGGEGRATE BASE	FL	FLOW LINE	RIM	RIM ELEVATION
BW	BOTTOM OF WALL	GB	GRADE BREAK	RT	RIGHT
CB	CATCH BASIN	HDPE	HIGH DENSITY	S	SLOPE
CI	CURB INLET		POLYETHYLENE	SD	STORM DRAIN
C&G	CURB AND GUTTER	HP	HIGH POINT	SDRSD	SAN DIEGO REGIONA
CONC	CONCRETE	LF	LINEAR FEET		STANDARD DRAWING
CL	CENTER LINE	ĹΤ	LEFT	SF	SQUARE FEET
CP	CENTER POINT	MAX	MAXIMUM	SS	SANITARY SEWER
DIA	DIAMETER	MIN	MINIMUM	STA	STATION
DWG	DRAWING	MH	MANHOLE	TC	TOP OF CURB
DG	DECOMPOSED	OD	OUTSIDE DIAMETER	TF	TOP OF FOOTING
	GRANITE	OH	OVERHEAD	TG	TOP OF GRATE
ELEV	ELEVATION	PL	PROPERTY LINE	TP	TOP OF PIPE
EP	EDGE OF PAVEMENT	PVT	PRIVATE	TOS	TOP OF SLOPE
EX	EXISTING	PCC	PORTLAND CEMENT	TW	TOP OF WALL
FF	FINISH FLOOR		CONCRETE	TYP	TYPICAL
IE	INVERT ELEVATION	R/W	RIGHT-OF-WAY	W/	WITH
ID	INSIDE DIAMETER	,		,	

PRECONSTRUCTION CONFERENCE

THE CONTRACTOR SHALL NOT BEGIN ANY WORK ON THIS PROJECT UNTIL A PRECONSTRUCTION CONFERENCE IS HELD WITH THE ENGINEER OF WORK, THE SOILS ENGINEER, ENGINEERING GEOLOGIST, A QUALIFIED PALEONTOLOGICAL MONITOR, A BOTANIST, THE DEVELOPER, THE CITY,

CONTRACTOR'S NOTE

UNAUTHORIZED CHANGES & USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

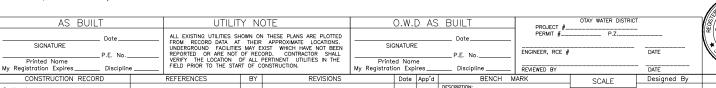
THE CONTRACTOR SHALL FURNISH TO THE ENGINEER OF WORK, AS-BUILT PLANS FOR ALL NEW IMPROVEMENTS AND GRADING SHOWN ON THESE PLANS FOR SUBMITTAL TO THE CITY ENGINEER FOR APPROVAL IN ACCORDANCE WITH SECTION 15.04.140 OF THE CHULA VISTA MUNICIPAL CODE.

Submitted

CONTRACTOR NOTES

THE FOLLOWING NOTES ARE PROVIDED TO GIVE DIRECTION TO THE CONTRACTOR BY THE ENGINEER OF

- NEITHER THE OWNER, NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, SDG&E, AND BYCI SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
- 2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE, SPREAD, MOISTURE CONDITION AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE, SPREAD, MOISTURE CONDITION AND COMPACT ALL FILL IN STRICT ACCORDANCE WITH BLACK & VEATCH'S SPECIFICATIONS. A GEOTECHNICAL ENGINEER SHALL BE THE OWNER'S REPRESENTATIVE TO OBSERVE THE CONSTRUCTION OF FILLS. THE EXCAVATION AND THE PLACEMENT OF FILL SHALL BE UNDER THE DIRECT OBSERVATION OF THE GEOTECHNICAL ENGINEER, AND HE SHALL GIVE WRITEN NOTICE OF CONFORMANCE WITH THE SPECIFICATIONS UPON COMPLETION OF GRADING. DEVIATIONS FROM SDG&E'S SPECIFICATIONS WILL BE PERMITTED ONLY UPON WRITTEN AUTHORIZATION FROM THE
- 3. OBSERVATIONS AND COMPACTION TESTS SHALL BE MADE BY THE GEOTECHNICAL ENGINEER DURING THE FILLING AND COMPACTING OPERATIONS SO THAT HE CAN STATE HIS OPINION THAT THE FILL WAS CONSTRUCTED IN ACCORDANCE WITH PROJECT'S SPECIFICATIONS.
- 4. DURING CONSTRUCTION: THE CONTRACTOR SHALL GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER. THE CONTRACTOR SHALL CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISH WORK ON THE SITE. THE CONTRACTOR SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS, AND UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES
- 5. AFTER GRADING IS COMPLETED AND THE GEOTECHNICAL ENGINEER HAS FINISHED HIS OBSERVATIONS OF THE WORK, NO FURTHER GRADING SHALL BE DONE EXCEPT UNDER THE OBSERVATIONS OF THE GEOTECHNICAL ENGINEER.
- CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING THE GRADING OPERATIONS.
- 7. CUT SLOPES SHALL BE SERRATED AND LEFT ROUGH. FILL SLOPES SHALL BE OVERBUILT BY AT LEAST 3 FEET AND CUT BACK TO DESIRED SLOPE. FILL SLOPES SHALL BE TRACK WALKED AT LEAST TWICE OR MORE AS NEEDED TO ACHIEVE SATISFACTORY COMPACTION OF THE SLOPE FACE.
- 8. WHERE TRENCHES ARE WITHIN EASEMENTS, STREETS, OR 10 FEET OF ANY BUILDING, SOILS REPORTS SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED GEOTECHNICAL ENGINEER WHICH INDICATE THAT TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION AND TESTING OF THE GEOTECHNICAL ENGINEER AND IN ACCORDANCE WITH THE ABOVE NAMED SPECIFICATIONS.
- 9. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.
- 10. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EMISTING FACILITIES.
- 11. CONTRACTOR SHALL NOTIFY THE RESPECTIVE UTILITY COMPANIES PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES. BEFORE EXCAVATING, VERIFY LOCATION OF EXISTING ELECTRICAL, GAS, TELEPHONE, CATV AND ALL OTHER UTILITIES. CONTACT UNDERGROUND SERVICE ALERT AT (800) 422-4133.
- 12. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHERS NOT ON RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
- 13. FILL AND CUT SLOPES ARE 2:1 HORIZONTAL TO VERTICAL UNLESS OTHERWISE NOTES
- 14. ALL ON SITE IMPROVEMENTS ARE PRIVATE. ALL TREES, BRUSH, GRASS, AND OTHER OBJECTIONABLE MATERIAL TO BE REMOVED SHALL BE COLLECTED AND DISPOSED OF BY THE CONTRACTOR OFF THE SITE SO AS TO LEAVE THE AREAS THAT HAVE BEEN CLEARED WITH A NEAT AND FINISHED APPEARANCE AND FREE FROM UNSIGHTLY DEBRIS.
- 15. THE ELEVATIONS SHOWN ON THE PLANS REPRESENT THE FINISH SURFACE ELEVATIONS OF ROADS, PAVEMENTS, AGGREGATE SURFACING, FLOOR SLABS ON-GRADE, AND LANDSCAPED AREAS UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL MAKE ALLOWANCES FOR THE THICKNESS OF PAVING MATERIALS, CONCRETE SLABS, AND TOPSOIL.
- 16. Grading shall be done within a tolerance of (+/-)0.1' of the grades and elevations shown on these plans and all slopes shall be constructed within 0.5'(+/-) of the location shown on these plans. In no way shall the above tolerances relieve the contractor of the responsibility of providing a finish that will not pond water.
- 17. ANY QUANTITIES INDICATED ON THESE PLANS ARE ENGINEERS' ESTIMATES ONLY AND ARE NOT TO
- 18. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND/OR BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT.
- 19. PRIOR TO START OF CONSTRUCTION, CONTRACTOR TO FIELD VERIFY JOIN LOCATION AND ELEVATIONS OF ALL STORM DRAIN, SEWER, AND WATER FACILITIES.





Plans Prepared Under Supervision Of



NOLTE VERTICALFIVE ENGINEERING DEPARTMENT Drawing No.

XXXXXX-02

W.O. No. XX-XXXX PRELIMINARY NOT FOR CONSTRUCTION O.W.D. NO. XXXX

Contractor

Date Completed

OTAY WATER DISTRICT WATER NOTES:

- WATER MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND THE CURRENT APPROVED WATER AGENCIES' STANDARDS.
- OTAY DISTRICT INSPECTION SHALL RECEIVE THE CONSTRUCTION SCHEDULE AT LEAST FIVE (5) WORKING DAYS IN ADVANCE OF THE START OF CONSTRUCTION. WORK DONE WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REMOVAL AT THE CONTRACTOR'S EXPENSE. THE TELEPHONE NUMBER OF OTAY WATER DISTRICT INSPECTION IS (619) 670-2203.
- CONSTRUCTION SHALL NOT START UNTIL THE SUBDIVISION AGREEMENT HAS BEEN EXECUTED BETWEEN THE OTAY WATER DISTRICT AND THE DEVELOPER AND A PRE-CONSTRUCTION MEETING HAS BEEN HELD WITH THE OTAY WATER DISTRICT'S INSPECTION DEPARTMENT.
- 4. THE CONTRACTOR SHALL POTHOLE ALL TIE—IN LOCATIONS BEFORE PIPE INSTALLATION TO DETERMINE PIPE SIZE AND MATERIAL, ELEVATION, AND IF TIE—IN CAN BE MADE AT THE LOCATION INDICATED. THE CONTRACTOR SHALL ALSO POTHOLE ALL EXISTING UTILITIES THAT MAY INTERFERE WITH THE TIE—IN LOCATION AND EXPOSE PIPE A MINIMUM OF 3—FEET ON EACH SIDE OF THE CONNECTION POINT TO ASSURE THAT NO COLLARS ARE IN THE TAP AREA. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OTAY WATER DISTRICT'S ENGINEERING DEPARTMENT, PUBLIC SERVICES PRIOR TO PROCEEDING.
- WATER PRESSURE REGULATORS WILL BE REQUIRED. THE INSTALLATION AND MAINTENANCE OF REGULATORS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
- APPROVAL OF THE PLANS BY THE OTAY WATER DISTRICT DOES NOT CONSTITUTE RESPONSIBILITY FOR ACCURACY OF INFORMATION NOR LOCATIONS OF EXISTING FACILITIES.
- 7. THE DEVELOPER AGREES THAT IF IT'S EMPLOYEES, AGENTS, OR ANY INDEPENDENT CONTRACTORS AND SUBCONTRACTORS SHOULD USE WATER OTHER THAN THROUGH AN AUTHORIZED WATER METER, THE DEVELOPER SHALL PAY \$1,000 PER OCCURRENCE FOR SAID USE. SAID PAYMENT MAY BE DEDUCTED FROM ANY DEPOSIT THE DEVELOPER HAS WITH THE OTAY WATER DISTRICT.
- 8. NO PERSON, OTHER THAN AN EMPLOYEE OF AGENT OF THE OTAY WATER DISTRICT, SHALL HAVE ANY RIGHT TO OPERATE ANY PART OF THE WATER DISTRIBUTION SYSTEM. ANY PERSON WHO TAMPERS OR INTERFERES WITH ANY PART OR COMPONENT OF SAID SYSTEM, OR CAUSES OR PERMITS ANY ACT OF TAMPERING OR INTERFERING WITH THE SYSTEM, SHALL BE LIABLE FOR ANY INJURY OR DAMAGE CAUSED THEREBY OR RESULTING THEREFROM. IN ADDITION, A \$5,000 CHARGE PER OCCURRENCE WILL BE IMPOSED ON ANY PERSON OR COMPANY WHO OPERATES ANY PART OF THE OTAY WATER DISTRICT WATER DISTRIBUTION SYSTEM WITHOUT PROPER WRITTEN AUTHORIZATION.
- 9. NO MORE THAN 70 EQUIVALENT DWELLING UNITS CAN BE ON AN UNLOOPED SYSTEM.
- 10. NO MORE THAN 1,320 FEET OF MAIN SHALL BE IN USE WITHOUT LOOPING TO A SECOND SOURCE. THE WATER MAIN SHALL BE DESIGNED AND INSTALLED SO THAT IT TERMINATES AT A LOT LINE AND NOT WITHIN A LOT OR OTHERWISE APPROVED BY THE OTAY WATER DISTRICT
- 11. THRUST BLOCK SIZING ASSUMES A SOIL BEARING CAPACITY OF 1,500 PSF. SHOULD FIELD CONDITIONS INDICATE A LESSER SOIL BEARING CAPACITY, NOTIFY THE OTAY WATER DISTRICT'S ENGINEERING DEPARTMENT, PUBLIC SERVICES.
- 12. THE TOP OF POTABLE WATER MAINS 12-INCHES IN DIAMETER AND SMALLER MUST BE 3.5 FEET BELOW FINISHED GRADE. THE TOP OF RECYCLED WATER MAINS 12- INCHES IN DIAMETER AND SMALLER MUST BE AT LEAST 4.5 FEET BELOW FINISHED GRADE. ALL WATER MAINS 16-INCHES IN DIAMETER AND LARGER MUST HAVE AN ADDITIONAL 1-FOOT OF COVER. THE TOP OF PIPE ELEVATIONS SHALL BE PROVIDED ON THE PROFILE EVERY 100 FEET. PIPELINES MUST BE THE CLASS AS SHOWN AND CONSTRUCTED ACCORDING TO THE APPROVED PLANS WITH A HORIZONTAL TOLERANCE OF 0.15 FEET AND A VERTICAL TOLERANCE OF 0.10 FEET.
- 13. EVERY RESIDENTIAL LOT MUST BE SERVED BY A 1-INCH COPPER SERVICE (WAS DWG WS-01). ALL OTHER LOTS MUST BE SERVED WITH A MINIMUM 2-INCH COPPER SERVICE (WAS DWG WS-02). CATHODIC PROTECTION WILL BE REQUIRED ON ALL NEW COPPER SERVICES (WAS DWG WC-17), ADDITIONALLY, ALL SACRIFICIAL ANODES SHALL BE TESTED FOR OPERATION AND A REPORT ISSUED BY THE DEVELOPER'S CORROSION ENGINEER. SERVICE SADDLES SHALL BE A MINIMUM 2.0 FEET AWAY FROM OTHER SADDLES AND OR JOINTS MULTIPLE SADDLES ON THE SAME PIPE LENGTH SHALL BE ALTERNATELY STAGGERED 10 TO 30 DEGREES TO PREVENT A WEAK PLANE IN THE PIPE.
- 14. FOR CONNECTIONS TO EXISTING WATER MAINS, THE OTAY WATER DISTRICT WILL PERFORM THE WET TAP OR CUT—IN ONLY. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND BE RESPONSIBLE FOR ALL FACETS OF WORK TO COMPLETE INSTALLATION. THIS ILLUDES BUT IS NOT LIMITED TO, EXCAVATION BY HAND OR MACHINE, CONNECTION TO NEW STUBS, POURING OF THRUST AND ANCHOR BLOCKS, INSTALLATION OF GATE CASING, PAINTING AND WRAPPING OF FITTINGS, BACKFILL AND COMPACTION OF TRENCH AREA, AND NECESSARY PADVEMENT PEPDING.
- 15. A MINIMUM OF 24-INCHES OF PERMANENT BACKFILL SHALL BE INSTALLED OVER THE WATER MAIN PRIOR TO ANY TESTING.

DEPARTMENT OF ENVIRONMENTAL HEALTH RECYCLED WATER NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH OTAY WATER DISTRICT'S RULES AND REGULATIONS.
- 2. DRINKING WATER FOUNTAINS AND DESIGNATED OUTDOOR EATING AREAS SHALL BE PROTECTED AGAINST CONTACT WITH RECYCLED WATER SPRAY, MIST, OR RUNOFF.
- 3. BEST MANAGEMENT PRACTICES SHALL BE USED TO ELIMINATE OR CONTROL TO THE BEST EXTENT POSSIBLE PONDING, RUN-OFF, OVER-SPRAY AND MISTING.
- 4. HOSE BIBS ARE STRICTLY PROHIBITED.
- 5. CROSS-CONNECTIONS BETWEEN RECYCLED WATERLINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED.
- NO SUBSTITUTIONS OF PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE OTAY WATER DISTRICT.
- 7. ALL MAINLINE PIPES SHALL HAVE WARNING TAPE PER OTAY WATER DISTRICT'S RULES
- 8. HOURS FOR IRRIGATION WITH RECYCLED WATER ARE FROM 9:00 P.M. TO 6:00 A.M. THE HOURS FOR IRRIGATION WITH DISINFECTED TERTIARY RECYCLED WATER MAY HE MODIFIED BY THE LOCAL AUTHORITY. IRRIGATION DURING PUBLIC USE PERIODS WITH DISINFECTED TERTIARY RECYCLED WATER SHALL BE UNDER THE SUPERVISION OF THE DESIGNATED USER SUPERVISOR. IRRIGATION WITH WATER OF A LESSER QUALITY THAN DISINFECTED TERTIARY RECYCLED WATER SHALL BE BETWEEN THE HOURS OF 9:00 P.M. AND 6:00 A.M.
- 9. BURIAL OF ALL WIRING AND PIPING SHALL MEET OTAY WATER DISTRICT'S RULES AND REGULATIONS.
- 10. NON-DESIGNATED USE AREAS SHALL BE PROTECTED FROM CONTACT WITH RECYCLED WATER, WHETHER BY WINDBLOWN SPRAY OR BY DIRECT APPLICATION THROUGH IRRIGATION OR OTHER USE. LACK OF PROTECTION, WHETHER BY DESIGN, CONSTRUCTION PRACTICE OR SYSTEM OPERATION. IS STRICTLY PROHIBITED.
- 11. IRRIGATION HEADS SHALL BE RELOCATED OR ADJUSTED TO MINIMIZE OR ELIMINATE OVER-SPRAYING ON SIDEWALKS, STREETS AND NON-DESTGNATED USE AREAS.
- 12. RECYCLED WATER QUICK COUPLING VALVES SHALL BE OF A TYPE DESIGNED FOR THE USE ON RECYCLED WATER DISTRIBUTION SYSTEMS PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.
- 13. ON RECYCLED WATER SYSTEMS, ALL APPURTENANCES (SPRINKLER HEADS, VALVE BOXES, ETC.) SHALL BE COLOR-CODED PURPLE PER AWMA GUIDELINES AND SECTION 116815 OF THE CALIFORNIA HEALTH AND SAFETY CODE.
- 14. ALL IRRIGATION PIPES SHALL BE STENCILED WITH THE WARNING, "NON- POTABLE OR RECYCLED WATER," COLOR-CODED (PURPLE) AND LAID WITH WARNING TAPE AND STENCILING ORIENTED TOWARD THE TOP OF THE TRENCH PER OTAY WATER DISTRICT'S RILES AND REGILLATIONS
- 15. ON NEW ON-SITE SYSTEMS (POST-METER), POTABLE WATER, CONSTANT PRESSURE RECYCLED WATER AND SEWER LINES SHOULD BE PLACED A MINIMUM OF FOUR FEET APART OR AS DIRECTED BY THE PROJECT ENGINEER AND/OR REGULATORY AGENCY. MEASUREMENTS SHALL BE BETWEEN FACING SURFACES, NOT PIPE CENTERLIES.
- 16. CONSTANT PRESSURE RECYCLED WATERLINES SHALL CROSS AT LEAST TWELVE INCHES BELOW POTABLE WATERLINES AND MAINTAIN AT LEAST TWELVE INCHES CROSSING SEPARATION BETWEEN OTHER UTILITIES.
- 17. IF A CONSTANT PRESSURE RECYCLED WATER LINE MUST BE INSTALLED ABOVE A POTABLE WATER LINE OR LESS THAN TWELVE INCHES BELOW A POTABLE WATER LINE, THEN THE RECYCLED WATER LINE SHALL BE INSTALLED WITHIN AN APPROVED PROTECTIVE SLEEVE AS PER THE OTAY WATER DISTRICT'S RULES AND REGULATIONS.
- 18. DEVELOPER/CONTRACTOR SHALL CONDUCT A CROSS-CONNECTION TEST AND COVERAGE TEST AS DIRECTED BY OTAY WATER DISTRICT AND THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH PRIOR TO ANY USE OF RECYCLED WATER.
- 19. THE REQUIRED CROSS-CONNECTION INSPECTION SHALL BE DONE BY EITHER OTAY WATER DISTRICT AND/OR THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH. COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY.
- 20. THE DESIGN AND LOCATIONS PROPOSED FOR RECYCLED WATER "DO NOT DRINK" SIGNS SHALL BE CALLED OUT ON THE PLANS.

Horizontal

AS SHOWN

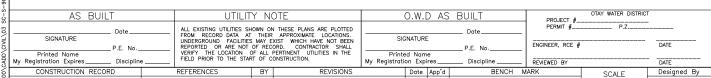
DESCRIPTION: LELVATIONS SHOWN ARE ON THE NAVD88 DATUM, DETERMINED LOCALLY BY POINT CV GPS5095 AS SHOWN ON THE PUBLISHED CITY OF CHULA VISTA GEODETIC CONTROL NETWORK RECORD OF SURVEY

DEPARTMENT OF ENVIRONMENTAL HEALTH RECYCLED WATER NOTES CONTINUED

- 21. WHEN RECYCLED WATER BECOMES AVAILABLE, AN ON-SITE USER SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEMS WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW/CROSS-CONNECTION PROTECTION, THE RECYCLED PURVEYOR'S RULES AND REGULATIONS AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM, COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO THE NAME OF WATER DISTRICT AND/OR THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH. IN CASE OF EMERGENCY CONTACT

 NAME

 PHONE NUMBER
 - OR AFTER HOURS CONTACT _____AT___
- 22. ALL PUBLIC AND PRIVATE POTABLE WATER MAINS INCLUDING FIRE MAINS AND ANY WATER WELLS AND WATER COURSES WITHIN THE RECYCLED WATER PROJECT SHALL BE SHOWN ON THE PLANS.
- 23. CALL OUT ON THE PLANS IF THERE ARE OR ARE NOT DRINKING FOUNTAINS AND/OR DESIGNATED OUTDOOR EATING AREAS ON THIS SITE.
- 24. EDUCATE ALL MAINTENANCE PERSONNEL ON A CONTINUOUS BASIS OF THE PRESENCE OF RECYCLED WATER. PERSONNEL MUST BE INFORMED THAT RECYCLED WATER IS MEANT FOR IRRIGATION PURPOSES ONLY, AND IS NOT APPROVED FOR DRINKING PURPOSES, HAND WASHING, CLEANING OF TOOLS, ETC. GIVEN THE HIGH TURNOVER RATE OF EMPLOYEES IN THE LANDSCAPE INDUSTRY IT IS IMPORTANT THIS INFORMATION BE DISSEMINATED ON AN ALMOST DAILY BASIS.
- 25. A PHYSICAL SEPARATION SHALL BE PROVIDED BETWEEN ADJACENT AREAS IRRIGATED WITH RECYCLED WATER AND POTABLE WATER. SEPARATION SHALL BE PROVIDED BY DISTANCE, CONCRETE MOW STRIPS OR OTHER APPROVED METHODS.





