

CITY OF ALBUQUERQUE



October 17, 2016

Richard J. Berry, Mayor

J. Graeme Means, P.E.
High Mesa Consulting Group
4715 Moon St NE
Albuquerque, NM, 87111

**RE: NM Mutual Home Office
Grading and Drainage Plan
Engineer's Stamp Date 9-9-2016 (File:B18D021)**

Dear Mr. Means:

Based upon the information provided in your submittal received 9-16-2016, the above referenced Grading and Drainage Plan is approved for ESC Grading Permit (and Building Permit) and SO-19 Permit. The DRC Set will be expected to contain additional Grading and Drainage Information for San Mateo Blvd.

When submitting the certification, make sure the Drainage Narrative and the Calculations for Basin A match, there appears to be a minor discrepancy.

Please attach a copy of this approved plan in the construction sets when submitting for the building permit. Prior to Certificate of Occupancy (CO) release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Department
Development Review Services

Orig: Drainage file



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: _____ **Building Permit #:** _____ **City Drainage #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: _____
City Address: _____

Engineering Firm: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Owner: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Architect: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Check all that Apply:

DEPARTMENT:

____ HYDROLOGY/ DRAINAGE
 ____ TRAFFIC/ TRANSPORTATION
 ____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

____ ENGINEER/ ARCHITECT CERTIFICATION
 ____ CONCEPTUAL G & D PLAN
 ____ GRADING PLAN
 ____ DRAINAGE MASTER PLAN
 ____ DRAINAGE REPORT
 ____ CLOMR/LOMR
 ____ TRAFFIC CIRCULATION LAYOUT (TCL)
 ____ TRAFFIC IMPACT STUDY (TIS)
 ____ EROSION & SEDIMENT CONTROL PLAN (ESC)
 ____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
 ____ CERTIFICATE OF OCCUPANCY
 ____ PRELIMINARY PLAT APPROVAL
 ____ SITE PLAN FOR SUB'D APPROVAL
 ____ SITE PLAN FOR BLDG. PERMIT APPROVAL
 ____ FINAL PLAT APPROVAL
 ____ SIA/ RELEASE OF FINANCIAL GUARANTEE
 ____ FOUNDATION PERMIT APPROVAL
 ____ GRADING PERMIT APPROVAL
 ____ SO-19 APPROVAL
 ____ PAVING PERMIT APPROVAL
 ____ GRADING/ PAD CERTIFICATION
 ____ WORK ORDER APPROVAL
 ____ CLOMR/LOMR
 ____ PRE-DESIGN MEETING
 ____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ____ Yes ____ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: ____

XC: Lynn Mazur(AMAFCA)

DRAINAGE PLAN

I. INTRODUCTION AND EXECUTIVE SUMMARY

THIS PROJECT, LOCATED IN THE NORTH 1-25 AREA OF ALBUQUERQUE, REPRESENTS NEW CONSTRUCTION ON AN UNDEVELOPED SITE. THE PROPOSED DEVELOPMENT IS COMPRISED OF NEW BUILDING CONSTRUCTION, PAVING IMPROVEMENTS, LANDSCAPING, UTILITIES AND PUBLIC INFRASTRUCTURE IMPROVEMENTS. PURSUANT TO A SITE DEVELOPMENT PLAN AND INFRASTRUCTURE LIST THE DRAINAGE CONCEPT FOR THIS PROJECT WILL FOLLOW MASTER PLANNED DISCHARGE RATES FOR DISCHARGING DEVELOPED RUNOFF FROM MOST OF THE SITE INTO AN EXISTING STUBOUT AND WATER QUALITY MANHOLE CONSTRUCTED TO SERVE THIS SITE DRAINING TO THE AMAFCA NORTH CAMINO CHANNEL NORTH OF THE SITE. A PORTION OF THIS SITE WILL DISCHARGE TO THE ADJACENT CITY OF ALBUQUERQUE STORM DRAIN IN BALLOON FIESTA PARKWAY. CURRENTLY TO THERE ARE OFFSITE FLOWS THAT DRAIN INTO THE SITE FROM AN UNDEVELOPED STRIP OF THE ADJACENT PROPERTY TO THE EAST. AS PART OF THIS PROJECT PRIVATE INFRASTRUCTURE AND A PUBLIC STORM INLET CONNECTION BY 5.0.19 PERMIT WILL BE CONSTRUCTED. THE PROPOSED PUBLIC INFRASTRUCTURE WITHIN AND ALONG SAN MATEO BLVD REQUIRED BY THIS SITE'S DEVELOPMENT WILL BE SHOWN ON A SEPARATE WORK ORDER PLAN. THIS SUBMITTAL IS MADE IN SUPPORT OF ROUGH GRADING, BUILDING PERMIT AND 5.0.#19 APPROVAL.

II. PROJECT DESCRIPTION

AS SHOWN BY THE VICINITY MAP ON SHEET, THE SITE IS LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SAN MATEO BLVD NE AND BALLOON FIESTA PKWY NE. THE CURRENT LEGAL DESCRIPTION IS TRACT C-2-B, NORTH GATEWAY, ALBUQUERQUE, NEW MEXICO. AS SHOWN BY PANEL 129 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO, REVISED AUGUST 16, 2012, THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE THIS SITE IS SITUATED DIRECTLY SOUTH AND UPSTREAM OF THE AMAFCA NORTH CAMINO CHANNEL WHERE 1% ANNUAL RAINFALL FLOOD IS CONFINED TO THE CONSTRUCTED CHANNEL AND TO THE NATURAL CAMINO ARROYO WHERE FLOOD ZONE A+ BEGINS. A LARGE PORTION OF THE EXISTING SITE DRAINS TO THIS ZONE, AND IN THE DEVELOPED CONDITION WILL CONTINUE TO DRAIN TO THE CHANNEL.

III. BACKGROUND DOCUMENTS

THE FOLLOWING IS A LIST OF DOCUMENTS RELATED TO THE SITE AND SURROUNDING AREA. THIS LIST MAY NOT BE ALL INCLUSIVE, HOWEVER REPRESENTS A SUMMARY OF THE RELEVANT PLANS AND DOCUMENTS WHICH ARE KNOWN TO THE ENGINEER AT THE TIME OF THE PLAN PREPARATION.

- TOPOGRAPHIC AND UTILITY SURVEY PREPARED BY HIGH MESA CONSULTING GROUP (HMC), DATED 12/01/2015 (NMP5 11184). THIS SURVEY DOCUMENTS THE EXISTING CONDITIONS FOR THE SITE.
- DRAINAGE REPORT FOR NORTH GATEWAY, PREPARED BY MARK GOODWIN & ASSOCIATES, NMP# 8948. THE PURPOSE OF THIS REPORT WAS TO PRESENT THE MASTER DRAINAGE PLAN FOR THE NORTH GATEWAY SUBDIVISION. IN THE REPORT TRACT C-2-B IS ALLOWED TO DISCHARGE 22.67 CFS INTO THE EXISTING AMAFCA NORTH CAMINO CHANNEL TO THE NORTH OF THE SITE.

IV. EXISTING CONDITIONS

THE EXISTING SITE IS CURRENTLY UNDEVELOPED. THERE IS EVIDENCE OF PREVIOUS GRADING. THE SITE IS DIVIDED INTO A SLIGHT RIDGE LINE INTO TWO BASINS. THE NORTH BASIN, BASIN A, SLOPES FROM SOUTHEAST TO NORTHWEST INTO THE AMAFCA NORTH CAMINO CHANNEL. ARROYO. THE SOUTH BASIN, BASIN B, SLOPES FROM NORTHEAST TO SOUTHWEST AND DRAINS INTO BALLOON FIESTA PKWY. ALONG THE EAST EDGE OF THE SITE THERE ARE CURRENTLY OFFSITE FLOWS THAT COME INTO SITE FROM AN UNDEVELOPED STRIP OF THE PROPERTY ADJACENT TO THE SITE.

BASIN A- THE BASIN AS DESCRIBED ABOVE IS CURRENTLY UNDEVELOPED. THIS BASIN DRAINS FROM SOUTHEAST TO NORTHWEST INTO THE AMAFCA NORTH CAMINO ARROYO. THE EXISTING PEAK DISCHARGE IS 13.0 CFS.

BASIN B- THE BASIN AS DESCRIBED ABOVE IS CURRENTLY UNDEVELOPED. THIS BASIN DRAINS FROM NORTHEAST TO SOUTHWEST OFFSITE INTO BALLOON FIESTA PKWY. THE EXISTING PEAK DISCHARGE IS 4.3 CFS.

OFFSITE FLOWS- ON THE EAST SIDE OF THE SITE AN UNDEVELOPED AREA OF THE ADJACENT PROPERTY FLOWS INTO THE SITE. THE EXISTING PEAK DISCHARGE IS 3.5 CFS

V. DEVELOPED CONDITIONS

BASIN A- AS PART OF THE NEW DEVELOPMENT THERE WILL BE A NEW BUILDING, PAVED ROADWAYS AND PARKING, AND LANDSCAPED AREAS. THE SITE WILL PRIMARILY CONTINUE TO DRAIN SOUTHEAST TO NORTHWEST INTO DEPRESSED LANDSCAPE PLANTER AREAS. ROOF DRAINAGE WILL BE DIRECTED NORTH TO PRIVATE STORM DRAINS. THE LANDSCAPED AREAS ARE DESIGNED TO HOLD 5.775 CF WHICH IS GREATER THAN THE FIRST FLUSH REQUIREMENT OF 3575 CF. RAISED INLETS AND STORM DRAINS ARE LOCATED WITHIN THESE AREAS AND WILL BE USED TO COLLECT AND CONVEY FLOW TO THE AMAFCA WATER QUALITY MANHOLE. LOCATED NORTH OF THE SITE WHICH DISCHARGES INTO THE AMAFCA NORTH CAMINO ARROYO. THE PEAK DISCHARGE FOR THIS BASIN IS 16.1 CFS WHICH IS LESS THAN THE ALLOWABLE DISCHARGE OF 22.7 CFS.

BASIN B- AS PART OF THE NEW DEVELOPMENT THERE WILL BE A PAVED ROADWAYS AND PARKING, AND LANDSCAPED AREAS. THIS WILL PRIMARILY DRAIN FROM EAST TO WEST. THE MAJORITY OF FLOW FROM THIS BASIN WILL DRAIN TO A NEW WATER QUALITY POND. THE POND WILL CONTAIN RAINFALL OVERFLOW FROM THE SITE. THE POND WILL BE CONNECTED INTO AN EXISTING PUBLIC INLET LOCATED IN BALLOON FIESTA PKWY. VIA 5.0.#19 PERMIT A SMALL PORTION OF THE SITE WILL CONTINUE TO FLOW TO SAN MATEO BLVD AND BALLOON FIESTA PKWY. THE PEAK DISCHARGE FOR THIS BASIN IS 4.6 CFS WHICH IS 0.3 CFS INCREASE FROM THE EXISTING. THE 0.3 CFS INCREASE SHALL BE OFFSET BY THE NEW WATER QUALITY POND AND DEPRESSED LANDSCAPING LOCATED WITHIN BASIN.

