

PROJECT: YOUNG HYUNDAI PARKING LOT IMPROVEMENTS

1530 EAST INTERSTATE HIGHWAY NO. 30 ROCKWALL, TEXAS

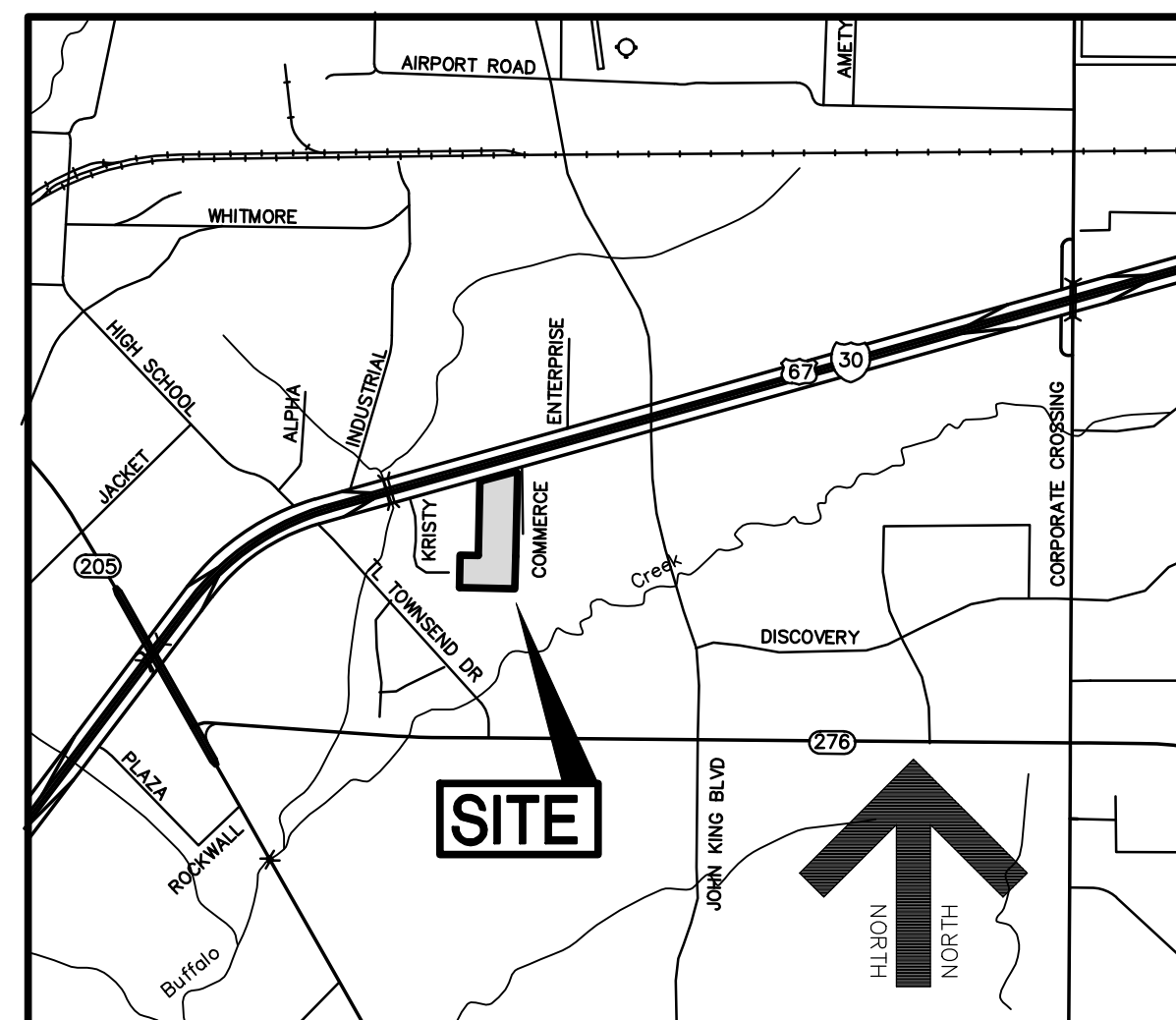
MAY - 2016

OWNER:
GORDON ROCKWALL INVESTMENTS, LLC
1551 IH 30 EAST #100
ROCKWALL, TEXAS 75087
PHONE (972) 772-9089 / CELL (214) 507-9831
ATTN: ZACK AMICK
EMAIL: za@tmgconst.com

| | |
|--|----------------------------------|
| JDJR | ENGINEERS AND CONSULTANTS, INC. |
| | TSBPE REGISTRATION NUMBER F-8527 |
| ENGINEERS • SURVEYORS • LAND PLANNERS | |
| 2500 Texas Drive Suite 100 Irving, Texas 75062 | |
| Tel 972-252-5357 (JDJR) Fax 972-252-8958 | |

'AS-BUILT'
THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO JDJR ENGINEERS & CONSULTANTS, INC. JDJR ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.

THE POSTED SPEED LIMIT FOR I.H. NO. 30 SERVICE ROAD IS 40 MPH



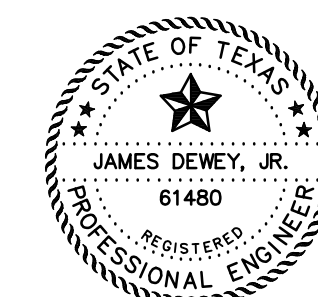
LOCATION MAP
NOT TO SCALE

SHEET INDEX

- COVERSHEET
 - C1 SITE DIMENSIONAL CONTROL PLAN
 - C2A GRADING, PAVING AND STORM DRAIN PLAN NORTH
 - C2B GRADING & STORM DRAIN PLAN SOUTH (DETENTION POND)
 - C3A DRAINAGE AREA MAP (ULTIMATE DEVELOPMENT) AND DETENTION CALCULATIONS
 - C3B DRAINAGE AREA MAP (INTERIM DEVELOPMENT) AND DETENTION CALCULATIONS
 - C4A LINE SD-1 & OUTFALL DITCH PROFILE
 - C4B LINE SD-2 & OUTFALL DITCH PROFILE
 - C5 EROSION CONTROL PLAN
 - C6A SITE AND PAVING DETAILS
 - C6B STORM DRAIN DETAILS
- TXDOT DETAILS
- CONCRETE CURB AND CURB AND GUTTER SHEET CCGG-(12)
 - TRAFFIC CONTROL PLAN STANDARD SHEET TCP(1-5)-12
 - BARRICADE AND CONSTRUCTION STANDARDS BC(1)-07 THRU BC(12)-07
 - TEMPORARY EROSION SEDIMENT AND WATER EC(1)-09 POLLUTION CONTROL MEASURES

THE STANDARD SHEETS, SPECIFICALLY IDENTIFIED IN THIS INDEX OF SHEETS, HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

James Dewey, Jr.
DATE: MAY 18, 2016
JAMES DEWEY, JR. P.E.
REGISTERED PROFESSIONAL ENGINEER NO. 61480



BY SEALING AND SIGNING THESE PERMIT PLANS AS A PROFESSIONAL CIVIL ENGINEER LICENCED TO PRACTICE IN THE STATE OF TEXAS, I CERTIFY THAT THE PROPOSED DRIVEWAY OR PUBLIC STREET CONNECTION(S) TO THE STATE ROADWAY MEETS OR EXCEEDS THE MINIMUM STOPPING SIGHT DISTANCE REQUIRED FOR A DESIGN SPEED OF 60 MILES PER HOUR, BASED ON THE MOST RECENT TXDOT DESIGN MANUAL REQUIREMENTS.

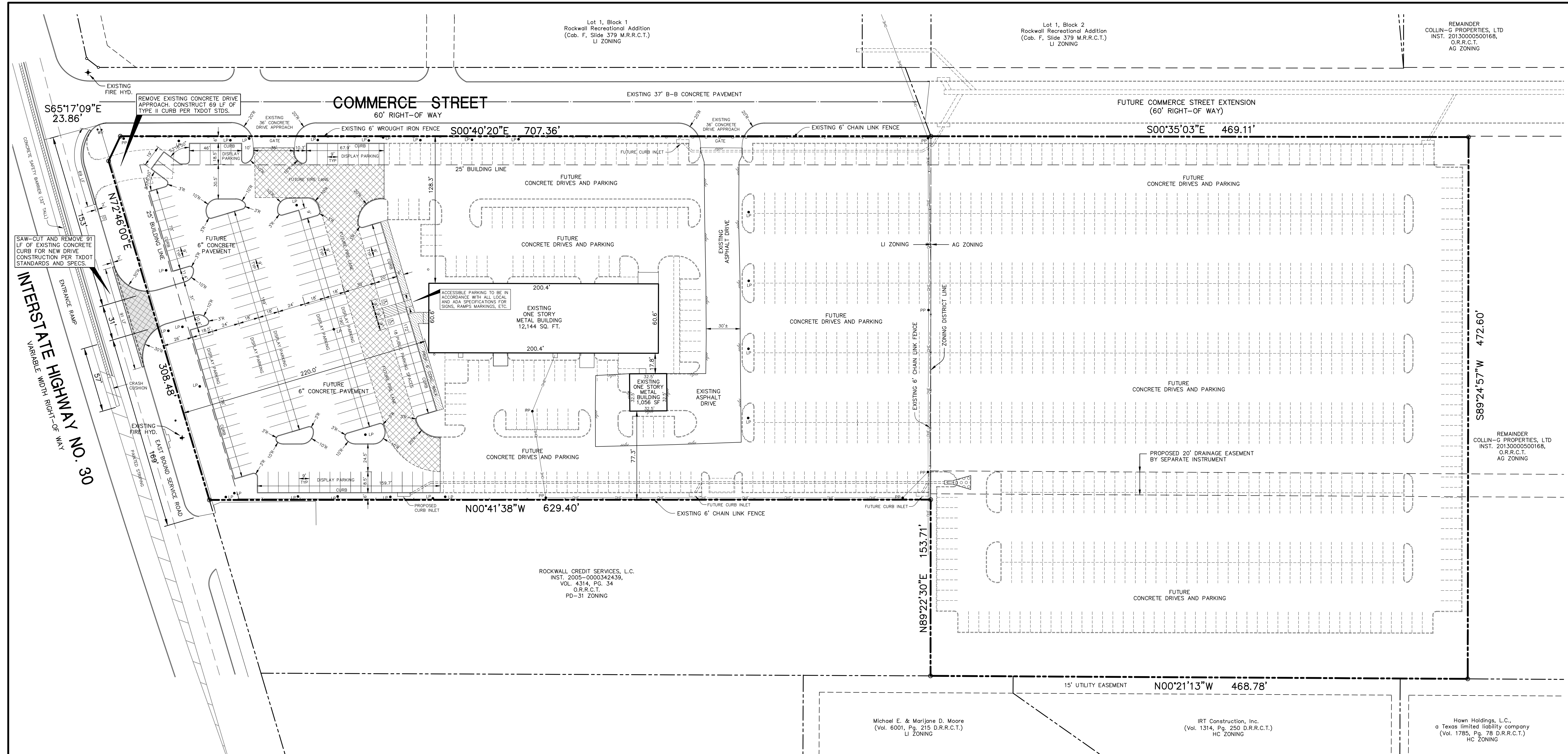
NOTES:

1. ALL CONSTRUCTION WITHIN THE STATE RIGHT OF WAY WILL REQUIRE COMPLIANCE TO TXDOT STANDARD SPECIFICATIONS, STANDARD PLANS, AND TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, NOVEMBER 1, 2014, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS SHALL GOVERN ON THIS PROJECT. FOR ALL WORK WITHIN THE STATE RIGHT OF WAY.

Lot 1, Block 1
Rockwall Recreational Addition
(Cob. F. Slide 379 M.R.R.C.T.)
LI ZONING

Lot 1, Block 2
Rockwall Recreational Addition
(Cob. F. Slide 379 M.R.R.C.T.)
LI ZONING

REMAINDER
COLLIN-C PROPERTIES, LTD
INST. 2013000500168,
O.R.R.C.T.
AG ZONING



INTERSTATE HIGHWAY NO. 30
VARIABLE WIDTH RIGHT-OF-WAY

COMMERCE STREET
60' RIGHT-OF-WAY

ROCKWALL CREDIT SERVICES, L.C.
INST. 2005-000342439,
VOL. 4314, PG. 34
O.R.R.C.T.
PD-31 ZONING

Michael E. & Marijane D. Moore
(Vol. 6001, Pg. 215 D.R.R.C.T.)
LI ZONING

IRT Construction, Inc.
(Vol. 1314, Pg. 250 D.R.R.C.T.)
HC ZONING

Hawn Holdings, L.C.,
a Texas limited liability company
(Vol. 1785, Pg. 78 D.R.R.C.T.)
HC ZONING

GENERAL NOTES:

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF ROCKWALL STANDARD SPECIFICATIONS, GENERAL DESIGN STANDARDS AND NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 3RD EDITION, SPECIFICATIONS (AS AMENDED BY CITY OF ROCKWALL).
- A PAY ITEM FOR TRENCH SAFETY SYSTEMS THAT MEET REGULATIONS FOR EXCAVATING, TRENCHING, AND SHORING CONTAINED IN SUB PART P, PART 1926 OF THE CODE OF FEDERAL REGULATIONS SHALL BE INCLUDED IN THE OWNER/CONTRACTOR CONTRACT AGREEMENT IN ACCORDANCE WITH H. B. 665.
- ALL DIMENSIONS SHOWN ARE TO THE BACK OF CURB UNLESS OTHERWISE SHOWN.
- SEE SHEET C2A & C2B FOR GRADING, PAVING & STORM DRAIN PLANS OF THE SITE.
- SEE SHEET C5 FOR EROSION CONTROL PLAN OF THE SITE.
- SEE SHEET C6A & C6B FOR SITE DETAILS.

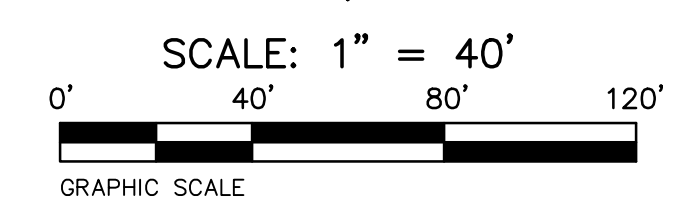
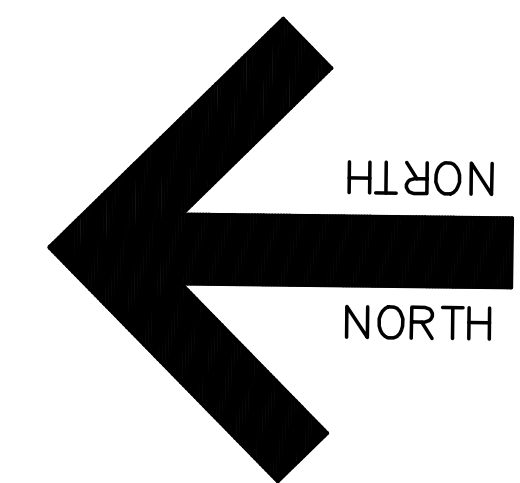
ACCESSIBILITY NOTES:

- ALL ACCESSIBLE PARKING AREAS, ROUTES, RAMPS, ETC. SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS).
- ALL SIDEWALK RAMPS AND/OR CURB RAMPS SHOWN SHALL HAVE A MAXIMUM VERTICAL RISE OF 6" WITH A MAXIMUM RUNNING SLOPE OF 1:12 (8.33%) AND BE CONSTRUCTED IN ACCORDANCE WITH TAS SECTIONS 4.7 AND 4.8.
- ALL ACCESSIBLE ROUTES (EXCEPT FOR THE SIDEWALK AND CURB RAMPS) SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:20 (5%) AND A MAXIMUM CROSS SLOPE OF 1:50 (2%).
- ALL ACCESSIBLE PARKING SPACES AND ISLES SHALL HAVE A MAXIMUM SLOPE IN ANY DIRECTION OF 1:50 (2%). REFER TO ARCHITECTURAL PLANS FOR DETAILS OF MARKINGS, SIGNS, ETC.

NOTE: SEE TXDOT DRIVE APPROACH DETAILS ON SHEET C6A

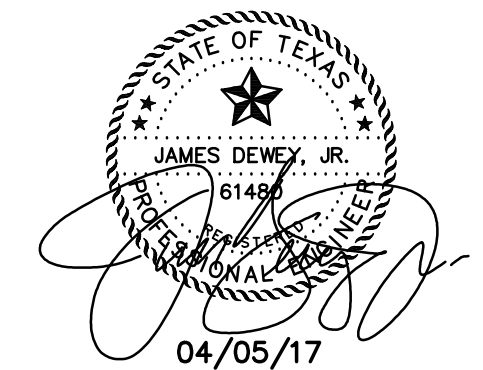
LEGEND

- PROPOSED CONCRETE PAVEMENT (6" 3000 PSI, MINIMUM 5.5 SACK, ON COMPACTED SUBGRADE)
- PROPOSED CONCRETE PAVEMENT (6" 3,600 PSI, MINIMUM 6.5 SACK, ON COMPACTED SUBGRADE)
- PROPOSED CONCRETE WALK (4" 3000 PSI, MINIMUM 5.5 SACK, ON COMPACTED SUBGRADE)



'AS-BUILT'
THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO JDJR ENGINEERS & CONSULTANTS, INC. JDJR ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.

| REVISIONS: | |
|------------|-------------------|
| 5/19/15 | PER CITY REVIEW |
| 8/07/15 | PER CITY REVIEW |
| 2/26/16 | RELOCATE DRIVEWAY |
| 3/17/16 | PER CITY REVIEW |
| 5/18/16 | PER CITY REVIEW |
| 4/05/17 | AS-BUILT |



SHEET TITLE:
SITE DIMENSIONAL CONTROL PLAN
YOUNG HYUNDAI
1530 SOUTH INTERSTATE HIGHWAY NO. 30
ROCKWALL, TEXAS

PREPARED BY:
JDJR ENGINEERS & CONSULTANTS, INC.
TSBPE REGISTRATION NUMBER F-8527

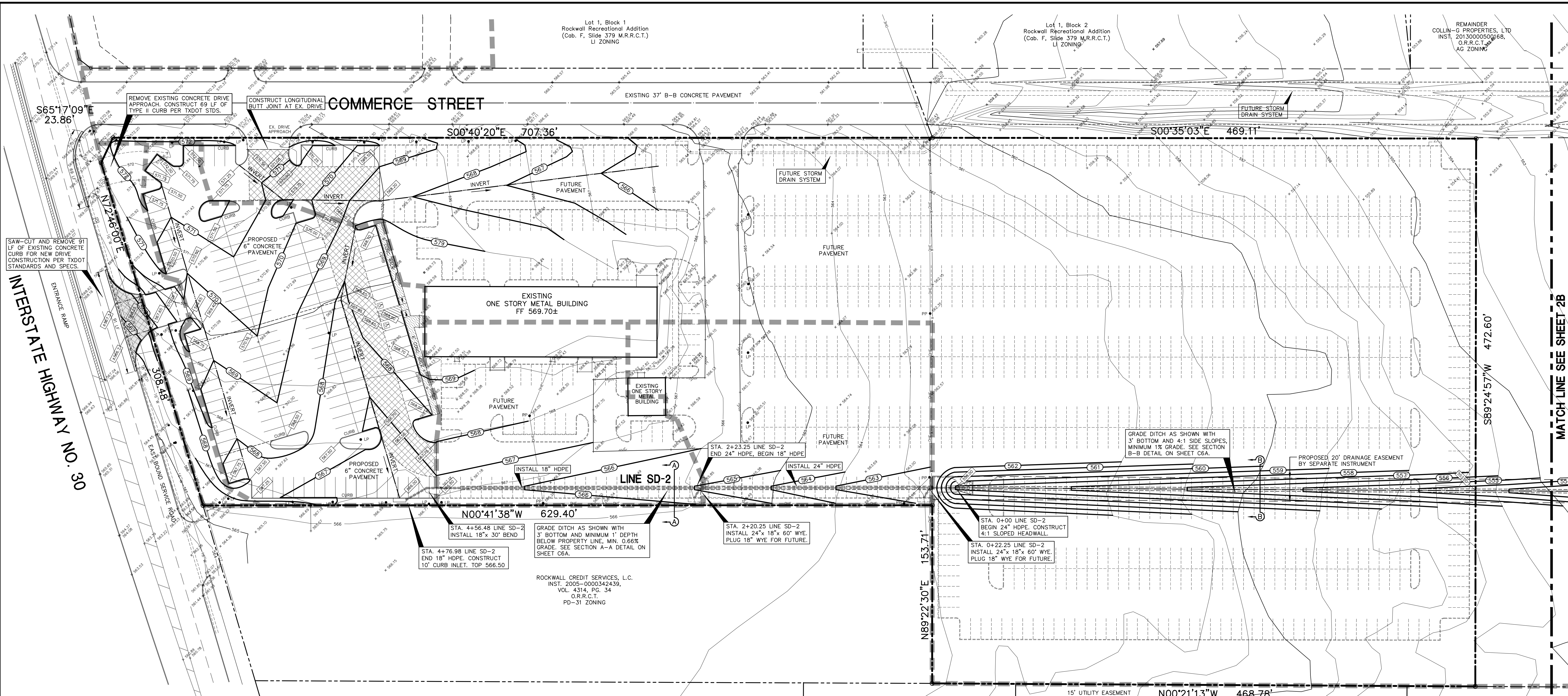
ENGINEERS • SURVEYORS • LAND PLANNERS
2500 Texas Drive Suite 100 Irving, Texas 75062
Tel 972-252-6357 Fax 972-252-8958

| | | |
|---------------------|------------------|-----------------------|
| DATE: MAR. 25, 2015 | DRAWN BY: SAS | SHEET NO. |
| SCALE: 1" = 40' | CHECKED BY: JDJR | C1 OF 6 |

Lot 1, Block 1
Rockwall Recreational Addition
(Cob. F, Slide 379 M.R.R.C.T.)
LI ZONING

Lot 1, Block 2
Rockwall Recreational Addition
(Cob. F, Slide 379 M.R.R.C.T.)
LI ZONING

REMAINDER
COLLIN-G PROPERTIES, LTD
INST. 2013000500168,
O.R.R.C.T.
AG ZONING



GENERAL NOTES:

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS, GENERAL DESIGN STANDARDS AND NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 3RD EDITION, SPECIFICATIONS (AS AMENDED BY CITY OF ROCKWALL).
- ALL SPOT ELEVATIONS ADJACENT TO CURBS ARE GUTTER ELEVATIONS UNLESS OTHERWISE SHOWN.
- ALL SITE PAVING TO BE DONE IN ACCORDANCE TO CITY SPECIFICATIONS AND THE RECOMMENDATIONS AS OUTLINED IN THE SOILS REPORT FOR THIS SITE.
- ALL SITE GRADING AND SUBGRADE PREPARATION SHALL BE DONE IN ACCORDANCE TO CITY SPECIFICATIONS AND THE RECOMMENDATIONS AS OUTLINED IN THE SOILS REPORT FOR THIS SITE.
- BARRICADING & TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS IN THE TEXAS MANUAL OF UNIFORM CONTROL DEVICES AND THE CITY OF CARROLLTON REQUIREMENTS.
- ALL FILL TO BE COMPACTED TO 95% STANDARD DENSITY USING A SHEEPS FOOT ROLLER.