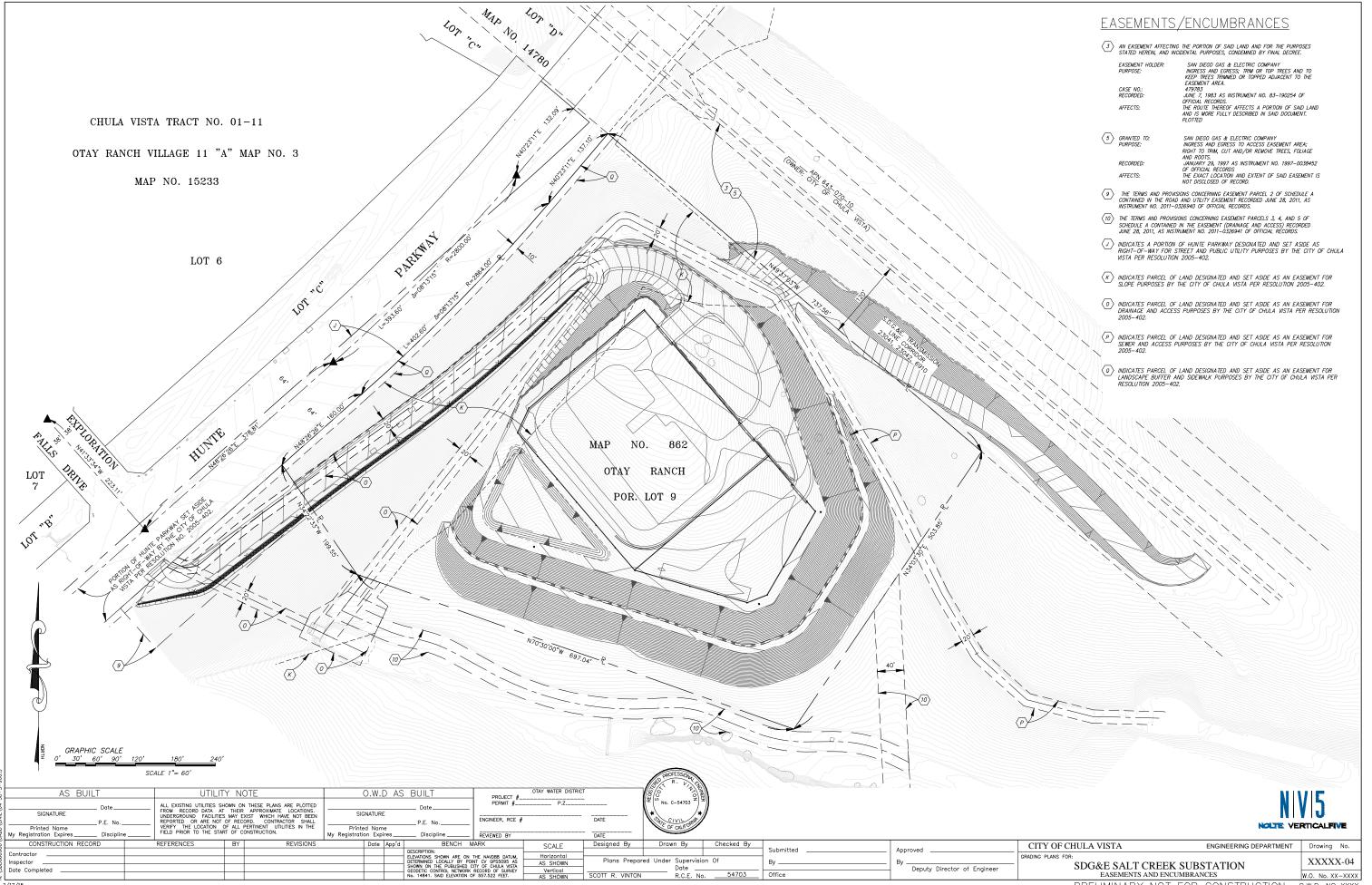
Plans Prepared Under Supervision Of

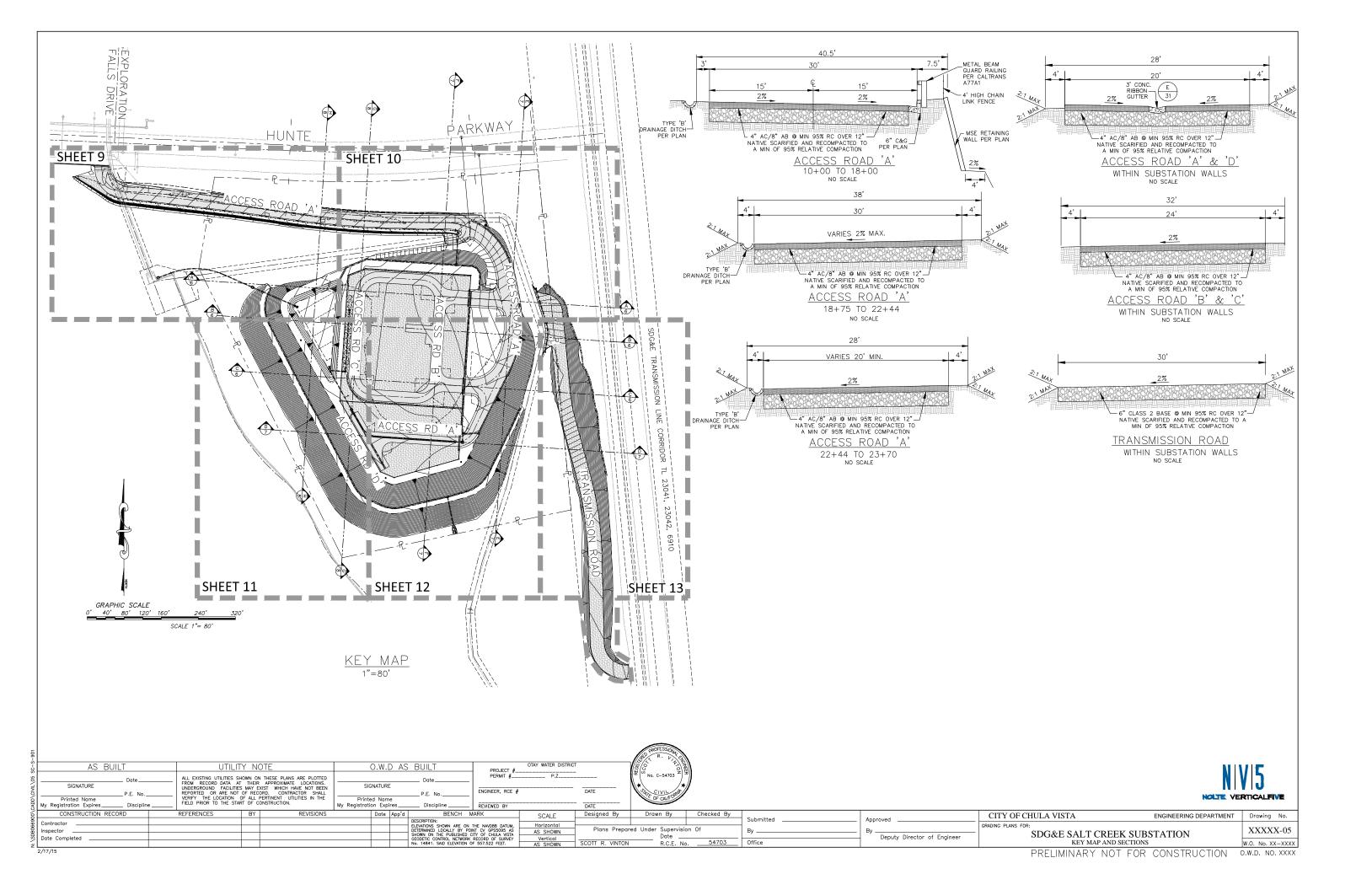
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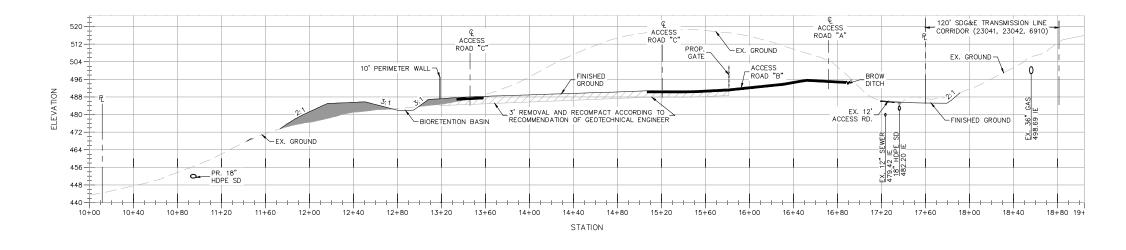
Contractor

Date Completed





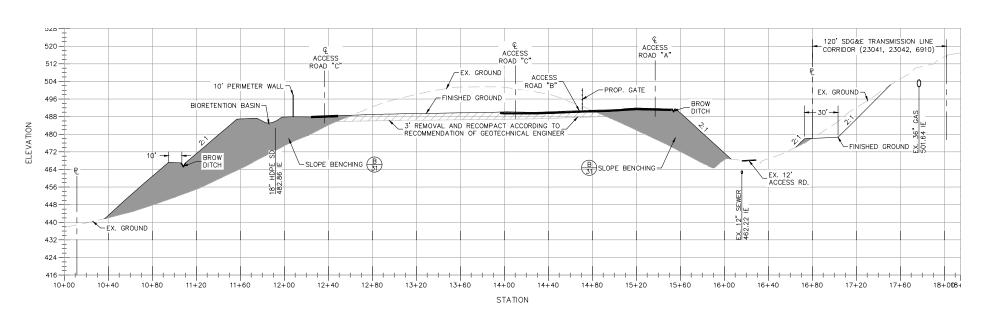
SECTION A-A SCALE: 1'=40'(H) 1"=8 (V)



SECTION B-B SCALE: 1'=40'(H) 1"=8 (V)

120' SDG&E TRANSMISSION LINE CORRIDOR (23041, 23042, 6910) © _ ACCESS _ROAD "C" ACCESS ROAD "B" EX. GROUND 512 10' PERIMETER 504-10' PERIMETER WALL-BROW DITCH EX. GROUND -Q 496-BIORETENTION BASIN-488 _ 3' REMOVAL AND RECOMPACT ACCORDING TO _ RECOMMENDATION OF GEOTECHNICAL ENGINEER 480 EX. 12' 7 ACCESS RD. FINISHED GROUND 5 6 └-18" HDPE SD 472 36, 464 井 BROW DITCH 456 🛨 SLOPE BENCHING B 448 EX. GROUND 440 435 10+40 10+80 11+20 11+60 12+00 12+40 12+80 13+20 13+60 14+00 14+40 14+80 15+20 15+60 16+00 16+40 16+80 17+20 17+60 18+00 STATION

SECTION C-C SCALE: 1'=40'(H) 1"=8 (V)

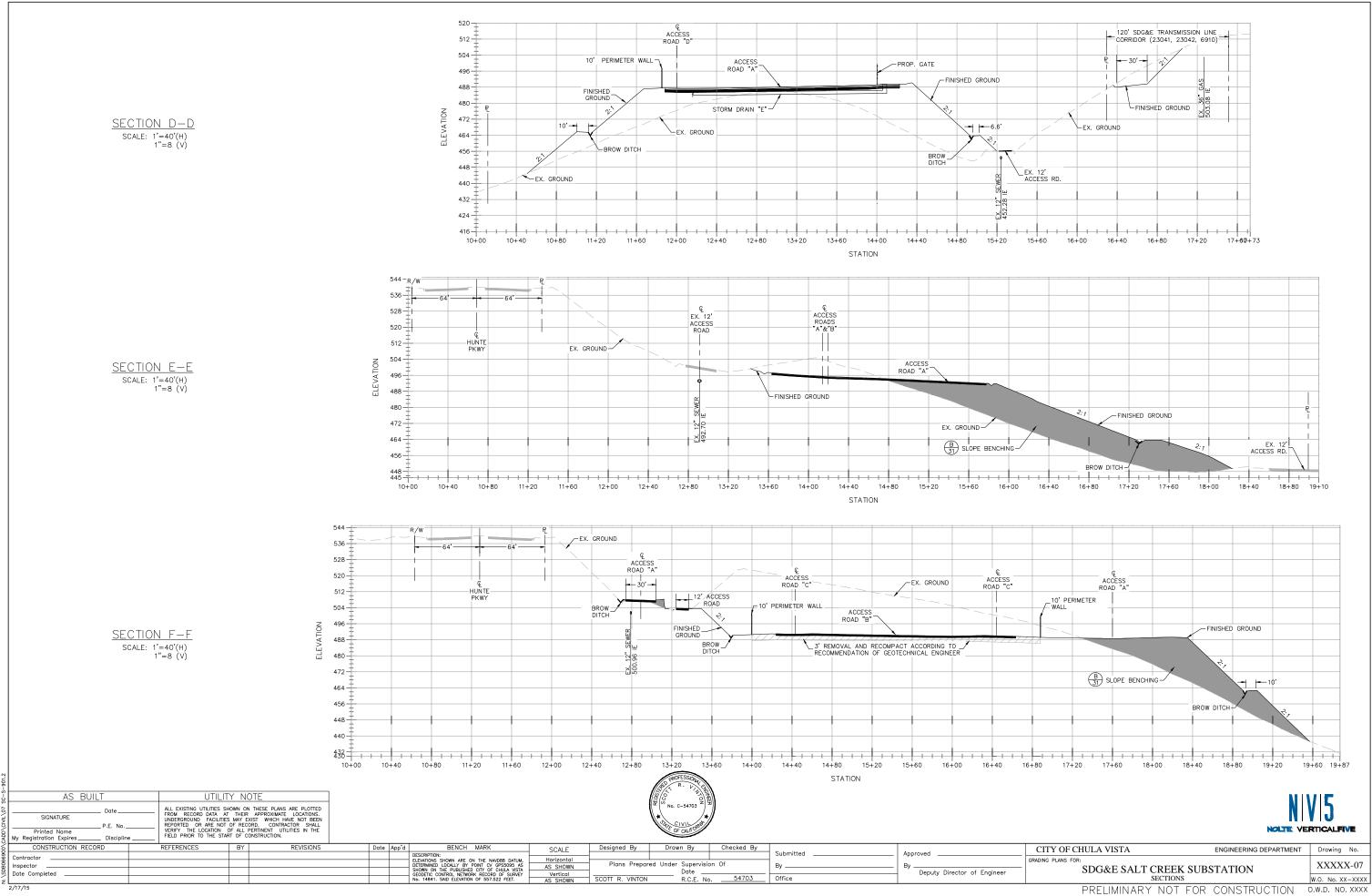


SC-S	AS BUILT	UTILITY NOTE
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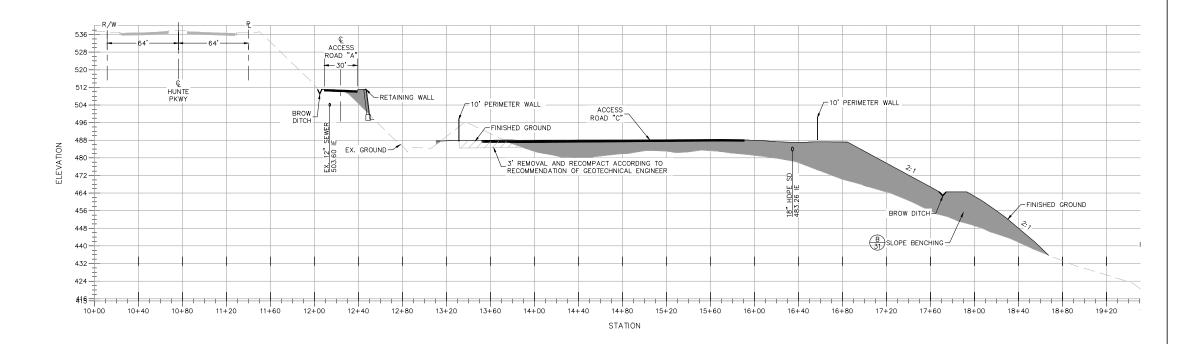


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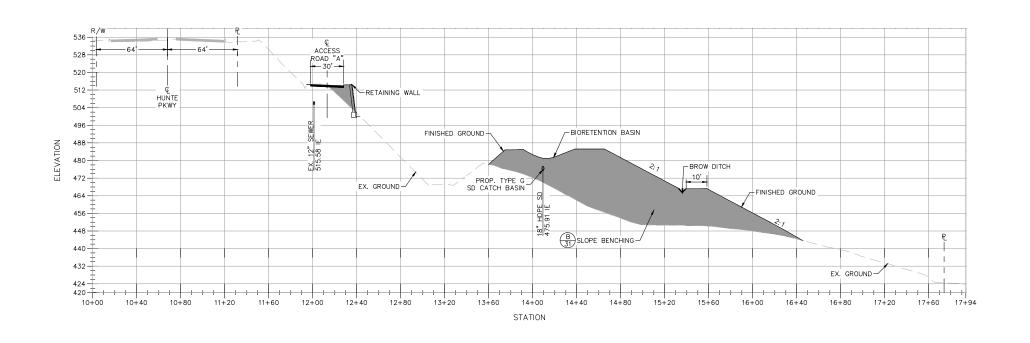
₹ My	Registration Expires Discipline													
<u> </u>	CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date App'd	BENCH MARK	SCALE	Designed By	Drawn By	Checked By			CITY OF CHULA VISTA ENGINEERING DEPARTMEN	NT Drawing No.
© Con	tractor					DESCRIPTION: ELEVATIONS SHOWN ARE ON THE NAVD88 DATUM.	Horizontal				Submitted	Approved	GRADING PLANS FOR:	
음 Insp	ector					DETERMINED LOCALLY BY POINT CV GPS5095 AS SHOWN ON THE PUBLISHED CITY OF CHUIA VISTA	AS SHOWN	Plans Prepa	red Under Supervis	sion Of	Ву	By	SDG&E SALT CREEK SUBSTATION	XXXXX-06
Date	Completed					GEODETIC CONTROL NETWORK RECORD OF SURVEY No. 14841. SAID ELEVATION OF 557.522 FEET.	Vertical AS SHOWN	SCOTT R. VINTON	Date _	No. 54703	Office	Deputy Director of Engineer	SECTIONS	W.O. No. XX-XXXX
Z	45						AS SHOWN							



SECTION G-G SCALE: 1'=40'(H) 1"=8 (V)



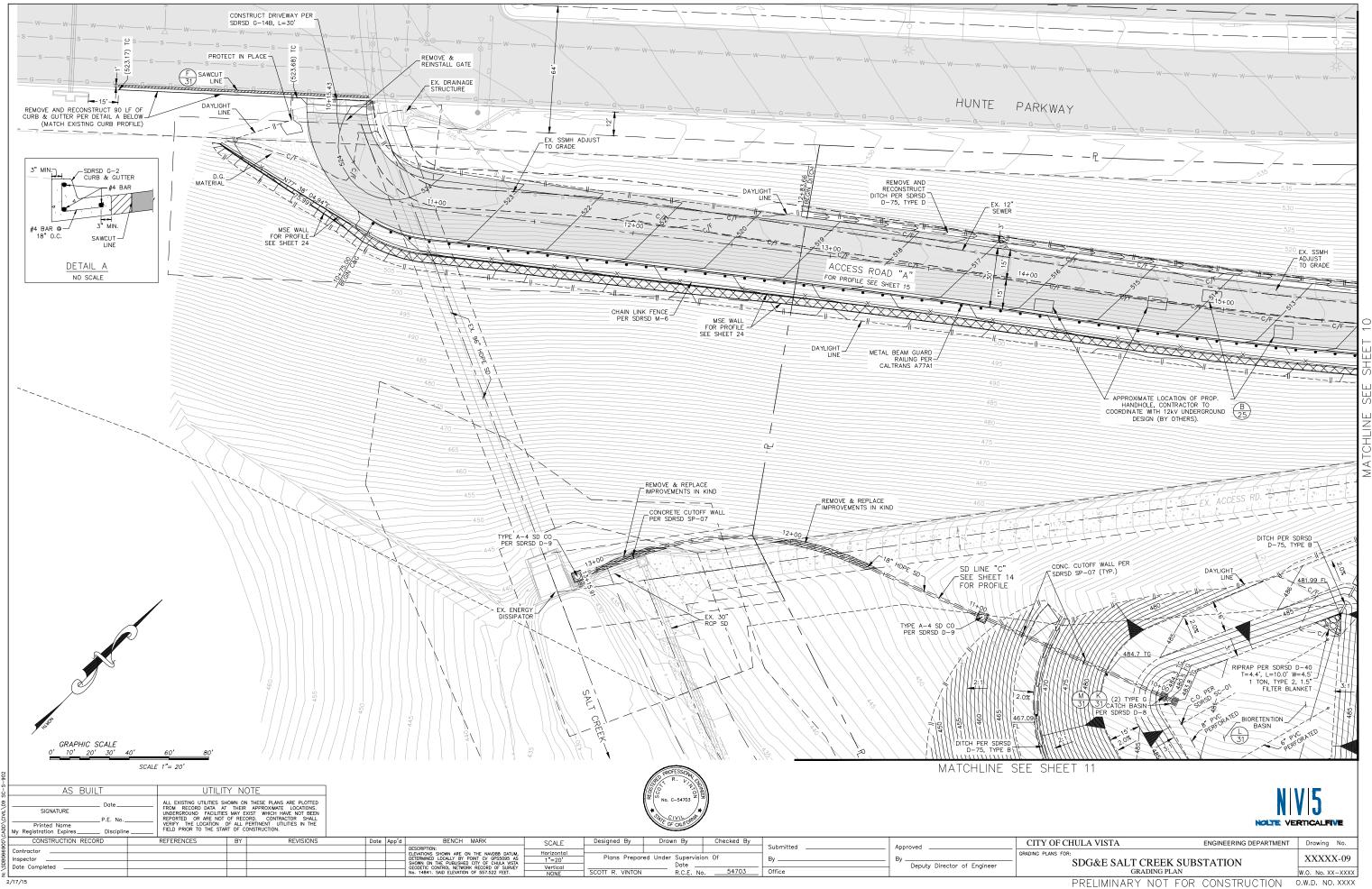
SECTION H-H
SCALE: 1'=40'(H)
1"=8 (V)

