

## STANDARD GRADING GENERAL NOTES:

- 24-HOUR ADVANCE NOTICE IS REQUIRED PRIOR TO THE START OF ANY WORK (714) 741-5887
- All work shall conform to the City of Garden Grove latest Standard Plans and Specifications, the 2010 Standard Specifications of the State of California Department of Transportation, the City of Garden Grove Ordinance No. 2590, and the 2010 California Building Code.
  - The Contractor shall obtain all necessary permits and notify the City of Garden Grove Water Department and all other utility companies a minimum of 48 hours prior to the start of construction. It shall be the responsibility of the Contractor to coordinate all phases of construction with the various utility companies involved.
  - The Contractor shall obtain a separate permit for all work within the street right-of-way. Temporary A.C. paving shall be placed where sidewalk removals extend longer than (24) twenty-four hours as directed by the City Inspector.
  - Dust shall be controlled by watering.
  - Sanitary facilities shall be maintained on site. Facilities shall be located such that spills shall be contained and at no time enter a public or private storm drain.
  - Prior to the pouring of any foundation materials, the pad elevation and the building corners must be verified in writing to the Building Section by the Registered Civil Engineer or the Licensed Land Surveyor.
  - No fill shall be placed until the Building Official or the Soils Engineer approve preparation of ground.
  - Fills shall be compacted throughout to 90% density as determined by A.S.T.M. D1557, A.S.T.M. D1556 (sand cone), and/or A.S.T.M. D2922, (Nuclear). Sand cone method must represent no more than 20% of testing. Drive tube testing is not permitted.
  - Fill slopes shall be no steeper than 2 horizontal to 1 vertical and shall have no less than 90% compaction out to the finish surface.
  - It shall be the responsibility of the Contractor to locate the utilities of every nature whether shown hereon or not and to protect them from damage. The Contractor shall bear total cost of repair or replacement of said utilities damaged by operations.
  - The Contractor shall make provisions to have all existing on-site sewer, water, gas, electric, irrigation or telephone lines removed, abandoned, or relocated if they are interfering with the proposed construction.
  - The Contractor shall remove, cap, and abandon all existing on-site water wells, cesspools, or septic tanks encountered during grading in accordance with the latest edition of the Uniform Plumbing Code and the City Municipal Code.
  - The Soils Report prepared by GEOTEK, INC., dated OCTOBER 3, 2013 and all recommendations contained therein shall be made a part of these plans. Soils reports and testing shall be done by a Civil or Geotechnical Engineer registered in the State of California.
  - Any broken or damaged improvements on adjacent private property or public right-of-way shall be replaced or repaired in kind as directed by the City Engineer.
  - Temporary traffic control during construction shall conform to the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD), the WATCH Manual, and the requirements by the City Engineer.
  - All traffic control devices shall be installed, relocated, or removed to the satisfaction of the City Traffic Engineer.
  - The Contractor shall notify the City Engineer prior to the removal of all trees lying partially or fully within existing right-of-way.
  - Prior to the importation of any soil material to this site, an investigation shall be made and a report filed with the Building Official. Use of the soil will not be permitted if it is determined by the test results that the expansion index is in excess of twenty (20). An "R" value test shall also be performed on import soil and results submitted to the Grading Engineer. Import soil shall be clean and free of any debris. Failure to conform to these requirements shall be cause for removal and replacement of said soil.
  - Statement of Quantities - Including all remedial grading  
**Cut: 780 Cubic Yards**  
**Fill: 155 Cubic Yards**  
All earthwork and other quantities are estimated for bonding and plan check fee purposes only -- not for bidding purposes. The Contractor shall be responsible for determining the accuracy of the estimate.
  - Water meter and service to be installed by City forces upon payment of applicable fees.
  - Prior to placement of parking lot structural section, Developer shall compact sub-grade to 90% min. relative compaction. Aggregate base shall be Class II 3/4" compacted to 90% relative compaction. The Developer's Geotechnical Engineer shall submit compaction tests to the City per ASTM D1557 (Method C for aggregate base). Asphalt concrete shall be class C2 dense medium asphalt concrete mix Table 203-6.3.2(A) (The "Greenbook" 2009 edition with 6.0% AR 4000 asphalt oil.)
  - The Contractor shall install and maintain a six (6) foot high chain link fence to secure the project perimeter. The fence shall be removed upon construction of permanent perimeter fencing and/or completion of the project.
  - Concrete form elevations for curb and drainage gutters are to be verified as accurate by a licensed surveyor prior to concrete pour. Any deviations from these approved plans shall be approved by the City Engineer or corrected prior to placement of concrete.
  - Upon building completion the Registered Civil Engineer of record shall certify in writing that the project is in compliance with the lines, grades, and elevations on the approved grading plan. If the building is in a Flood Zone Hazard Area, the Civil Engineer shall supply additional certifications verifying that the lowest finish floor elevation(s) comply with the FEMA Flood Hazard elevations.
  - All concrete for curbs, gutters, and sidewalks shall be 2500 psi at 28 days. Catch basins and truck wells shall be 3000 psi at 28 days.
  - Provide the following signing and striping. Each parking space reserved for persons with physical disabilities shall be identified by a reflectorized sign permanently posted immediately adjacent to and visible from each stall or space, consisting of a profile view of a wheelchair with occupant in white on a dark blue background. The sign shall not be smaller than 70 square inches in area and when in the path of travel, shall be posted at a minimum height of 80 inches from the bottom of the sign to the parking space finished grade. Signs may also be centered on the wall at the interior end of the parking space at a minimum height of 36 inches from the parking space finished grade, ground or sidewalk. An additional sign shall also be posted, in a conspicuous place, at each entrance to off-street parking facilities, or immediately adjacent to and visible from each stall or space. The sign shall be no less than 17 inches x 22 inches in size with lettering not less than 1 inch in height, which clearly and conspicuously states the following: "Unauthorized vehicles parked in designated handicapped spaces not displaying distinguishing placards or license plates issued for physically disabled persons may be towed away at owner's expense. Towed vehicle may be reclaimed by telephoning (714) 741-\*\* Verify number with Police Department prior to fabrication of signs. In addition to the above-required signs, the surface of each parking space shall have a surface identification of either of the following:  
a. Outline the stall in blue and provide a profile view of a wheelchair with occupant in white (or other contrasting color).  
b. Provide a 36 inches x 36 inches profile view of a wheelchair with occupant in white on a blue background. Symbol shall be located such that it is visible to a traffic enforcement officer when the vehicle is parked.  
All compact parking stalls shall be individually striped. All parking stalls shall be hairpin striped. All curbs not associated with a parking stall shall be painted red.  
7. All curb ramps shall have a grooved border 12 inches wide, at the level surface or landing of the sidewalk along the top and each side approximately 3/4 inches on center. All curb ramps constructed between the face of the curb and the street right of way shall have a grooved border at the level surface or landing of the sidewalk. Ramps shall be shown on these approved plans only in conformance with Title 24, 2010 California Building Code, Chapter 11, and the Department of Justice Stds., Latest Edition.  
8. For exterior walkways and paths of travel, objects projecting from walls (for example, telephones) with their leading edges between 27 inches and 80 inches above the finished floor shall protrude no more than 4 inches into walks, halls, corridors, passageways or aisles. Objects mounted with their leading edges at or below 27 inches above the finished floor may protrude any amount. Freestanding objects mounted on posts or pylons may overhang 12 inches maximum from 27 inches to 80 inches above the ground or finished floor. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space. Any obstruction overhanging a pedestrian way shall be a minimum of 80 inches above the walking surface as measured to the bottom of the obstruction. Walks, halls, corridors, passageways, aisles or other circulation space shall have 80 inches minimum clear vertical dimension, such as at planters or fountains located in or adjacent to walks, sidewalks, or other pedestrian ways shall be identified by curbs projecting at least 6 inches in height above the walk or sidewalk surface to warn the blind of a potential drop-off. When a guardrail or handrail is provided, no curb is required when a guide rail is provided centered 3 inches plus or minus one inch above the surface of the walk or sidewalk. All work shall conform to the requirements of Title 24, 2010 California Building Code, Chapter 11, and the Department of Justice Stds., Latest Edition.  
9. All handicapped parking stalls shall conform to the detail(s) shown on the plans, Title 24, 2010 California Building Code Chapter 11, and the Department of Justice Stds., Latest Edition.  
10. Drainage shall be checked by flooding of paved areas and concrete gutters. Any concrete areas holding water shall be removed and replaced. Any pavement areas holding water shall be removed and replaced or graded to a uniform depth of 1" and capped to the satisfaction of the City Engineer.  
11. Landscape treatment and ground contouring as per the approved landscape plan, including lighting standards, shall be shown on the grading plan. Location of trees shall also be shown.  
12. Import of soil, which contains debris of deleterious substances of any kind or amount shall be removed from the construction site and replaced with clean backfill to the City Engineer's satisfaction. Any soil imported, which has an expansion index in excess of 20, shall be removed from the construction site and replaced as required by the City Engineer.  
13. The developer shall sweep all streets in the area of the construction site on a daily basis as required by the City Engineer. Washing down of any street shall not be permitted unless specifically approved by the City Engineer after all debris and silt have been removed. Failure to comply with this section shall be cause for immediate suspension of all work on the development as well as suspension of all permits approved to date.  
14. All work shall be in conformance with the latest NPDES and City of Garden Grove Local Implementation Plan (LIP) requirements. Copies of approved Erosion Control Plans and Storm Water Pollution Prevention Plan (SWPPP) where required, shall be at the construction site at all times and made available upon request for review and implementation.  
15. It is the responsibility of the contractor to ensure that all imported and exported soil is free of the Red Imported Fire Ant (RIFA).  
16. All on-site catch basins shall be stenciled notifying the public that no dumping is permitted and that all flows drain to the ocean. The contractor shall obtain the latest stencil from the City Streets Division~714.741.5956

BASIS OF BEARINGS: THE BEARING OF NO 120445°W  
 03. THE CENTERLINE OF HARBOR BOULEVARD AS  
 SHOWN ON THE PARCEL MAP FILED IN BOOK 128  
 PAGE 2, OF MAPS, RECORDS OF COUNTY OF ORANGE,  
 STATE OF CALIFORNIA, WAS USED AS THE BASIS OF  
 BEARINGS FOR THIS SURVEY.

DEATH MARK, B.M. NO. 1F-187-99 A.M.  
 DISK LOCATED ON THE SW CORNER, 4X6'  
 CONC CATCH BASIN B.M. IS LOCATED IN THE NW COR-  
 ER OF THE INT. OR HARBOR BLVD. & WESTMINSTER  
 AVE. 60' W/O THE C.L. OF HARBOR BLVD. & 65'  
 N/O THE C.L. OF WESTMINSTER AVE. B.M. IS SET  
 LEVEL WITH THE SWLK EL=87.063 FT. (NAVD88).

# City Of Garden Grove

## Department Of Public Works

### PRECISE GRADING PLAN

For CUP-368-13, VARIANCE NO. V-199-13  
 13732-13752 HARBOR BLVD

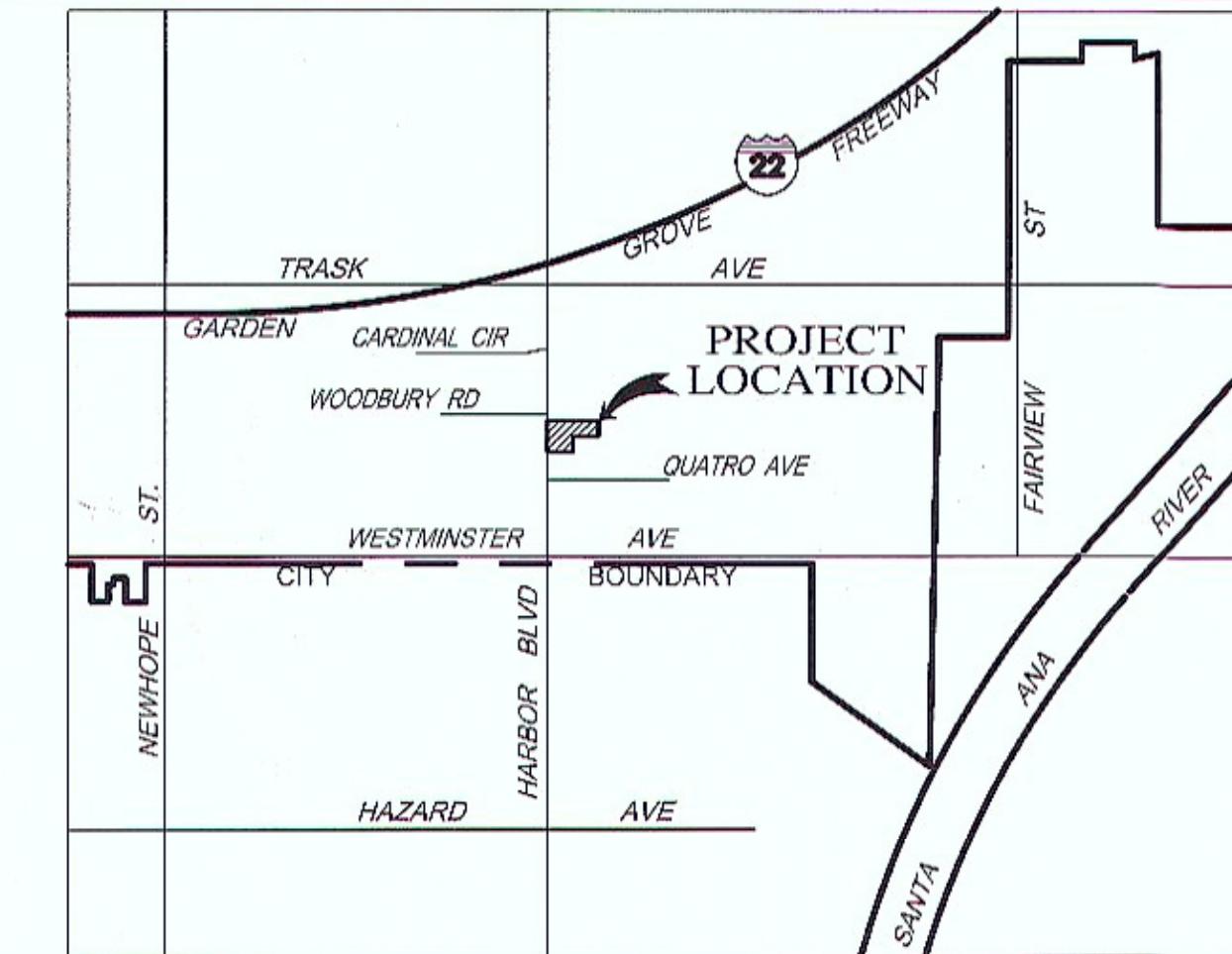


#### GENERAL WATER NOTES:

- ALL WATER FACILITIES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE WATER SERVICES DIVISION OF THE CITY OF GARDEN GROVE.
- THE CONTRACTOR SHALL NOTIFY THE WATER SERVICES DIVISION AT (714) 741-5562 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION FOR WATERLINE INSPECTION.
- ALL WATER MAINS SHALL BE AWWA C-900 CLASS 200 PVC PIPE, UNLESS OTHERWISE INDICATED ON THE PLANS.
- ALL WATER MAINS IN PRIMARY AND SECONDARY STREETS SHALL BE INSTALLED AT 42 INCH COVER BELOW FINISHED SURFACE AND AT 36 INCH COVER IN ALL COLLECTOR AND INTERIOR STREETS.
- ALL WATER MAIN, VALVE, AND FITTING JOINTS SHALL BE PER THE STANDARD SPECIFICATIONS OF THE WATER SERVICES DIVISION.
- FIRE HYDRANTS SHALL BE INSTALLED AT BCR'S OR LOT LINES WITH ALL THE REQUIRED CLEARANCES PER THE STANDARD SPECIFICATIONS OF WATER SERVICES DIVISION.
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN SEVEN FEET OF THE EDGE OF DRIVEWAYS AND OTHER REQUIRED CLEARANCE PER STANDARD PLAN NO. B-701, 702 AND 705.
- NO TAPS TO EXISTING CITY WATER MAINS SHALL BE MADE WITHOUT THE PRESENCE OF AN AUTHORIZED CITY WATER INSPECTOR. IF ANY SUCH TAPS ARE MADE, THEY WILL BE EXCAVATED AND ANY ADJUSTMENTS AS WELL AS ALL COSTS OF EXCAVATION AND RE-SURFACING SHALL BE BORNE BY THE CONTRACTOR. CONTACT WATER SERVICES DIVISION AT (714) 741-5562 AT LEAST 48 HOURS PRIOR TO INSTALLATION.
- ALL METERS AND METER BOXES SHALL BE FURNISHED BY THE WATER SERVICES DIVISION SUBSEQUENT TO PAYMENT OF ALL APPLICABLE CHARGES AND AFTER WATER MAIN AND APPURTENANCES HAVE PASSED ALL PRESSURE AND BACTERIOLOGICAL TESTS. CONTACT WATER SERVICES DIVISION AT (714) 741-5395.
- TRENCH BACKFILL FROM THE BOTTOM OF TRENCH TO THE AGGREGATE BASE SHALL BE COMPAKTED TO NOT LESS THAN 90% RELATIVE DENSITY, AND THE AGGREGATE BASE AND THE TOP 6-INCH OF THE BACKFILL MATERIAL SHALL BE COMPAKTED TO 95% RELATIVE DENSITY.
- ALL SANITARY SEWER FACILITIES SHALL MAINTAIN 10 FEET HORIZONTAL SEPARATION FROM POTABLE WATER SUPPLY FACILITIES. ALL PERPENDICULAR CROSSING OF THE SEWER SHALL MAINTAIN A VERTICAL SEPARATION OF THREE FEET BELOW THE WATER MAIN OR SHALL BE CONSTRUCTED OF CAST IRON PIPE WITH PRESSURE TIGHT JOINTS. ALL EXCEPTIONS TO THE ABOVE MUST BE APPROVED BY THE WATER SERVICES DIVISION.
- TUNNELING OF CURBS, GUTTER, SIDEWALKS, CROSS-GUTTERS AND OTHER STRUCTURES WHERE AIR VOID MAY BE CREATED WILL NOT BE PERMITTED. JACKING, PUSHING AND BORING ARE ACCEPTABLE. CONCRETE REPLACEMENT SHALL BE TO NEAREST CONSTRUCTION JOINT.
- CONSTRUCTION WATER MAY BE TAKEN ONLY AT LOCATIONS APPROVED BY THE WATER SERVICES DIVISION. A CONSTRUCTION METER AND EDDY VALVE MUST BE INSTALLED AT THESE LOCATIONS BY THE CITY AT CONTRACTOR'S EXPENSE. THIS VALVE SHALL BE OPERATED WHEN TAKING CONSTRUCTION WATER WITH THE FIRE HYDRANT REMAINING OPEN DURING THE DAY. DEVELOPERS WILL BE CHARGED FOR CONSTRUCTION WATER ON AN AS-USED BASIS.
- A MINIMUM OF 15 FEET CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY BUILDING PAD, UNLESS OTHERWISE INDICATED HEREON OR APPROVED BY THE WATER SERVICES DIVISION.
- ALL ON-SITE UNDERGROUND UTILITY LINES SHALL BE 5 FT. CLEAR OF ALL PARALLEL WATER FACILITIES WITH ADDITIONAL CLEARANCE AT HYDRANT AND BEND LOCATIONS. A MINIMUM OF 1 FT. VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER FACILITIES AND ALL OTHER UTILITIES.
- THE CONTRACTOR SHALL PROVIDE A SHUT-OFF VALVE FOR EACH WATER SERVICE LATERAL.
- ALL WATERLINES SHALL BE REQUIRED TO PASS PRESSURE, LEAKAGE, AND BACTERIOLOGICAL TESTS PER THE STANDARD SPECIFICATIONS OF THE WATER SERVICES DIVISION PRIOR TO ACCEPTANCE. A TEMPORARY CONNECTION WILL BE REQUIRED TO FACILITATE THIS TESTING.
- DISINFECTION OF ALL WATERLINES SHALL BE BY GAS CHLORINATION ONLY, METHOD FOR PRESSURE/LEAKAGE TESTING AND CHLORINATING NEW WATERLINE SHALL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE CITY WATER INSPECTOR.
- ALL WATERLINE TIE-INS SHALL BE MADE IN THE PRESENCE OF AN AUTHORIZED CITY WATER INSPECTOR. ALL CONNECTING PARTS SHALL BE SWABBED WITH A 5% CHLORINE SOLUTION.
- ALL GATE VALVES SHALL BE APPROVED RESILIENT WEDGE (RW) TYPE, EPOXY LINED AND COATED.
- THE LOCATION OF UTILITIES SHOWN HEREON IS APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND TO COORDINATE ALL PHASES OF CONSTRUCTION WITH THE VARIOUS UTILITY COMPANIES INVOLVED.
- THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES IN PLACE, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL THE REQUIRED VERTICAL BENDS NECESSARY TO MAINTAIN 1 FT. MINIMUM VERTICAL CLEARANCE FROM EXISTING UTILITIES.
- THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT 1-800-422-4133 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- EXCAVATED SECTIONS OF A.C. PIPE TO BE DISPOSED OF PROPERLY PER SCAQMD RULE 1403.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL WATER LINES IN PLACE, AND SHALL BEAR ANY EXPENSES FOR REPAIRS OR APPROVED RELOCATIONS TO SAID FACILITIES.
- NO MECHANICAL EXCAVATION WITHIN TWO FEET (LATERALLY) OF A WATER MAIN WILL BE ALLOWED.
- WATER SERVICE MUST BE MAINTAINED TO ALL CUSTOMERS WITHIN THE CONSTRUCTION AREA AT ALL TIMES. IF THE PRIMARY SOURCE OF WATER IS INTERRUPTED, A TEMPORARY SECONDARY SOURCE SHALL BE SUPPLIED BY THE CONTRACTOR APPROVED BY THE WATER SERVICES DIVISION. ANY EXPENDITURES INCIDENTAL THERETO SHALL BE BORNE BY THE CONTRACTOR.
- ANY REQUIRED BACKFLOW DEVICES SHALL BE APPROVED PRIOR TO INSTALLATION. THE DEVELOPER SHALL HAVE A CERTIFIED CROSS CONNECTION SPECIALIST TEST THE DEVICE AND PROVIDE THE CITY WITH WRITTEN TEST AND RESULTS AND CERTIFICATION. CONTACT THE CITY CROSS CONNECTION SPECIALIST, ZACK BARRETT AT (714) 741-5395 FOR ANY QUESTIONS.
31. FIRE HYDRANTS MUST BE OPERATIONAL PRIOR TO FOUNDATION POUR. CALL FIRE DEPARTMENT AT (714) 741-5600 TO HAVE FIRE HYDRANTS APPROVED PRIOR TO CALLING FOR FOUNDATION INSPECTION.

