

NW 1/4 OF SW 1/4 OF SEC. 34, T. 24 N., R. 05 E., W.M.

# VARNEY SUBDIVISION

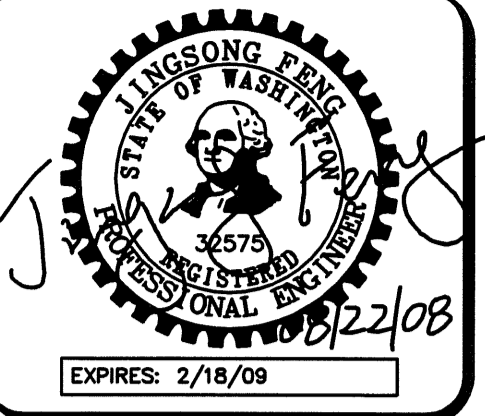
## CONSTRUCTION DOCUMENTS

## CITY OF NEWCASTLE

APPROVED FOR CONSTRUCTION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CITY OF NEWCASTLE

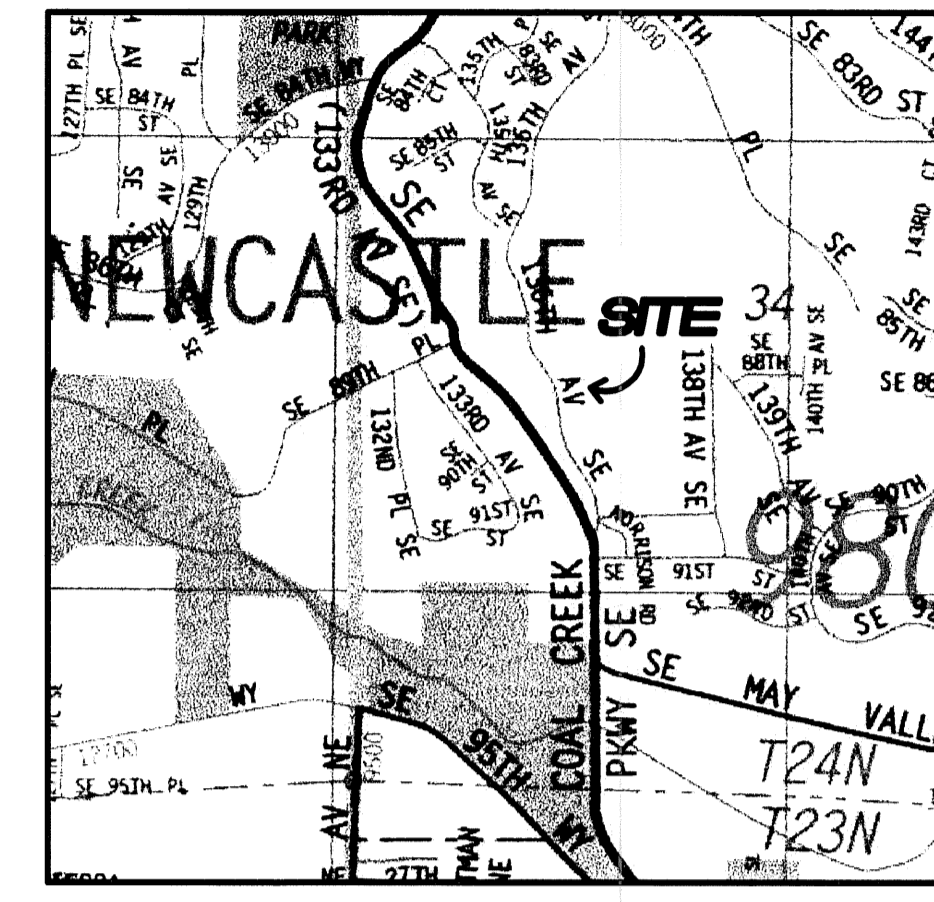
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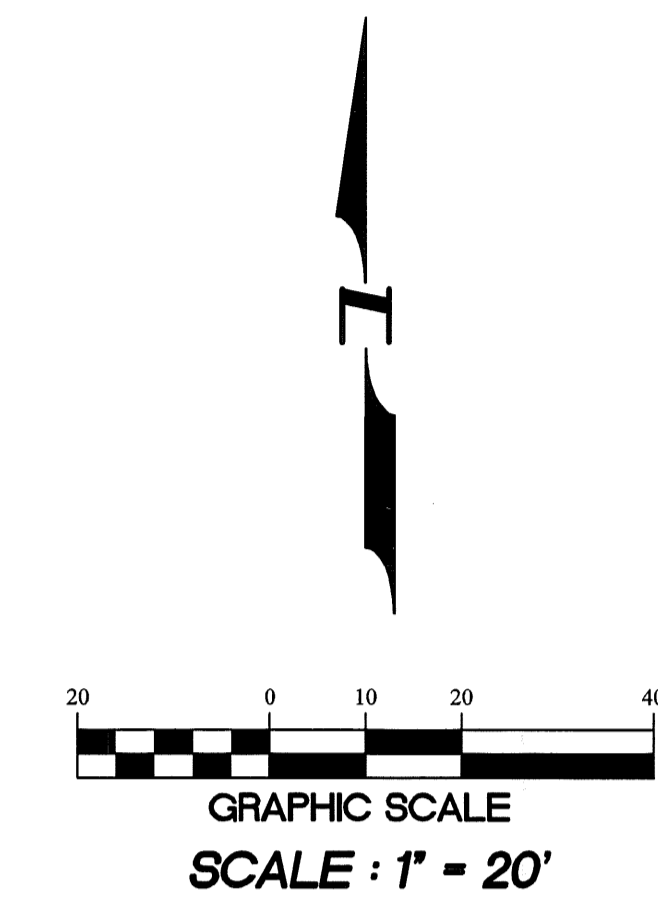
15445 53RD AVE. S.  
SEATTLE, WA 98188  
PHONE: (206) 431-7970  
FAX: (206) 388-1648  
WEB SITE: PACENG.COM

### Pacific Engineering Design, LLC

Civil Engineering and Planning Consultants



VICINITY MAP



**OWNERS**  
MARK AND DORTHEA VARNEY  
GREACEN HOMES, LLC.  
1140 140TH AVE NE STE D  
BELLEVUE, WA 98005-2976  
PHONE: (425) 746-6440  
FAX: (425) 766-2303

**PROJECT ENGINEER/PLANNER**  
PACIFIC ENGINEERING DESIGN, LLC  
15445 53RD AVE. S.  
SEATTLE, WA 98188  
PHONE: (206) 431-7970  
FAX: (206) 388-1648  
WEB SITE: PACENG.COM

**SURVEYOR**  
HANSEN SURVEYING  
17420 116TH AVE SE.  
RENTON, WA, 98058  
PHONE: (425) 235-8440  
FAX: (425) 235-0266

**GEOTECH**  
EARTH SOLUTIONS NW, LLC  
2881 152ND AVENUE N. E.  
REDMOND, WA 98052  
PHONE: (425) 284-3300  
FAX: (425) 284-2855

**UTILITY PURVEYORS**  
WATER: COAL CREEK UTILITY DISTRICT  
SEWER: COAL CREEK UTILITY DISTRICT  
POWER: PUGET SOUND ENERGY  
TELEPHONE: QWEST COMMUNICATIONS  
SCHOOL DISTRICT: ISSAQUAH #411  
FIRE DISTRICT: BELLEVUE FIRE DISTRICT

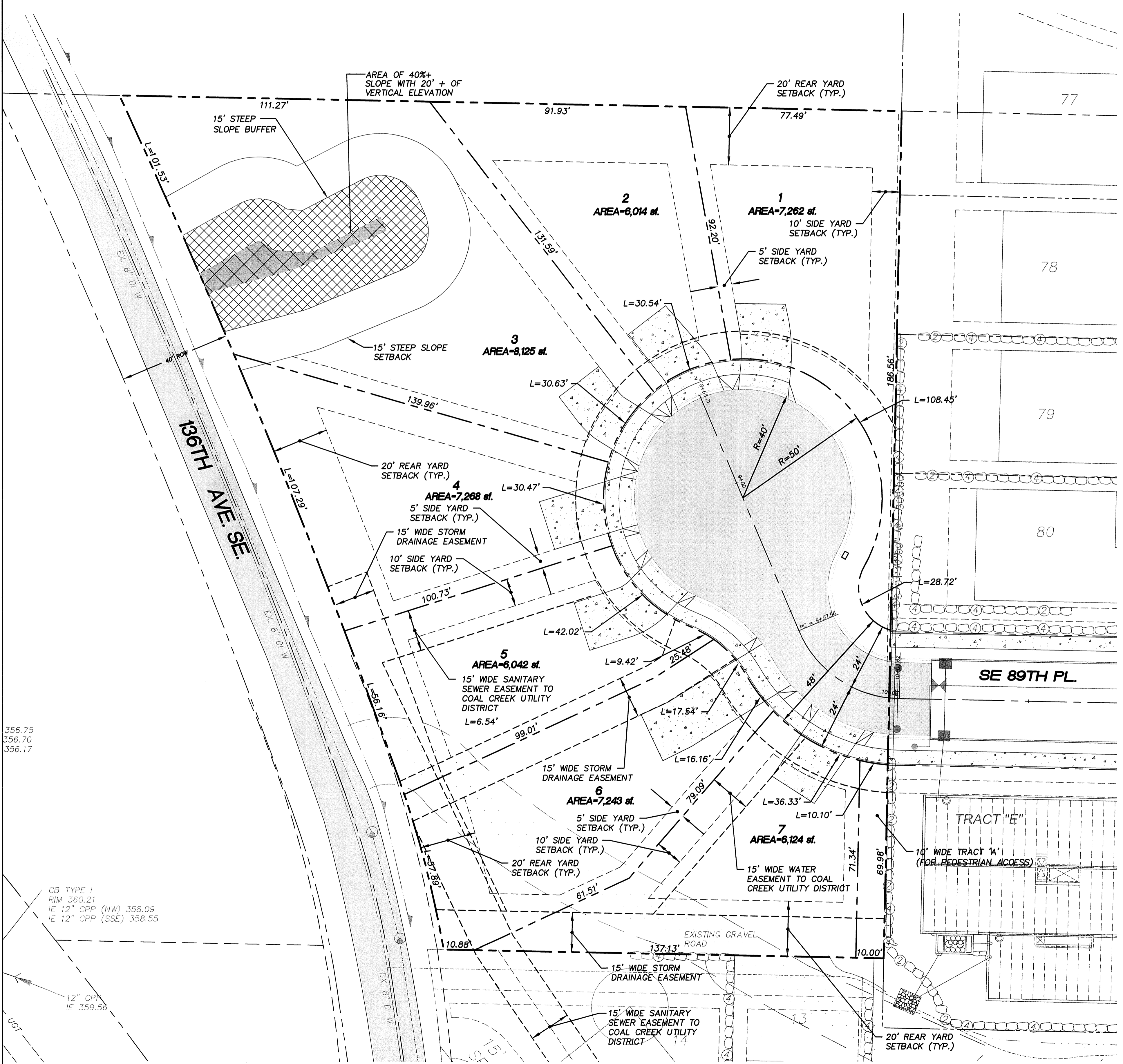
**LEGAL DESCRIPTION**  
LOT 1 OF SHORT PLAT No. 376071, ACCORDING TO THE SHORT PLAT SURVEY RECORDED UNDER KING COUNTY RECORDING No. 7801260822, BEING A PORTION OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

**NOTES**  
1. EXISTING STRUCTURES AND IMPROVEMENTS ON THE SITE ARE PLANNED TO BE REMOVED AS PART OF THE DEVELOPMENT PROJECT. SAID IMPROVEMENTS INCLUDE, BUT ARE NOT LIMITED TO, HOUSES, OUTBUILDINGS, CONCRETE/ASPHALT DRIVEWAYS AND FENCING.

**BENCH MARK**  
VERTICAL DATUM : NAVD 88  
CITY OF RENTON BENCH MARK # RENT 2094  
TOP OF NAIL IN CONCRETE MONUMENT IN CASE AT INTERSECTION OF SE 89TH PLACE AND 133RD AVE, SE ELEVATION=346.43 FEET

**BASIS OF BEARINGS**  
S88°47'51"E ALONG CENTERLINE OF SE89TH PLACE



### SHEET INDEX

- C01 COVER SHEET
- C02 STANDARD NOTES AND SPECIFICATIONS
- C03 COMPOSITE UTILITY PLAN
- C04 TEMPORARY EROSION/SEDIMENTATION PLAN
- C05 TEMPORARY EROSION/SEDIMENTATION PLAN
- C06 TEMPORARY EROSION/SEDIMENTATION DETAIL
- C07 GRADING AND DRAINAGE PLAN
- C08 STREET AND STORM DRAIN PLAN AND PROFILE
- C09 DETAILS
- C10 DETAILS
- C11 DETAILS AND TYPICAL SECTIONS
- C12 EXISTING CONDITIONS PLAN

### SITE INFORMATION

PROPERTY ADDRESS: 8824 136TH AVE. SE.  
NEWCASTLE, WA 98059  
R-6, CITY OF NEWCASTLE

EXISTING SITE ZONING: R-6, CITY OF NEWCASTLE  
TOTAL SITE AREA: 1.5 AC  
PROPOSED LAND USE: SINGLE FAMILY DETACHED  
PROPERTY PARCEL NO.: 3424059012  
PROPOSED NUMBER OF LOTS: 7 LOTS  
PROPOSED DWELLING UNITS: 7 DWELLING UNITS  
BASE DENSITY: 6du/ac  
6du/acx1.5ac=9du  
PERCENT OF BASE DENSITY: 80%  
9dux80%=7.2du  
USE 7du

### CAUTION

LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE AND MAY NOT BE ACCURATE OR ALL INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATION OF UTILITIES PRIOR TO PROCEEDING WITH CONSTRUCTION.

NOTE: AS OF JUNE 1, 2007, ACCESS TO THE PLAT VIA 136TH AVENUE SE WILL NOT BE POSSIBLE DUE TO THE CITY OF NEWCASTLE COAL CREEK ROADWAY EXPANSION PROJECT.

NOTE: YOU MUST CALL 1-800-424-5555 NOT LESS THAN 48 HOURS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED. FAILURE TO DO SO COULD MEAN BEARING SUBSTANTIAL REPAIR COSTS. (UP TO THREE TIMES THE COST OF REPAIRS TO THE SERVICE).

Notice Required	
COAL CREEK UTILITY DISTRICT Sanitary Sewer and Water	Phone (425) 235-9200 (TOM PEADON)
QWEST COMMUNICATIONS Telephone	(206) 345-2968 (FRANK FORREST)
PUGET SOUND ENERGY Gas Company & Power Company	(253) 395-6918 (KAREN FERGUSON)
COMCAST Cable Company	(253) 288-7531 (JIM NIES)
Call Before You Dig 1-800-424-5555	

VARNEY SUBDIVISION

CITY OF NEWCASTLE

FOR: GREACEN HOMES, LLC  
1140 140TH AVE NE STE D  
BELLEVUE, WA 98005-2976  
PHONE: (425) 746-6440 FAX: (425) 766-2303

PROJECT NO.: 06015  
DRAWN BY: JQC  
ISSUE DATE: 02-01-08  
SHEET REV.: 08-22-08

COVER SHEET

# C01







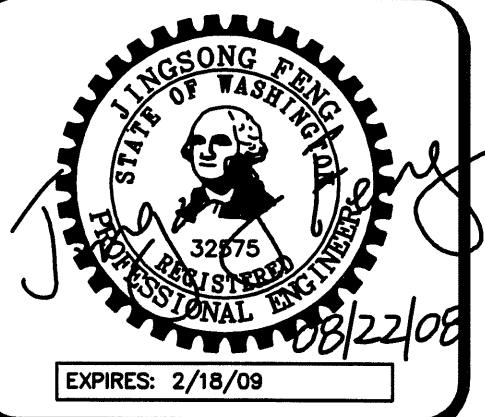
REVISIONS:

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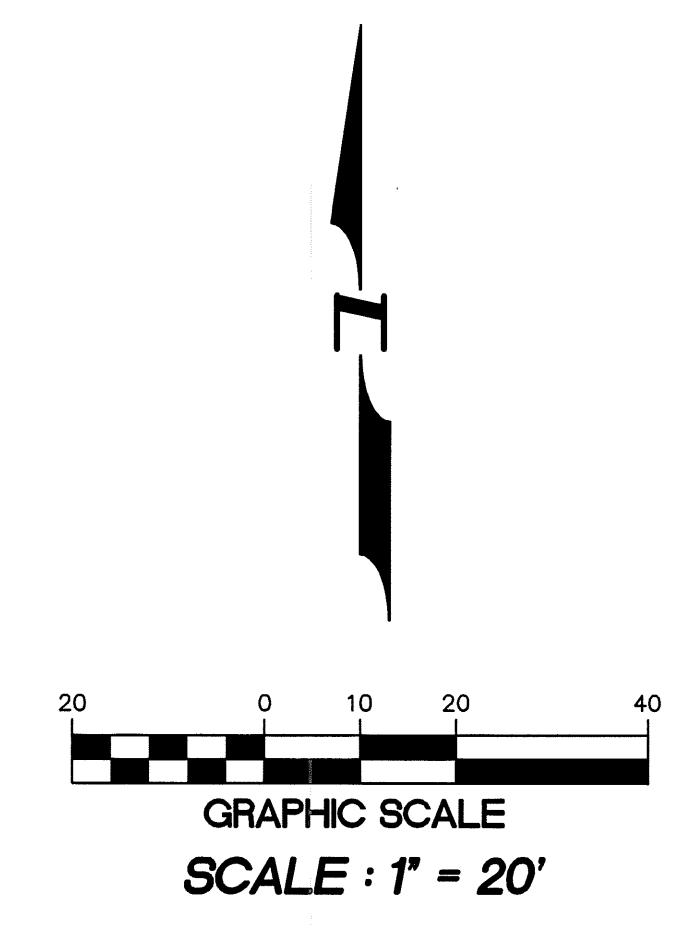
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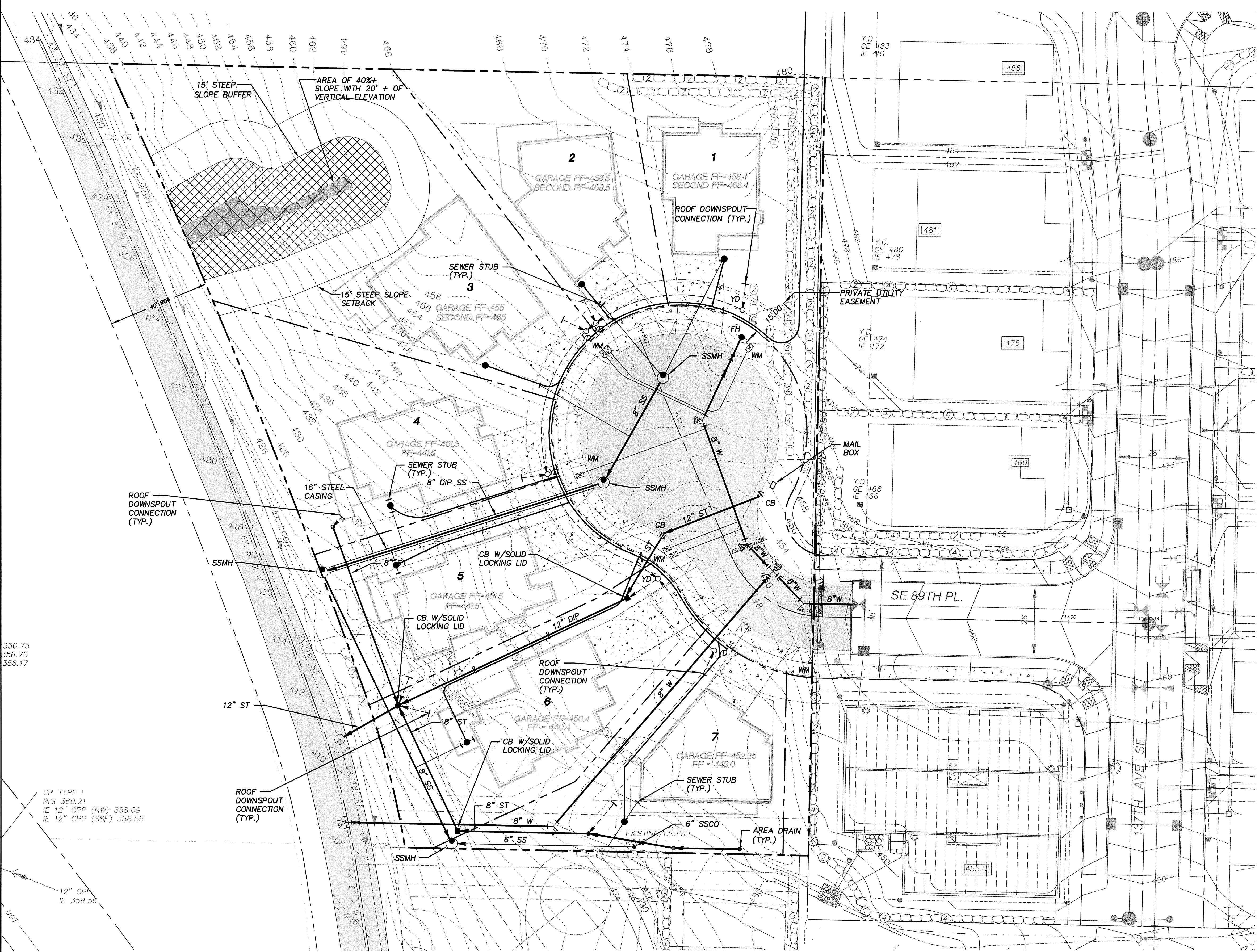


### BENCH MARK

VERTICAL DATUM : NAVD 88  
CITY OF RENTON BENCH MARK # RENT 2094  
TOP OF NAIL IN CONCRETE MONUMENT IN CASE AT INTERSECTION OF SE 89TH PLACE AND 133RD AVE, SE ELEVATION=346.43 FEET