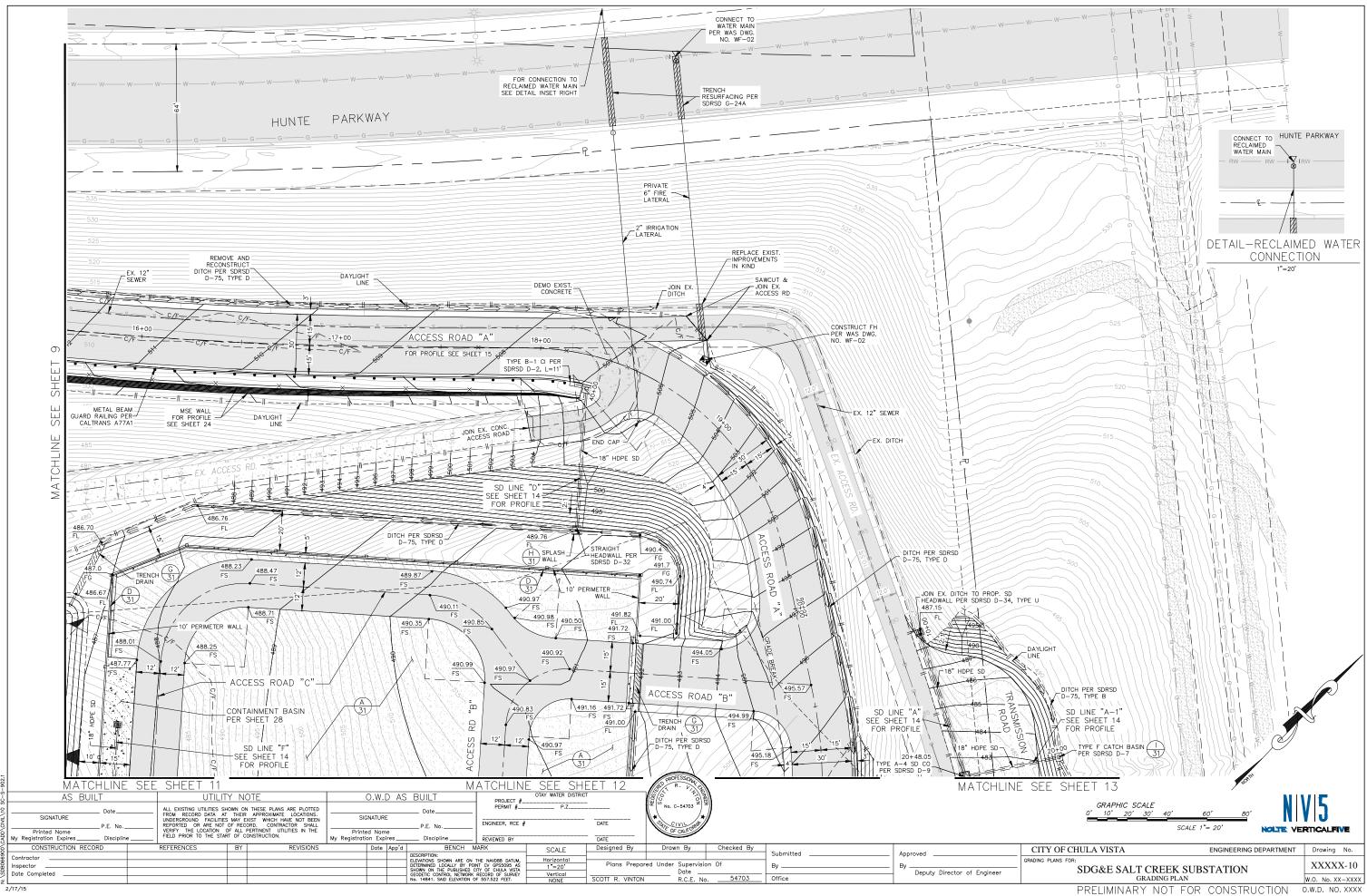


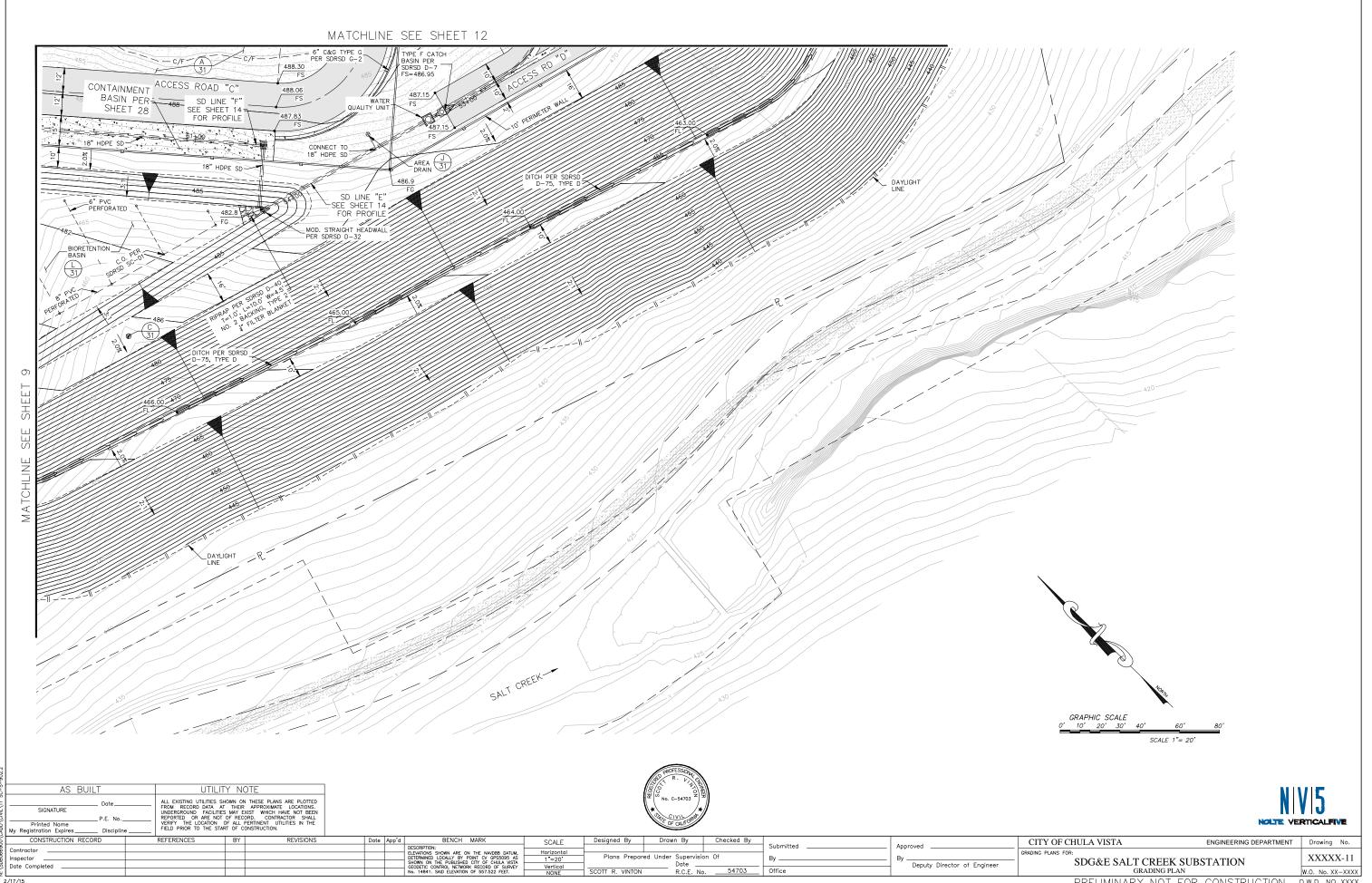
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SC-S	AS BUILT	UTILITY NOTE
CADD\CIVIL\08 S		ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE PLOTTED FROM RECORD DATA AT THEIR APPROXIMATE LOCATIONS. UNDERGROUND FACILITIES MAY EXIST WHICH HAVE NOT BEEN REPORTED OR ARE NOT OF RECORD. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PERTINENT UTILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.
_	CONCEDITORION DECODE	DEFEDENCES DV DEVICIONS

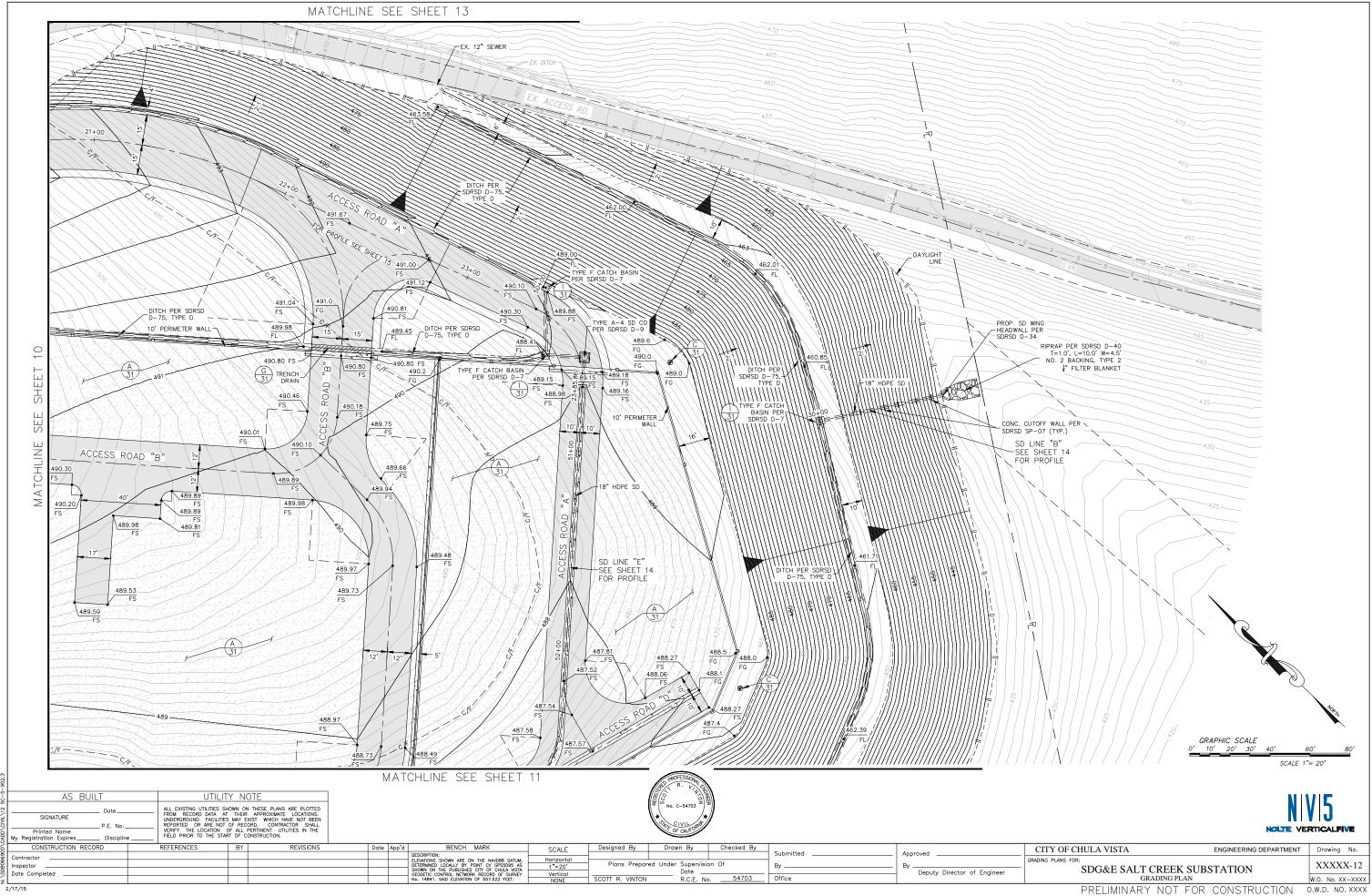
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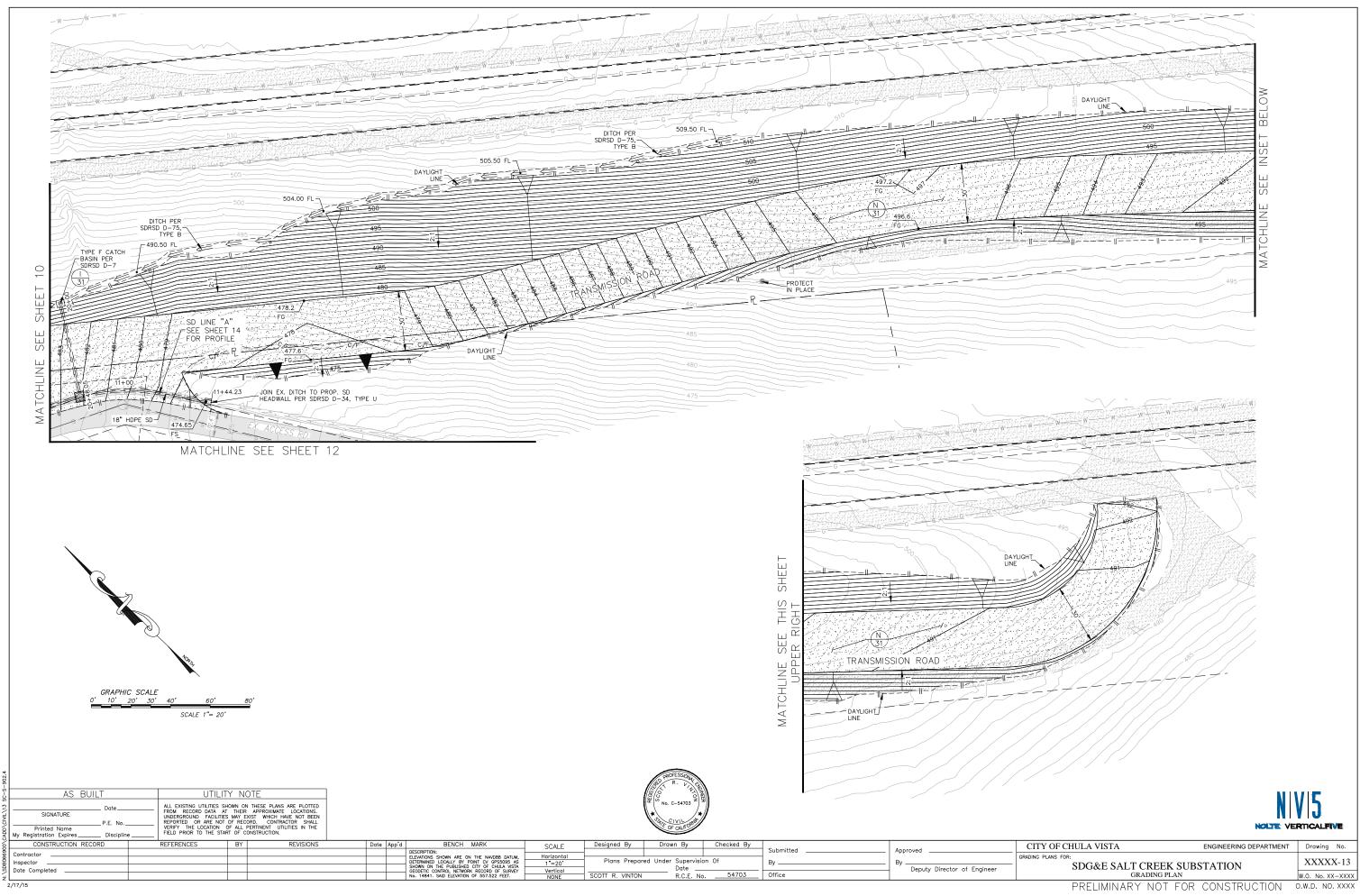
CONSTRUCTION RECORD REFERENCES BY REVISIONS	Date App'd BENCH MARK SCALE	Designed By Drawn By Checked By		CITY OF CHULA VISTA ENGINEERING DEPARTMENT	Drawing No.
Contractor Inspector Date Completed	DESCRIPTION: ELEVATIONS SHOWN ARE ON THE NAVDBB DATUM, DETERMINED LOCALLY BY POINT OV GPS5095 AS SHOWN ON THE PUBLISHED CITY OF CHULA WISTA GEODETIC CONTROL NETWORK RECORD OF SURVEY No. 14841. SAD ELEVATION OF 957-322 FEET. "=20"	Submitted By SOTT R. VINTON R.C.E. No. 54703 Office	Approved	GRADING PLANS FOR: SDG&E SALT CREEK SUBSTATION SECTIONS	XXXXX-08