EXISTING UTILITIES NOTES:

- THE LOCATION OF ALL UNDERGROUND FACILITIES AS INDICATED ON THE PLANS ARE TAKEN FROM PUBLIC RECORDS. JDJR ENGINEERS & CONSULTANTS ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF SUCH RECORDS AND DOES NOT GUARANTEE THAT ALL UNDERGROUND UTILITIES ARE SHOWN OR ARE LOCATED PRECISELY AS INDICATED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.
- THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND FACILITIES FOUND.
- NOTIFY JDJR ENGINEERS & CONSULTANTS IF ANY UNDERGROUND UTILITIES ARE NOT IN THE LOCATIONS INDICATED ON THESE PLANS (HORIZONTALLY AND VERTICALLY) OR CONFLICT WITH ANY PROPOSED IMPROVEMENTS ASSOCIATED WITH THESE PLANS.

NOTE:
DETENTION SYSTEM AND STORM DRAIN TO BE COMPLETE AND FULLY FUNCTIONING PRIOR TO ANY PAVING/CONCRETE INSTALLATION. ALL SIDES AND BOTTOM OF THE POND TO HAVE ANCHORED AND SEEDED EROSION MATTING OR SOD INSTALLED PRIOR TO ANY CONCRETE INSTALLATION.

NOTE: SEE SHEET C4A & C4B FOR STORM DRAIN AND DITCH PROFILES.

NOTE: SEE TXDOT DRIVE APPROACH DETAILS ON SHEET C6A

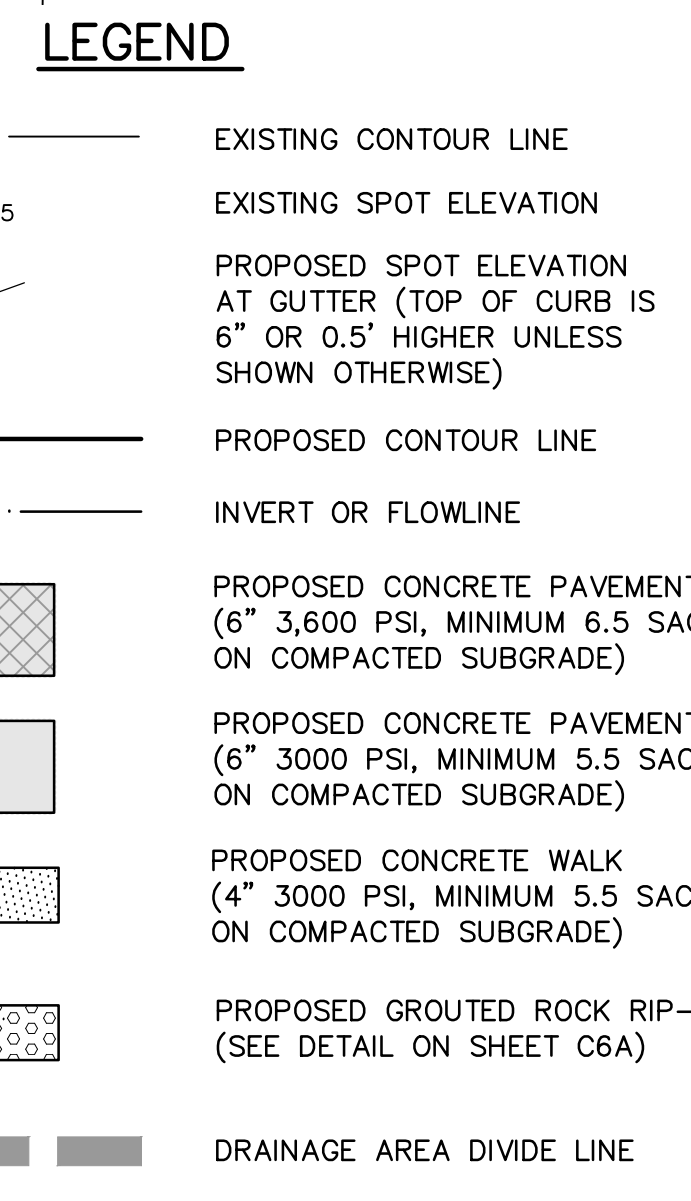
ACCESSIBILITY NOTES:

- ALL ACCESSIBLE PARKING AREAS, ROUTES, RAMPS, ETC. SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS).
- ALL SIDEWALK RAMPS AND/OR CURB RAMPS SHOWN SHALL HAVE A MAXIMUM VERTICAL RISE OF 6" WITH A MAXIMUM RUNNING SLOPE OF 1:12 (8.33%) AND BE CONSTRUCTED IN ACCORDANCE WITH TAS SECTIONS 4.7 AND 4.8.
- ALL ACCESSIBLE ROUTES (EXCEPT FOR THE SIDEWALK AND CURB RAMPS) SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:20 (5%) AND A MAXIMUM CROSS SLOPE OF 1:50 (2%).
- ALL ACCESSIBLE PARKING SPACES AND ISLES SHALL HAVE A MAXIMUM SLOPE IN ANY DIRECTION OF 1:50 (2%). REFER TO ARCHITECTURAL PLANS FOR DETAILS OF MARKINGS, SIGNS, ETC.
- ALL FACILITIES CONSTRUCTED ON STATE RIGHT-OF-WAY SHALL CONFORM TO STATE AND FEDERAL ACCESSIBILITY STANDARDS. APPROVAL AND FINAL INSPECTION BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION MAY BE NECESSARY. THE GRANTEE IS RESPONSIBLE FOR COORDINATION AND/OR PERMITTING AND WITH THESE ENTITIES. TXDOT MAY REQUIRE EVIDENCE OF COORDINATION.

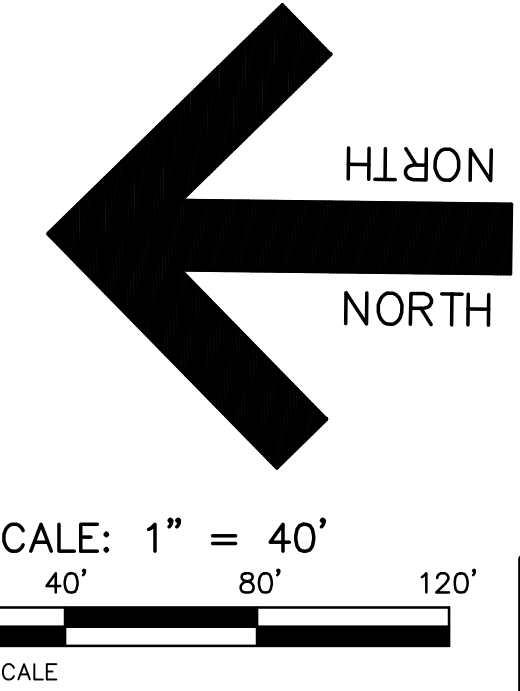
Michael E. & Marjane D. Moore
(Vol. 6001, Pg. 215 D.R.R.C.T.)
LI ZONING

IRT Construction, Inc.
(Vol. 1314, Pg. 250 D.R.R.C.T.)
HC ZONING

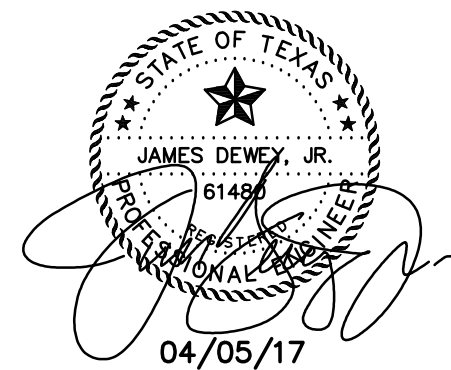
Hawn Holdings, L.C.,
a Texas limited liability company
(Vol. 1785, Pg. 78 D.R.R.C.T.)
HC ZONING



'AS-BUILT'
THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO JDJR ENGINEERS & CONSULTANTS, INC. JDJR ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.



| REVISIONS: | |
|------------|-------------------|
| 5/19/15 | PER CITY REVIEW |
| 8/07/15 | PER CITY REVIEW |
| 2/26/16 | RELOCATE DRIVEWAY |
| 3/17/16 | PER CITY REVIEW |
| 5/18/16 | PER CITY REVIEW |
| 4/05/17 | AS-BUILT |



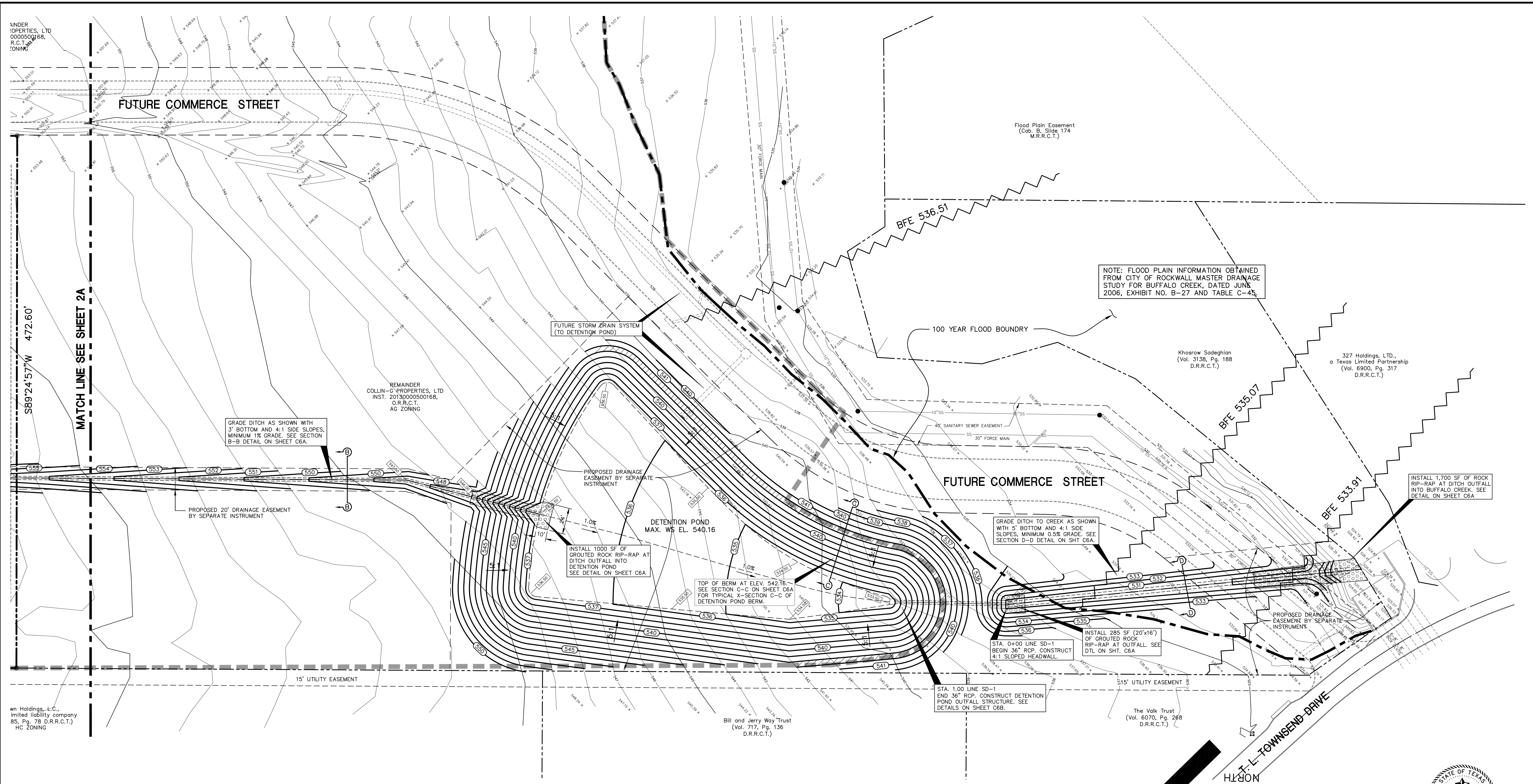
SHEET TITLE:
**GRADING, PAVING & STORMDRAIN PLAN NORTH
YOUNG HYUNDAI**
1530 SOUTH INTERSTATE HIGHWAY NO. 30
ROCKWALL, TEXAS

PREPARED BY:
JDJR ENGINEERS & CONSULTANTS, INC.
TSBPE REGISTRATION NUMBER F-8627

ENGINEERS • SURVEYORS • LAND PLANNERS
2500 Texas Drive Suite 100 Irving, Texas 75062
Tel 972-252-6357 Fax 972-252-8958

| | | |
|---------------------|------------------|-----------------|
| DATE: MAR. 25, 2015 | DRAWN BY: SAS | SHEET NO. |
| SCALE: 1" = 40' | CHECKED BY: JDJR | C2A OF 6 |

C:\jdr\p\2014\1115-4-14-CIVIL-AS-BUILT-PHASE1.dwg, 4/5/2017 3:43:59 PM, DWG TO PDF.PC3



NOTE: FLOOD PLAIN INFORMATION OBTAINED FROM CITY OF ROCKWALL MASTER DRAINAGE STUDY FOR BUFFALO CREEK, DATED JUNE 2006, EXHIBIT NO. B-27 AND TABLE C-45.

GRADE DITCH AS SHOWN WITH 3' BOTTOM AND 4:1 SIDE SLOPES, MINIMUM 1% GRADE. SEE SECTION B-B DETAIL ON SHEET C6A.

INSTALL 1000 SF OF GROUDED ROCK RIP-RAP AT DITCH OUTFALL INTO DETENTION POND. SEE DETAIL ON SHEET C6A.

TOP OF BERM AT ELEV. 542.76. SEE SECTION C-C ON SHEET C6A FOR TYPICAL X-SECTION C-C OF DETENTION POND BERM.

GRADE DITCH TO CREEK AS SHOWN WITH 5' BOTTOM AND 4:1 SIDE SLOPES, MINIMUM 0.5% GRADE. SEE SECTION D-D DETAIL ON SHT. C6A.

INSTALL 285 SF (20'x16') OF GROUDED ROCK RIP-RAP AT OUTFALL. SEE DTL ON SHT. C6A.

INSTALL 1,700 SF OF ROCK RIP-RAP AT DITCH OUTFALL INTO BUFFALO CREEK. SEE DETAIL ON SHEET C6A.

GENERAL NOTES:

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS, GENERAL DESIGN STANDARDS AND NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 3RD EDITION, SPECIFICATIONS (AS AMENDED BY CITY OF ROCKWALL).
- ALL SPOT ELEVATIONS ADJACENT TO CURBS ARE GUTTER ELEVATIONS UNLESS OTHERWISE SHOWN.
- ALL SITE PAVING TO BE DONE IN ACCORDANCE TO CITY SPECIFICATIONS AND THE RECOMMENDATIONS AS OUTLINED IN THE SOILS REPORT FOR THIS SITE.
- ALL SITE GRADING AND SUBGRADE PREPARATION SHALL BE DONE IN ACCORDANCE TO CITY SPECIFICATIONS AND THE RECOMMENDATIONS AS OUTLINED IN THE SOILS REPORT FOR THIS SITE.
- BARRICADING & TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS IN THE TEXAS MANUAL OF UNIFORM CONTROL DEVICES AND THE CITY OF CARROLLTON REQUIREMENTS.

EXISTING UTILITIES NOTES:

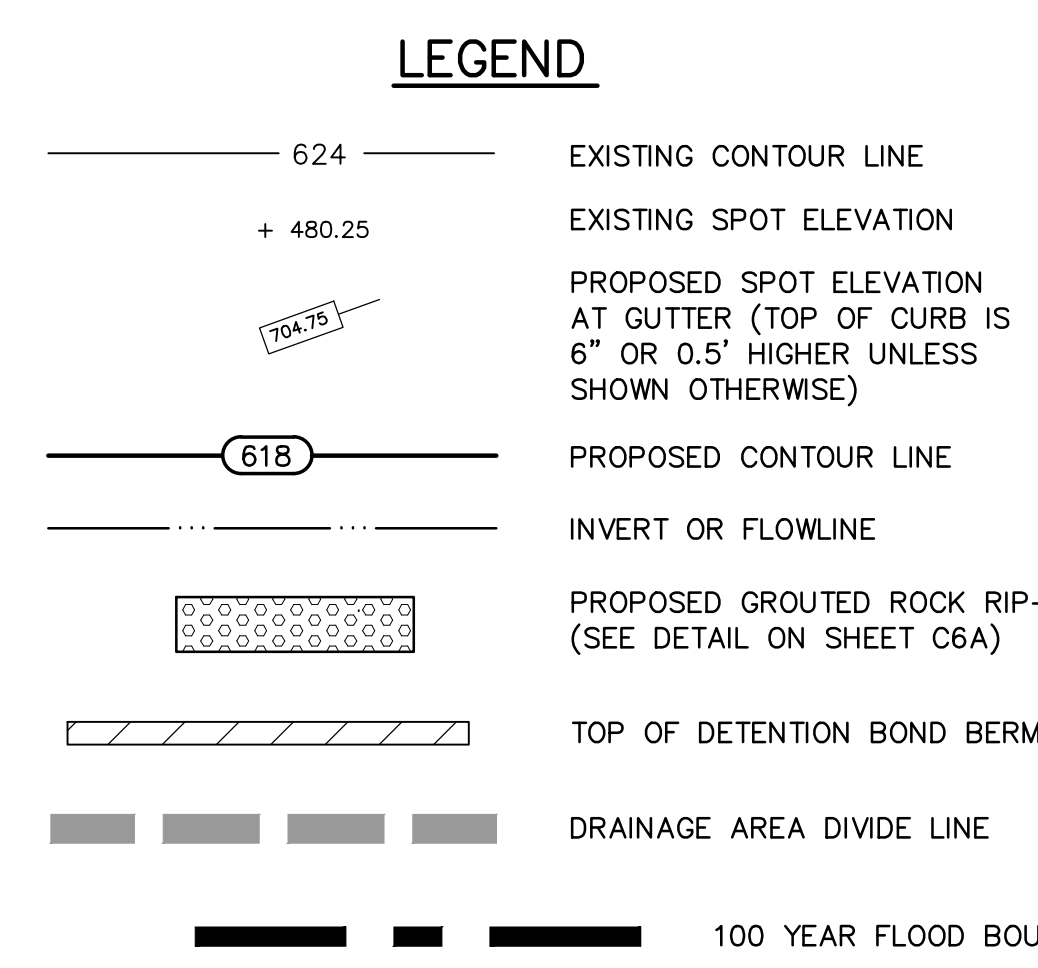
- THE LOCATION OF ALL UNDERGROUND FACILITIES AS INDICATED ON THE PLANS ARE TAKEN FROM PUBLIC RECORDS. JDJR ENGINEERS & CONSULTANTS ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF SUCH RECORDS AND DOES NOT GUARANTEE THAT ALL UNDERGROUND UTILITIES ARE SHOWN OR ARE LOCATED PRECISELY AS INDICATED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.
- THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND FACILITIES FOUND.
- NOTIFY JDJR ENGINEERS & CONSULTANTS IF ANY UNDERGROUND UTILITIES ARE NOT IN THE LOCATIONS INDICATED ON THESE PLANS (HORIZONTALLY AND VERTICALLY) OR CONFLICT WITH ANY PROPOSED IMPROVEMENTS ASSOCIATED WITH THESE PLANS.

NOTE:

DETENTION SYSTEM AND STORM DRAIN TO BE COMPLETE AND FULLY FUNCTIONING PRIOR TO ANY PAVING/CONCRETE INSTALLATION. ALL SIDES AND BOTTOM OF THE POND TO HAVE ANCHORED AND SEEDED EROSION MATTING OR SOD INSTALLED PRIOR TO ANY CONCRETE INSTALLATION.

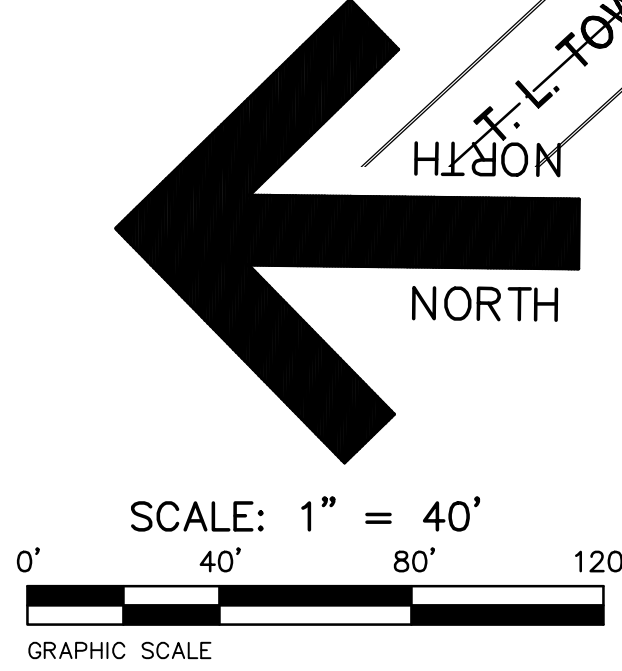
ACCESSIBILITY NOTES:

- ALL ACCESSIBLE PARKING AREAS, ROUTES, RAMPS, ETC. SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS).
- ALL SIDEWALK RAMPS AND/OR CURB RAMPS SHOWN SHALL HAVE A MAXIMUM VERTICAL RISE OF 6" WITH A MAXIMUM RUNNING SLOPE OF 1:12 (8.33%) AND BE CONSTRUCTED IN ACCORDANCE WITH TAS SECTIONS 4.7 AND 4.8.
- ALL ACCESSIBLE ROUTES (EXCEPT FOR THE SIDEWALK AND CURB RAMPS) SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:20 (5%) AND A MAXIMUM CROSS SLOPE OF 1:50 (2%).
- ALL ACCESSIBLE PARKING SPACES AND ISLES SHALL HAVE A MAXIMUM SLOPE IN ANY DIRECTION OF 1:50 (2%). REFER TO ARCHITECTURAL PLANS FOR DETAILS OF MARKINGS, SIGNS, ETC.
- ALL FACILITIES CONSTRUCTED ON STATE RIGHT-OF-WAY SHALL CONFORM TO STATE AND FEDERAL ACCESSIBILITY STANDARDS. APPROVAL AND FINAL INSPECTION BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION MAY BE NECESSARY. THE GRANTEE IS RESPONSIBLE FOR COORDINATION AND/OR PERMITTING AND WITH THESE ENTITIES. TDDOT MAY REQUIRE EVIDENCE OF COORDINATION.