### BASIS OF BEARINGS

S88°47'51"E ALONG CENTERLINE OF SE 89TH PLACE



356.75  
356.70  
356.17

CB TYPE I  
RIM 360.21  
IE 12" CPP (NW) 358.09  
IE 12" CPP (SSE) 358.55

12" CPP  
IE 359.58

## VARNEY SUBDIVISION

CITY OF NEWCASTLE

PROJECT NO.: **06015**  
DRAWN BY: **JQC**  
ISSUE DATE: **02-01-08**  
SHEET REV.: **08-22-08**

COMPOSITE UTILITY PLAN

CD\06015CU01-003.DWG  
**C03**



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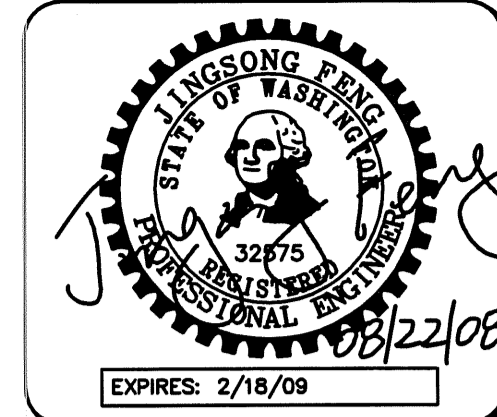
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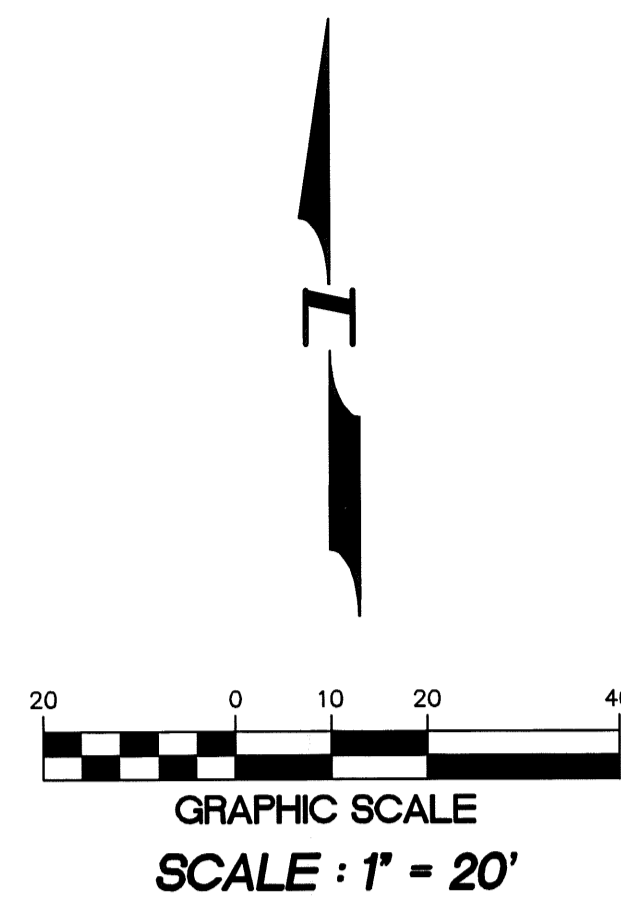
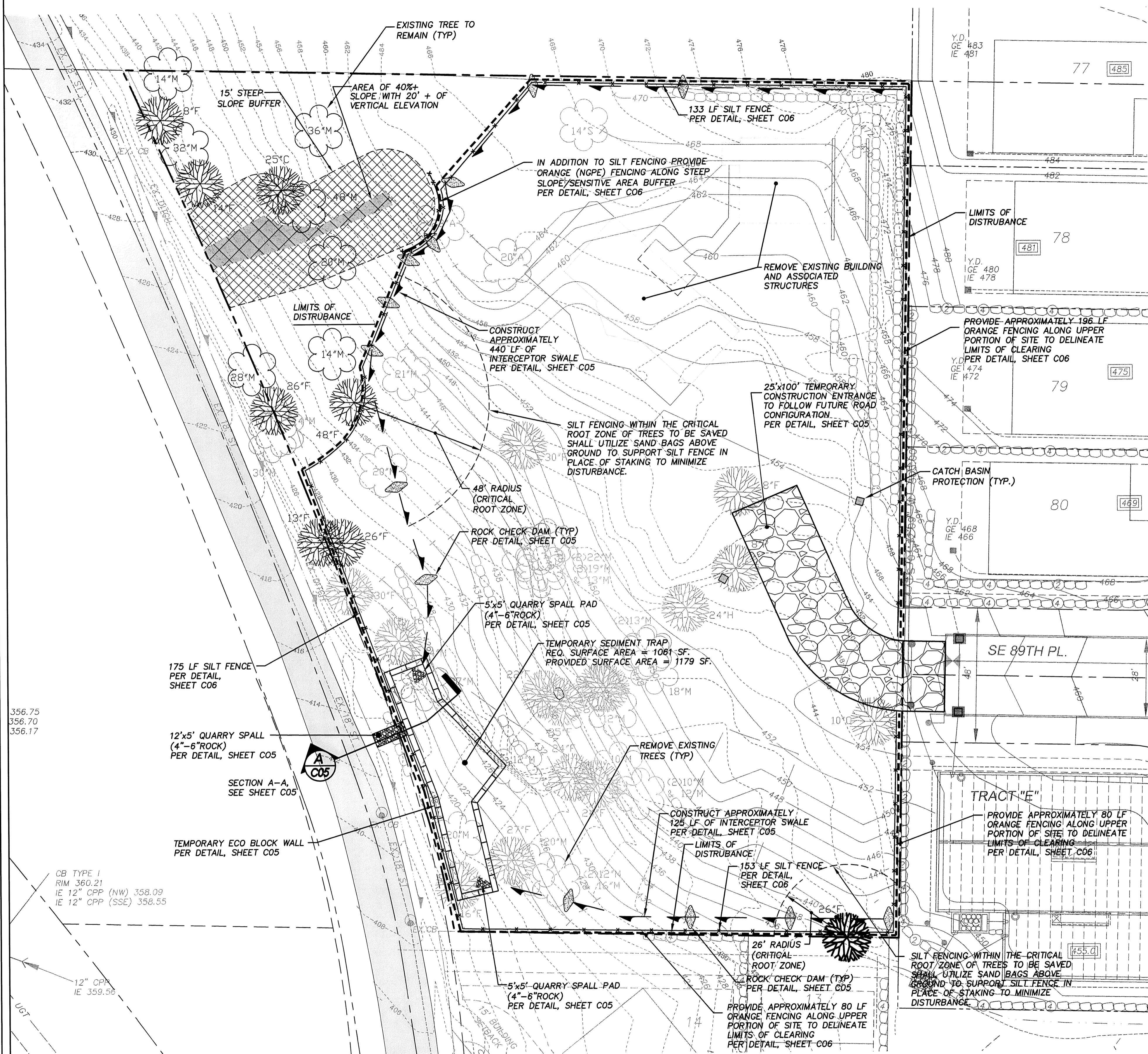
**VARNEY SUBDIVISION**  
CITY OF NEWCASTLE

FOR:  
GREACEN HOMES, LLC  
1140 140TH AVE NE SITE D  
BELLEVUE, WA 98005  
PHONE: (425) 746-6440 FAX: (425) 766-2303

PROJECT NO.: **06015**  
DRAWN BY: **JGC**  
ISSUE DATE: **02-01-08**  
SHEET REV.: **08-22-08**

**TEMPORARY EROSION/ SEDIMENTATION CONTROL PLAN**

CD\06015TE01-C04.DWG  
**C04**



**LEGEND**

- INTERIM SEDIMENTATION PROTECTION PER DETAIL, SHEET C05
- ROCK CHECK DAM PER DETAIL, SHEET C05
- TEMPORARY ROCKED CONSTRUCTION ENTRANCE PER DETAIL, SHEET C05
- INTERCEPTOR SWALE PER DETAIL, SHEET C05
- SILT FENCE PER DETAIL, SHEET C06
- 12" STORM
- LIMITS OF DISTURBANCE
- 400- PROPOSED CONTOURS
- 360- EXISTING CONTOURS
- DECIDUOUS
- EVERGREEN
- EXISTING SIGNIFICANT TREES TO BE REMOVED
- EXISTING SIGNIFICANT TREES TO BE SAVED
- EXISTING SIGNIFICANT SAVED TREES TO BE CREDITED AS TWO TREES FOR SIZE (24" DIA FOR EVERGREENS AND 30" DIA FOR BROADLEAF TREES)

TREE RETENTION DATA		
EXISTING SIGNIFICANT TREES ON SITE		60 TREES
TOTAL EXISTING SIGNIFICANT TREES DIAMETER		1248"
AVERAGE EXISTING SIGNIFICANT TREES DIAMETER	1248/60=	20.8"
EXISTING SIGNIFICANT TREES INSIDE OF SENSITIVE AREA		3 TREES
EXISTING SIGNIFICANT TREES OUTSIDE OF SENSITIVE AREA	60-3 =	57
TOTAL TREES REQUIRED TO BE SAVED (25% OF TOTAL TREES OUTSIDE OF SENSITIVE)	57 * 0.25=14.25	14 TREES
TREES PROPOSED TO BE SAVED		15 TREES
SIGNIFICANT TREE CREDIT EARNED		8 TREES
PROPOSED NUMBER OF REPLACEMENT TREES		N/A
TREE REPLACEMENT TOTAL		N/A

**NOTES:**

TREE RETENTION CALCULATIONS INCLUDE ADDITIONAL CREDIT FOR SIGNIFICANT TREES IN EXCESS OF 24" (EVERGREENS) AND 30" (DECIDUOUS), OR FOR TREES IN GROUPINGS OF 5 OR MORE WITH CONTINUOUS CANOPY COVERAGE AS REQUIREMENTS ARE MET ON A PERCENT BASIS WITHOUT THE NEED FOR ADDITIONAL CREDIT.

THIS TREE COUNT MAY BE MODIFIED AS A RESULT OF ADDITIONAL REVIEW BY AN ARBORIST TO DETERMINE A REVISED SIGNIFICANT TREE COUNT. MORE TREES MAY BE REMOVED THAN INDICATED IF THE TREES WITH ASSOCIATED DRIP LINES IMPOSE ON POTENTIAL HOUSE SITES.

ANY POTENTIAL DEFICIT IN THE SIGNIFICANT TREE COUNT IS PLANNED TO BE MITIGATED BY THE TREE REPLACEMENT IN APPROPRIATE AVAILABLE AREAS IN ACCORDANCE WITH CITY CODE.

TREE CLEARING AND REMOVAL SPECIFICATIONS PER CITY/ARBORIST RECOMMENDATIONS SHALL BE INCLUDED IN FINAL CONSTRUCTION PLANS.

ANY SIGNIFICANT TREES DESTROYED DURING GRADING SHALL BE REPLACED AT A RATIO REQUIRED BY NMC 18.16.170

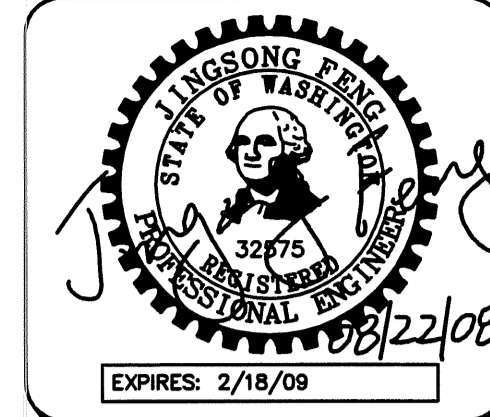


NW 1/4 OF SW 1/4 OF SEC. 34, T. 24 N., R. 05 E., W.M.

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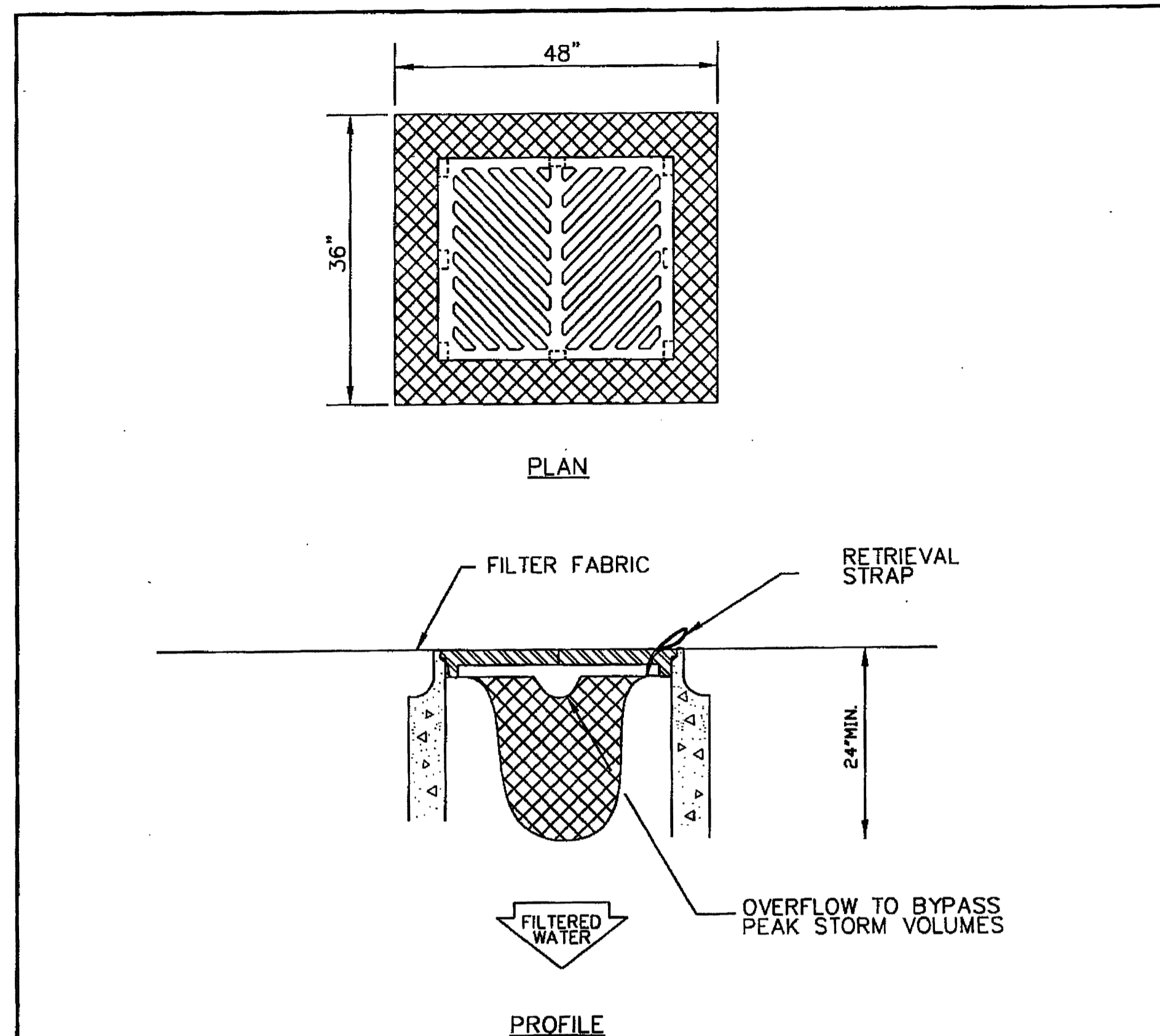
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CITY OF NEWCASTLE

FOR:  
CREACEN HOMES, LLC,  
1140 140TH AVE NE STE D  
BELLEVUE, WA 98005  
PHONE: (425) 746-8440, FAX: (425) 766-2303

PROJECT NO.: 06015  
DRAWN BY: JGC  
ISSUE DATE: 02-01-08  
SHEET REV.: 08-22-08

TEMPORARY  
EROSION/  
SEDIMENTATION  
CONTROL DETAILS

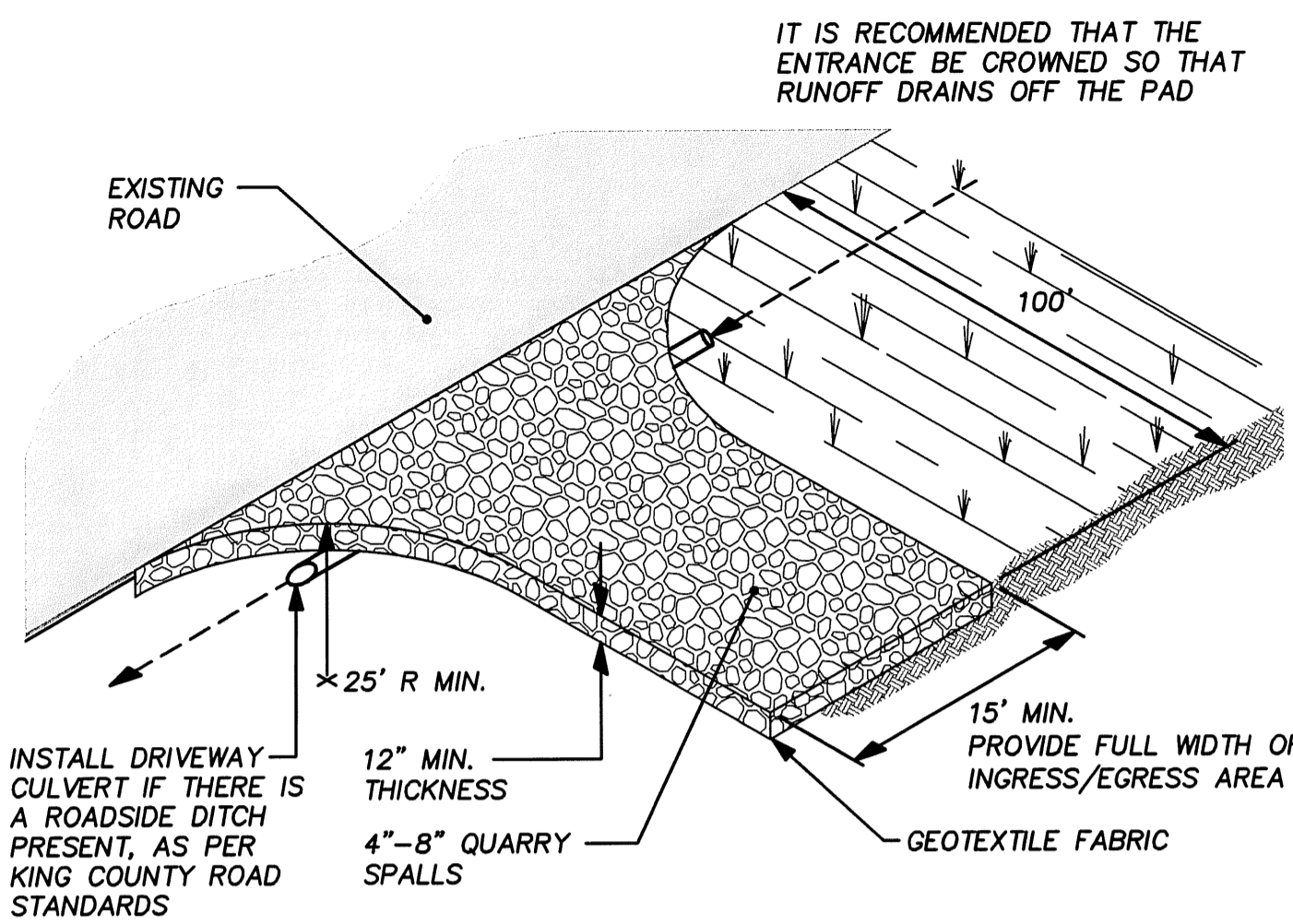
CD\06015\EB02-C05.DWG  
**C05**



- NOTES:**
1. REMOVE CATCH BASIN GRATING.
  2. CLEAN DIRT AND DEBRIS FROM GRATING LEDGE.
  3. LAY THE CATCH BASIN INSERT INSIDE THE BASIN
  4. REPLACE THE GRATING, PINCHING THE INSERT FABRIC BETWEEN THE GRATING AND THE CATCH BASIN FRAME.
  5. CUT OFF THE EXCESS FABRIC OFF WITH A BLADE KNIFE. A 3 TO 5 INCH WIDE STRIP OF FABRIC SHOULD BE LEFT AROUND THE OUTSIDE OF THE GRATING IF THE INSERT IS TO BE USED MORE THAN ONCE.

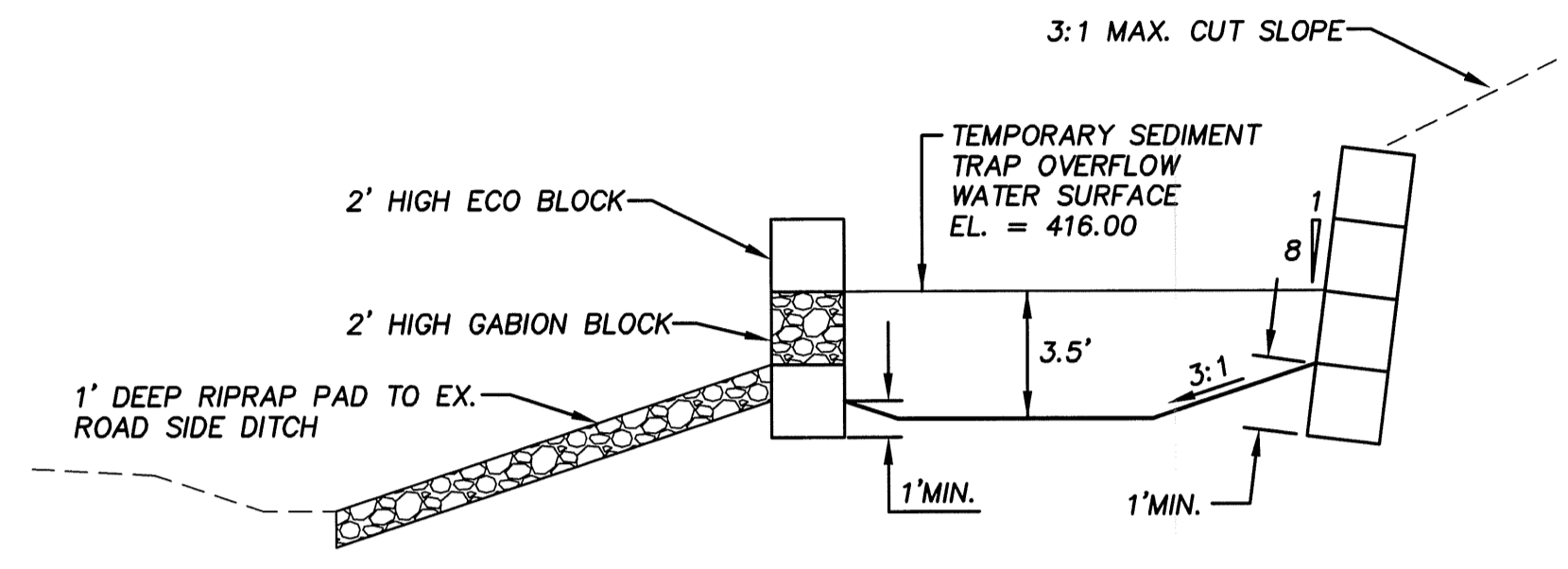
**CITY OF NEWCASTLE**  
FILTER FABRIC CATCH BASIN INSERT FOR SEDIMENT BASIN

APPROVED:	ROGER KUYKENDALL, P.E.	8/1/2000	DWG. NO.
BY CITY		DATE	MD-2
DATE:	DRWN:	CHKD:	SCALE:
5/00	N.C.	R.K.	NONE

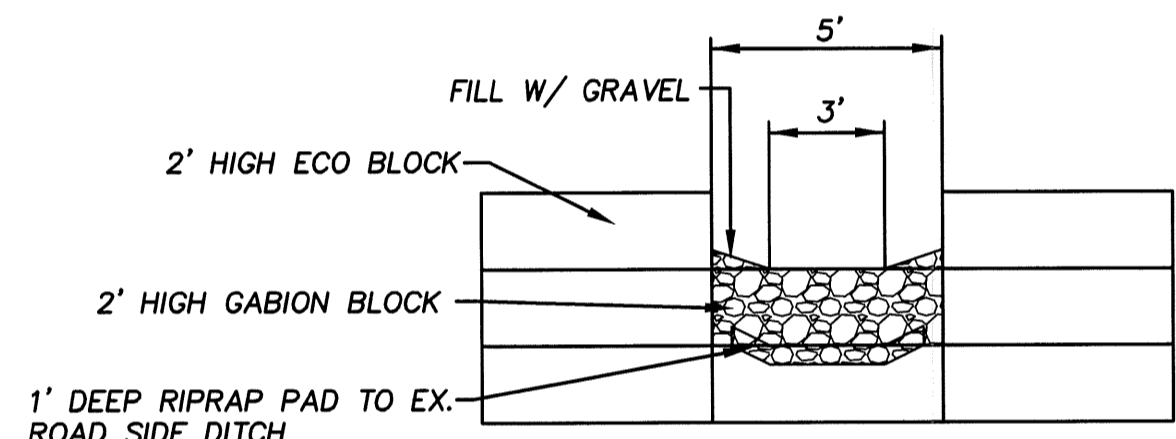


- NOTES:**
1. A SEPARATION GEOTEXTILE SHALL BE PLACED UNDER THE SPALLS TO PREVENT FINE SEDIMENT FROM PUMPING UP INTO THE ROCK PAD. THE GEOTEXTILE SHALL MEET THE FOLLOWING STANDARDS:
- |  |                                  |
|--|----------------------------------|
| GRAB TENSILE STRENGTH (ASTM D4751)     | 200 PSI MIN.                     |
| GRAB TENSILE ELONGATION (ASTM D4632)   | 30% MAX.                         |
| MULLEN BURST STRENGTH (ASTM D3786-80A) | 400 PSI MIN.                     |
| AOS (ASTM D4751)                       | 20-45 (U.S. STANDARD SIEVE SIZE) |
2. FENCING (SEE SECTION D.4.1) SHALL BE INSTALLED AS NECESSARY TO RESTRICT TRAFFIC TO THE CONSTRUCTION ENTRANCE.
  3. WHENEVER POSSIBLE THE ENTRANCE SHALL BE CONSTRUCTED ON A FIRM, COMPACTED SUBGRADE. THIS CAN SUBSTANTIALLY INCREASE THE EFFECTIVENESS OF THE PAD AND REDUCE THE NEED FOR MAINTENANCE.
- MAINTENANCE STANDARDS:**
1. QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
  2. IF ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AND INCREASE IN THE DIMENSION OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
  3. ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREETS, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP.
  4. ANY QUARRY SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
  5. IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING SHALL BE INSTALLED TO CONTROL TRAFFIC.