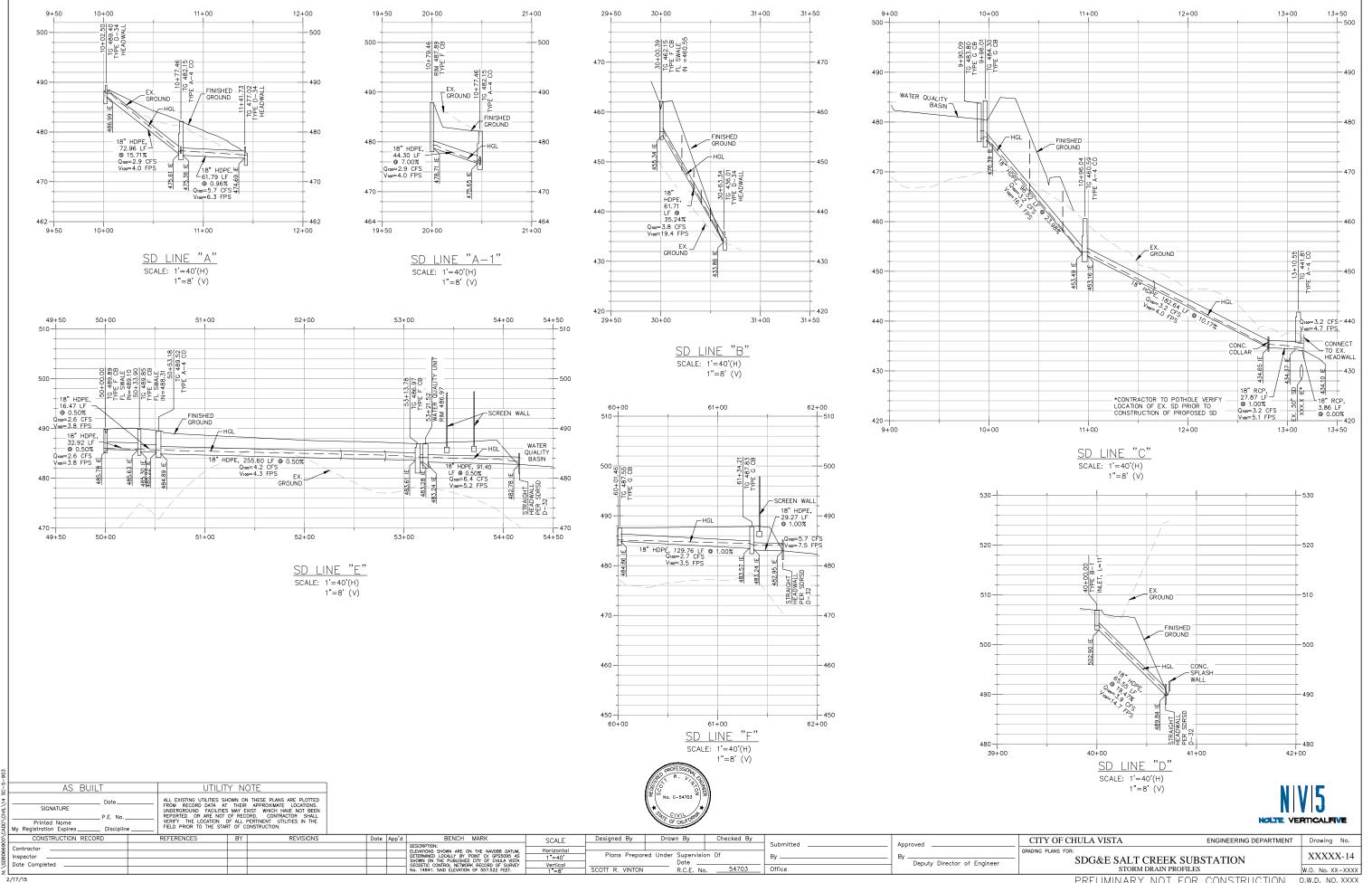


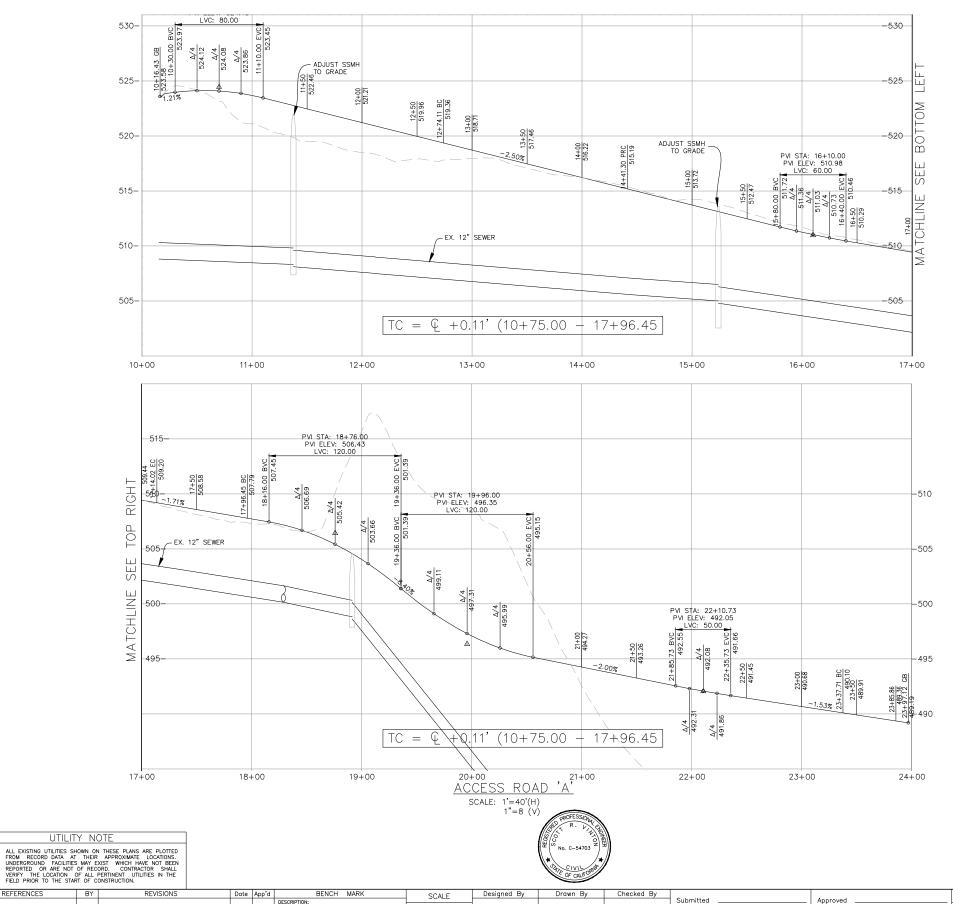








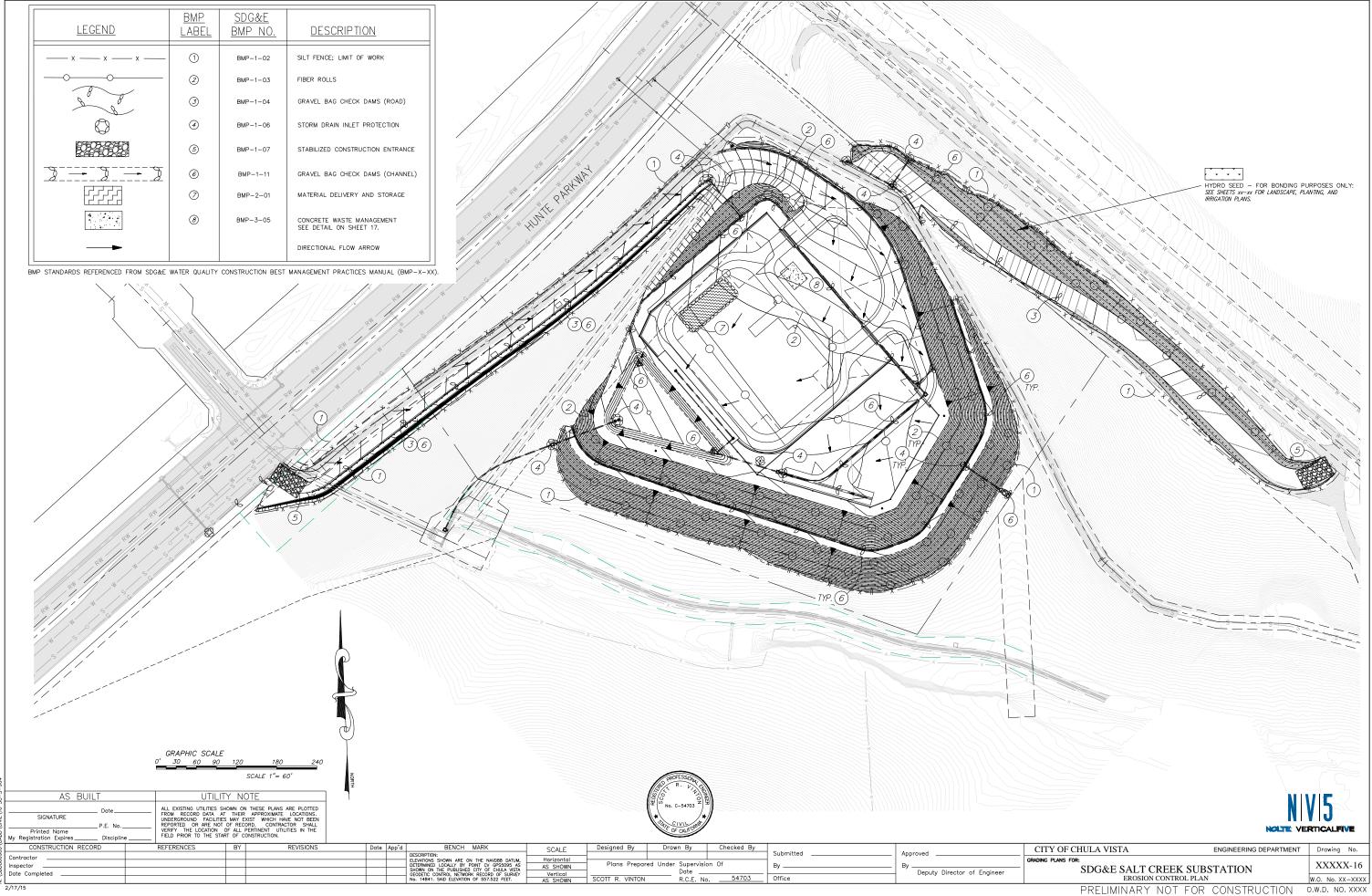


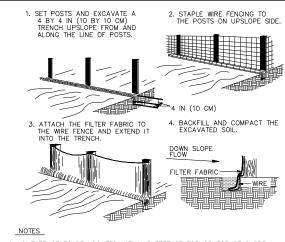


NOLTE VERTICALFIVE

CONSTRUCTION RECORD CITY OF CHULA VISTA ENGINEERING DEPARTMENT Drawing No. Submitted Contractor Horizontal 1"=40' XXXXX-15 Plans Prepared Under Supervision Of SDG&E SALT CREEK SUBSTATION ACCESS ROAD PROFILE By _______ Deputy Director of Engineer Date ____ R.C.E. No. Vertical W.O. No. XX-XXXX

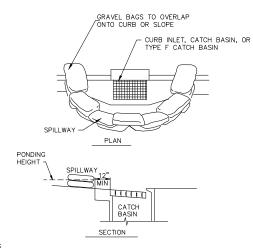
Printed Name
My Registration Expires_





- SILT FENCE TO BE LOCATED WITHIN 5 FEET OF TOP OR TOE OF SLOPE WHERE APPLICABLE.
 SILT FENCE WILL TERMINATE 1 FOOT ON EITHER SIDE OF RIP RAP ENERGY

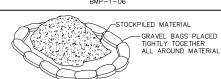




- 1. LEAVE A GAP OF ONE BAG IN THE MIDDLE OF THE TOP ROW OF BAGS TO LEAVE A GAP OF ONE BAG IN THE MIDDLE OF THE TOP ROW OF BAGS TO SERVE AS THE SPILLWAY. SPILLWAY HEIGHT SHALL BE LOWER THAN CURB HEIGHT AND SUFFICIENT IN SIZE TO PASS FLOWS FROM SEVERE STORM EVENT
 PLACE 2 LAYERS OF OVERLAPPING GRAVELBAGS AND PACK TIGHTLY TOGETHER TO MINIMIZE THE SPACE BETWEEN BAGS
 INSPECT AND REPAIR FILTERS AFTER EACH STORM EVENT. REMOVE SEDIMENT WHEN ONE HALF OF THE FILTER DEPTH HAS BEEN FILLED

- USE A SILT SOCK OR SILT BAG WHEN INLET IS ADJACENT TO AN ACTIVE TRAVEL LANE.

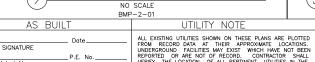




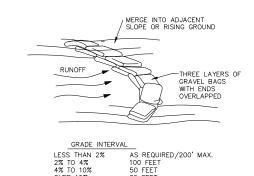
- DIRT AND OTHER CONSTRUCTION RELATED MATERIALS WILL BE PLACED ON—SITE AND MUST BE CONTAINED WITH GRAVEL BAGS OR OTHER MEASURES TO PREVENT TRANSPORT TO THE STORM DRAIN
- 2. ANY CONSTRUCTION MATERIAL STORED OR STOCKPILED ON-SITE SHALL BE PROTECTED FROM BEING TRANSPORTED BY THE FORCE OF WIND OR WATER.

MATERIAL STORAGE

3. STOCKPILES MUST BE COVERED AND SECURED FROM WIND AND RAIN AT THE END OF EACH DAY AND PRIOR TO A FORECASTED RAIN EVENT.



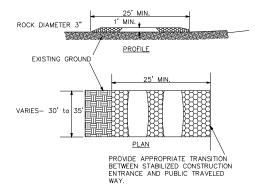
INSTALL FIBER ROLL ALONG A LEVEL CONTOUR FIBER ROLLS 4' MAX VERTICAL SPACING MEASURED ALONG THE FACE OF THE SLOPE VARIES BETWEEN 8 F NEAR SLOPE WHERE IT TRANSITIONS INTO A STEEPER SLOPE. TYPICAL INSTALLATION FIBER ROLL 8" MIN EXISTING SLOPE INSTALL FIBER ROLLS AT ALL TOES OF SLOPE 3/4" x 3/4" WOOD STAKES MAX 4' SPACING FIBER ROLL NO SCALE



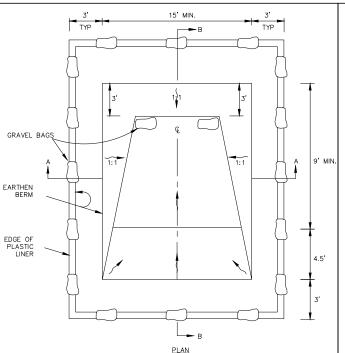
OVER 10% 25 FFF1

PLACE GRAVEL BAGS PER INTERVAL SHOWN ABOVE AND

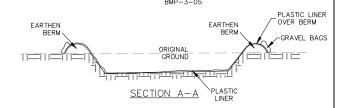
GRAVEL BAG CHECK DAM (CHANNEL & ROAD) NO SCALE

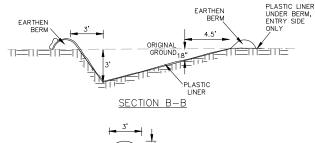


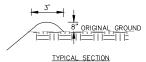
STABILIZED CONSTRUCTION ENTRANCE



TEMPORARY CONCRETE WASHOUT FACILITY (8)NO SCALE BMP-3-05







EARTHEN BERM

SEE EROSION CONTROL SHEET 16 FOR LOCATION OF CONCRETE WASHOUT.

STANDARD SPECIFICATIONS

- CALIFORNIA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES," (CURRENT EDITION).
- 2. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DOCUMENT NO. AECO925062, FILED SEPTEMBER 25, 2006

STANDARD DRAWINGS



- SAN DIEGO GAS AND ELECTRIC WATER OHALITY CONSTRUCTION REST MANAGEMENT PRACTICES MANUAL (JULY 2011 EDITION).
- CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) STORMWATER BEST MANAGEMENT PRACTICES HANDBOOK.

EMERGENCY EROSION CONTROL MEASURE NOTES

- 1. ALL BUILDING PADS TO BE DIKED AND THE DIKES MAINTAINED TO PREVENT WATER FROM FLOWING FROM THE PAD UNTIL THE ACCESS ROADS AND DRIVEWAYS ARE PAVED AND WATER CAN FLOW FROM THE PADS WITHOUT CAUSING EROSION, OR CONSTRUCT DRAINAGE FOLLINES TO THE SATISFACTION OF THE SDOKE REPRESENTATIVE THAT WILL ALLOW WATER TO DRAIN FROM THE PAD WITHOUT CAUSING
- 2. TOPS OF ALL SLOPES TO BE DIKED OR TRENCHED TO PREVENT WATER FROM FLOWING OVER THE CREST OF SLOPES.
- 3. MANUFACTURED SLOPES AND PADS SHALL BE ROUNDED VERTICALLY AND HORIZONTALLY AS APPROPRIATE TO BLEND WITH THE
- 4. AS SOON AS CUTS OR EMBANKMENTS ARE COMPLETED, BUT NOT LATER THAN OCTOBER 1 ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITH A HYDROMULCH MIXTURE OR AN EQUAL TREATMENT APPROVED BY THE SDG&E REPRESENTATIVE. BETWEEN OCTOBER 1 AND APRIL 15, APPROVED SLOPE PROTECTION MEASURES SHALL PROCEED IMMEDIATELY BEHIND THE EXPOSURE OF CUT SLOPES AND/OR THE CREATMENT OF COMMISSION OF EMBANIKMENT SLOPES.
- 5. CATCH BASINS, DESILTING BASINS, AND STORM DRAINS SHALL BE INSTALLED TO THE SATISFACTION OF THE SDG&E REPRESENTATIVE.
- 6. GRAVEL BAG CHECK DAMS TO BE PLACED IN A MANNER APPROVED BY THE SDG&E REPRESENTATIVE IN UNPAVED STREETS WITH GRADIENTS IN EXCESS OF 2% AND ON OR IN OTHER GRADED OR EXCAVATED AREAS AS REQUIRED BY THE SDG&E REPRESENTATIVE.
- 7. THE CONTRACTOR TO MAINTAIN THE PLANTING AND EROSION CONTROL MEASURES DESCRIBED ABOVE UNTIL RELIEVED OF SAME BY THE SDG&E REPRESENTATIVE. THE CONTRACTOR TO REMOVE ALL SOIL INTERCEPTED BY THE SANDBAGS, CATCH BASINS, AND DESILTING BASINS, AND KEP FACILITIES CLEAN AND FREE OF SILT AND SAND AS DIRECTED BY THE SDG&E REPRESENTATIVE. THE CONTRACTOR SHALL REPAIR ANY ERODED SLOPES AS DIRECTED BY THE SDG&E REPRESENTATIVE.

EROSION CONTROL NOTES:

- 1. THESE EROSION CONTROL PLANS SHOW PROJECT IMPROVEMENTS FOR ILLUSTRATION ONLY. SEE PROJECT IMPROVEMENT PLANS FOR
- 2. ALL HYDROSEED AND BONDED FIBER MATRIX MIXES TO BE APPROVED BY PROJECT SDG&E REPRESENTATIVE PRIOR TO INSTALLATION.

STORMWATER ADVISORY NOTES

- 1. DURING THE RAINY SEASON THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY THE PROPERTY OWNER IN THE EVENT OF A RAINSTORM. 125% OF ALL SUPPLIES NEEDED FOR BMP (BEST MANAGEMENT PRACTICES) MEASURES SHALL BE RETAINED ON THE JOB SITE IN A MANNER THAT ALLOWS FULL DEPLOYMENT AND COMPLETE INSTALLATION IN 48 HOURS OR LESS OF A FORECAST RAIN.
- 2. THE DISTURBED AREA SHALL NOT EXCEED 50 ACRES AT ANY GIVEN TIME WITHOUT DEMONSTRATING TO THE SDG&E REPRESENTATIVE'S SATISFACTION THAT ADEQUATE EROSION AND SEDIMENT CONTROL CAN BE MAINTAINED. THE ACTIVE GRADING AREA SHALL NOT EXCEED 8 ACRES PER DAY. ACTIVE GRADING IS DEFINED AS EARTHMONING ACTIVITIES FOR THE PURPOSE OF MODIFYING ELEVATION AND DOES NOT INCLUDE SURFACING, EXCAVATION FOR BELOW GRADE INSTALLATIONS OR OTHER CONSTRUCTION ACTIVITIES LOCATED IN AREAS WHERE FINAL GRADE HAS BEEN ESTABLISHED. AREA THAT IS NOT ACTIVELY GRADED FOR 15 DAYS MUST BE FULLY PROTECTED FROM EROSION. UNTIL ADEQUATE LONG-TERM PROTECTIONS ARE INSTALLED, THE DISTURBED AREA SHALL BE INCLUDED WHEN CALCULATING THE ACTIVE DISTURBANCE AREA. ALL EROSION CONTROL MEASURES REMAIN INSTALLED AND MAINTAINED DURING ANY INACTIVE PERIOD.
- 3. THE CONTRACTOR IS OBLIGATED TO INSURE COMPLIANCE WITH ALL APPLICABLE STORMWATER REGULATIONS AT ALL TIMES. THE BMPs THE CONTRACTOR IS OBLIGATED TO INSURE COMPLIANCE WITH ALL APPLICABLE STORMWATER REGULATIONS AT ALL TIMES. THE BMPS (BEST MANAGEMENT PRACTICES) THAT HAVE BEEN INCORPORATED INTO THIS PLAN SHALL BE IMPLEMENTED AND MAINTAINED TO EFFECTIVELY PREVENT THE POTENTIALLY NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORMWATER QUALITY. THE MAINTENANCE OF THE BMPS IS THE PERMITTESS RESPONSIBILITY, AND FAILURE TO PROPERLY INSTALL OR MAINTAIN THE BMPS W RESULT IN ENFORCEMENT ACTION BY THE CITY OF CHULA VISTA OR OTHERS. IF INSTALLED BMPS FAIL, THEY MUST BE REPAIRED OR REPLACED WITH AN ACCEPTABLE ALTERNATE WITHIN 24 HOURS, OR AS SOON AS SAFE TO DO SO.
- 4. A NOTICE OF INTENT (NOI) WILL BE FILED WITH THE STATE WATER RESOURCE CONTROL BOARD (SWRCB) AND A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) WILL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENT'S OF CALIFORNIA GENERAL PERMIT FOR

SILTATION AND SEDIMENT CONTROL MEASURES NOTES

- SEDIMENT BASINS SHALL BE PROVIDED AT THE LOWER END OF EVERY DRAINAGE AREA PRODUCING SEDIMENT RUNOFE. THE BASINS SHALL BE MAINTAINED AND CLEANED TO DESIGN CONTOURS AFTER EVERY RUNOFF PRODUCING STORM. THE BASINS SHOULD BE SEMI-PERMANENT STRUCTURES THAT WOULD REMAIN UNTIL SOIL STABILIZING VEGETATION HAS BECOME WELL ESTABLISHED ON ALL
- 2. SEDIMENTATION BASINS MAY NOT BE REMOVED OR MADE INOPERATIVE WITHOUT PRIOR APPROVAL OF THE SDG&E REPRESENTATIVE.
- 3. SEWER OR STORM DRAIN TRENCHES THAT ARE CUT THROUGH BASIN DIKES OR BASIN INLET DIKES SHALL BE PLUGGED WITH GRAVEL BAGS FROM TOP OF PIPE TO TOP OF DIKE.
- 4. ALL UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF GRAVEL BAGS WITH A TOP ELEVATION, LEVEL WITH, AND TWO GRAVEL BAGS BELOW THE GRADED SURFACE OF THE STREET. GRAVEL BAGS ARE TO BE PLACED WITH LAPPED COURSES. THE INTERVALS PRESCRIBED BETWEEN GRAVEL BAG BLOCKING SHALL DEPEND ON THE SLOPE OF THE GROUND SURFACE, BUT NOT EXCEED THE FOLLOWING: (SEE DETAIL(1), THIS SHEET.)

 GRADE OF THE STREET

 INTERVAL

LESS THAN 2% AS REQUIRED/200' MAX. 100 FEET 50 FEET OVER 10% 25 FEET

- 5. AFTER SEWER UTILITY TRENCHES ARE BACKFILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDED SLIGHTLY TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTERVALS WHERE TRENCHES ARE NOT ON THE CENTERLINE OF A CROWNED STREET.
- ALL BUILDING PADS SHOULD BE SLOPED TOWARDS THE DRIVEWAYS AND VELOCITY CHECK DAMS PROVIDED AT THE BASE OF ALL DRIVEWAYS DRAINING INTO THE STREET.

7. PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED GRADED CHANNELS AT THE INTERVALS INDICATED BELOW:

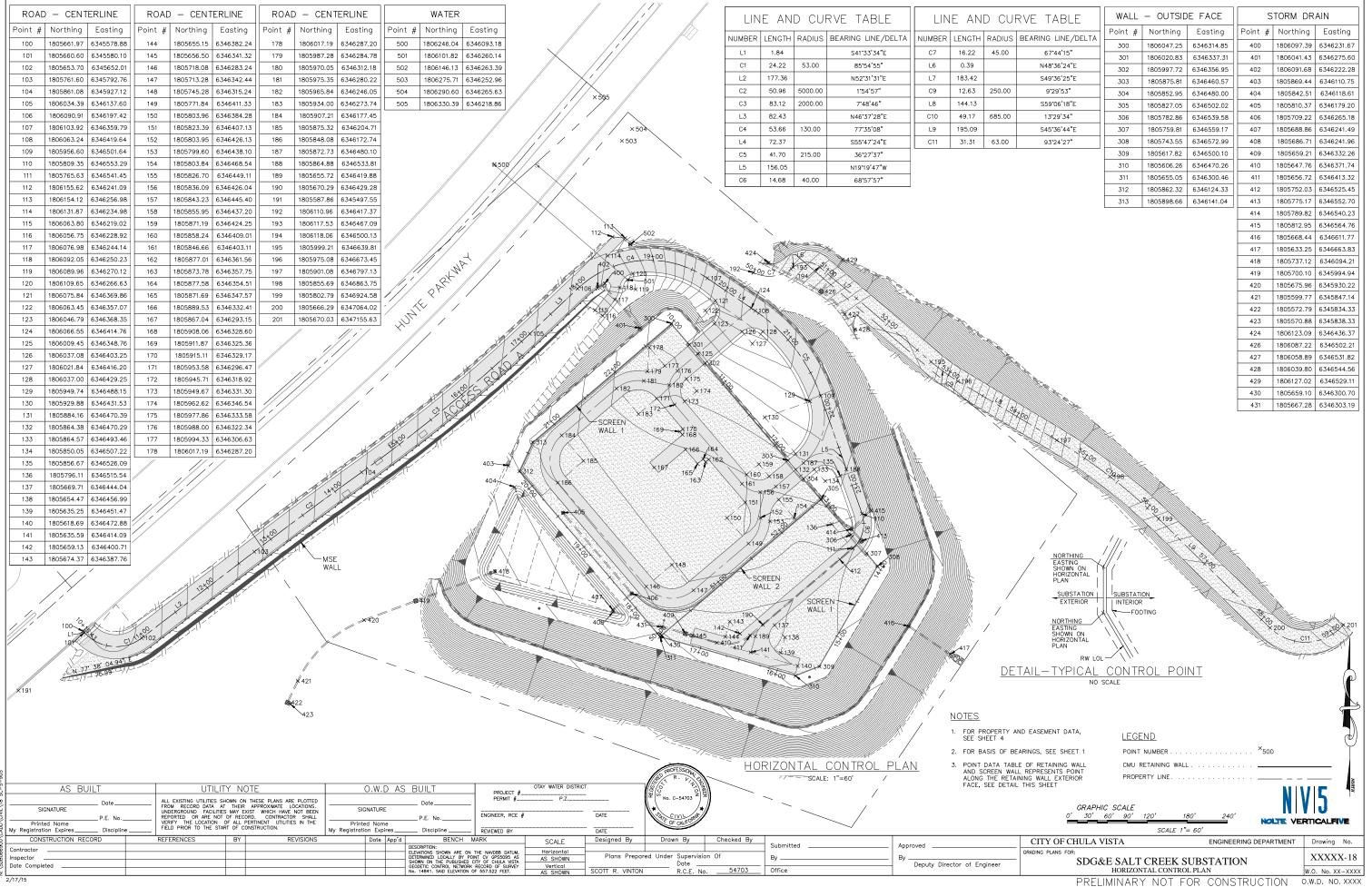
GRADE OF CHANNEL INTERVALS BETWEEN CHECK DAMS

LESS THAN 3% 3% TO 6% OVER 6% 25 FEET

- 8. PROVIDE VELOCITY CHECK DAMS IN ALL PAVED STREET AREAS ACCORDING TO RECOMMENDED CRITERIA ESTABLISHED BY THE COUNTY OF SAN DIEGO. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF GRAVEL BAGS, TIMBER, OR OTHER EROSION RESISTANT MATERIALS APPROVED BY THE SDG&E REPRESENTATIVE, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. VELOCITY CHECK DAMS MAY ALSO SERVE AS SEDIMENT TRAPS.
- 9. PROVIDE A GRAVEL BAG SILT BASIN OR TRAP BY EVERY STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING DRAIN SYSTEM. (SEE DETAIL (4) THIS SHEET.)
- 10. GRAVEL BAGS AND FILL MATERIAL SHALL BE STOCKPILED AT INTERVALS, READY FOR USE WHEN REQUIRED. PROVIDE 125% OF TOTAL NUMBER OF BAGS REQUIRED. IN INITIAL INSTALLATION FOR STOCKPILE QUANTITY.
- 11. ALL EROSION CONTROL DEVICES WITHIN THE DEVELOPMENT SHOULD BE MAINTAINED DURING AND AFTER EVERY RUNOFF PRODUCING STORM
- 12. PROVIDE ROCK RIP-RAP ON CURVES AND STEEP DROPS IN ALL EROSION PRONE DRAINAGE CHANNELS DOWNSTREAM FROM THE DEVELOPMENT.
- 13. ANY PROPOSED ALTERNATE CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY ALL RESPONSIBLE AGENCIES; IE, SDG&E REPRESENTATIVE, CITY OF CHULA VISTA DEPARTMENT OF