"AS-BUILT"

THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO JDJR ENGINEERS & CONSULTANTS, INC. JDJR ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.

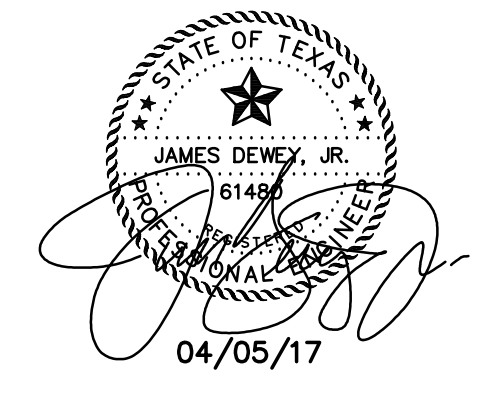


BENCH MARK: TXDOT BRASS MONUMENT FOUND AT THE INTERSECTION OF THE EAST LINE OF COMMERCE STREET WITH THE SOUTH LINE OF I.H. 30. ELEVATION 572.64

SITE T.B.M.: PK NAIL SET IN THE SOUTH LINE OF I.H. 30 25' WEST OF THE NORTHWEST CORNER OF THIS TRACT. ELEVATION 564.45

SITE T.B.M.: X-CUT SET IN TOP OF CURB INLET NORTHEAST SIDE OF T.L. TOWNSEND DRIVE ±110' NORTH OF BUFFALO CREEK. ELEVATION 534.69

| REVISIONS: | |
|------------|-------------------|
| 5/19/15 | PER CITY REVIEW |
| 8/07/15 | PER CITY REVIEW |
| 2/26/16 | RELOCATE DRIVEWAY |
| 3/17/16 | PER CITY REVIEW |
| 4/05/17 | AS-BUILT |

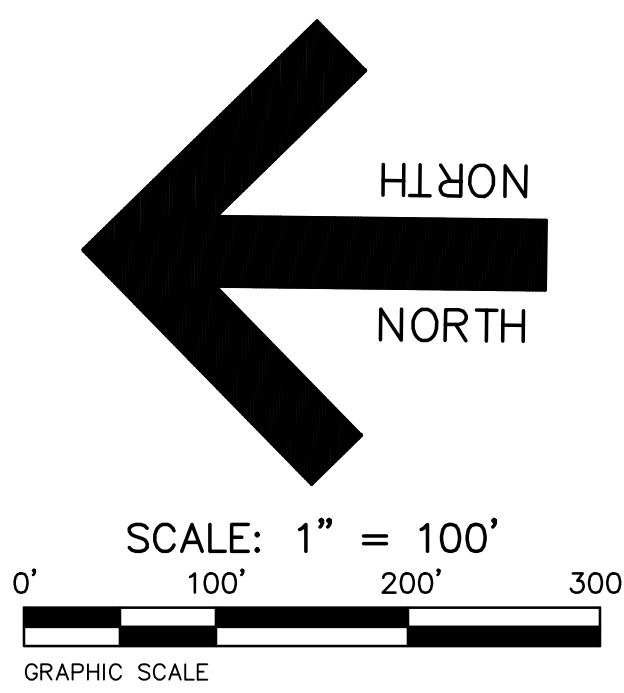
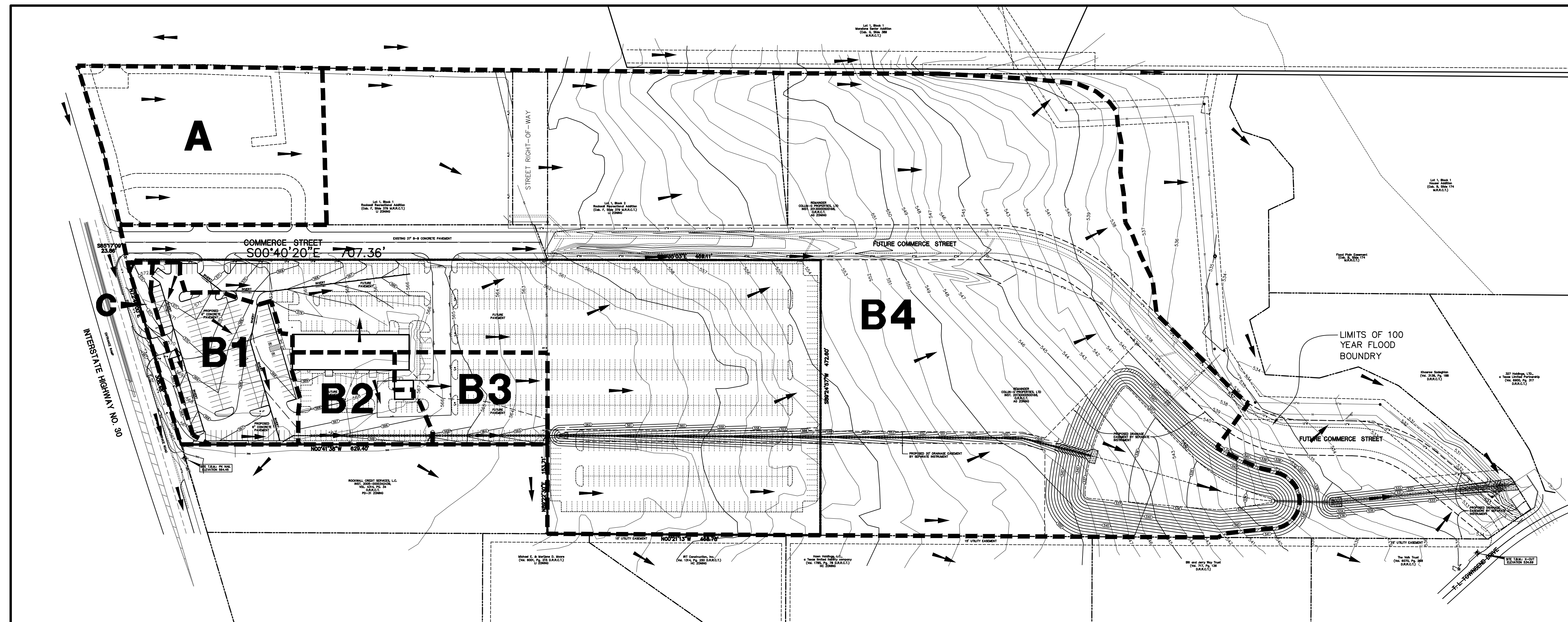


SHEET TITLE:
GRADING & STORM DRAIN PLAN SOUTH (DETENTION POND)
 YOUNG HYUNDAI
 1630 SOUTH INTERSTATE HIGHWAY NO. 30
 ROCKWALL, TEXAS

PREPARED BY:
JDJR ENGINEERS & CONSULTANTS, INC.
 TSPE REGISTRATION NUMBER F-8627

ENGINEERS • SURVEYORS • LAND PLANNERS
 2500 Texas Drive Suite 100 Irving, Texas 75062
 Tel 972-252-6357 Fax 972-252-8958

| | | |
|---------------------|------------------|-----------------|
| DATE: MAR. 25, 2015 | DRAWN BY: SAS | SHEET NO. |
| SCALE: 1" = 40' | CHECKED BY: JDJR | C2B OF 6 |



"AS-BUILT"
 THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO JDR ENGINEERS & CONSULTANTS, INC. JDR ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.

DRAINAGE AREA MAP

| STORM DURATION MINUTES | 5-YEAR STORM | | | 10-YEAR STORM | | | 25-YEAR STORM | | | 100-YEAR STORM | | |
|------------------------|-----------------|------------------|----------------------------------|-----------------|------------------|----------------------------------|-----------------|------------------|----------------------------------|-----------------|------------------|----------------------------------|
| | PEAK INFLOW CFS | PEAK OUTFLOW CFS | MAX. PONDING ELEV. FT (MSL)/FEET | PEAK INFLOW CFS | PEAK OUTFLOW CFS | MAX. PONDING ELEV. FT (MSL)/FEET | PEAK INFLOW CFS | PEAK OUTFLOW CFS | MAX. PONDING ELEV. FT (MSL)/FEET | PEAK INFLOW CFS | PEAK OUTFLOW CFS | MAX. PONDING ELEV. FT (MSL)/FEET |
| 20 | 134.29 | 50.50 | 538.37/4.87 | 161.70 | 60.36 | 538.89/5.39 | 180.88 | 67.34 | 539.24/5.74 | 227.47 | 84.40 | 540.04/6.54 |
| 30 | 112.37 | 56.74 | 538.71/5.21 | 131.55 | 66.27 | 539.19/5.79 | 150.74 | 75.86 | 539.65/6.15 | 189.10 | 95.18 | 540.51/7.01 |
| 40 | 93.18 | 56.68 | 538.70/5.20 | 109.63 | 66.64 | 539.21/5.81 | 126.07 | 76.63 | 539.69/6.19 | 158.96 | 97.62 | 540.58/7.08 |
| 50 | 76.74 | 52.96 | 538.51/5.01 | 95.92 | 66.23 | 539.19/5.69 | 109.63 | 75.74 | 539.65/6.15 | 137.03 | 94.76 | 540.50/7.00 |
| 60 | 71.26 | 53.78 | 538.55/5.05 | 82.22 | 62.12 | 538.98/5.48 | 95.92 | 72.57 | 539.50/6.00 | 123.33 | 93.46 | 540.44/6.94 |

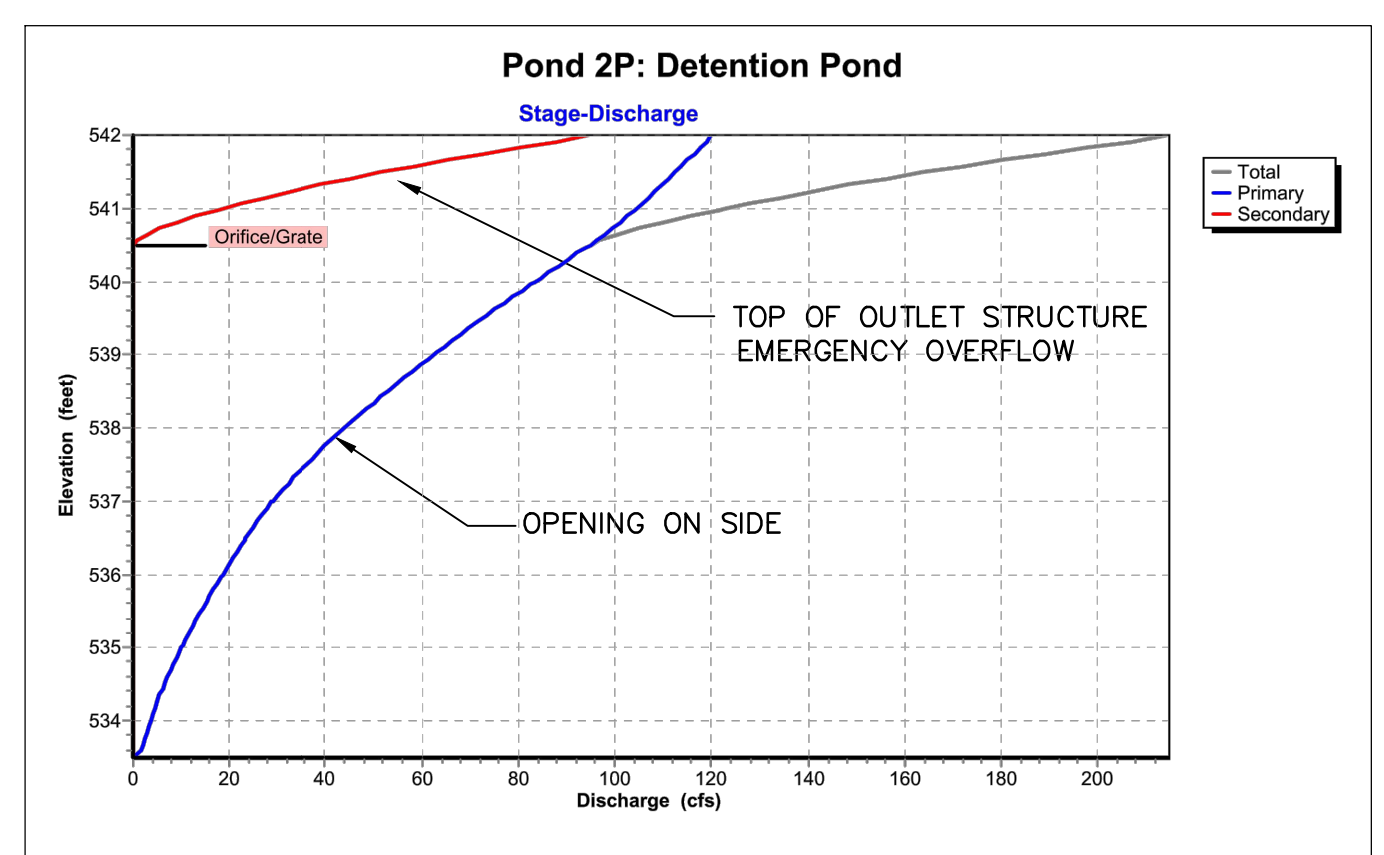
NOTE: THE SHADED LINE REPRESENTS THE STORM DURATION THAT MAXIMIZES THE REQUIRED DETENTION VOLUME AND OUTFLOW RATES.

MAXIMUM OUTFLOW ALLOWED (PRE-DEVELOPMENT CONDITIONS) = 58.26 CFS 5-YEAR STORM
 MAXIMUM OUTFLOW ALLOWED (PRE-DEVELOPMENT CONDITIONS) = 70.15 CFS 10-YEAR STORM
 MAXIMUM OUTFLOW ALLOWED (PRE-DEVELOPMENT CONDITIONS) = 78.48 CFS 25-YEAR STORM
 MAXIMUM OUTFLOW ALLOWED (PRE-DEVELOPMENT CONDITIONS) = 98.69 CFS 100-YEAR STORM

| AREA NO. | ACRES | C | T _C MIN | I ₅ IN/HR | Q ₅ CFS | I ₁₀ IN/HR | Q ₁₀ CFS | I ₂₅ IN/HR | Q ₂₅ CFS | I ₁₀₀ IN/HR | Q ₁₀₀ CFS | COMMENTS |
|---------------|-------|------|--------------------|----------------------|--------------------|-----------------------|---------------------|-----------------------|---------------------|------------------------|----------------------|--|
| A | 2.40 | 0.90 | 20 | 4.9 | 10.58 | 5.9 | 12.74 | 6.6 | 14.26 | 8.3 | 17.93 | EXISTING DEVELOPED LOT, FUTURE FLOW TO DETENTION POND |
| B1-B4 | 27.80 | 0.35 | 20 | 4.9 | 47.68 | 5.9 | 57.41 | 6.6 | 64.22 | 8.3 | 80.76 | ULTIMATE FLOW TO DETENTION POND |
| TOTAL TO POND | 30.20 | | | | 58.26 | | 70.15 | | 78.48 | | 98.69 | ALLOWABLE FLOW FROM POND (EXISTING FLOW) |
| C | 0.20 | 0.35 | 10 | 6.1 | 0.43 | 7.1 | 0.50 | 8.3 | 0.58 | 9.8 | 0.69 | LANDSCAPE FRONT YARD TO I.H. 30 BY-PASS DETENTION POND |

| AREA NO. | ACRES | C | T _C MIN | I ₅ IN/HR | Q ₅ CFS | I ₁₀ IN/HR | Q ₁₀ CFS | I ₂₅ IN/HR | Q ₂₅ CFS | I ₁₀₀ IN/HR | Q ₁₀₀ CFS | COMMENTS |
|---------------|-------|------|--------------------|----------------------|--------------------|-----------------------|---------------------|-----------------------|---------------------|------------------------|----------------------|--|
| A | 2.40 | 0.90 | 10 | 6.1 | 13.18 | 7.1 | 15.34 | 8.3 | 17.93 | 9.8 | 21.17 | EXISTING DEVELOPED LOT, FUTURE FLOW TO DETENTION POND |
| B1 | 1.04 | 0.90 | 10 | 6.1 | 5.71 | 7.1 | 6.65 | 8.3 | 7.77 | 9.8 | 9.17 | PROPOSED DEVELOPMENT, FUTURE FLOW TO DETENTION POND |
| B2 | 0.72 | 0.90 | 10 | 6.1 | 3.95 | 7.1 | 4.60 | 8.3 | 5.38 | 9.8 | 6.35 | PROPOSED DEVELOPMENT, FUTURE FLOW TO DETENTION POND |
| B3 | 0.84 | 0.90 | 10 | 6.1 | 4.61 | 7.1 | 5.37 | 8.3 | 6.27 | 9.8 | 7.41 | PROPOSED DEVELOPMENT, FUTURE FLOW TO DETENTION POND |
| B4 | 25.20 | 0.90 | 10 | 6.1 | 138.35 | 7.1 | 161.03 | 8.3 | 188.24 | 9.8 | 222.26 | FUTURE DEVELOPMENT, FUTURE FLOW TO DETENTION POND |
| TOTAL TO POND | 30.20 | | | | 165.80 | | 192.99 | | 225.59 | | 258.96 | FUTURE DEVELOPMENT, TOTAL PEAK FLOWS TO POND |
| C | 0.20 | 0.90 | 10 | 6.1 | 1.10 | 7.1 | 1.28 | 8.3 | 1.49 | 9.8 | 1.76 | LANDSCAPE FRONT YARD TO I.H. 30 BY-PASS DETENTION POND |

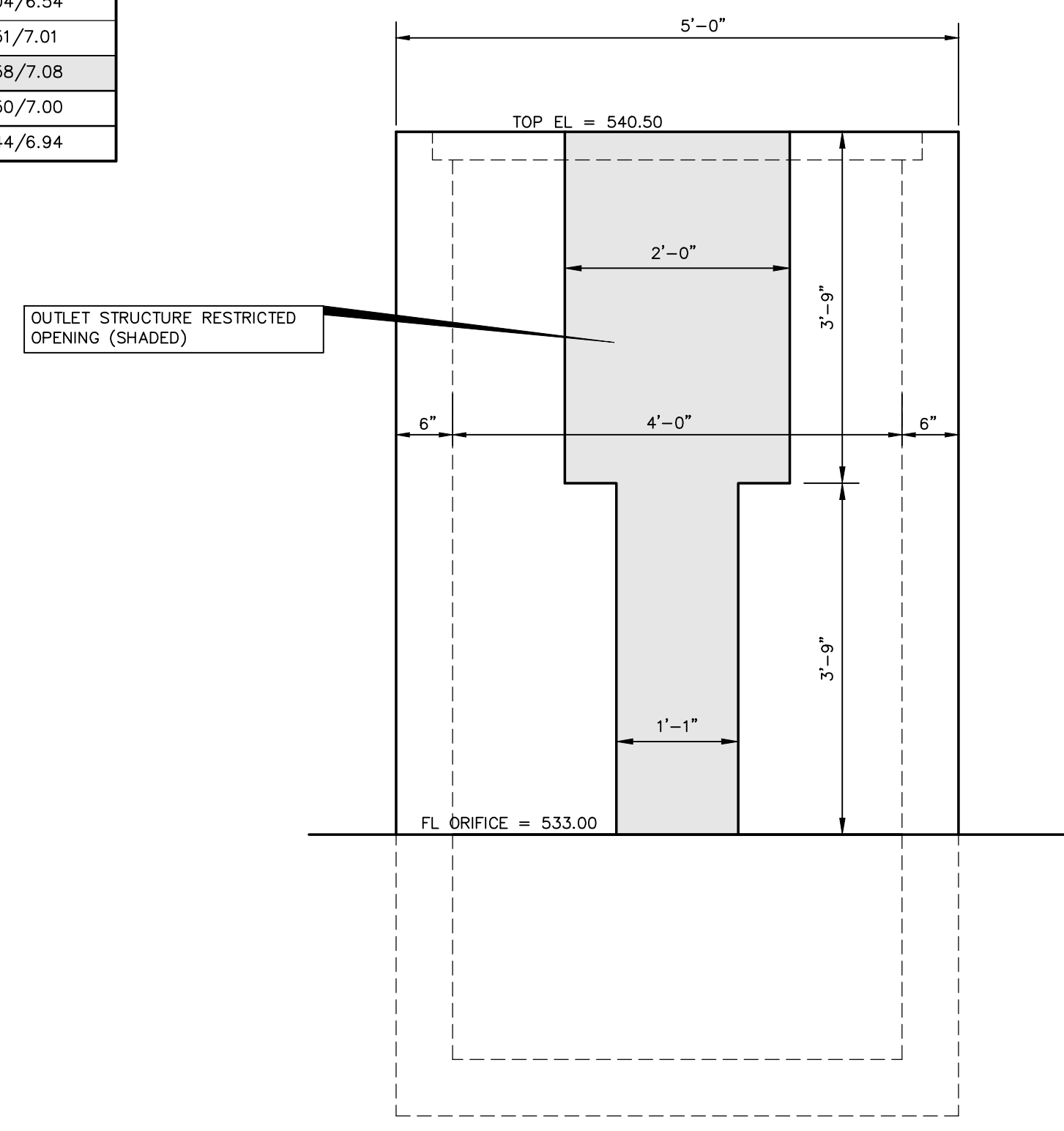
| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|------------------|-------------------|------------------------|------------------------|
| 533.50 | 0 | 0 | 0 |
| 534.00 | 916 | 230 | 230 |
| 535.00 | 7,484 | 4,201 | 4,431 |
| 536.00 | 21,399 | 14,442 | 18,872 |
| 536.50 | 36,545 | 14,486 | 33,358 |
| 537.00 | 38,804 | 18,837 | 52,195 |
| 538.00 | 43,440 | 41,122 | 93,317 |
| 539.00 | 48,233 | 45,837 | 139,154 |
| 540.00 | 53,183 | 50,708 | 189,862 |
| 541.00 | 58,290 | 55,737 | 245,598 |
| 542.00 | 63,555 | 60,923 | 306,521 |



STAGE - DISCHARGE CURVES

Asymmetrical Weir
 An asymmetrical weir can be used to model an arbitrary weir crest, such as water spilling over a roadway.
 To calculate the flow through an asymmetrical weir, the weir is divided into a number of rectangular and half-vee sections. The total flow is determined by adding the flow through each section, according to the trapezoidal weir equation using the rise for a corresponding full-vee.
 If tailwater is present, the discharge is the sum of two parts:
 1) Trapezoidal weir flow for the portion of the opening that lies above the tailwater, with the head and height measured from the tailwater elevation, rather than from the weir crest.
 2) Constant-head orifice flow for the portion of the opening that lies below the tailwater.
 Note: An asymmetrical weir will give exactly the same result as using several separate weirs to describe the entire weir opening.