#### SANITARY DISTRICT GENERAL NOTES:

- All main line sewer construction shall comply with the latest Standard Specifications and Standard Plans of the Garden Grove Sanitary District.
- The contractor shall secure a construction permit from the Garden Grove Sanitary District prior to the start of any construction and the District shall be notified (714) 741-5395 at least two (2) working days prior to starting work.
- Standard Plans and Specifications of the Garden Grove Sanitary District are available at the District Office, City Hall, Garden Grove, California.
- Sewer stonning does not necessarily coincide with street improvement stonning.
- All pipe, pipe joints and pipe fittings to be extra strength V.C.P. meeting all Federal Specifications SSP-3616 with wedge lock joints meeting A.S.T.M. Spec. D-425. "No Hub" pipe with band seals is generally not permitted. If "No Hub" pipe is allowed it must be installed with a joint seal with an additional stainless steel band to support the center of the joint. District Inspector must approve installation prior to backfill.
- The use of Portland cement in joints is prohibited.
- Manholes shall be eccentric cone type, as shown on Standard Plans of the Garden Grove Sanitary District. Manhole covers shall be 6 inch + below sub-grade and brought to grade when paving is complete.
- All manholes shall have a 8 inch stub (min.) each way.
- House lateral are shown approximate only and the exact location of wyes and laterals shall be determined in the field at the time construction except in cases where grade requires field control.
- Final air testing from pipeline leakage shall be made in the presence of the District Inspector after the District Engineer and the City Engineering Division have accepted backfill.
- Sewer pipes shall be balled in the presence of the District Inspector after final testing and manhole covers have been brought to grade upon completion of paving. Detailed videotape shall be made of the sewer after testing and cleaning and a copy provided to the Sanitary District.
- The Engineer shall set top of curb stakes at house connections.
- The Contractor shall obtain a "City Right of Way Excavation" permit for work done in streets.
- Permit issuance is subject to payment of all necessary fees, and where applicable, granting the necessary easements to the Garden Grove Sanitary District and completion of the annexation process.
- The Engineer signing these plans shall be responsible for determining the correct locations and elevations of existing sewer facilities shown herein prior to construction. All elevations shown shall be on the latest datum of the Orange County Surveyor.
- The sewer construction shall start at the connection of existing sewer facility and proceed upgrade.
- Prior to final acceptance, the Engineer signing the plans shall provide an "as-built plan" in autocad format including house lateral as required by the Sanitary District.
- Manholes left below grade shall be marked with a 4 inch x 4 inch redwood post painted white.
- The location of existing or proposed utilities is the responsibility of the Engineer signing the plans. The District assumes no obligation for the existence or accuracy of any utilities.
- A grease trap is required per the California Plumbing Code for all establishments that serve or prepare food.



VICINITY MAP

#### UTILITY CONTACTS

COMPANY/AGENCY	CONTACT	TELEPHONE
AT&T	ROBERT FLEISHER	(714) 237-6165
GARDEN GROVE TRAFFIC DIVISION	DAN CANDELARIA	(714) 741-5185
GARDEN GROVE WATER SERVICES	SCOTT LOWE	(714) 741-5562
GARDEN GROVE SANITARY DISTRICT	SCOTT LOWE	(714) 741-5562
SOUTHERN CALIFORNIA EDISON CO.	JILL MONACO	(714) 973-5453
SO. CA. GAS CO.	DON J. AMADOR	(714) 634-3039
ORANGE COUNTY SANITARY DISTRICT	WENDY ALLISON SMITH	(714) 593-7880
REGIONAL PIPELINE MANAGER	GREG KERN	(714) 634-5005
TIME WARNER	JOHN LO	(714) 903-8213
VERIZON	LEO ESTOYA	(714) 375-6705
PACIFIC BELL	VIRGINIA BECKER	(714) 666-5467

#### GEOTECHNICAL ENGINEER

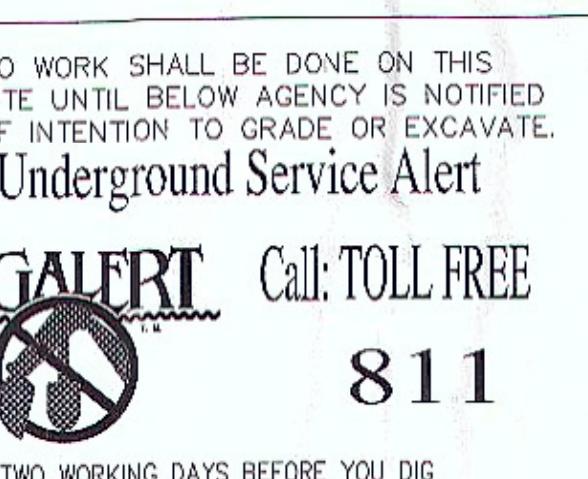
GEOTEK, INC.	Project Geologist
710 East Parkridge Ave	Jeffrey M. Pflueger
Suite 105	CEG 2499, Exp. 07/31/2014
Corona, CA 92879	
(951) 710-1160 Office	
(951) 710-1167 Fax	
www.geotekusa.com	

#### CIVIL ENGINEER

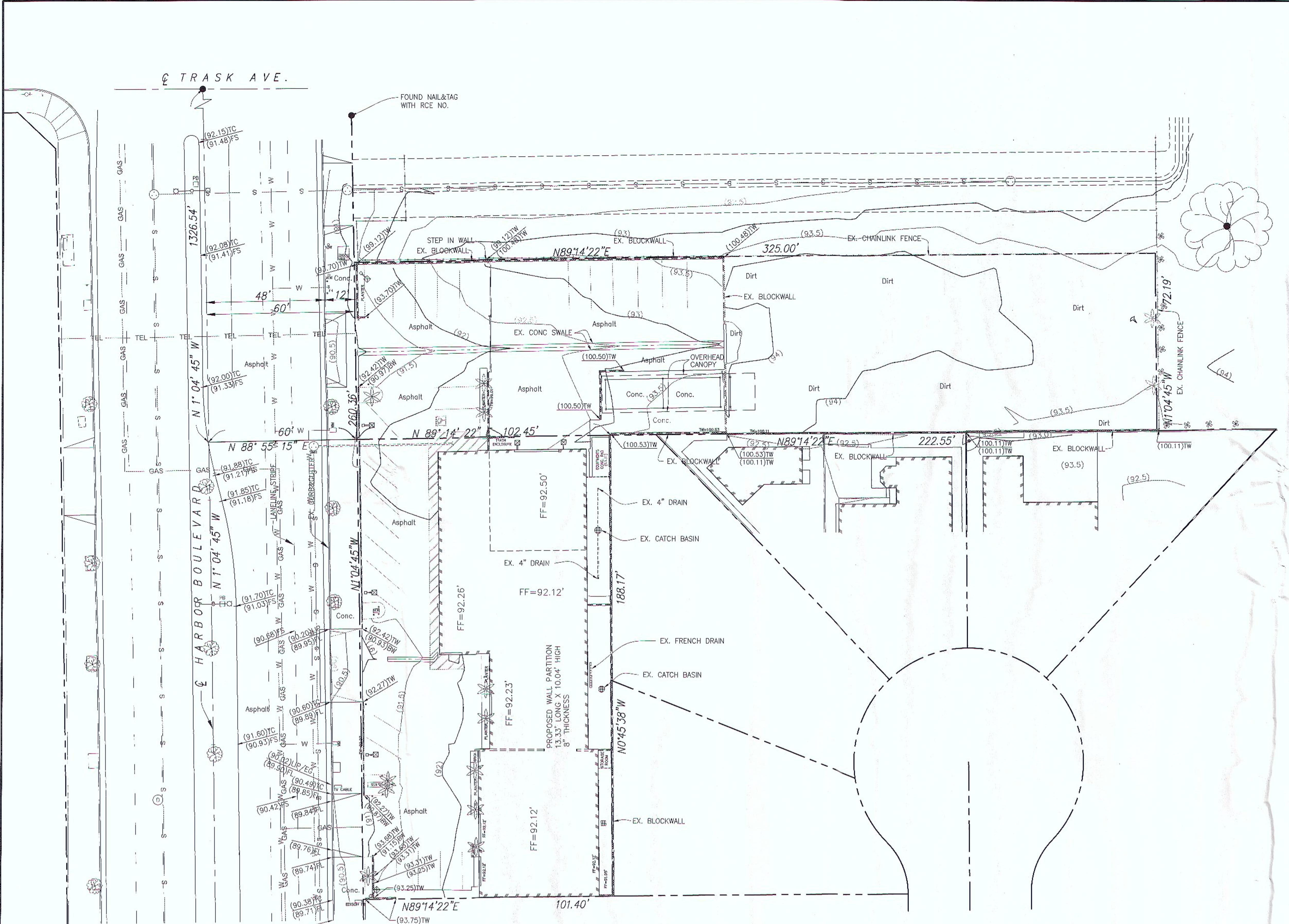
Kamal McHantaf, P.E.
23315 Saratoga Springs Place
Murrieta, CA 92562

#### INDEX TO DRAWINGS

- TITLE SHEET
- TOPOGRAPHIC SURVEY
- SECTIONS AND DETAILS
- SECTIONS AND DETAILS
- SECTIONS AND DETAILS
- SECTIONS AND DETAILS
- REMOVAL PLAN
- HORIZONTAL CONTROL
- GRADING
- EROSION CONTROL
- PHOTOMETRIC PLAN
- LANDSCAPING PLAN
- IRRIGATION PLAN
- LANDSCAPING DETAILS
- STRUCTURAL DETAILS-1
- STRUCTURAL DETAILS-2



NO



NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

## Underground Service Alert

DIGITALERT Call TOLL FREE

Call. TOLL FREE  
811

TWO WORKING DAYS BEFORE YOU DIG

TWO WORKING DAYS BEFORE YOU DIG

## Legal Description

APN: 101-080-71 SUBDIVISION: RANCHO LOS BOLSAS  
SUBD: RANCHO LOS BOLSAS S TWP 5 RGE 10 SEC 3 SEC 3 T 5 R 10 POR SW1/4  
AND

APN: 101-311-25 TRACT NUMBER: 1710  
TR#:1710 N TR 1710 BLK LOT 91 TR 1710 LOT 91 AND LOTS 9

THE BEARING OF NORTH 01°04'45" WEST FOR THE CENTERLINE OF HARBOR BOULEVARD AS SHOWN ON THE PARCEL MAP FILED IN BOOK 128, PAGE 2 OF MAPS, RECORDS OF COUNTY OF ORANGE, STATE OF CALIFORNIA, WAS USED AS THE BASIS OF BEARINGS FOR THIS SURVEY.

## Bench Mark

OCS B.M. NO. 1F-167-99 ALUMINUM BENCHMARK DISK LOCATED ON TOP OF THE SOUTHWEST CORNER OF A 4 FT. BY 8 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHWEST PORTION OF THE INTERSECTION OF HARBOR BLVD. AND WESTMINSTER AVENUE, 60' WEST OF THE CENTERLINE OF HARBOR BLVD. AND 65' NORTH OF THE CENTERLINE OF WESTMINSTER AVENUE. MONUMENT IS SET LEVEL WITH THE SIDEWALK

## Legend

— — — — — BOUNDARY OF THIS SURVEY  
● FOUND SURVEY MONUMENT  
NOTE BEARING AND DISTANCES ARE RECORD AND MEASURED.

### Notes:

ELEVATIONS IN PARENTHESIS INDICATES EXISTING.



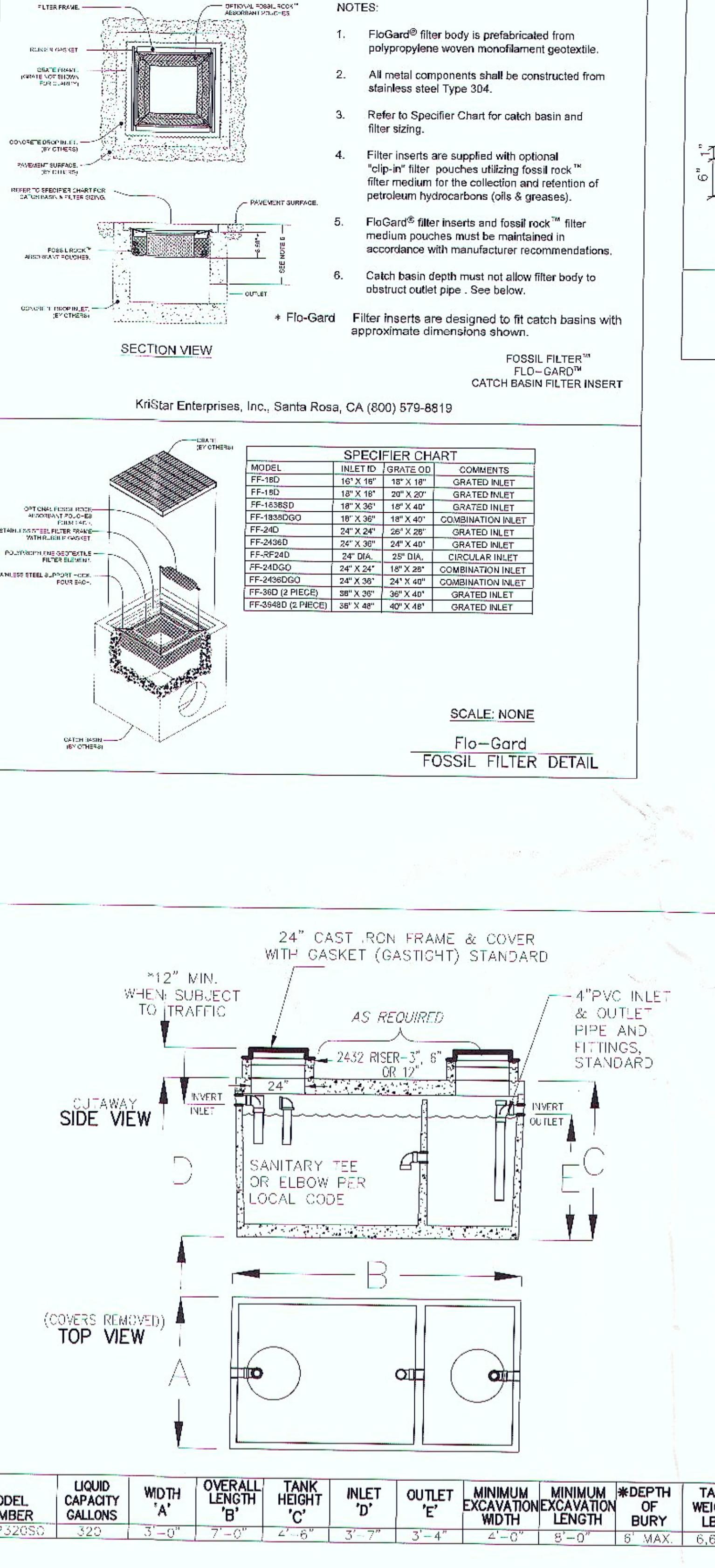
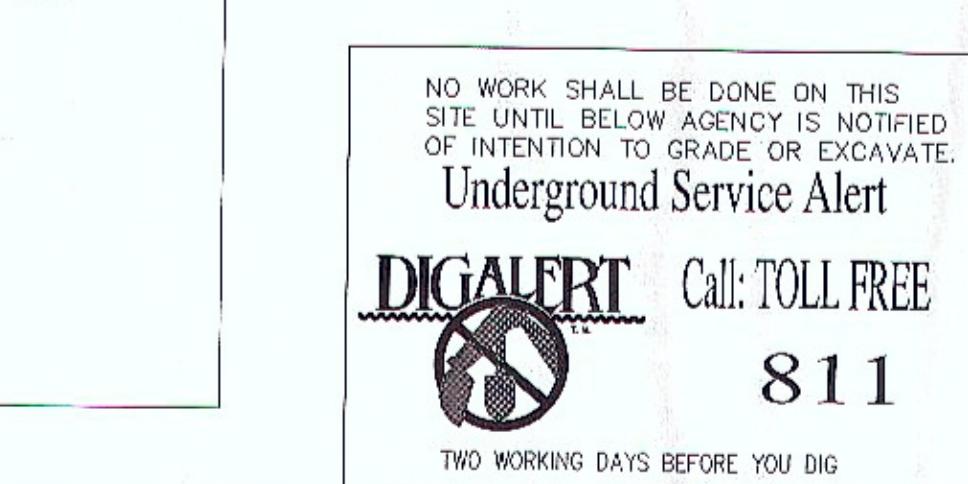
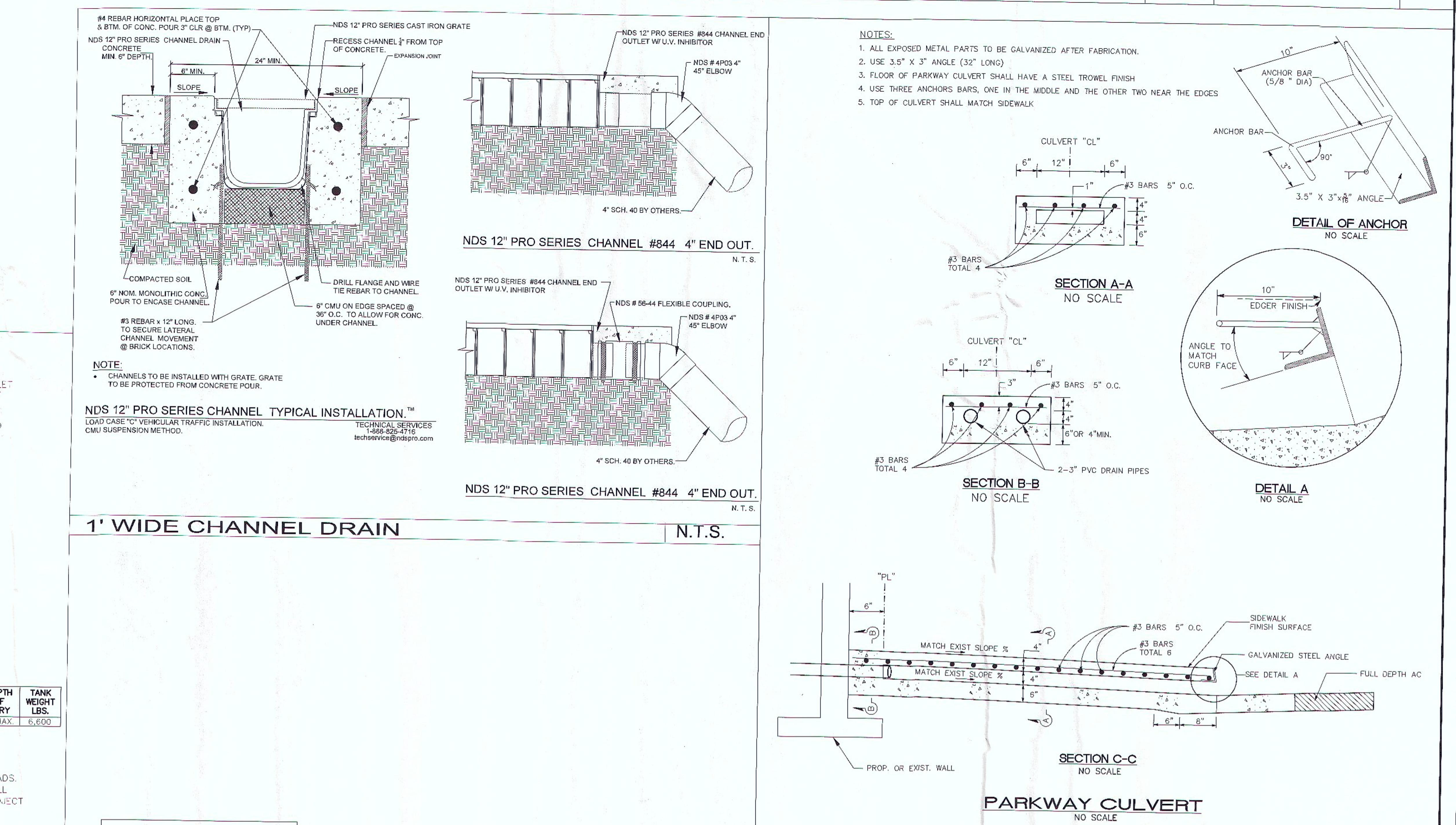
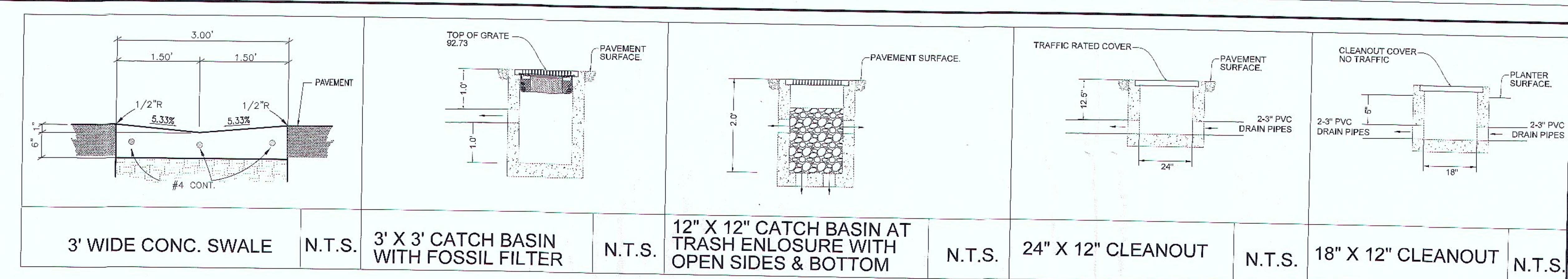
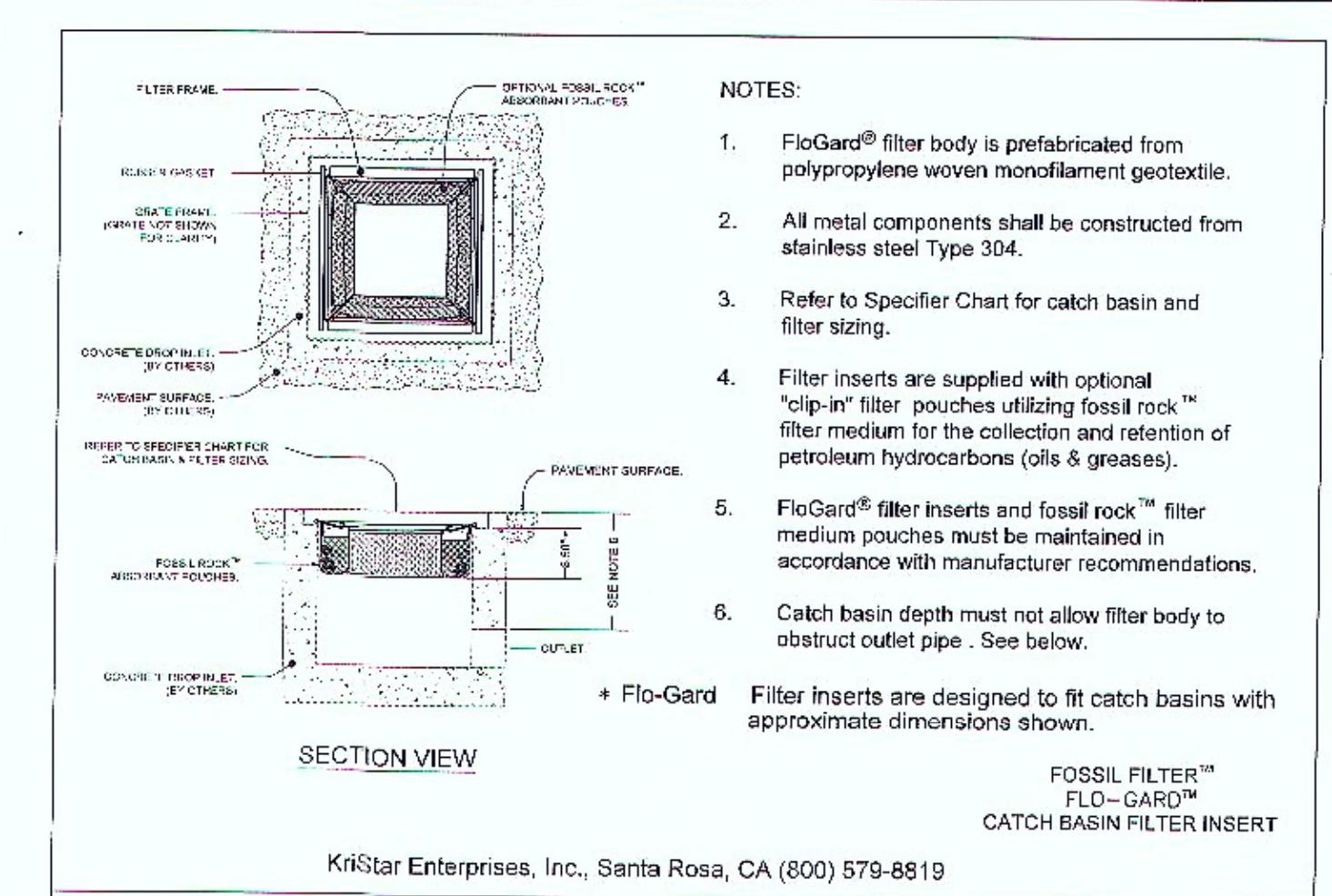
**City Of Garden Grove  
Department Of Public Works**

www.oxfordtextbooks.co.uk

DRAWING NUMBER  
**G-1287**

TOPOGRAPHIC SURVEY  
**13732-13752 HARBOR BL**

DRAWING NUMBER  
**G-1287**  
SHEET 2 OF



320-GALLON  
SAND-OIL INTERCEPTORS  
TRAFFIC RATED ACCEPTED BY UPC

GARDEN GROVE  
City Of Garden Grove  
Department Of Public Works

SECTIONS AND DETAILS  
DRAWING NUMBER  
G-1287  
DRAINAGE STRUCTURES & SAND-OIL INTERCEPTOR  
13732-13752 HARBOR BLVD  
SHEET 3 OF 16