, od A O	Printed Name My Registration Expires Discipline	START OF CONSTRUCTION.	HE.			OF CALIFO				NOTE VI	ERICALITE
6	CONSTRUCTION RECORD REFERENCES	BY REVISION	NS Date App'd BENCH MARK	SCALE	Designed By	Drawn By	Checked By	Submitted	Approved	CITY OF CHULA VISTA ENGINEERING DEPARTMENT	Drawing No.
3066	Contractor		ELEVATIONS SHOWN ARE ON THE NAVD88 DA DETERMINED LOCALLY BY POINT CV GPS5095	rum, Horizontal	Plans Prepare	ed Under Supervisi	on Of	By	By	GRADING PLANS FOR:	XXXXX-17
8	Date Completed		SHOWN ON THE PUBLISHED CITY OF CHULA V GEODETIC CONTROL NETWORK RECORD OF SU NO. 14841 SAID ELEVATION OF 557,572 SEET	VEY Vertical	SCOTT P VINTON	Date	54703	Office	Deputy Director of Engineer	SDG&E SALT CREEK SUBSTATION FROSION CONTROL PLAN	W O No VV-VVVV



STRUCTURAL NOTES

GENERAL

- ALL WORK NOT DETAILED OR NOTED SHALL BE CONSTRUCTED IN ACCORDANCE WITH OTHER SIMILAR WORK SHOWN ON THE DRAWINGS AND ON TYPICAL DETAILS.
- NO PIPES, DUCTS, OR OTHER OPENINGS SHALL BE PLACED IN SLABS OR NATIFICATIONS ON OTHER OPENINGS STALL BE FLACED IN SLABS UN WALLS UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE ENGINEER. LOCATIONS AND SIZES OF OPENINGS IN SLABS AND WALLS SHALL BE COORDINATED BY THE CONTRACTOR WITH STRUCTURAL, CIVIL, AND ALL
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS BEFORE STARTING WORK. THE SDEAK EPPERSENTATIVE SHALL BE NOTIFIED OF ANY DISCREPANCIES FOUND BEFORE PROCEEDING WITH WORK.
- THE CONTRACT DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT EXISTING AND NEW STRUCTURES DURING CONSTRUCTION. SUCH MEASURES INCLUDE BUT ARE NOT LIMITED TO BRACING, SHORING, AND SAFETY MEASURES, ETC., FOR ALL CONSTRUCTION PHASES.
- UNLESS OTHERWISE SHOWN, LOCATIONS OF ALL CONSTRUCTION JOINTS SHALL HAVE THE APPROVAL OF THE SDG&E REPRESENTATIVE.
- WORKING DIMENSIONS SHALL NOT BE SCALED FROM PLANS, PROFILES, SECTIONS OR DETAILS SHOWN ON THE DRAWINGS.

SOILS & FOUNDATIONS:

REFERENCES:

"UPDATE GEOTECHNICAL INVESTIGATION OF PROPOSED SDG&E SALT CREEK SUBSTATION CHULA VISTA, CALIFORNIA", PREPARED BY KLEINFELDER WEST INC., DATED SEPTEMBER 8, 2014. (PROJECT #____

- ALLOWABLE SOIL BEARING PRESSURE = 3000 PSF (DEAD PLUS LIVE) (1/3 INCREASE ALLOWED FOR TRANSIENT WIND / SEISMIC LOADS).
- NO CONCRETE OR REBAR SHALL BE PLACED IN ANY FOUNDATION UNTIL THE EXCAVATION HAS BEEN INSPECTED BY THE GEOTECHNICAL ENGINEER.
- ALL SLEEVES THROUGH FOUNDATION WALLS AND UNDER FOOTINGS SHALL BE INSTALLED PRIOR TO FOUNDATION POUR.
- FOUNDATIONS HAVE BEEN DESIGNED IN REFERENCE TO NOTES 1 & 2 AND ARE ASSUMED TO REST ON SUITABLE BEARING MATERIALS. THE ACTUAL ADEQUACY OF THE BEARING MATERIAL SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING REINFORCEMENT OR CASTING CONCRETE.
- THE PROJECT GEOTECHNICAL REPORT IS TO BE CONSIDERED A PART OF THESE PLANS AND SHALL BE COMPLIED WITH BY THE CONTRACTOR.

STRUCTURAL ABBREVIATIONS

ADDL	ADDITIONAL	FOM	FACE OF MASONRY
	BEGIN CURVE	FT	FOOT/FEET
BF		FTG	FOOTING
BK		ID	IDENTIFICATION
	CALIFORNIA BUILDING CODE	IN	INCH
CIP		LBS	POUNDS
	CLEAR	LOL	
	CONC MASONRY UNIT	MAX	MAXIMUM
	CONCRETE	MIN	MINIMUM
CONT	CONTINUOUS	MISC	MISCELLANEOUS
d	BAR DIAMETER	MOD	
DET	DETAIL	NTS	
DIA	DIAMETER	PSF	
DIM	DIMENSION	PSI	LBS/SQUARE INCH
	END CURVE	R	
	EACH FACE	REINF	REINFORCING
	EXISTING GRADE	RW	RETAINING WALL
	EXPANSION JOINT	STA	STATION
	ELEVATION	TF	TOP OF FOOTING
	EXISTING	TW	TOP OF WALL
FG	FINISH GRADE	TYP	
10	THIST STADE	UON	UNLESS OTHERWISE NO

CONCRETE

AS BUIL

- CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 19 OF THE CBC, REFERENCED EDITION.
- ALL REINFORCING BARS, ANCHOR BOLTS AND INSERTS SHALL BE WELL SECURED PRIOR TO POURING CONCRETE.
- STRUCTURAL CONCRETE COMPRESSIVE DESIGN STRENGTH AT 28 DAYS, UNLESS NOTED OTHERWISE IN THE CONTRACT PLANS AND/OR SPECIFICATIONS SHALL BE AS FOLLOWS:

 A. FOOTINGS 4000 PSI
- ALL EXPOSED CONCRETE EDGES SHALL HAVE 3/4" CHAMFER.
- SPECIAL INSPECTION SHALL BE PROVIDED FOR ALL CONCRETE CONSTRUCTION AS SPECIFIED BY SECTION 1701 OF THE CBC, CURRENT EDITION.

DESIGN CRITERIA

1. DESIGN CODES:

2013 CALIFORNIA BUILDING CODE (CBC)

SEISMIC DESIGN CATEGORY: D SITE CLASS: D OCCUPANCY CATEGORY: III S_S = 0.812g $S_1 = 0.315g$ $S_{DS} = 0.636g$

$S_{D1} = 0.372g$

BASIC WIND SPEED = 100 MPH (3 SECOND GUST)
EXPOSURE D
I: 1.15
DESIGN WIND PRESSURE = 63.26 PSF

REINFORCING STEEL

- 1. DETAILING, FABRICATION AND PLACEMENT OF REINFORCING BARS (UNLESS OTHERWISE NOTED) MUST FOLLOW THE A.C.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, A.C.I. 315
- 2. ALL REINFORCING BARS SHALL CONFORM TO THE STANDARD SPECIFICATION FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT, ASTM DESIGNATION A615-85: GRADE 60.
- 3. REINFORCING STEEL SHALL HAVE A MINIMUM CONCRETE COVER AS TABULATED BELOW UNLESS OTHERWISE NOTED.
 - A. FOOTINGS AND SLABS CAST AGAINST EARTH .
- 4. ALL DOWELS FROM FOOTINGS INTO WALLS SHALL BE THE SAME SIZE AND SPACING AS THE WALL VERTICAL REINFORCEMENT AND LAPPED WITH REINFORCEMENT UNLESS INDICATED OTHERWISE.
- 5. BOTTOM STEEL OF SLABS, FOOTINGS AND GRADE BEAMS SHALL BE SUPPORTED OFF OF THE EARTH OR FORMS BY PRECAST CONCRETE BLOCKS WIRE TIED TO THE REINFORCEMENT.
- 6. WHERE CONTINUOUS BARS ARE CALLED OUT, PROVIDE CONTACT SPLICES (AS REQUIRED) IN ACCORDANCE WITH REINFORCING STEEL NOTE NO. 7. STAGGER SPLICES OF ALL CONTINUOUS BARS.
- 7. LAP ALL SPLICES IN CONCRETE AS "CLASS B" SPLICES MINIMUM. WHERE LAP LENGTHS ARE NOT SHOWN ON THE PLANS, LAP AS SHOWN IN THE TABLE BELOW:

REINFORCE	ICES f'c = 4000 PSI AT 28 DAYS											
	REINFORCEMENT SIZE											
	#5 #6 NOTE: TOP BARS ARE BARS WITH											
TOP BAR	TOP BAR 2'-7" 3'-3" 12 IN. OF FRESH CONCRETE CAS											
OTHER	2'-0"	2'-6"										

CONCRETE MASONRY UNITS (CMU) NOTES

- ALL CMU SHALL CONFORM TO ASTM C90, GRADE N-1, NORMAL WEIGHT BLOCK WITH f'm = 1500 PSI.
- 2. ALL MORTAR SHALL BE AS PER CBC TYPE "S", 1800 PSI AT 28 DAYS.
- 3. ALL GROUT SHALL BE 2000 PSI AT 28 DAYS.
- 4. MASONRY UNITS NOMINAL MODULAR FACE SIZE SHALL BE 8x8x16 AND 12x8x16.
- 5. ALL CELLS SHALL BE FILLED SOLID WITH GROUT.
- 6. ALL HORIZONTAL REINFORCING BARS SHALL BE IN BOND BEAM BLOCKS.
- ALL MASONRY WORK SHALL CONFORM TO THE CBC, CHAPTER 21, CURRENT EDITION.
- 8. ALL JOINTS SHALL BE TOOLED CONCAVE.
- SPECIAL INSPECTION IS REQUIRED FOR ALL MASONRY WORK AS SPECIFIED BY SECTION 1701 OF THE CBC, CURRENT EDITION.
- 10. WHERE LAP LENGTHS ARE NOT SHOWN ON THE DRAWING, LAPS SHALL BE AS SHOWN IN THE TABLE BELOW:

R	EINFORCE	D MASONR	f'm = 1500 PSI AT 28 DAYS									
	REINFORCEMENT SIZE											
	#5	#6	#7	#8								
	2'-2"	3'-7"	5'-0"	7'-8"								

NOTES: 1. LAP SPLICE = 72 BAR DIAMETER 2. BASIS OF DESIGN: ASD fs < .8F's

SCALE

Horizontal AS SHOWN

STRUCTURAL AND MISCELLANEOUS STEEL

- ALL STEEL WORK SHALL BE PERFORMED ACCORDING TO AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, LATEST EDITION.
- ALL STRUCTURAL STEEL ROLLED SECTIONS SHALL CONFORM TO ASTM A992. PLATES AND BARS SHALL CONFORM TO ASTM A572, GRADE 50. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B. ALL OTHER STEEL SHALL CONFORM TO ASTM A36 AND ALL BOLTS SHALL CONFORM TO ASTM A307 UNLESS OTHERWISE NOTED.
- ALL SHAPES, PLATES, BARS, PIPES AND TUBES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION IN CONFORMANCE WITH ASTM A123. ALL BOLTS, NUTS, AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN CONFORMANCE WITH ASTM A153.
- DAMAGE TO ALL GALVANIZED COATINGS CAUSED BY HANDLING, TRANSPORTATION, CUTTING, WELDING, OR BOLTING SHALL BE REPAIRED USING ASTM A780 ZINC RICH PAINT.
- ALL CONNECTIONS SHALL BE DETAILED ACCORDING TO THE AISC TEXTBOOK OF STRUCTURAL DRAFTING.
- ALL CONNECTIONS NOT DETAILED ON PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR TO DEVELOP THE STEENGTH OF THE WEAKEST MEMBER AND SHALL BE SUBMITTED TO OWNER FOR APPROVAL.
- STEEL FABRICATOR SHALL VERIFY ALL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS.
- ALL ANCHOR BOLTS SHALL BE HEADED. HEAD DIMENSION WILL NOT COUNT TOWARD REQUIRED EMBEDMENT DEPTH.
- ANCHOR BOLTS NOT SPECIFIED ON PLANS SHALL CONFORM TO ASTM F1554
- 10. SPECIAL INSPECTION IS REQUIRED FOR ALL STEEL WORK AS SPECIFIED BY SECTION 1701 OF THE CBC, CURRENT EDITION.

SPECIFICATIONS

1. GENERAL: 2. FOUNDATION & SOILS INVESTIGATION: 3. EXCAVATION, GRADING & FILL: 4. FOOTINGS & FOUNDATIONS: 5. SPECIAL INSPECTION: A. SOILS	1802 1803 1805 1704 1704.7
B. CONCRETE – CBC CHAPTER 19 1. GENERAL: 2. TESTS AND MATERIALS: A. PROPORTIONS OF CONCRETE B. STRENGTH TESTS OF CONCRETE 3. DURABILITY REQUIREMENTS: 4. CONCRETE QUALITY, MIXING &	1905.6 1904
PLACING: 5. FORMWORK, EMBEDDED PIPES & CONSTRUCTION JOINTS: 6. DETAILS OF REINFORCEMENT: 7. SPECIAL INSPECTION: A. CONCRETE CONSTRUCTION	1704
C. MASONRY - CBC CHAPTER 21 1. GENERAL: 2. MASONRY CONSTRUCTION MATERIALS: 3. CONSTRUCTION: 4. SPECIAL INSPECTION: A. MASONRY CONSTRUCTION	2104 1704
D. STEEL -CBC CHAPTER 22	

A. SOILS AND FOUNDATIONS -CBC CHAPTER 18

ADDITIONAL NOTES

. ID & PROTECTION OF STEEL CONNECTIONS: 4 STRUCTURAL STEEL

5. SPECIAL INSPECTION:
A. STEEL CONSTRUCTION

. GENERAL:

NOTICE TO THE APPLICANT/OWNER/OWNER'S AGENT/ARCHITECT OR ENGINEER OF RECORD:

1704 1704.3

BY USING THESE PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION/INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE CITY OF SAN DIEGO FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS, CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND AS REQUIRED BY THE CALIFORNIA CONSTRUCTION CODES.

NOTICE TO THE CONTRACTOR/BUILDER/INSTALLER/SUB-CONTRACTOR:

BY USING THESE PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION/INSTALLATION BY USING THESE PERMITTIED CONSTRUCTION DRAWINGS FOR CONSTRUCTION, TISTALLATION OF THE WORK SPECIFIED HEREIN, YOU ACKNOWLEDGE AND ARE AWARE OF THE REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS, YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE CITY OF SAN DIEGO FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS, CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND AS REQUIRED BY THE CALIFORNIA CONSTRUCTION CODES.

Submitted

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTION AS SPECIFIED IN CHAPTER 17 OF THE 2010 CBC

SPECIAL INSPECTION TASK	FREQ. OF INSPECTION	REFERENCED STANDARD	CBC REFERENCE
CONCRETE CONSTRUCTION			
1. Inspection of reinforcing steel	Periodic	ACI 318: 3.5, 7.1-7.7	1913.4
2. Verify use of required design mix	Periodic	ACI 318: Ch.4, 5.2-5.4	1904.2.2 1913.2&3
At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests and determine temp	Continuous	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1913.10
Inspection of concrete placement for proper techniques	Continuous	ACI 318: 5.9,5.10	1913.6,7,&8
 Inspection for maintenance of specified curing temperature and techniques 	Periodic	ACI 318: 5.11-5.13	1913.9
Inspect formwork for shape, location and dimensions of the concrete member being formed	Periodic	ACI 318: 6.1.1	-
SOILS			
Verify materials below footings and slabs are adequate to achieve the design bearing capacity	Periodic	-	-
Verify excavations are extended to proper depth and have reached proper material	Periodic	-	-
 Perform classification and testing of backfill materials 	Periodic	-	-
 Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled backfill 	Continuous		_
 Prior to placement of controlled backfill, observe subgrade and verify that site has been prepared properly 	Periodic	-	_
STEEL			
 Material verification of high—strength bolts, nuts, and washers: ID markings to conform to specified ASTM standards. Manufacturer's certificate of compliance read. 	Periodic	ASTM Specs, AISC 360 Sec. A3.3	_
Material verification of structural steel: a. ID markings to conform to specified ASTM standards. b. Manufacturer's certified mill test reports.	-	ASTM A 6, ASTM A 568	1708.4
Material verification of weld filler materials: a. ID markings to conform to specified AWS standards. b. Manufacturer's certificate of compliance reqd.	-	AISC 360 Sec. A3.5	-
Inspection of welding: a. Structural steel. b. Reinforcing steel.	Periodic	AWS D1.1 AWS D1.4 ACI 318:3.5.2	1704.3.1
	Г	REFEREN	CED STANDA

				_
		RE	FERENCED STAND	ARDS
SPECIAL INSPECTION TASK	FREQ. OF INSPECTION	СВС	ACI 530/ ASCE5/TMS 402	ACI 530.1/ ASCE6/TMS 602
MASONRY CONSTRUCTION 1. As masonry construction begins, the following shall be verified to ensure compliance:	Periodic		·	
 a. Proportions of site—prepared mortar b. Construction of mortar joints c. Location of reinforcement, connectors, and anchorages. 		- - -	- - -	Art. 2.6A Art. 3.3B Art. 3.4
The inspection program shall verify: Size & location of structural elements Type, size and location of anchors, including other details of anchorage of masonry to structural members or other construction.	Periodic Periodic	- -	- Sec. 1.2.2(e), 2.1.4, 3.1.6	Art. 3.3G -
 c. Specified size, grade and type of reinf. d. Welding of reinforcing bors. e. Protection of masonry during cold or hot weather (temp. below 40°F or above 90°F). 	Periodic Continuous Periodic	- Sec. 2104.3, 2104.4	Sec. 1.13 Sec. 2.1.10.7.2, 3.3.3.4 (b)	Art. 2.4, 3.4 - Art. 1.8C, 1.8D
Prior to grouting, the following shall be verified to ensure compliance: a. Grout space is clean. b. Placement of reinforcement, connectors and anchorages. c. Proportions of site—prepared grout. d. Construction of mortar joints.	Periodic	- - -	Sec. 1.13	Art. 3.2D Art. 3.4 Art. 2.6B Art. 3.3B
Grout placement shall be verified to ensure compliance with code and construction document provisions.	Continuous	-	-	Art. 3.5
 Preparation of any required grout specimens, mortar specimens, or prisms shall be observed. 	Continuous	Sec.2105.2.2, 2105.3	-	Art. 1.4
Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.	Periodic	-	-	Art. 1.5

WELDING

Approved

Deputy Director of Engineer

- ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
- ALL WELDING OF STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICAN WELDING SOCIETY CODE, AWS D1.1, LATEST EDITION.
- WELDING ELECTRODES SHALL BE E70XX LOW HYDROGEN UNLESS NOTED OTHERWISE.
- SPECIAL INSPECTION IS REQUIRED FOR ALL WELDING WORK AS SPECIFIED BY SECTION 1704.3.1 OF THE CBC, CURRENT EDITION.

CITY OF CHULA VISTA



Plans Prepared Under Supervision Of



XXXXX-19

W.O. No. XX-XXXX

ENGINEERING DEPARTMENT Drawing No.