Sharp-Crested Rectangular Weir
 The free discharge of a sharp-crested rectangular weir is determined by the following equation from *Open-Channel Hydraulics* by Chow:
 $Q = C L e H^{1.5}$
 where:
 C = Weir coefficient
 L = Effective weir length
 H = Head (above invert elevation)
 The effective weir length (Le) is reduced by the presence of end contractions according to the following equation:
 $L_e = L - \frac{nL}{10}$ (but never < L/2)
 where:
 L = Actual crest length
 n = Number of end contractions (0, 1 or 2)
 In practice, the weir coefficient C may vary slightly based on the crest height and the resulting turbulence. If the crest height is specified, the English weir coefficient is determined by the equation:
 $C = 3.27 + 0.4 \frac{H}{P}$
 where:
 P = Height of the crest above the approach channel.
 If P is not specified (left blank) a fixed coefficient of 3.27 is used without adjustment.
 If the weir rise is specified, and the head exceeds the rise, orifice flow exists and the discharge is given by:
 $Q = C L e [H^{1.5} - (H - M)^{1.5}]$
 where:
 M = Rise

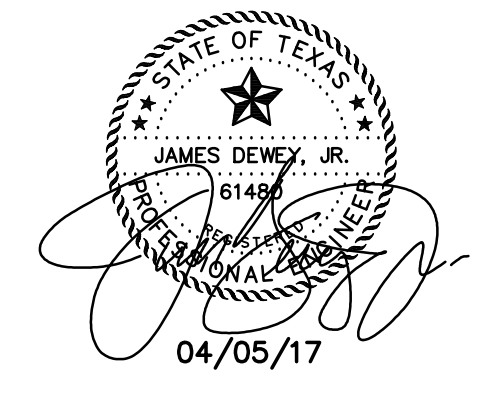


BENCH MARK: TXDOT BRASS MONUMENT FOUND AT THE INTERSECTION OF THE EAST LINE OF COMMERCE STREET WITH THE SOUTH LINE OF I.H. 30. ELEVATION 572.64

SITE T.B.M.: PK NAIL SET IN THE SOUTH LINE OF I.H. 30 25' WEST OF THE NORTHWEST CORNER OF THIS TRACT. ELEVATION 564.45

SITE T.B.M.: X-CUT SET IN TOP OF CURB INLET NORTHEAST SIDE OF T.L. TOWNSEND DRIVE ±110' NORTH OF BUFFALO CREEK. ELEVATION 534.69

| | |
|---------|-------------------|
| 5/19/15 | PER CITY REVIEW |
| 8/07/15 | PER CITY REVIEW |
| 2/26/16 | RELOCATE DRIVEWAY |
| 3/17/16 | PER CITY REVIEW |
| 3/23/16 | PER CITY REVIEW |
| 4/05/17 | AS-BUILT |

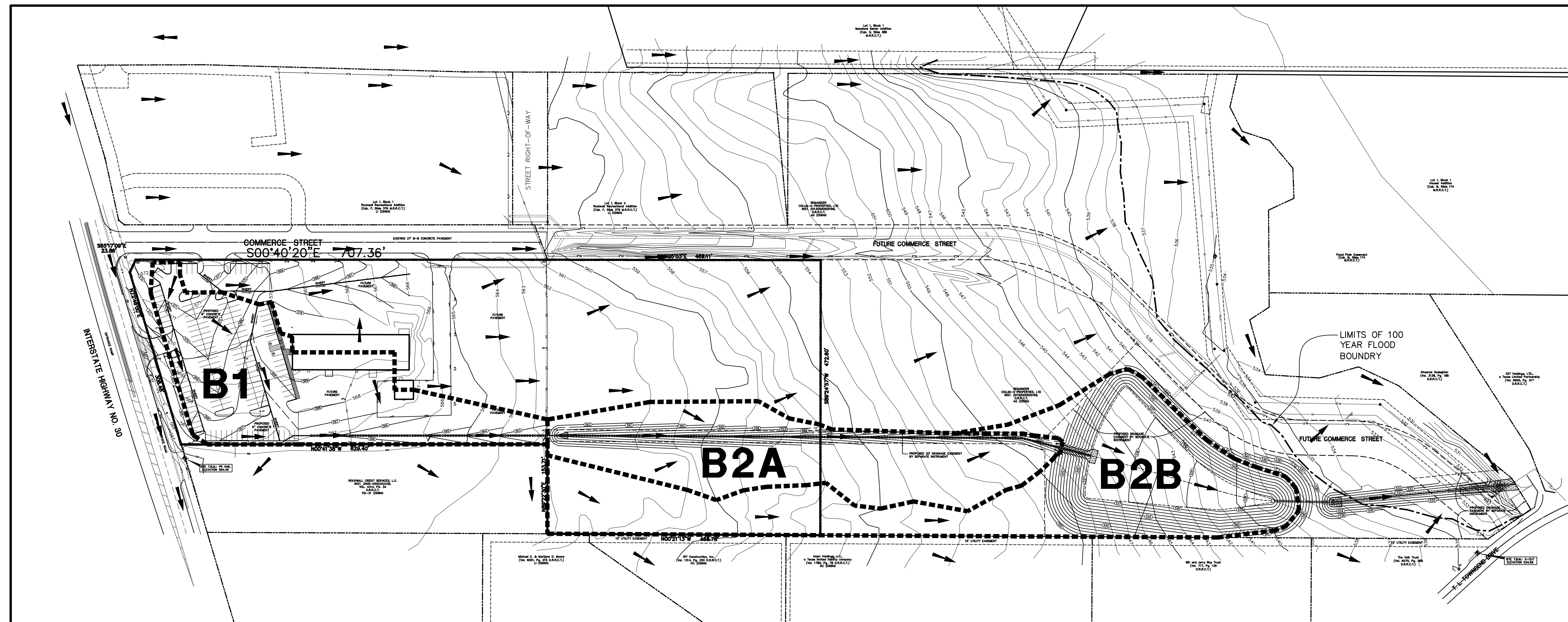


SHEET TITLE:
DRAINAGE AREA MAP (ULTIMATE DEVELOPMENT) AND DETENTION CALCULATIONS
 YOUNG HYUNDAI
 1630 SOUTH INTERSTATE HIGHWAY NO. 30
 ROCKWALL, TEXAS

PREPARED BY:
JDR ENGINEERS & CONSULTANTS, INC.
 TSBP REGISTRATION NUMBER F-8627

ENGINEERS • SURVEYORS • LAND PLANNERS
 2500 Texas Drive Suite 100 Irving, Texas 75062
 Tel 972-252-6357 Fax 972-252-8958

DATE: MAR. 25, 2015 DRAWN BY: SAS SHEET NO.
 SCALE: 1" = 100' CHECKED BY: JDR/C3A OF 6



'AS-BUILT'
 THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO J.D.R. ENGINEERS & CONSULTANTS, INC. J.D.R. ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.

DRAINAGE AREA MAP

| STORM DURATION MINUTES | 5-YEAR STORM | | | 10-YEAR STORM | | | 25-YEAR STORM | | | 100-YEAR STORM | | |
|------------------------|-----------------|------------------|----------------------------------|-----------------|------------------|----------------------------------|-----------------|------------------|----------------------------------|-----------------|------------------|----------------------------------|
| | PEAK INFLOW CFS | PEAK OUTFLOW CFS | MAX. PONDING ELEV. FT (MSL)/FEET | PEAK INFLOW CFS | PEAK OUTFLOW CFS | MAX. PONDING ELEV. FT (MSL)/FEET | PEAK INFLOW CFS | PEAK OUTFLOW CFS | MAX. PONDING ELEV. FT (MSL)/FEET | PEAK INFLOW CFS | PEAK OUTFLOW CFS | MAX. PONDING ELEV. FT (MSL)/FEET |
| 10 | 24.84 | 11.93 | 535.24/1.74 | 28.91 | 13.05 | 535.38/1.88 | 33.80 | 14.28 | 535.52/2.02 | 39.90 | 15.70 | 535.69/2.19 |
| 20 | 20.31 | 13.66 | 535.45/1.95 | 24.45 | 15.36 | 535.65/2.15 | 27.35 | 16.48 | 535.77/2.27 | 34.40 | 19.00 | 536.05/2.55 |
| 30 | 16.99 | 13.68 | 535.45/1.95 | 19.89 | 15.27 | 535.64/2.14 | 22.79 | 16.76 | 535.81/2.31 | 28.60 | 19.49 | 536.10/2.60 |
| 40 | 14.09 | 12.68 | 535.33/1.83 | 16.58 | 14.36 | 535.53/2.03 | 19.06 | 15.94 | 535.71/2.21 | 24.04 | 18.87 | 536.04/2.54 |
| 50 | 11.60 | 11.14 | 535.15/1.65 | 14.50 | 13.45 | 535.42/1.92 | 16.58 | 14.98 | 535.60/2.10 | 20.72 | 17.84 | 535.93/2.43 |

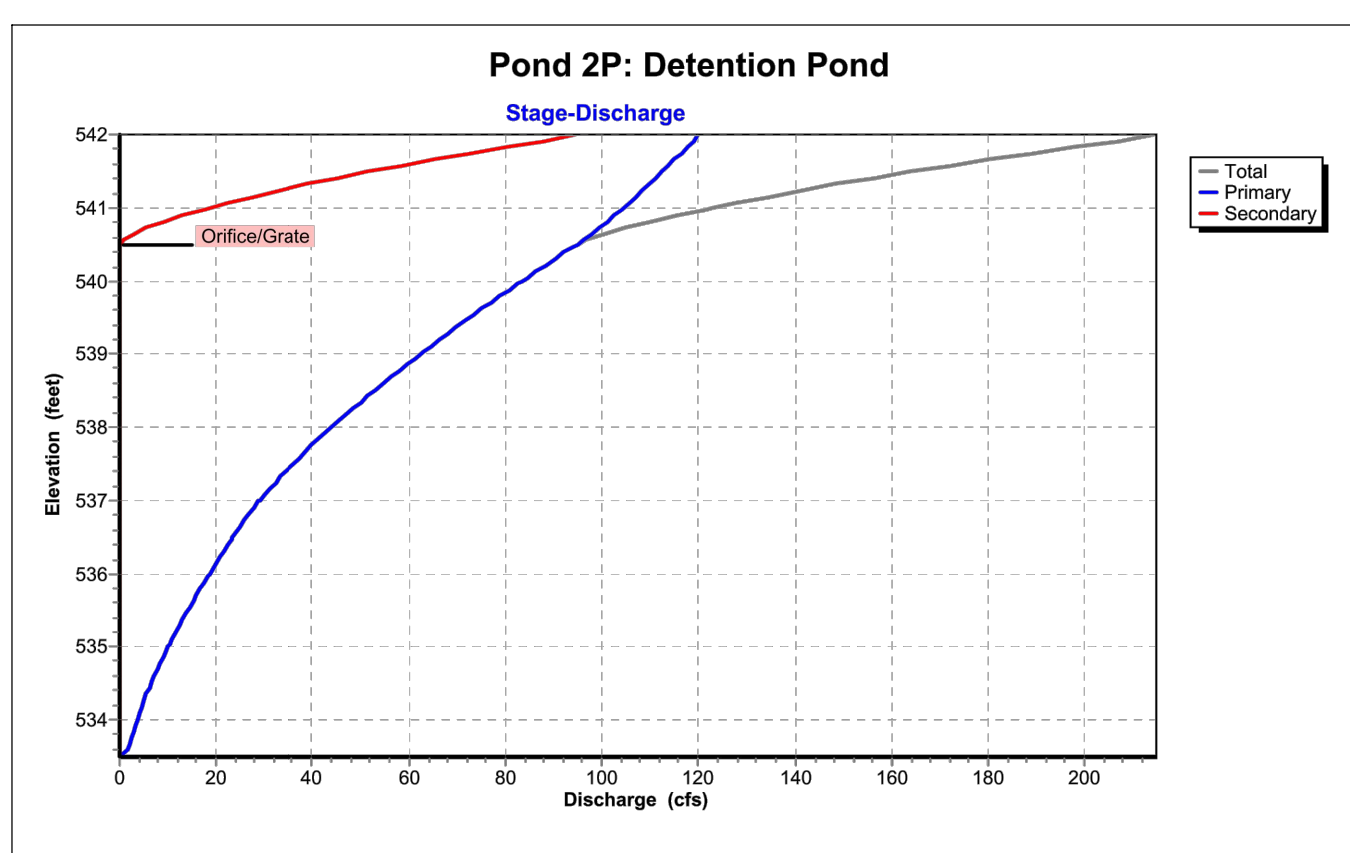
NOTE: THE SHADED LINE REPRESENTS THE STORM DURATION THAT MAXIMIZES THE REQUIRED DETENTION VOLUME AND OUTFLOW RATES.

MAXIMUM OUTFLOW ALLOWED (PRE-DEVELOPMENT CONDITIONS) = 14.11 CFS 5-YEAR STORM
 MAXIMUM OUTFLOW ALLOWED (PRE-DEVELOPMENT CONDITIONS) = 16.97 CFS 10-YEAR STORM
 MAXIMUM OUTFLOW ALLOWED (PRE-DEVELOPMENT CONDITIONS) = 18.99 CFS 25-YEAR STORM
 MAXIMUM OUTFLOW ALLOWED (PRE-DEVELOPMENT CONDITIONS) = 23.87 CFS 100-YEAR STORM

THE SAME RESTRICTED OPENING THAT PROVIDES THE DETENTION FOR THE ULTIMATE DEVELOPMENT ALSO PROVIDES ADEQUATE RESTRICTION (DETENTION) FOR THE INTERIM CONDITIONS.

| INTERIM PRE DEVELOPMENT DRAINAGE DATA (FOR DETENTION POND DESIGN) | | | | | | | | | | | | |
|---|-------|------|--------------------|----------------------|--------------------|-----------------------|---------------------|-----------------------|---------------------|------------------------|----------------------|---|
| AREA NO. | ACRES | C | T _C MIN | I ₅ IN/HR | Q ₅ CFS | I ₁₀ IN/HR | Q ₁₀ CFS | I ₂₅ IN/HR | Q ₂₅ CFS | I ₁₀₀ IN/HR | Q ₁₀₀ CFS | COMMENTS |
| B1 | 2.28 | 0.35 | 20 | 4.9 | 3.91 | 5.9 | 4.71 | 6.60 | 5.27 | 8.3 | 6.62 | EXISTING DEVELOPED LOT, FUTURE FLOW TO DETENTION POND |
| B2A | 2.38 | 0.35 | 20 | 4.9 | 4.08 | 5.9 | 4.91 | 6.60 | 5.50 | 8.3 | 6.91 | INTERIM FLOW TO DETENTION POND (IN DITCH B-B) |
| B2B | 3.56 | 0.35 | 20 | 4.9 | 6.12 | 5.9 | 7.35 | 6.60 | 8.22 | 8.3 | 10.34 | INTERIM FLOW TO DETENTION POND |
| TOTAL TO POND | 8.22 | | | | 14.11 | | 16.97 | | 18.99 | | 23.87 | ALLOWABLE FLOW FROM POND (EXISTING FLOW) |

| INTERIM POST DEVELOPMENT DRAINAGE DATA (FOR DETENTION POND DESIGN) | | | | | | | | | | | | |
|--|-------|------|--------------------|----------------------|--------------------|-----------------------|---------------------|-----------------------|---------------------|------------------------|----------------------|---|
| AREA NO. | ACRES | C | T _C MIN | I ₅ IN/HR | Q ₅ CFS | I ₁₀ IN/HR | Q ₁₀ CFS | I ₂₅ IN/HR | Q ₂₅ CFS | I ₁₀₀ IN/HR | Q ₁₀₀ CFS | COMMENTS |
| B1 | 2.28 | 0.90 | 10 | 6.1 | 12.52 | 7.1 | 14.57 | 8.3 | 17.03 | 9.8 | 20.11 | PROPOSED DEVELOPMENT, FUTURE FLOW TO DETENTION POND |
| B2A | 2.38 | 0.35 | 10 | 6.1 | 5.08 | 7.1 | 5.91 | 8.3 | 6.91 | 9.8 | 8.16 | INTERIM UNDEVELOPED FLOW TO DETENTION POND (IN DITCH B-B) |
| B2B | 3.56 | 0.35 | 10 | 6.1 | 7.60 | 7.1 | 8.85 | 8.3 | 10.34 | 9.8 | 12.21 | INTERIM FLOW TO DETENTION POND |
| TOTAL TO POND | 8.22 | | | | 25.20 | | 29.33 | | 34.28 | | 40.48 | |



STAGE - DISCHARGE CURVES

Asymmetrical Weir
 An asymmetrical weir can be used to model an arbitrary weir crest, such as water spilling over a roadway. To calculate the flow through an asymmetrical weir, the weir is divided into a number of rectangular and half-vee sections. The total flow is determined by adding the flow through each section, according to the trapezoidal weir equation using the rise of each section. For the half-vee sections, the flow is one-half the flow for a corresponding full-vee.

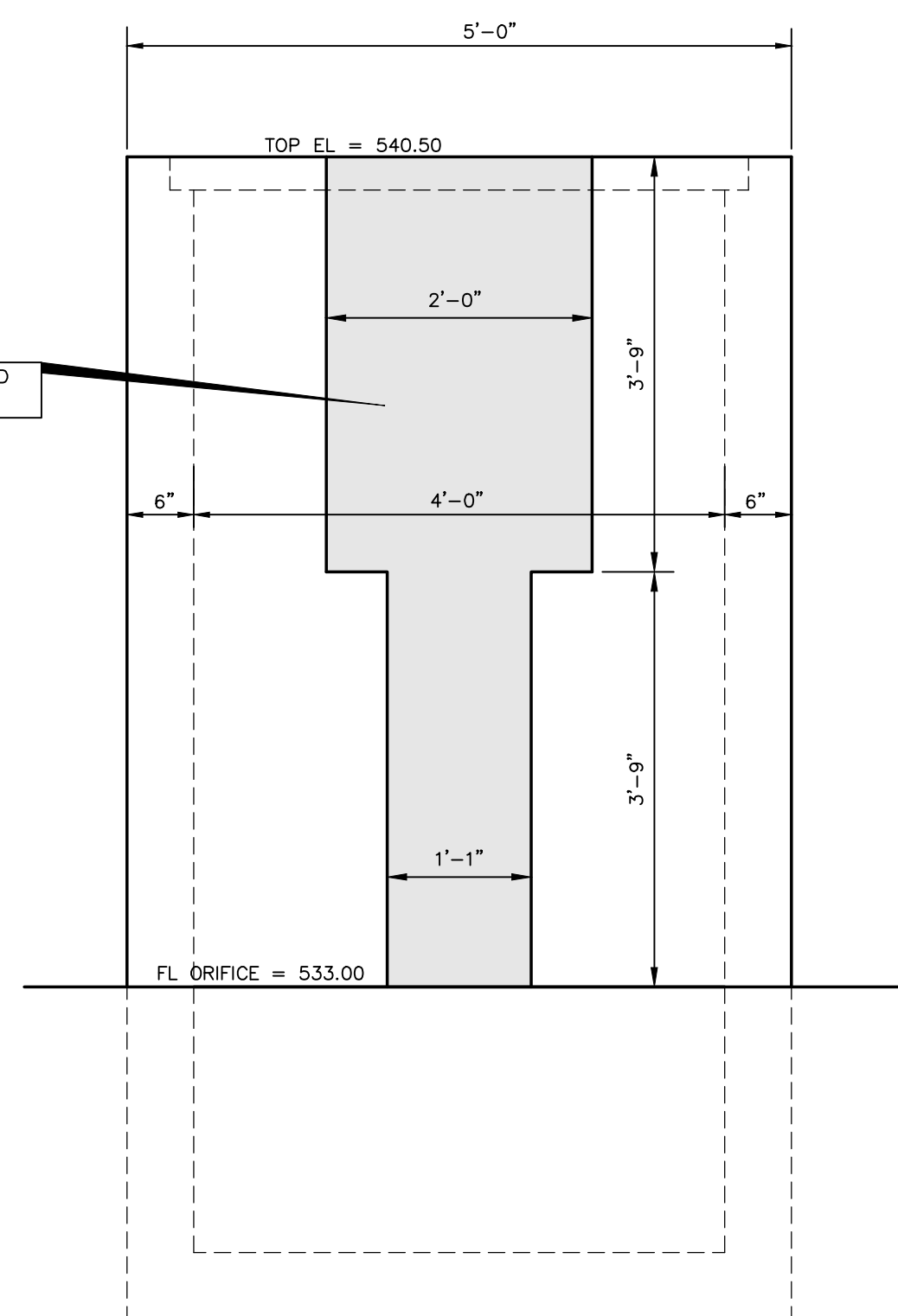
Note: An asymmetrical weir will give exactly the same result as using several separate weirs to describe the entire weir opening.