**TEMP. ROCKED, CONSTRUCTION ENTRANCE**

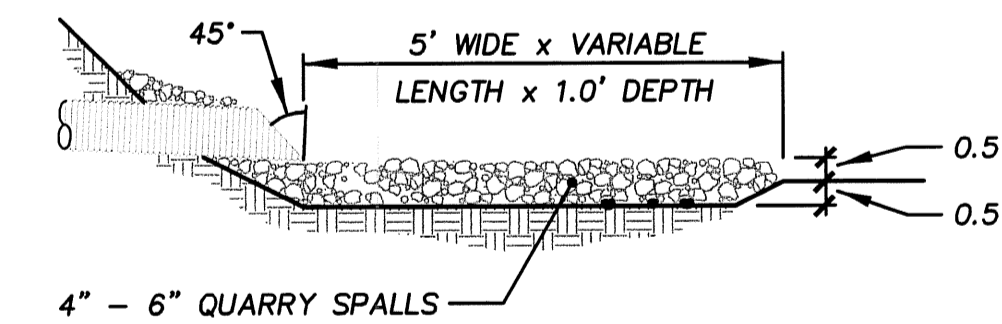


**TEMPORARY SEDIMENT TRAP SECTION A-A**  
SCALE: 1" = 5'

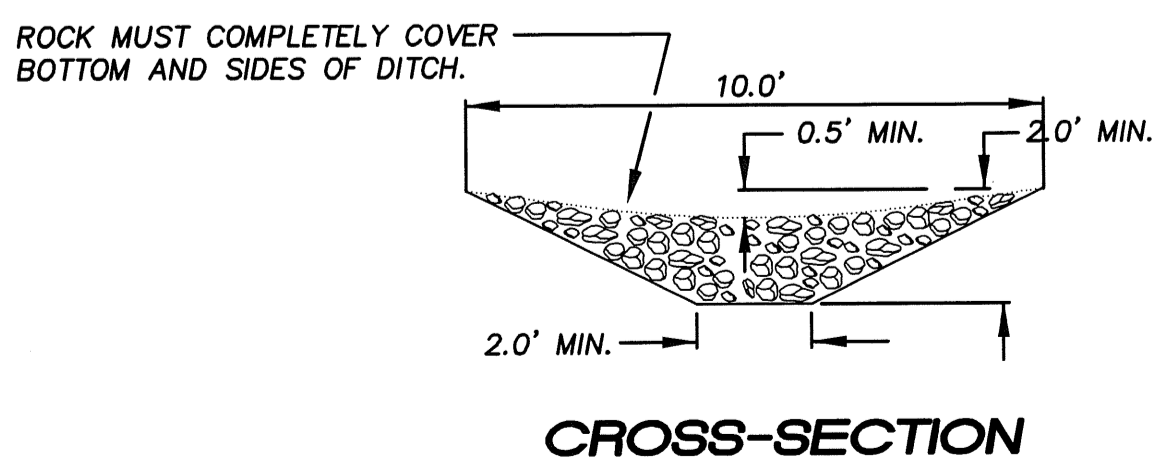


**TEMPORARY SEDIMENT TRAP OVERFLOW**  
SCALE: 1" = 5'

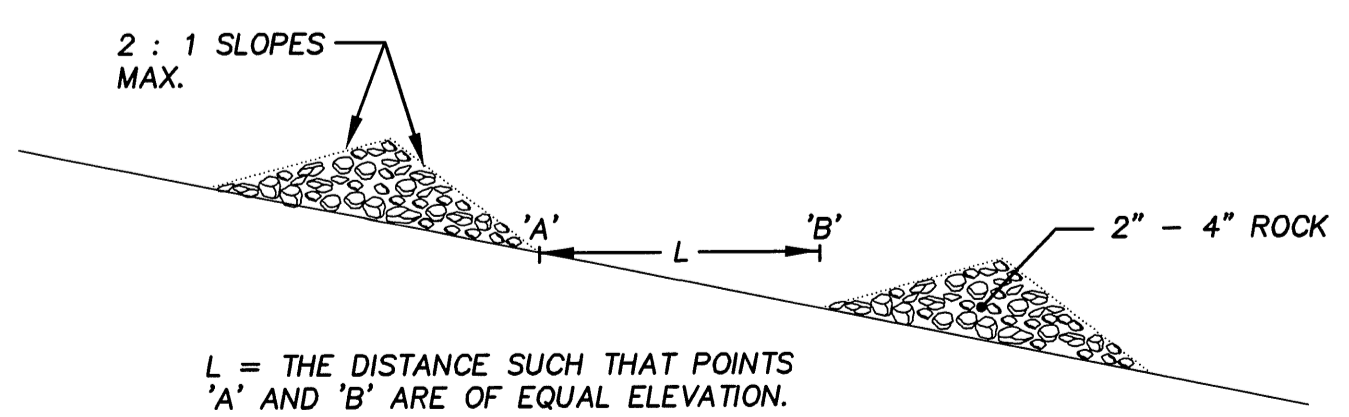
- NOTE:**
- SPLASH PAD SHALL BE QUARRY SPALLS WITH GRADATION AS FOLLOWS:
- PASSING 8-INCH SQUARE SIEVE : 100%
  - PASSING 3-INCH SIEVE : 40 TO 60% MAXIMUM
  - PASSING 3/4-INCH SIEVE : 0 TO 10% MAXIMUM



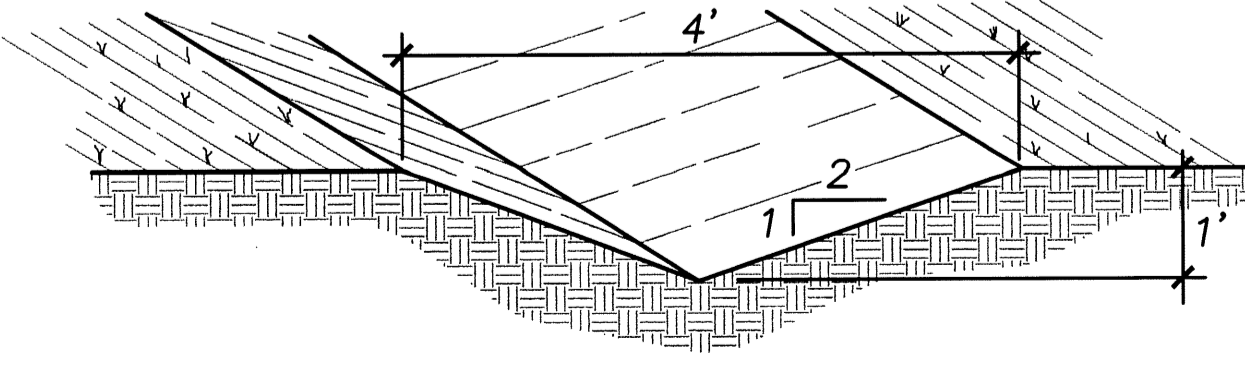
**QUARRY SPALL SPLASHPAD**



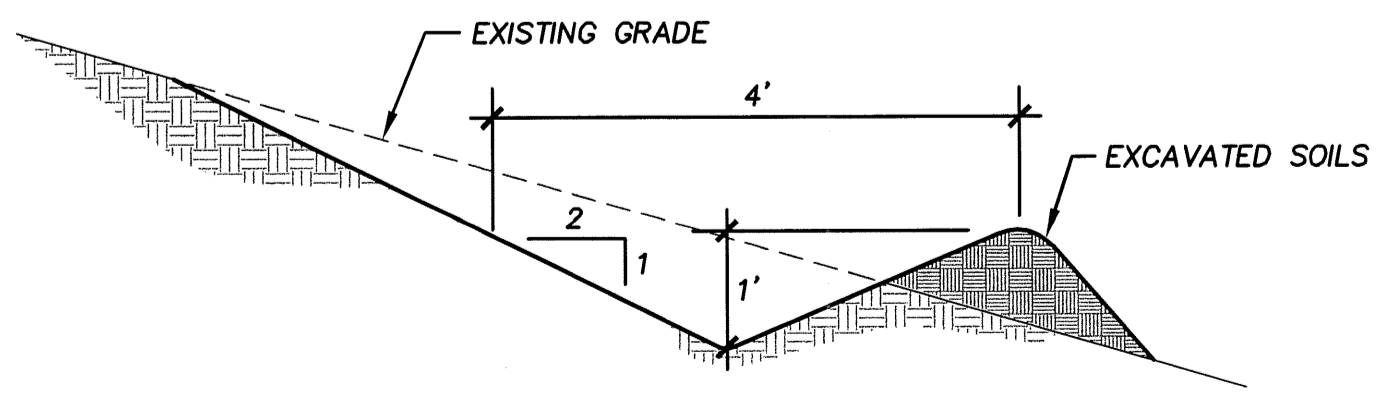
**CROSS-SECTION**



**CHECK DAM SPACING**



**DOWN SLOPE INTERCEPTOR SWALE**



**CROSS SLOPE INTERCEPTOR SWALE**

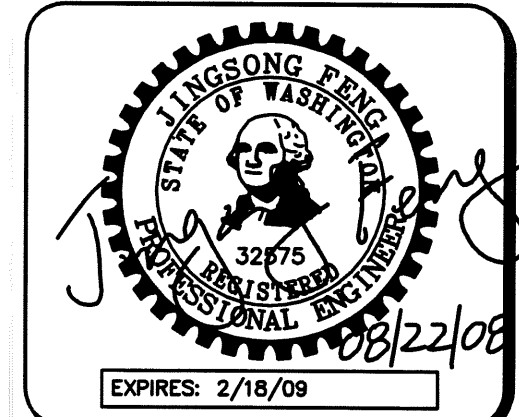


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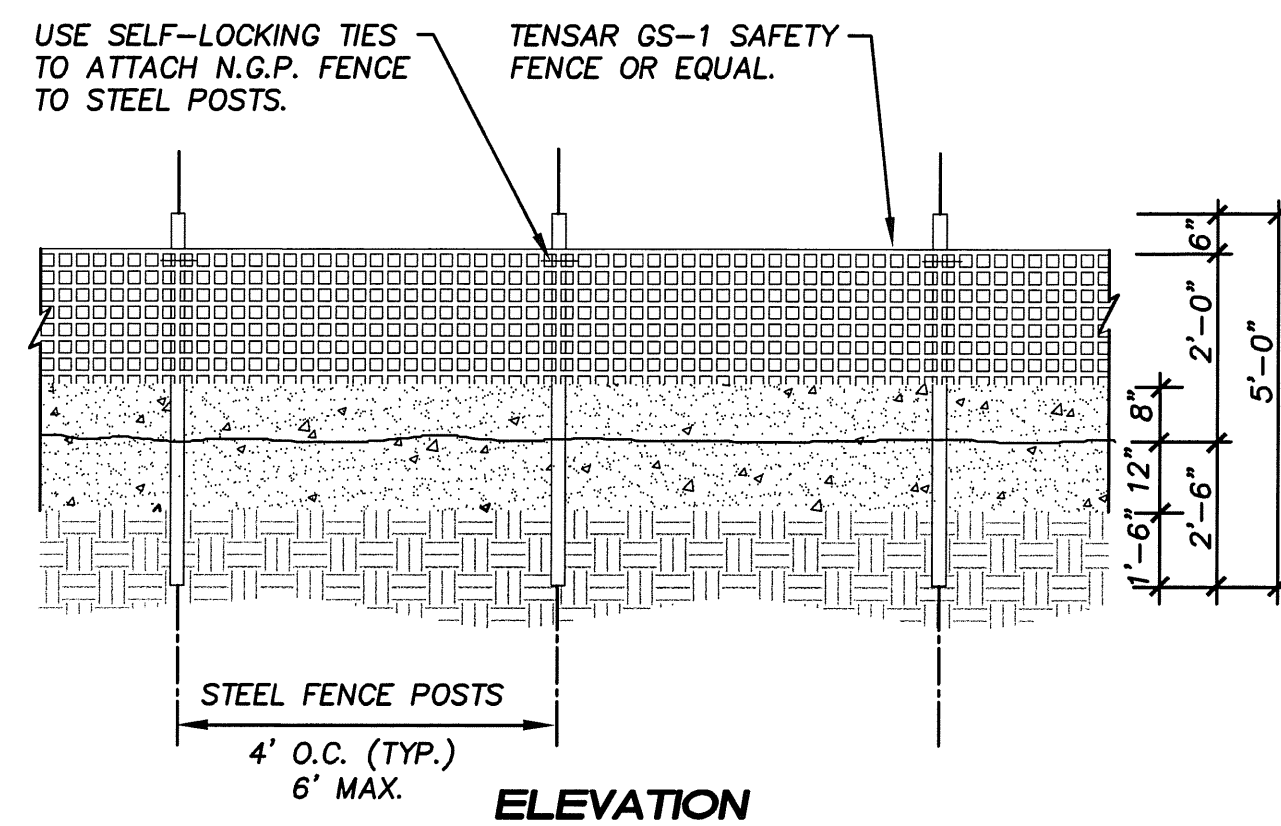
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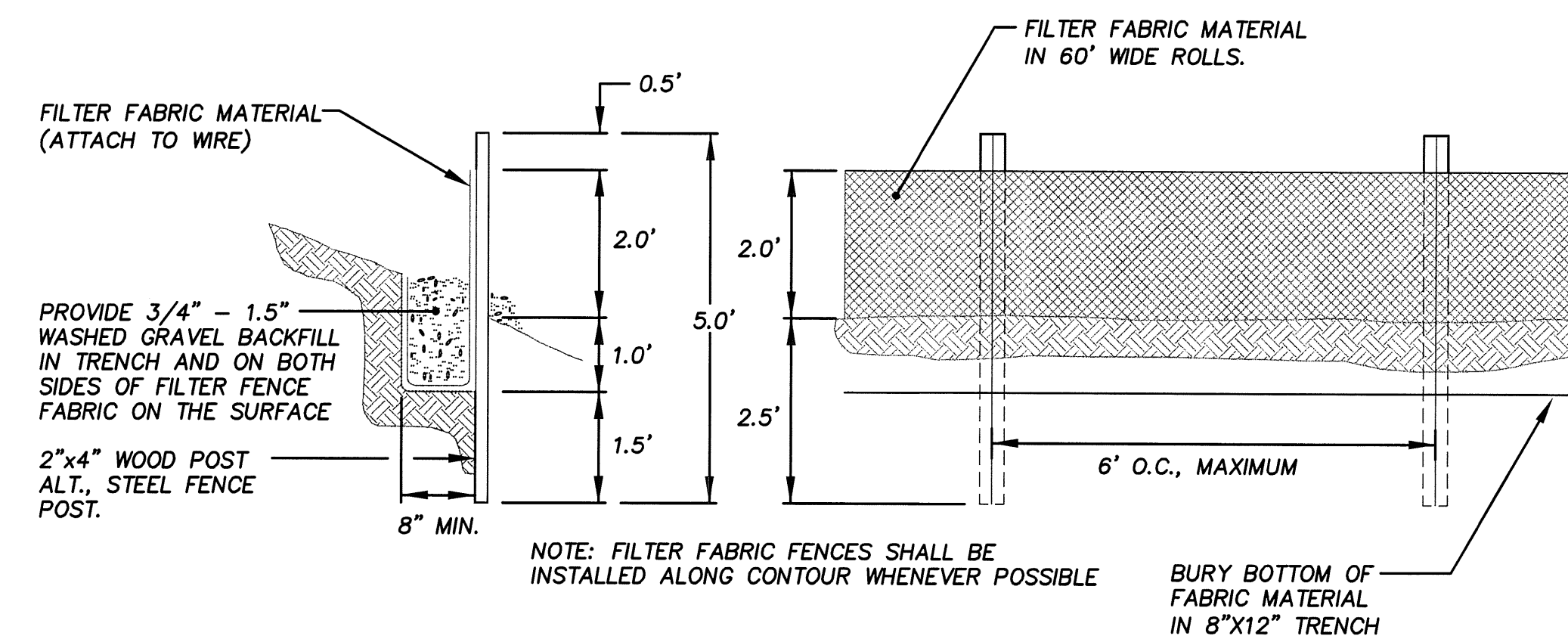
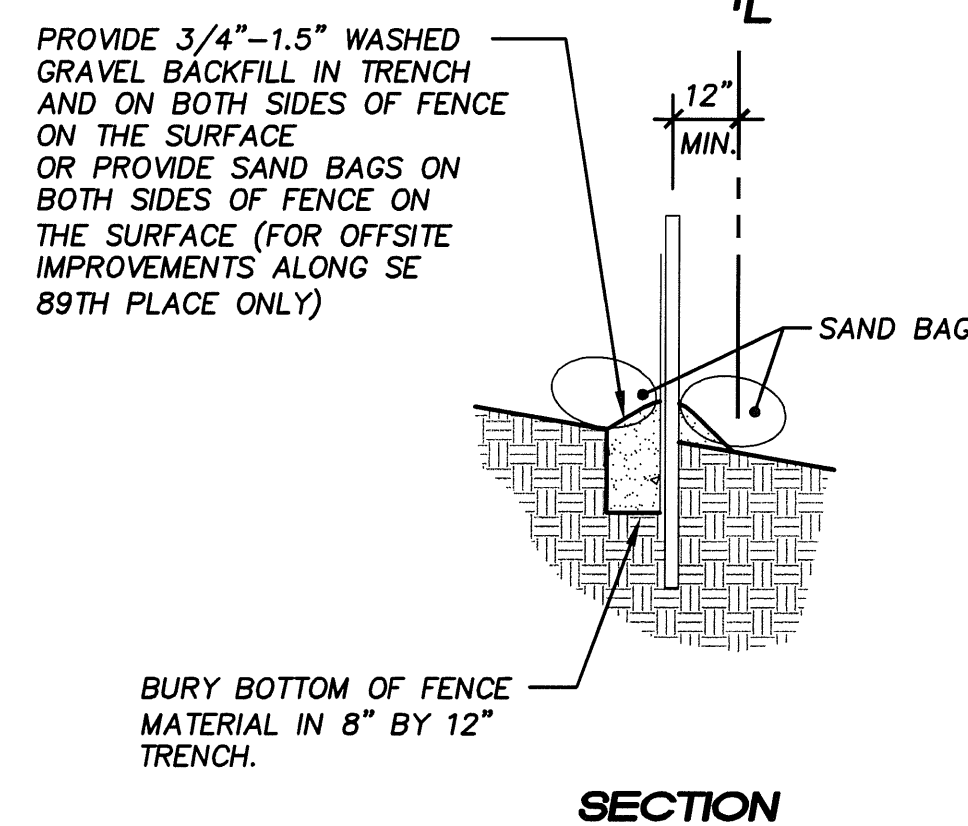
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ALL AREAS ADJOINING TRACT "A" SHALL BE PROVIDED WITH AN ACCEPTABLE BOUNDARY DELINEATION BETWEEN ALL AREAS OR PORTIONS OF AREAS AND THE RESTRICTED NATIVE GROWTH AREA CONTAINED WITHIN THE TRACT. SAID BOUNDARY DELINEATION SHALL BE IN PLACE PRIOR TO ANY GRADING OR CLEARING OF THE PROPERTY AND REMAIN IN PLACE UNTIL COMPLETION OF PROJECT. DURING CONSTRUCTION IN THOSE AREAS REQUIRED TO HAVE SILT FENCING, THE SILT FENCE MAY BE SUPPORTED BY THE N.G.P. FENCE.



NATIVE GROWTH PROTECTION FENCE



NOTES:

1. THE GEOTEXTILE USED MUST MEET THE STANDARD LISTED BELOW. A COPY OF THE MANUFACTURER'S FABRIC SPECIFICATIONS MUST BE AVAILABLE ON SITE.

AOS (ASTM D4751)	30-100 SIEVE SIZE (0.60-0.15 MM) FOR SLIT FILM 50-100 SIEVE SIZE (0.30-0.15 MM) FOR OTHER FABRICS
WATER PERMITTIVITY (ASTM D4491)	0.02 SEC <sup>-1</sup> MIN.
GRAB TENSILE STRENGTH (ASTM D4632)	180 LBS. MIN. FOR EXTRA STRENGTH FABRIC 100 LBS. MIN. FOR STANDARD STRENGTH FABRIC
GRAB TENSILE ELONGATION (ASTM D4632)	30% MAX.
ULTRAVIOLET RESISTANCE (ASTM D4355)	70% MIN.

2. STANDARD STRENGTH FABRIC REQUIRES WIRE BACKING TO INCREASE THE STRENGTH OF THE FENCE. WIRE BACKING OR CLOSE POST SPACING MAY BE REQUIRED FOR EXTRA STRENGTH FABRIC IF FIELD PERFORMANCE WARRANTS A STRONGER FENCE.
3. WHERE THE FENCE IS INSTALLED, THE SLOPE SHALL BE NO STEEPER THAN 2H:1V.

MAINTENANCE STANDARDS:

1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
3. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.
4. IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

SILT FENCE

**PURPOSE:**  
TO RETAIN SEDIMENT FROM VERY SMALL DISTURBED AREAS BY CONSTRUCTION OF A TEMPORARY BARRIER MADE FROM RESIDUE MATERIALS AVAILABLE FROM CLEARING AND GRUBBING THE SITE.