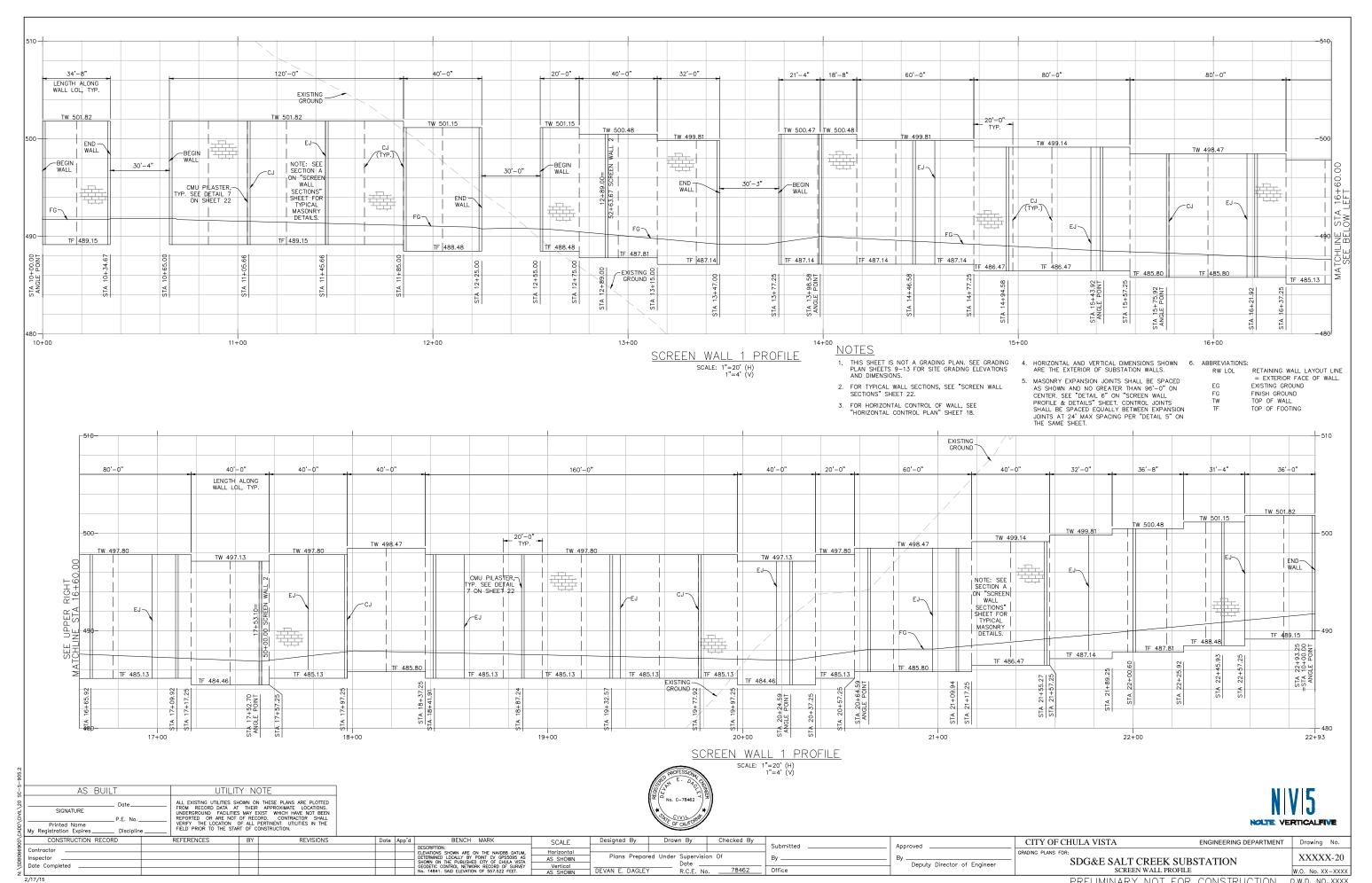
ADD\CIVIL\19 S	Date Date	FROM RECORD DATA AT UNDERGROUND FACILITIES REPORTED OR ARE NOT VERIFY THE LOCATION	T THEIR S MAY E OF REC OF ALL	ORD. CONTRACTOR SHALL PERTINENT UTILITIES IN THE				
0)	CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd	BENCH MARK	
699	Contractor						DESCRIPTION: ELEVATIONS SHOWN ARE ON THE NAVD88 DATUM,	Н
8	Inspector						DETERMINED LOCALLY BY POINT CV GPS5095 AS SHOWN ON THE PUBLISHED CITY OF CHULA VISTA	AS
ß	Date Completed						GEODETIC CONTROL NETWORK RECORD OF SURVEY	١
· ÷							No. 14841. SAID ELEVATION OF 557.522 FEET.	AS

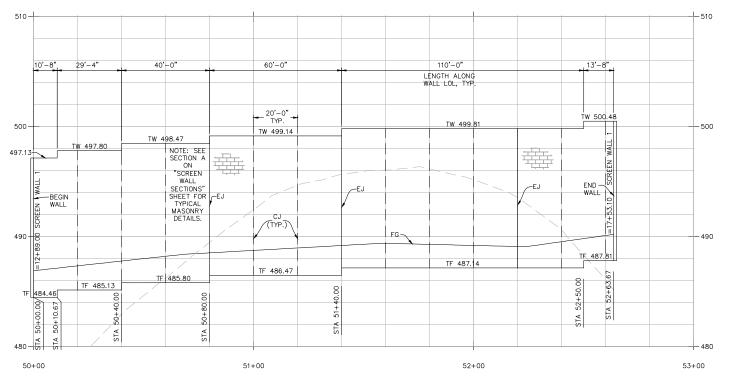
UTILITY NOTE

PRELIMINARY NOT FOR CONSTRUCTION O.W.D. NO. XXXX

SDG&E SALT CREEK SUBSTATION

SCREEN WALL STRUCTURAL NOTES





SCREEN WALL 2 PROFILE

SCALE: 1"=20' (H)
1"=4' (V)

AS BUILT

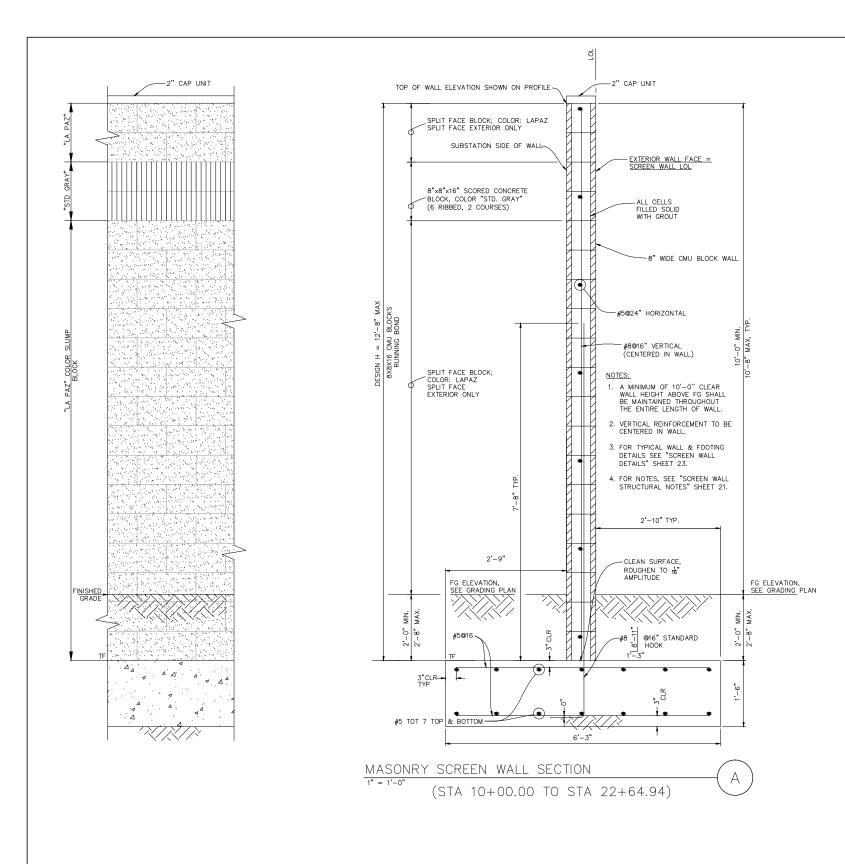
UTILITY NOTE

ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE PLOTTED FROM RECORD DATA AT THEIR APPROXIMATE LOCATIONS. UNDERGROUND FACILITIES MY EXIST WHICH HAVE NOT BEEN REPORTED OR ARE NOT OF REPORTED THE LOCATION OF ALL PERSONNEL UNDERGROUND FACILITIES IN THE MY REGISTROOT OF THE PROPERTY THE LOCATION OF ALL PERSONNEL UTILITIES IN THE PELOPENATE OF CONSTRUCTION.





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ΨΙ	Contractor					DESCRIPTION: ELEVATIONS SHOWN ARE ON THE NAVD88 DATUM, DETERMINED LOCALLY BY POINT CV CPS5095 AS	Horizontal	Plans Prepar	ed Under Supervisi	on Of	Submitted	 Approved	GRADING PLANS FOR:		VVVVV 21
~ 1	Inspector					SHOWN ON THE PUBLISHED CITY OF CHULA VISTA — GEODETIC CONTROL NETWORK RECORD OF SURVEY	AS SHOWN Vertical	Fluis Frepui	Date		Ву	Deputy Director of Engineer	SDG&E SALT CREEK		XXXXX-21
źL						No. 14841. SAID ELEVATION OF 557.522 FEET.	AS SHOWN	DEVAN E. DAGLEY	R.C.E. No	78462	Office		SCREEN WALL P	ROFILE	W.O. No. XX-XXXX
2	/17/15												PRELIMINARY NOT	FOR CONSTRUCTION	O.W.D. NO. XXXX



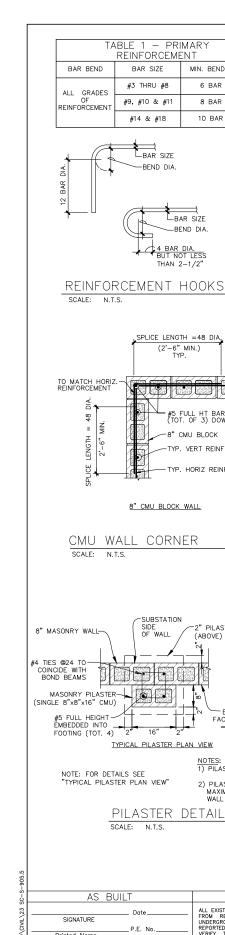
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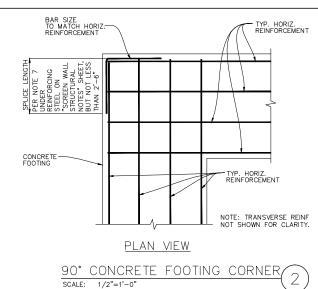
UTILITY NOTE

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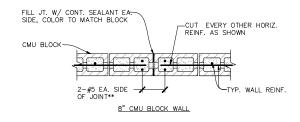

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g	CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date App'd	BENCH MARK	SCALE	Designed By	Drawn By	Checked By			CITY OF CHULA VISTA	ENGINEERING DEPARTMENT	Drawing No.
g Contrac	tor					DESCRIPTION: ELEVATIONS SHOWN ARE ON THE NAVD88 DATUM.	Horizontal				Submitted	 Approved	GRADING PLANS FOR:		
nspecto						DETERMINED LOCALLY BY POINT CV GPS5095 AS SHOWN ON THE PUBLISHED CITY OF CHUIA VISTA	AS SHOWN	Plans Prepar	ed Under Supervisi	on Of	Ву	 Ву	SDG&E SALT CREE	K SURSTATION	XXXXX-22
Date Co	ompleted					GEODETIC CONTROL NETWORK RECORD OF SURVEY No. 14841. SAID ELEVATION OF 557.522 FEET.	Vertical AS SHOWN	DEVAN E. DAGLEY	Date	78462	Office	Deputy Director of Engineer	SCREEN WALL		W.O. No. XX-XXXX
ž L						NO. 14041. SAID ELEVATION OF SOVISEE FEET.	AS SHUWN	DETAIL E. DAOLE	IV.O.L. IN		011100				
2/17/15													PRELIMINARY NO	T FOR CONSTRUCTION	O.W.D. NO. XXXX





1/2"=1'-0"



FABLE 2 – STIRRUP & TIE

BAR SIZE

ALL OTHER BARS

NOTE: TYPICAL WALL REINF. NOT SHOWN FOR CLARITY

8" MASONRY WALL-

PILASTER AT ANGLE POINT

POINT

" PILASTER CAP

PILASTER

5 FULL HEIGHT-

FOOTING (TOT. 4)

MASONRY WALL

PILASTER AT BEGIN/END WALL

 $\frac{\text{NOTES}\text{:}}{\text{1) PILASTERS SHALL BE FULLY GROUTED}}.$

UTILITY NOTE

2) PILASTERS SHALL BE SPACED AT 48'-0" MAXIMUM ALONG WALLS EXCEPT AS SHOWN ON WALL PROFILES.

2" PILASTER CAP

(ABOVE)

NOTES:

MEASURED ON INSIDE OF BAR

ALL REINFORCEMENT BENT COLD

FIELD BENDING NOT PERMITTED U.O.N.

MIN. BEND DIA.

6 BAR DIA.

8 BAR DIA.

10 BAR DIA.

BEND DIA

REINFORCEMENT

MIN. BEND DIA. *

4 BAR DIA.

SEE TABLE 1

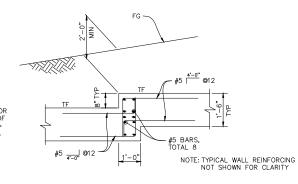
NOTES:

1. MAXIMUM CONTROL JOINT SPACING SHALL BE 24' UNLESS OTHERWISE NOTED.

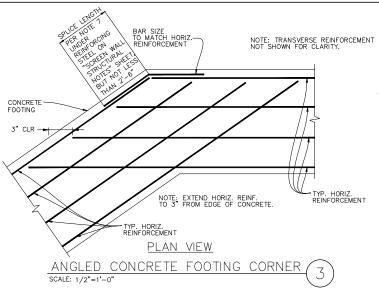
- DO NOT PLACE CONTROL JOINTS LESS THAN 2'-0" FROM A WALL OPENING OR INTERSECTION OF A PERPENDICULAR WALL.
- CONTROL JOINTS SHALL BE EQUALLY SPACED IN BETWEEN EXPANSION JOINTS, UNLESS OTHERWISE NOTED.

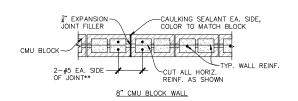
**WHERE TYP. VERTICAL WALL RENIF. EXISTS, #5 BAR MAY BE OMITTED

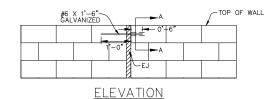
TYPICAL MASONRY CONTROL JOINT SCALE: N.T.S.

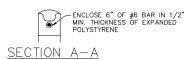


TYPICAL FOOTING STEP DETAIL





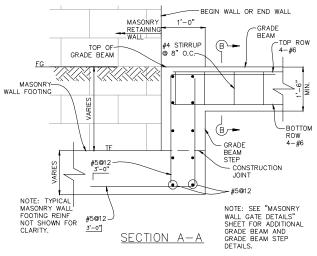


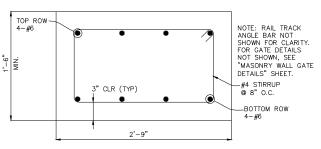


 ${\color{red} {\rm NOTES:}} \ {\color{blue} {\rm 1.}} \ {\color{blue} {\rm MAXIMUM}} \ {\color{blue} {\rm EXPANSION}} \ {\color{blue} {\rm JOINT}} \ {\color{blue} {\rm SPACING}} \ {\color{blue} {\rm SHALL}} \ {\color{blue} {\rm BE}} \ {\color{blue} {\rm 96'}} \ {\color{blue} {\rm UNLESS}} \ {\color{blue} {\rm OTHERWISE}} \ {\color{blue} {\rm NOTED.}} \ {\color{blue} {\rm COMMON SERVICE}} \ {\color{blue} {\rm NOTED.}} \ {\color{blue} {\rm COMMON SERVICE}} \ {\color{blue} {\rm NOTED.}} \ {\color{blue} {\rm COMMON SERVICE}} \ {\color{blue} {\rm NOTED.}} \ {\color{blue} {\rm COMMON SERVICE}} \ {\color{blue} {\rm NOTED.}} \ {\color{blue} {\rm COMMON SERVICE}} \ {\color{blue} {\rm NOTED.}} \ {\color{blue} {\rm COMMON SERVICE}} \ {\color{blue} {\rm NOTED.}} \ {\color{blue} {\rm COMMON SERVICE}} \ {\color{blue} {\rm NOTED.}} \ {\color{blue} {\rm COMMON SERVICE}} \ {\color{blue} {\rm COMMON SERVICE}} \$

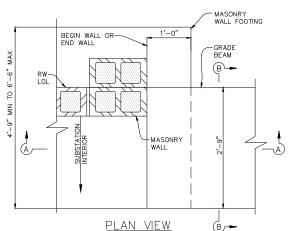
- 2. DO NOT PLACE EXPANSION JOINTS LESS THAN 2'-0" FROM A WALL OPENING OR INTERSECTION OF A PERPENDICULAR WALL.
- 3. TOP COURSE OF WALL MUST HAVE A FULL SIZE BLOCK ON EITHER SIDE OF

**WHERE TYP. VERTICAL WALL RENIF. EXISTS, #5 BAR MAY BE OMITTED TYPICAL MASONRY EXPANSION JOINT SCALE: N.T.S.







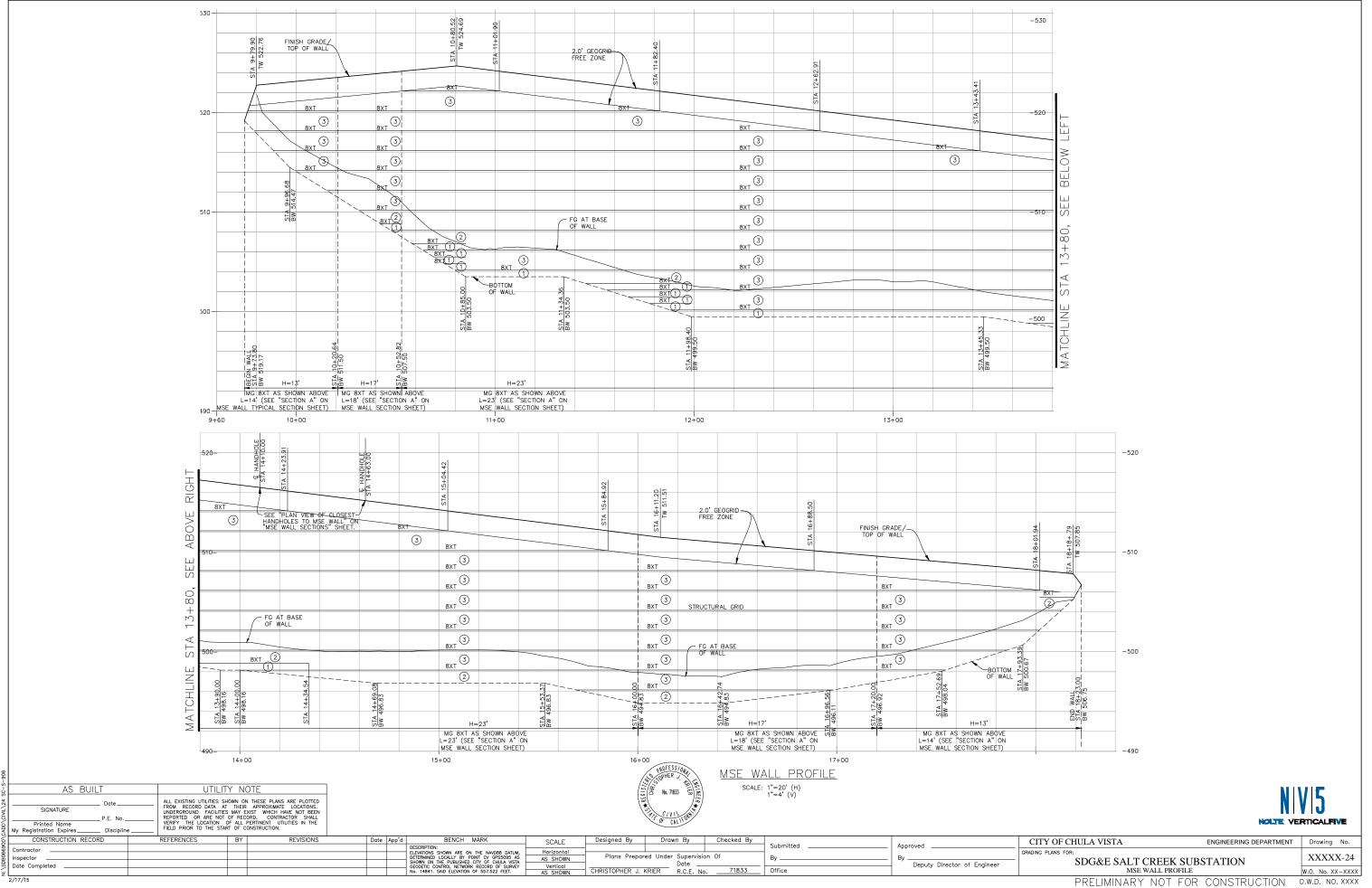


TYPICAL MASONRY GATE GRADE BEAM/





SIGNATURE PINTED Printed Name My Registration Expires Discipline	FROM RECORD DATA	N OF ALL PERTINENT	KIMATE LOCATIONS. ICH HAVE NOT BEEN ONTRACTOR SHALL I UTILITIES IN THE		No. C-78462									VIJ ERTICALFIVE
CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date App'd	BENCH MARK	SCALE	Designed By	Drawn By	Checked By	S. backton	Approved	CITY OF CHULA VISTA	ENGINEERING DEPARTMENT	Drawing No.
Contractor					DESCRIPTION: ELEVATIONS SHOWN ARE ON THE NAVDB8 DATUM, DETERMINED LOCALLY BY POINT CV GPS5095 AS SHOWN ON THE PUBLISHED CITY OF CHULA VISTA GEODETIC CONTROL NETWORK RECORD OF SURVEY NO. 14841. SAID ELEVATION OF 557.522 FEET.	Horizontal AS SHOWN Vertical AS SHOWN	Plans Prepar	ed Under Supervisi Date R.C.E. No		Submitted	Approved By Deputy Director of Engineer	GRADING PLANS FOR: SDG&E SALT CREE SCREEN WALL	DETAILS	XXXXX-23 W.O. No. XX-XXXX



LEGEND

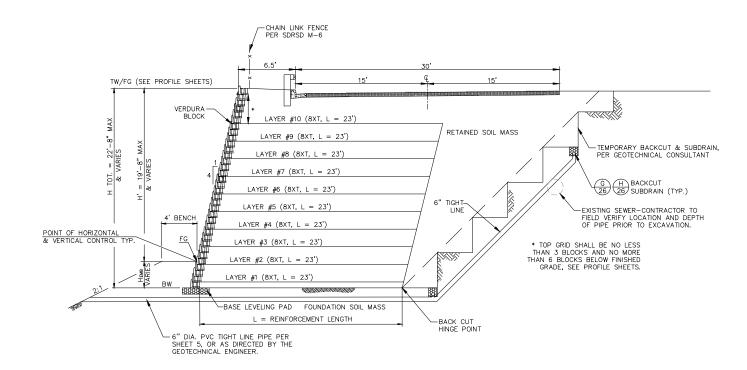
MSE MECHANICALLY STABILIZED EARTH
TW TOP OF MSE STRUCTURE

BW BOTTOM OF MSE STRUCTURE FG FINISH GRADE

MG MIRAGRID GEOSYNTHETIC REINFORCING
L GEOGRID LENGTH

H OVERALL WALL DESIGN HEIGHT H' EXPOSED WALL DESIGN HEIGHT HEMB WALL DESIGN EMBEDMENT HEIGHT

#XT DENOTES TYPE OF MIRAGRID REINFORCING REQUIRED



VERDURA WALL MAXIMUM TYPICAL DESIGN SECTION SCALE: 1"=5'-0"

NOTES

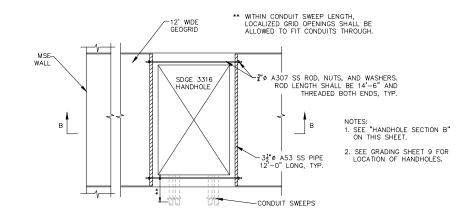
GEOGRID LENGTHS ARE MEASURED FROM THE BACK OF BLOCK.

FOR ALL DRAINAGE DETAILS SEE SHEETS X & X.

UTILITY NOTE

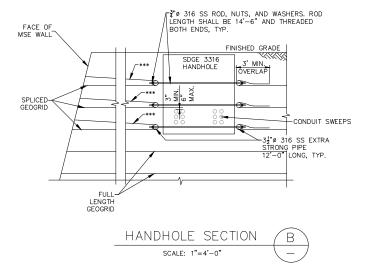
GEOGRID WILL NOT BE PLACED CLOSER THAN THREE COURSES FROM THE TOP OF WALL AND NO FURTHER THAN SIX COURSES.