REV. 03 06/29/14

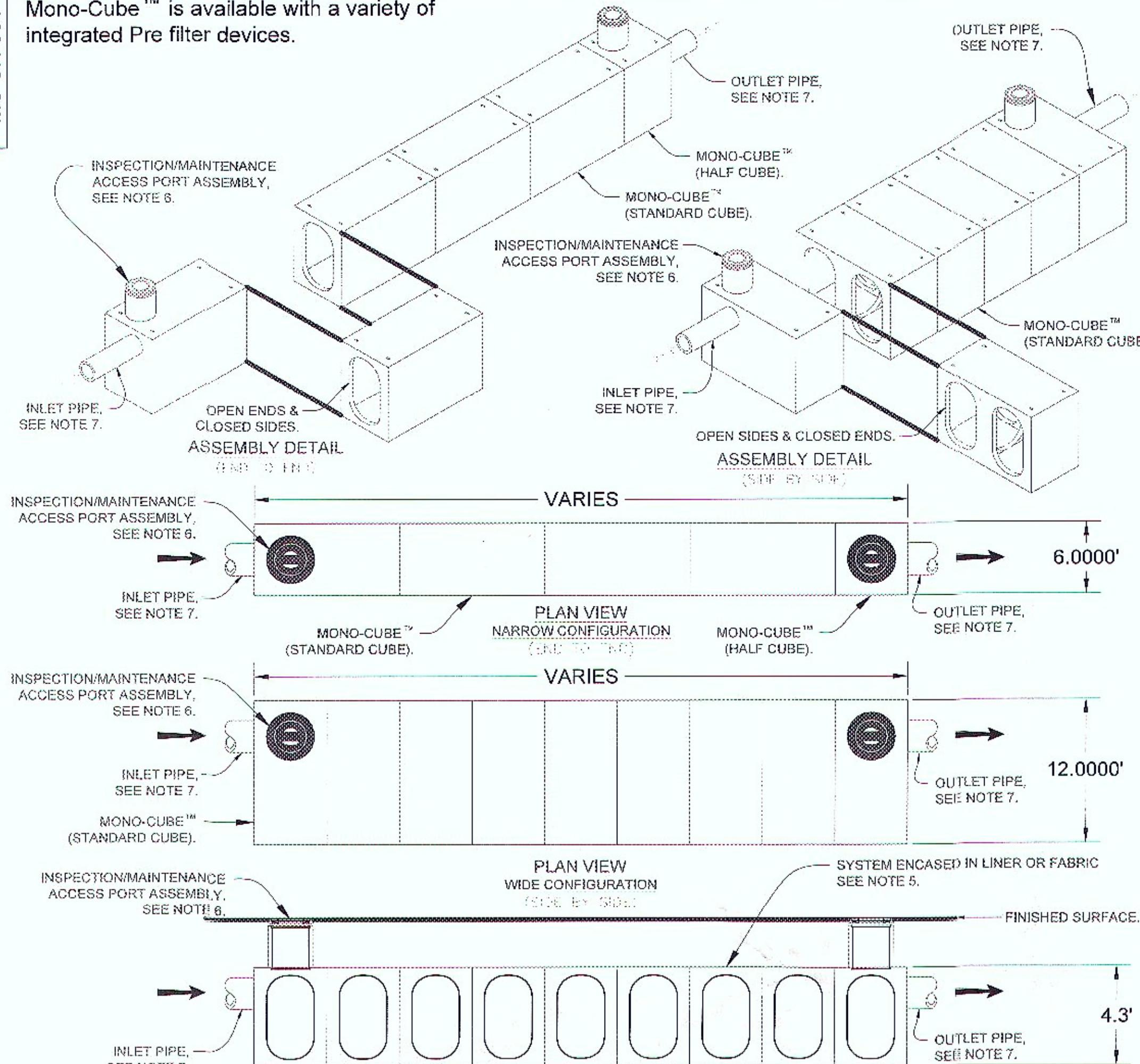
DRAWING NUMBER

G-1287

SHEET 3 OF 16

MC-SR-001

Mono-Cube™ is available with a variety of integrated Pre filter devices.



## NOTES:

1. OPEN FLOOR FOR RETENTION (INFILTRATION) SYSTEMS.
2. WATER STORAGE MODULES SHALL BE PRECAST CONCRETE, DESIGNED TO MEET H2O LOADING.
3. MONO-CUBE MODULES ARE CAST AS A SINGLE MONOLITHIC STRUCTURE.
4. INTERNAL STRUCTURE CAN BE CONFIGURED TO EMPLOY ENERGY DISSIPATION, FILTRATION, WEIRS ETC. AS REQUIRED.
5. RETENTION(INFILTRATION) SYSTEM: SYSTEM ENCASED IN PERMEABLE FILTER FABRIC.
6. INSPECTION/MAINTENANCE ACCESS PORTS ARE AVAILABLE IN DIAMETERS OF 24", 30", 36", 48", SQUARE & RECTANGULAR ACCESS HATCHES ARE ALSO AVAILABLE. GRATED INLET ACCESS PORTS AVAILABLE IN SIZES & CONFIGURATION AS DESCRIBED ABOVE.
7. PIPE OPENINGS CAN BE PROVIDED TO ACCOMMODATE GROUTED, BOOT OR GASKETED CONNECTIONS, AS REQUIRED. BOOTS, ADAPTORS AND ALL EXTERNAL PIPE BY OTHERS.

PATENT PENDING

**Mono-Cube™**  
-Precast Concrete Water Storage System -  
**Single Row Configuration**  
(Detention & Retention)



**KriStar Enterprises, Inc.**

360 Sutton Place, Santa Rosa, CA 95407  
Ph: 800.579.8819, Fax: 707.524.8186, www.kristar.com

DRAWING NO.

MC-SR-001

REV.

NR

ECD

0110

DATE  
NEW 5/8/13

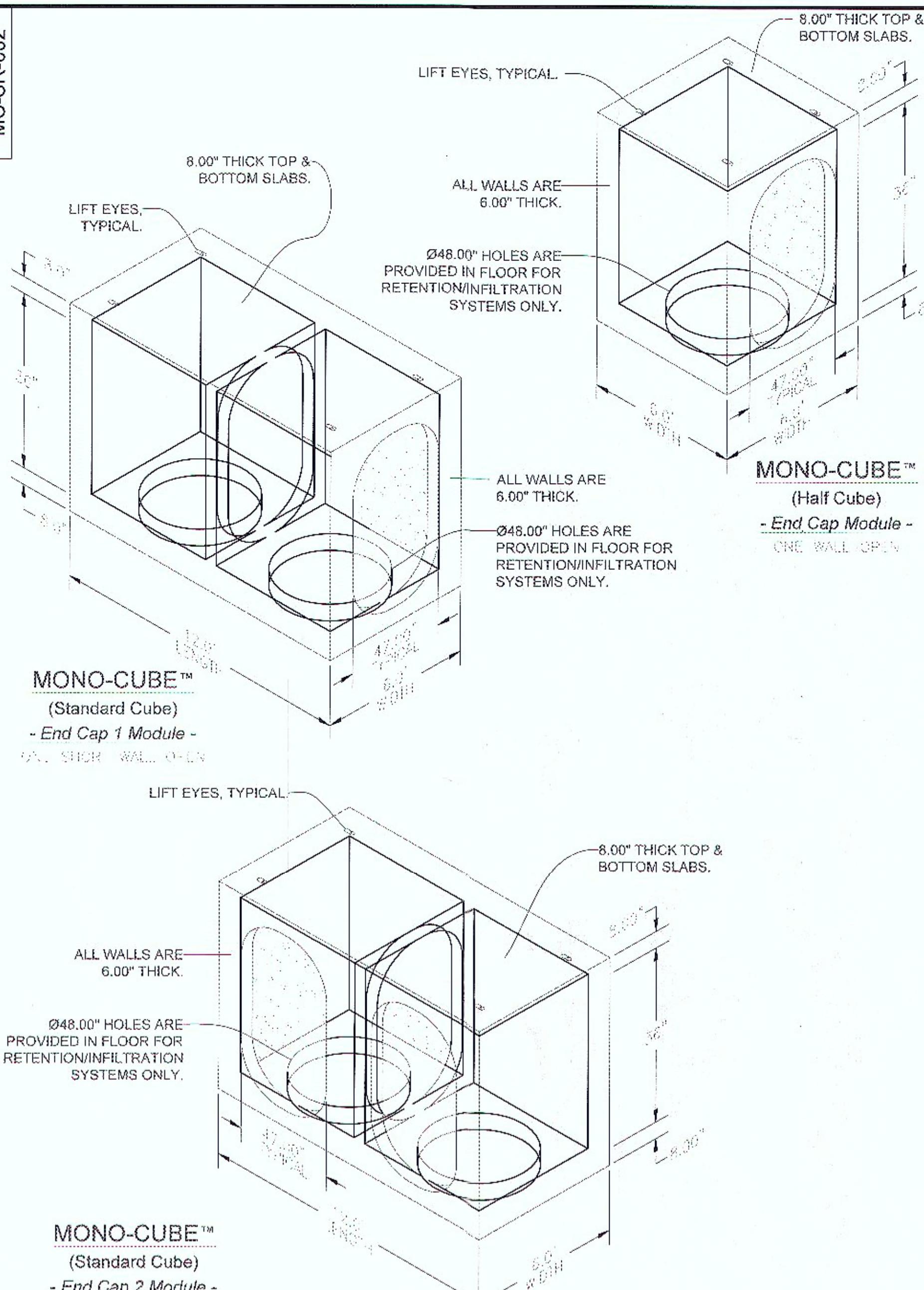
JPR

5/8/13

SHEET

1 OF 1

MC-SR-002

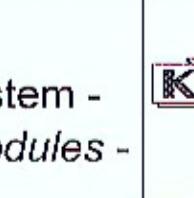


NOTES:

1. OPEN FLOOR FOR RETENTION (INFILTRATION) SYSTEMS.
2. WATER STORAGE MODULES SHALL BE PRECAST CONCRETE, DESIGNED TO MEET H2O LOADING.
3. MONO-CUBE MODULES ARE CAST AS A SINGLE MONOLITHIC STRUCTURE.
4. INTERNAL STRUCTURE CAN BE CONFIGURED TO EMPLOY ENERGY DISSIPATION, FILTRATION, WEIRS ETC. AS REQUIRED.
5. RETENTION(INFILTRATION) SYSTEM: SYSTEM ENCASED IN PERMEABLE FILTER FABRIC.
6. INSPECTION/MAINTENANCE ACCESS PORTS ARE AVAILABLE IN DIAMETERS OF 24", 30", 36", 48", SQUARE & RECTANGULAR ACCESS HATCHES ARE ALSO AVAILABLE. GRATED INLET ACCESS PORTS AVAILABLE IN SIZES & CONFIGURATION AS DESCRIBED ABOVE.
7. PIPE OPENINGS CAN BE PROVIDED TO ACCOMMODATE GROUTED, BOOT OR GASKETED CONNECTIONS, AS REQUIRED. BOOTS, ADAPTORS AND ALL EXTERNAL PIPE BY OTHERS.

PATENT PENDING

**Mono-Cube™**  
- Precast Concrete Water Storage System -  
**Single Row Configuration - End Cap Modules -**  
(Detention & Retention)



**KriStar Enterprises, Inc.**

360 Sutton Place, Santa Rosa, CA 95407  
Ph: 800.579.8819, Fax: 707.524.8186, www.kristar.com

DRAWING NO.

MC-SR-002

REV.

NR

ECD

0110

DATE  
NEW 5/8/13

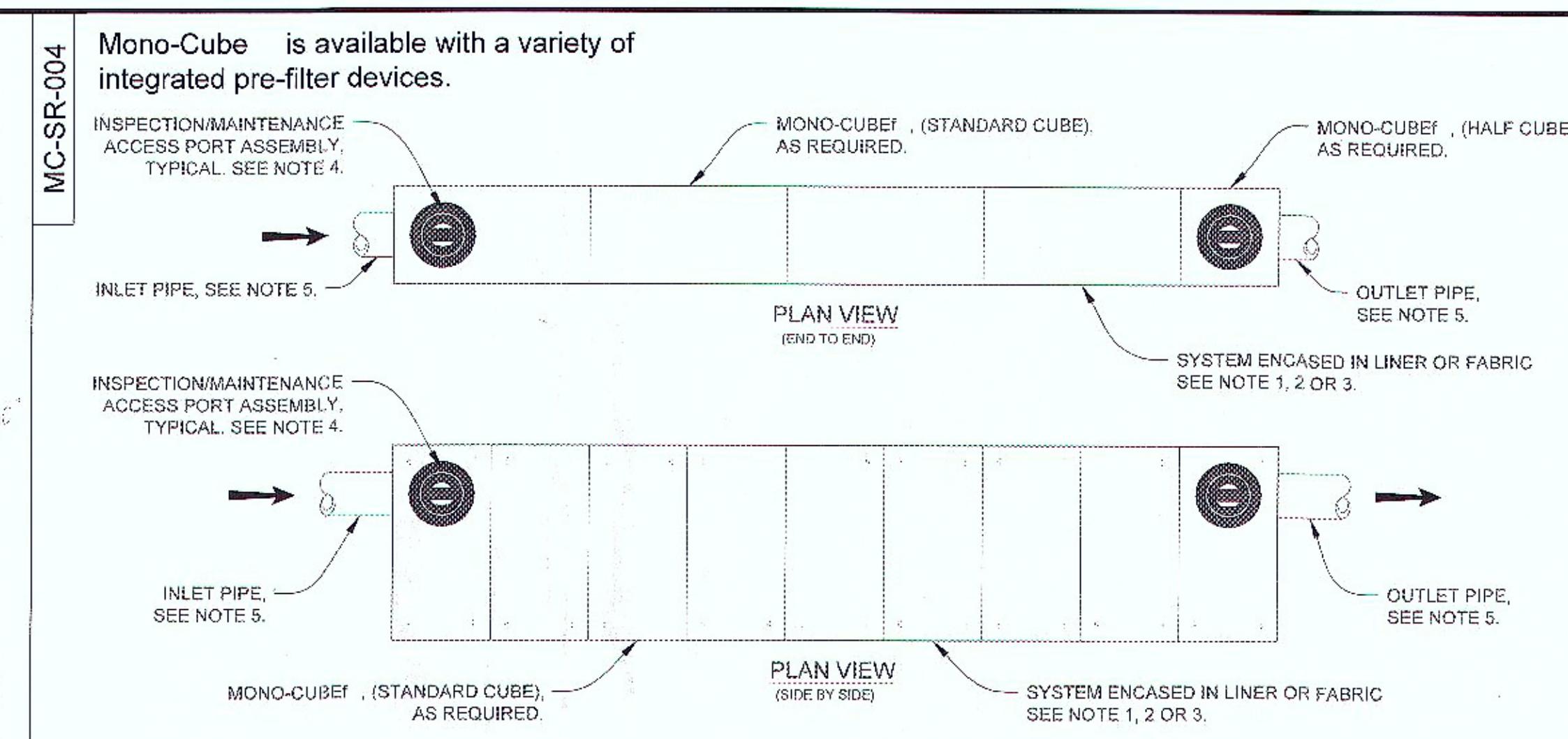
JPR

5/8/13

SHEET

1 OF 2

MC-SR-004



NOTES:

1. OPEN FLOOR FOR RETENTION (INFILTRATION) SYSTEMS.
2. WATER STORAGE MODULES SHALL BE PRECAST CONCRETE, DESIGNED TO MEET H2O LOADING.
3. MONO-CUBE MODULES ARE CAST AS A SINGLE MONOLITHIC STRUCTURE.
4. INTERNAL STRUCTURE CAN BE CONFIGURED TO EMPLOY ENERGY DISSIPATION, FILTRATION, WEIRS ETC. AS REQUIRED.
5. RETENTION(INFILTRATION) SYSTEM: SYSTEM ENCASED IN PERMEABLE FILTER FABRIC.
6. INSPECTION/MAINTENANCE ACCESS PORTS ARE AVAILABLE IN DIAMETERS OF 24", 30", 36", 48", SQUARE & RECTANGULAR ACCESS HATCHES ARE ALSO AVAILABLE. GRATED INLET ACCESS PORTS AVAILABLE IN SIZES & CONFIGURATION AS DESCRIBED ABOVE.
7. PIPE OPENINGS CAN BE PROVIDED TO ACCOMMODATE GROUTED, BOOT OR GASKETED CONNECTIONS, AS REQUIRED. BOOTS, ADAPTORS AND ALL EXTERNAL PIPE BY OTHERS.

PATENT PENDING

**Mono-Cube**  
- Precast Concrete Water Storage System -  
**Single Row Configuration - Installation Layout**  
(Detention & Retention)

DRAWING NO.

MC-SR-004

REV.

NR

ECD

0110

DATE  
NEW 5/8/13

JPR

5/8/13

SHEET

1 OF 1

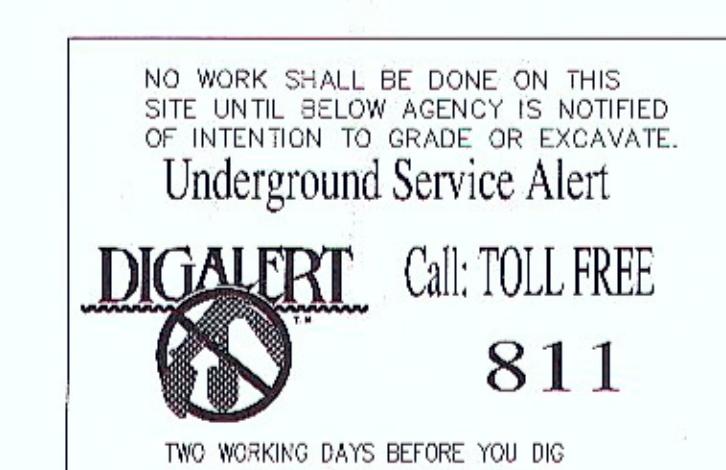
## STORAGE VOLUME CALCULATION:

Storage Volume of each 6' x 12' Unit= 5' x 11' x (3' inside height) = 165 cubic feet (conservative):  
Storage Volume Needed Per WQMP = 805 cubic feet

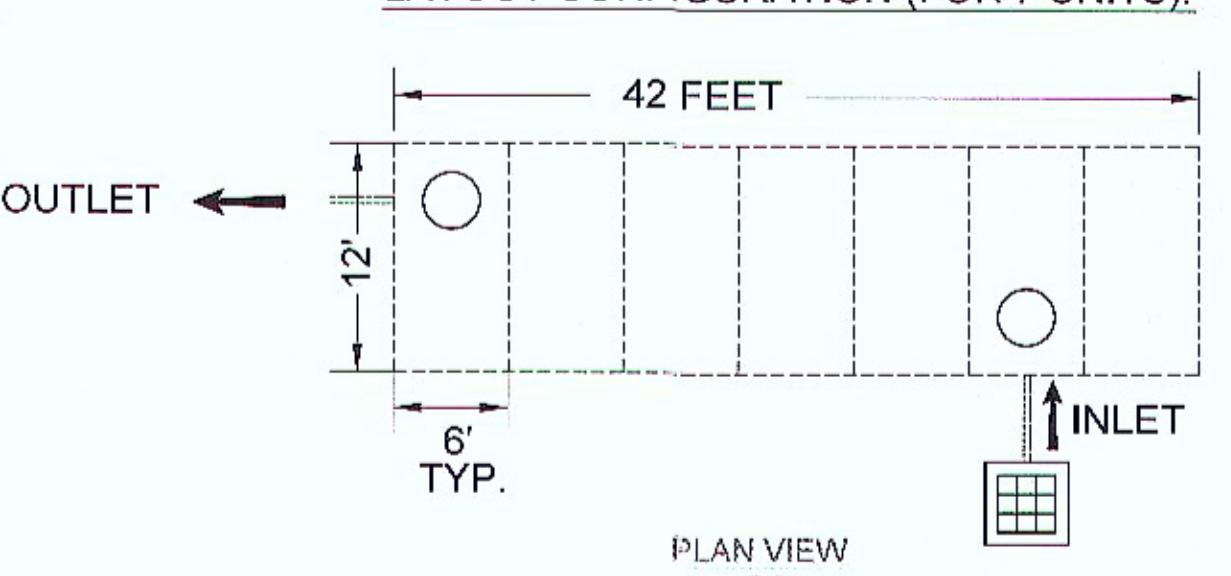
Number of Units Needed = 805 divided by 165 = 4.9 Units OR 5 UNITS

## INFILTRATION AREA CALCULATION:

Infiltration Area Needed Per WQMP = 175 square feet  
Area of Circular Holes (4' Dia.) Provided for Infiltration =  $(\pi \times 3.1416)(R^2 \times 4) = 12.56 \text{ sqft}$   
Number of Holes Per Unit = 2 Holes  
Area of Holes Per Unit =  $(2 \text{ Holes})(12.56 \text{ sqft}/\text{hole}) = 25.12 \text{ sqft}$   
Number of Units Needed = 175 divided by 25 = 7 UNITS