Sharp-Crested Rectangular Weir
 The free discharge of a sharp-crested rectangular weir is determined by the following equation from Open Channel Hydraulics by Chow:

$$Q = C L_e H^{1.5}$$

Where:
 C = Weir coefficient
 L_e = Effective weir length
 H = Head (above invert elevation)
 The effective weir length (L_e) is reduced by the presence of end contractions according to the following equation:
 $L_e = L - \frac{nH}{10}$ (but never < L/2)
 where:
 L = Actual crest length
 n = Number of end contractions (0.1 or 2)
 In practice, the weir coefficient C may vary slightly based on the crest height and the resulting turbulence. If the crest height is specified, the English weir coefficient is determined by the equation:
 $C = 3.27 + 0.4 \frac{H}{P}$
 where:
 P = Height of the crest above the approach channel.
 If P is not specified (left blank) a fixed coefficient of 3.27 is used without adjustment.
 If the weir rise is specified, and the head exceeds the rise, orifice flow exists and the discharge is given by:
 $Q = C L_e [H^{1.5} - (H-M)^{1.5}]$
 where:
 M = Rise

OUTLET STRUCTURE RESTRICTED OPENING (SHADED)



OUTFALL ORIFICE DETAIL (NORTHWEST SIDE OF BOX)

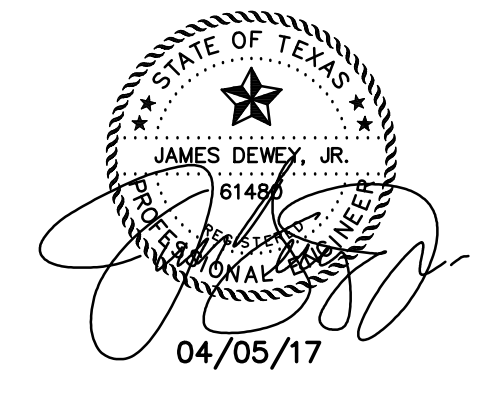
| POND VOLUME SUMMARY | | | |
|---------------------|--------------------|-------------------------|-------------------------|
| Elevation (feet) | Surf. Area (sq-ft) | Inc. Store (cubic-feet) | Cum. Store (cubic-feet) |
| 533.50 | 0 | 0 | 0 |
| 534.00 | 916 | 230 | 230 |
| 535.00 | 7,484 | 4,201 | 4,431 |
| 536.00 | 21,399 | 14,442 | 18,872 |
| 536.50 | 36,545 | 14,486 | 33,358 |
| 537.00 | 38,804 | 18,837 | 52,195 |
| 538.00 | 43,440 | 41,122 | 93,317 |
| 539.00 | 48,233 | 45,837 | 139,154 |
| 540.00 | 53,183 | 50,708 | 189,862 |
| 541.00 | 58,290 | 55,737 | 245,598 |
| 542.00 | 63,555 | 60,923 | 306,521 |

BENCH MARK: TXDOT BRASS MONUMENT FOUND AT THE INTERSECTION OF THE EAST LINE OF COMMERCE STREET WITH THE SOUTH LINE OF I.H. 30. ELEVATION 572.64

SITE T.B.M.: PK NAIL SET IN THE SOUTH LINE OF I.H. 30 25' WEST OF THE NORTHWEST CORNER OF THIS TRACT. ELEVATION 564.45

SITE T.B.M.: X-CUT SET IN TOP OF CURB INLET NORTHEAST SIDE OF T.L. TOWNSEND DRIVE ±110' NORTH OF BUFFALO CREEK. ELEVATION 534.69

| REVISIONS: | |
|------------|-------------------|
| 5/19/15 | PER CITY REVIEW |
| 8/07/15 | PER CITY REVIEW |
| 2/26/16 | RELOCATE DRIVEWAY |
| 3/17/16 | PER CITY REVIEW |
| 4/05/17 | AS-BUILT |

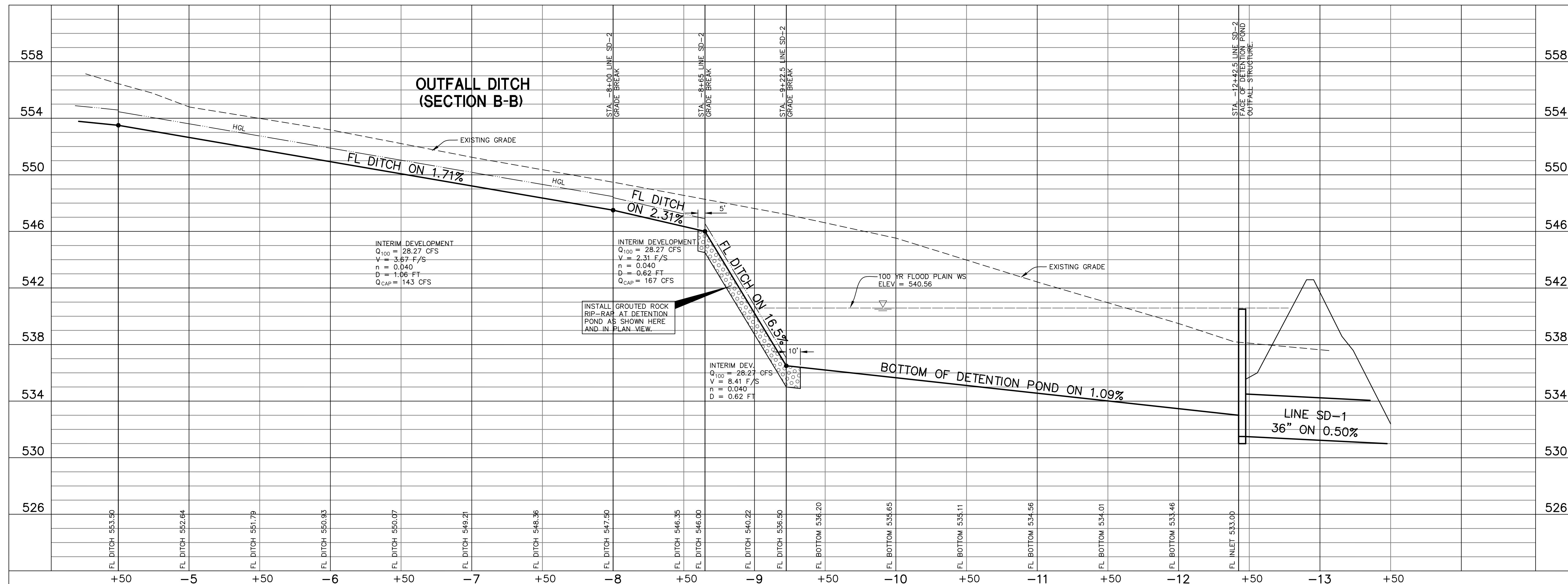
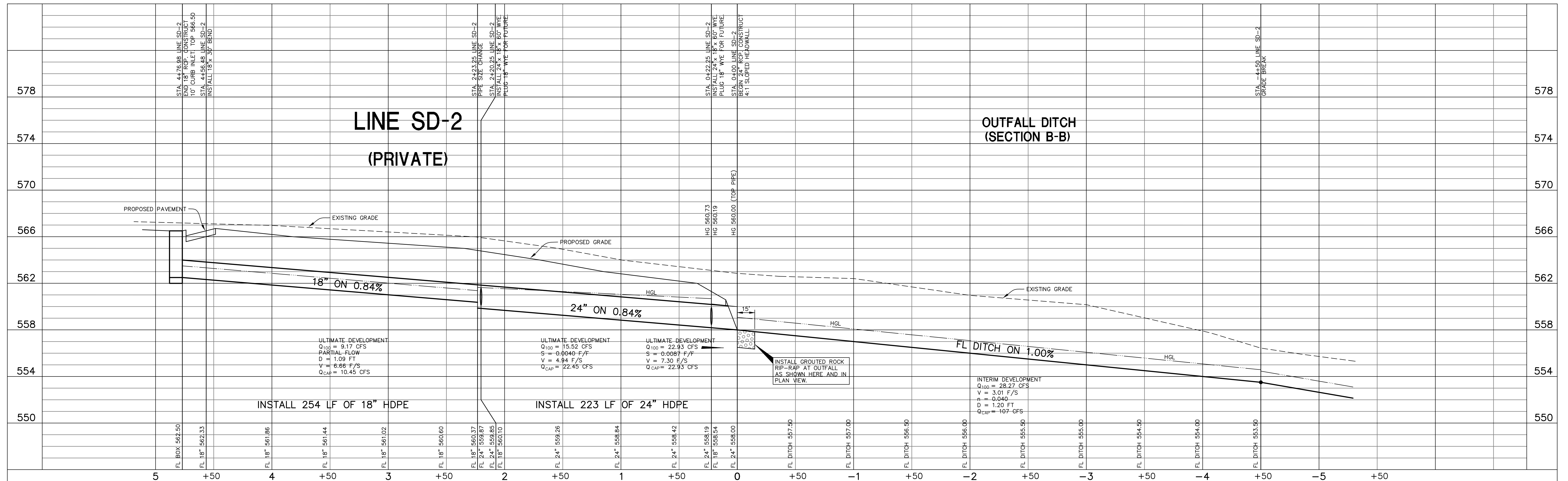


SHEET TITLE:
DRAINAGE AREA MAP (INTERIM DEVELOPMENT) AND DETENTION CALCULATIONS
 YOUNG HYUNDAI
 1630 SOUTH INTERSTATE HIGHWAY NO. 30
 ROCKWALL, TEXAS

PREPARED BY:
JDR ENGINEERS & CONSULTANTS, INC.
 TSBP REGISTRATION NUMBER F-8627

ENGINEERS • SURVEYORS • LAND PLANNERS
 2500 Texas Drive Suite 100 Irving, Texas 75062
 Tel 972-252-6357 Fax 972-252-8958

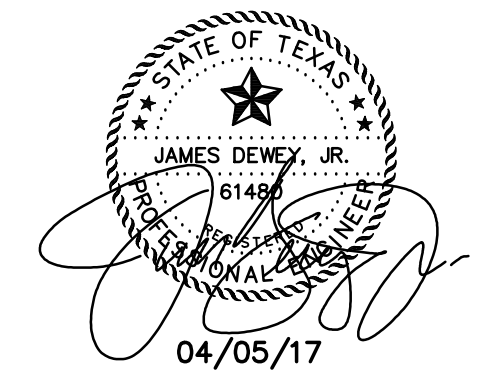
DATE: MAR. 25, 2015 DRAWN BY: SAS SHEET NO.
 SCALE: 1" = 100' CHECKED BY: JDR/C3B OF 6



"AS-BUILT"
 THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO JDR ENGINEERS & CONSULTANTS, INC. JDR ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.

BENCH MARK: TXDOT BRASS MONUMENT FOUND AT THE INTERSECTION OF THE EAST LINE OF COMMERCE STREET WITH THE SOUTH LINE OF I.H. 30. ELEVATION 572.64
 SITE T.B.M.: PK NAIL SET IN THE SOUTH LINE OF I.H. 30 25' WEST OF THE NORTHWEST CORNER OF THIS TRACT. ELEVATION 564.45
 SITE T.B.M.: X-CUT SET IN TOP OF CURB INLET NORTHEAST SIDE OF T.L. TOWNSEND DRIVE ±110' NORTH OF BUFFALO CREEK ELEVATION 534.69

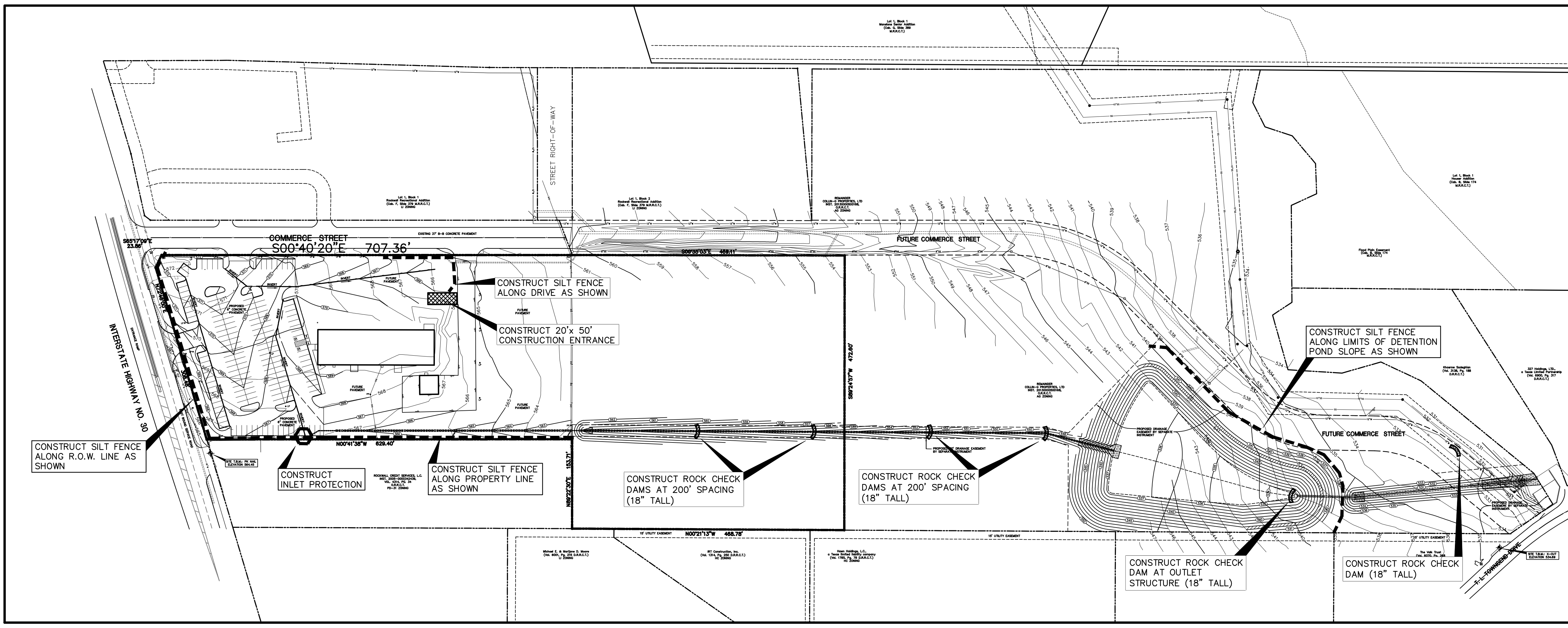
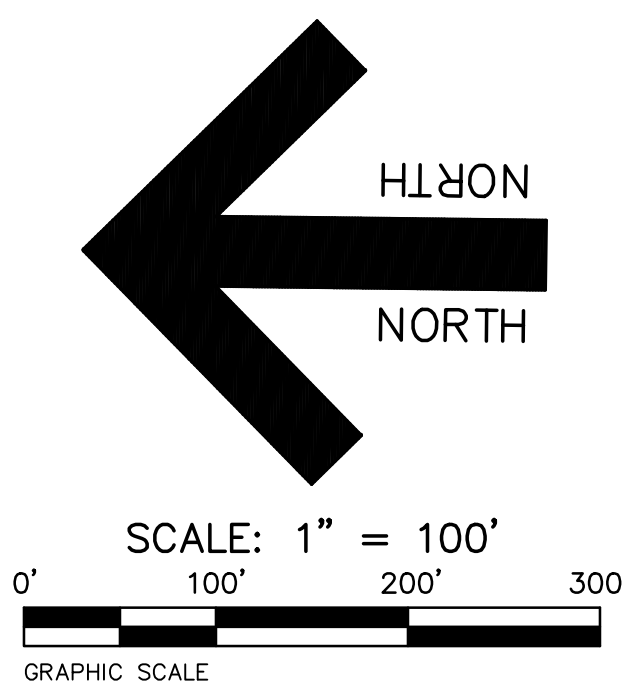
| REVISIONS: | |
|------------|-------------------|
| 5/19/15 | PER CITY REVIEW |
| 8/07/15 | PER CITY REVIEW |
| 2/26/16 | RELOCATE DRIVEWAY |
| 3/17/16 | PER CITY REVIEW |
| 4/05/17 | AS-BUILT |



SHEET TITLE:
LINE SD-1 & OUTFALL DITCH PROFILE
YOUNG HYUNDAI
 1530 SOUTH INTERSTATE HIGHWAY NO. 30
 ROCKWALL, TEXAS

PREPARED BY:
JDR ENGINEERS & CONSULTANTS, INC.
 TSBP REGISTRATION NUMBER F-8527
 ENGINEERS • SURVEYORS • LAND PLANNERS
 2500 Texas Drive Suite 100 Irving, Texas 75062
 Tel 972-252-6357 Fax 972-252-8958

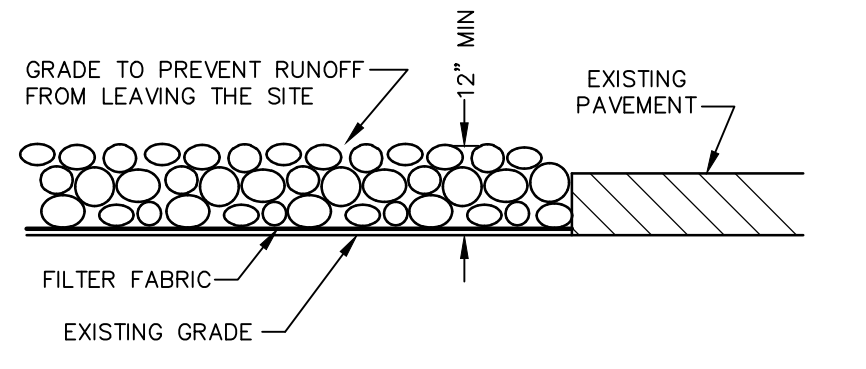
DATE: MAR. 25, 2015 DRAWN BY: SAS SHEET NO.
 SCALE: 1"=40'H, 1"=4'V CHECKED BY: JDRJ **C4B** OF 6



'AS-BUILT'
 THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO JDJR ENGINEERS & CONSULTANTS, INC. JDJR ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.

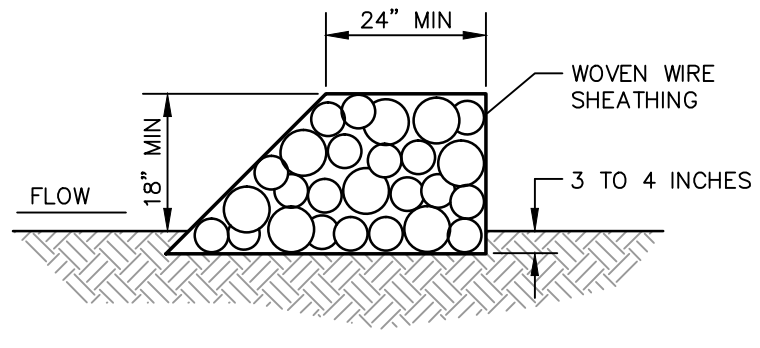
AREA OF SITE = ±32.7 ACRES
 DISTURBED AREA = ±5.0 ACRES

EROSION CONTROL PLAN



- NOTES:**
- STONE SHALL BE 4 TO 6 INCH DIAMETER CRUSHED ROCK. NO CRUSHED PORTLAND CEMENT CONCRETE ALLOWED.
 - LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM LENGTH OF 50 FEET FOR LOTS WHICH ARE LESS THAN 150 FEET FROM THE EDGE OF PAVEMENT. THE MINIMUM DEPTH IN ALL OTHER CASES SHALL BE 50 FEET.
 - THE THICKNESS SHALL NOT BE LESS THAN 12 INCHES.
 - THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
 - WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, OR WATERCOURSE USING APPROVED METHODS.
 - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED SURFACES, MUST BE REMOVED IMMEDIATELY.
 - THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

STABILIZED CONSTRUCTION ENTRANCE
 NOT TO SCALE

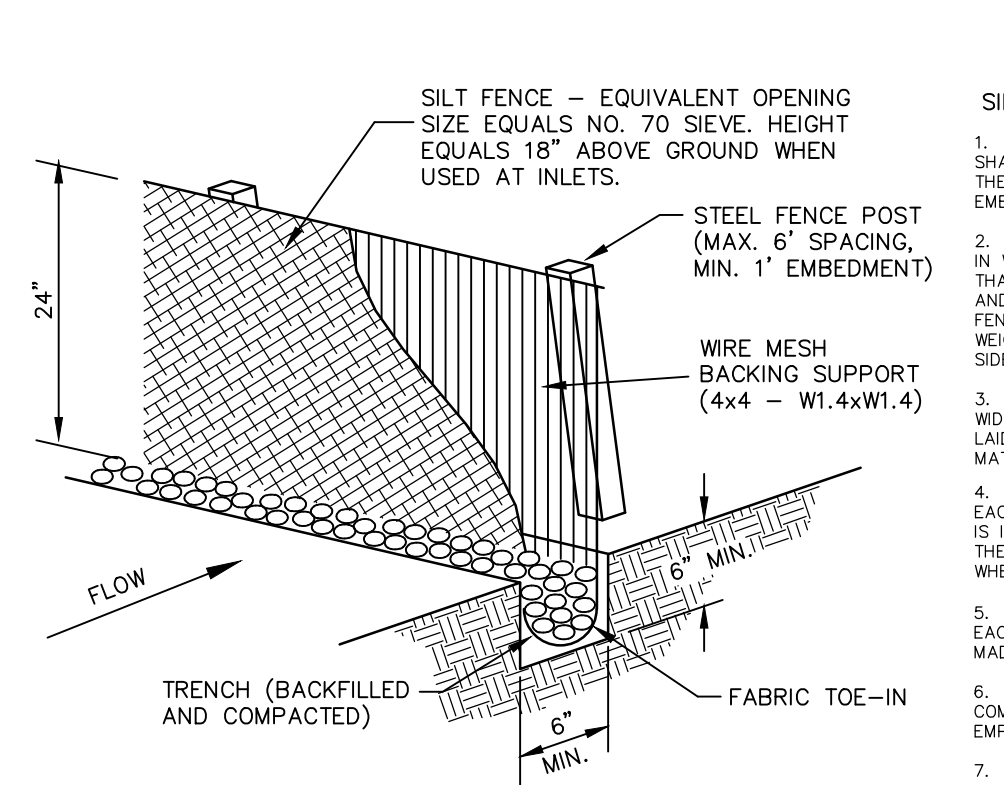
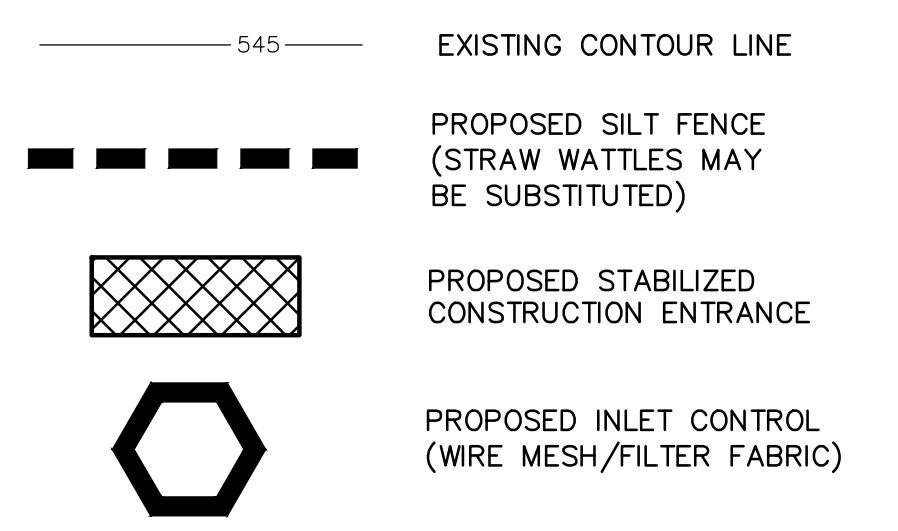


- ROCK BERM NOTES:**
- USE ONLY OPEN GRADED 4-8 INCHES IN DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK 3-5 INCHES IN DIAMETER FOR OTHER CONDITIONS.
 - THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE SIZE OF 30 GAUGE AND SHALL BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP.
 - THE ROCK BERM SHALL BE INSPECTED EVERY TWO WEEKS OR AFTER EACH 1/2" RAIN EVENT AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 - WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
 - WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
 - ROCK BERM SHOULD BE USED AS CHECK DAMS FOR CONCENTRATED FLOW AND ARE NOT INTENDED FOR USE IN PERIMETER PROTECTION.