OFFSITE FLOWS- THE UNDEVELOPED STRIP OF ADJACENT PROPERTY MAY BE DEVELOPED INTO A LANDSCAPED AREA THAT WILL NO LONGER FREELY DISCHARGE ONTO THE SITE. THIS IS DEPENDENT ON WHETHER THE DEVELOPER AND NEIGHBORING OWNER CAN COME TO AN AGREEMENT ON DEVELOPING THE UNDEVELOPED SECTION OF STRIP OF LAND BETWEEN THE SITES. IN THE EVENT THAT AN AGREEMENT IS NOT MADE THE EXISTING FLOWS WILL CONTINUE TO DRAIN ONTO THE SITE AND BE COLLECTED BY THE NEW STORM SYSTEM.

VI. GRADING PLAN

THE GRADING PLANS ON SHEET CG-101 SHOWS 1) EXISTING GRADES INDICATED BY CONTOURS AT 1 FOOT INTERVALS AND SPOT ELEVATIONS FROM THE TOPOGRAPHIC SURVEY REFERENCED ABOVE BY THIS OFFICE; 2) THE LIMIT AND CHARACTER OF EXISTING IMPROVEMENTS AS SHOWN BY THE AFOREMENTIONED SURVEY; 3) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS; 4) PROPOSED GRADES INDICATED BY CONTOURS AT 1 FOOT INTERVALS AND SPOT ELEVATIONS; AND 5) CONTINUITY BETWEEN EXISTING AND PROPOSED GRADES.

VII. CALCULATIONS

THE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY 1993 AND REVISED 1997, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED. AS SHOWN BY THE CALCULATIONS, THERE WILL BE AN INCREASE IN THE 100-YEAR PEAK DISCHARGE AND VOLUME OF RUNOFF ATTRIBUTABLE TO THIS PROJECT ATTRIBUTABLE TO DEVELOPMENT.

VIII. CONCLUSIONS

THE FOLLOWING CONCLUSIONS HAVE BEEN ESTABLISHED FROM THE EVALUATIONS CONTAINED HEREIN:

- THE PROPOSED IMPROVEMENTS REPRESENT NEW CONSTRUCTION TO AN EXISTING UNDEVELOPED SITE.
- THE PROPOSED IMPROVEMENTS WILL MAINTAIN AND NOT ALTER THE EXISTING DRAINAGE PATTERNS OF THE SITE.
- THE PROPOSED IMPROVEMENTS WILL RESULT IN AN INCREASE IN THE DEVELOPED RUNOFF GENERATED BY THE SITE DUE TO THE DEVELOPMENT OF AN UNDEVELOPED SITE.
- THE PROPOSED DISCHARGES ARE LESS THAN OR EQUAL TO ALLOWABLE.
- THE PROPOSED IMPROVEMENTS WILL NOT ADVERSELY IMPACT DOWNSTREAM PROPERTIES OR DOWNSTREAM DRAINAGE CONDITIONS.

CALCULATIONS

CALCULATIONS

I. SITE CHARACTERISTICS

- A. PRECIPITATION ZONE = 3**
- $P_{100, 6 HR} = P_{1600, 2} = 2.6 \text{ IN}$
- $P_{2, 24 HR} = P_{1600, 2} = 1.3 \text{ IN}$
- C. TOTAL PROJECT AREA (A_T) = 217,800 SF**
- D. LAND TREATMENTS**

| 1. BASIN A 3.77 AC | | |
|-------------------------|--------------|-----|
| EXISTING LAND TREATMENT | | |
| TREATMENT | AREA (SF/AC) | % |
| A | | |
| B | | |
| C | 164,015 SF | 100 |
| D | 3.77 AC | |

| 2. BASIN B 1.23 AC | | |
|-------------------------|--------------|-----|
| EXISTING LAND TREATMENT | | |
| TREATMENT | AREA (SF/AC) | % |
| A | | |
| B | | |
| C | 53,785 SF | 100 |
| D | 1.23 AC | |

| 3. BASIN A 3.83 AC | | |
|--------------------------|--------------|----|
| DEVELOPED LAND TREATMENT | | |
| TREATMENT | AREA (SF/AC) | % |
| A | | |
| B | | |
| C | 56,748 SF | 34 |
| D | 1.30 AC | |
| | 110,300 SF | |
| | 2.53 AC | 66 |

| 4. BASIN B 1.17 AC | | |
|--------------------------|--------------|----|
| DEVELOPED LAND TREATMENT | | |
| TREATMENT | AREA (SF/AC) | % |
| A | | |
| B | | |
| C | 34,956 SF | 68 |
| D | 0.80 AC | |
| | 16,125 SF | |
| | 0.37 AC | 32 |

| 5. OFFSITE 1.02 AC | | |
|-------------------------|--------------|-----|
| EXISTING LAND TREATMENT | | |
| TREATMENT | AREA (SF/AC) | % |
| A | | |
| B | | |
| C | 44,290 SF | 100 |
| D | 1.02 AC | |

- 100-YR. 6-HR STORM BASIN A**
a. VOLUME 100-YR. 6-HR
 $E_{W1} = (E_{A1} + E_{B1}A_1 + E_{C1}A_1 + E_{D1}A_1)/A_1$
 $E_{W1} = (0.66^*0.00) + (0.92^*0.00) + (1.29^*3.77) + (2.36^*0.00)/3.77 = 1.29 \text{ IN}$
 $V_{100, 6 HR} = (E_{W1}/12)A_1 = (1.29/12)3.77 = 0.4048 \text{ AC-FT} = 17,630 \text{ CF}$
b. PEAK DISCHARGE
 $Q_p = Q_{B1}A_1 + Q_{D1}A_1 + Q_{C1}A_1 + Q_{D1}A_1$
 $Q_p = (1.87^* 0.00) + (2.60^* 0.00) + (3.45^* 3.77) + (5.02^* 0.00) = 13.0 \text{ CFS}$

- 100-YR. 6-HR STORM BASIN B**
a. VOLUME 100-YR. 6-HR
 $E_{W1} = (E_{A1} + E_{B1}A_1 + E_{C1}A_1 + E_{D1}A_1)/A_1$
 $E_{W1} = (0.66^*0.00) + (0.92^*0.00) + (1.29^*1.23) + (2.36^*0.00)/1.23 = 1.29 \text{ IN}$
 $V_{100, 6 HR} = (E_{W1}/12)A_1 = (1.29/12)1.23 = 0.1327 \text{ AC-FT} = 5,780 \text{ CF}$
b. PEAK DISCHARGE
 $Q_p = Q_{B1}A_1 + Q_{D1}A_1 + Q_{C1}A_1 + Q_{D1}A_1$
 $Q_p = (1.87^* 0.00) + (2.60^* 0.00) + (3.45^* 1.23) + (5.02^* 0.00) = 4.3 \text{ CFS}$

- 100-YR. 6-HR STORM OFFSITE**
a. VOLUME 100-YR. 6-HR
 $E_{W1} = (E_{A1} + E_{B1}A_1 + E_{C1}A_1 + E_{D1}A_1)/A_1$
 $E_{W1} = (0.66^*0.00) + (0.92^*0.00) + (1.29^*1.02) + (2.36^*0.00)/1.02 = 1.29 \text{ IN}$
 $V_{100, 6 HR} = (E_{W1}/12)A_1 = (1.29/12)1.02 = 0.1097 \text{ AC-FT} = 4,780 \text{ CF}$
b. PEAK DISCHARGE
 $Q_p = Q_{B1}A_1 + Q_{D1}A_1 + Q_{C1}A_1 + Q_{D1}A_1$
 $Q_p = (1.87^* 0.00) + (2.60^* 0.00) + (3.45^* 1.02) + (5.02^* 0.00) = 3.5 \text{ CFS}$

B. DEVELOPED CONDITION

- 100-YR. 6-HR STORM BASIN A**
a. VOLUME
 $E_{W1} = (E_{A1} + E_{B1}A_1 + E_{C1}A_1 + E_{D1}A_1)/A_1$
 $E_{W1} = (0.66^*0.00) + (0.92^*0.00) + (1.29^*1.30) + (2.36^*2.53)/3.83 = 2.00 \text{ IN}$
 $V_{100, 6 HR} = (E_{W1}/12)A_1 = (2.00/12)3.83 = 0.6379 \text{ AC-FT} = 27,790 \text{ CF}$
b. PEAK DISCHARGE
 $Q_p = Q_{B1}A_1 + Q_{D1}A_1 + Q_{C1}A_1 + Q_{D1}A_1$
 $Q_p = (1.87^* 0.00) + (2.60^* 0.00) + (3.45^* 1.30) + (5.02^* 2.53) = 17.2 \text{ CFS}$

- 100-YR. 6-HR STORM BASIN B**
a. VOLUME
 $E_{W1} = (E_{A1} + E_{B1}A_1 + E_{C1}A_1 + E_{D1}A_1)/A_1$
 $E_{W1} = (0.66^*0.0037) + (0.92^*0.00) + (1.29^*0.80) + (2.36^*0.37)/1.175 = 1.63 \text{ IN}$
 $V_{100, 6 HR} = (E_{W1}/12)A_1 = (1.63/12)1.175 = 0.1593 \text{ AC-FT} = 6,940 \text{ CF}$
b. PEAK DISCHARGE
 $Q_p = Q_{B1}A_1 + Q_{D1}A_1 + Q_{C1}A_1 + Q_{D1}A_1$
 $Q_p = (1.87^* 0.00) + (2.60^* 0.00) + (3.45^* 0.80) + (5.02^* 0.37) = 4.6 \text{ CFS}$

C. COMPARISON

- 100-YR. 6-HR STORM BASIN A**
a. VOLUME 100-YR. 6-HR
 $\Delta V_{100, 6 HR} = 27790 - 17630 = 10,160 \text{ CF}$
c. PEAK DISCHARGE
 $\Delta Q_{100} = 17.2 - 13.0 = 4.2 \text{ CFS}$
32% (INCREASE)
- 100-YR. 6-HR STORM BASIN B**
a. VOLUME 100-YR. 6-HR
 $\Delta V_{100, 6 HR} = 6940 - 5780 = 1,160 \text{ CF}$
7% (INCREASE)
c. PEAK DISCHARGE
 $\Delta Q_{100} = 4.6 - 4.3 = 0.3 \text{ CFS}$
3% (INCREASE)

- FIRST FLUSH CALCULATIONS**
- RETENTION REQUIREMENT BASIN A**
a. VOLUME
 $V_{R1} = ((P - I_{A1})/12)A_{A1}$
 $V_{R1} = ((0.44 - 0.10)/12)(110300.00) = 3,125 \text{ CF}$
- RETENTION REQUIREMENT BASIN B**
a. VOLUME
 $V_{R2} = ((P - I_{B1})/12)A_{B1}$
 $V_{R2} = ((0.44 - 0.10)/12)(16125.14) = 457 \text{ CF}$
- VOLUME PROVIDED OVERALL SITE**
a. VOLUME RETAINED
VOLUME RETAINED IN LANDSCAPING & POND- FIRST FLUSH REQUIREMENT IS MET