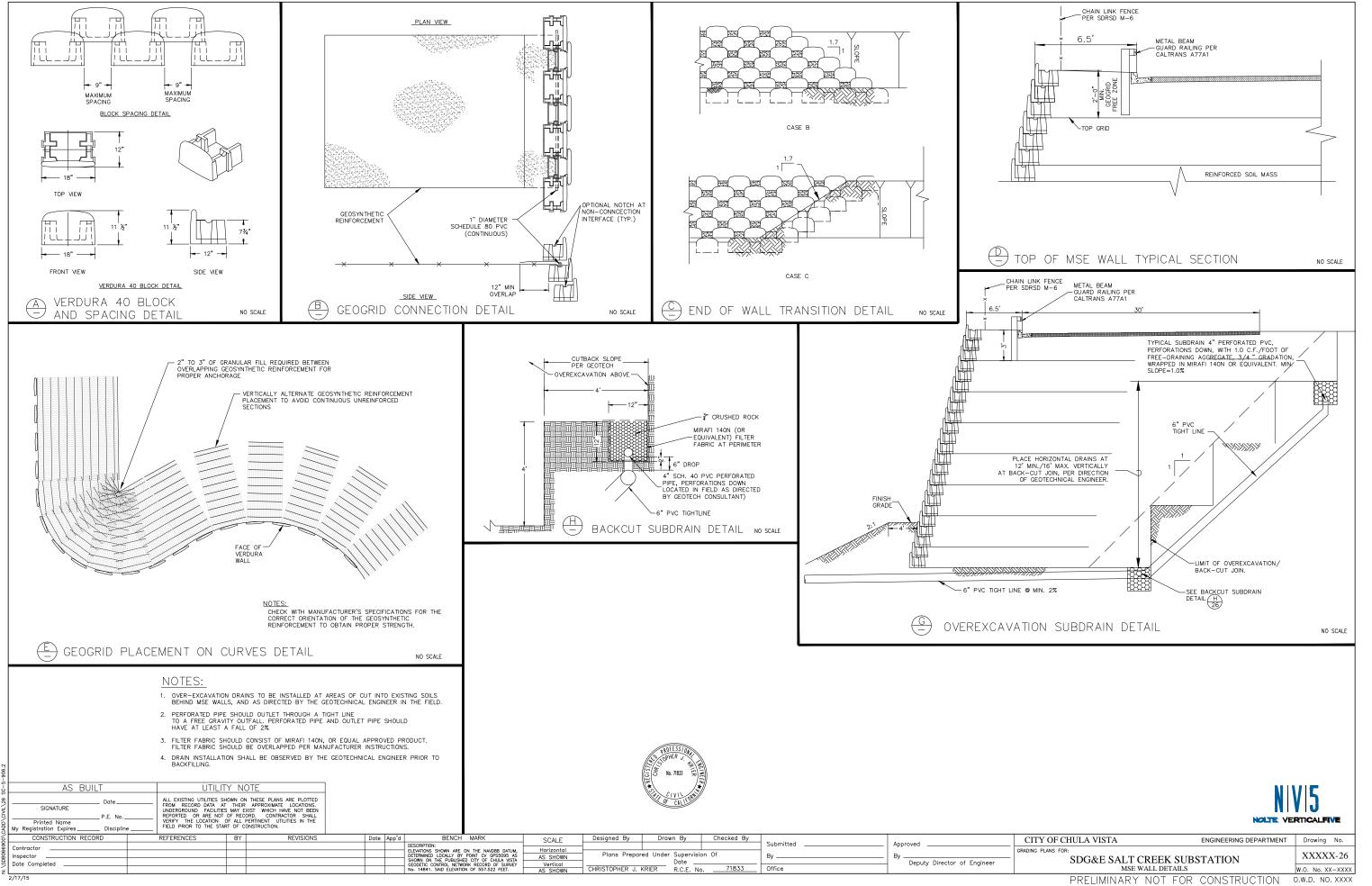
PLAN VIEW OF CLOSEST HANDHOLES TO MSE WALL SCALE: 1"=4'-0"

*** EXTEND GEOGRID TO NEXT VERDURA BLOCK





CADD\CIVIL\25 SC	SIGNATURE	UTILITIES SHOWN ON THESE PLANS ARE PLOTTED DD DATA AT THEIR APPROXIMATE LOCATIONS. FACILITIES MAY EXEST WHICH HAVE NOT BEEN R ARE NOT OF RECORD. CONTRACTOR SHALL LOCATION OF ALL PERTINENT UTILITIES IN THE TO THE START OF CONSTRUCTION.			W.	OF CALLED				N I	V 5
8	CONSTRUCTION RECORD REFERENCES	BY REVISIONS	Date App'd BENCH MARK	SCALE	Designed By	Drawn By	Checked By	Approved	CITY OF CHULA VISTA	ENGINEERING DEPARTMENT	Drawing No.
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ź	Date completed			AS SHOWN	CHRISTOPHER J. KRIEI	R R.C.E. No.		Dopaty Director of Engineer	MSE WALL SECTIONS		W.O. No. XX-XXXX



PART 1: GENERAL

- A. WORK SHALL CONSIST OF FURNISHING AND CONSTRUCTING A VERDURA SEGMENTAL RETAINING WALL SYSTEM IN ACCORDANCE
 WITH THESE SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN AND DIMENSIONS SHOWN ON THESE PLANS.
- B. WORK INCLUDES PREPARING FOUNDATION SOIL, FURNISHING AND INSTALLING LEVELING PAD (IF REQUIRED), PLANTABLE SOIL UNIT FILL, AND BACKFILL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS.

 C. WORK INCLUDES FURNISHING AND INSTALLING GEOSYNTHETIC SOIL REINFORCEMENT OF THE TYPE, SIZE, LOCATION, STRENGTH AND LENGTHS DESIGNATED ON THESE PLANS.

 D. WORK INCLUDES FURNISHING AND INSTALLING FOUNDATION DRAIN, SUBDRAIN AND OTHER WALL—RELATED DRAINAGE SYSTEMS SHOWN AND SPECIFIED ON THESE PLANS.

 E. CALCULATIONS ADDRESSING INTERNAL AND EXTERNAL STABILITY OF WALLS IS PROVIDED IN REFERENCED DOCUMENTATION NO.4 AS NOTED IN TABLE 1.

1.02 REFERENCE DOCUMENTS

- A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
 - ASTM C-1372-SPECIFICATION FOR SEGMENTAL RETAINING WALL UNITS
 - 2) ASTM D-3080-DIRECT SHEAR TEST OF SOILS UNDER CONSOLIDATED DRAINED CONDITIONS
- ASTM D-1557-LABORATORY COMPACTION CHARACTERISTICS OF SOIL MODIFIED PROCTOR
 ASTM D-4318-LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS
 ASTM D-4595-TENSILE PRIORITIES OF GEOTEXTILES WIDE WIDTH STRIP

- 6) ASTM D-5262-UNCONFINED TENSION CREEP BEHAVIOR OF GEOSYNTHETICS
- ASTM D-3034-POLYVINYL CHLORIDE PIPE (PVC) 8) ASTM D-4829-EXPANSION INDEX OF SOILS
- 9) ASTM C-140-STD. SPEC. FOR SAMPLING AND TESTING CONCRETE MASONRY UNITS
 10) ASTM C-145-STD. SPEC. FOR SOLID LOAD BEARING CONCRETE MASONRY UNITS
 B. GEOSYNTHETIC RESEARCH INSTITUTE (GRI)
- 1) GRI-GG4-DETERMINATION OF LONG TERM DESIGN STRENGTH OF GEOGRIDS
- CONTROL OF - C. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)
- 1) NCMA SRWU-1-TEST METHOD FOR DETERMINING CONNECTION STRENGTH OF SRW UNITS 2) NCMA SRWU-2-TEST METHOD FOR DETERMINING SHEAR STRENGTH OF SRW UNITS
- "DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS, 3RD EDITION," (2010)
- D ICC EVALUATION SERVICES INC. 1) ICC-ES EVALUATION REPORT, ESR-3073, VERDURA RETAINING WALL SYSTEM.

1.03 SUBMITTALS/CERTIFICATION

- SUBMITALS/CERTIFICATION

 A. CONTRACTOR SHALL SUBMIT A MANUFACTURER'S CERTIFICATION PRIOR TO START OF WORK THAT THE RETAINING WALL SYSTEM COMPONENTS MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND STRUCTURE DESIGN PLANS.

 B. CONTRACTOR SHALL SUBMIT A TEST REPORT DOCUMENTING STRENGTH OF SPECIFIC MODULAR CONCRETE UNIT AND GEOSYNTHETIC REINFORCEMENT CONNECTION TO VERDURA BLOCKS. THE MAXIMUM DESIGN TENSILE LOAD OF THE GEOSYNTHETIC—FACING UNIT CONNECTION AT A MAXIMUM NORMAL FORCE AS IS APPROPRIATE FOR THE VERTICAL LOCATION OF REINFORCEMENT UNDER CONSIDERATION. THE CONNECTION STRENGTH EVALUATION SHALL BE PERFORMED IN ACCORDANCE WITH NCMA TEST METHOD SRWU—1.

 C. GEOORID SOIL REINFORCEMENT: GEOSYNTHETIC REINFORCEMENT SHALL BE OF THE TYPE SHOWN ON THESE DESIGN PLANS. THE CONTRACTOR, OR THE SUPPLIER AS HIS AGENT, SHALL FURNISH THE GEOTECHNICAL ENGINEER OF RECORD WITH A CERTIFICATE OF COMPLIANCE CERTIFYING THAT THE GEOSYNTHETIC REINFORCEMENT COMPLIES WITH THIS SECTION OF THE SPECIFICATIONS, THE DRAWINGS AND THE DESIGN CALCULATIONS.

1.04 QUALITY ASSURANCE

- A. CONTRACTOR SHALL SUBMIT CERTIFICATION, PRIOR TO START OF WORK, THAT THE RETAINING WALL SYSTEM (MODULAR CONCRETE UNITS AND SPECIFIC GEOSYNTHETIC):
- 1) HAS BEEN SUCCESSFULLY UTILIZED ON A MINIMUM OF FIVE (5) SIMILAR PROJECTS, I.E., HEIGHT, SOIL FILL TYPES.
- 1) HAS BEEN SUCCESSFULLY UTILIZED ON A MINIMUM OF FIVE (5) SIMILAR PROJECTS, I.E., HEIGHT, SOIL FILL TYPES, ERECTION TOLERANCES, ETC.; AND...
 2) HAS BEEN SUCCESSFULLY INSTALLED ON A MINIMUM OF 1 MILLION SQUARE FEET OF RETAINING WALLS.

 8. CONTRACTOR SHALL SUBMIT A LIST OF FIVE (5) PREVIOUSLY CONSTRUCTED PROJECTS OF SIMILAR SIZE AND MAGNITUDE BY THE WALL INSTALLER WHERE THE SPECIFIC RETAINING WALL SYSTEM HAS BEEN CONSTRUCTED SUCCESSFULLY. CONTACT NAMES AND TELEPHONE NUMBERS SHALL BE LISTED FOR EACH PROJECT.

 C. CONTRACTOR SHALL PROVIDE EVIDENCE THAT THE DESIGN ENGINEER HAS A MINIMUM OF FIVE YEARS OF DOCUMENTED EXPERIENCE IN THE DESIGN OF REINFORCED SOIL STRUCTURES.

 D. OWNER SHALL PROVIDE SOIL TESTING AND QUALITY ASSURANCE DURING EARTHWORK AND WALL CONSTRUCTION OPERATION.
- OWNER'S QUALITY ASSURANCE PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR WALL PERFORMANCE.

1.05 DELIVERY, STORAGE AND HANDLING

- ELIVENT, STORAGE AND HANDLING.
 A. CONTRACTOR SHALL CHECK ALL MATERIALS UPON DELIVERY TO ASSURE THAT THE PROPER TYPE, GRADE, AND CERTIFICATION. HAVE BEEN RECEIVED.
- MAYE BEEN RECEIVED.

 B. CONTRACTOR SHALL PROTECT ALL MATERIALS FROM DAMAGE DUE TO JOBSITE CONDITIONS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DAMAGED MATERIALS SHALL NOT BE INCORPORATED INTO THE WORK

- 2.01 MODULAR CONCRETE RETAINING WALL UNITS
 A. MODULAR CONCRETE UNITS SHALL BE VERDURA, AS INDICATED IN TABLE 2.
 B. MODULAR CONCRETE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-1372 STANDARD SPECIFICATIONS B. MODULAR CONCRETE MATERIALS STALL CONTOURN TO THE FOLLOWING STRUCTURAL AND GEOMETRIC REQUIREMENTS MEASURED IN ACCORDANCE WITH SECTION 1.03 AND OTHER APPROPRIATE REFERENCES:

 * COMPRESSIBLE STRENGTH = 4000 PSI MINIMUM AT 28 DAYS;

 * MOISTURE ABSORPTION = 8% MAXIMUM FOR STANDARD WEIGHT AGGREGATES;
 - - * MOISTURE ABSURFTION = 9% MAXIMUM FOR STANDARD WEIGHT AGGREGATES;

 * BATTER = AS INDICATED IN TABLE 2.

 * DIMENSIONAL TOLERANCES = ±1/8" FROM NOMINAL UNIT DIMENSIONS (NOT INCLUDING EXPOSED AGGREGATE FACE TEXTURE), ±1/8" UNIT HEIGHT TOP AND BOTTOM PLANES.

2.02 GEOSYNTHETIC-CONCRETE BLOCK CONNECTORS

- A. CONNECTORS SHALL BE 1 INCH DIAMETER OR GREATER SCHEDULE 80 PIPE OR EQUIVALENT AND MUST BE CAPABLE OF PROVIDING POSITIVE MECHANICAL INTERLOCK BETWEEN GEOSYNTHETIC SOIL REINFORCEMENT MATERIAL (GEOTEXTILE OR GEOGRID) AND BLOCK.
- B. CONNECTORS SHALL BE CAPABLE OF HOLDING THE GEOSYNTHETIC SOIL REINFORCEMENT IN THE PROPER DESIGN POSITION DURING GEOSYNTHETIC PRE-TENSIONING AND BACKFILLING PROCEDURES

2.03 UNIT FIL

A. UNIT FILL SHALL CONSIST OF SOILS USED FOR WALL BACKFILL OR AS SPECIFIED BY THE PROJECT LANDSCAPE ARCHITECT.

AS BUIL

- A. SELECT ENGINEERED FILL FOR THE REINFORCED/INFILL SOIL AND RETAINED/BACKFILL SOIL. SOIL ZONES SHALL BE ON-OR IMPORTED SOILS ACCEPTED BY THE GEOTECHNICAL ENGINEER OF RECORD AND HAVING THE SOIL STRENGTH PROPERTIES AS NOTED IN TABLE 3 WHEN COMPACTED TO 90% RELATIVE COMPACTION PER ASTM D- 1557.
- B. ENGINEERED FILL MATERIALS FOR THE UPPER ONE (1) FOOT IMMEDIATELY BEHIND THE TOPMOST BLOCK AND ABOVE THE ZONE OF SELECTED SOIL MATERIALS AS SHOWN ON THE TYPICAL SECTION SHALL BE COMPROMISED OF MORE IMPERVIOUS (FINES>35%) ON-SITE SOILS.
- C. MATERIALS CAN BE SITE-EXCAVATED SOILS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS (HIGH

UTILITY NOTE ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE PLOTTED FROM RECORD DATA AT THEIR APPROXIMATE LOCATIONS.

I, MAIERIALS CAN BE SITE-EXCAVALED SOLIS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS (HIGH PLASTIC CLAYS OR ORGANIC SOILS) SHALL NOT BE USED.

I. SOIL WITHIN 6 INCHES OF A GEOGRID LAYER SHALL NOT CONTAIN PARTICLES LARGER THAN 6 INCHES.
I. GEOTECHNICAL-ENGINEER-OF-RECORD SHALL PERFORM LABORATORY TESTS ON THE SOIL MATERIAL PROPOSED FOR USE TO ENSURE COMPLIANCE WITH REQUIREMENTS STATED IN SECTION 2.04, TEM A AS OUTLINED ABOVE PRIOR TO THE PLACEMENT OF THE MATERIALS FOR THE SELECT BACKFILL/REINFORCED SOIL ZONE.

VERDURA® SEGMENTAL WALL PLANS

2.05 DRAINAGE PIPE
A. PROVIDE A PERFORATED AND SOLID PIPING SYSTEM CONSISTING OF 4-INCH-DIAMETER SCHEDULE 40 PVC PIPE AS SHOWN ON THESE PLANS

2.06 FILTER FABRIC

A. PROVIDE FILTER FABRIC CONSISTING OF MIRAFI 140N OR EQUIVALENT AS SPECIFIED BY THE GEOTECHNICAL

- A PRIOR TO WORK, CAREFULLY INSPECT PREVIOUS GRADING WORK, VERIFY THAT ALL SUCH WORK IS COMPLETE TO
- THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE.
 B. VERIFY THAT WORK OF THIS SECTION MAY BE INSTALLED IN STRICT ACCORDANCE WITH THE ORIGINAL DESIGN, ALL PERTINENT CODES AND REGULATIONS
- PERTINENT CODES AND RESULATIONS.

 C. VERIFY WALL DRAINAGE SYSTEM IS COORDINATED WITH POINTS OF CONNECTION TO STORM DRAINAGE SYSTEM OR OTHER APPROVED OUTLET LOCATION.

 D. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE PROJECT CIVIL ENGINEER, ______, AT (###)
- ###-###. DO NOT PROCEED WITH INSTALLATION UNTIL ALL SUCH DISCREPANCIES HAVE BEEN RESOLVED.

- VERIEY ALL STAKING AND FIELD ENGINEERING REQUIRED TO IMPLEMENT THE WORK AS SHOWN ON THE DRAWINGS
- A. VERIFY ALL STAKING AND FIELD ENGINEERING REQUIRED TO IMPLEMENT THE WORK AS SHOWN ON THE DRAWINGS.

 B. PROTECT ALL STAKES AND BENCHMARKS. REPLACE ALL STAKES AND BENCHMARKS DAMAGED DURING THE COURSE OF CONSTRUCTION AT NO COST TO OWNER.

 C. SET GRADE STAKES USING INSTRUMENT TECHNOLOGY, AT 50-FOOT GRID INTERVALS AT AREAS WHERE GRADIENTS ARE LESS THAN 2 PERCENT. SET GRADE STAKES USING INSTRUMENT TECHNOLOGY, 25-FOOT—INTERVALS AT AREAS WHERE GRADES ARE GREATER THAN 2 PERCENT.

 D. HAND TRIM EXCAVATIONS TO REQUIRED ELEVATIONS. CORRECT OVER—EXCAVATION WITH FILL MATERIALS APPROVED BY THE GEOTECHNICAL ENGINEER OF RECORD.

 E. REMOVE LARGE STONES OR OTHER HARD MATTER WHICH WOULD DAMAGE PIPES OR IMPEDE CONSISTENT BACKEL UNIC OR COMPACTION.
- BACKFILLING OR COMPACTION
- PROVIDE ALL EQUIPMENT OF SUCH TYPE, FUNCTION, AND DESIGN AS REQUIRED TO ACHIEVE SPECIFIC VALUES. WHERE NECESSARY, PROVIDE RUBBER-TIRED AND VIBRATORY SHEEPSFOOT COMPACTION EQUIPMENT

3.03 SUBSURFACE DRAINAGE SYSTEM INSTALLATION

- SUBSURFACE DRAINAGE SYSTEM INSTALLATION
 A. EXCAVATE TERCHCHES FOR DRAINAGE PIPING SHOWN ON DRAWINGS.
 B. LAY FILTER FABRIC IN BOTTOM OF EXCAVATION PRIOR TO PLACING PERMEABLE FILL. PLACE MINIMUM
 4—INCH-THICK BED OF DRAIN ROCK (3/4" CRUSHED AGGREGATE) OVER FABRIC.
 C. INSTALL AND JOIN 4" PVC PIPE AND PIPE FITTINGS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
 INSTALL DRAINAGE PIPING WITH PERFORATIONS DOWN. JOIN PIPE ENDS AND CAP ANY FREE ENDS OF PERFORATED
 DIDENTIFY CONCEPT.
- PIPE WITH SOLVENT CEMENT.

 D. LAY 4" PVC PIPE TO SLOPE GRADIENTS OF THE WALL FOUNDATION, WITH MAXIMUM VARIATION FROM TRUE SLOPE
 OF 1/8 INCH IN 10 FEET.

- OF 1/8 INCH IN 10 FEET.

 E. BACKFILL PIPE USING DRAIN ROCK (3/4" CRUSHED AGGREGATE).

 F. WRAP FILTER FABRIC AROUND AGGREGATE COVER AND TUCK LOOSE EDGE BETWEEN AGGREGATE AND SOIL.

 G. INSTALL TRENCH BACKFILL IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION. DO NOT DISPLACE OR DAMAGE PIPE WHEN COMPACTING.

 H. EXTEND NON-PERFORATED 4" PVC DISCHARGE PIPES TO APPROVED OUTLET LOCATION AT LOCATIONS SHOWN ON
- DRAWINGS OR PER GEOTECH RECOMMENDATIONS. NON PERFORATED 4" PVC DISCHARGE PIPES SHALL SLOPE A MINIMUM OF 2%. PROVIDE TRENCHING, BEDDING, AND BACKFILL AS REQUIRED.

- EXCAVATION

 A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. OWNER'S REPRESENTATIVE SHALL INSPECT THE EXCAVATION AND APPROVE PRIOR TO PLACEMENT OF LEVELING MATERIAL OR FILL SOILS. PROOF FOLL FOUNDATION AREA AS DIRECTED BY THE GEOTECHNICAL ENGINEER OF RECORD TO DETERMINE IF REMEDIAL WORK IS REQUIRED.

 B. OVER-EXCAVATION AND REPLACEMENT OF UNSUITABLE FOUNDATION SOILS WITH APPROVED COMPACTED FILL WILL BE COMPENSATED AS AGREED UPON WITH THE OWNER.

3.05 MODILIAR LINIT INSTALLATION

- (ODULAR UNIT INSTALLATION
 A FIRST COURSE OF UNITS SHALL BE PLACED ON THE FOUNDATION SOILS OR LEVELING PAD, AS DIRECTED BY THE
 GEOTECHNICAL ENGINEER OF RECORD, AT THE APPROPRIATE LINES AND GRADES. MOLDED SURFACE OF MODULAR
 UNITS SHALL BE USED FOR ALIGNMENT. ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND
 ENSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERTY SEATED.