## LAYOUT CONFIGURATION (FOR 7 UNITS):



PLAN VIEW

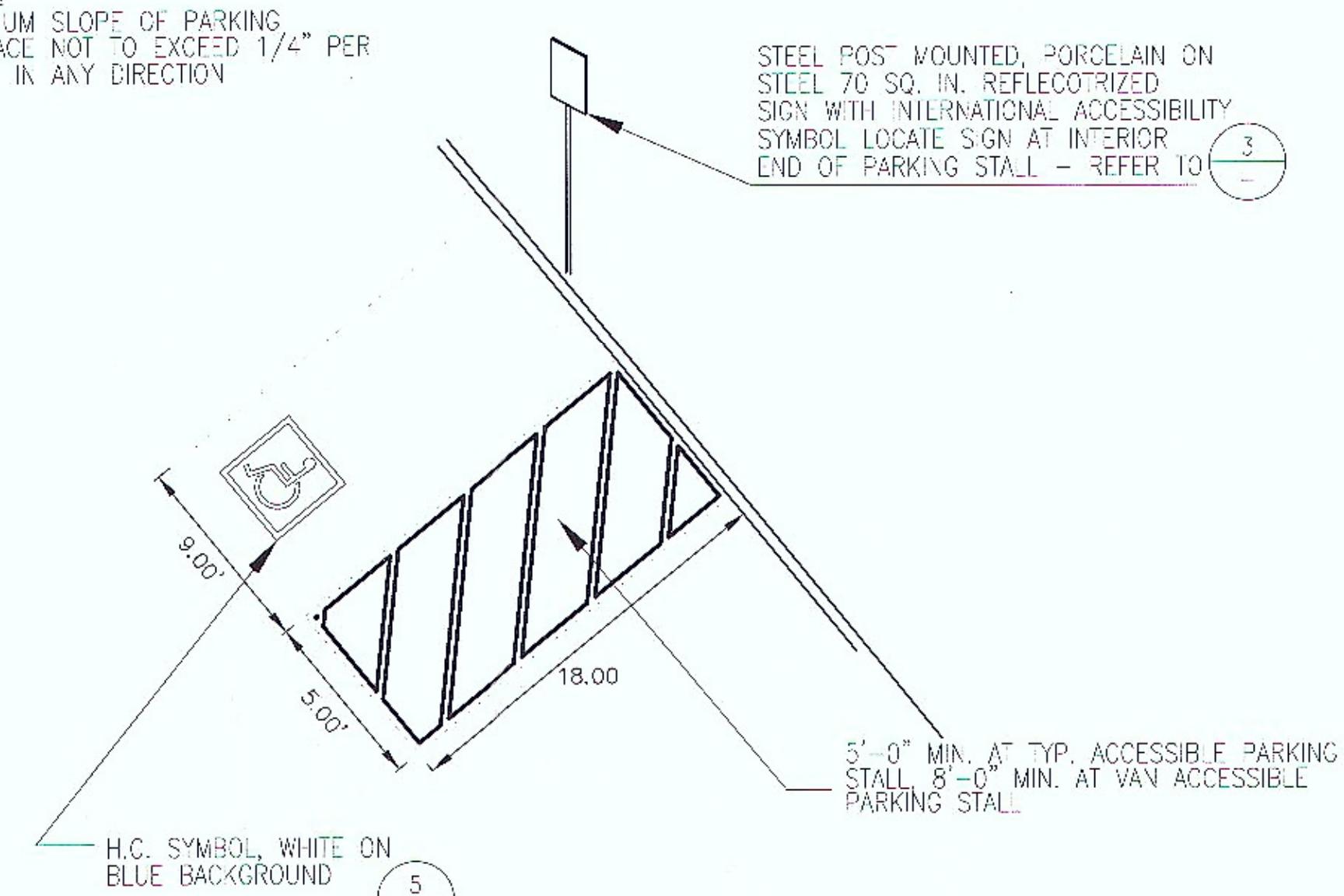
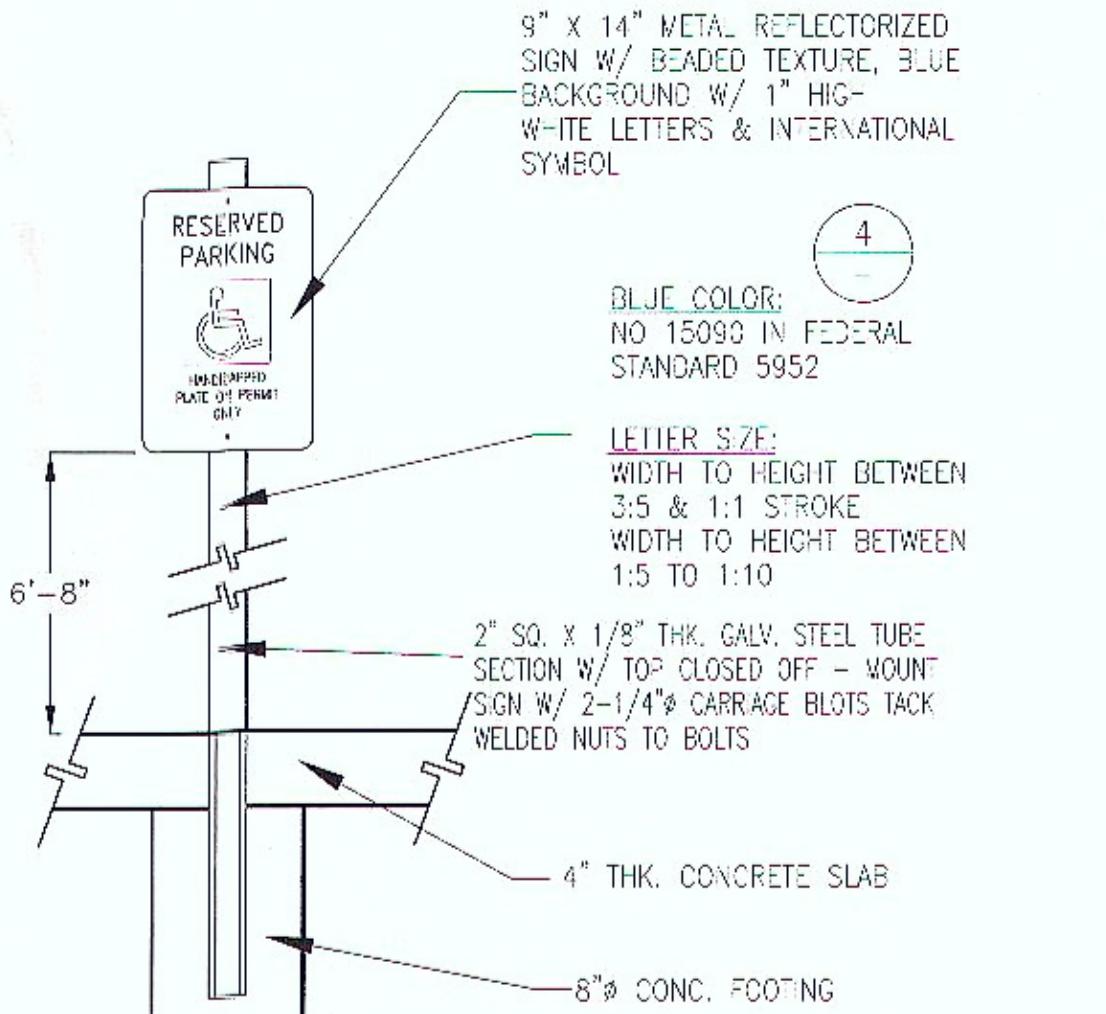
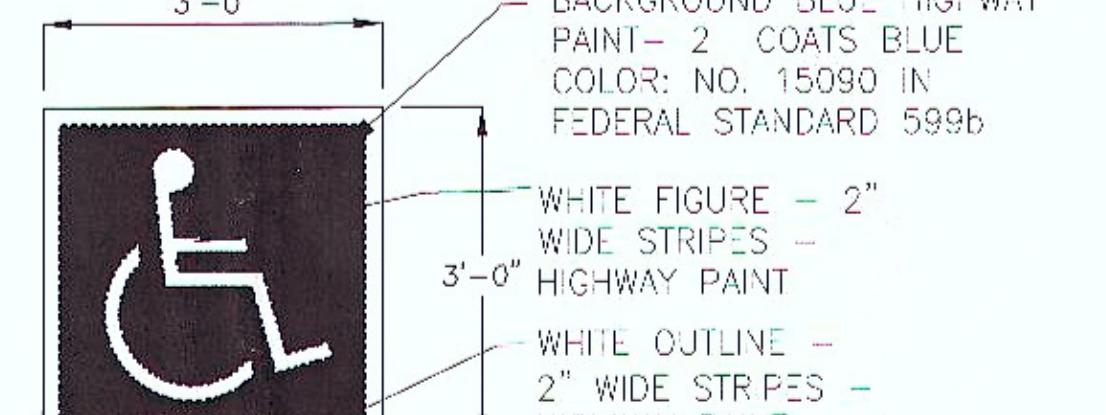
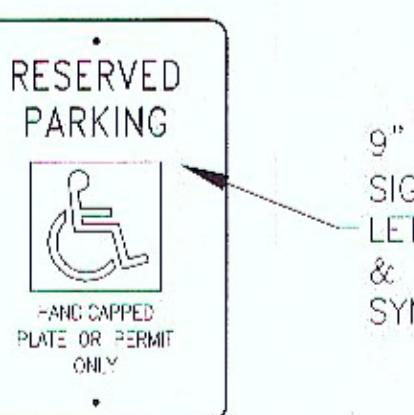


**SECTIONS AND DETAILS**  
**RETENTION/INFILTRATION STRUCTURE**  
**13732-13752 HARBOR BLVD**

REV. 03 06/29/14  
DRAWING NUMBER  
**G-1287**  
SHEET 4 OF 16

**G**  
GARDEN GROVE  
Department of Public Works

# STANDARD HANDICAPPED PARKING DETAILS

 <p>NOTE: MAXIMUM SLOPE OF PARKING SURFACE NOT TO EXCEED 1/4" PER 1'-0" IN ANY DIRECTION</p> <p>STEEL POST MOUNTED, PORCELAIN ON STEEL 70 SQ. IN. REFLECTORIZED SIGN WITH INTERNATIONAL ACCESSIBILITY SYMBOL LOCATE SIGN AT INTERIOR END OF PARKING STALL - REFER TO 3</p> <p>H.C. SYMBOL, WHITE ON BLUE BACKGROUND 5</p> <p>18.00</p> <p>5' 0"</p> <p>5' 0"</p> <p>5' 3" MIN. AT TYP. ACCESSIBLE PARKING STALL, 8' 0" MIN. AT VAN ACCESSIBLE PARKING STALL</p>	<ol style="list-style-type: none"> <li>1. DISABLED PARKING SPACE MUST PERMIT USE OF EITHER CAR DOORS.</li> <li>2. A PARKING BUMPER IS REQUIRED WHEN NO CURB OR BARRIER IS PROVIDED WHICH WILL PREVENT ENCROACHMENT OF CARS OVER THE ADJOINING ACCESSIBLE ROUTE.</li> <li>3. WHEEL-CHAIR USERS MUST NOT BE FORCED TO GO BEHIND PARKED CARS OTHER THAN THEIR OWN TO ACCESS AN ADJOINING ACCESSIBLE ROUTE.</li> <li>4. THE MAX. SURFACE SLOP WITHIN THE DISABLED PARKING SPACE &amp; ADJACENT ACCESS AISLE MAY NOT EXCEED 2% IN ANY DIRECTION.</li> <li>5. CURB RAMPS MAY NOT ENCROACH INTO THE REQUIRED DIMENSIONS OF DISABLED PARKING ACCESS AISLES.</li> <li>6. ACCESS AISLE (LOADING / UNLOADING AREA) MUST CONNECT TO AN ACCESSIBLE PATH OF TRAVEL TO THE FACILITY.</li> <li>7. THE CURB RAMP SHALL BE OUTLINED, AS SHOWN, WITH A 1'-0" WIDE BORDER WITH 1/4" GROOVES APPROXIMATELY 1/4" ON CENTER.</li> <li>8. MAXIMUM SLOPES OF ADJOINING GUTTERS, THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP OR ACCESSIBLE ROUTE SHALL NOT EXCEED 5 PERCENT WITHIN 4'-0" OF THE TOP AND BOTTOM OF THE CURB RAMP.</li> </ol>
<b>HANDICAP PARKING STALL</b>	<b>GENERAL DISABLED PARKING SPACE NOTES:</b>
 <p>9" X 14" METAL REFLECTORIZED SIGN W/ BEADED TEXTURE, BLUE BACKGROUND W/ 1" HIGH WHITE LETTERS &amp; INTERNATIONAL SYMBOL</p> <p>4</p> <p>BLUE COLOR: NO. 15093 IN FEDERAL STANDARD 5952</p> <p>LETTER SIZE: WIDTH TO HEIGHT BETWEEN 3.5 &amp; 1.1 STROKE WIDTH TO HEIGHT BETWEEN 1.5 TO 1.0</p> <p>2" SQ. X 1/8" THK. GALV. STEEL TUBE SECTION W/ TOP CLOSED OFF - MOUNT SIGN W/ 2-1/4" CARRIAGE BOLTS TACK WELDED NUTS TO BOLTS</p> <p>4" THK. CONCRETE SLAB</p> <p>8" WIDE CONC. FOOTING</p>	
<b>HANDICAP PARKING SIGN</b>	
 <p>3' 0"</p> <p>BACKGROUND BLUE HIGHWAY PAINT - 2 COATS BLUE COLOR: NO. 15090 IN FEDERAL STANDARD 5952</p> <p>WHITE FIGURE - 2" WIDE STRIPES - 3' 0" HIGHWAY PAINT</p> <p>WHITE OUTLINE - 2" WIDE STRIPES - HIGHWAY PAINT</p>	 <p>9" X 14" METAL REFLECTORIZED SIGN W/ HIGH WHITE BEADED LETTERS OVER BLUE BACKGROUND &amp; INTERNATIONAL ACCESSIBILITY SYMBOL</p>
<b>HANDICAP PARKING SYMBOL</b>	<b>HANDICAP PARKING STALL SIGN</b>

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

**DIGALERT** Call: TOLL FREE

811

TWO WORKING DAYS BEFORE YOU DIG



**G**  
GARDEN GROVE  
City of Garden Grove  
Department of Public Works

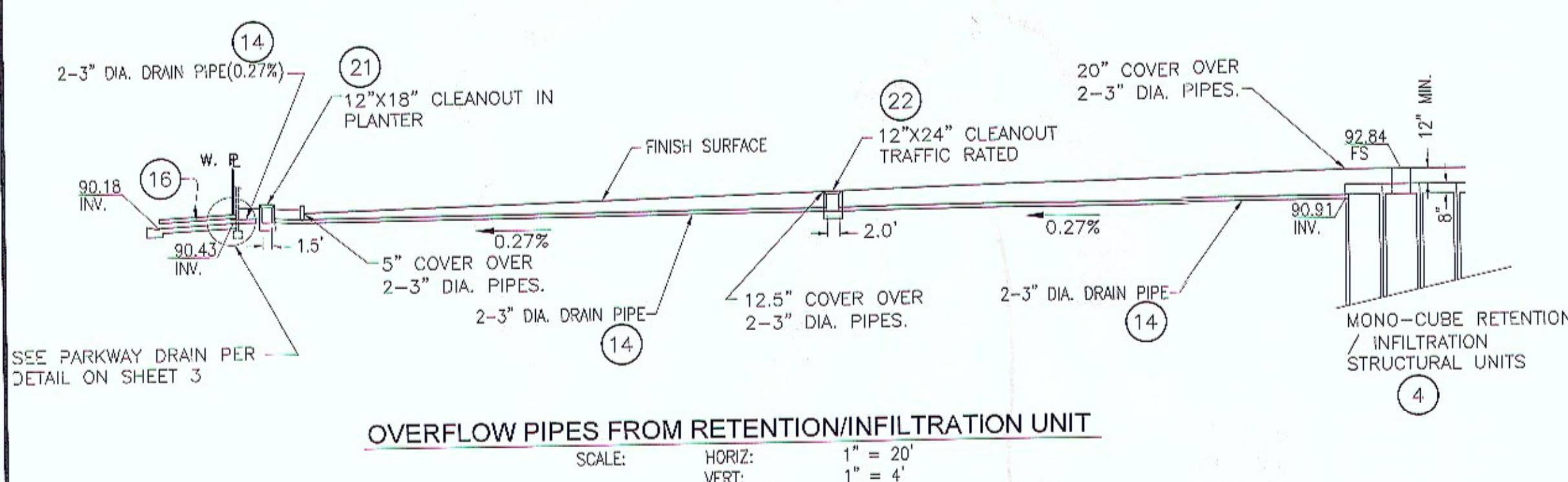
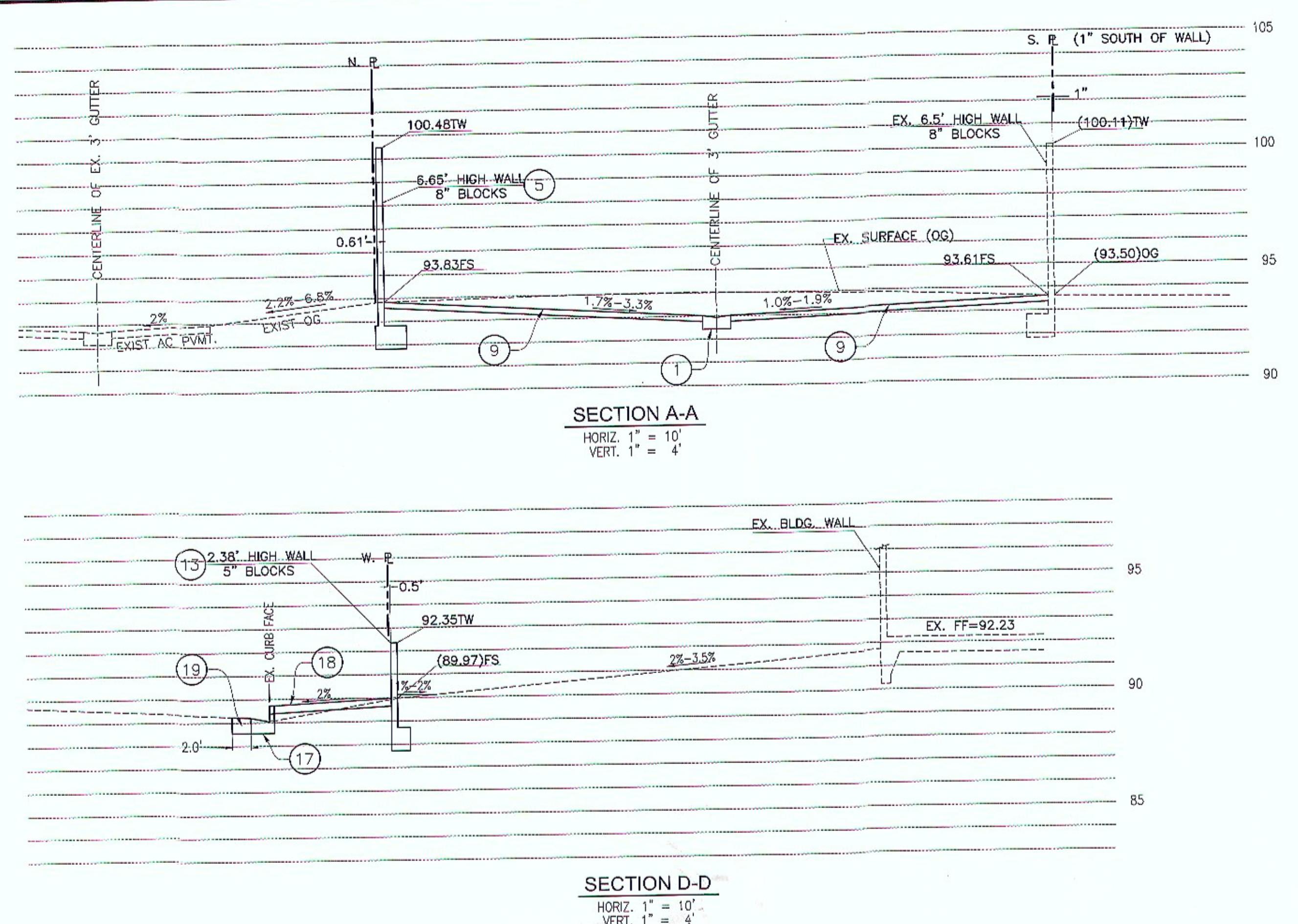
SECTIONS AND DETAILS  
HANDICAP PARKING DETAILS  
13732-13752 HARBOR BLVD