LEGEND

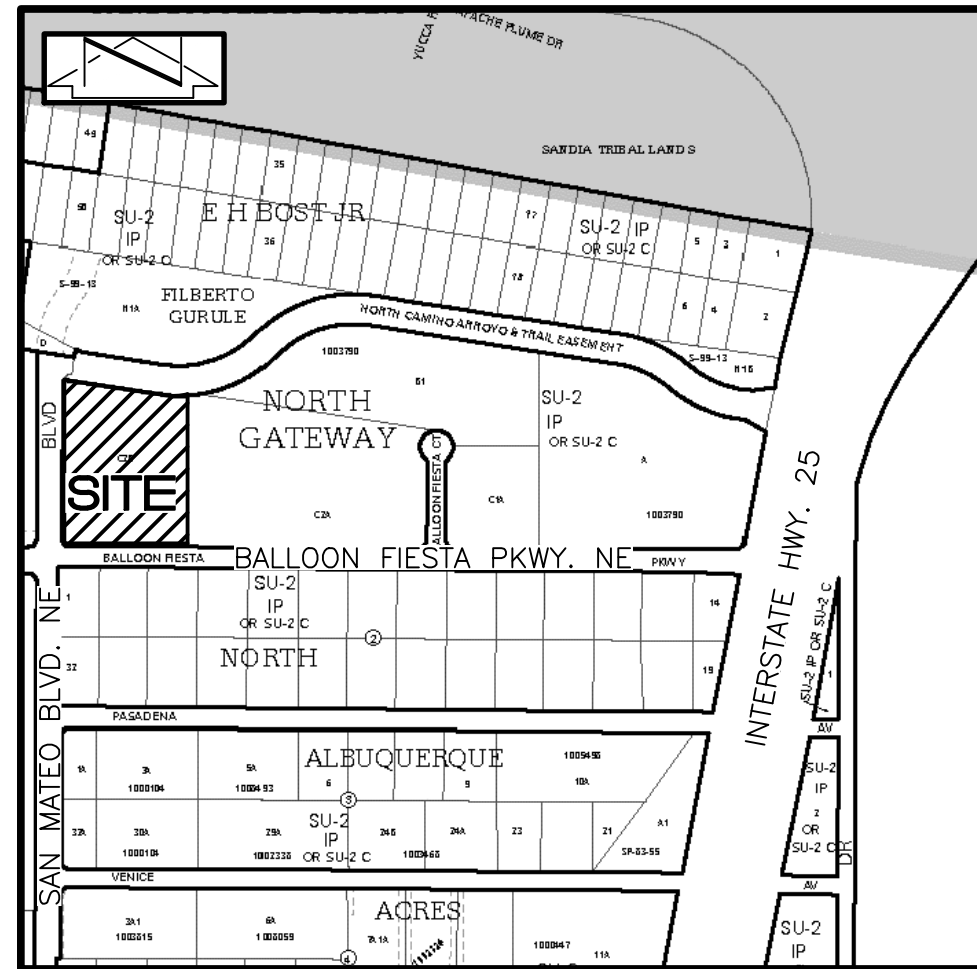
| | |
|--------------|--|
| ASPH | ASPHALT |
| BAR | TRAFFIC BARRICADE |
| BWF | BARBED WIRE FENCE |
| C&G | CURB AND GUTTER |
| C/PM | COMMUNICATION LINE (FIBER OPTIC) BY PAINT MARK |
| CC | CONCRETE CURB |
| COAB | COMMUNICATIONS CABINET |
| CSP | CONCRETE GUARD POST (BOLLARD) |
| CLF/BW | CHAIN LINK FENCE WITH BARBED WIRE ON TOP |
| CMH | COMMUNICATION MANHOLE |
| CND | CONDUIT |
| CO | CLEANOUT |
| CONC | CONCRETE |
| CPB | COMMUNICATION PULLBOX |
| CR | COMMUNICATIONS RISER (PEDESTAL) |
| CSW | CONCRETE SIDEWALK |
| CUT | PAVEMENT CUT-OFF WALL |
| CV | COMMUNICATION VAULT |
| CW | CONCRETE WALL |
| DP | DIRT PILE TO BLOCK TRAFFIC |
| DWS | PAINTED DASHED WHITE TRAFFIC STRIPE |
| E/PM | ELECTRIC LINE BY PAINT MARK |
| EPB | ELECTRIC PULLBOX |
| FI | FIRE HYDRANT |
| FL | FLOWLINE |
| G/PM | GAS LINE BY PAINT MARK |
| INV | GUY WIRE ANCHOR |
| WF | PIPE INVERT |
| LSO | LANDSCAPING DIVIDER |
| MCA | METAL SWING GATE |
| MH | MANHOLE |
| MILL | ASPHALT MILLINGS |
| MLP | METAL LIGHT POLE |
| OH(2) | OVERHEAD COMMUNICATION (# OF LINES) |
| OH(4) | OVERHEAD ELECTRIC (# OF LINES) |
| PVC | POLYVINYL CHLORIDE PIPE |
| RCP | REINFORCED CONCRETE PIPE |
| SAS | SANITARY SEWER |
| SD | STORM DRAIN |
| SDI | STORM DRAIN INLET |
| SDMH | STORM DRAIN MANHOLE |
| SWIS | PAINTED SOLID WHITE TRAFFIC STRIPE |
| TA | TOP OF ASPHALT |
| TC | TOP OF CURB |
| TCAB | TRAFFIC CONTROL CABINET |
| TCB | TRAFFIC CONTROL BOX |
| TCO | TOP OF CONCRETE |
| TE | TRASH ENCLOSURE |
| TOP OF GRATE | TOP OF GRATE |
| TPB | TRAFFIC CONTROL PULLBOX |
| TRN | ELECTRIC TRANSFORMER |
| TS | TRAFFIC SIGN |
| VG | CONCRETE VALLEY GUTTER |
| WCR | CONCRETE WHEELCHAIR RAMP |
| WDF | WOOD FENCE |
| WF | SMOOTH WIRE FENCE |
| WGA | WOOD GATE |
| WL | WATER LINE |
| WFP | WOOD POWER POLE |
| WVB | WATER VALVE BOX |
| 1'-0" | TREE TRUNK DIAMETER |
| | DECIDUOUS TREE |
| | CONIFEROUS TREE |
| | SHRUB |
| | SMALL SHRUB |
| | LANDSCAPING BOULDER |
| | EXISTING STORM DRAIN |
| | PROPOSED STORM DRAIN |
| | EXISTING STORM INLET |
| | PROPOSED STORM INLET |
| | EXISTING STORM DRAIN MANHOLE |
| | PROPOSED STORM DRAIN MANHOLE |
| | EXISTING FIRE HYDRANT |
| | PROPOSED FIRE HYDRANT |
| | EXISTING VALVE |
| | PROPOSED VALVE |
| | FIRE DEPARTMENT CONNECTION |
| | EXISTING FIRE PROTECTION LINE |
| | PROPOSED FIRE PROTECTION LINE |
| | EXISTING POST INDICATOR VALVE |
| | PROPOSED POST INDICATOR VALVE |
| | EXISTING WATER SERVICE |
| | PROPOSED WATER SERVICE |
| | EXISTING WATER LINE |
| | PROPOSED WATER LINE |
| | EXISTING SINGLE CLEANOUT |
| | PROPOSED SINGLE CLEANOUT |
| | EXISTING SANITARY SEWER LINE |
| | PROPOSED SANITARY SEWER LINE |
| | EXISTING SANITARY SEWER MANHOLE |
| | PROPOSED SANITARY SEWER MANHOLE |
| | EXISTING DOUBLE CLEANOUT |
| | PROPOSED DOUBLE CLEANOUT |
| | EXISTING SPOT ELEVATION |
| | PROPOSED SPOT ELEVATION |
| | EXISTING FLOWLINE |
| | PROPOSED FLOWLINE |
| | EXISTING CONTOUR |
| | PROPOSED CONTOUR |
| | EXISTING DIRECTION OF FLOW |
| | PROPOSED DIRECTION OF FLOW |
| | RIGHT OF WAY |
| | EASEMENT |
| | HIGH POINT / DIVIDE |
| | BASIN BOUNDARY |
| | PROPOSED CONCRETE |
| | PROPOSED ASPHALT PAVING |
| | PROPOSED LANDSCAPED AREA |

GENERAL NOTES:

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - 1987, PUBLISHED BY THE NEW MEXICO CHAPTER AMERICAN PUBLIC WORKS ASSOCIATION. (REVISED 12/06)
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 811, FOR DESIGNATION (LINE-SPOTTING) OF EXISTING PUBLIC UTILITIES.
- UTILITY INFORMATION SHOWN HEREON IS BASED UPON ONSITE SURFACE EVIDENCE AND C.O.A. RECORD DRAWINGS PROVIDED BY NEW MEXICO MUTUAL (CITY PROJECT NO. 5202.90 DATED 01-1997). IN ADDITION, UTILITY LINE-SPOTS WERE REQUESTED VIA THE NEW MEXICO ONE CALL SERVICE (TICKET # 2015441568). UTILITY LINES SHOWN ON THIS DRAWING ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE SURVEYOR HAS CONDUCTED ONLY A PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE PROPERTY OWNER, DEVELOPER, OR CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE PROPERTY OWNER, DEVELOPER, OR CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO ENSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACEMENT OF ANY DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE ENGINEER. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED.
- ALL PAVEMENT MARKINGS AND TRAFFIC SIGNS SHALL COMPLY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, LATEST EDITION.
- IF THE REMOVAL OF EXISTING CURB AND GUTTER, SIDEWALK, AND/OR PAVING IS REQUIRED, THE CONTRACTOR SHALL SAWCUT AND/OR REMOVE TO THE NEAREST JOINT. WHEN ABUTTING NEW PAVEMENT EXISTING, THE CONTRACTOR SHALL CONSTRUCT THE EXISTING PAVING TO A STRAIGHT LINE IN ORDER TO REMOVE ANY BROKEN OR CRACKED PAVEMENT. CURB AND GUTTER AND/OR PAVEMENT SHOWN AS EXISTING AND NOT TO BE REMOVED UNDER THIS CONTRACT AND WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- A DISPOSAL SITE FOR ALL EXCESS EXCAVATION MATERIAL (CONTAMINATED OR OTHERWISE), ASPHALTIC PAVING, CONCRETE PAVING, ETC. SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE REGULATIONS. ALL COSTS INCURRED IN OBTAINING A DISPOSAL SITE AND IN HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT SHALL BE MADE.
- A BORROW SITE FOR IMPORT MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE REGULATIONS. ALL COSTS INCURRED IN OBTAINING A BORROW SITE AND IN HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT SHALL BE MADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFELY OBTAINING THE REQUIRED COMPACTION. THE CONTRACTOR SHALL SELECT AND USE METHODS WHICH SHALL NOT BE INJURIOUS OR DAMAGING TO THE EXISTING FACILITIES AND STRUCTURES WHICH SURROUND THE WORK AREAS.
- THE CONTRACTOR SHALL CONFINE HIS WORK WITHIN THE CONSTRUCTION LIMITS IN ORDER TO PRESERVE THE EXISTING IMPROVEMENTS AND SO AS NOT TO INTERFERE WITH THE OPERATIONS OF THE EXISTING FACILITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING APPROPRIATE MEANS AND METHODS TO EXCAVATE AND TRENCH AND/OR INSTALL PIPE SO AS TO NOT EXCEED RIGHT-OF-WAY OR EASEMENT LIMITS, AND SO AS NOT TO INTERFERE WITH OTHER UTILITIES OR IMPROVEMENTS. THIS SHAL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, SUPPORTING AND REPLACING, IF DAMAGED, ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
- ALL DIMENSIONS AND RADII OF CURB, CURB RETURNS, AND WALLS ARE SHOWN TO THE FACE OF CURB AND/OR WALL.
- THE CONTRACTOR SHALL NOTIFY THE OWNER 48 HOURS PRIOR TO STRIPING SO THAT LAYOUT CAN BE VERIFIED.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERPRETATIONS IT MAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.
- WHEN APPLICABLE, CONTRACTOR SHALL SECURE, ON BEHALF OF THE OWNER AND OPERATORS, "POSSOL DISTURBANCE PERMIT" FROM THE CITY AND/OR FILE A NOTICE OF INTENT (N.O.I.) WITH THE EPA PRIOR TO BEGINNING CONSTRUCTION.
- ALL FILL SHALL BE CLEAN, FREE FROM VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIALS, AND SHALL NOT BE CONTAMINATED WITH HYDROCARBONS OR OTHER CHEMICAL CONTAMINANTS.
- ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% ASTM D-1557 UNLESS A GREATER COMPACTION REQUIREMENT IS OTHERWISE SPECIFIED.
- CAUTION: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR. ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P-EXCAVATIONS.