**CONDITIONS WHERE PRACTICE APPLIES:**  
BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION, WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE FOR CONSTRUCTION OF SUCH A BARRIER.  
NOTE: DOES NOT REPLACE THE NEED FOR A SEDIMENT TRAP OR POND.

**DESIGN CRITERIA/SPECIFICATIONS:**  
MINIMUM HEIGHT= 3.0'  
MAXIMUM HEIGHT= 5.0'  
MINIMUM WIDTH= 5.0' AT IT'S BASE.  
MAXIMUM WIDTH=15.0'.

A FILTER FENCE ANCHORED OVER THE BRUSH BERM MAY BE REQUIRED BY CITY OF NEWCASTLE INSPECTOR TO ENHANCE THE FILTRATION ABILITY OF THE BARRIER.

VARNEY SUBDIVISION  
CITY OF NEWCASTLE

FOR:  
GREACEN HOMES, LLC.  
180 140TH AVE NE STE D  
SEATTLE, WA 98148  
PHONE: (425) 746-6440 FAX: (425) 766-2303

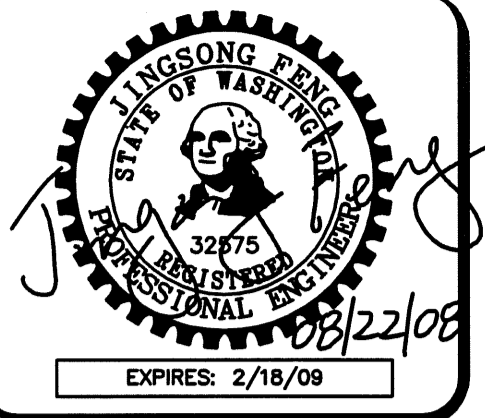
PROJECT NO.: 06015  
DRAWN BY: JGC  
ISSUE DATE: 02-01-08  
SHEET REV.: 08-22-08

TEMPORARY EROSION/ SEDIMENTATION CONTROL DETAILS

CD\06015TE03-C06.DWG  
C06

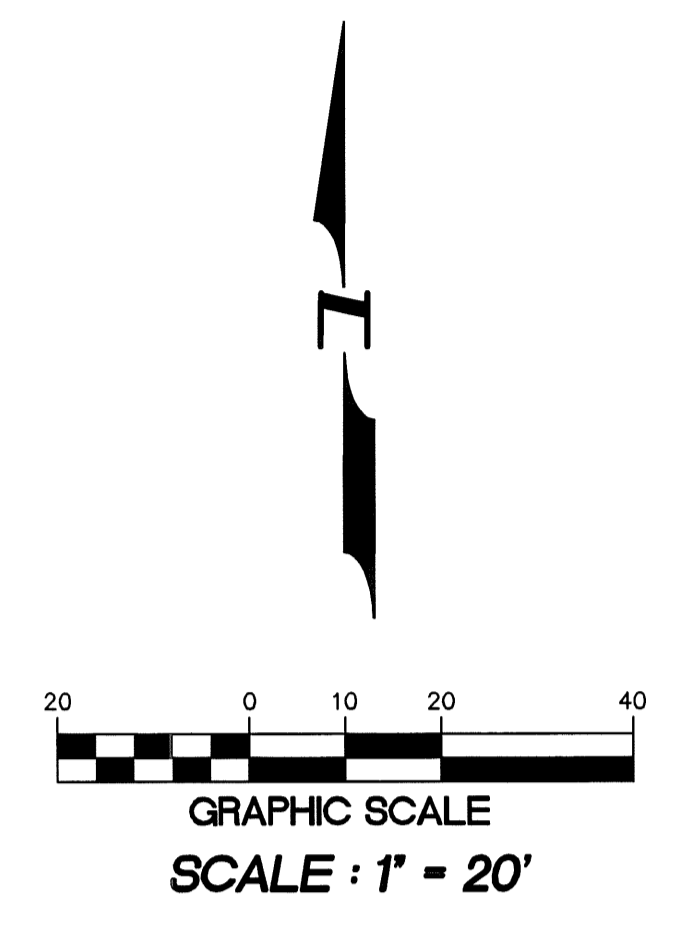
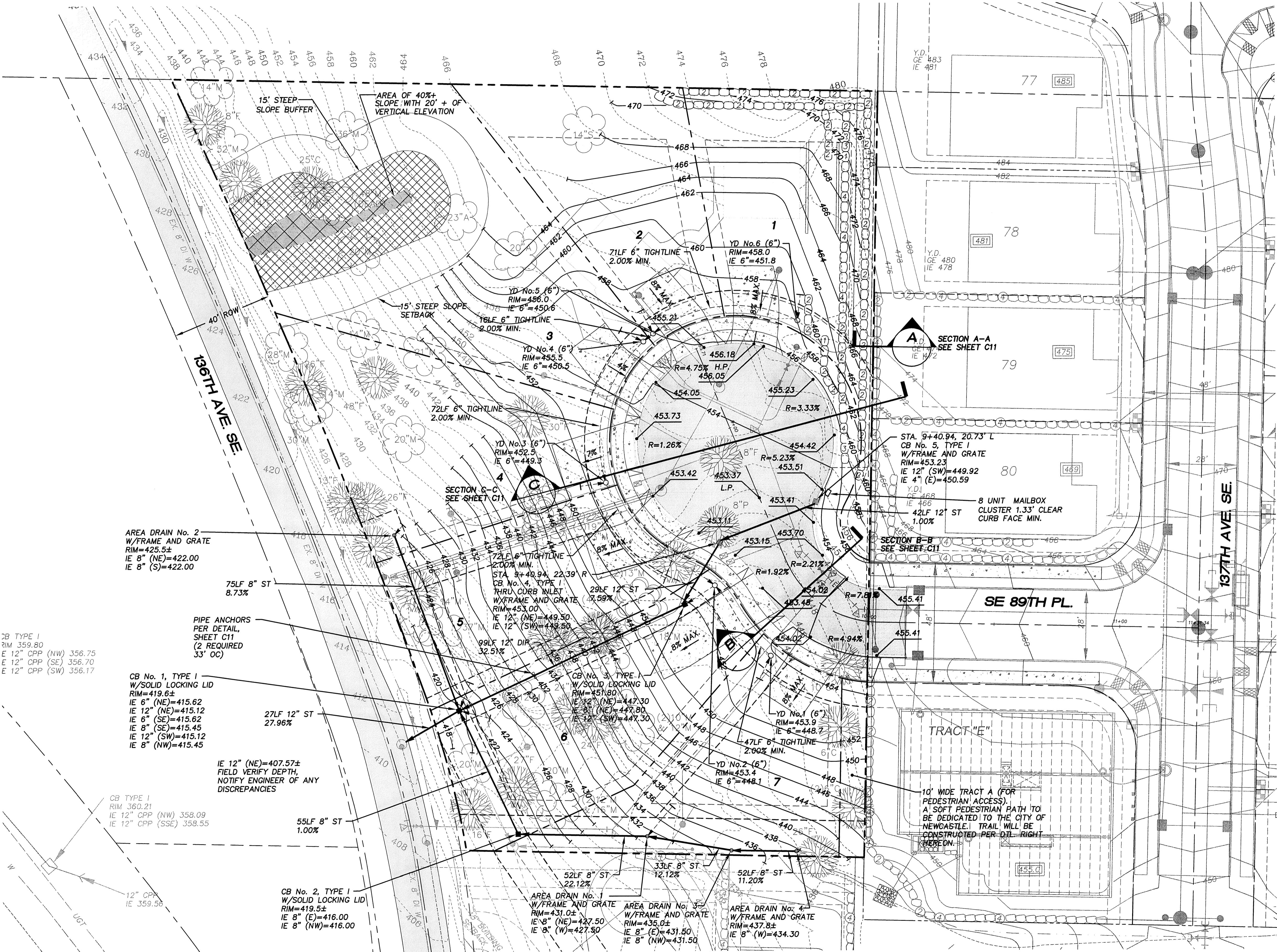


NW 1/4 OF SW 1/4 OF SEC. 34, T. 24 N., R. 05 E., W.M.



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SEATTLE, WA 98188  
PHONE: (206) 431-7970  
FAX: (206) 388-1648  
WEB SITE: PACENG.COM

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Civil Engineering and Planning Consultants



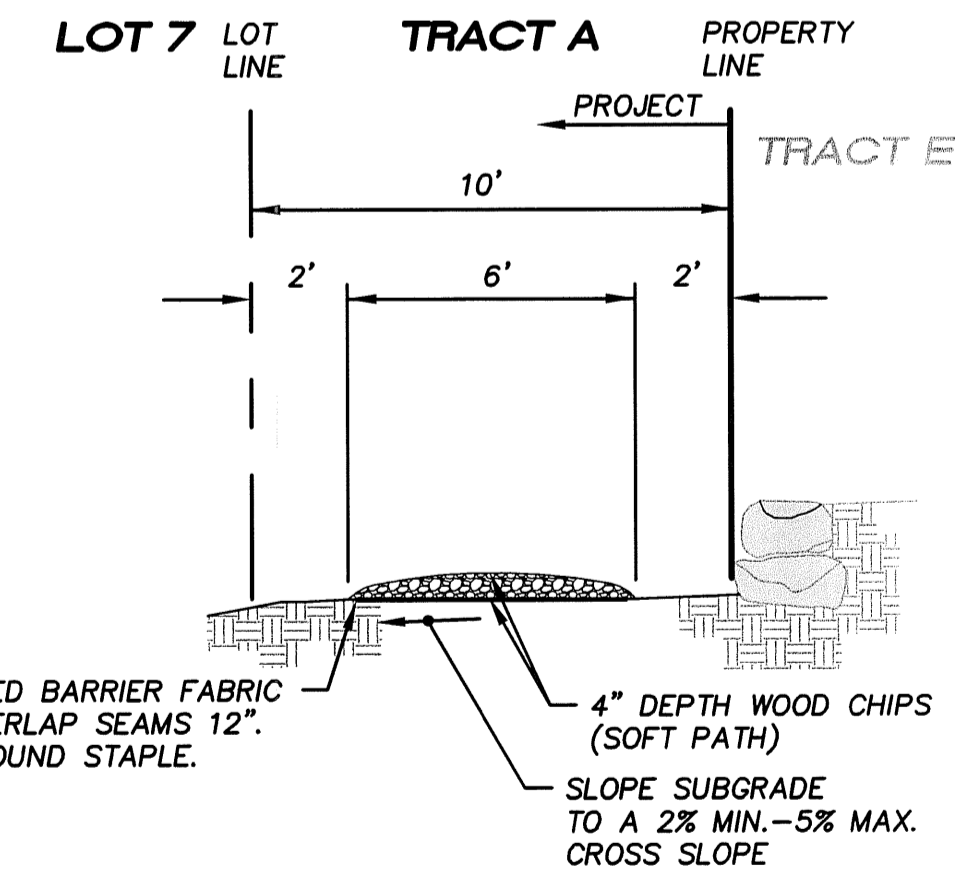
**BENCH MARK**

VERTICAL DATUM : NAVD 88  
CITY OF RENTON BENCH MARK # RENT 2094  
TOP OF NAIL IN CONCRETE MONUMENT IN CASE AT INTERSECTION OF SE 89TH PLACE AND 133RD AVE, SE ELEVATION=346.43 FEET

**BASIS OF BEARINGS**

S88°47'51"E ALONG CENTERLINE OF SE 89TH PLACE

SOFT PATH WILL CONFORM WITH NEWCASTLE PW STANDARD 4.25.



**SOFT PEDESTRIAN PATH**  
SCALE : 1" = 4'

**VARNEY SUBDIVISION**  
CITY OF NEWCASTLE

FOR:  
GREACEN HOMES, LLC,  
1140 140TH AVE NE STE D  
BELLEVUE, WA 98004  
PHONE: (425) 746-6440, FAX: (425) 766-2803

PROJECT NO.: **06015**  
DRAWN BY: **JQC**  
ISSUE DATE: **02-01-08**  
SHEET REV.: **08-22-08**

**GRADING AND DRAINAGE PLAN**

06015GD01-C07.DWG  
**C07**

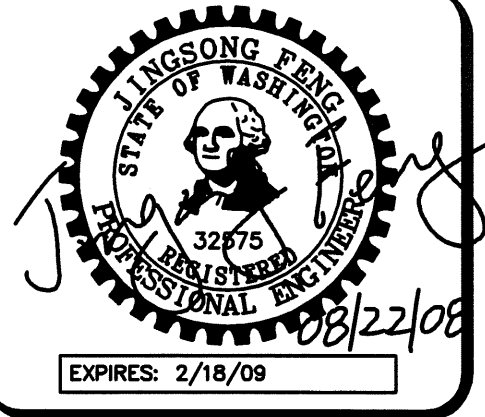


NW 1/4 OF SW 1/4 OF SEC. 34, T. 24 N., R. 05 E., W.M.

APPROVED FOR CONSTRUCTION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CITY OF NEWCASTLE

THESE DRAWINGS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 12 MONTHS FROM THE DATE SHOWN HEREON. THE CITY RESERVES THE RIGHT TO MAKE REVISIONS, ADDITIONS, DELETIONS, OR MODIFICATIONS SHOULD CONSTRUCTION BE DELAYED BEYOND THIS TIME LIMITATION. THE CITY, BY APPROVING THESE DRAWINGS, ASSUMES NO LIABILITY IN REGARDS TO THEIR ACCURACY OR OMISSIONS.



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SEATTLE, WA 98188  
PHONE: (206) 431-7970  
FAX: (206) 398-1648  
WEB SITE: PACENG.COM

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Civil Engineering and Planning Consultants

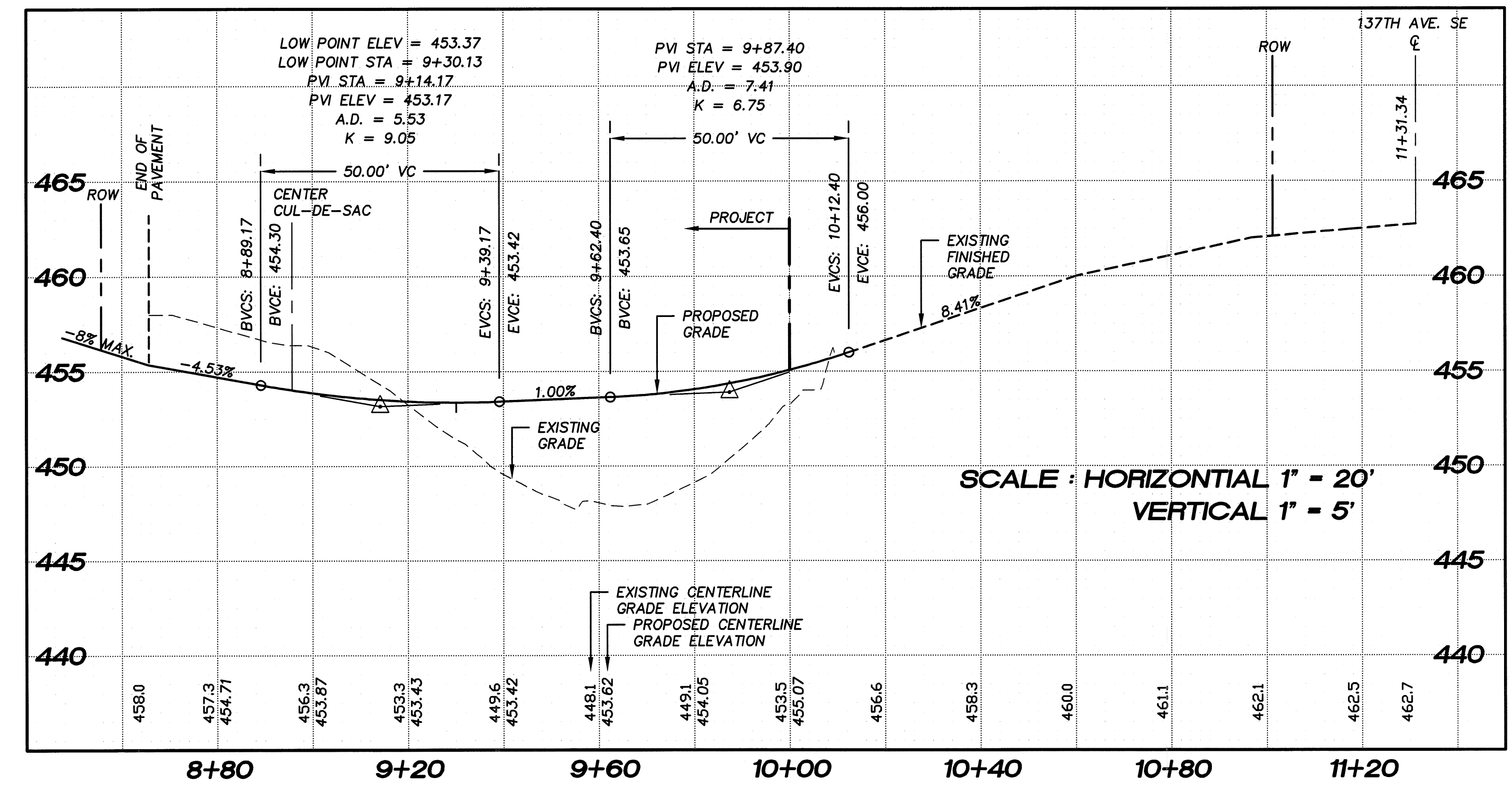
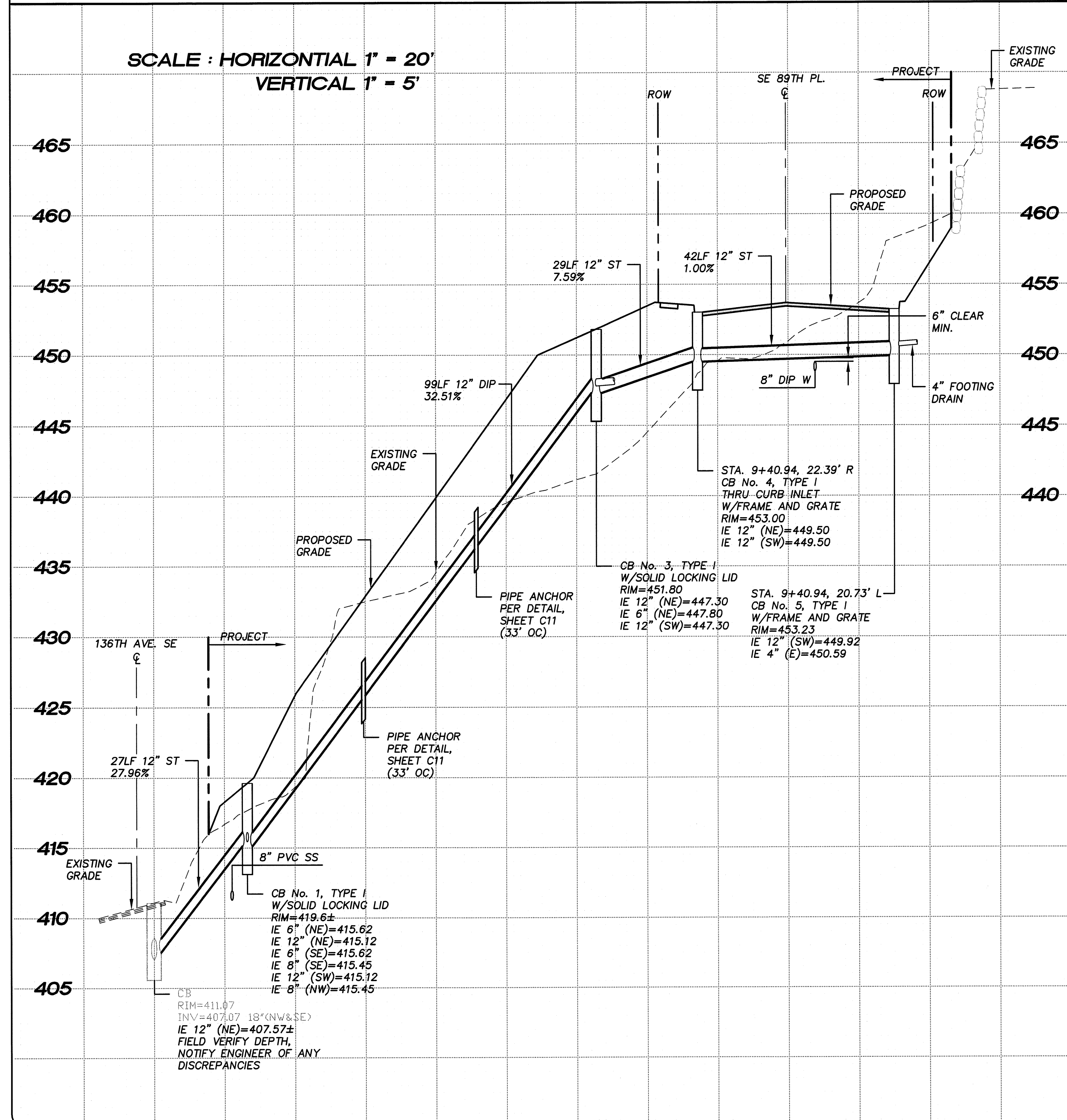
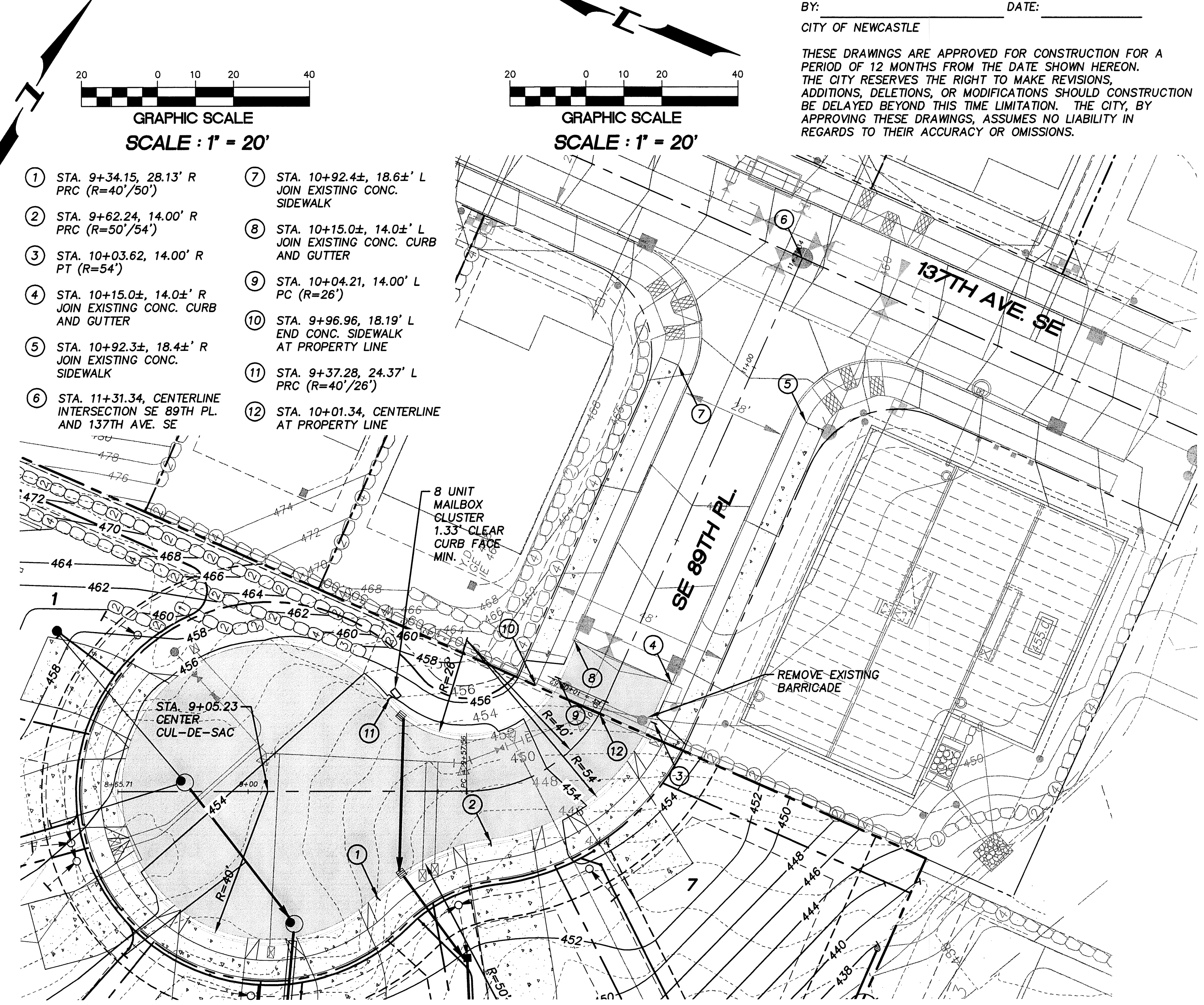
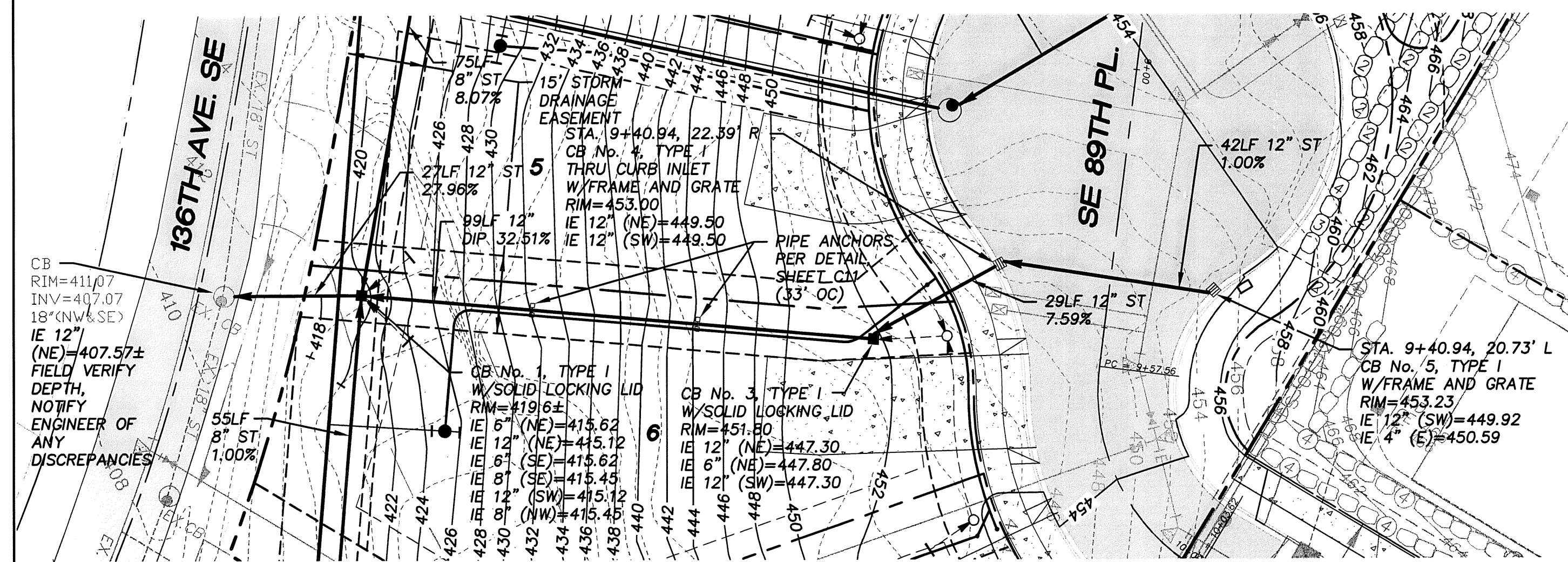
**CITY OF NEWCASTLE**