REV. 03 06/29/14

DRAWING NUMBER

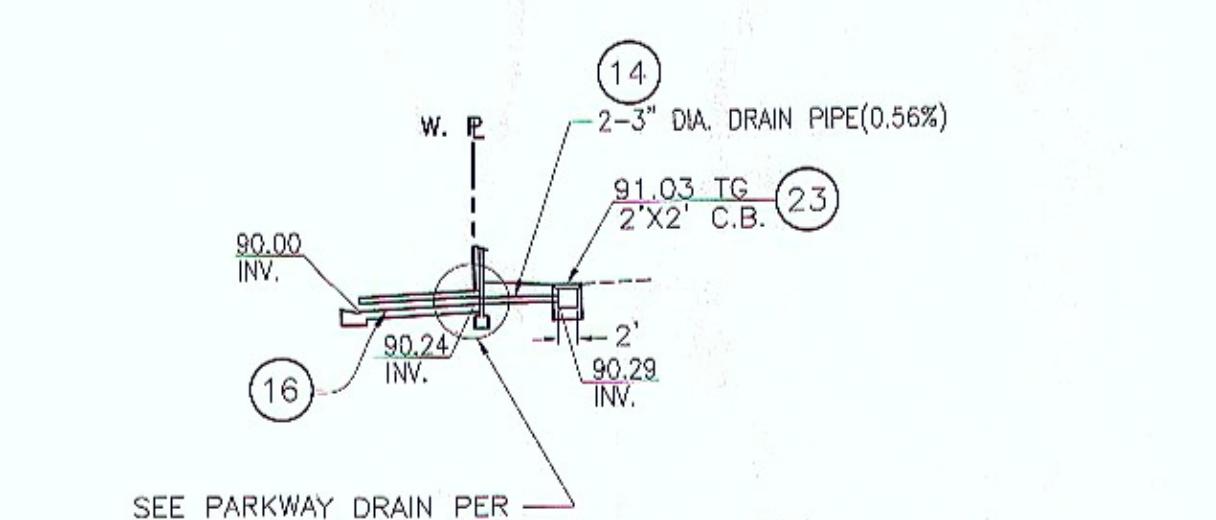
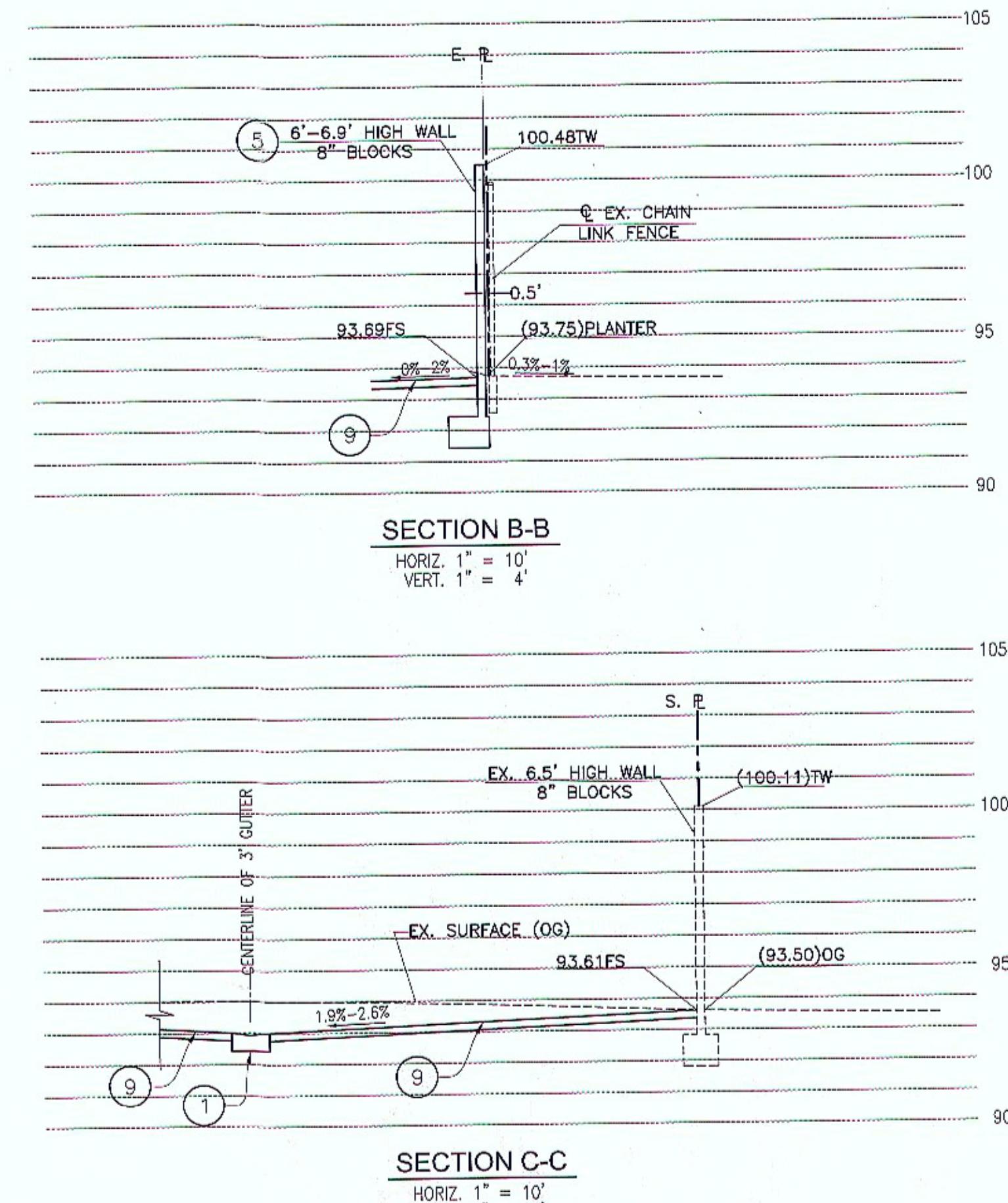
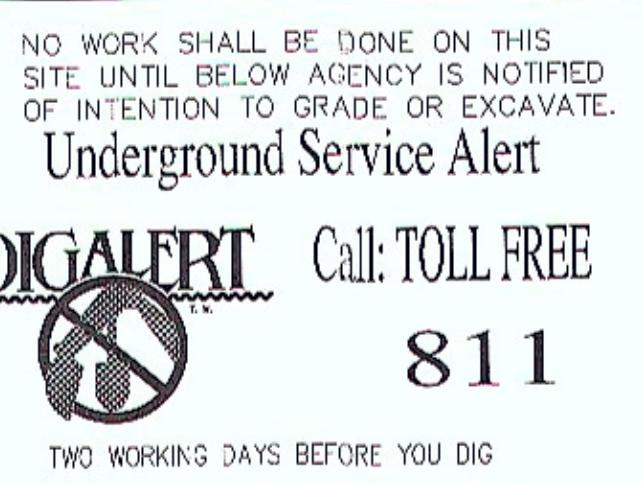
**G-1287**

SHEET 5 OF 16



#### NOTES

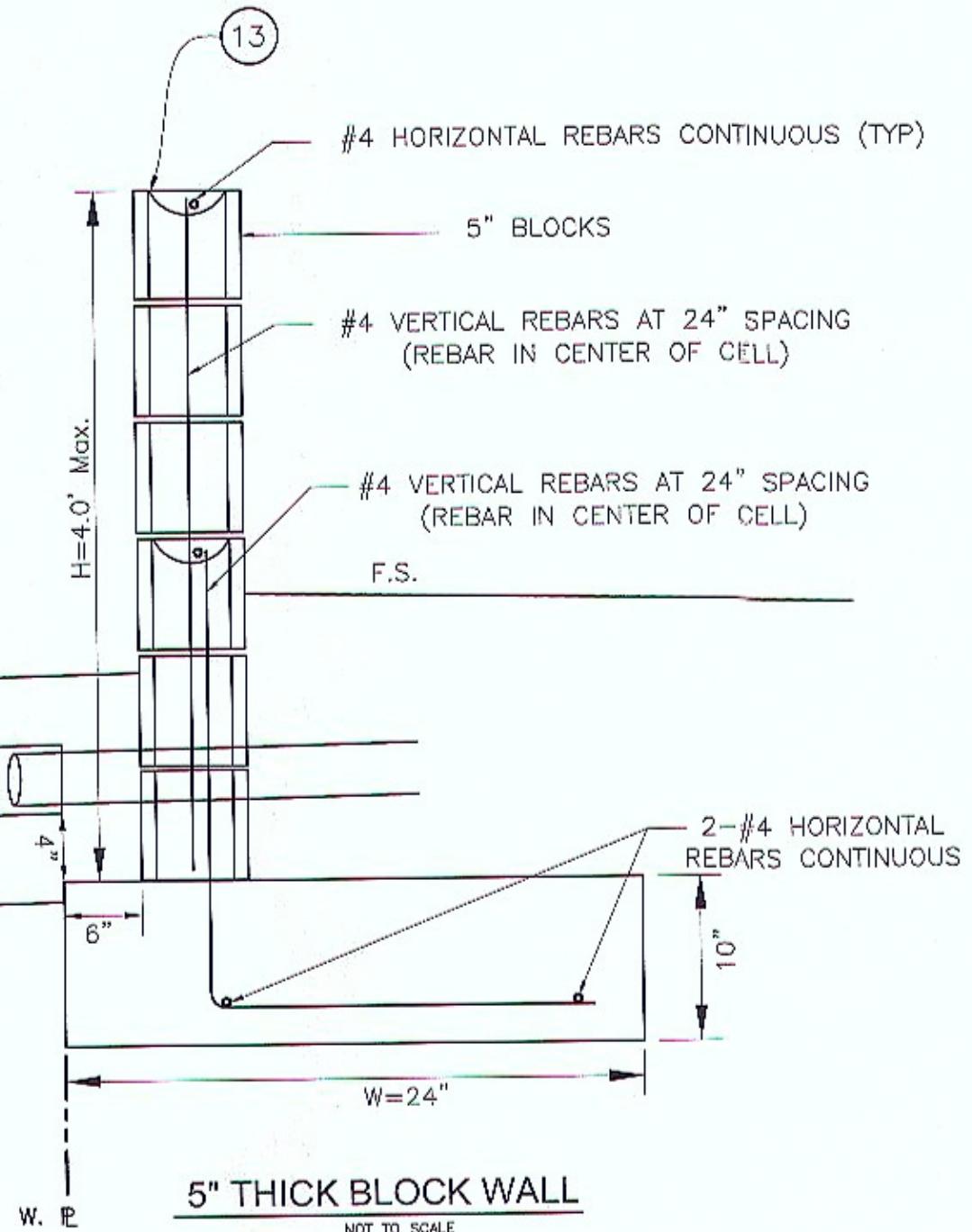
- SEE GRADING PLAN SHEET 9 OF 16 FOR SECTIONS A-A, B-B, C-C, AND D-D.
- BLOCK WALLS IN SECTION A-A, B-B, AND D-D ARE ALONG PROPERTY LINE.



#### CONSTRUCTION NOTES \*

	QUANTITIES
1 CONSTRUCT 3' WIDE CONCRETE SWALE PER DETAIL ON SHEET 3	147.0 LF
4 CONSTRUCT 12' X 48' X 4.3' DEEP MONO-CUBE RETENTION STRUCTURE PER DETAIL ON SHEET 3	1 EA
5 CONSTRUCT 8-INCH THICK BLOCK WALL (HEIGHT TO MATCH EXISTING, 6 - 8 FEET) PER SEPARATE PERMIT	248.0 LF
6 CONSTRUCT TYPE A-1(6) CONCRETE CURB PER CITY OF GARDEN GROVE STD. NO. B-112	265.3 LF
9 CONSTRUCT 3" THICK ASPHALT CONCRETE PAVEMENT OVER 4" THICK AGGREGATE BASE PER SOIL REPORT RECOMMENDATION	12,010 SQFT, 218 TON
13 CONSTRUCT 5" THICK BLOCK WALL TO MATCH EXISTING (1' TO 3' HIGH) PER DETAIL HEREON	30 LF
14 INSTALL 2-3" DIA. DRAINAGE PIPES (SCHEDULE 40)	130 LF
16 CONSTRUCT 12" WIDE PARKWAY CULVERT PER DETAIL ON SHEET 3	2 EA
17 CONSTRUCT 8" CURB AND 2' GUTTER PER CITY OF GARDEN GROVE STD. NO. B-113	32 LF
18 CONSTRUCT 4" THICK CONCRETE SIDEWALK PER CITY OF GARDEN GROVE STD. NO. B-106	375 SQFT
19 CONSTRUCT 2' WIDE BY 8" THICK ASPHALT CONCRETE PAVEMENT	3 TON
21 CONSTRUCT 12x18" CLEANOUT IN PLANTER AREA FOR OVERFLOW DRAIN PIPE PER DETAIL ON SHEET 3	1 EA
22 CONSTRUCT 12x24" CLEANOUT IN AC SURFACE AREA FOR OVERFLOW DRAIN PIPE PER DETAIL ON SHEET 3	1 EA
23 CONSTRUCT 24x24" CATCH BASIN PER DETAIL ON SHEET 3	1 EA

\* CONSTRUCTION NOTES THAT ARE APPLICABLE TO THIS SHEET



#### BLOCK WALL NOTES:

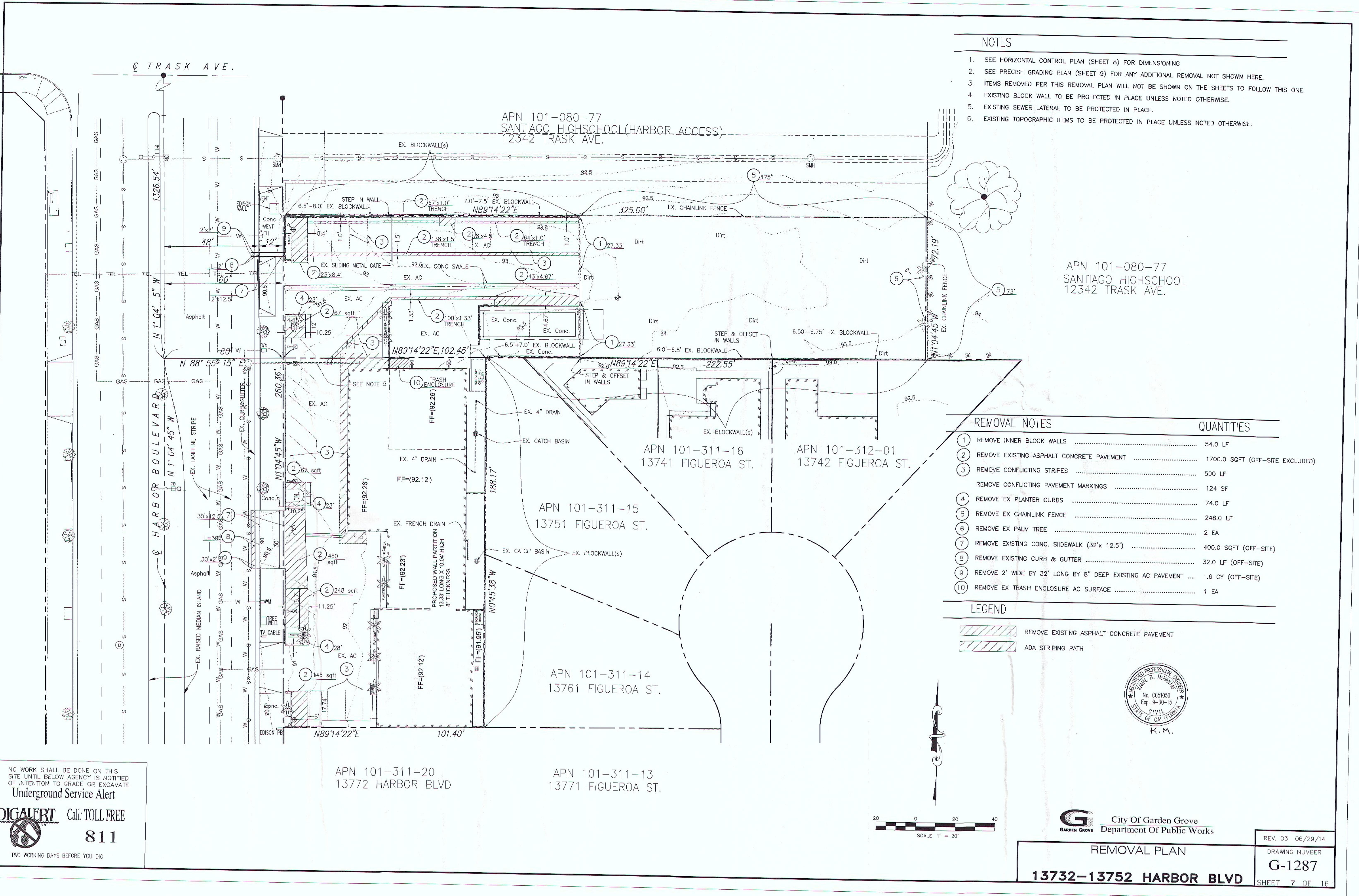
- THIS DESIGN DOES NOT ALLOW GRADE DIFFERENTIALS OF MORE THAN 6" ON OPPOSING SIDES OF THE WALL. THIS IS NOT A RETAINING WALL.
- GROUT ONLY THE CELLS CONTAINING REBAR. THIS WALL IS NOT DESIGNED FOR ALL CELLS TO BE GROUTED.
- ALL REBAR TO BE ASTM SPEC. A615, GRADE 40 MINIMUM.
- ALL REBAR LAP SPLICES TO BE 24" MINIMUM.
- ALL MASONRY UNITS TO BE ASTM C-90 GRADE N.
- REBAR TO BE CENTERED IN MASONRY CELLS.



**G**  
GARDEN GROVE  
City of Garden Grove  
Department of Public Works

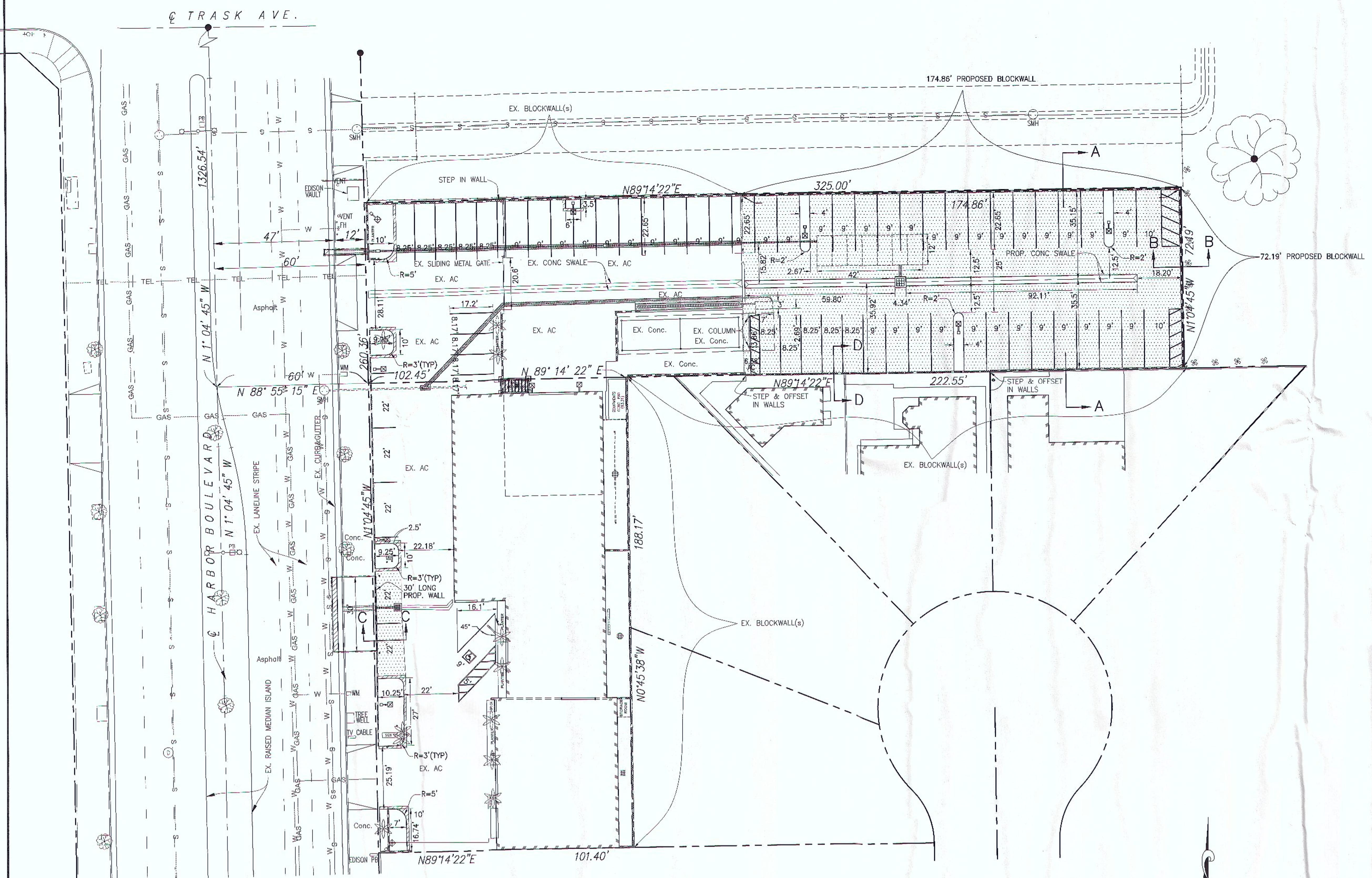
SECTIONS AND DETAILS  
SEE SHT. 9 FOR SECTIONS LOCATION  
**13732-13752 HARBOR BLVD**

DRAWING NUMBER  
**G-1287**  
REV. 03 06/29/14  
SHEET 6 OF 16



NOTES

2. SEE PRECISE GRADING PLAN (SHEET 9) FOR ANY ADDITIONAL INFORMATION.



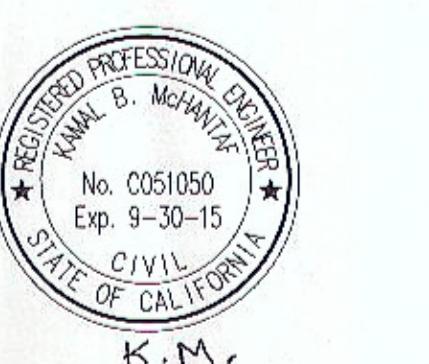
NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

DIGALERT Call: TOLL FREE

811

TWO WORKING DAYS BEFORE YOU DIG



City of Garden Grove  
Department of Public Works

REV. 03 06/29/14

DRAWING NUMBER

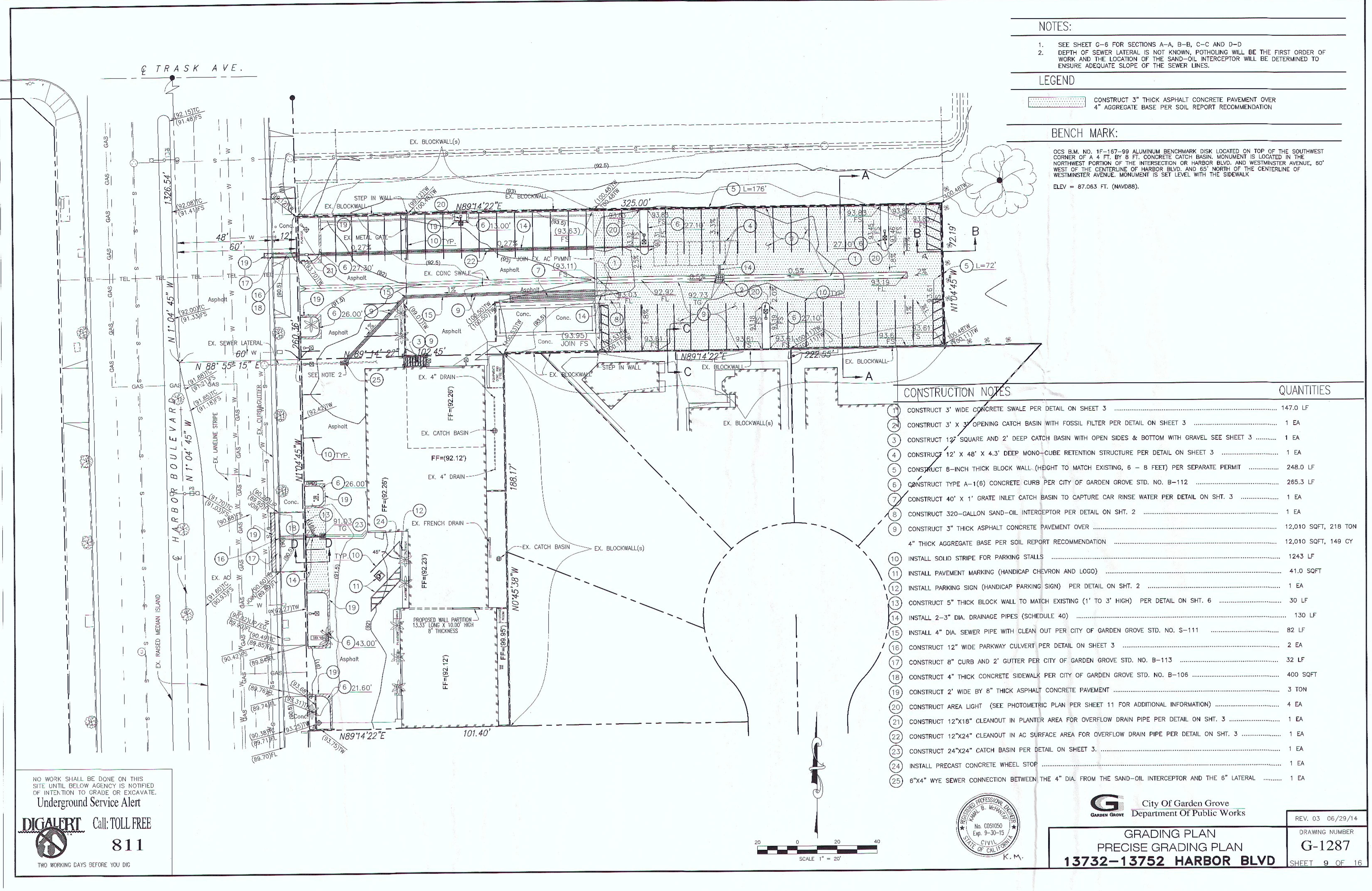
G-1287

HORIZONTAL CONTROL PLAN

13732-13752 HARBOR BLVD

SHEET 8 OF 16





# EROSION CONTROL PLAN

## National Pollutant Discharge Elimination System (NPDES) Notes

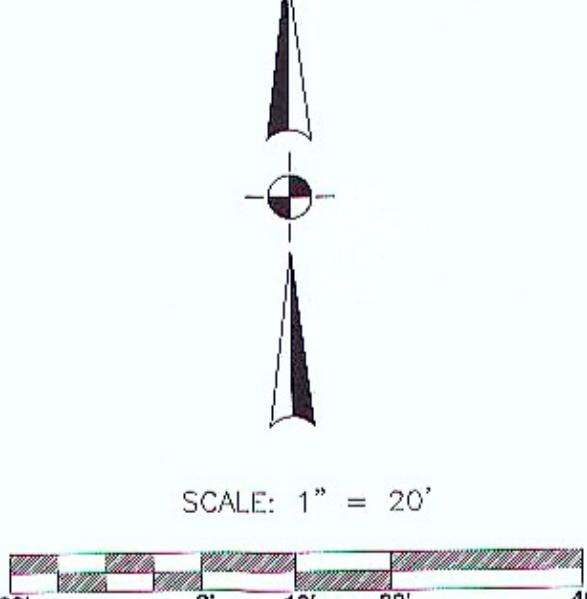
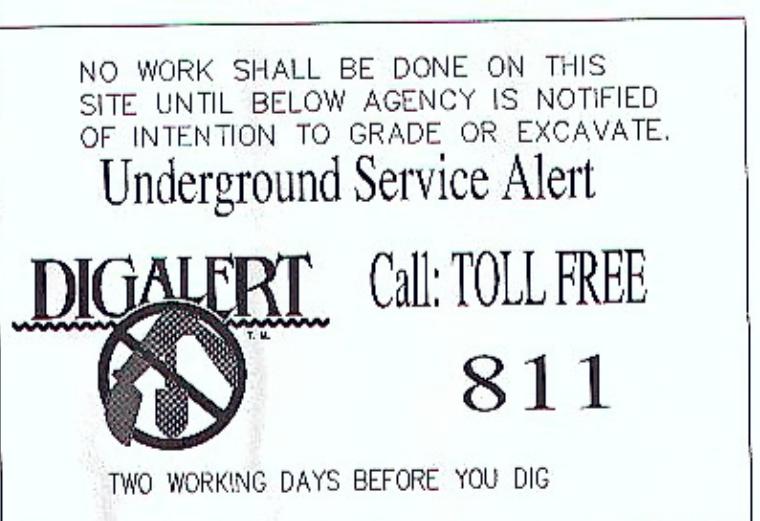
City of Garden Grove Construction activities shall be conducted in accordance with adopted federal, state, and local environmental rules, laws, and regulations. Notes shall be shown as worded, on the title sheet of all Construction/Development plans submitted for review and approval.