RMKM ARCHITECTURE, PC

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VIC

KEYED NOTES

1. PUBLIC UTILITIES BASED UPON RECORD DRAWINGS PREPARED BY DMC CONSULTING ENGINEERS, CITY PROJECT NO. 5202.90, DATED 01-1997.
2. CONSTRUCT TYPE "C" INLET PER STD DWG. 2205, SHEET CG-501
3. CONSTRUCT BEEHIVE INLET PER TYPICAL SECTION; SHEET CG-501
4. INSTALL 8" HDPE STORM DRAIN
5. INSTALL 12" HDPE STORM DRAIN
6. INSTALL 18" HDPE STORM DRAIN
7. CONSTRUCT TYPE "D" STORM INLET, PER STD DWG. 2306, SHEET CG-501
8. REMOVE AND DISPOSE EXISTING 24" ROP PLUG, CONSTRUCT NEW TYPE "C" STORM DRAIN MANHOLE PER STD DWG. 2101, SHEET CG-501
9. CONNECT TO BUILDING ROOF DRAIN. SEE PLUMBING PLANS FOR CONTINUATION
10. INSTALL COMBINATION BEND/WYE WITH 8"x12" REDUCER AND CLEANOUT, PER TYPICAL SECTION; SHEET CU-501
11. LANDSCAPE PLANTER BOTTOM SET 12" BELOW ADJACENT PAVEMENT SECTION, PER TYPICAL LANDSCAPE SECTION; SHEET CP-501
12. CONSTRUCT 8" THICK CONCRETE CHECK DAM, SET HEIGHT 2" BELOW ADJACENT PAVEMENT SECTION, PER TYPICAL PARKING PLANTER SECTION, SHEET CP-501

SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES

PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY
NOTICE TO CONTRACTOR
(SPECIAL ORDER 19 ~ "SO-19")

1. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL, DIAL "811" [OR (505) 260-1990] FOR THE LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

HDPE PIPE CONSTRUCTION NOTES:

1. HDPE PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M 294 TYPE S FOR HDPE STORM DRAIN SYSTEMS.
2. JOINTS SHALL BE WATER TIGHT IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D3212. THE SPIGOTS SHALL HAVE O-RING GASKETS MEETING THE REQUIREMENTS OF ASTM F 477.
3. THE CONTRACTOR'S PROJECT SUPERINTENDENT AND FOREMAN OF THE PIPE-LAYING CREW SHALL SUBMIT TO THE OWNER A CERTIFICATE INDICATING COMPLETION OF AN ON-LINE TRAINING PROGRAM OFFERED BY ADS (ADS-PIPE.COM) OR OTHER MANUFACTURER AS APPROVED BY THE OWNER.
4. INSTALLATION SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS.
5. ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 701 OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.
6. THE PIPE SHALL BE BEDDED IN A FOUNDATION OF COMPACTED GRANULAR MATERIAL THAT IS FREE OF ORGANIC MATTER, CLAY LUMPS, AND OTHER DELETERIOUS MATTER. THIS MATERIAL SHALL EXTEND A MINIMUM OF 6 INCHES BELOW THE OUTERMOST CORRUGATIONS AND BE USED FOR BACKFILL UP TO A MINIMUM OF 1 FOOT ABOVE THE TOP OF PIPE. UNTIL A MINIMUM COVER OF 1 FOOT IS ATTAINED, ONLY HAND OPERATED TAMPING EQUIPMENT MAY BE USED IN THE TRENCH PRISM OVER THE PIPE.
7. CONCRETE STRUCTURE CONNECTIONS FOR HDPE PIPE WILL REQUIRE THE USE OF A WATER STOP THAT MEETS THE PHYSICAL PROPERTIES OF ASTM C923. INSTALLATION SHALL BE PER MANUFACTURER'S SPECIFICATIONS.

CONSTRUCTION & SO #19 NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 811, FOR DESIGNATION (LINE-SPOTTING) OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERPRETATIONS IF IT MAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.
5. THE INFORMATION SHOWN HEREON IS BASED UPON RECORD SURFACE EVIDENCE AND C.O.A. RECORD DRAWINGS PROVIDED BY NEW MEXICO MUTUAL (CITY PROJECT NO. 5202.90 DATED 01-1997). IN ADDITION, UTILITY LINE-SPOTS WERE REQUESTED VIA THE NEW MEXICO ONE CALL SERVICE (TICKET # 2015441588). UTILITY LINES SHOWN ON THIS DRAWING ARE SHOWN IN AN APPROXIMATE LOCATION ONLY AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE, AND MAY NOT BE COMPLETE. THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE PROPERTY OWNER, DEVELOPER, OR CONTRACTOR SHALL INQUIRE OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE PROPERTY OWNER, DEVELOPER, OR CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL CONSULT WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
6. THE DESIGN OF PLANTERS AND LANDSCAPED AREAS IS NOT PART OF THIS PLAN. ALL PLANTERS AND LANDSCAPED AREAS ADJACENT TO THE BUILDING(S) SHALL BE PROVIDED WITH POSITIVE DRAINAGE TO AVOID ANY PONDING ADJACENT TO THE STRUCTURE. GRADES SHOWN HEREON ARE FINISHED GRADES AFTER INSTALLATION OF LANDSCAPING AND GRAVEL OR MULCH. REFER TO LANDSCAPING PLANS FOR DETAILS TO SOIL SUBGRADE IN LANDSCAPED AREAS. FOR CONSTRUCTION DETAILS, REFER TO LANDSCAPING PLAN.
7. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
8. BACKFILL COMPACTION SHALL BE ACCORDING TO LOCAL ACCESS STREET USE.
9. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

| APPROVALS | NAME | DATE |
|-------------------------|------|------|
| HYDROLOGY | | |
| SIDWALK INSPECTOR | | |
| STORM DRAIN MAINTENANCE | | |

EROSION & SEDIMENT CONTROL MEASURES:

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. SPOILS FROM THE PROJECT SHALL NOT BE DEPOSITED OR STORED IN THE STREET OR ROADWAY.
4. SPOILS SHALL BE STAGED ON THE UPSTREAM SIDE OF TRENCHES WHEN TRENCHING IS REQUIRED.
5. THE CONTRACTOR SHALL CLEAN AND REMOVE ALL FUGITIVE DUST, SOIL AND DEBRIS RESULTING FROM THIS PROJECT FROM THE STREET AT THE END OF EACH DAY.
6. CONTRACTOR SHALL LEAVE THE AREA IMMEDIATELY BEHIND THE CURB DEPRESSED TO CONTAIN NUISANCE FLOWS AND SEDIMENT.
7. CONCRETE TRUCKS SHALL BE SENT BACK TO THE PLANT FOR WASHING. THE WASHING OF CONCRETE TRUCKS SHALL NOT BE PERMITTED WITHIN THE PUBLIC RIGHT-OF-WAY.
8. CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" FROM THE CITY AND/OR FILE A NOTICE OF INTENT (N.O.I.) WITH THE EPA PRIOR TO BEGINNING CONSTRUCTION.
9. UNLESS FINAL STABILIZATION IS OTHERWISE PROVIDED FOR, ANY AREAS OF EXCESS DISTURBANCE (TRAFFIC ACCESS, STORAGE YARD, EXCAVATED MATERIAL, ETC.) SHALL BE RE-SEEDING ACCORDING TO CITY OF ALBUQUERQUE SPECIFICATION 1012 "MISCELLANEOUS SEEDING". THIS WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
10. PROTECT EXISTING STORM DRAIN FACILITIES FROM SEDIMENT AS REQUIRED.
11. UTILITY TRENCH EXCAVATION SPOILS SHALL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

2015.046.1

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| NO. | ISSUE | DATE |
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PROJECT
New Mexico Mutual