**VARNEY SUBDIVISION**  
FOR: GREAGEN HOMES, LLC  
1140 140TH AVE NE STE D  
BELLEVUE, WA 98006  
PHONE: (206) 746-6440, FAX: (425) 766-2903

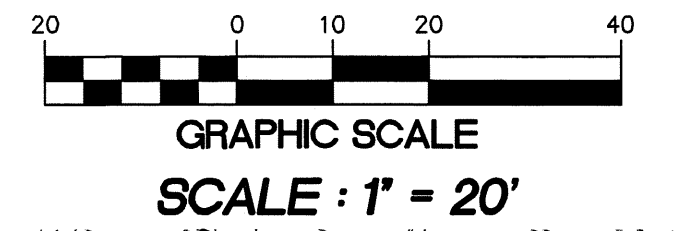
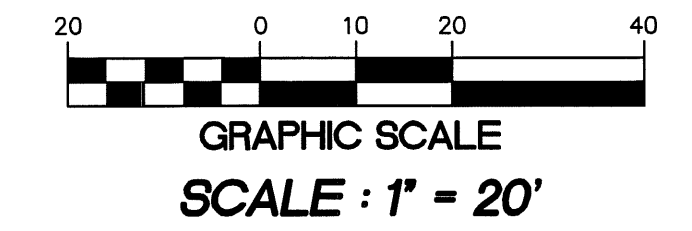
PROJECT NO.: **06015**  
DRAWN BY: **JQC**  
ISSUE DATE: **02-01-08**  
SHEET REV.: **08-22-08**

**STREET AND STORM DRAIN PLAN AND PROFILE**

CD\06015D101-C08.DWG  
**C08**



- 1 STA. 9+34.15, 28.13' R PRC (R=40'/50')
- 2 STA. 9+62.24, 14.00' R PRC (R=50'/54')
- 3 STA. 10+03.62, 14.00' R PT (R=54')
- 4 STA. 10+15.0±, 14.0±' R JOIN EXISTING CONC. CURB AND GUTTER
- 5 STA. 10+92.3±, 18.4±' R JOIN EXISTING CONC. SIDEWALK
- 6 STA. 11+31.34, CENTERLINE INTERSECTION SE 89TH PL. AND 137TH AVE. SE
- 7 STA. 10+92.4±, 18.6±' L JOIN EXISTING CONC. SIDEWALK
- 8 STA. 10+15.0±, 14.0±' L JOIN EXISTING CONC. CURB AND GUTTER
- 9 STA. 10+04.21, 14.00' L PC (R=26')
- 10 STA. 9+96.96, 18.19' L END CONC. SIDEWALK AT PROPERTY LINE
- 11 STA. 9+37.28, 24.37' L PRC (R=40'/26')
- 12 STA. 10+01.34, CENTERLINE AT PROPERTY LINE



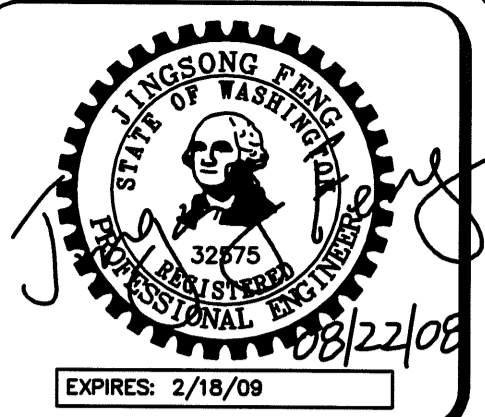


NW 1/4 OF SW 1/4 OF SEC. 34, T. 24 N., R. 05 E., W.M.

APPROVED FOR CONSTRUCTION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CITY OF NEWCASTLE

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SEATTLE, WA 98188  
PHONE: (206) 431-7970  
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WEB SITE: PACENG.COM

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Engineering  
Design, LLC  
Civil Engineering and  
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CITY OF NEWCASTLE

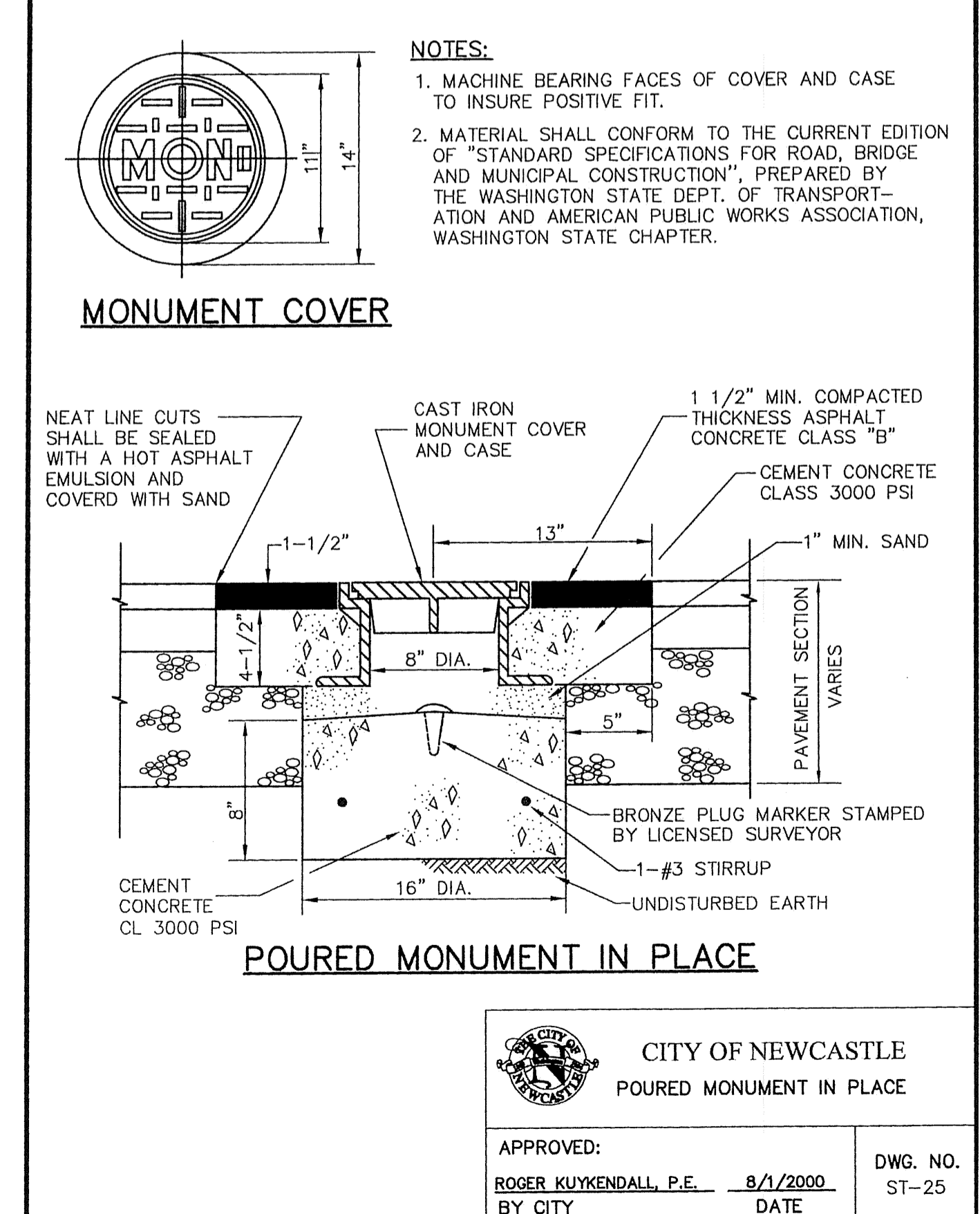
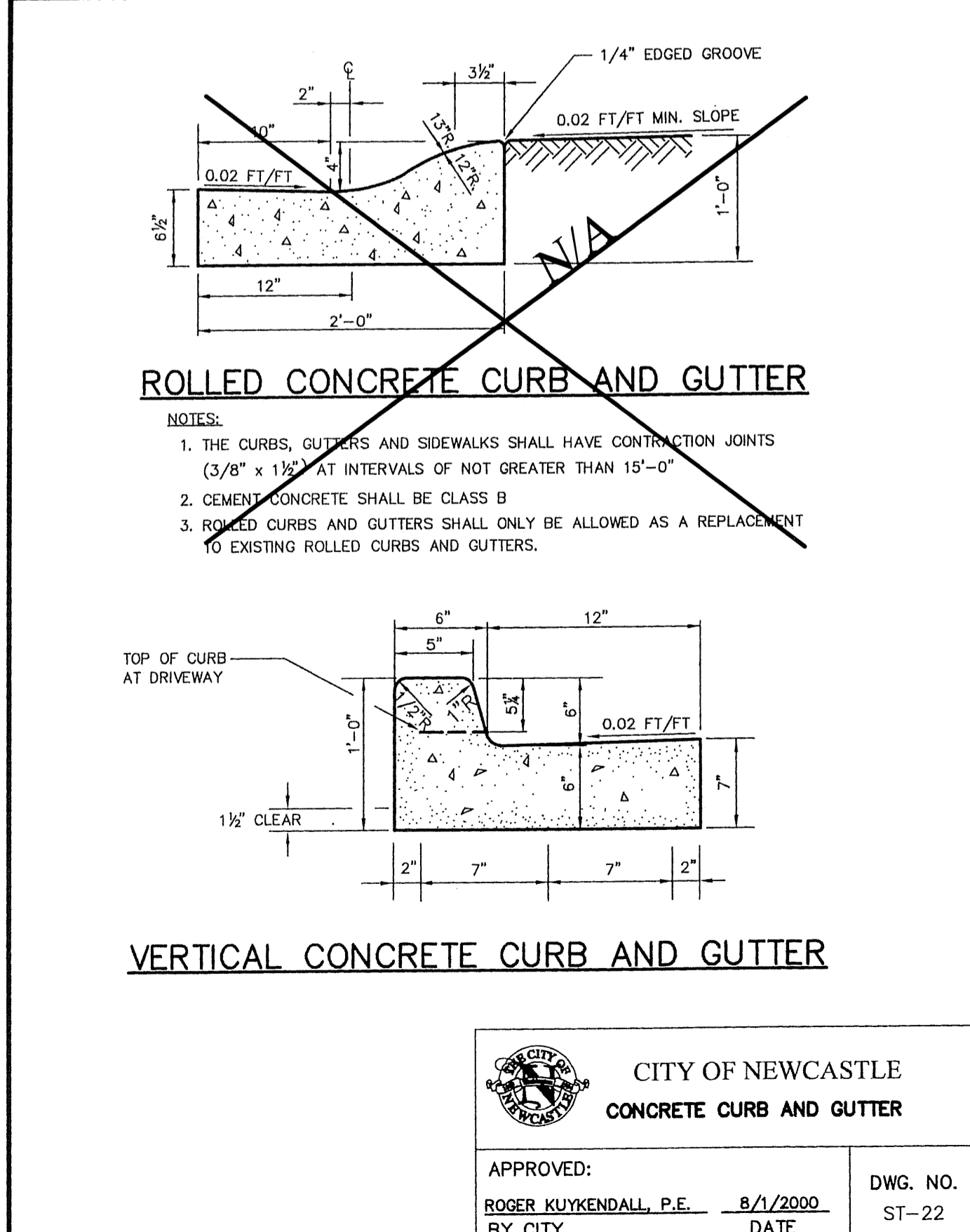
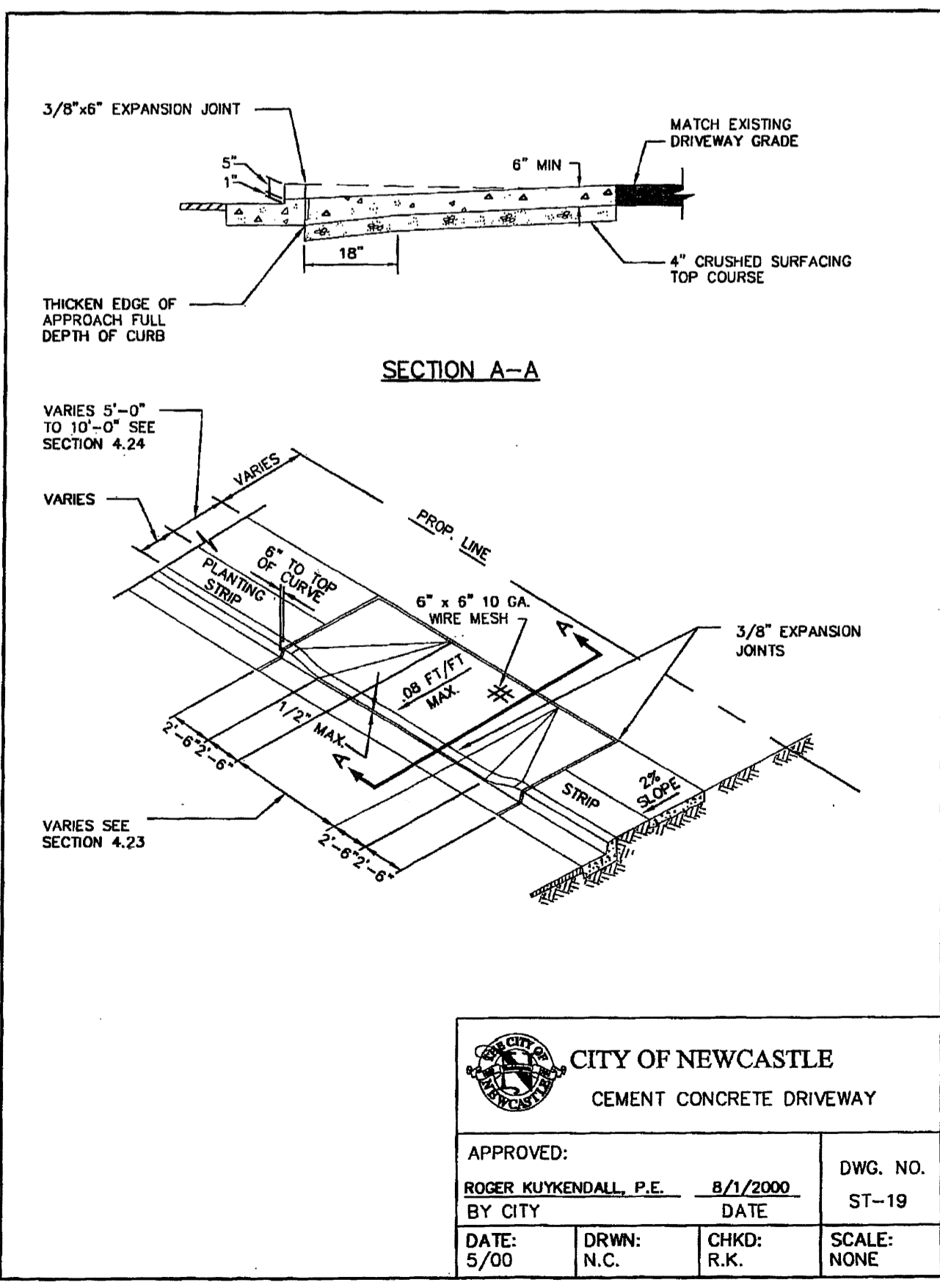
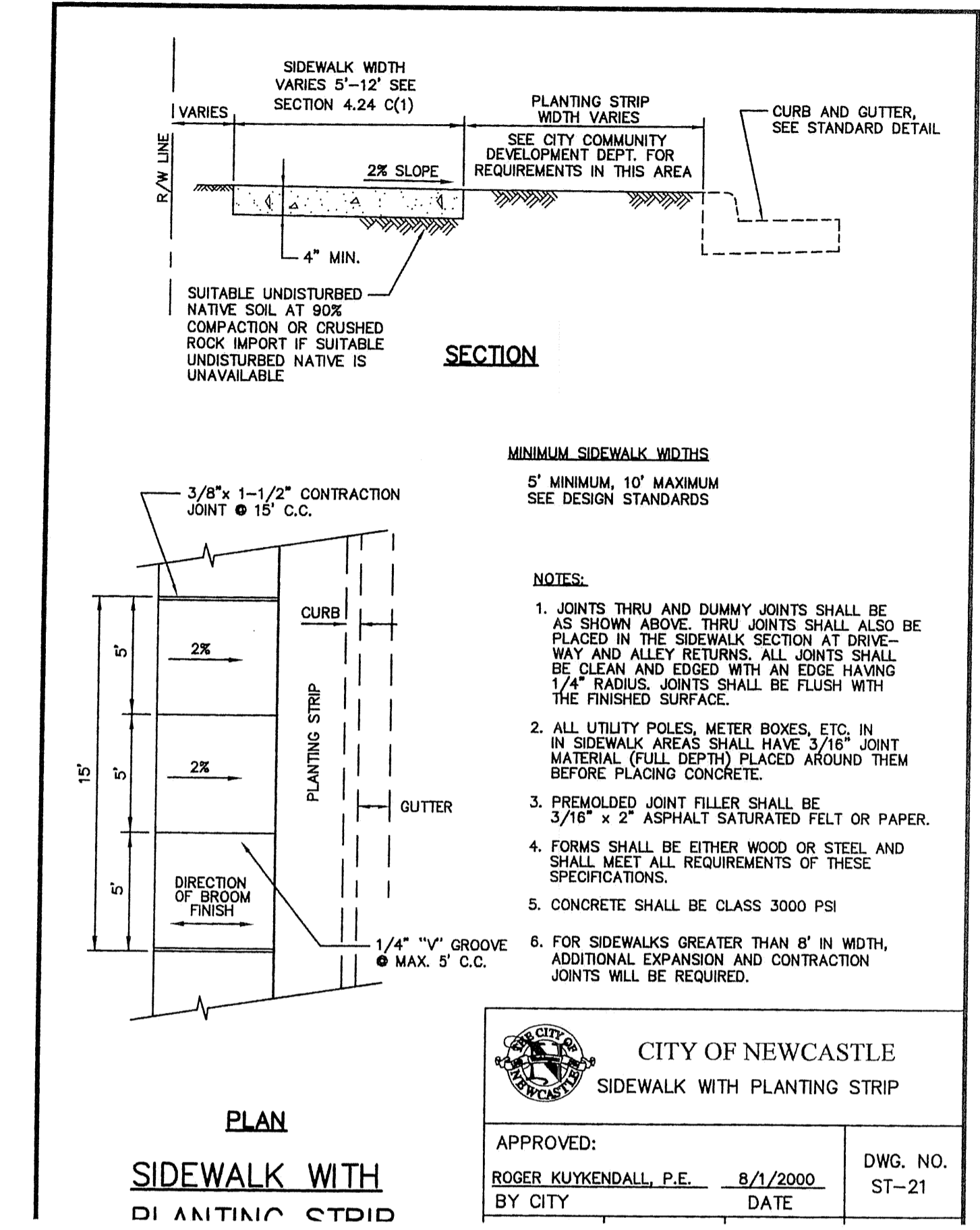
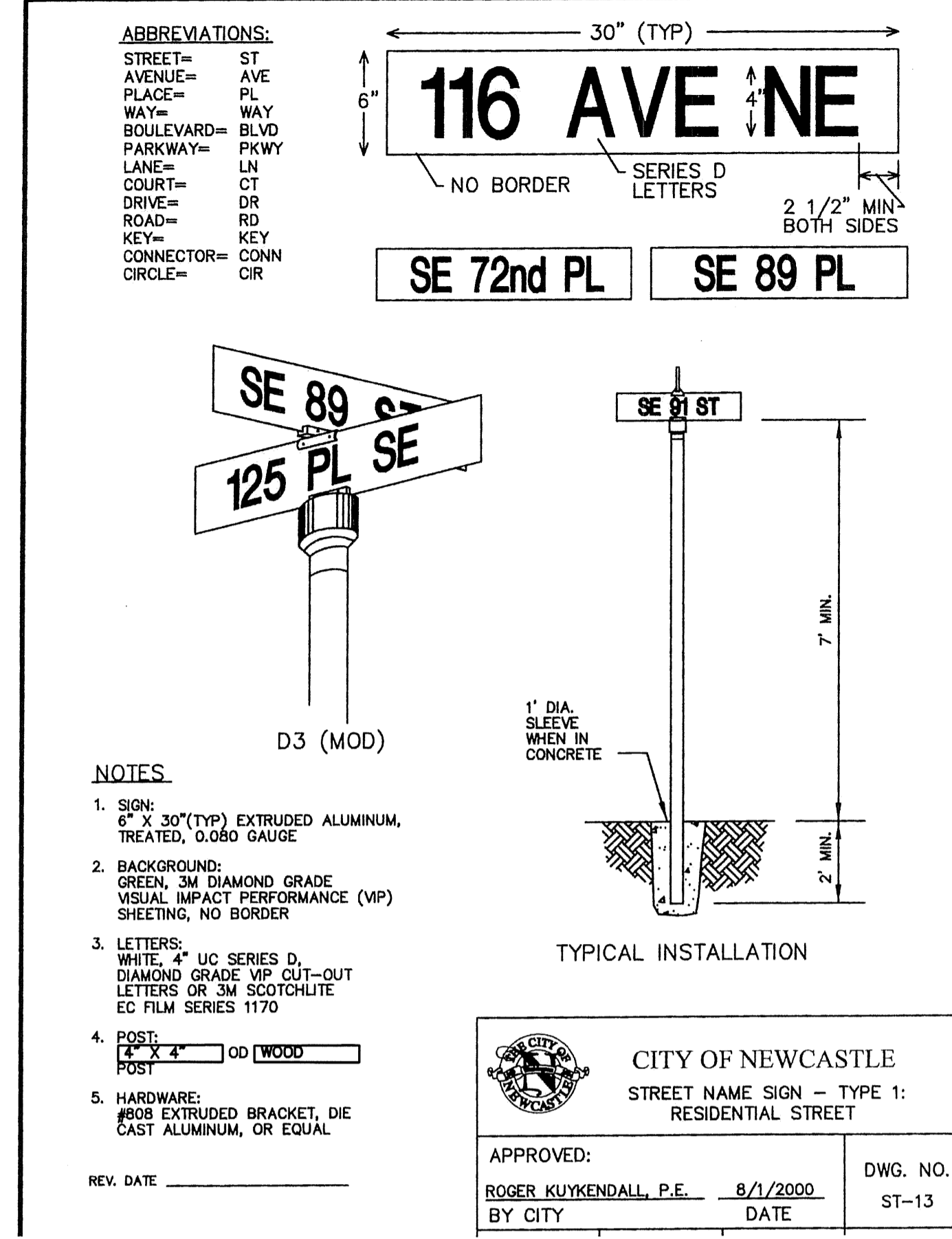
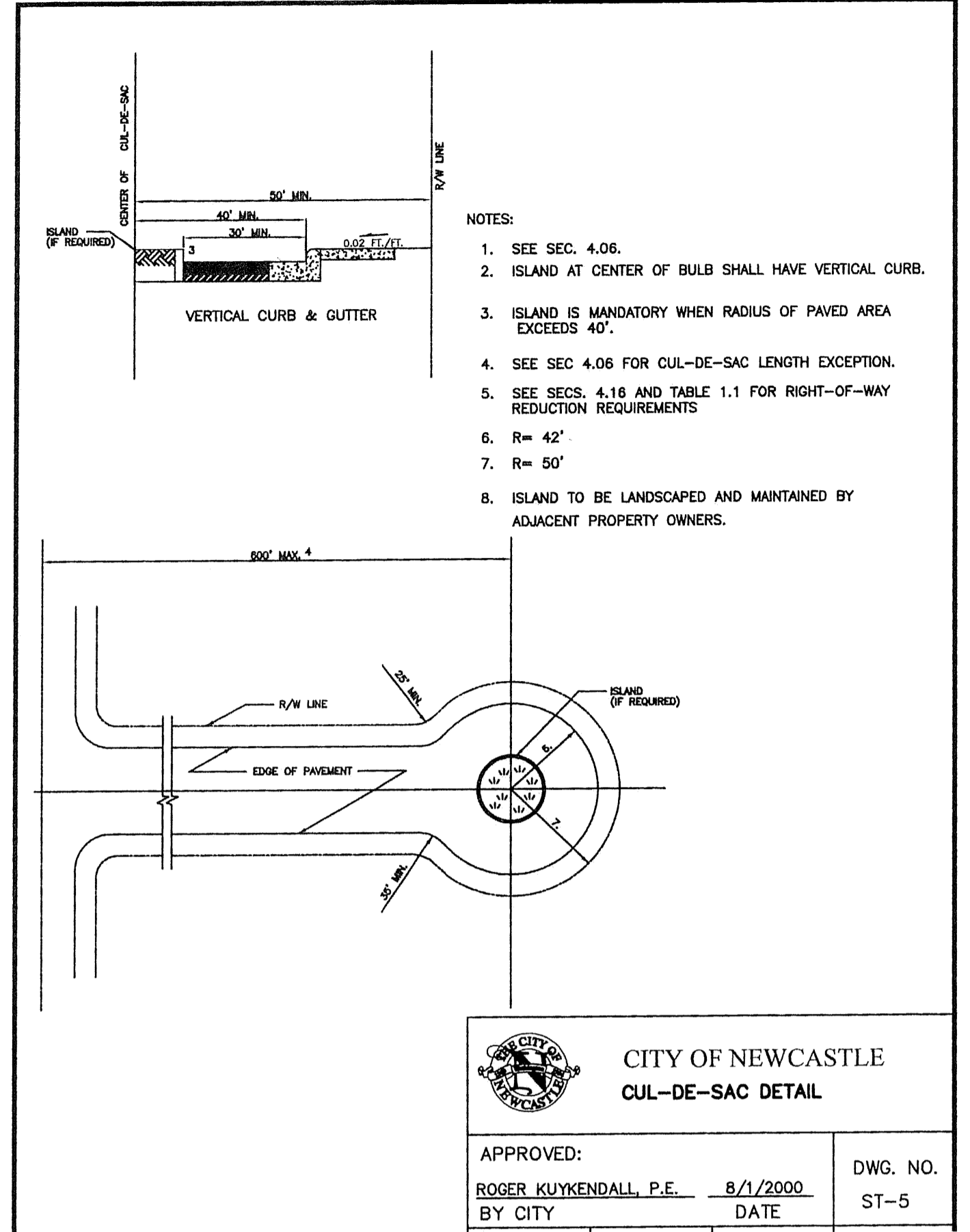
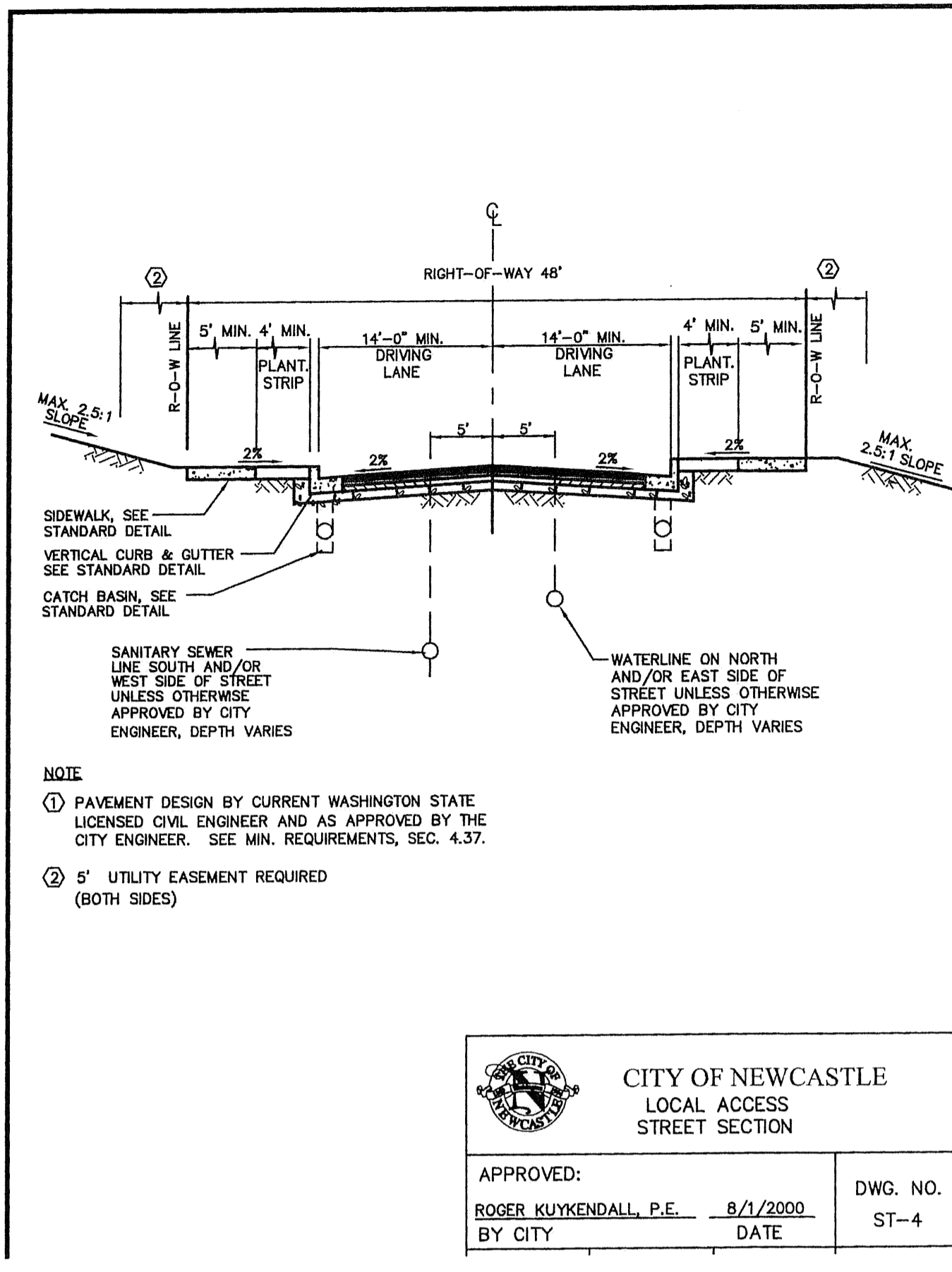
VARNEY SUBDIVISION  
FOR: KEN HONES LLC  
140 140TH AVE NE SITE D  
BELLEVUE, WA 98005  
PHONE: (425) 746-6440 FAX: (425) 766-2303