- In the case of emergency, call \_\_\_\_\_ at Work Phone # \_\_\_\_\_ or Home Phone # \_\_\_\_\_
- Sediment from areas disturbed by construction shall be retained on site using structural controls to the maximum extent practicable.
- Stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
- Appropriate BMP's for construction-related materials, wastes, spills shall be implemented to minimize transport from the site to streets, drainage facilities, or adjoining properties by wind or runoff.
- Runoff from equipment and vehicle washing shall be contained at construction sites unless treated to reduce or remove sediment and other pollutants.
- All construction contractor and subcontractor personnel are to be made aware or the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
- At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.
- Construction sites shall be maintained in such a condition that an anticipated storm does not carry wastes or pollutants of the site. Discharges of material other than stormwater only when necessary for performance and completion of construction practices and where they do not cause or contribute to a violation of any water quality standard, cause or threaten to cause pollution, contamination, or nuisance; or contain a hazardous substance in a quantity reportable under federal regulation 40 CFR Parts 117 and 302.
- Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, glues, limes, pesticides, wood preservatives and solvents; asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; fertilizers, vehicle/equipment wash water and concrete wash water; concrete, detergent and floatable wastes; wastes from any engine/ equipment steam cleaning or chemical degreasing and super chlorinated potable water line flushing. During construction, permittee shall dispose of such materials in a specified and controlled temporary area on-site, physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.
- Dewatering of contaminated groundwater, or discharging contaminated soils via surface erosion is prohibited. Dewatering of non-contaminated groundwater requires a National Pollutant Discharge Elimination System Permit from the respective State Regional Water Quality Control Board.
- Graded areas on the permitted area perimeter must drain away from the face of slopes at the conclusion of each working day. Drainage is to be directed toward desilting facilities.
- The permittee and contractor shall be responsible and shall take necessary precautions to prevent public trespass onto areas where impounded water creates a hazardous condition.
- The permittee and contractor shall inspect the erosion control work and insure that the work is in accordance with the approved plans.
- The permittee shall notify all general contractors, subcontractors, material suppliers, lessees, and property owners; that dumping of chemicals into the storm drain system or the watershed is prohibited.
- Equipment and workers for emergency work shall be made available at all times during the rainy season. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of temporary devices when rain is imminent.
- All removable erosion protective devices shall be in place at the end of each working day when the 5-Day Rain Probability Forecast exceeds 40%.
- Sediments from areas disturbed by construction shall be retained on site using an effective combination of erosion and sediment controls to the maximum extent practicable, and stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
- Appropriate BMP's for construction-related materials, waste, spills or residues shall be implemented and retained on site to minimize transport from the site to streets, drainage facilities, or adjoining property by wind or runoff.

## ADDITIONAL REQUIREMENTS

DURING CONSTRUCTION THE FOLLOWING PRACTICES MUST BE IMPLEMENTED:

- PERIMETER CONTROLS (E.G. SANDBAGS (TWO-STACK HIGH), SILT FENCE, OR OTHER EFFECTIVE SEDIMENT CONTROLS MUST BE IN PLACE).
- IF CONCRETE, STUCCO, PAINT OR ANY OTHER BUILDING MATERIAL WASH OUT ACTIVITY IS EXPECTED ON SITE, A DESIGNATED LINED OR LEAK-PROOF WASH OUT AREA MUST BE ON SITE. ADDITIONALLY, THIS WASH OUT STRUCTURE MUST BE REMOVED AND DISPOSED OF PROPERLY (NOT BURIED) WHEN CONSTRUCTION IS COMPLETE.
- A DUMPSTER WITH A LID OR LEAK-PROOF TRASH RECEPTACLE WILL BE REQUIRED ON SITE AND TRASH SHOULD BE CLEARED FROM THE PROJECT SITE ON A DAILY BASIS.
- PORTABLE TOILET SHALL BE KEPT OUT OF ANY STORMWATER FLOW LINE. ALSO, KEEP THE UNITS OUT OF THE STREETS.
- INGRESS/EGRESS SHALL BE STABILIZED TO REDUCE TRACKING SEDIMENT INTO THE RIGHT OF WAY.



### BMPs USED:

- EC-1, SCHEDULING
- EC-2, PRESERVATION OF EXISTING VEGETATION
- EC-7, GEOTEXTILES, MATS, PLASTIC COVERS, AND EROSION CONTROL BLANKET
- SE-1, SILT FENCE
- SE-6, GRAVEL BAG BERM, SEE DETAIL "A" AND DETAIL "B" HEREON.
- SE-7, STREET SWEEPING AND VACUUMING
- SE-8, SANDBAG BARRIER
- SE-10, STORM DRAIN INLET PROTECTION
- WE-1, WIND EROSION CONTROL
- TC-1, STABILIZED CONSTRUCTION ENTRANCE/EXIT
- TC-2, STABILIZED CONSTRUCTION ROADWAY
- TC-3, ENTRANCE/EXIT TIRE WASH
- NS-1, WATER CONSERVATION PRACTICES

### BMPs USED (Cont'd):

- NS-3, PAVING AND GRINDING OPERATIONS
- NS-6, ILLICIT CONNECTION/DISCHARGE
- NS-8, VEHICLE AND EQUIPMENT WASHING
- NS-9, VEHICLE AND EQUIPMENT FUELING
- NS-10, VEHICLE AND EQUIPMENT MAINTENANCE
- NS-12, CONCRETE CURING
- NS-13, CONCRETE FINISHING
- WM-1, MATERIAL DELIVERY AND STORAGE
- WM-2, MATERIAL USE
- WM-3, STOCKPILE MANAGEMENT
- WM-4, SPILL PREVENTION AND CONTROL
- WM-5, SOLID WASTE MANAGEMENT
- WM-8, CONCRETE WASTE MANAGEMENT
- WM-9, SANITARY/SEPTIC WASTE MANAGEMENT

### LEGEND:

AC EX. ASPHALT CONCRETE  
EXISTING BLOCK WALL

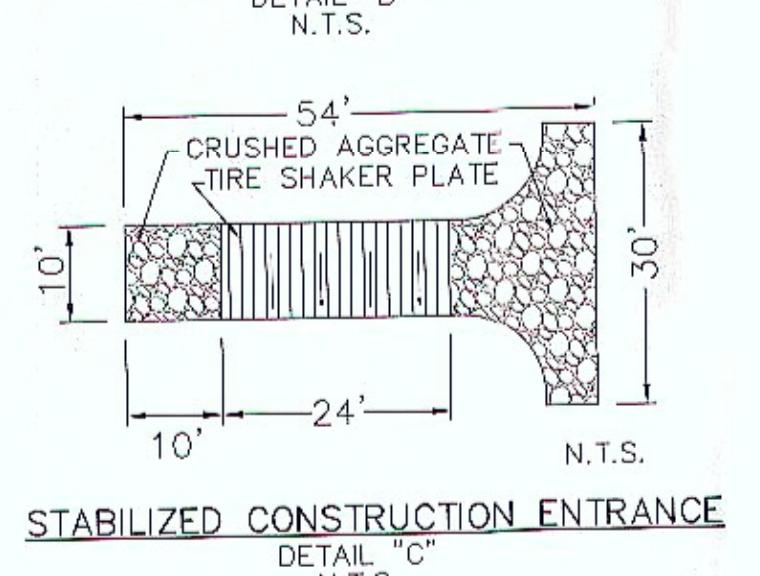
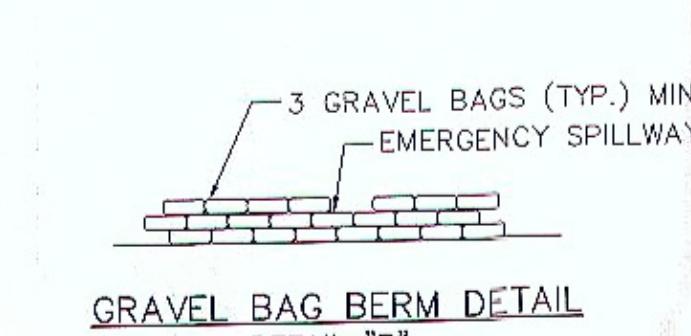
### EROSION CONTROL LEGEND:

Concrete Waste Management  
Solid Waste Management  
Gravel Bag Berm  
Material Delivery and Storage  
Sanitary/Septic Waste Management



2 LAYERS OF GRAVEL BAGS  
AROUND PROPERTY LINES  
WORK AREA ON THIS SIDE  
P WITH PERMISSION FROM  
ADJACENT PROPERTY

EROSION CONTROL DETAIL  
DETAIL "A" N.T.S.



**G**  
GARDEN GROVE  
City Of Garden Grove  
Department Of Public Works

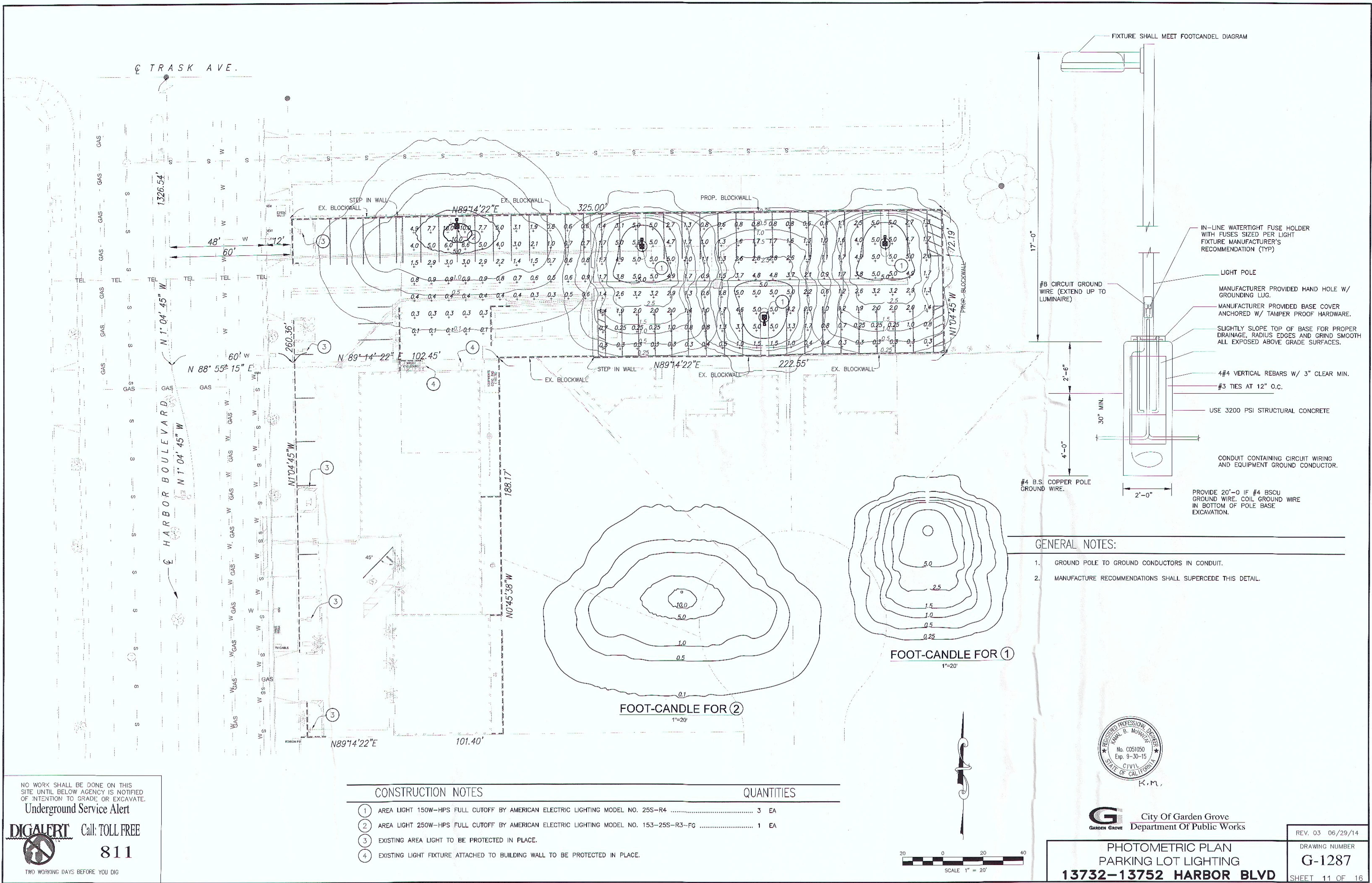
REV. 03 06/29/14

DRAWING NUMBER

**G-1287**

SHEET 10 OF 16

EROSION CONTROL PLAN  
13732-13752 HARBOR BLVD



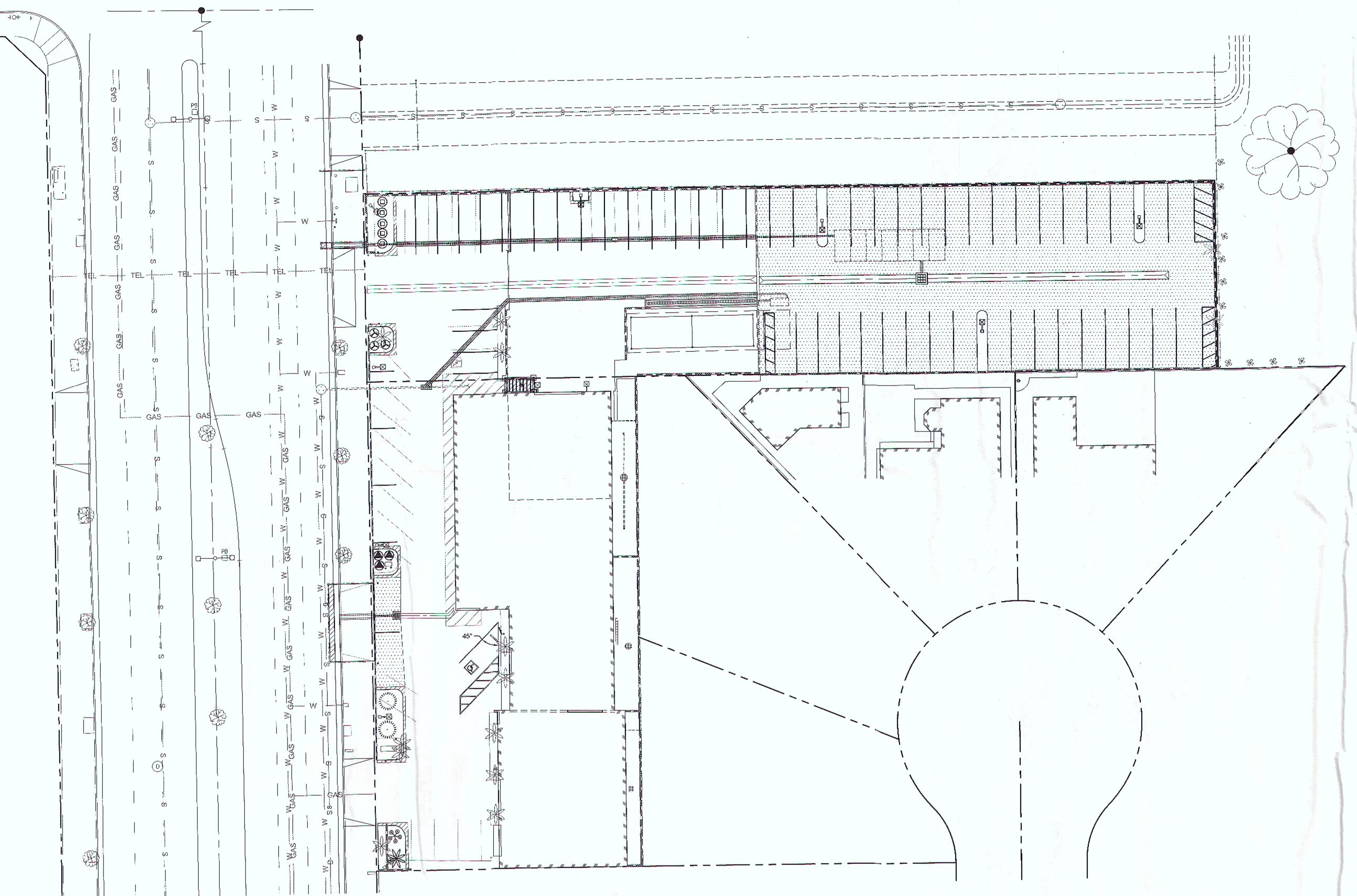
# LANDSCAPING PLAN

## LEGEND



EXISTING PALM TREES

KEY	BOTANICAL NAME	COMMON NAME	SIZE
◎	AGAPANTHUS AFRICANUS 'QUEEN ANNE'	LILY OF THE NILE	1 GAL.
○	DIETES BICOLOR	FORTUNE LILY	1 GAL.
△	PITTOSPORUM	WHEELER'S DWARF	1 GAL.
●	BOUGAINVILLEA 'BARBARA KARST'	BOUGAINVILLEA	15 GAL. (TRAIN TO TRELLIS)
★	PHOENIX ROEBELINI	PIGMY DATE PALM	15 GAL.(2-TRUNK)



NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

DIGALERT Call: TOLL FREE

811

TWO WORKING DAYS BEFORE YOU DIG



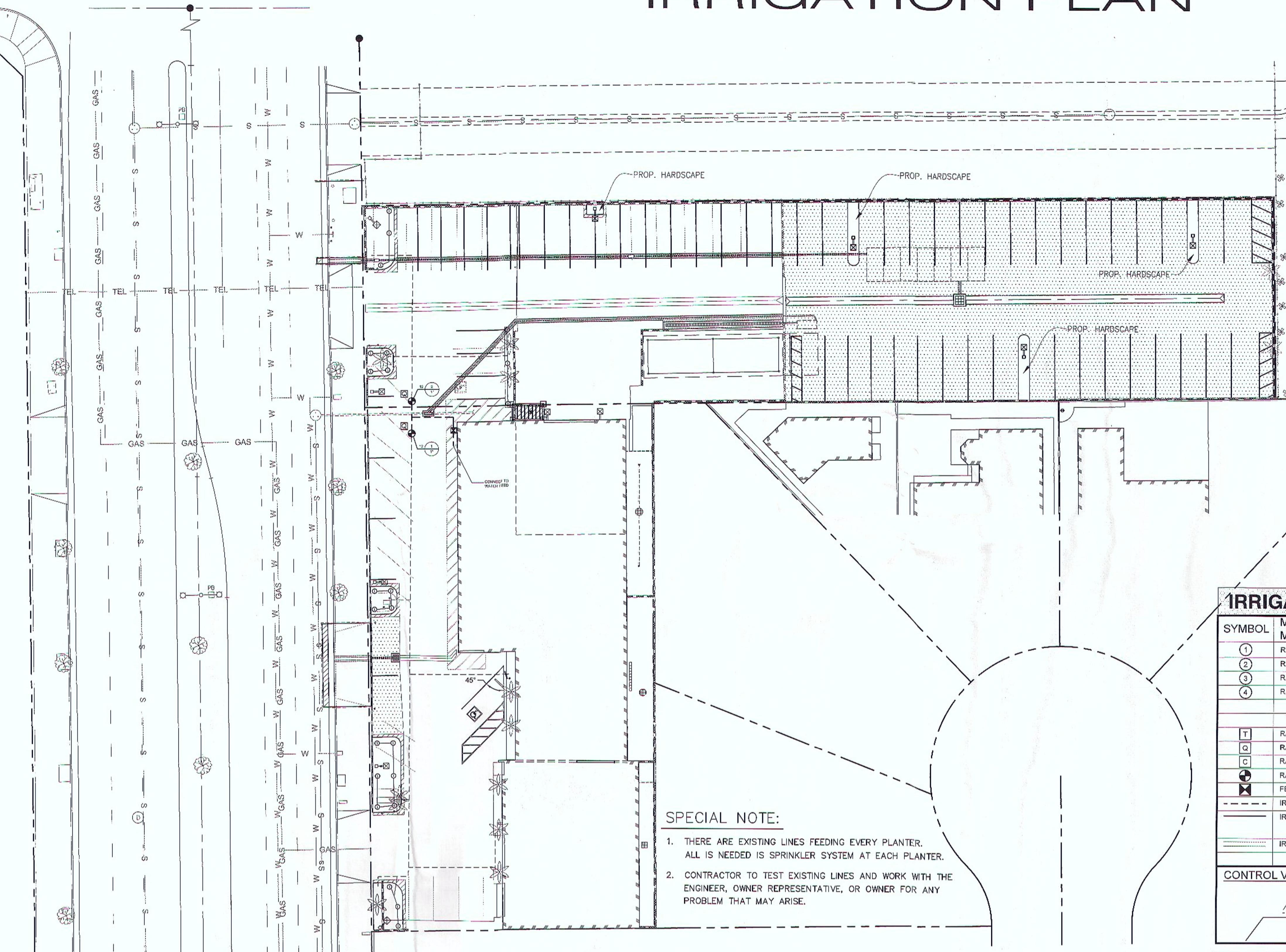
SCALE: 1" = 20'  
20' 0' 10' 20' 40'