NM Mutual Home Office

201 Balloun Fiesta Parkway

SHEET TITLE
GRADING PLAN

DESIGN PHASE
100% CONSTRUCTION DOCUMENTS

SHEET NUMBER
CG-101

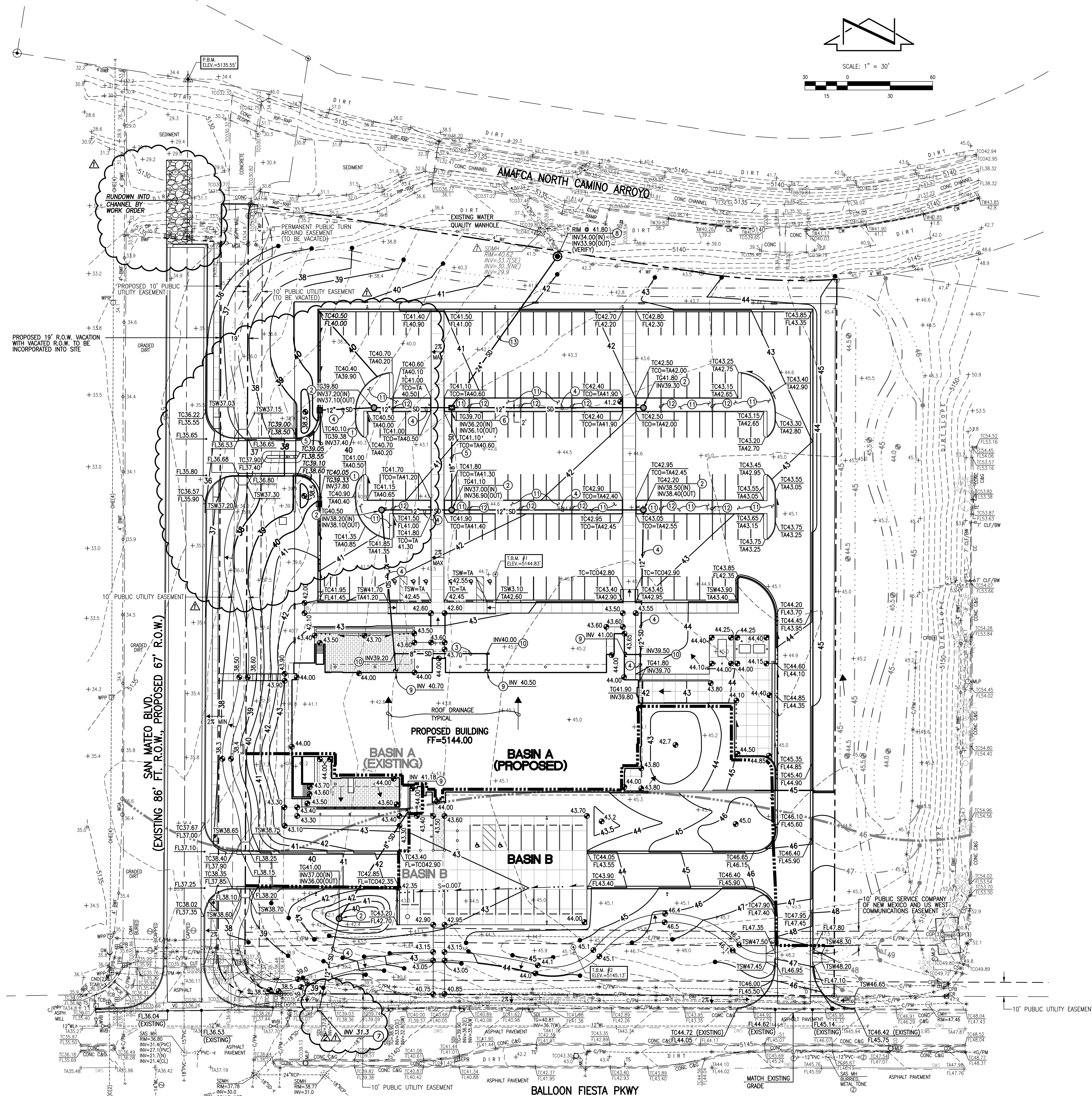
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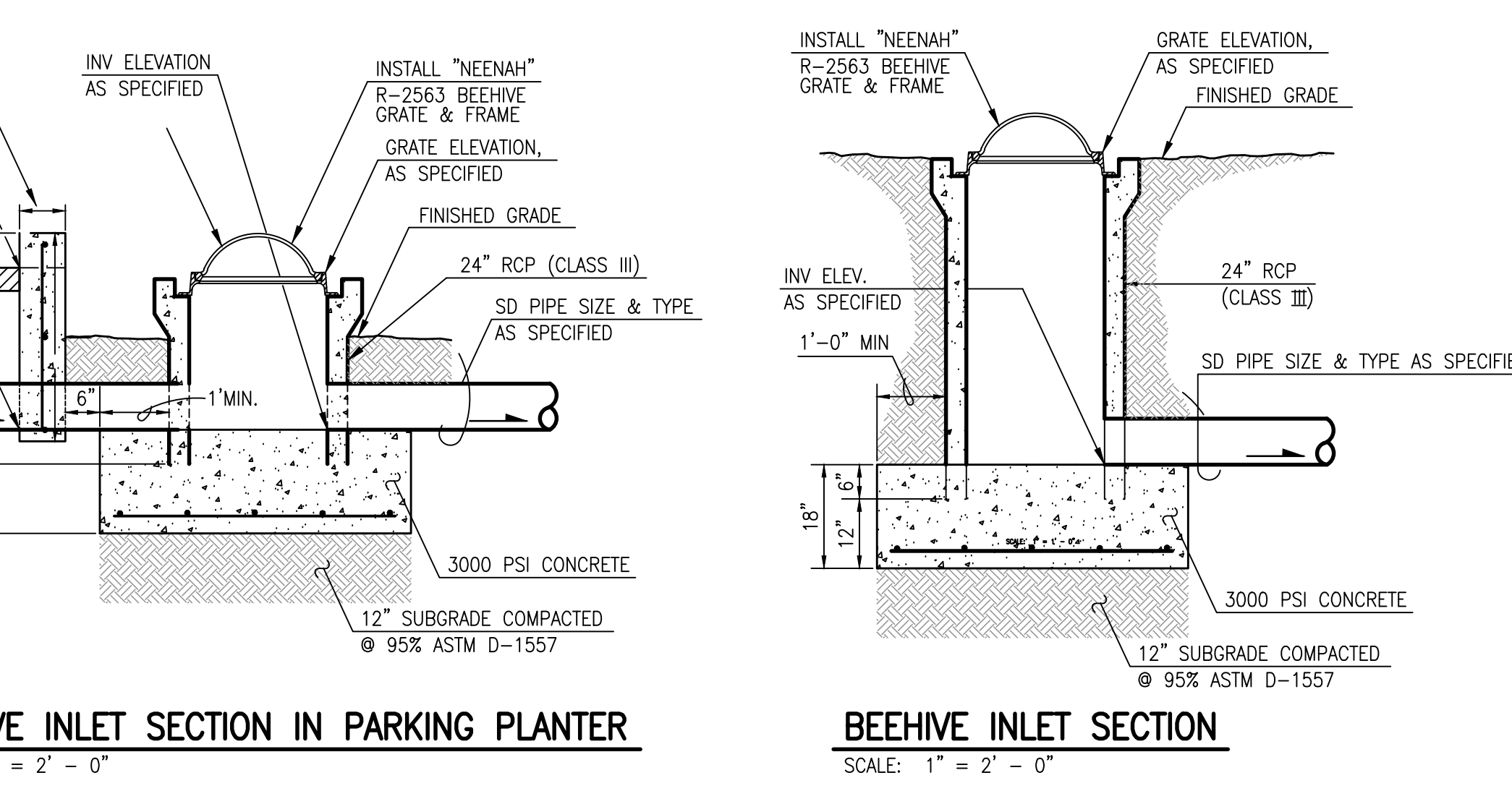
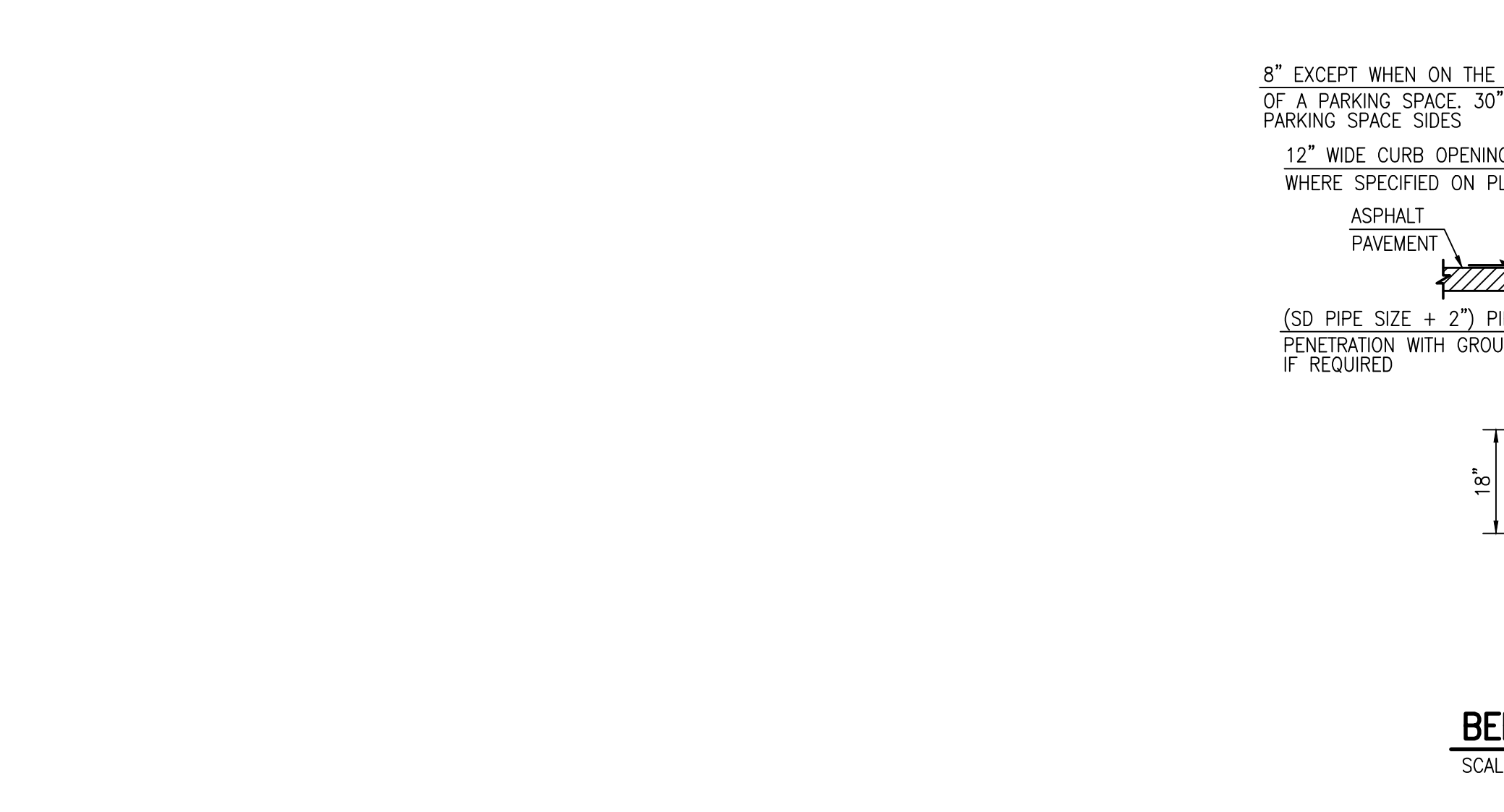
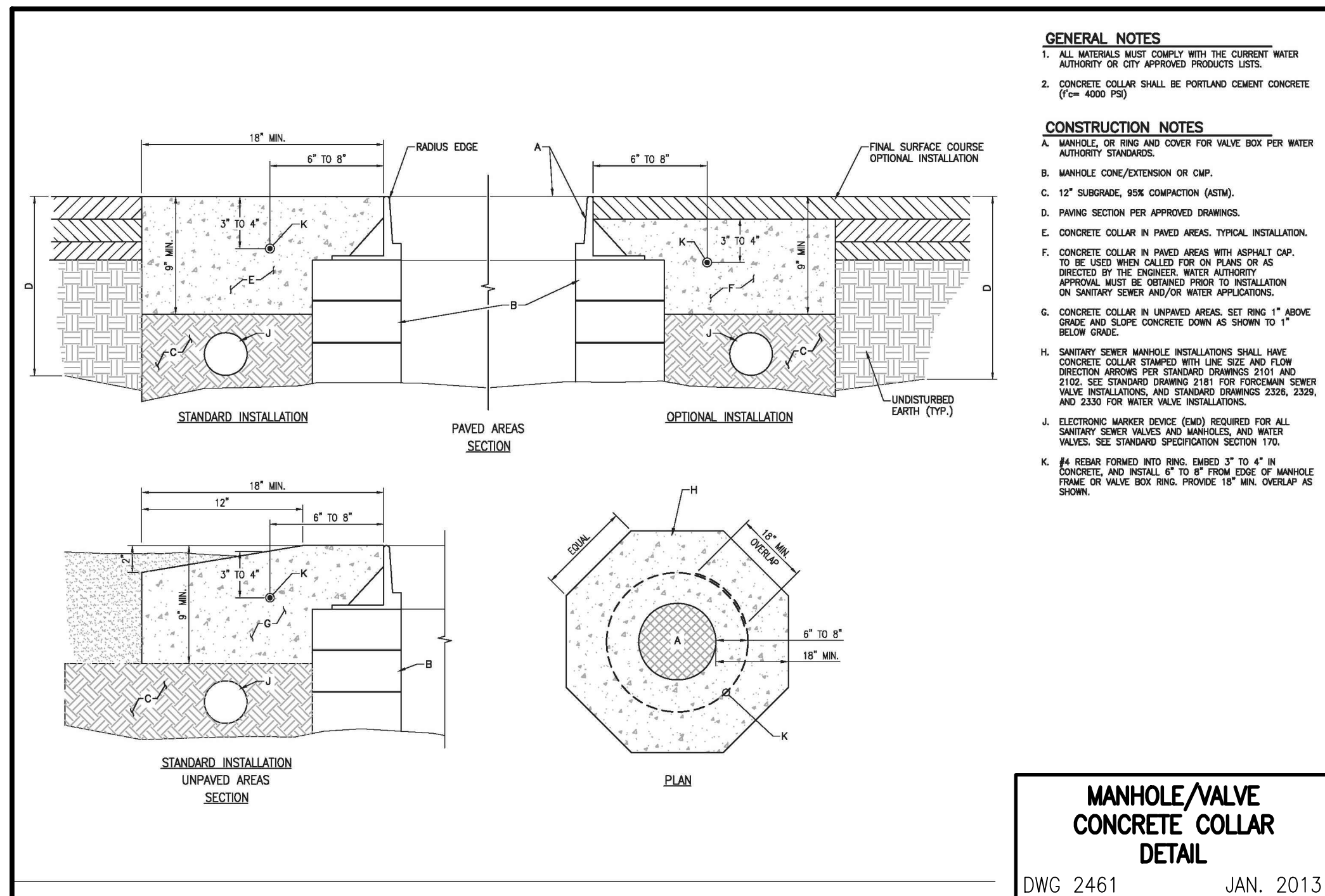
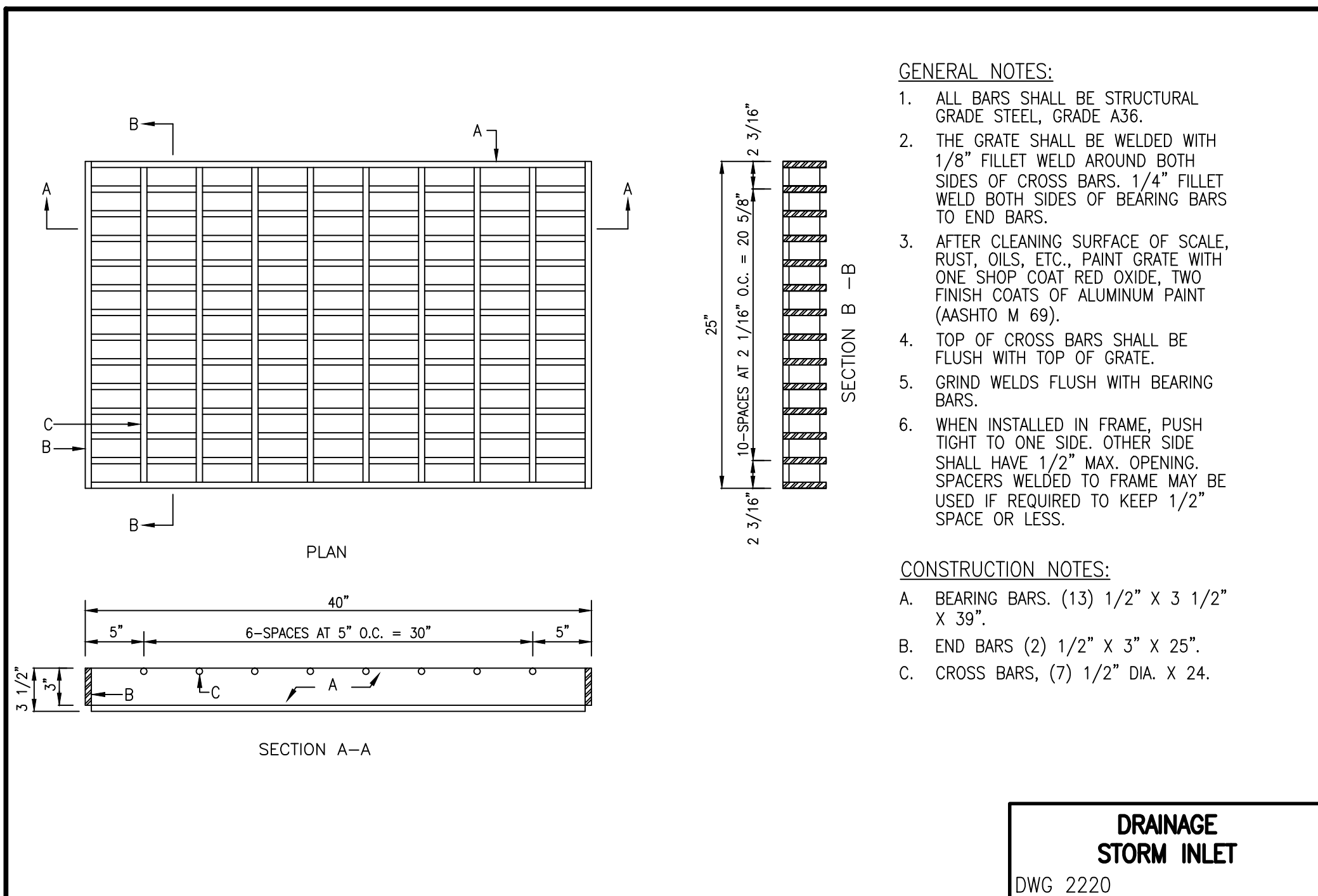