ROCK BERM DETAIL

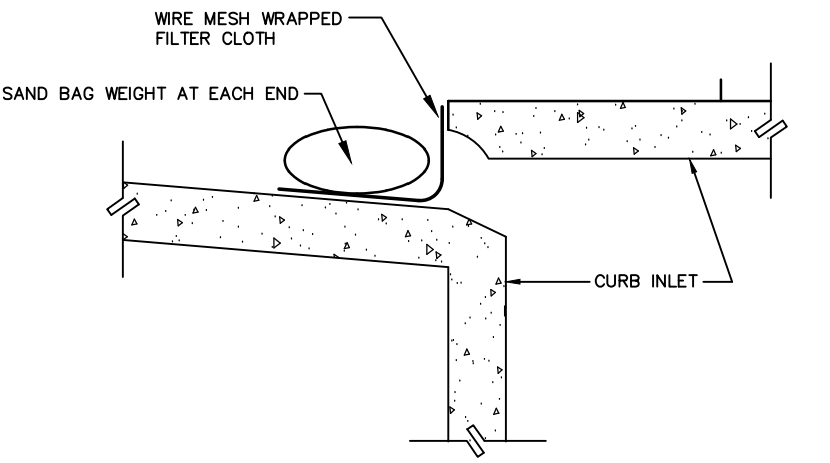
- GENERAL NOTES:**
- THE GENERAL CONTRACTOR AND OWNER RESPONSIBLE FOR PREVENTING SEDIMENT AND OTHER POLLUTANTS FROM LEAVING THE SITE. CARE SHALL BE EXERCISED TO PREVENT THE FLOW OR OFF-SITE TRACKING OF SEDIMENT AND OTHER POLLUTANTS TO ADJACENT PAVED DRIVEWAYS, ROADWAYS, INLETS AND STORM DRAIN SYSTEM.
 - ALL LOCATIONS USED AS AN EXIT MUST HAVE ROCK STABILIZATION 50' MINIMUM LENGTH, 4-6" DIAMETER STONE OVER GEOTEXTILE FABRIC.
 - THE STABILIZED CONSTRUCTION ENTRY/EXIT SHALL BE USED AS A WHEEL WASH AREA FOR ALL TRUCKS LEAVING THE SITE.
 - A BERM OR OTHER SPILL PROTECTION MEASURE SHALL BE CONSTRUCTED FOR ANY TEMPORARY FUEL STORAGE TANKS ON SITE DURING CONSTRUCTION.
 - ALL TRASH SHALL BE CONTAINED IN AN ENCLOSURE UNTIL PROPER DISPOSAL AT OFF-SITE FACILITIES.
 - VEHICLE PARKING AREAS, STAGING AREAS, STOCKPILES, SPOILS, ETC. SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. OTHERWISE, COVERING OR ENCIRCLING THE AREAS WITH PROTECTIVE MEASURES SHALL BE NECESSARY.
 - A DENSITY OF TEMPORARY OR PERMANENT GROUND COVER (I.E., VEGETATION, EROSION CONTROL, MATTING, ETC.) SUFFICIENT TO PREVENT EROSION SHALL BE ESTABLISHED ON ALL SWALES AND SLOPES IN A TIMELY MANNER IN ORDER TO PREVENT EROSION PROBLEMS FROM DEVELOPING IN THESE AREAS.
 - ALL SURFACE AREAS DISTURBED WITHIN OR ADJACENT TO THE CONSTRUCTION LIMITS MUST BE PERMANENTLY STABILIZED. STABILIZATION IS OBTAINED WHEN THE SITE IS COVERED WITH IMPERVIOUS STRUCTURES, PAVING OR A UNIFORM PERENNIAL VEGETATIVE COVER. THE PERENNIAL VEGETATION MUST HAVE A COVERAGE DENSITY OF AT LEAST 70 PERCENT. STABILIZATION IS REQUIRED BEFORE TERMINATING MAINTENANCE AND REMOVAL OF EROSION CONTROL MEASURES.
 - ALL PERIMETER EROSION CONTROL MEASURES AND A ROCK STABILIZED ENTRY/EXIT MUST BE IN PLACE BEFORE STARTING SOIL DISTURBING ACTIVITIES.
 - EROSION CONTROL MEASURES THAT PROVE TO BE INEFFECTIVE SHALL BE REPLACED WITH MORE EFFECTIVE MEASURES OR ADDITIONAL MEASURES.
 - A MAINTENANCE PROGRAM FOR ALL PROPOSED EROSION CONTROL MEASURES SHALL BE ESTABLISHED.
 - TO PREVENT ENTRY OF SEDIMENT INTO PROPOSED STORM SEWERS DURING CONSTRUCTION, INSTALL PIPE SEDIMENT FILTER OR SEDIMENT FILTER OR SEDIMENT BARRIER AT THE END OF EACH WORK DAY.
 - CONTRACTOR TO CONSTRUCT A PIT OR WASH BASIN ON-SITE FOR WASH-OUT OF CONCRETE TRUCKS.
 - IF PUMPS ARE USED TO REMOVE WATER FROM PONDED AREAS, FILTER THE DISCHARGE TO REMOVE SEDIMENT AND OTHER POLLUTANTS BEFORE THE WATER LEAVES THE SITE OR ENTERS STORM DRAIN SYSTEM. DO NOT BYPASS SILT BARRIERS OR INLET SEDIMENT FILTERS WITH THE DISCHARGE.
 - TO PREVENT DAMAGE TO VEGETATION IN DOWNSTREAM WATER COURSES, LIMIT ANY PROPOSED LIME STABILIZATION OPERATIONS TO THAT WHICH CAN BE MIXED AND COMPACTED BY THE END OF EACH WORK DAY. A SILT FENCE IS NOT EFFECTIVE IN FILTERING LIME SINCE THE GRAIN SIZE IS SIGNIFICANTLY SMALLER THAN THE OPENING IN THE FABRIC.
 - THE CONTRACTOR(S) SHALL INSPECT EROSION CONTROL MEASURES AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS AFTER A STORM EVENT OF 1/2 INCH OR GREATER. REPAIR OR REPLACE DAMAGED MEASURES AS NECESSARY TO RETAIN SEDIMENT ON SITE. EROSION CONTROL MEASURES THAT PROVE TO BE INEFFECTIVE SHALL BE REPLACED WITH MORE EFFECTIVE MEASURES OR ADDITIONAL MEASURES WITHIN SEVEN (7) CALENDAR DAYS.
 - FOR ALTERNATIVE STABILIZATION AND EROSION CONTROL MEASURES, REFER TO THE CONSTRUCTION BEST MANAGEMENT PRACTICES (BMP) MANUAL PUBLISHED BY NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 3RD EDITION.
 - CONTRACTOR TO CHECK AREAS ADJACENT TO PROPERTY DAILY FOR CONSTRUCTION WASTE MATERIALS AND DEBRIS THAT HAVE BLOWN OFF-SITE AND REMOVE IMMEDIATELY.
 - CONTAIN ALL RUNOFF FROM MATERIALS USED IN THE SUBGRADE STABILIZATION PROCESS.

LEGEND



- SILT FENCE NOTES:**
- STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
 - THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT), WEIGHT FABRIC FLAT WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
 - THE TRENCH MUST BE A MIN. OF 6" DEEP AND 6" WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
 - SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE SILT FENCE POST. THERE SHALL BE A 6" OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
 - INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR EMPEDE STORM FLOW OR DRAINAGE.
 - ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6". THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

SILT FENCE DETAIL

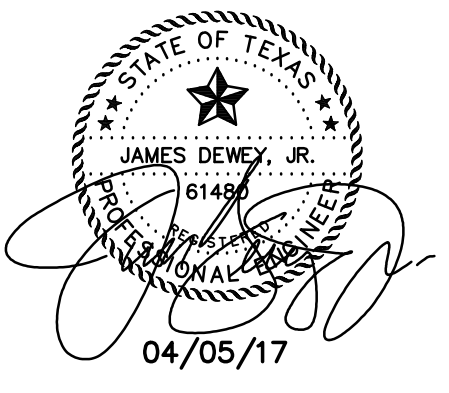


- NOTES:**
- WIRE MESH BACKING MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC WITH WATER FULLY IMPONDED AGAINST IT. FILTER FABRIC TO BE ATTACHED TO WIRE MESH ALONG BOTH EDGES WITH THE WIRES AT 24" SPACING
 - FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE; RESISTANT TO SUNLIGHT WITH SIEVE SIZE: EDS: 40-85; TO ALLOW SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDIMENT.
 - FORM THE WIRE MESH AND FILTER CLOTH TO THE CONCRETE GUTTER AND AGAINST THE FACE OF CURB ON BOTH SIDES OF THE INLET.
 - THE ASSEMBLY SHALL BE PLACED, SO THAT THE ENDS OF THE SPACERS ARE A MINIMUM OF 6" BEYOND ENDS OF THE THROAT OPENING. THE FILTER CLOTH SHOULD END 2" BELOW THE TOP OF THE THROAT.
 - THIS TYPE OF INLET PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH CLEANED OR REPLACED WHEN CLOGGED WITH SEDIMENT.

CURB INLET PROTECTION DETAIL

REVISIONS:

| | |
|---------|-------------------|
| 5/19/15 | PER CITY REVIEW |
| 8/07/15 | PER CITY REVIEW |
| 2/26/16 | RELOCATE DRIVEWAY |
| 3/17/16 | PER CITY REVIEW |
| 3/23/16 | PER CITY REVIEW |
| 4/05/17 | AS-BUILT |



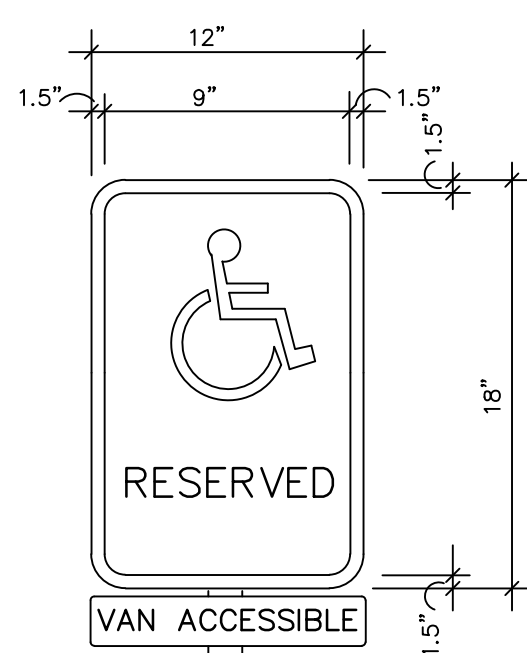
SHEET TITLE:
EROSION CONTROL PLAN
 YOUNG HYUNDAI
 1530 SOUTH INTERSTATE HIGHWAY NO. 30
 ROCKWALL, TEXAS

PREPARED BY:
JDJR ENGINEERS & CONSULTANTS, INC.
 TSBP# REGISTRATION NUMBER F-8627

ENGINEERS • SURVEYORS • LAND PLANNERS
 2500 Texas Drive Suite 100 Irving, Texas 75062
 Tel 972-252-6357 Fax 972-252-8958

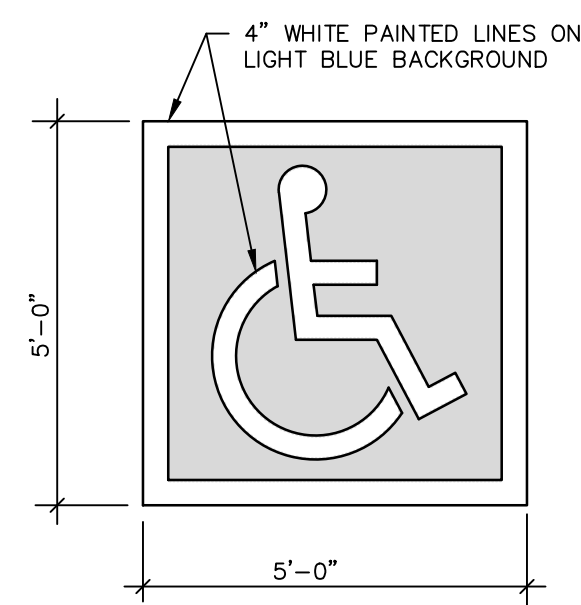
| | | |
|---------------------|------------------|----------------|
| DATE: MAR. 25, 2015 | DRAWN BY: SAS | SHEET NO. |
| SCALE: 1" = 100' | CHECKED BY: JDJR | C5 OF 6 |

C:\jdr\proj\2014\1115-4-14 CIVILS AS-BUILT PHASE I.dwg, 4/5/2017 3:44:29 PM, DWG TO PDF.PC3

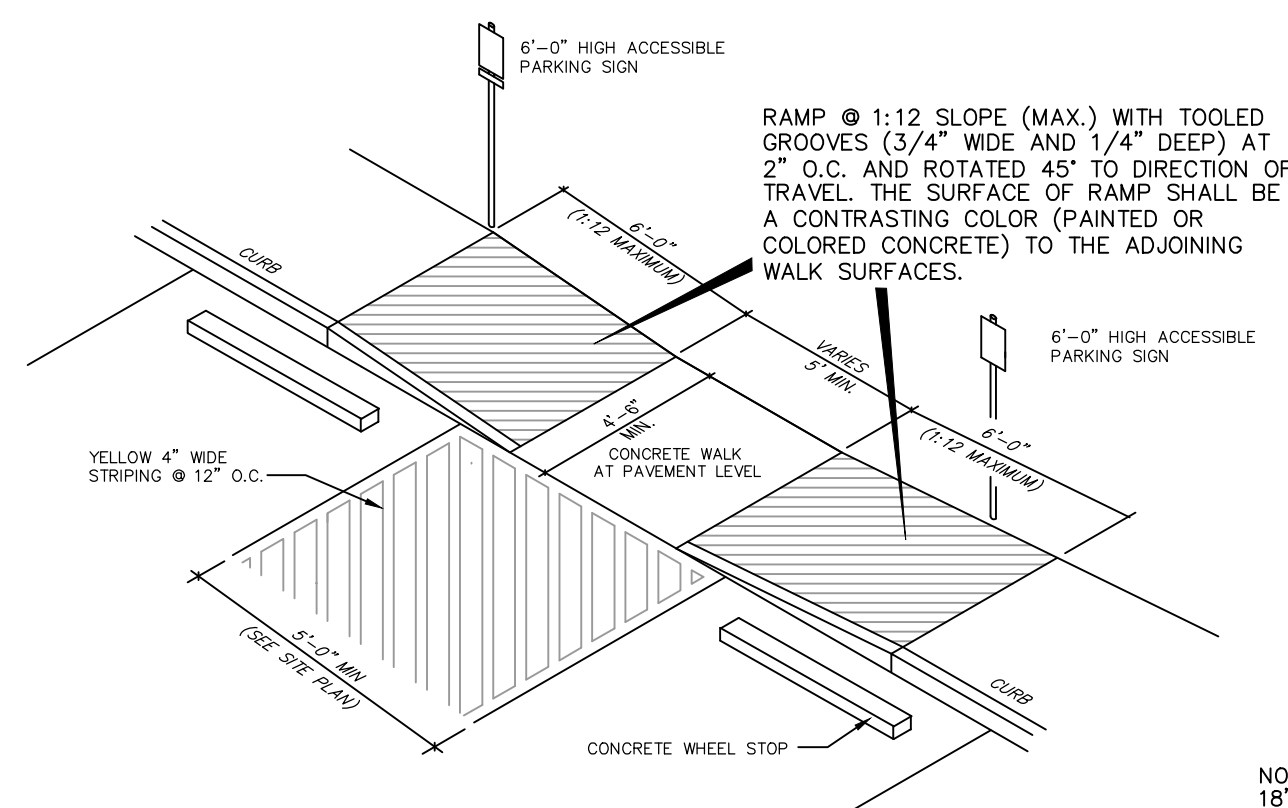


- NOTES:
- ALL LETTERS ARE 1" SERIES 'C'.
 - SIGN BACKGROUND TO BE WHITE WITH BLUE GRAPHICS, LETTERING & BORDER.
 - SIGN TO BE MOUNTED ON GALVANIZED STEEL POST SET IN CONCRETE. BOTTOM OF SIGN AT 60" ABOVE PAVING-REF. LOCAL CODES AND TEXAS ACCESSIBILITY STANDARDS.
 - VAN ACCESSIBLE SIGN TO BE ATTACHED TO SIGN POST AT DESIGNATED SPACE.

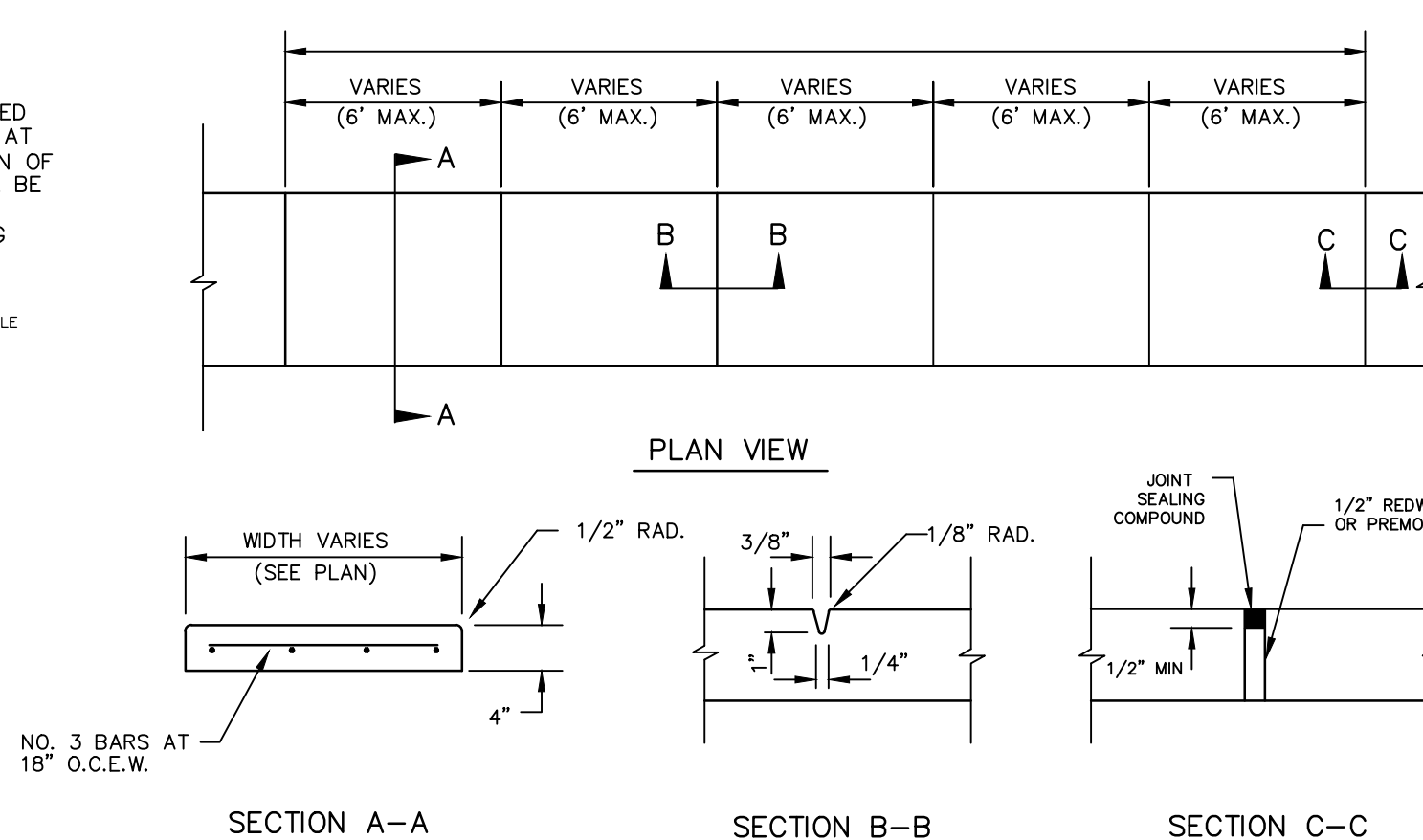
ACCESSIBLE PARKING SIGN DETAIL
NO SCALE



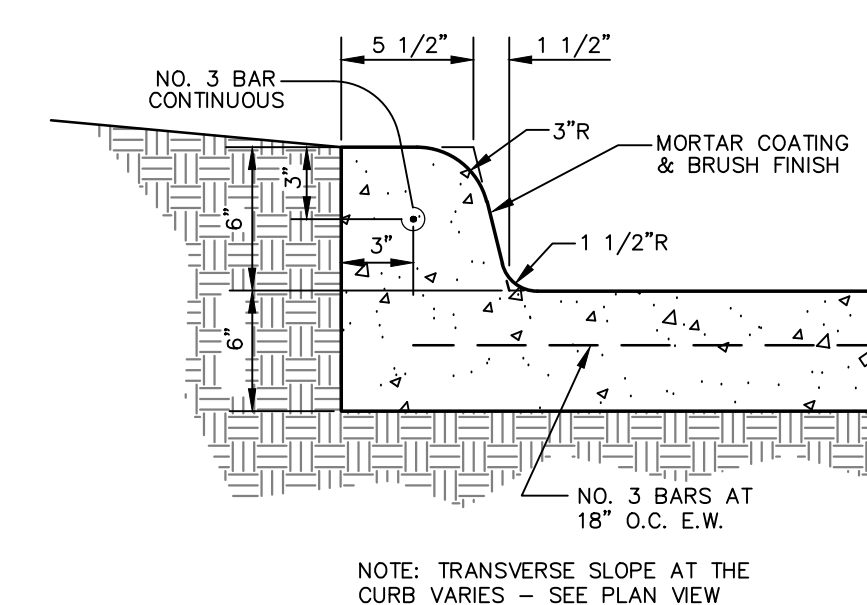
ACCESSIBLE PARKING PAINTED SYMBOL DETAIL
NO SCALE