**G**  
GARDEN GROVE  
City Of Garden Grove  
Department Of Public Works

REV. 03 06/29/14

LANDSCAPING PLAN  
LANDSCAPING (1 OF 3)  
13732-13752 HARBOR BLVD  
DRAWING NUMBER G-1287  
SHEET 12 OF 16

# IRRIGATION PLAN



## IRRIGATION NOTES

1. PRIOR TO ANY EXCAVATION AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER AND/OR LANDSCAPE ARCHITECT AND CONSULT WITH OWNER'S REPRESENTATIVE AND UTILITY COMPANY'S REPRESENTATIVES TO DETERMINE POSSIBLE UTILITY LOCATIONS AND DEPTHS. NO COMPENSATION WILL BE GRANTED FOR FAILURE TO COMPLY WITH THIS REQUIREMENT.
2. IRRIGATION PLAN IS SCHEMATIC. LOCATIONS OF PROPOSED IRRIGATION MAINLINE, LATERALS, VALVES, AND SPRINKLER HEADS ARE SHOWN SCHEMATICALLY FOR CLARITY, AND SHALL BE LOCATED IN GREEN SPACE AT THE DISCRETION OF IRRIGATION CONTRACTOR. IRRIGATION MAIN LINE AND VALVES SHALL NOT BE INSTALLED WITHIN THE RIGHT-OF-WAY WITHOUT WRITTEN CONSENT OF THE LOCAL JURISDICTION. IRRIGATION CONTRACTOR IS TO SUBMIT SHOP DRAWINGS SHOWING ALL VALVES, HEADS, PUMPS AND LINES SIZES TO OWNER PRIOR TO INSTALLATION.
3. THE IRRIGATION CONTRACTOR IS RESPONSIBLE TO INSTALL A SYSTEM THAT WILL PROPERLY COVER ALL AREAS PLANTED ON PLANTING PLAN(S).
4. IRRIGATION CONTRACTOR SHALL MAKE ANY FIELD CHANGES IN THE SYSTEM NECESSARY TO MAKE THE SYSTEM PERFORM AS SPECIFIED. THIS INCLUDES ADDING HEADS TO PROVIDE THE REQUIRED HEAD TO HEAD COVERAGE.
5. HEADS SHALL BE INSTALLED 2" MIN. FROM PAVEMENT AND 4" MIN. FROM BUILDING WALLS.
6. IRRIGATION CONTRACTOR TO VERIFY ALL WATER PRESSURES.
7. IRRIGATION CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS TO THE OWNER PRIOR TO FINAL ACCEPTANCE.
8. IRRIGATION CONTROLLER AND PROGRAMMING TO BE PROVIDED BY IRRIGATION CONTRACTOR.
9. CONTRACTOR TO VERIFY LOCATION AND OPERATION OF CONTROLLER WITH OWNER'S REPRESENTATIVE.
10. BED LINES SHALL BE ESTABLISHED BY THE LANDSCAPE CONTRACTOR AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO THE INSTALLATION OF THEIR IRRIGATION SYSTEM.
11. THE IRRIGATION SYSTEM SHALL BE INSTALLED AND FULLY OPERATIONAL BEFORE PLANT INSTALLATION MAY BEGIN.
12. LATERAL LINES SHALL BE 12" MIN. BELOW FINISH GRADE. MAINLINE SHALL BE 18" MIN. BELOW FINISH GRADE. SLEEVES SHALL BE 24" MIN. BELOW PAVEMENT, AND EXTEND AT LEAST 12" BEYOND PAVEMENT. ALL WIRES LOCATED BELOW PAVEMENT SHALL BE INSTALLED IN A SEPARATE PVC SLEEVE. BACKFILL WITH CLEAN SOIL FREE OF ROCKS, AND TAMP EVERY 4" OF LIFT.
13. ALL CONTROL WIRE TO BE RUN UNDER MAINLINE. WIRING SHALL BE UL493, TYPE UF MULTI CONDUCTOR WITH SOLID-COPPER CONDUCTORS; INSULATED CABLE; SUITABLE FOR DIRECT BURIAL FEEDER-CIRCUIT CABLES SHALL BE NO. 12 AWG MINIMUM, BETWEEN BUILDING AND CONTROLLER(S). LOW-VOLTAGE, BRANCH-CIRCUIT CABLES SHALL BE NO. 14 AWG MINIMUM, BETWEEN CONTROLLER(S) AND AUTOMATIC CONTROL VALVES; COLOR-CODED DIFFERENT FROM FEEDER-CIRCUIT-CABLE JACKET COLOR; WITH JACKETS OF DIFFERENT COLORS FOR MULTIPLE-CABLE INSTALLATION IN SAME TRENCH. ALL ELECTRICAL CONNECTIONS SHALL BE WATER PROOF.
14. ALL DEBRIS SPILLED IN ANY ADJACENT R.O.W. AND/OR ADJOINING PROPERTIES SHALL BE CLEANED UP AND REMOVED BY THE CONTRACTOR.
15. IRRIGATION CONTRACTOR TO ADJUST RADIUS AND ARC OF SPRAY NOZZLES TO MINIMIZE OVER SPRAY ON BUILDINGS AND HARSCAPE.
16. IRRIGATION CONTRACTOR SHALL PROVIDE A BID ALTERNATE FOR AN ON GOING MAINTENANCE AND REPAIR PROGRAM FOR IRRIGATION SYSTEM.
17. IRRIGATION SYSTEM SHALL COMPLY WITH ALL LOCAL REQUIREMENTS.
18. SEE IRRIGATION DETAILS.
19. CA GREEN CODE: WHEN TOTAL LANDSCAPE AREAS ARE IN EXCESS OF 999 SQ. FT., AUTOMATIC IRRIGATION SYSTEM CONTROLLERS WHICH ARE EITHER SOIL MOISTURE OR WEATHER BASED, SHALL BE INSTALLED.
20. CA GREEN CODE: LANDSCAPE IRRIGATION SYSTEMS SHALL BE DESIGNED TO PREVENT SPRAY ON BUILDINGS.

## IRRIGATION LEGEND

SYMBOL	MANUFACTURER MODEL NUMBER	PATTERN	RADIUS	PSI	GPM													
					Q	H	F	BUBB	EST	SST								
①	RAINBIRD 1812-SAM	Q,H,F	8'	30	.26	.52	1.05	-	-	-								
②	RAINBIRD 1812-SAM	Q,H,F	10'	30	.39	.79	1.60	-	-	-								
③	RAINBIRD 1812-SAM	SST	4'x30'	30	-	-	-	-	-	1.21								
④	RAINBIRD 1812-SAM	EST	4'x15'	30	-	-	-	-	-	.81								
<hr/>																		
[T]	RAINBIRD RAIN CHECK AUTOMATIC RAIN SHUTOFF OR EQUAL						INSTALL IN FIBERGLASS VALVE BOX											
[G]	RAINBIRD QUICK COUPLING VALVE - 3DNP OR EQUAL						INSTALL IN FIBERGLASS VALVE BOX											
[C]	RAINBIRD ESP-24LX IRRIGATION CONTROLLER OR EQUAL						SIZE PER PLAN, INSTALL IN FIBERGLASS VALVE BOX											
[●]	RAINBIRD PGA SERIES REMOTE CONTROL VALVE OR EQUAL						SIZE PER PLAN, INSTALL IN FIBERGLASS VALVE BOX											
[■]	FEBCO 825Y-1" REDUCED PRESSURE BACKFLOW PREVENTER OR EQUAL																	
<hr/>																		
[—]	IRRIGATION MAINLINE - SCH 40 PVC 2"						FOLLOW PIPE SIZING CHART FOR LATERAL PIPE SIZES											
[—]	IRRIGATION LATERAL LINE - PVC SCH. 40						FOLLOW PIPE SIZING CHART FOR LATERAL PIPE SIZES											
[—]	IRRIGATION PIPE SLEEVING - PVC SCH. 40 MINIMUM 2X DIAMETER INSIDE PIPE(S)						MINIMUM 30" COVER UNDER VEHICULAR PAVING											
<hr/>																		
<b>CONTROL VALVE DESIGNATION</b>										<b>IRRIGATION PIPE SIZING CHART</b>								
										REMOTE CONTROL VALVE								
<table border="1"> <tr> <td>3/4"</td> <td>1"</td> <td>1 1/4"</td> <td>1 1/2"</td> </tr> <tr> <td>1 - 9 GPM</td> <td>10 - 14 GPM</td> <td>11 - 22 GPM</td> <td>23 - 30 GPM</td> </tr> </table>										3/4"	1"	1 1/4"	1 1/2"	1 - 9 GPM	10 - 14 GPM	11 - 22 GPM	23 - 30 GPM	REMOTE CONTROL VALVE
3/4"	1"	1 1/4"	1 1/2"															
1 - 9 GPM	10 - 14 GPM	11 - 22 GPM	23 - 30 GPM															

PRODUCTS PROVIDED BY RAINBIRD OR HUNTER THAT ARE OF EQUAL OR SUPERIOR QUALITY AND CONSTRUCTION ARE ACCEPTABLE PRODUCT ALTERNATES.

## WATER CONSERVATION STATEMENT

THE AUTOMATIC IRRIGATION SYSTEM CONSISTS OF A SEPARATE IRRIGATION METER AND BACKFLOW PREVENTER. THE CONTROLLER IS CAPABLE OF MULTIPLE START TIMES / REPEAT CYCLES ("CYCLE AND SOAK" ON ICC CONTROLLER) TO AVOID EXCESSIVE RUNOFF AND ALLOWING WATER TO BE ABSORBED BEFORE STARTING THE NEXT CYCLE. IRRIGATION EFFICIENCY IS IMPROVED WITH AN EVAPOTRANSPIRATION AND RAIN SENSOR (SOLAR SYNC).

LAWN AREAS ARE IRRIGATED BY LANDSCAPE DRIP LINES RESULTING IN NO OVERSPRAY OR RUN OFF. THE DRIP LINES ARE PRESSURE COMPENSATING AND HAVE A CHECK VALVE IN EACH Emitter (TO PREVENT LOW HEAD DRAINAGE).

PLANTING BEDS ARE IRRIGATED BY PRESSURE COMPENSATING DRIP EMMITTERS. DRIP IRRIGATION ALLOWS WATER TO INfiltrate LOWLY RATHER THAN EVAPORATED OR BECOMING RUN OFF.

ALL CONTROL VALVES HAVE PRESSURE REGULATORS.

ALL PLANT MATERIALS ARE LOW TO MODERATE WATER USE, EXCEPT FOR TURF WHICH IS LESS THAN 25% OF THE TOTAL LANDSCAPE AREA AND AVERAGE WATER USE. AFTER GRADING, SOIL AMENDMENTS WILL BE INCORPORATED PER RECOMMENDATIONS FROM SOIL TESTS. 3" DEPTH MULCH SHALL BE PROVIDED IN ALL PLANTING BEDS.

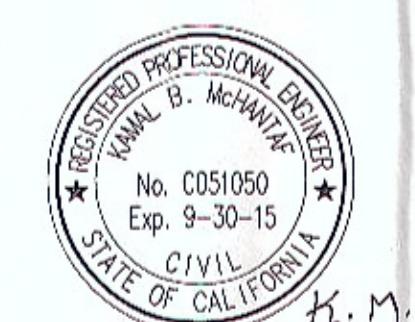
NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert

DIGALERT Call TOLL FREE

811

TWO WORKING DAYS BEFORE YOU DIG



**G**  
GARDEN GROVE  
City of Garden Grove  
Department of Public Works

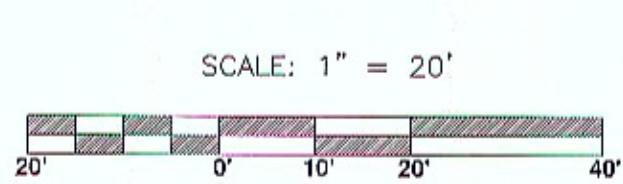
REV. 03 06/29/14

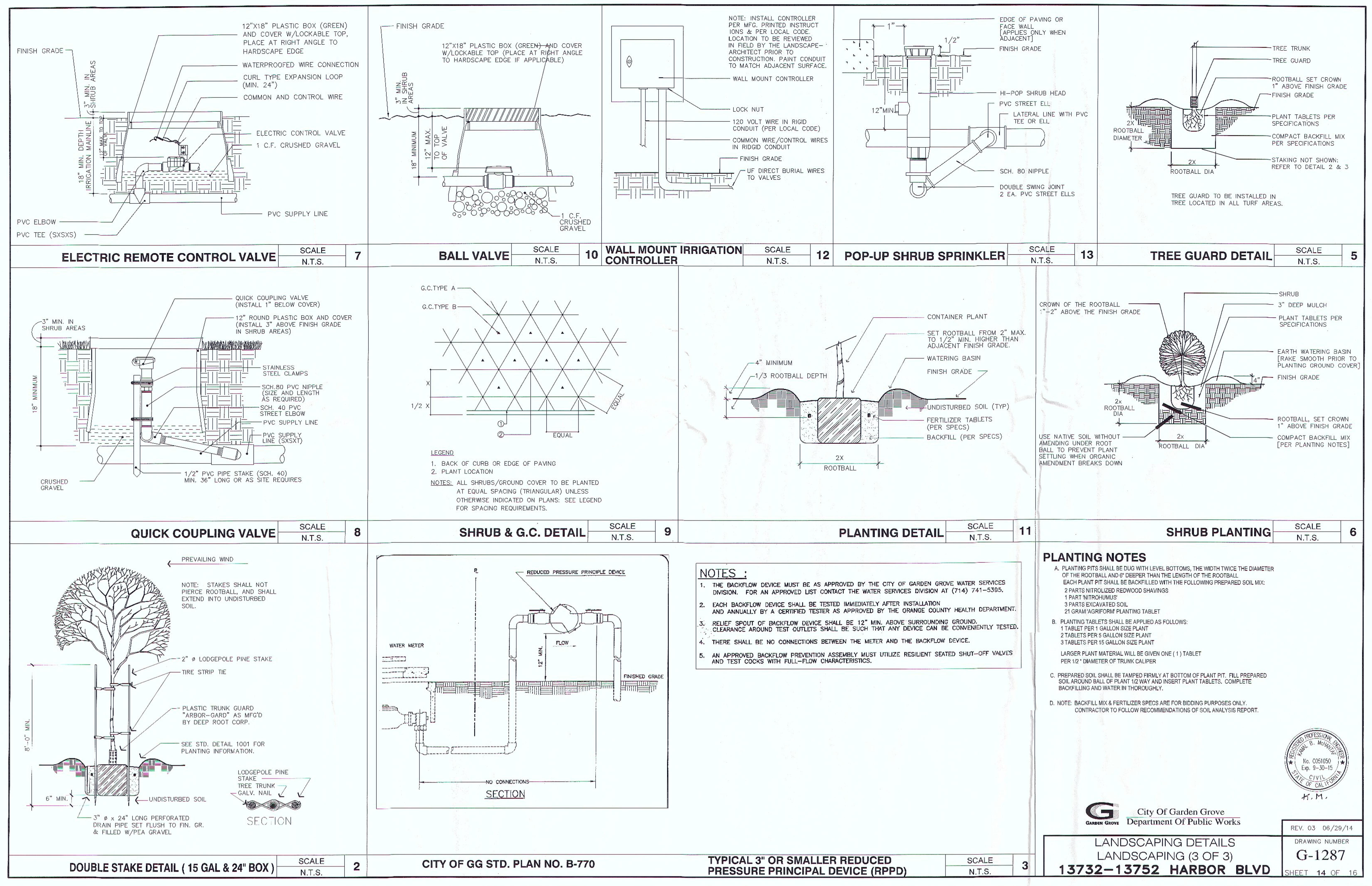
DRAWING NUMBER

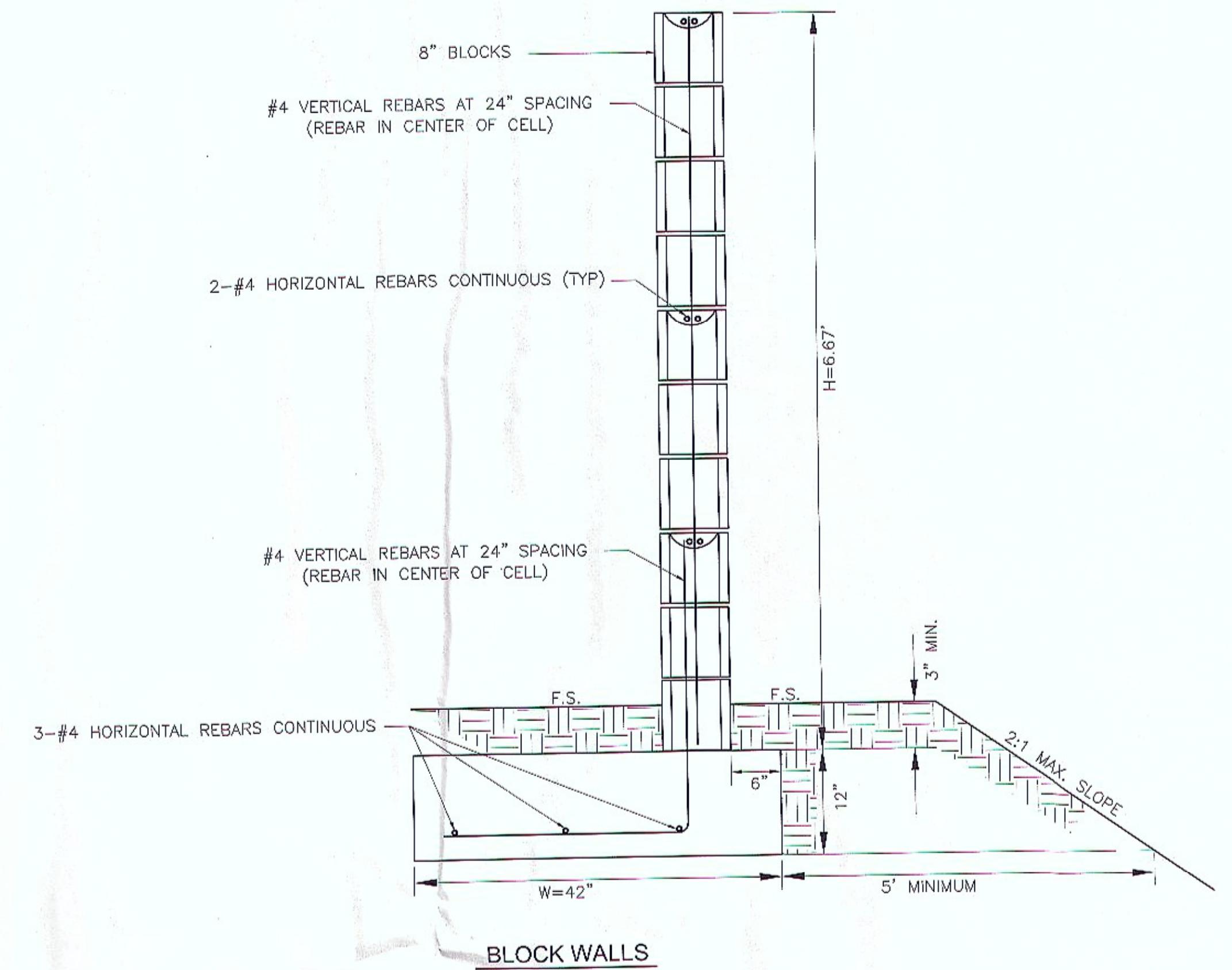
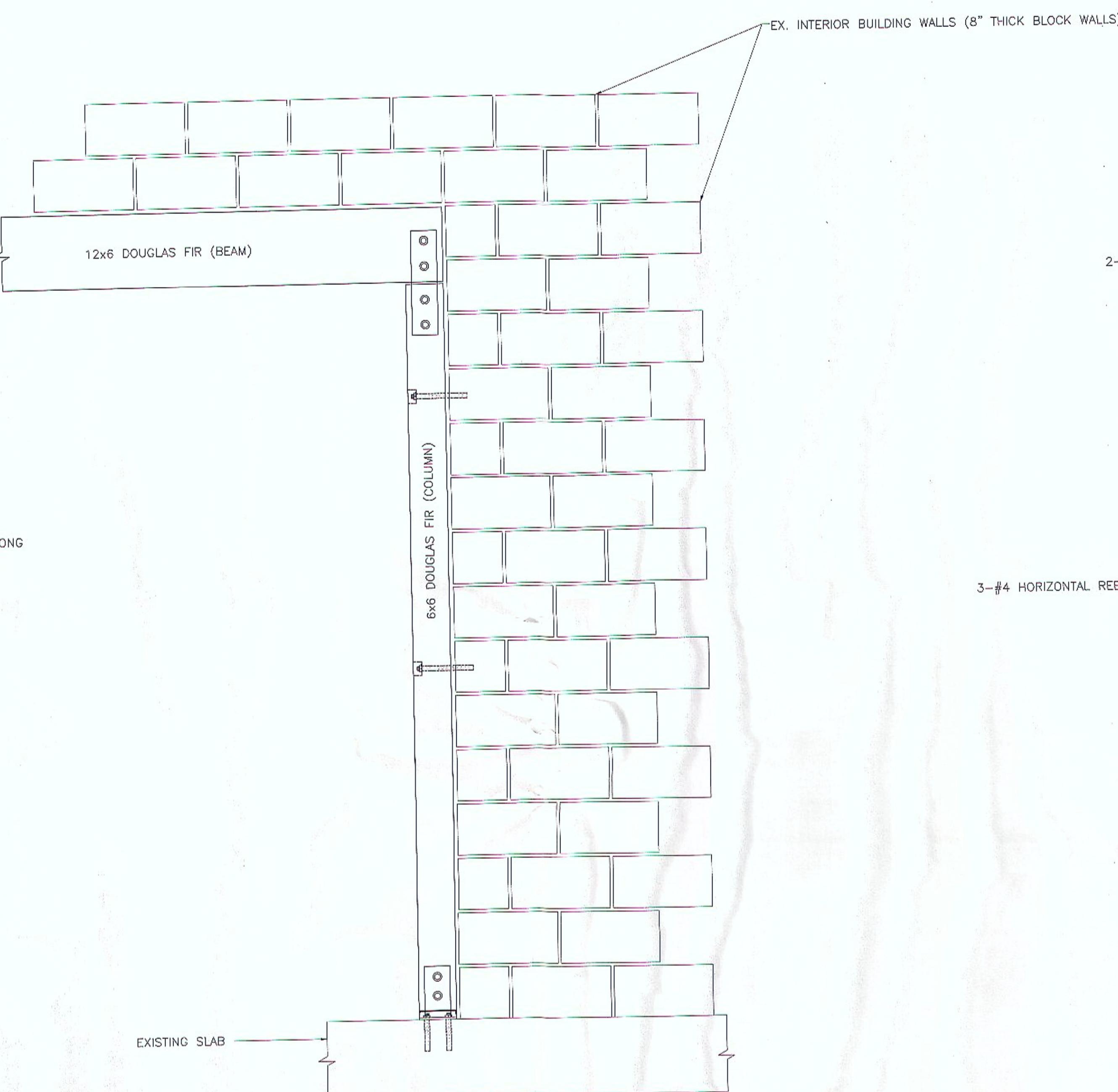
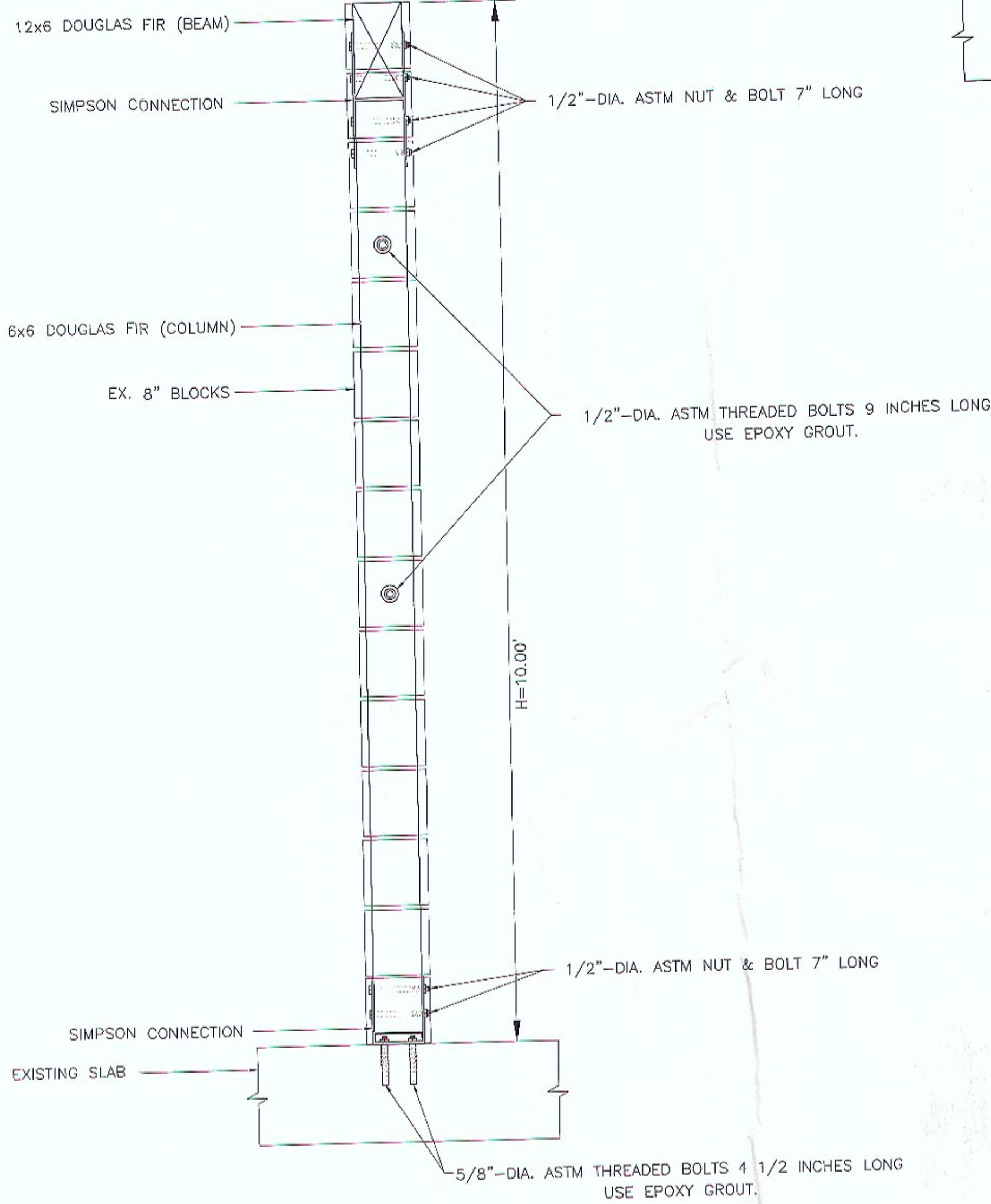
**G-1287**