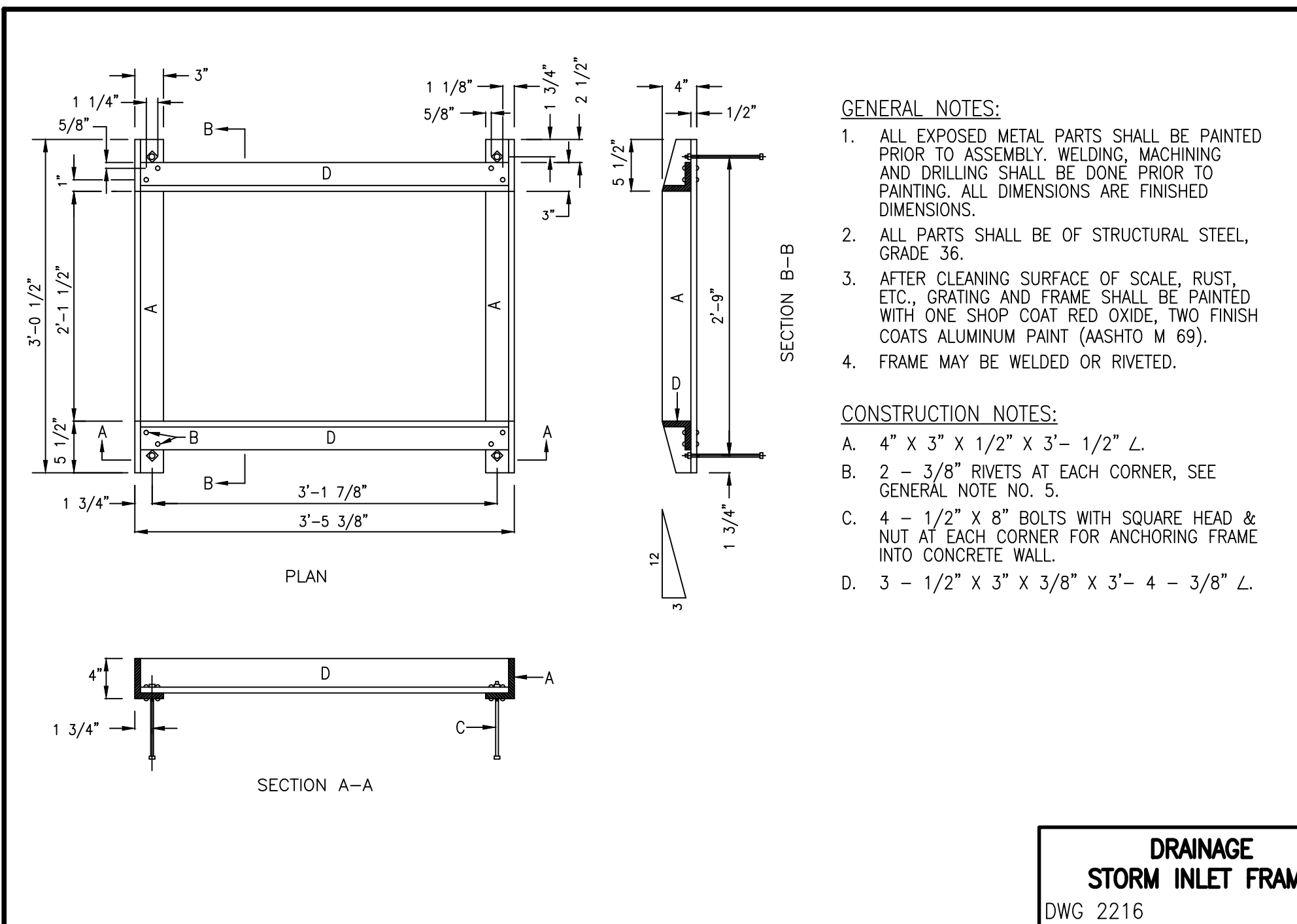
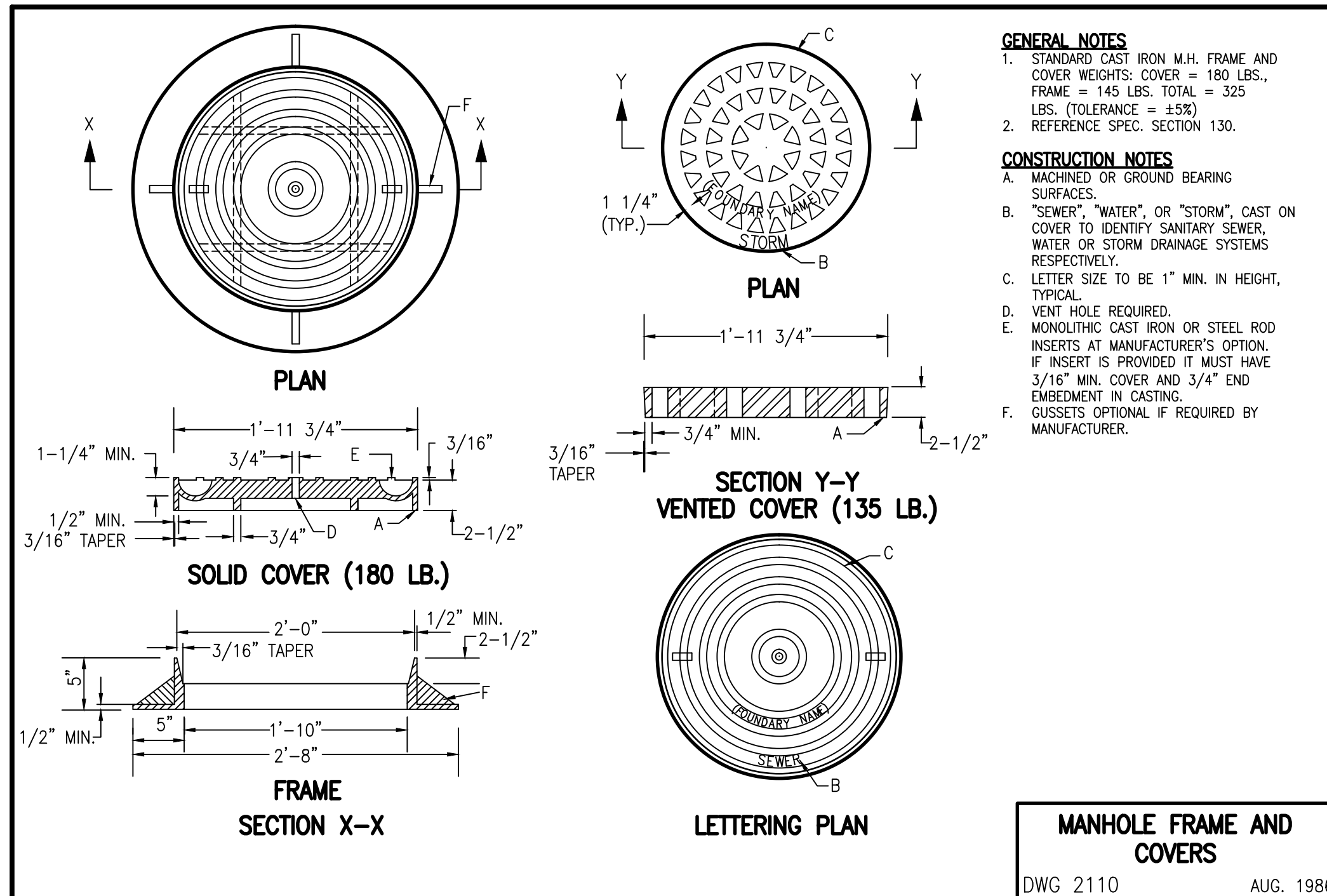
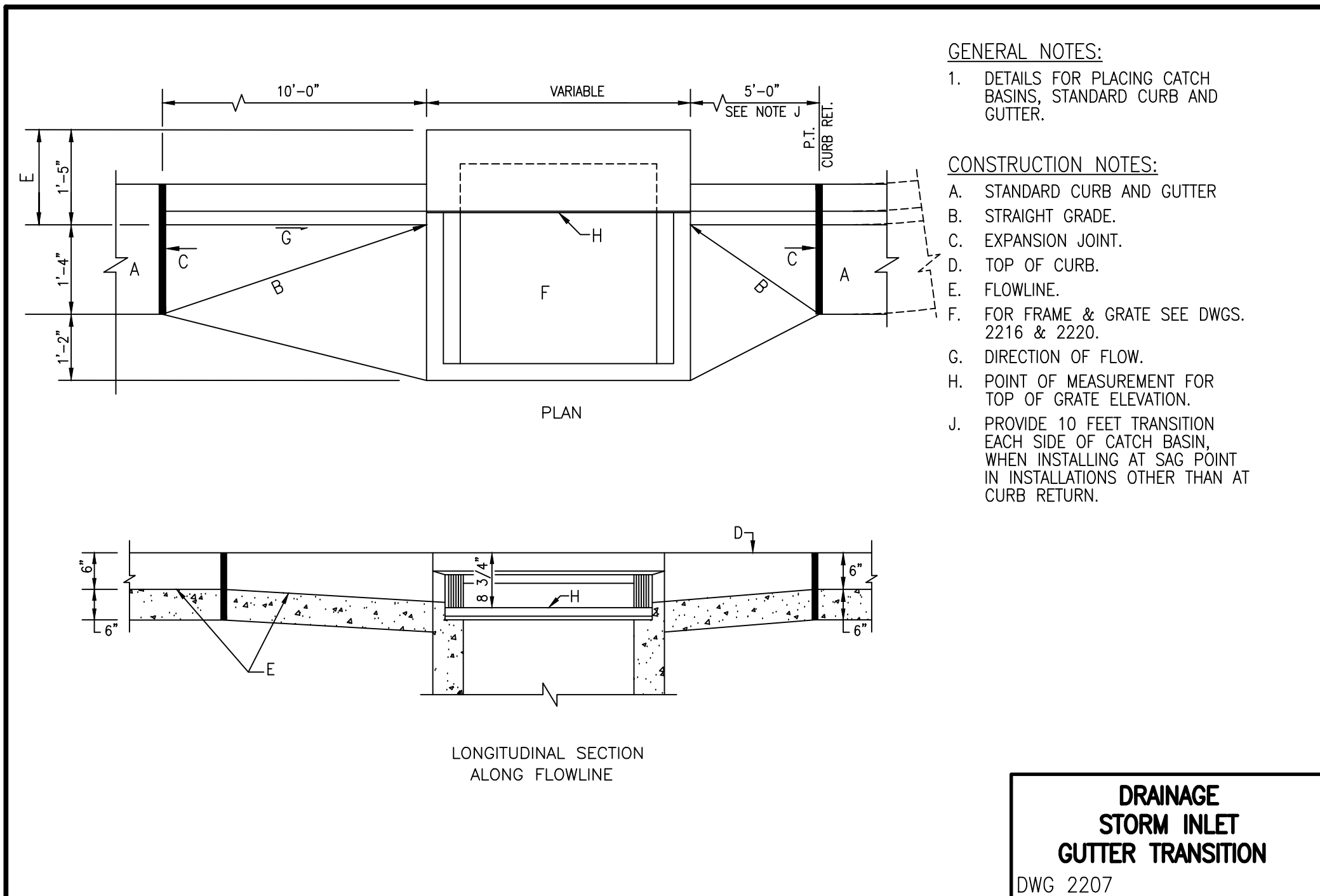
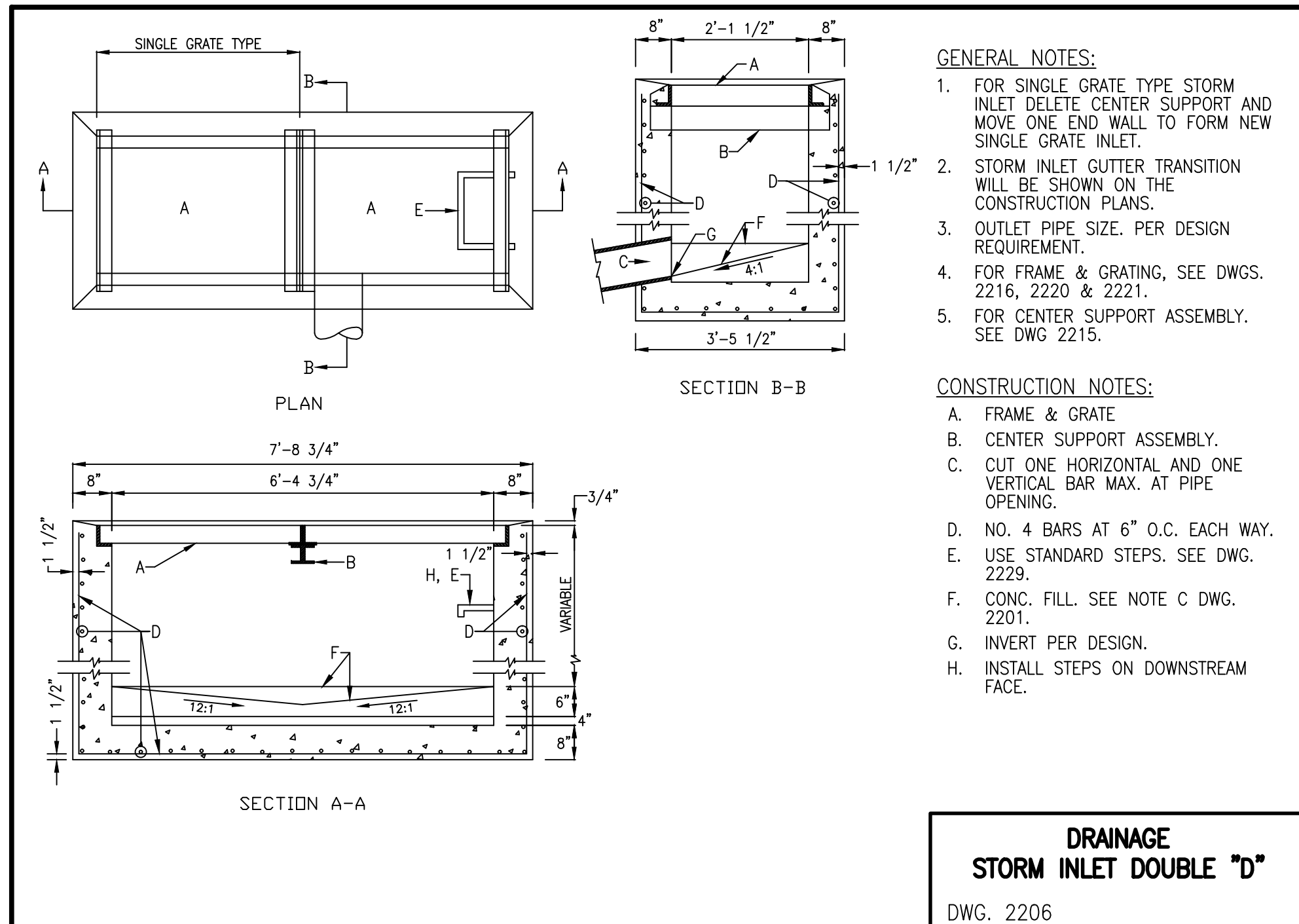
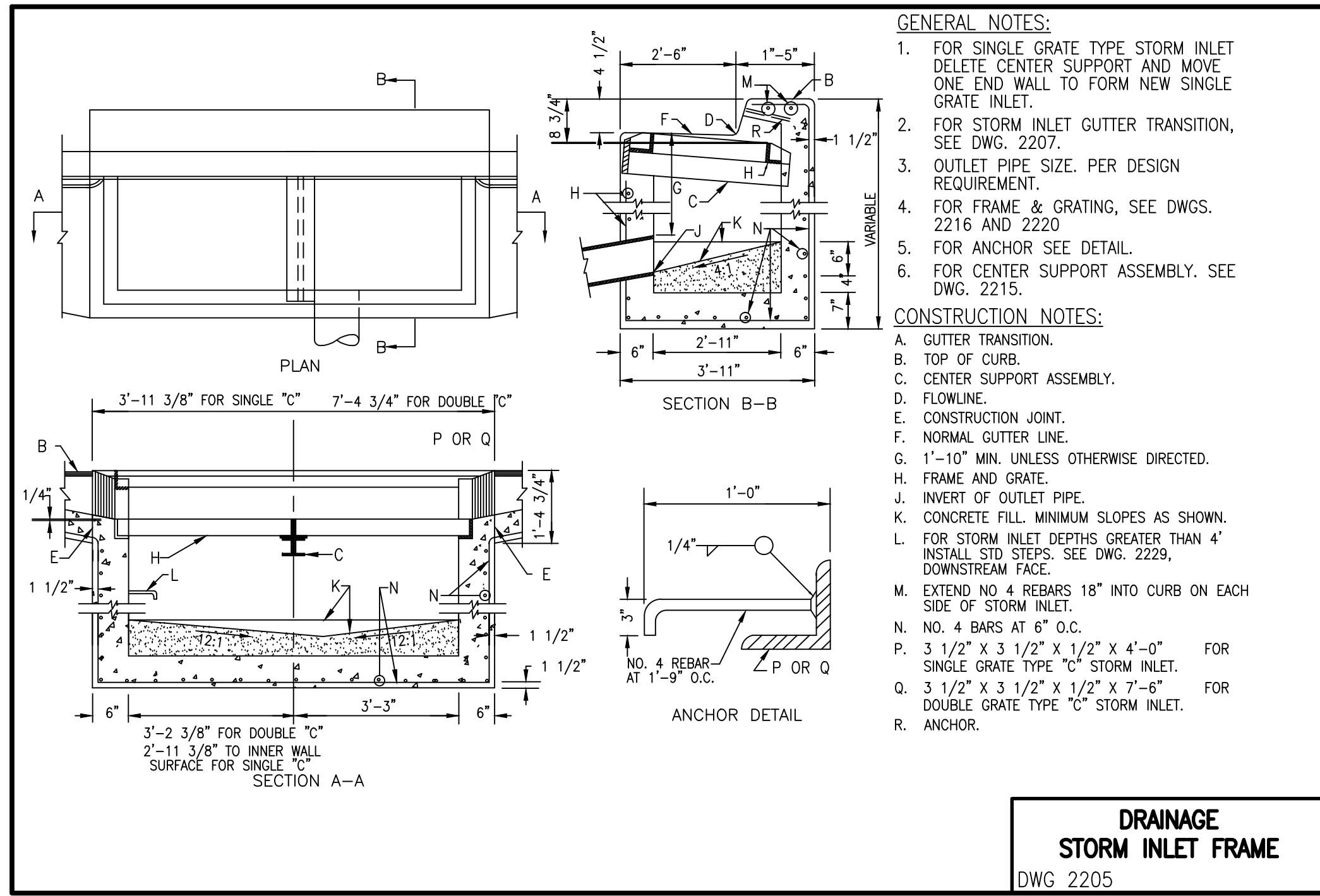
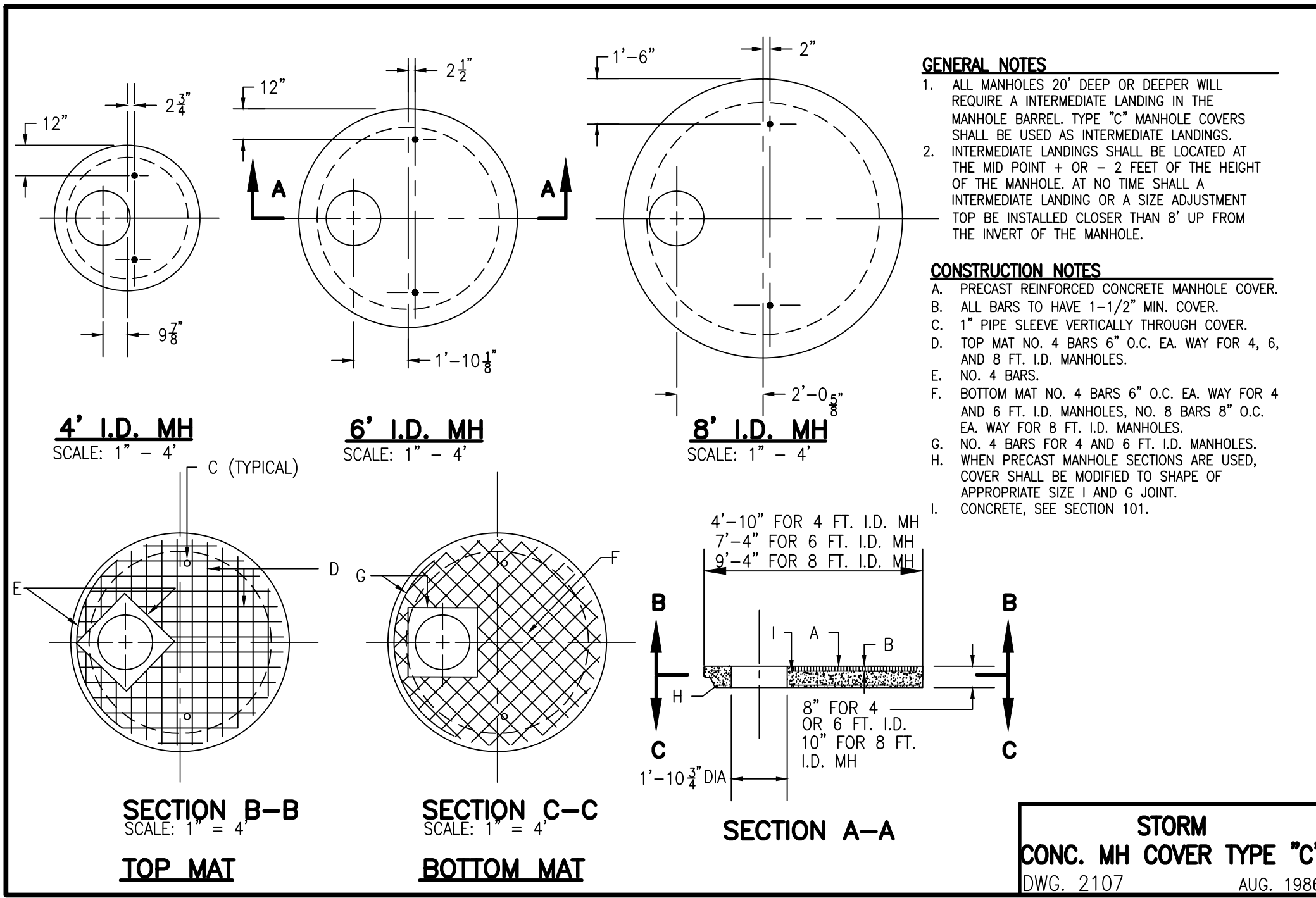
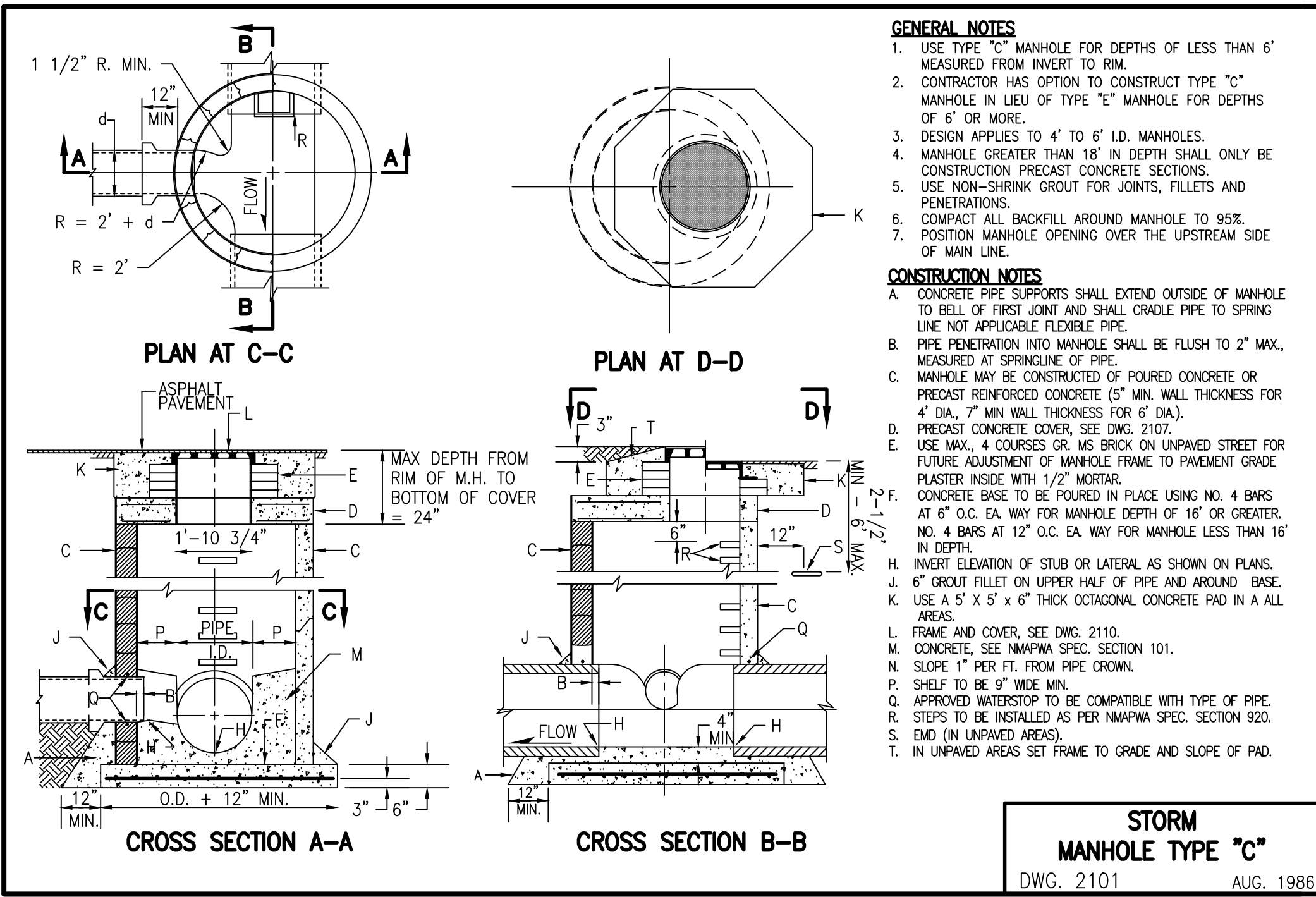
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| 1 | 9/02/16 | R.J.C. | ADDENDUM #01 |
| 2 | 9/8/16 | R.J.C. | ADDENDUM #2 |



SURVEY NOTE:
THIS IS NOT A BOUNDARY SURVEY; DATA IS SHOWN FOR ORIENTATION ONLY. THE BOUNDARY INFORMATION DEPICTED BY THIS PLAN IS BASED UPON THE PLAT OF RECORD AND A COMMITMENT FOR TITLE INSURANCE, PREPARED BY STEWART TITLE GUARANTY COMPANY, M.P.S. 14271, DATED 01/16/2007. THE TOPOGRAPHIC INFORMATION DEPICTED HEREON IS BASED UPON THE TOPOGRAPHIC AND UTILITY SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, N.M.P. 11184, DATED 12/01/2015 (2015.046.2). SEE SHEET VF-101 FOR SURVEY.



2015.046.1

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| 1 | ISSUED FOR PERMIT | 08-17-2016 |
| 2 | ISSUED FOR CONSTRUCTION | 08-17-2016 |
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| 4 | ISSUED FOR CONSTRUCTION | 08-17-2016 |
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