PROJECT NO.: 06015  
DRAWN BY: JGC  
ISSUE DATE: 02-01-08  
SHEET REV.: 08-22-08

DETAILS

CD\06015\DT02-C09.DWG

C09



NOTE: ONLY VERTICAL CONCRETE AND GUTTER IS REFERENCED FOR THIS PROJECT



NW 1/4 OF SW 1/4 OF SEC. 34, T. 24 N., R. 05 E., W.M.

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CITY OF NEWCASTLE

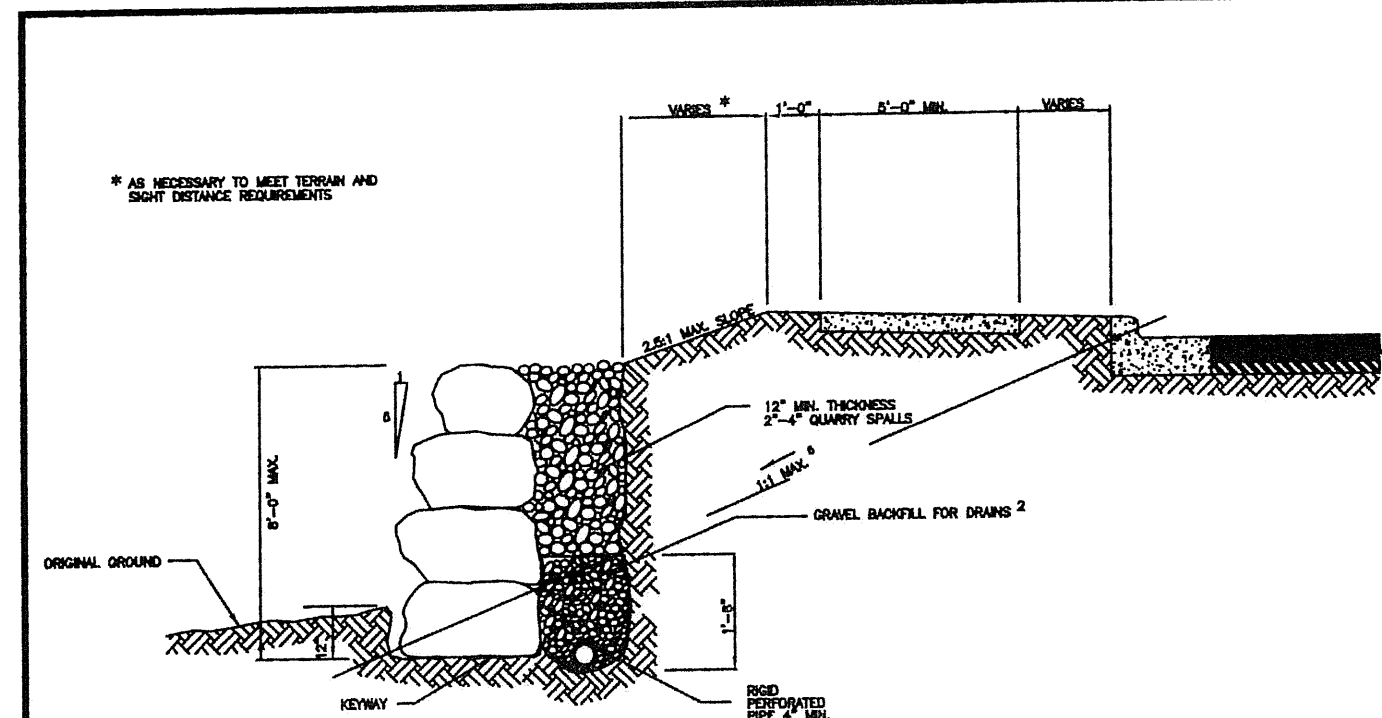
VARNEY SUBDIVISION  
FOR: GREACEN HOMES, LLC.  
140 140TH AVE NE, SITE D  
BELLEVUE, WA 98005  
PHONE: (425) 746-6440 FAX: (425) 766-2303

PROJECT NO.: 06015  
DRAWN BY: JGC  
ISSUE DATE: 02-01-08  
SHEET REV.: 08-22-08

DETAILS

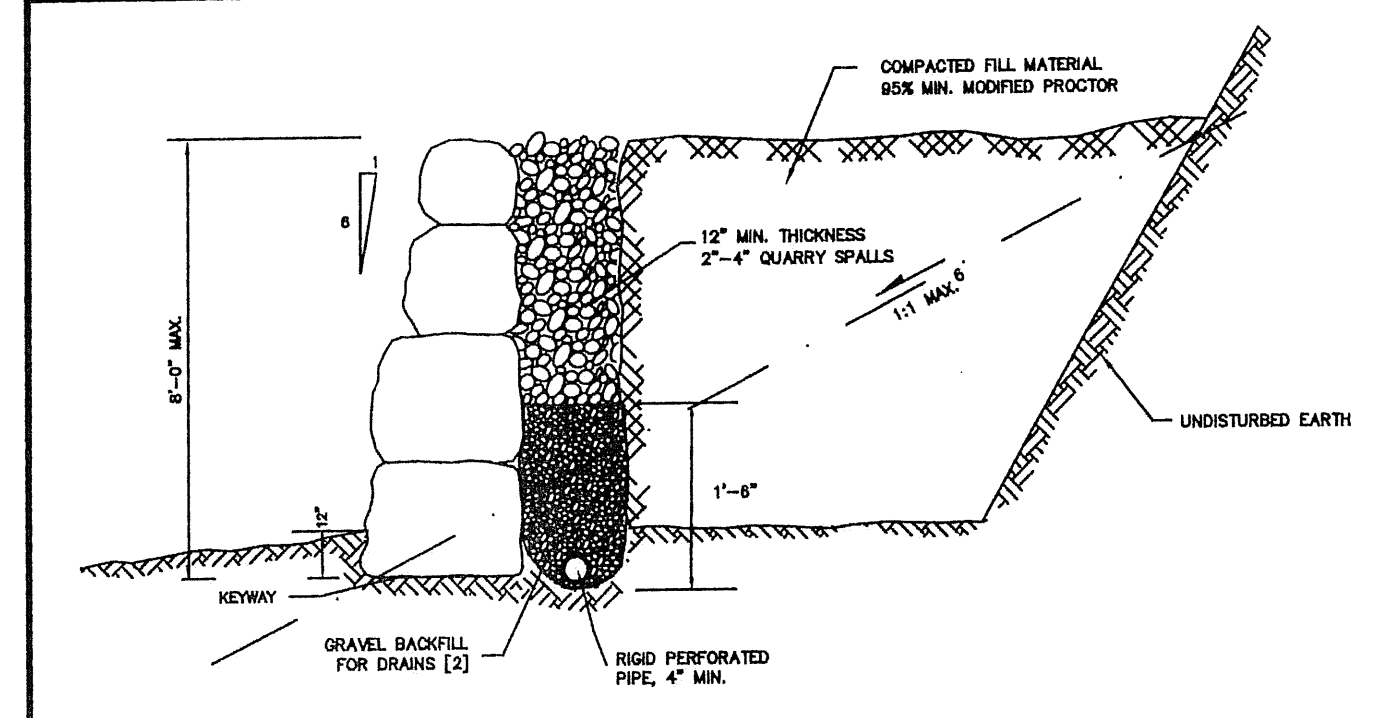
CD\06015DT03-C10.DWG

C10



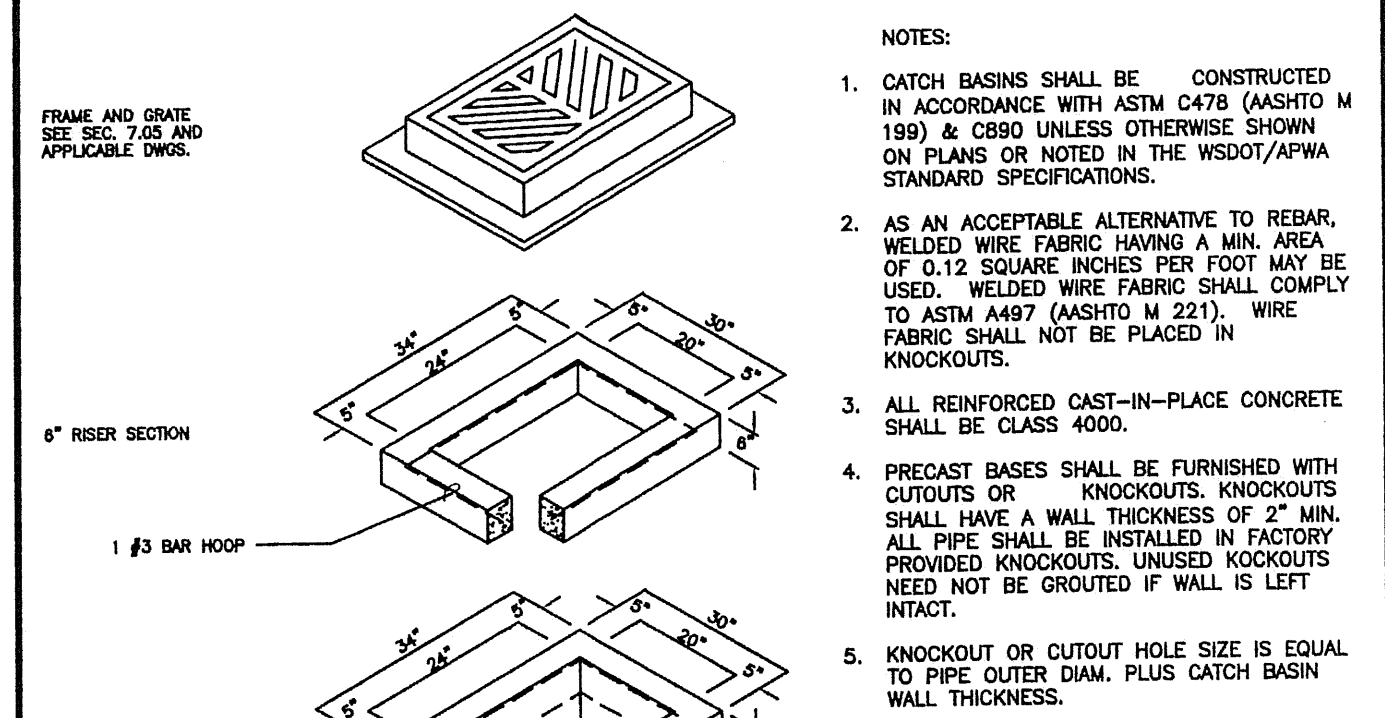
- NOTES:  
1. SEE SECTION 4.30.  
2. WSDOT / APWA 9-03.12[4]  
3. FENCE OR HANDRAIL MAY BE REQUIRED WHEN ROCKERY HEIGHT EXCEEDS 30 INCHES AND IS LOCATED IN A PUBLIC AREA.  
4. THE WALL FOUNDATION IS TO BE CLEARED OF ORGANIC MATTER AND DEBRIS AND THE UNDERLYING MINERAL SOIL COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY. THE EMBANKMENT MATERIAL IS TO BE GRAVEL BORROW MEETING THE REQUIREMENTS OF 9-03.14 OF THE WSDOT STANDARDS. THE BACKFILL IS TO BE PLACED IN THIN LIFTS, NOT EXCEEDING SIX INCHES IN THICKNESS AND COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY.  
5. (NOT USED)  
6. ZONE OF INFLUENCE. FLATTER SLOPE MAY BE REQUIRED IN LESS STABLE SOILS. ALL DRIVEWAYS, PARKING AREAS, AND ROADS SHALL LIE BELOW THE ZONE OF INFLUENCE.  
7. (NOT USED)  
8. ROCK WALLS SHALL BE PLACED NO CLOSER THAN 5 FEET FROM THE EDGE OF ANY PEDESTRIAN WALKWAY, PUBLIC EASEMENT OR RIGHT OF WAY.  
9. MAXIMUM HEIGHT, AS MEASURED FROM THE KEYWAY, IS EIGHT (8) FEET. ALL WALLS FOUR FEET OR HIGHER SHALL REQUIRE A BUILDING PERMIT. ALL WALLS TO BE CONSTRUCTED IN A FILL SECTION OR THOSE WALLS SUPPORTING A SURCHARGE (DRIVEWAY, ROAD, BUILDING, OR PARKING AREA) SHALL REQUIRE DESIGN BY A LICENSED ENGINEER.  
10. THE TOP OF ALL ROCK WALLS SHALL BE CONFIGURED TO PREVENT SURFACE DRAINAGE OVER THE TOP OF THE WALL.