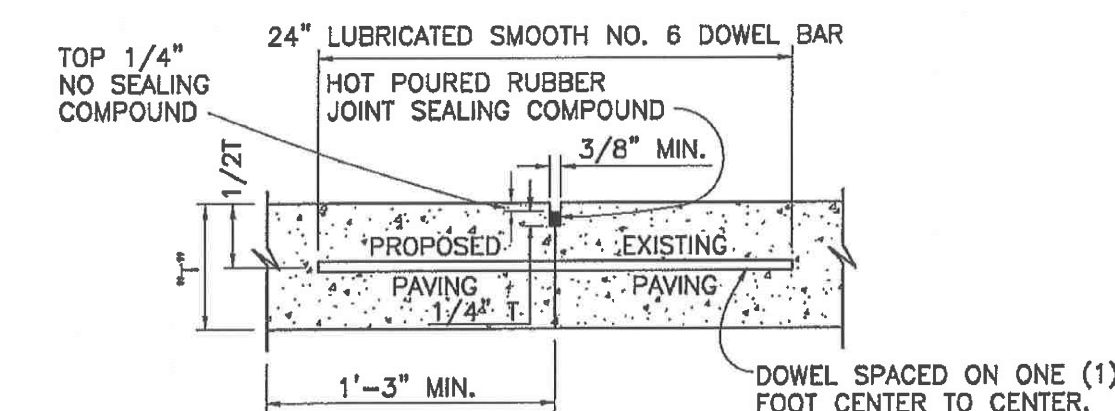
PRIVATE ACCESSIBLE RAMP AT PARKING DETAIL
NO SCALE



ON-SITE CONCRETE WALK DETAILS
NOT TO SCALE



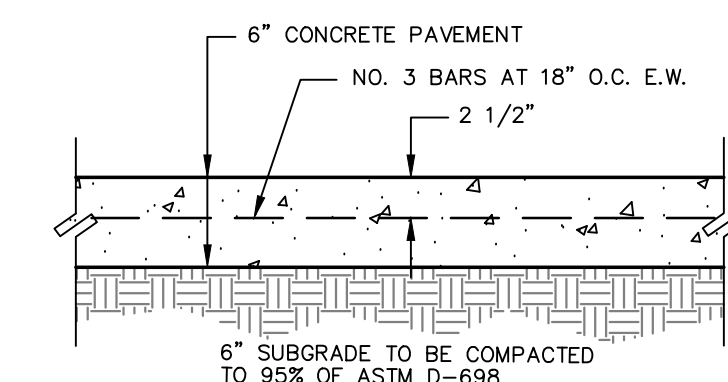
INTEGRAL CURB DETAIL
NOT TO SCALE



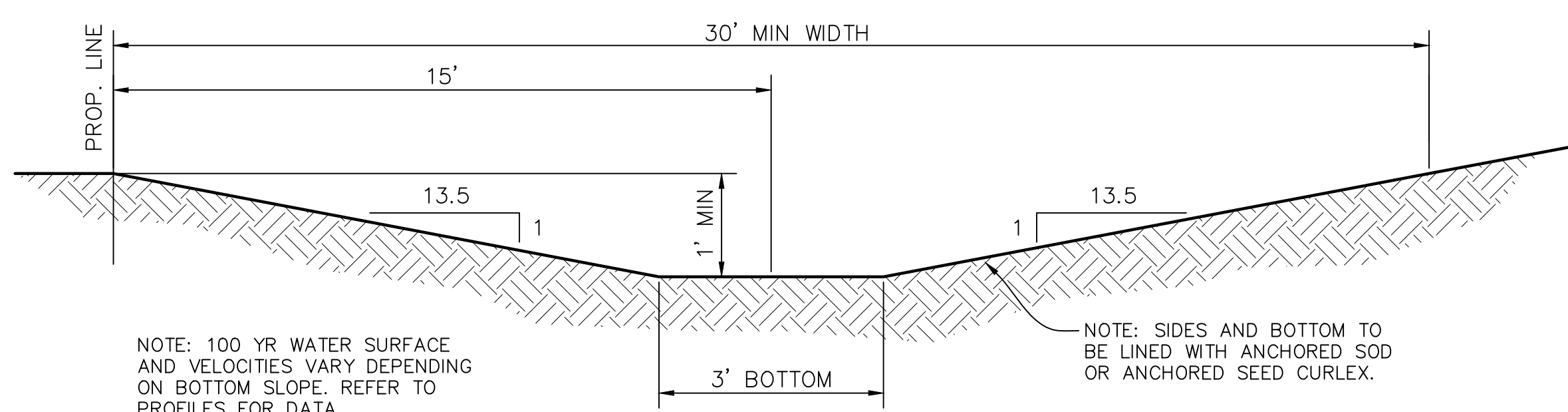
- NOTES:
- LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
 - DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.

DRILLING BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO GREEN CONCRETE NOT ACCEPTABLE

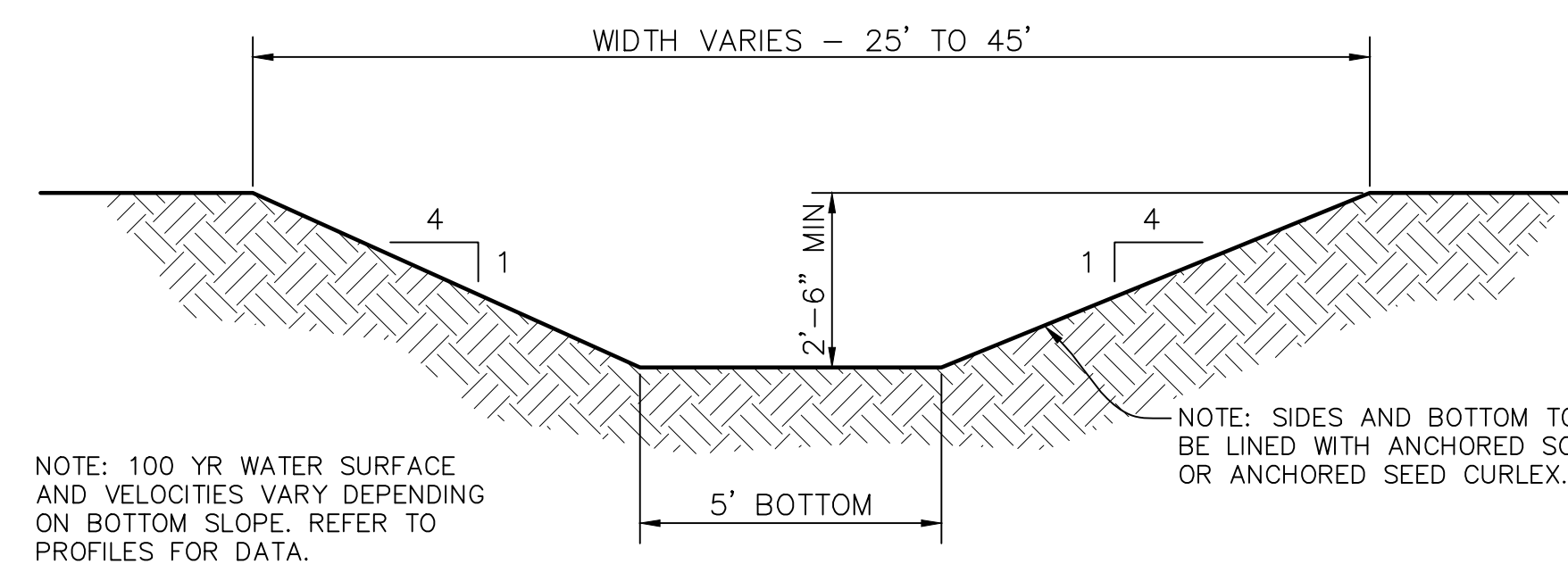
LONGITUDINAL BUTT JOINT
NOT TO SCALE



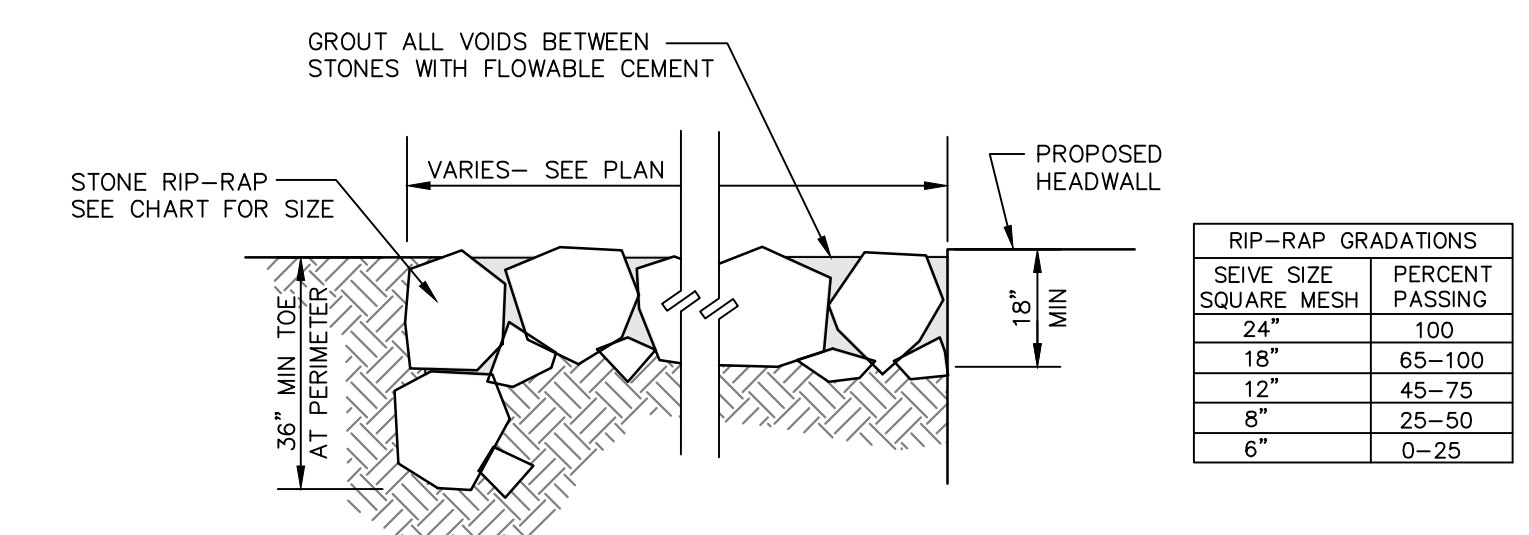
CONCRETE PAVEMENT SECTION DETAIL
NOT TO SCALE



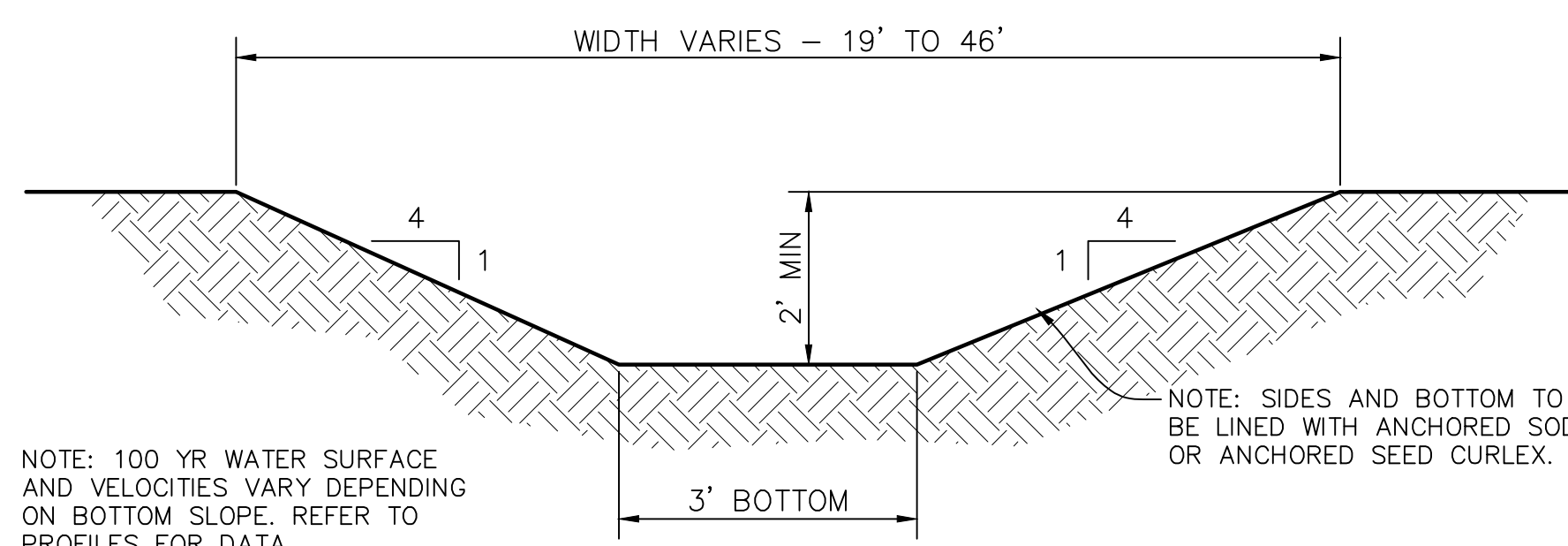
SECTION A-A (3' BOTTOM DITCH)
NOT TO SCALE



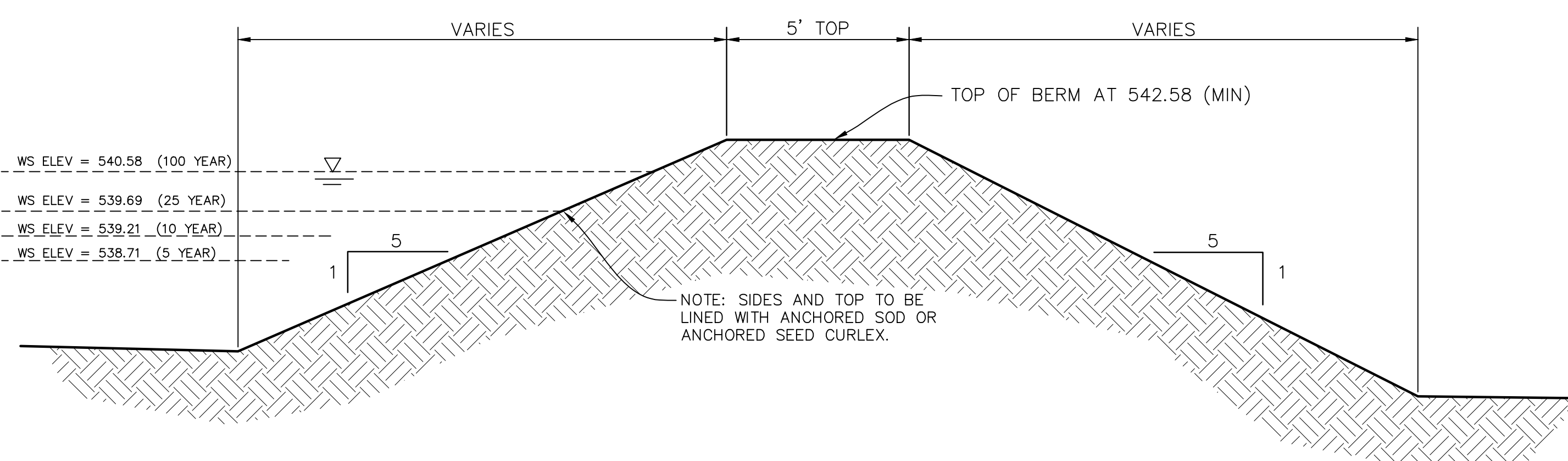
SECTION D-D (5' BOTTOM DITCH)
NOT TO SCALE



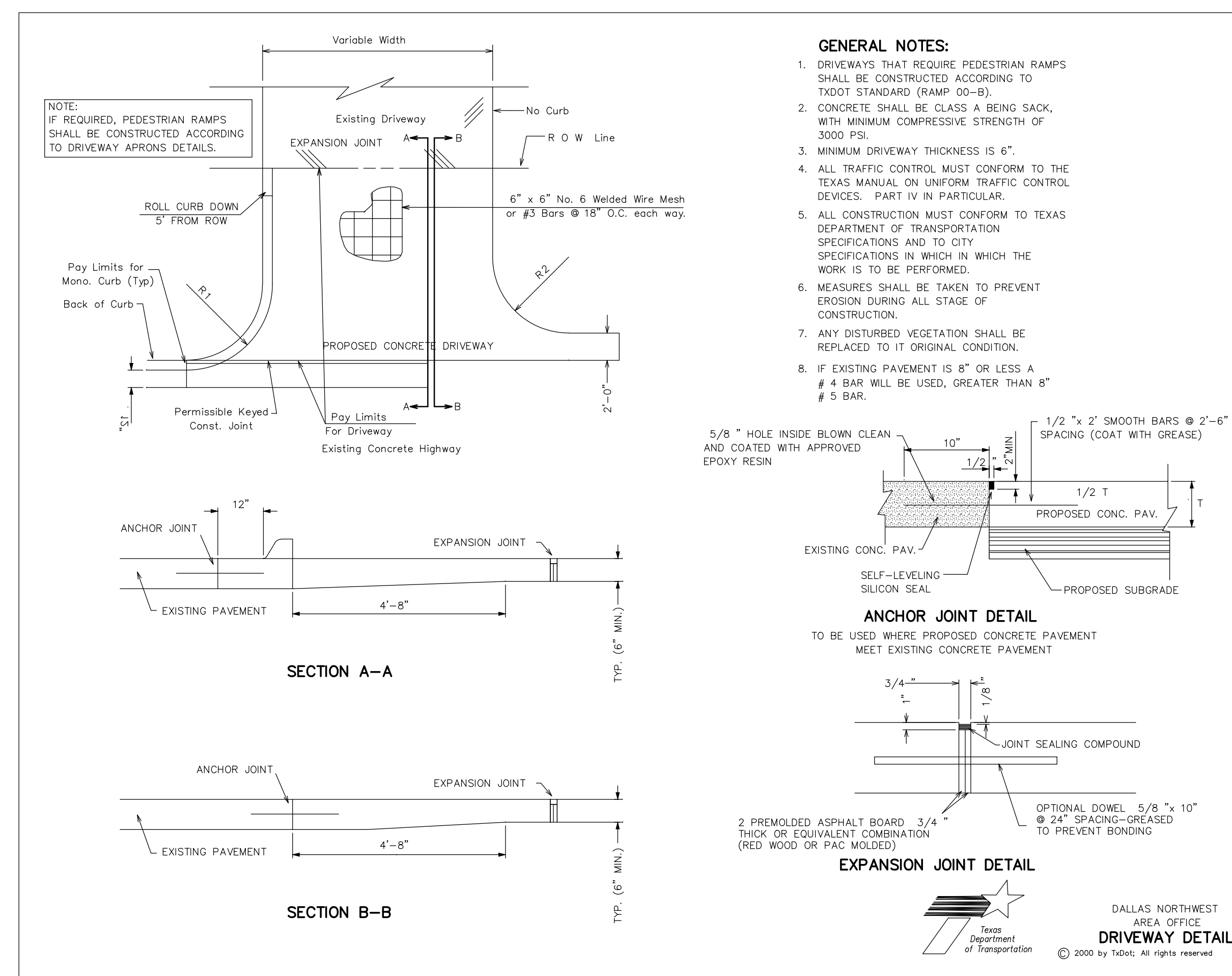
GRouted ROCK RIP-RAP DETAIL
NOT TO SCALE



SECTION B-B (3' BOTTOM DITCH)
NOT TO SCALE



SECTION C-C TYPICAL DETENTION POND X-SECTION
NOT TO SCALE

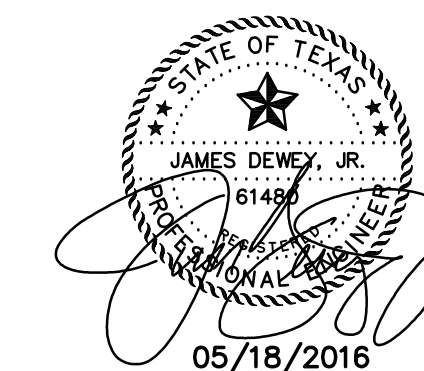


'AS-BUILT'

THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO JDJR ENGINEERS & CONSULTANTS, INC. JDJR ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.