 B. UNITS SHALL BE PLACED ON THE FOUNDATION SOILS WITH A MAXIMUM DISTANCE OF 9 INCHES BETWEEN
- 3. UNITS SHALL BE PLACED ON THE FOUNDATION SOILS WITH A MAXIMUM DISTANCE OF 9 INCHES BETWEEN ADJACENT UNITS. THE SPACING BETWEEN UNITS INSTALLED IN CURVED REGIONS (CONCAVE OR CONVEX) MUST BE ADJUSTED ACCORDINGLY SUCH THAT THE RUNNING BOND LAYOUT IS MAINTAINED. VERTICALLY ADJACENT UNITS SHALL BE CENTERED ON UNITS ABOVE AND BELOW. ALL BLOCK LAYOUT AND PLACEMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

 3. MODULAR UNITS MAY BE INSTALLED HORIZONTALLY WITH RESPECT TO THE PROFILE WALL ALIGNMENT OR MAY BE MADE TO FOLLOW THE BOTTOM OF WALL CONTOURS ("RUN WITH THE GRADE"). WHERE BOTTOM OF WALL CONTOURS ARE USED TO SET THE FIRST ROW OF MODULAR BLOCKS, GRADES MAY NOT SLOPE MORE THAN 15% WITH RESPECT TO THE WALL PROFILE BASE.
- D. PLACE AND COMPACT REINFORCED AND RETAINED FILL BEHIND WALL UNITS. AFTER UNIT FILL (AS DEFINED IN 2.03))S COMPACTED EXCESS UNIT FILL MUST BE SCREEDED (ROD—BOARDED) OFF TO DEVELOP A FLAT BASE UPON WHICH SUBSEQUENT UNITS CAN BE POSITIONED. FOLLOW WALL ERECTION AND UNIT FILL CLOSELY WITH REINFORCED FILL.
- F. MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS PRIOR TO UNIT FILL AND REINFORCED/RETAINED FILL PLACEMENT AND COMPACTION SHALL NOT EXCEED ONE COURSE

- 3.06 GEOSYNTHETIC SOIL REINFORCEMENT INSTALLATION
 A. GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE ORIENTED WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL ALIGNMENT.
 B. GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE PLACED AT THE STRENGTHS, LENGTHS, AND ELEVATIONS SHOWN ON THESE DRAWINGS. WHERE GEOSYNTHETIC PLACEMENT ELEVATIONS VARY FROM FACING UNIT INCREMENTS, GEOSYNTHETIC ELEVATIONS MAY BE ADJUSTED UP OR DOWN BY 4 INCHES MAXIMUM.
 C. THE GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND ATTACHED TO THE MODULAR WALL UNITS IN ACCORDANCE WITH THE DETAILS OF THESE PLANS AND SPECIFICATIONS. A TOLERANCE FROM FACE TO TAIL OF REINFORCEMENT OF 6" IN 10' IS ACCEPTABLE RELATIVE TO HORIZONTAL GEOSYNTHETIC ORIENTATION. PLACE THE NEXT COURSE OF MODULAR CONCRETE UNITS OVER THE GEOSYNTHETIC SOIL REINFORCEMENT. THE GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE LAID FLAT PRIOR TO BACKFILL PLACEMENT ON THE GEOSYNTHETIC SOIL REINFORCEMENT.
 D. GEOSYNTHETIC SOIL REINFORCEMENT.
 D. GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE LAID FLAT PRIOR TO BACKFILL PLACEMENT ON THE GEOSYNTHETIC SOIL REINFORCEMENT.
 D. GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE LAID FLAT PRIOR TO BACKFILL PLACEMENT SHALL BE LAD FLAT PRIOR TO BACKFILL PLACEMENT SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF EMBEDMENT. SPLICED CONNECTIONS BETWEEN SHORTER PIECES OF GEOSYNTHETIC SOIL REINFORCEMENT WILL NOT BE PERMITTED.



3.07 REINFORCED BACKFILL PLACEMENT

- A REINFORCED BACKFILL SHALL BE PLACED, SPREAD AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF SLACK IN THE GEOSYNTHETIC SOIL REINFORCEMENT AND INSTALLATION DAMAGE.
- B. REINFORCED SOIL BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED THE "RAIL HEIGHT" OF THE UNITS BEING PLACED. LIFT THICKNESSES SHALL BE DECREASED TO ACHIEVE THE REQUIRED DENSITY AS REQUIRED.

 C. REINFORCED BACKFILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION AS DETERMINED BY ASTM D-1557. THE MOISTURE CONTENT OF THE BACKFILL MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH
- D. ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 1 FOOT FROM THE BACK OF THE MODULAR CONCRETE
- UNIT.

 E. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE GEOSYNTHETIC SOIL REINFORCEMENT. A
- E. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE CEOSYNTHETIC SOIL REINFORCEMENT. A MINIMUM FILL THICKNESS OF 6 INCHES IS REQUIRED PRIOR TO OPERATION OF TRACKED CHICLES OVER THE GEOSYNTHETIC SOIL REINFORCEMENT. TRACKED VEHICLE TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE GEOSYNTHETIC SOIL REINFORCEMENT.

 F. RUBBER TIRED EQUIPMENT SHALL PASS OVER CEOSYNTHETIC SOIL REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN BRAKING AND SHARP TURNING SHALL BE AVOIDED.

 AT THE END OF FACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LIFT OF REINFORCED BACKFILL AWAY FROM THE WALL UNITS TO DIRECT RUNDEF AWAY FROM THE WALL FACE. THE CONTRACTOR SHALL NOT ALLOW SURFACE RUN-OFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION STIE.

 H. CARE SHOULD BE TAKEN DURING EXCANATION FOR AND CONSTRUCTION OF THE V-DITCH AND ALL OTHER SURFACE IMPROVEMENTS AND CONSTRUCTION OF THE V-DITCH AND ALL OTHER THE WALL STRUKTING TO REASON.

- ADJACENT TO THE WALL STRUCTURE TO PREVENT DAMAGE TO THE UPPER GEOGRID LAYER. IF THE GEOGRID LAYERS ARE DAMAGED, THEY NEED TO BE PROPERLY REPLACED.

3.08 EROSION CONTROL

PROVIDE DUST AND EROSION CONTROL PROTECTION PLAN IN ACCORDANCE WITH CONTACT DOCUMENTS.

- 3.9 AS-BUILT CONSTRUCTION TOLERANCES

 A VERTICAL ALIGNMENT: ±1.5 INCHES OVER ANY 10 FT DISTANCE.

 B. WALL BATTER: WITHIN 2 DEGREES OF DESIGN BATTER.

 C. HORIZONTAL ALIGNMENT: ±1.5 INCHES OVER ANY 10 FT DISTANCE.

 D. CORNERS, BENDS, CURVES: ±1 FT TO DESIGN LOCATIONS.
- E. MAXIMUM HORIZONTAL GAP BETWEEN ERECTED UNITS SHALL BE 9 INCHES.

3.10 FIFLD QUALITY CONTROL

- ELD QUALITY CONIROL

 A THE OWNER SHALL ENGAGE INSPECTION AND TESTING SERVICES, INCLUDING INDEPENDENT LABORATORIES, TO PROVIDE QUALITY
 ASSURANCE AND TESTING SERVICES DURING CONSTRUCTION. THIS DOES NOT RELIEVE THE CONTRACTOR FROM SECURING THE
 NECESSARY CONSTRUCTION CONTROL TESTING DURING CONSTRUCTION.

 B. QUALIFIED AND EXPERIENCED TECHNICIANS AND ENGINEERS SHALL PERFORM TESTING AND INSPECTION SERVICES.

 C. AS A MINIMUM, QUALITY ASSURANCE TESTING SHOULD INCLUDE FOUNDATION SOLI INSPECTION, SOIL AND BACKFILL TESTING,
 VERPICATION OF DESIGN PARAMETERS, AND OBSERVATION OF CONSTRUCTION FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS
 AND SECTIONATIONS.
- D. FIELD INSPECTION AND TESTING SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER OF RECORD.

3.11 SPECIAL INSPECTION

- LEJAL INSPECTION
 A. PER ICC-ES EVALUATION REPORT ESR-3073, SPECIAL INSPECTION DURING INSTALLATION MUST BE PROVIDED IN ACCORDANCE WITH
 THE 2013 CALIFORNIA BUILDING CODE (CBC) SECTION 1704. AT A MINIMUM BUT NOT LIMITED TO, THE INSPECTOR'S
 RESPONSIBILITES INCLUDE VERIFIYING THE FOLLOWING:

 1. BLOCK TYPE AND UNIT DIMENSIONS.
 2. VERIFICATION OF BLOCK UNIT FOR COMPULANCE WITH ASTM C1372, INCLUDING COMPRESSIVE STRENGTH AND WATER
 ABSORPTION, AS DESCRIBED IN SECTION 3.2.1 OF ESR-3073.
 3. DEPOCHATION OF THE PROVINCE WITH ASTM C1372 INCLUDING COMPRESSIVE STRENGTH AND WATER
 ABSORPTION, AS DESCRIBED IN SECTION 3.2.1 OF ESR-3073.
 3. DEPOCHATION OF THE PROVINCE WITH ASTM C1372 INCLUDING COMPRESSIVE STRENGTH AND WATER
 ABSORPTION, AS DESCRIBED IN SECTION 3.2.1 OF ESR-3073.

- PRODUCT IDENTIFICATION. INCLUDING EVALUATION REPORT NUMBER (ESR. 3073).
- FOUNDATION PREPARATION
- 4. FOUNDATION PREPARATION.
 5. VERDURA BLOCK UNIT PLACEMENT, INCLUDING PROPER ALIGNMENT AND INCLINATION WITHIN DESIGN TOLERANCES.
 6. PVC PIPE CONNECTIONS, INCLUDING INSTALLATION LOCATIONS, PROPER FIT WITHIN THE BLOCKS, AND INSTALLATION SEQUENCE WITH RESPECT TO THE GEOGRID PLACEMENT.
 7. GEOGRID BENIFORCEMENT TYPE (SEE TABLES 2 AND 3), LOCATION AND PLACEMENT.
 8. PLACEMENT OF APPROVED BACKFILL AND COMPACTION.

TABLE 1 — REFERENCED DOCUMENTATION:

- 1. ROUGH GRADING PLANS, SALT CREEK SUBSTATION, PREPARED BY NV5.
 2. VERDURA WALL DESIGN PARAMETERS, SALT CREEK SUBSTATION, PREPARED BY KLEINFELDER WEST, INC., PROJECT NO. 125040, DATED 8/15/2014.
- 3. VERDURA 40 RETAINING WALL DESIGN, SALT CREEK SUBSTATION. PREPARED BY SOIL RETENTION

TABLE 2 - VERDURA BLOCK PROPERTIES

UNIT TYPE, VERDURA	V30 /	V40	V50 /	\ V60 /
UNIT SIZE, RAIL HEIGHT, IN.	6.5	7.75	6.5	8
UNIT SIZE, CROWN HEIGHT, IN.	9.5/	10.75	9.5	10.75
UNIT SIZE, WIDTH, IN.)¢	18)¢	⅓ €
UNIT SIZE, DEPTH, IN.	/12	12	/18\	/18\
WEIGHT, LBS.	58	89	110	132
BATTER = (DEGREES FROM VERTICAL)	20	14	20	/ 14

TABLE 3 - SOIL STRENGTH REQUIREMENTS

		•			
MATERIAI	SHEAR S	UNIT WEIGHT			
MATERIAL	FRICTION ANGLE	COHESION (psf)	(pcf)		
REINFORCED/INFILL SOIL*	32	0	125		
RETAINED/BACKFILL SOIL	27	0	120		
FOUNDATION SOIL	27	450	120		

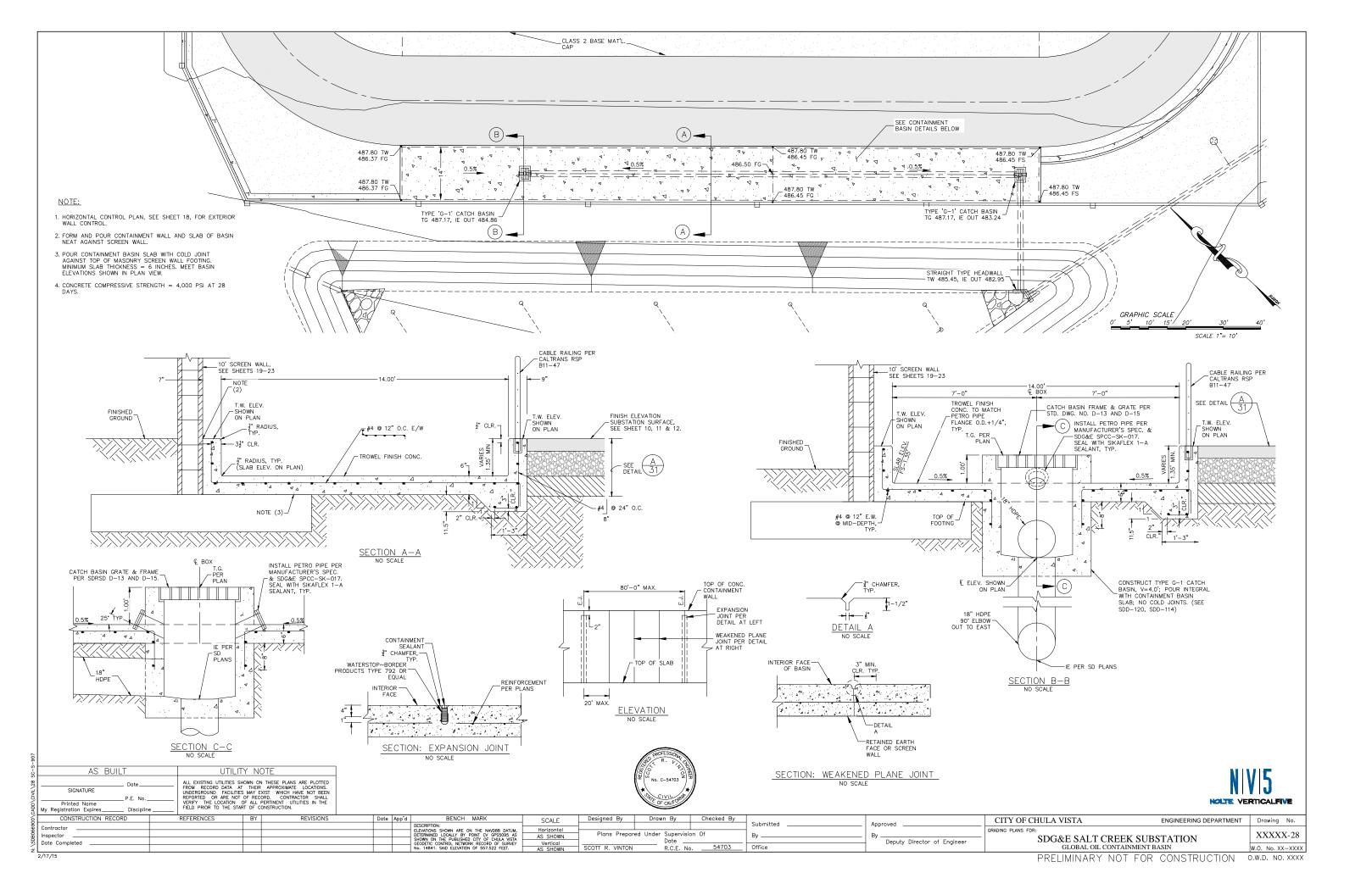
* REINFORCED/INFILL SOIL SHALL HAVE MAXIMUM FINE SOIL FRACTION (% PASSING #200 SIEVE) OF 50%. THE MAXIMUM PLASTICITY INDEX (PI) OF THE FINE SOIL FRACTION SHALL BE 20.

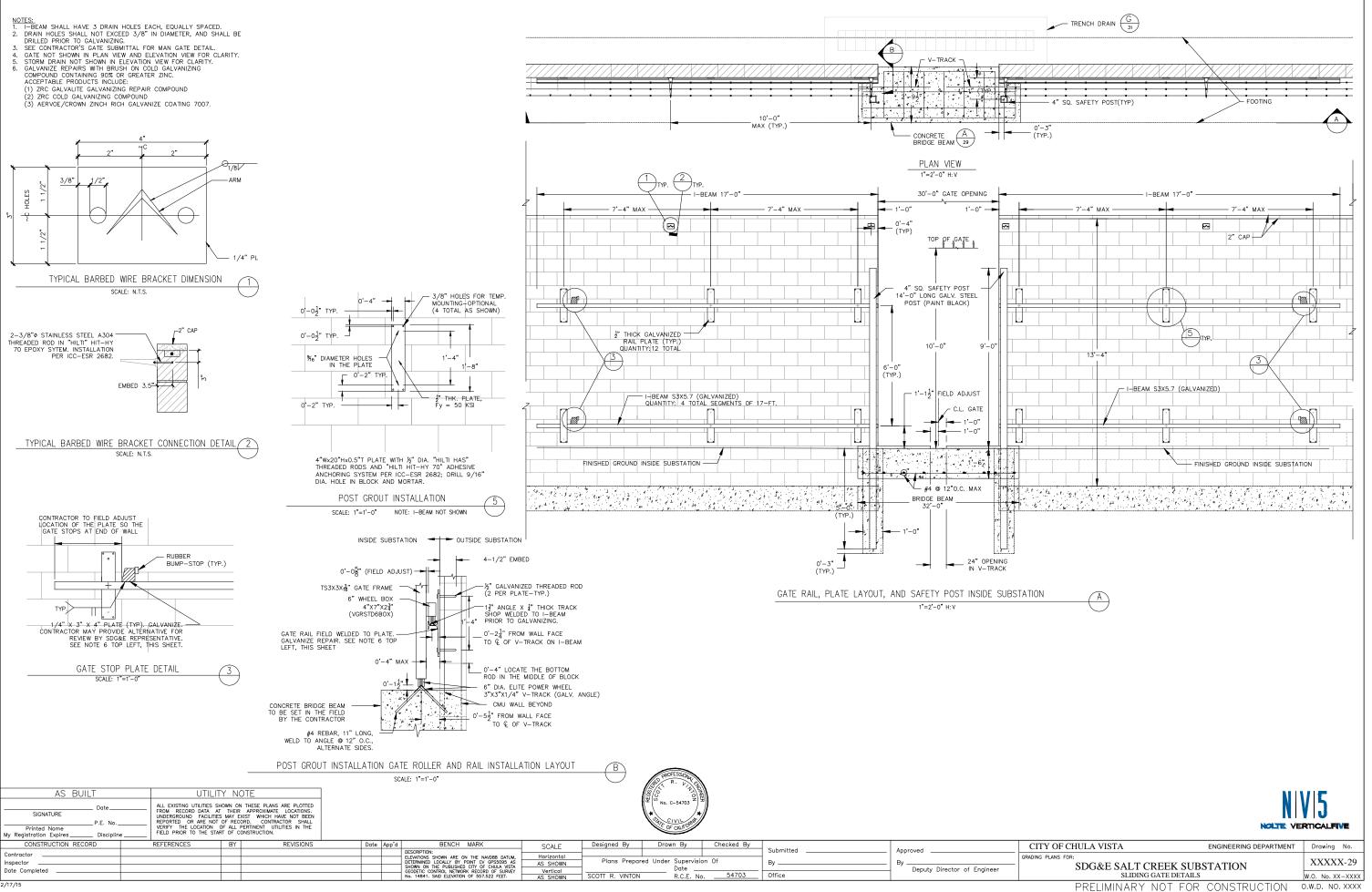
TABLE 4 - GEOSYNTHETIC REINFORCEMENT PROPERTIES

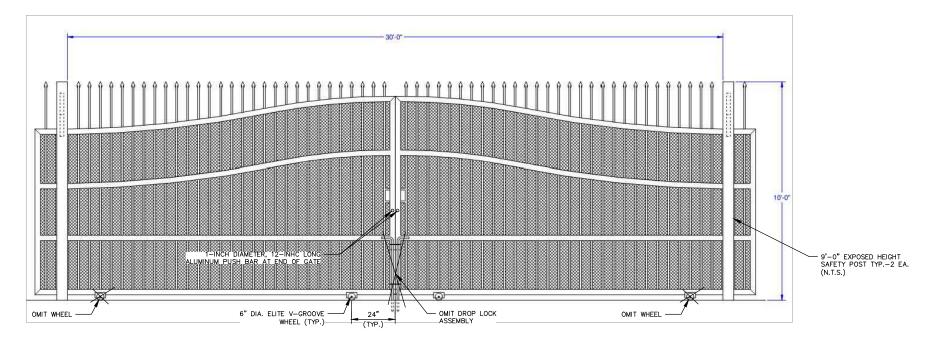
MIRAGRID												
	TE METHO		5XT	8XT	10XT	20XT						
TENSILE STRENGTH (AT ULTIMATE)	ASTM D6637	lbs/ft	4700	7400	9500	13705						
LONG TERM ALLOWABLE DESIGN LOAD	GRI GG-4	lbs/ft	2575	4055	5206	7510						



CADD\CIVIL\;	SIGNATURE P.E. No. Printed Name My Registration Expires Discipline	UNDERGROUND FACI REPORTED OR ARE	LITIES MAY EXIS NOT OF RECORI ON OF ALL PER	APPROXIMATE LOCATIONS. ST WHICH HAVE NOT BEEN D. CONTRACTOR SHALL RTINENT UTILITIES IN THE STRUCTION.					CAL						ERTICALFIVE
00	CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date App'd	BENCH MARK	SCALE	Designed By	Drawn By Chec	sed By Submitted	Α	oproved	CITY OF CHULA VISTA	ENGINEERING DEPARTMENT	Drawing No.
98	Contractor Inspector Date Completed				ELEVA DETER SHOWI	TIONS SHOWN ARE ON THE NAVD88 DATUM, MINED LOCALLY BY POINT CV GPS5095 AS N ON THE PUBLISHED CITY OF CHULA VISTA	Horizontal AS SHOWN	Plans Prepared	J d Under Supervision Of Date	Ву	В	y	GRADING PLANS FOR: SDG&E SALT CRE	EK SUBSTATION	XXXXX-27
ź	Date Completed				GEODE No. 1	TIC CONTROL NETWORK RECORD OF SURVEY 4841. SAID ELEVATION OF 557.522 FEET.	Vertical AS SHOWN	CHRISTOPHER J. KR	RIER R.C.E. No.	1833 Office		Deputy Birector of Engineer	MSE WALL STRUC	CTURAL NOTES	W.O. No. XX-XXXX

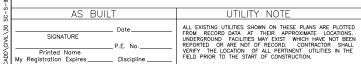






SUBSTATION ALUMINUM SLIDING GATE

SEE SHEET 29 FOR SLIDING GATE ATTACHMENT DETAILS, RAIL AND PLATE LAYOUT.







My Registration Expires Discipline																
CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd	BENCH MARK	SCALE	Designed By	Drawn By	Checked By	Submitted		Approved	CITY OF CHULA VISTA	ENGINEERING DEPARTMENT	Drawing No.
Contractor Inspector Date Completed					EL DE SH GE	SCRIPTION: EVATIONS SHOWN ARE ON THE NAVD88 DATUM, ETERMINED LOCALLY BY POINT CV GPS5095 AS HOWN ON THE PUBLISHED CITY OF CHULA VISTA CODETIC CONTROL NETWORK RECORD OF SURVEY 5. 14841. SAID ELEVATION OF 557.522 FEET.	Horizontal AS SHOWN Vertical AS SHOWN	Plans Prepai	red Under Supervis Date R.C.E. N	5.1707	By		By	GRADING PLANS FOR: SDG&E SALT CREE GATE DET		XXXXX-30
2/17/15														PRELIMINARY NO	T FOR CONSTRUCTION (O.W.D. NO. XXXX