CITY OF NEWCASTLE  
ROCK WALL - CUT SECTION  
APPROVED: ROGER KUYKENDALL, P.E. 8/1/2000 DWG. NO. ST-26  
BY CITY DATE



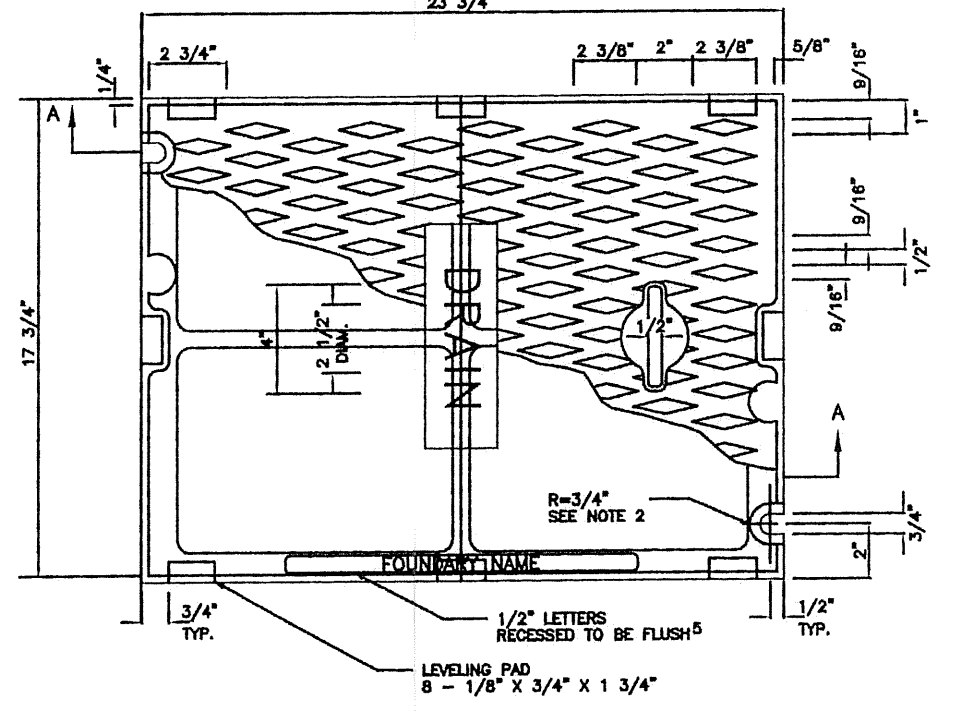
- NOTES:  
1. SEE SECTION 4.30.  
2. WSDOT / APWA 9-03.12[4]  
3. FENCE OR HANDRAIL MAY BE REQUIRED WHEN ROCKERY HEIGHT EXCEEDS 30 INCHES AND IS LOCATED IN A PUBLIC AREA.  
4. THE WALL FOUNDATION IS TO BE CLEARED OF ORGANIC MATTER AND DEBRIS AND THE UNDERLYING MINERAL SOIL COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY. THE EMBANKMENT MATERIAL IS TO BE GRAVEL BORROW MEETING THE REQUIREMENTS OF 9-03.14 OF THE WSDOT STANDARDS. THE BACKFILL IS TO BE PLACED IN THIN LIFTS, NOT EXCEEDING SIX INCHES IN THICKNESS AND COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY.  
5. (NOT USED)  
6. ZONE OF INFLUENCE. FLATTER SLOPE MAY BE REQUIRED IN LESS STABLE SOILS. ALL DRIVEWAYS, PARKING AREAS, AND ROADS SHALL LIE BELOW THE ZONE OF INFLUENCE.  
7. EMBANKMENTS BEHIND ROCKERIES EXCEEDING 4' IN HEIGHT SHALL BE REINFORCED WITH GEOSYNTHETIC FABRIC OR GEOGRID.  
8. ROCK WALLS SHALL BE PLACED NO CLOSER THAN 5 FEET FROM THE EDGE OF ANY PEDESTRIAN WALKWAY, PUBLIC EASEMENT OR RIGHT OF WAY.  
9. MAXIMUM HEIGHT, AS MEASURED FROM THE KEYWAY, IS EIGHT (8) FEET. ALL WALLS FOUR FEET OR HIGHER SHALL REQUIRE A BUILDING PERMIT. ALL WALLS TO BE CONSTRUCTED IN A FILL SECTION OR THOSE WALLS SUPPORTING A SURCHARGE (DRIVEWAY, ROAD, BUILDING, OR PARKING AREA) SHALL REQUIRE DESIGN BY A LICENSED ENGINEER.  
10. THE TOP OF ALL ROCK WALLS SHALL BE CONFIGURED TO PREVENT SURFACE DRAINAGE OVER THE TOP OF THE WALL.  
11. OVERBURDEN SHALL EXTEND BEYOND THE CUT FACE AT LEAST THE HEIGHT OF THE WALL.

CITY OF NEWCASTLE  
ROCK WALL - FILL SECTION  
APPROVED: ROGER KUYKENDALL, P.E. 8/1/2000 DWG. NO. ST-27  
BY CITY DATE



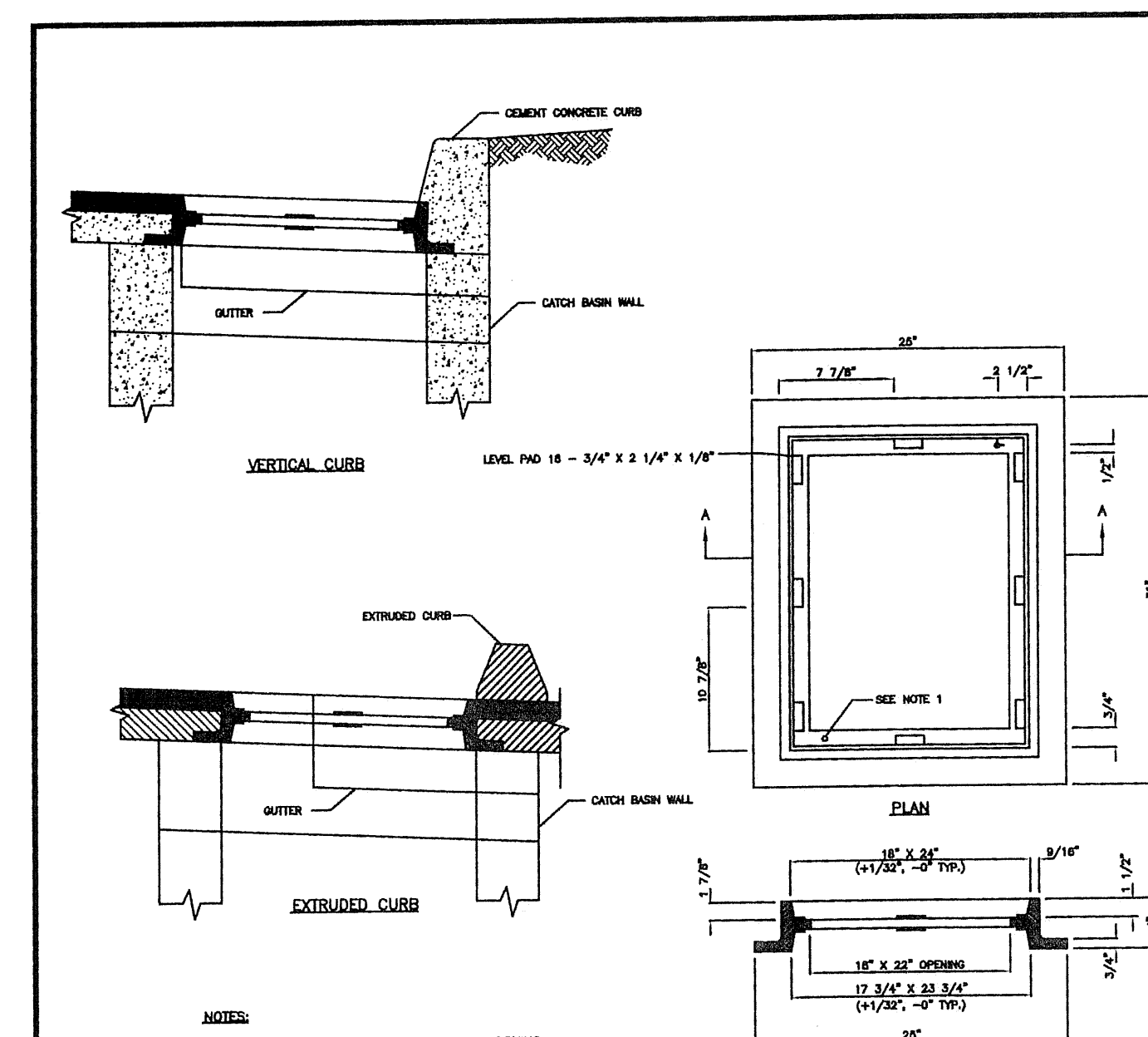
- NOTES:  
1. CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (ASHTO M 198) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.  
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (ASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.  
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.  
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.  
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.  
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES. WITH MAX. DIAM. OF 20". KNOCKOUTS MAY BE EITHER ROUND OR 'D' SHAPE.  
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".  
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.  
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-6020. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.  
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.  
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT/APWA STANDARD DWG. B1-B.  
12. EDGE OF RISER OR BRICK WALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.

CITY OF NEWCASTLE  
CATCH BASIN - TYPE 1  
APPROVED: ROGER KUYKENDALL, P.E. 8/1/2000 DWG. NO. SW-1  
BY CITY DATE



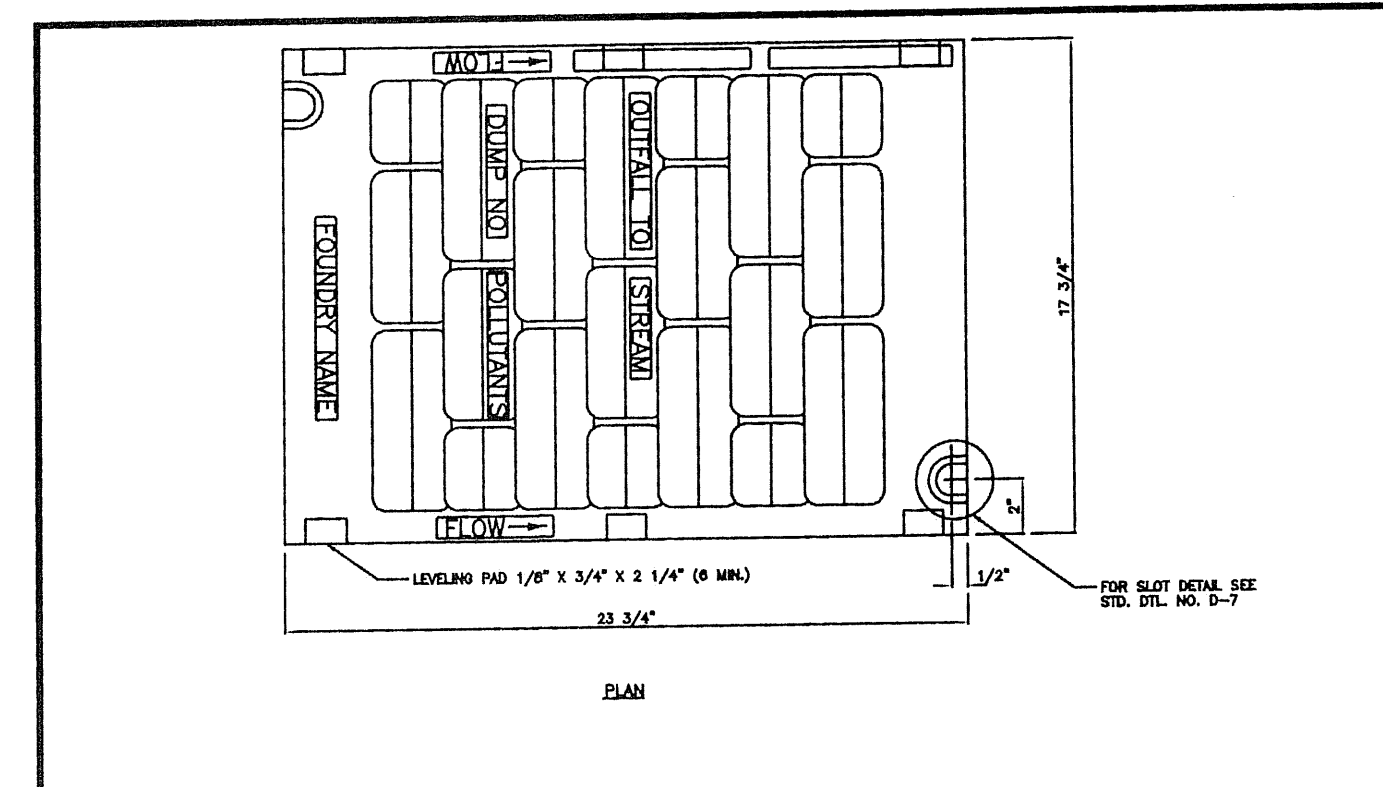
- NOTES:  
1. USE WITH FRAME DRILLED AND TAPPED FOR LOCKING BOLTS.  
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS STEEL TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG.  
3. COVER MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.  
4. SHALL CONFORM TO SEC. 7.05 OF THE STANDARD SPECIFICATIONS.  
5. COVER SHALL HAVE THE WORD "DRAIN" IN 2-INCH RAISED LETTERS.

CITY OF NEWCASTLE  
SOLID STORM DRAIN COVER  
APPROVED: ROGER KUYKENDALL, P.E. 8/1/2000 DWG. NO. SW-4  
BY CITY DATE



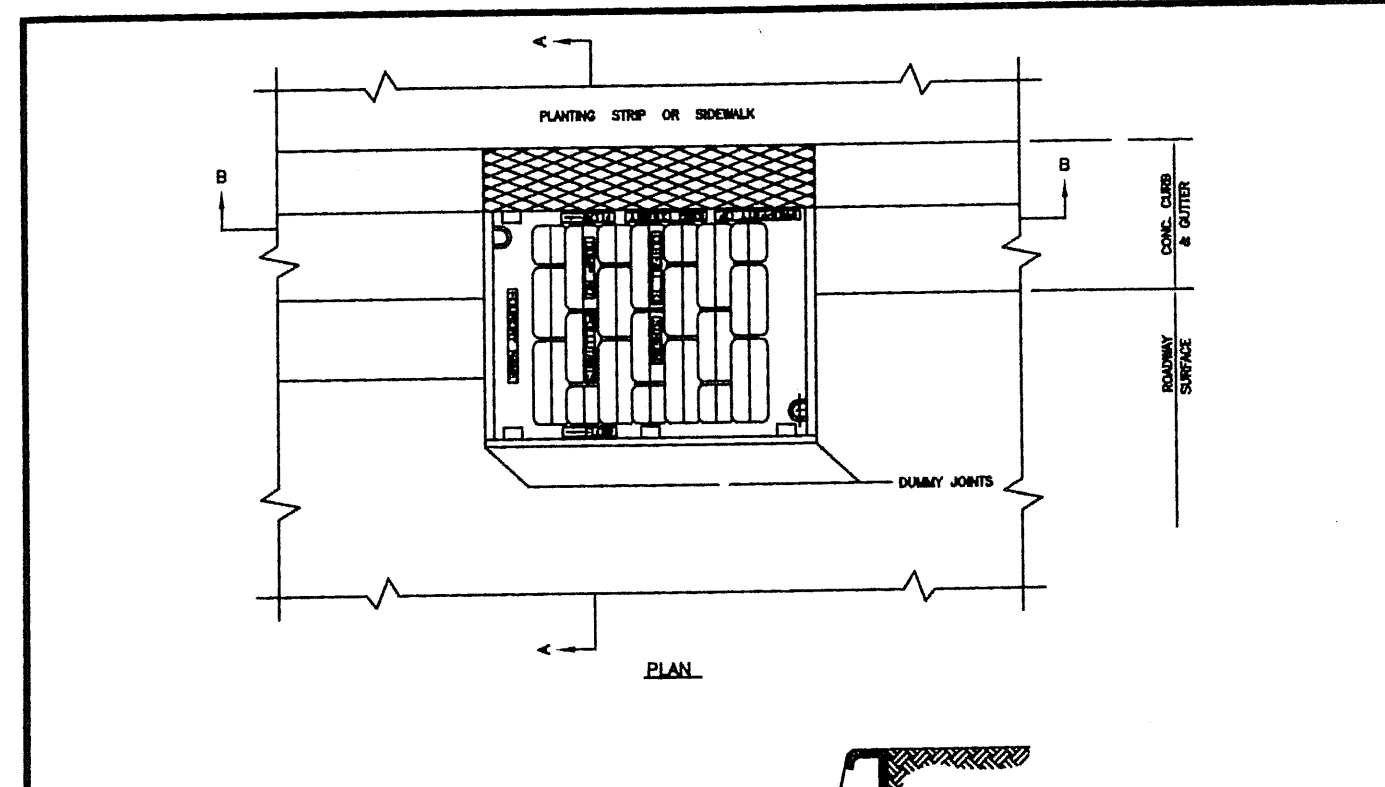
- NOTES:  
1. DRILL AND TAP FOR AND PROVIDE TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG.  
2. FRAME MATERIAL IS CAST IRON PER ASTM A48 CLASS 30 OR BETTER.  
3. SET FRAME TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.

CITY OF NEWCASTLE  
STANDARD FRAME INSTALLATION  
APPROVED: ROGER KUYKENDALL, P.E. 8/1/2000 DWG. NO. SW-6  
BY CITY DATE



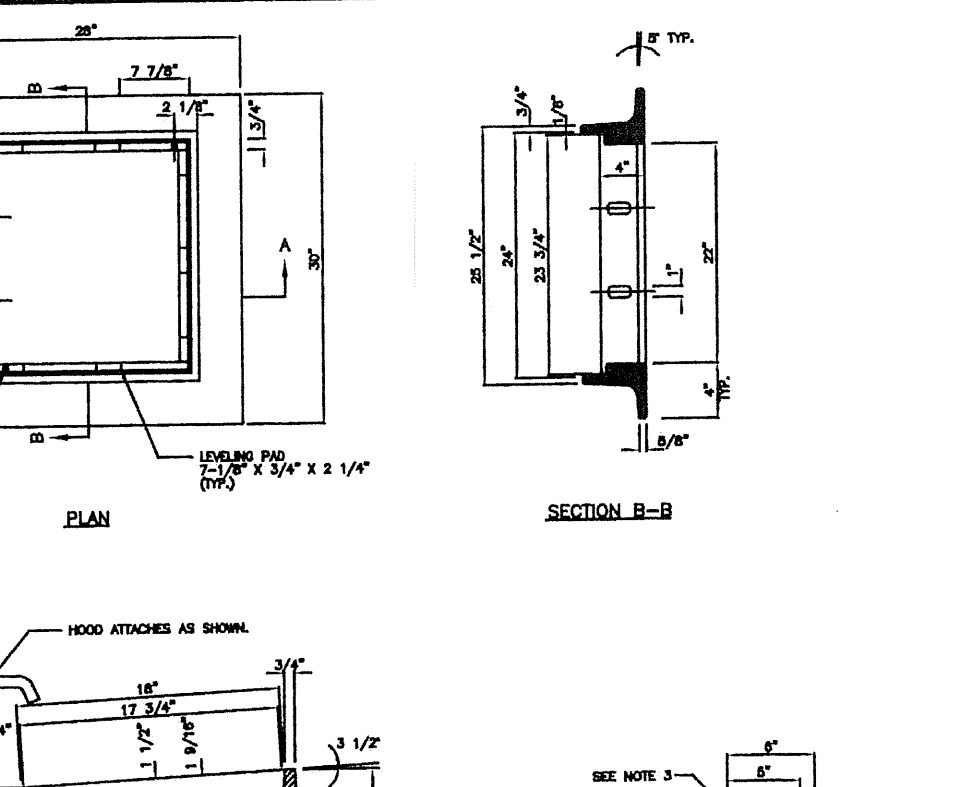
- NOTES:  
1. SELF-LOCK VANED GRATE MANUFACTURER SUBJECT TO APPROVAL BY ENGINEER.  
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG. NOTE SLOT DETAIL.  
3. MATERIAL IS DUCTILE IRON ASTM A538 GRADE 80-55-06.  
4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" IN RAISED LETTERS SHALL BE LOCATED ON GRATE AS SHOWN, OR ON BORDER AREA.  
5. SHALL CONFORM TO SEC. 7.05 OF THE STANDARD SPECIFICATIONS.  
6. WELDING IS NOT PERMITTED.  
7. EDGES SHALL HAVE 0.125" RADIUS, 0.125" CHAMBER OR COMPLETE DEBURRING.  
8. USE A BI-DIRECTIONAL VANED GRATE IN S40 VERTICAL CURVES.

CITY OF NEWCASTLE  
VANED GRATE  
APPROVED: ROGER KUYKENDALL, P.E. 8/1/2000 DWG. NO. SW-7  
BY CITY DATE



- NOTES:  
1. SET TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.

CITY OF NEWCASTLE  
THROUGH CURB INLET FRAME & GRATE WITH VERTICAL CURB  
APPROVED: ROGER KUYKENDALL, P.E. 8/1/2000 DWG. NO. SW-8  
BY CITY DATE



- NOTES:  
1. MATERIAL SHALL CONFORM TO SECTION B-05.18(2) OF THE STANDARD SPECIFICATIONS.  
2. PATTERN ON TOP SURFACE OF HOOD SHALL BE 3/16" NON-SKID DIAMOND.  
3. BOLT, WASHER, AND NUT SHALL BE GALVANIZED OR CORROSION RESISTANT.

CITY OF NEWCASTLE  
THROUGH CURB INLET FRAME  
APPROVED: ROGER KUYKENDALL, P.E. 8/1/2000 DWG. NO. SW-9  
BY CITY DATE



NW 1/4 OF SW 1/4 OF SEC. 34, T. 24 N., R. 05 E., W.M.