IRRIGATION PLAN  
LANDSCAPING (2 OF 3)  
13732-13752 HARBOR BLVD

SHEET 13 OF 16







#### NOTES:

1. THIS DESIGN DOES NOT ALLOW GRADE DIFFERENTIALS OF MORE THAN 6" ON OPPOSING SIDES OF THE WALL. THIS IS NOT A RETAINING WALL.
2. FENCE HEIGHTS ARE REGULATED - CONSULT ZONING REGULATIONS BEFORE BEGINNING CONSTRUCTION.
3. NO WATER COURSE OR NATURAL DRAINAGE SHALL BE OBSTRUCTED.
4. GROUT ONLY THE CELLS CONTAINING REBAR. THIS WALL IS NOT DESIGNED FOR ALL CELLS TO BE GROUTED.
5. ALL REBAR TO BE ASTM SPEC. A615, GRADE 40 MINIMUM.
6. ALL REBAR LAP SPLICES TO BE 24" MINIMUM.
7. ALL MASONRY UNITS TO BE ASTM C-90 GRADE N.
8. REBAR TO BE CENTERED IN MASONRY CELLS.

#### INSPECTION REQUIREMENTS:

1. FOOTING: EXCAVATION TRENCH CLEAN WITH STEEL IN PLACE AND SUPPORTED 3" ABOVE AND AWAY FROM THE SURROUNDING EARTH/DIRT.
2. REBAR/PRE-GROUT: BOND BEAM REBAR AND VERTICAL REBAR IN PLACE - INSPECTION PRIOR TO PLACING GROUT.
3. FINAL: AFTER GROUT IS PLACED - PRIOR TO ANY DECORATIVE CAP PLACEMENT.



K. M.

**G**  
GARDEN GROVE City of Garden Grove  
Department of Public Works

REV. 03 06/29/14  
DRAWING NUMBER  
G-1287  
SHEET 15 OF 16

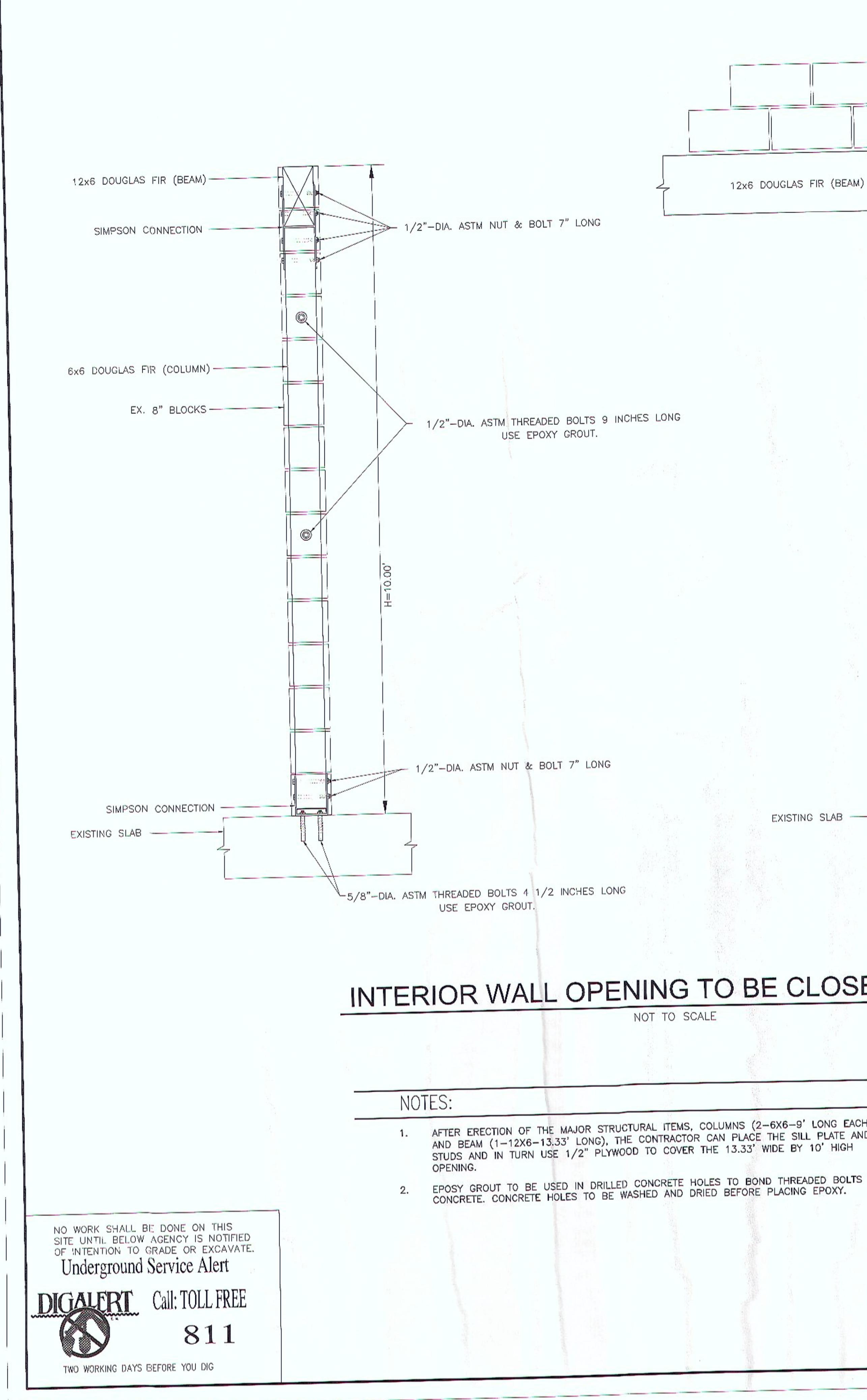
NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.  
Underground Service Alert  
**DIGALERT** Call: TOLL FREE  
811  
TWO WORKING DAYS BEFORE YOU DIG

#### INTERIOR WALL OPENING TO BE CLOSED AS SHOWN

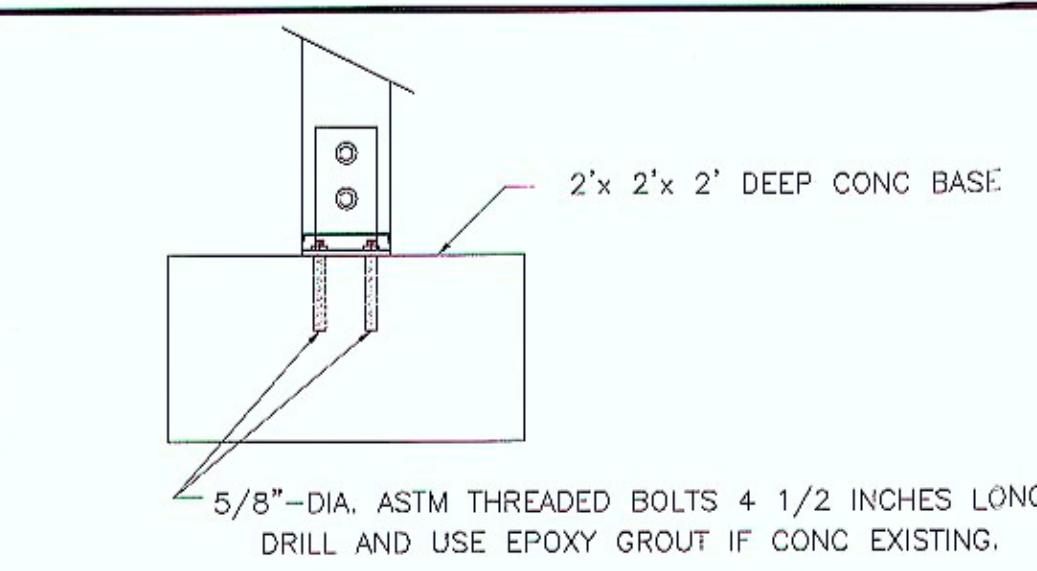
NOT TO SCALE

#### NOTES:

1. AFTER ERECTION OF THE MAJOR STRUCTURAL ITEMS, COLUMNS (2-6X6-9' LONG EACH) AND BEAM (1-12X6-13.33' LONG), THE CONTRACTOR CAN PLACE THE SILL PLATE AND STUDS AND IN TURN USE 1/2" PLYWOOD TO COVER THE 13.33' WIDE BY 10' HIGH OPENING.
2. EPOXY GROUT TO BE USED IN DRILLED CONCRETE HOLES TO BOND THREADED BOLTS TO CONCRETE. CONCRETE HOLES TO BE WASHED AND DRIED BEFORE PLACING EPOXY.

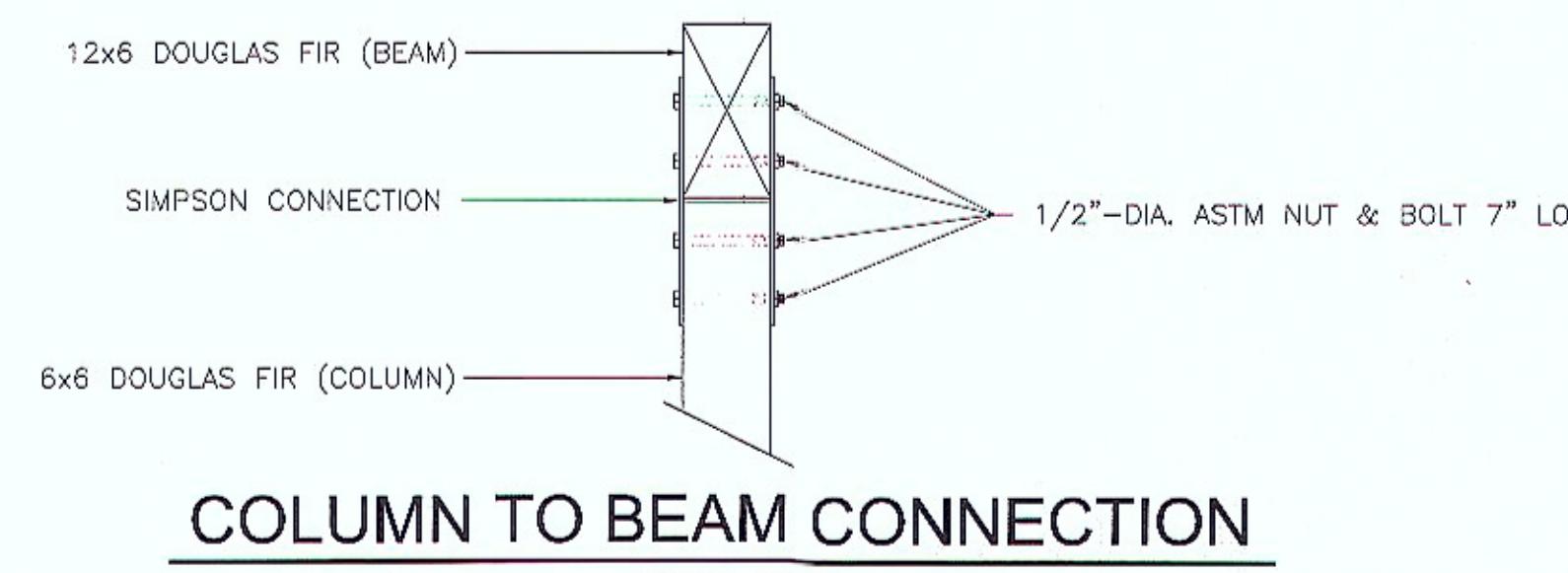


STRUCTURAL DETAILS-1  
13732-13752 HARBOR BLVD



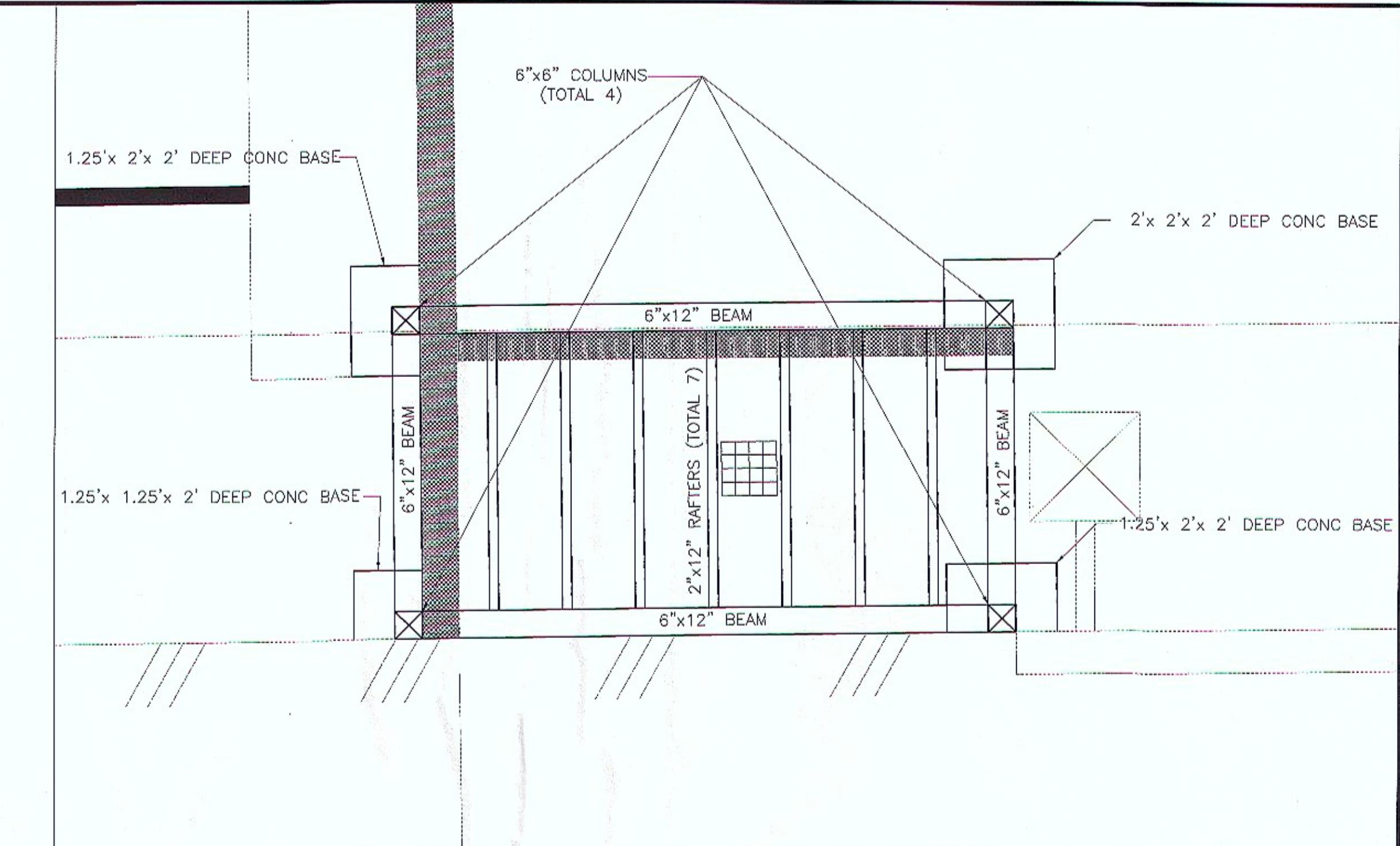
**COLUMN BASE (TOTAL 4)**

NOT TO SCALE



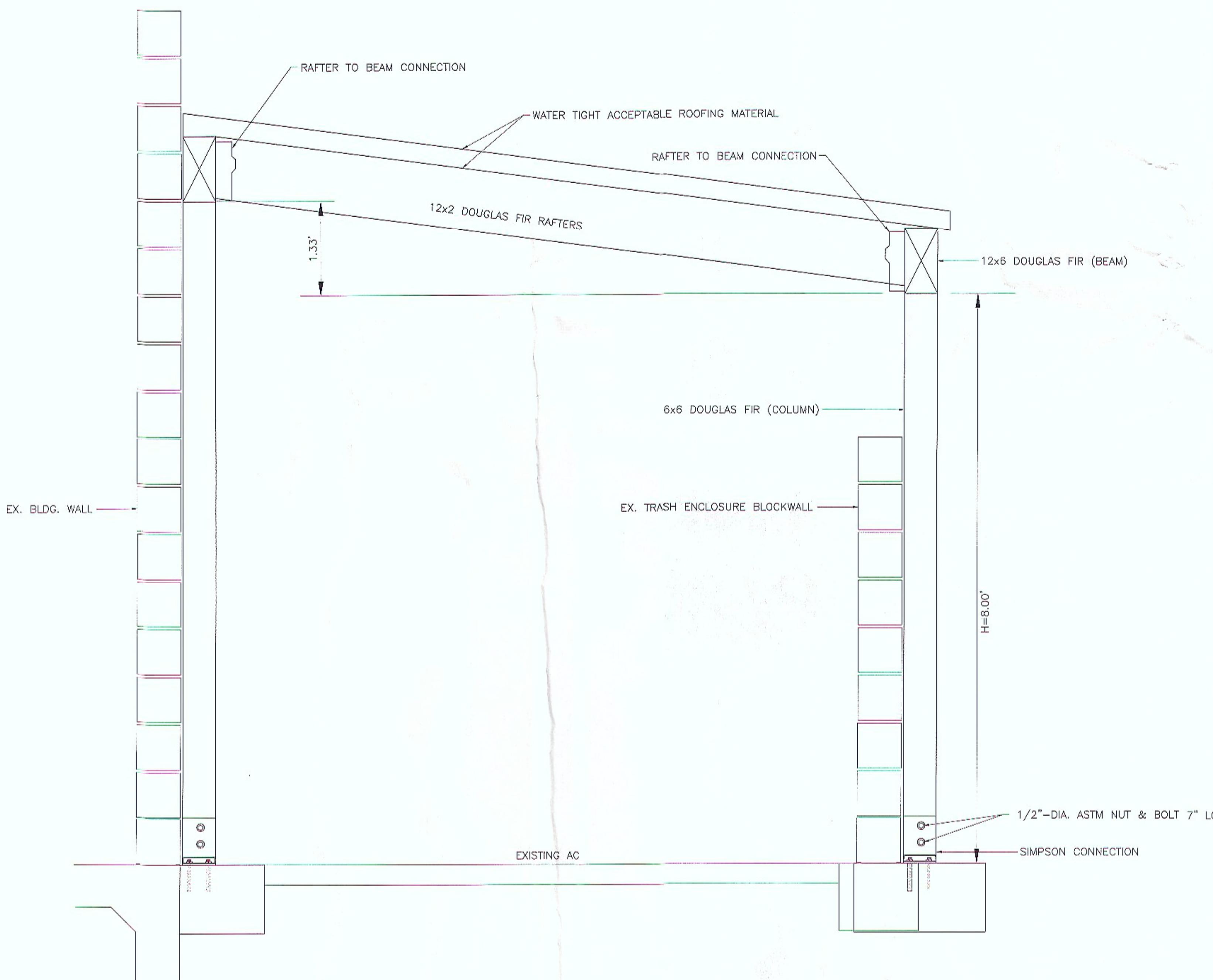
**COLUMN TO BEAM CONNECTION**

NOT TO SCALE



**PLAN VIEW OF TRASH ENCLOSURE AREA**

NOT TO SCALE



**TRASH ENCLOSURE ROOFING DETAILS**

NOT TO SCALE

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.  
Underground Service Alert  
**DIGALERT** Call: TOLL FREE  
811  
TWO WORKING DAYS BEFORE YOU DIG



City of Garden Grove  
Department of Public Works

REV. 03 06/29/14

DRAWING NUMBER

G-1287

SHEET 16 OF 16

**STRUCTURAL DETAILS-2**

**13732-13752 HARBOR BLVD**