REVISIONS:

| | |
|---------|-------------------|
| 5/19/15 | PER CITY REVIEW |
| 8/07/15 | PER CITY REVIEW |
| 2/26/16 | RELOCATE DRIVEWAY |
| 3/17/16 | PER CITY REVIEW |
| 4/05/17 | AS-BUILT |



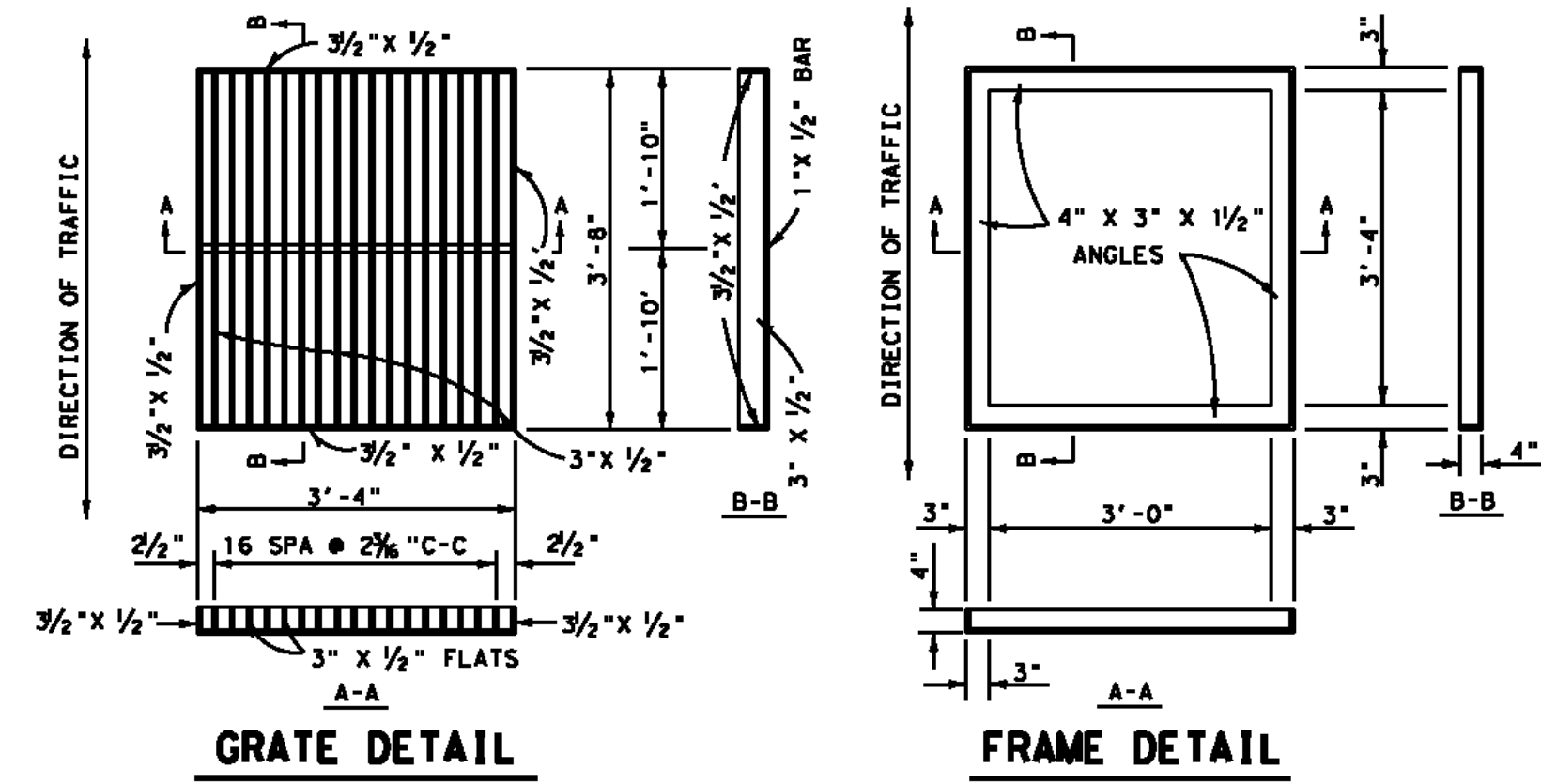
SHEET TITLE:
SITE AND PAVING DETAILS
YOUNG HYUNDAI
1530 SOUTH INTERSTATE HIGHWAY NO. 30
ROCKWALL, TEXAS

PREPARED BY:
JDJR ENGINEERS & CONSULTANTS, INC.
TSBPE REGISTRATION NUMBER F-8627

ENGINEERS • SURVEYORS • LAND PLANNERS
2500 Texas Drive Suite 100 Irving, Texas 75062
Tel 972-252-6357 Fax 972-252-8958

DATE: MAR. 25, 2015 DRAWN BY: SAS SHEET NO.
SCALE: AS SHOWN CHECKED BY: JDJR **C6A** OF 6

C:\jdr\proj\2014\1115-4-14\Rockwall Hyundai\AS-BUILT\PHASE 1.dwg, 4/5/2017 3:44:33 PM, DWG To PDF.pc3



Precast Drainage Structures

Plan
 Dimensions: L, W, End of payment for pipe, Min. Depth, Max. Depth.

Longitudinal Elevation
 Dimensions: L, W, Slope, Toe Wall Optional.

End View
 Dimensions: D, W, H.

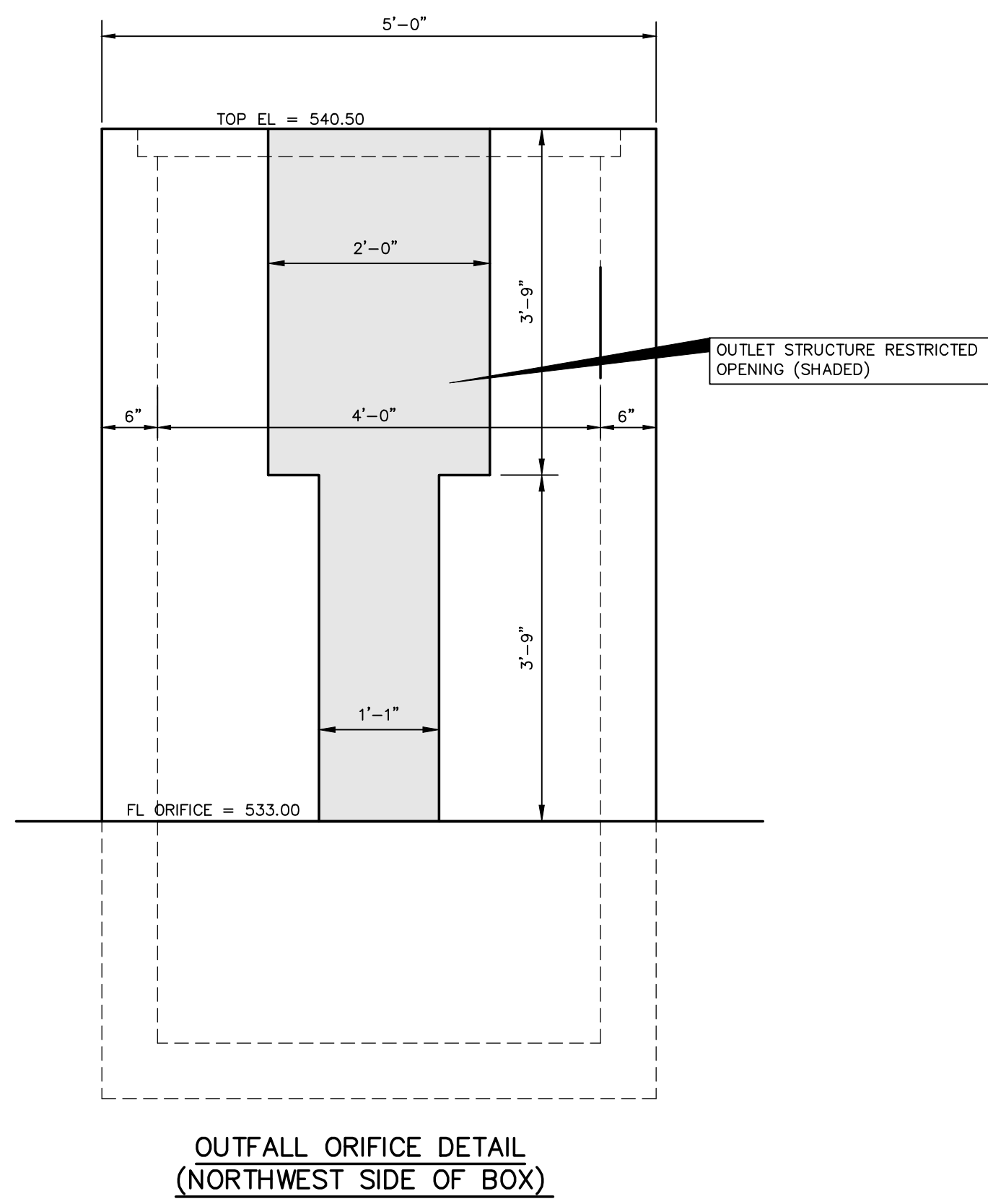
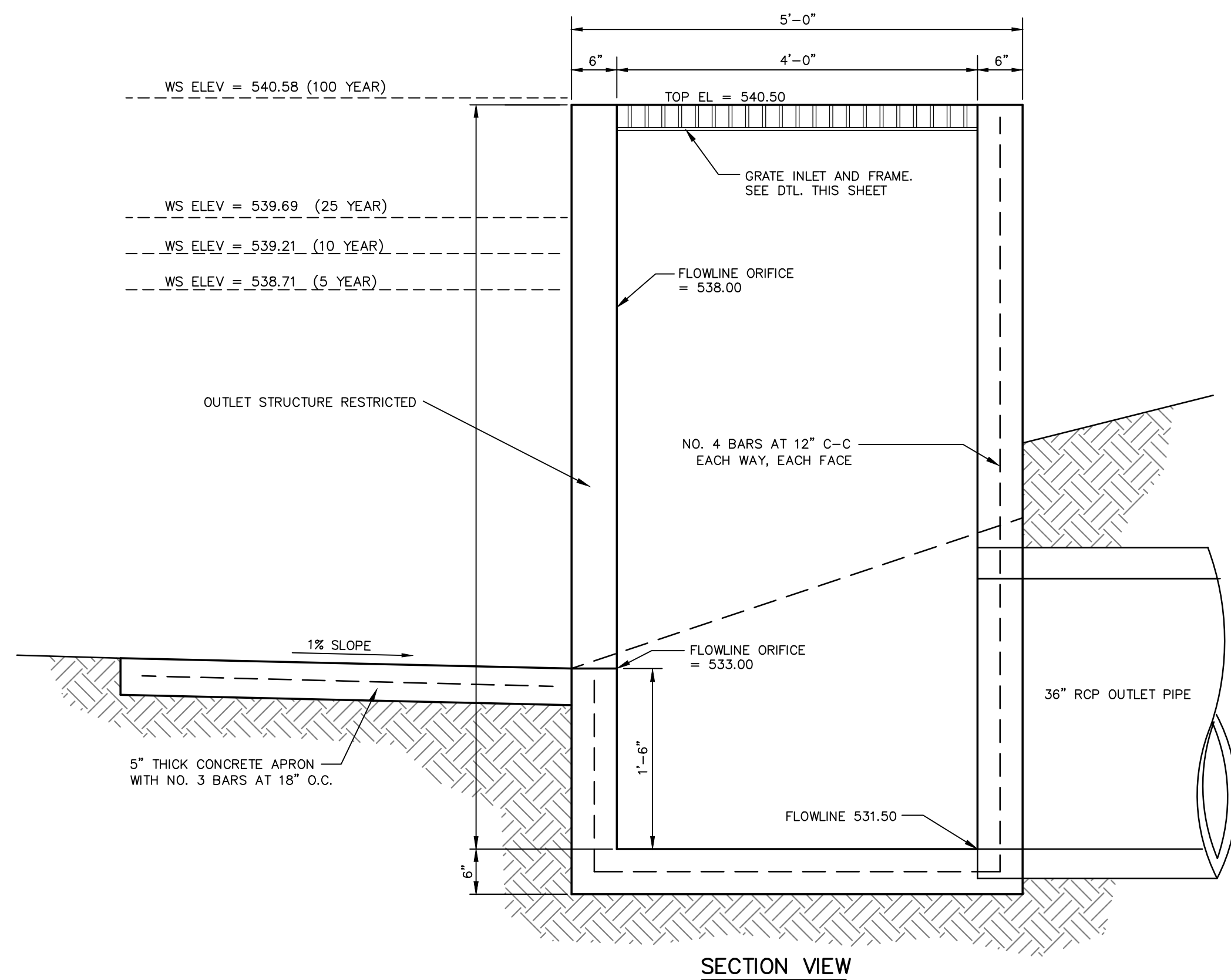
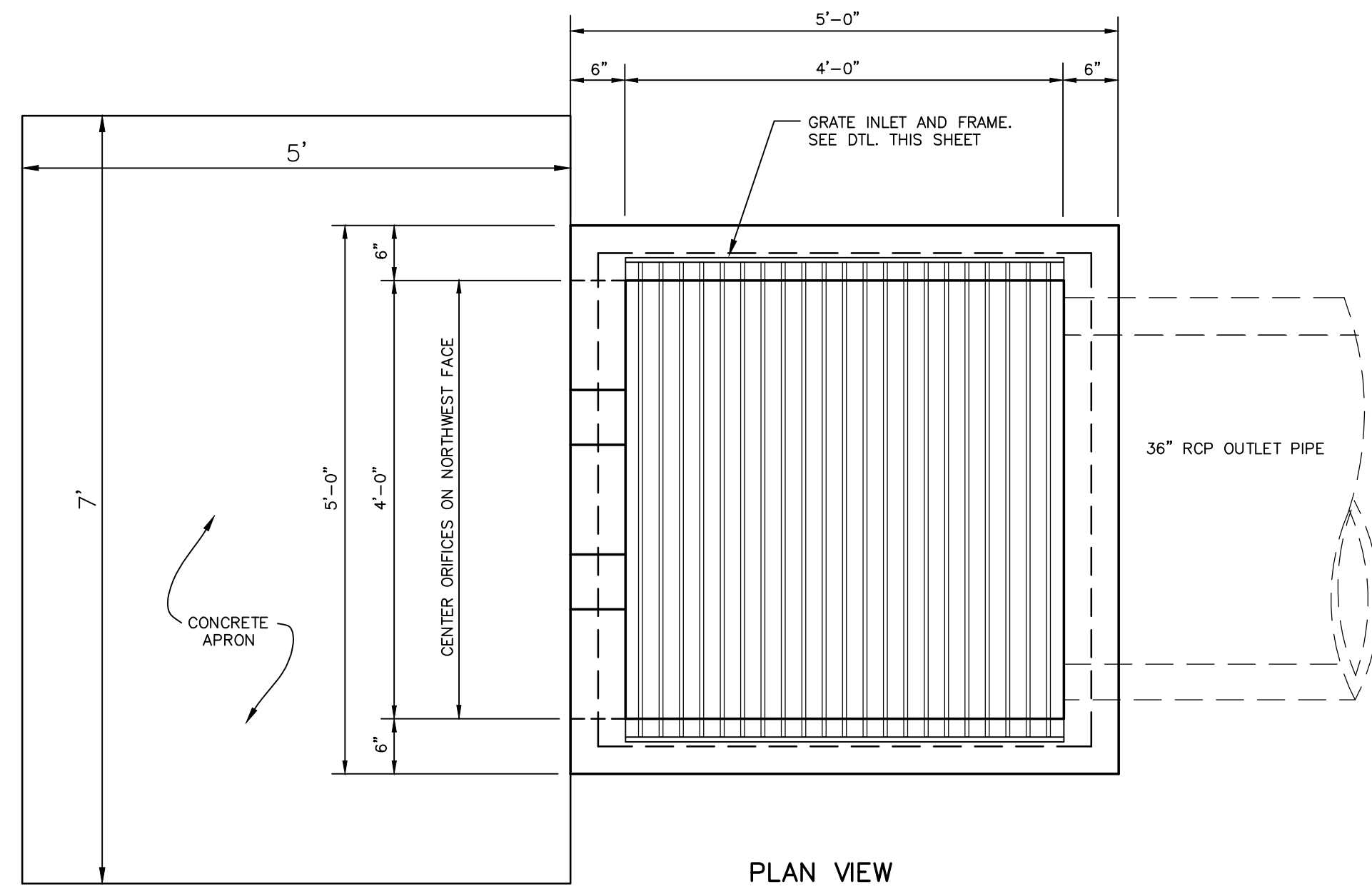
| Basic Dimensions | | | | | | | | | |
|------------------|-------|--------|--------|-------|--------|---------|------|--------------|--------------|
| Pipe Dia. (in.) | Slope | "D" | "E" | "H" | "J" | "L" | "M" | Weight (LBS) | Weight (KGS) |
| 12 | 3:1 | 17,000 | 17,500 | 28.00 | 28.250 | 34,500 | 0.75 | 1,528 | 0.75 |
| | 4:1 | 17,000 | 17,500 | 28.00 | 28.250 | 46,000 | 0.75 | 1,558 | 0.75 |
| | 6:1 | 17,000 | 17,500 | 28.00 | 28.250 | 69,000 | 0.75 | 2,017 | 0.75 |
| 15 | 3:1 | 20,500 | 17,500 | 28.00 | 28.250 | 34,500 | 0.75 | 1,243 | 0.75 |
| | 4:1 | 20,500 | 17,500 | 28.00 | 28.250 | 46,000 | 0.75 | 1,472 | 0.75 |
| | 6:1 | 20,500 | 17,500 | 28.00 | 28.250 | 69,000 | 0.75 | 1,831 | 0.75 |
| 18 | 3:1 | 24,000 | 21,000 | 30.00 | 30.000 | 45,000 | 1.00 | 1,751 | 1.00 |
| | 4:1 | 24,000 | 21,000 | 30.00 | 30.000 | 62,000 | 1.00 | 2,818 | 1.00 |
| | 6:1 | 24,000 | 21,000 | 30.00 | 30.000 | 90,000 | 1.00 | 2,831 | 1.00 |
| 24 | 3:1 | 31,000 | 27,500 | 37.00 | 37.000 | 64,500 | 1.50 | 2,831 | 1.50 |
| | 4:1 | 31,000 | 27,500 | 37.00 | 37.000 | 86,000 | 1.50 | 3,598 | 1.50 |
| | 6:1 | 31,000 | 27,500 | 37.00 | 37.000 | 129,000 | 1.50 | 4,818 | 1.50 |
| 30 | 3:1 | 38,500 | 34,500 | 41.00 | 44,500 | 85,500 | 2.25 | 4,092 | 2.25 |
| | 4:1 | 38,500 | 34,500 | 41.00 | 44,500 | 114,000 | 2.25 | 5,982 | 2.25 |
| | 6:1 | 38,500 | 34,500 | 41.00 | 44,500 | 171,000 | 2.25 | 7,900 | 2.25 |
| 36 | 3:1 | 45,500 | 41,000 | 47.00 | 51,500 | 105,000 | 2.50 | 5,544 | 2.50 |
| | 4:1 | 45,500 | 41,000 | 47.00 | 51,500 | 145,000 | 2.50 | 8,807 | 2.50 |
| | 6:1 | 45,500 | 41,000 | 47.00 | 51,500 | 210,000 | 2.50 | 8,722 | 2.50 |

Note:
 1.) The Safety End Treatment option shown on this sheet should only be utilized in the following instances:
 A.) On cross-drainage structures for 36" or smaller diameter pipes.
 B.) On parallel-drainage structures for 30" or smaller pipes.
 2.) Cross & Parallel drainage structures larger than the requirements listed above shall utilize other safety end treatment designs shown elsewhere in the plans.
 3.) All exposed corners shall be chamfered 3/4".
 4.) Manufacture of this product shall conform to the requirements of item 467 except that minimum reinforcing shall be #4 @ 6" (Grade 40) or #4 @ 9" (Grade 60) each way or 6 x 6 - W12 x W12 or 5 x 5 - W10 x W10 welded wire fabric.
 5.) Concrete for precast (steel formed) sections shall be a minimum of Class "C" ~~4,000~~ 4,200 PSI IF POURED IN PLACE (MIN. 7.5 SACK MIX).
 6.) At the option and expense of the contractor, the next larger size of Safety End Treatment may be furnished as long as the "D" dimension cast is that of the required size of pipe.

-No Scale-
 All dimensions subject to allowable specification tolerances.

| TITLE | PLANT | STATE | SECTION/PAGE | DATE |
|---|-----------------------|-------|--------------|----------|
| Precast Safety End Treatment For Reinforced Concrete Pipe | Grand Prairie Houston | TX | 7.4 | 08-15-06 |

Hanson

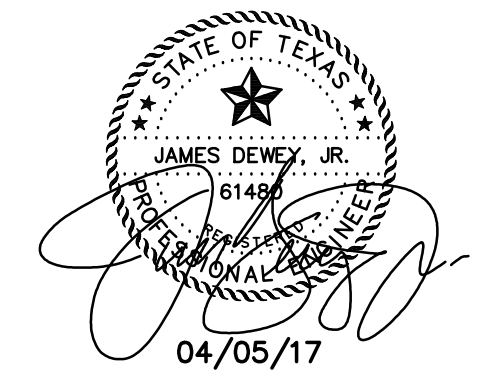


**CAST IN PLACE Y-INLET DETAILS
 DETENTION POND OUTFALL STRUCTURE**
 NOT TO SCALE

"AS-BUILT"
 THIS AS-BUILT DRAWING IS BASED ON INFORMATION OBTAINED FROM BUILDING CONTRACTORS DURING CONSTRUCTION AS PROVIDED TO JDR ENGINEERS & CONSULTANTS, INC. JDR ENGINEERS & CONSULTANTS, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THESE RECORDS. ALL PROPOSED IMPROVEMENTS WERE CONSTRUCTED EXCEPT FOR THE PARKING LOT ON THE NORTH SIDE OF THE BUILDING. THE EXISTING DRIVE APPROACH FROM THE SERVICE ROAD WAS REMOVED AND THE NEW DRIVE APPROACH CONSTRUCTED.

REVISIONS:

| | |
|---------|-------------------|
| 5/19/15 | PER CITY REVIEW |
| 8/07/15 | PER CITY REVIEW |
| 2/26/16 | RELOCATE DRIVEWAY |
| 4/05/17 | AS-BUILT |



SHEET TITLE:
**STORM DRAIN DETAILS
 YOUNG HYUNDAI**
 1530 SOUTH INTERSTATE HIGHWAY NO. 30
 ROCKWALL, TEXAS

PREPARED BY:
JDR ENGINEERS & CONSULTANTS, INC.
 TSBPE REGISTRATION NUMBER F-8527

ENGINEERS • SURVEYORS • LAND PLANNERS
 2500 Texas Drive Suite 100 Irving, Texas 75062
 Tel 972-252-6357 Fax 972-252-8958

| | | |
|---------------------|-----------------|-----------------|
| DATE: MAR. 25, 2015 | DRAWN BY: SAS | SHEET NO. |
| SCALE: AS SHOWN | CHECKED BY: JDR | C6B OF 6 |