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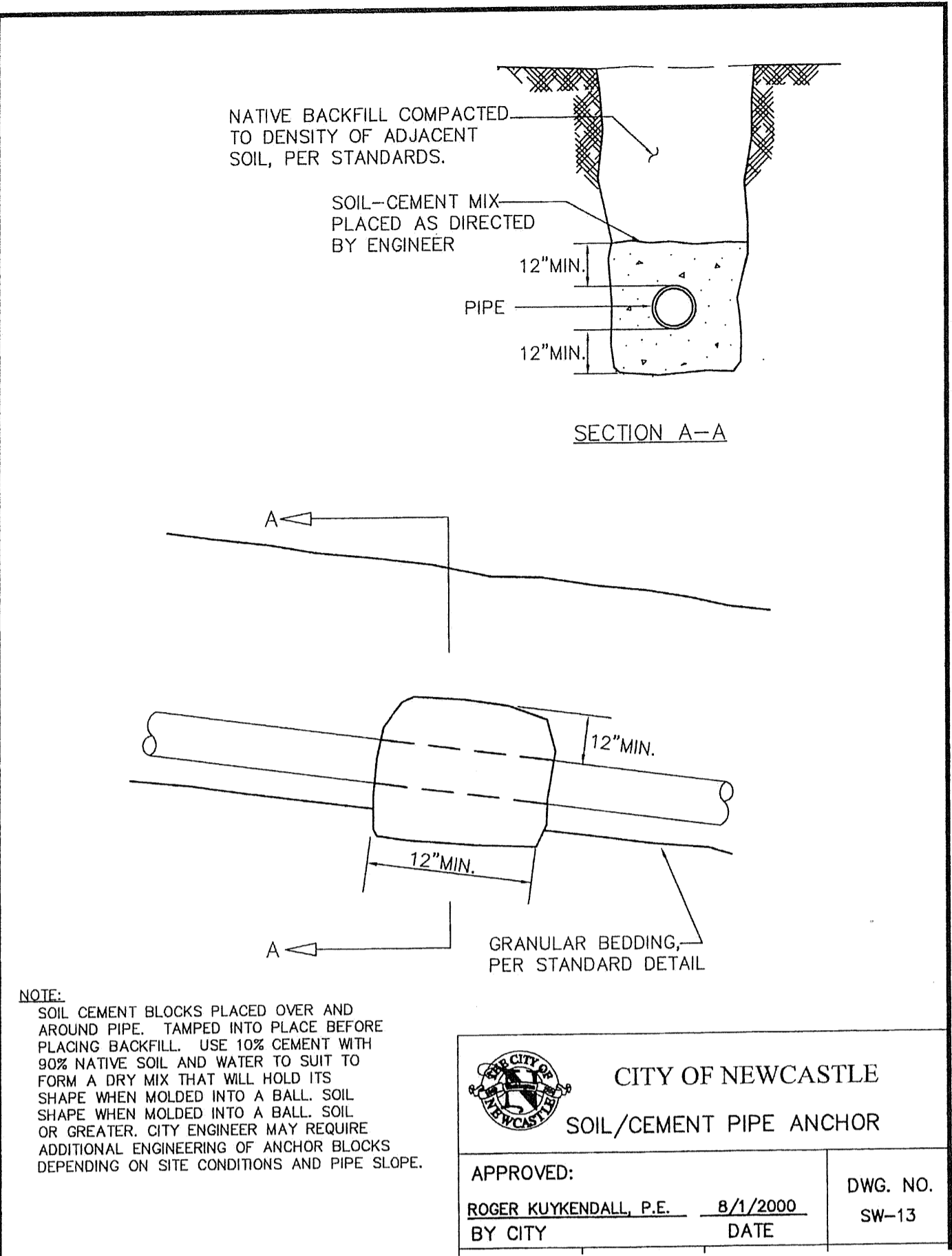
BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CITY OF NEWCASTLE

THESE DRAWINGS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 12 MONTHS FROM THE DATE SHOWN HEREON. THE CITY RESERVES THE RIGHT TO MAKE REVISIONS, ADDITIONS, DELETIONS, OR MODIFICATIONS SHOULD CONSTRUCTION BE DELAYED BEYOND THIS TIME LIMITATION. THE CITY, BY APPROVING THESE DRAWINGS, ASSUMES NO LIABILITY IN REGARDS TO THEIR ACCURACY OR OMISSIONS.



15445 53RD AVE. S.  
SEATTLE, WA 98188  
PHONE: (206) 431-7970  
FAX: (206) 388-1648  
WEB SITE: PACENG.COM

**Pacific Engineering Design, LLC**  
Civil Engineering and Planning Consultants



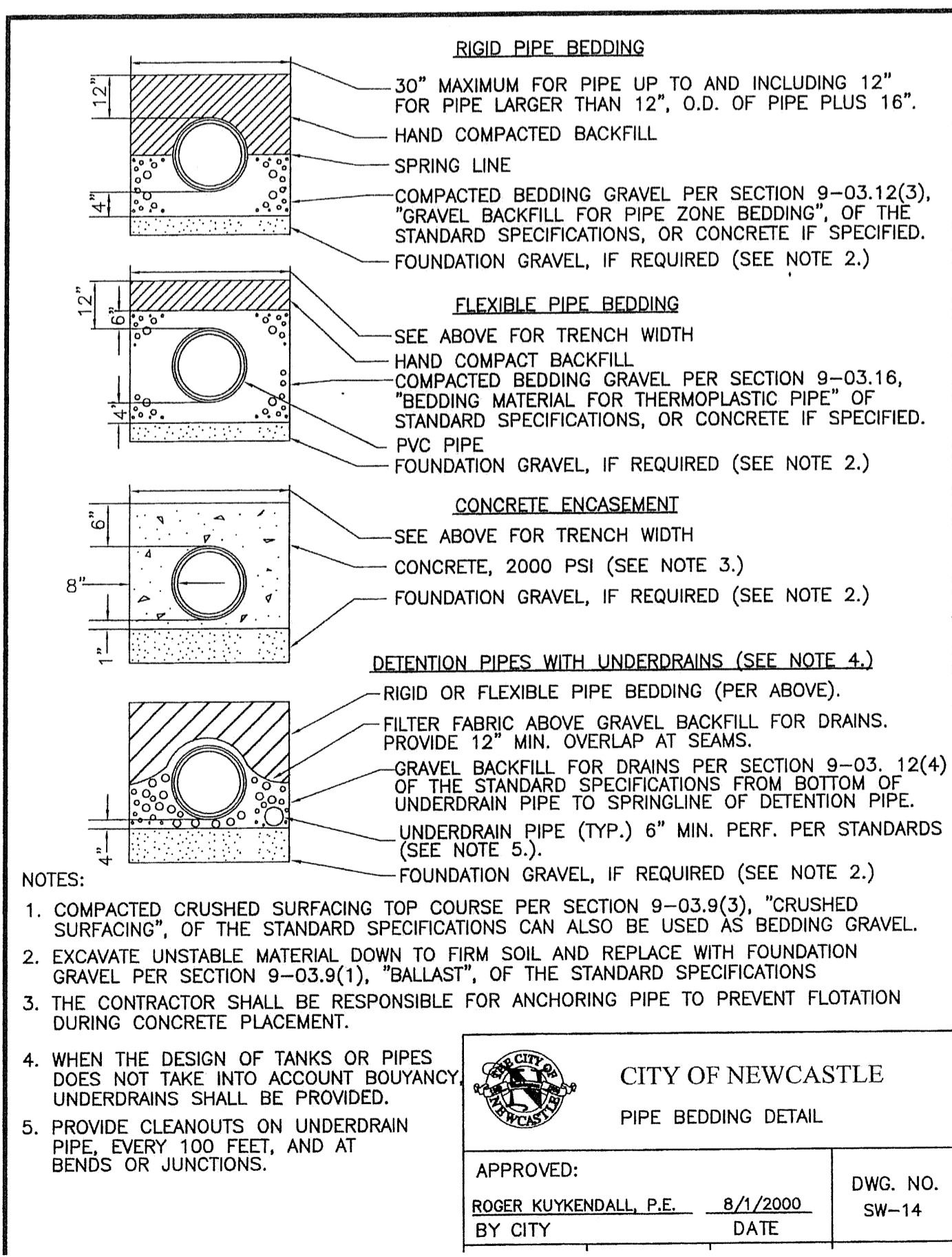
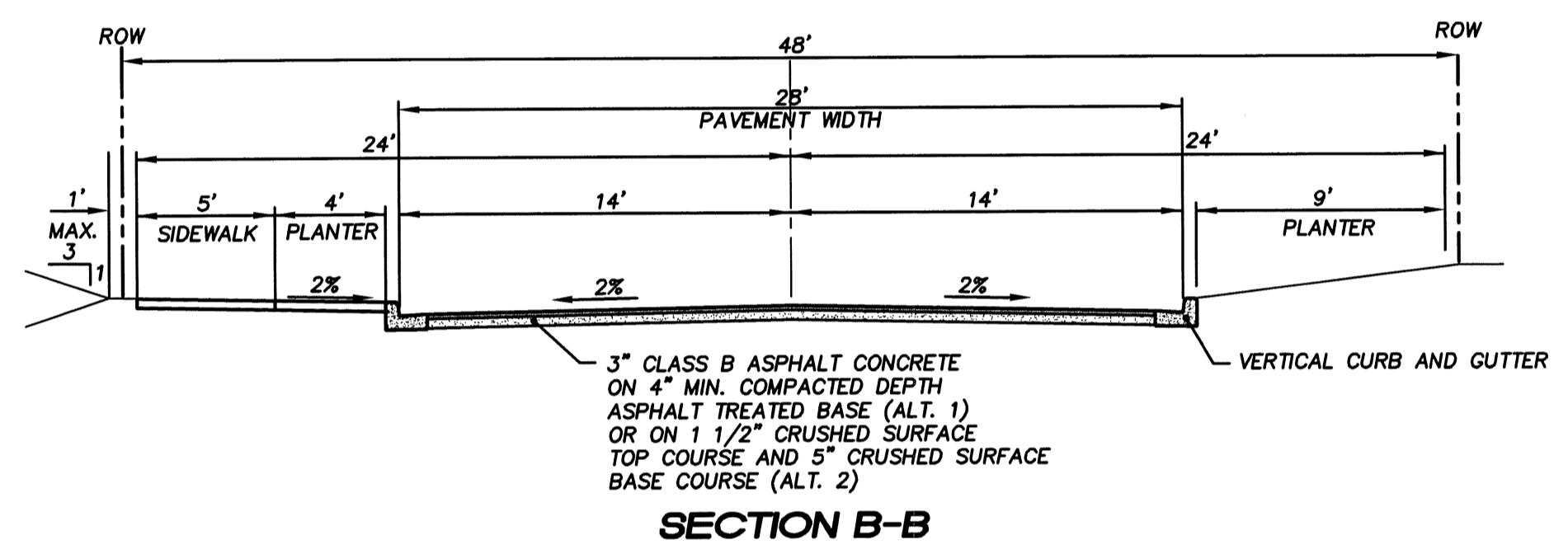
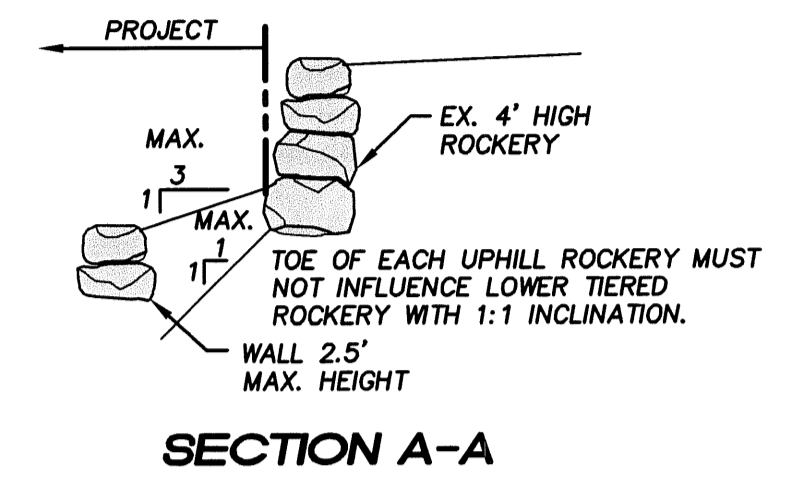
**CITY OF NEWCASTLE**  
SOIL/CEMENT PIPE ANCHOR

APPROVED: \_\_\_\_\_  
BY CITY DATE DATE

ROGER KUYKENDALL, P.E. 8/1/2000  
BY CITY DATE DATE

DWG. NO. SW-13

NOTE:  
SOIL CEMENT BLOCKS PLACED OVER AND AROUND PIPE. TAMPED INTO PLACE BEFORE PLACING BACKFILL. USE 10% CEMENT WITH 90% NATIVE SOIL AND WATER TO SUIT TO FORM A DRY MIX THAT WILL HOLD ITS SHAPE WHEN MOULDED INTO A BALL. SOIL OR GREATER. CITY ENGINEER MAY REQUIRE ADDITIONAL ENGINEERING OF ANCHOR BLOCKS DEPENDING ON SITE CONDITIONS AND PIPE SLOPE.



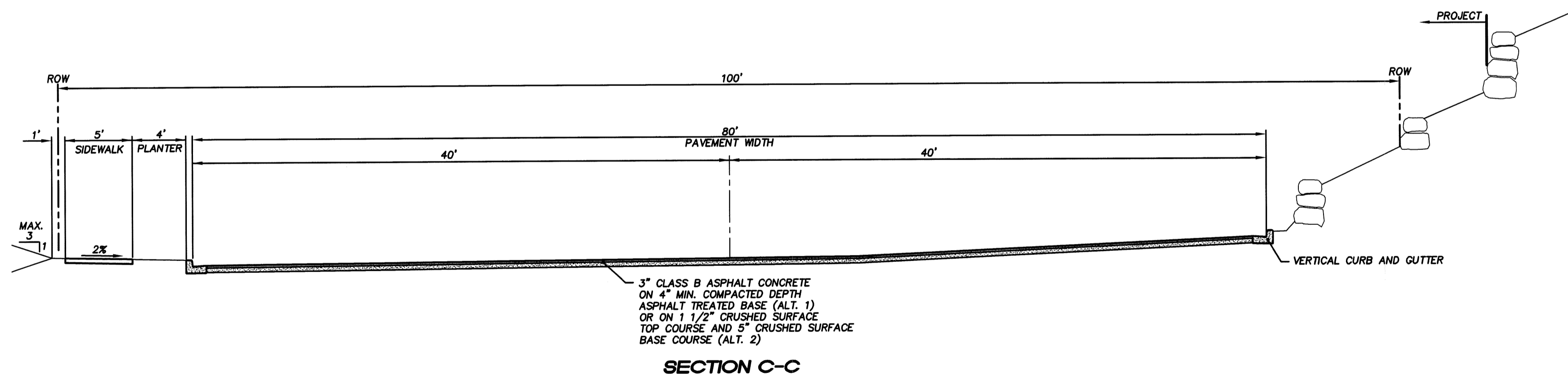
**CITY OF NEWCASTLE**  
PIPE BEDDING DETAIL

APPROVED: \_\_\_\_\_  
BY CITY DATE DATE

ROGER KUYKENDALL, P.E. 8/1/2000  
BY CITY DATE DATE

DWG. NO. SW-14

- NOTES:
- COMPACTED CRUSHED SURFACING TOP COURSE PER SECTION 9-03.9(3), "CRUSHED SURFACING", OF THE STANDARD SPECIFICATIONS CAN ALSO BE USED AS BEDDING GRAVEL.
  - EXCAVATE UNSTABLE MATERIAL DOWN TO FIRM SOIL AND REPLACE WITH FOUNDATION GRAVEL PER SECTION 9-03.9(1), "BALLAST", OF THE STANDARD SPECIFICATIONS
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANCHORING PIPE TO PREVENT FLOTATION DURING CONCRETE PLACEMENT.
  - WHEN THE DESIGN OF TANKS OR PIPES DOES NOT TAKE INTO ACCOUNT BOUYANCY, UNDERDRAINS SHALL BE PROVIDED.
  - PROVIDE CLEANOUTS ON UNDERDRAIN PIPE, EVERY 100 FEET, AND AT BENDS OR JUNCTIONS.



**VARNEY SUBDIVISION**  
CITY OF NEWCASTLE

FOR: GREACEN HOMES, LLC  
1140 140TH AVE NE SITE D  
BELLEVUE, WA 98005  
PHONE: (425) 746-6440. FAX: (425) 766-2303

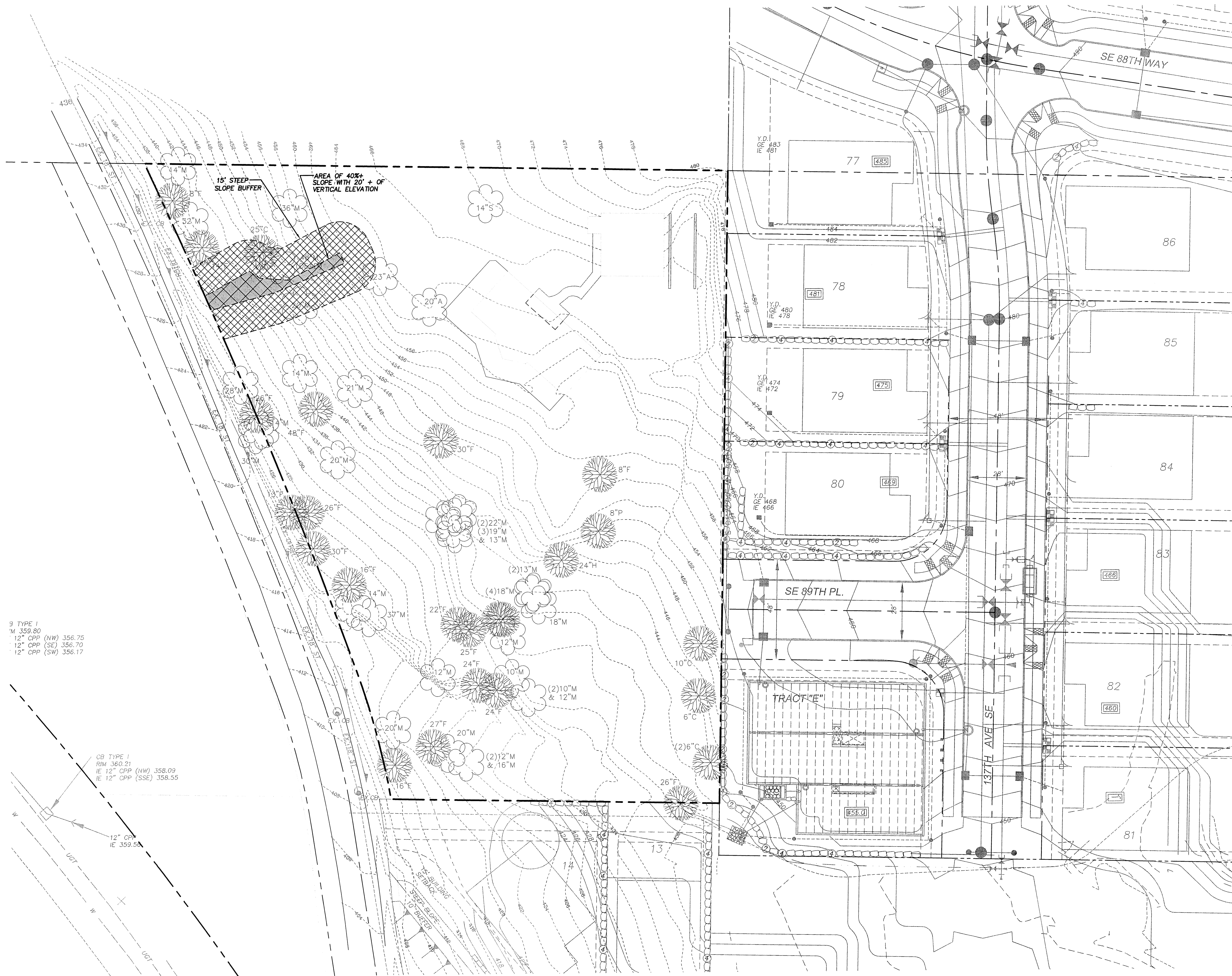
PROJECT NO.: 06015  
DRAWN BY: RRJ  
ISSUE DATE: 02-01-08  
SHEET REV.: 08-22-08

**DETAILS AND TYPICAL SECTIONS**

CD0601SDT04-C11.DWG  
**C11**



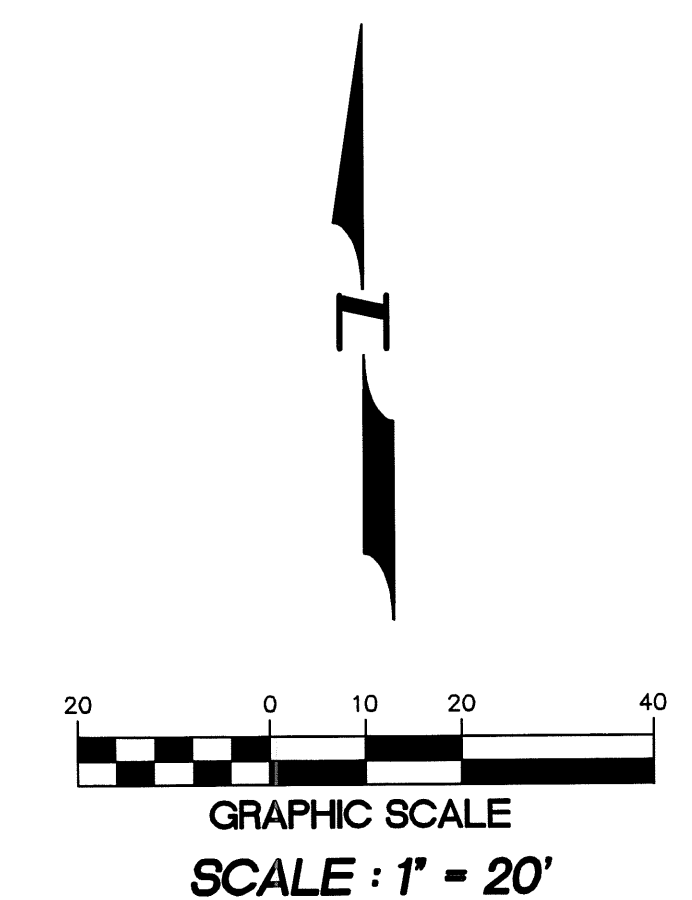
NW 1/4 OF SW 1/4 OF SEC. 34, T. 24 N., R. 05 E., W.M.



3 TYPE I  
M 359.80  
12" CPP (NW) 356.75  
12" CPP (SE) 356.70  
12" CPP (SW) 356.17

CG TYPE I  
RIM 360.21  
IE 12" CPP (NW) 358.09  
IE 12" CPP (SSE) 358.55

12" CP  
IE 359.50



**BENCH MARK**  
VERTICAL DATUM : NAVD 88  
CITY OF RENTON BENCH MARK # RENT 2094  
TOP OF NAIL IN CONCRETE MONUMENT IN CASE AT  
INTERSECTION OF SE 89TH PLACE AND 133RD AVE, SE  
ELEVATION=346.43 FEET

**BASIS OF BEARINGS**  
S88°47'51"E ALONG CENTERLINE OF SE89TH PLACE

SITE SURVEY PROVIDED BY :  
HANSEN SURVEYING  
LAND SURVEYORS & CONSULTANTS  
17420 116TH AVE. S.E., RENTON, WA 98058  
TEL: 425-235-8440 FAX: 425-235-0266

DATED : 05/26/06



15445 53RD AVE. S.  
SEATTLE, WA 98188  
PHONE: (206) 431-7970  
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BELLEVUE, WA 98005  
PHONE: (425) 746-6440 FAX: (425) 766-2303

PROJECT NO.: **06015**  
DRAWN BY: **JGC**  
ISSUE DATE: **02-01-08**  
SHEET REV.:

**EXISTING CONDITIONS PLAN**

CD\06015EC01-C12.DWG  
**C12**