

SITE DEVELOPMENT PLANS

RHYNO CARWASH

COMMERCIAL DEVELOPMENT

PREPARED FOR
Rhyno Land J, LLC

JONESBORO, ARKANSAS
AUGUST 26, 2015

LOCAL CONTACTS

CITY OF JONESBORO - PLANNING & ZONING DEPARTMENT
300 South Church Street
Jonesboro, AR 72401
PH-870-932-0406

CITY OF JONESBORO - ENGINEERING DEPARTMENT
300 South Church Street
Jonesboro, AR 72401
PH-870-932-2438

CITY OF JONESBORO - FIRE SAFETY DEPARTMENT
3215 East Johnson
Jonesboro, AR 72401
PH-870-932-2428

CITY WATER & LIGHT - ENGINEERING DEPARTMENT
400 East Monroe
Jonesboro, AR 72401
PH-870-930-3320

ARKANSAS STATE HIGHWAY DEPARTMENT - R.O.W. PERMITS
2510 Hwy. 412 West
P.O. BOX 98
Paragould, AR 72451
PH-870-239-9511

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY
2212 Fowler Ave. - Suite B
Jonesboro, AR 72401 72401
PH-870-935-7221

CENTERPOINT ENERGY
613 Southwest Drive
Jonesboro, AR 72401
PH-800-555-6322

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723 South Church
Jonesboro, AR 72401
PH-870-972-7600

RITTER COMMUNICATIONS
2109 Fowler Ave.
Jonesboro, AR 72401
PH-870-336-3421

SUDDENLINK
1520 South Caraway
Jonesboro, AR 72401
PH-870-897-5697

VICINITY MAP



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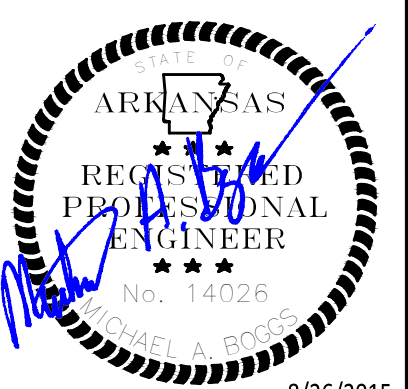
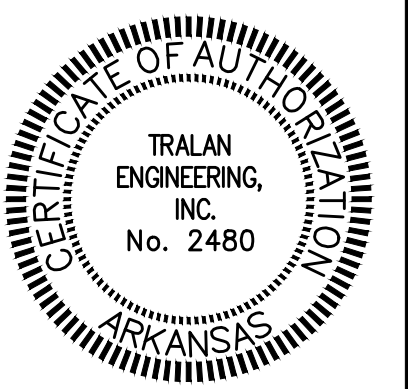
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- CWL SEWER DETAILS

COMPANY INFO:
2916 WOOD STREET
JONESBORO, AR 72404
PH: 1-870-203-9959
WWW.TRALANENG.COM



PROJECT:
Rhyno Carwash

CLIENT:
Rhyno Land J, LLC



REVISIONS		
DATE	BY	DESCRIPTION

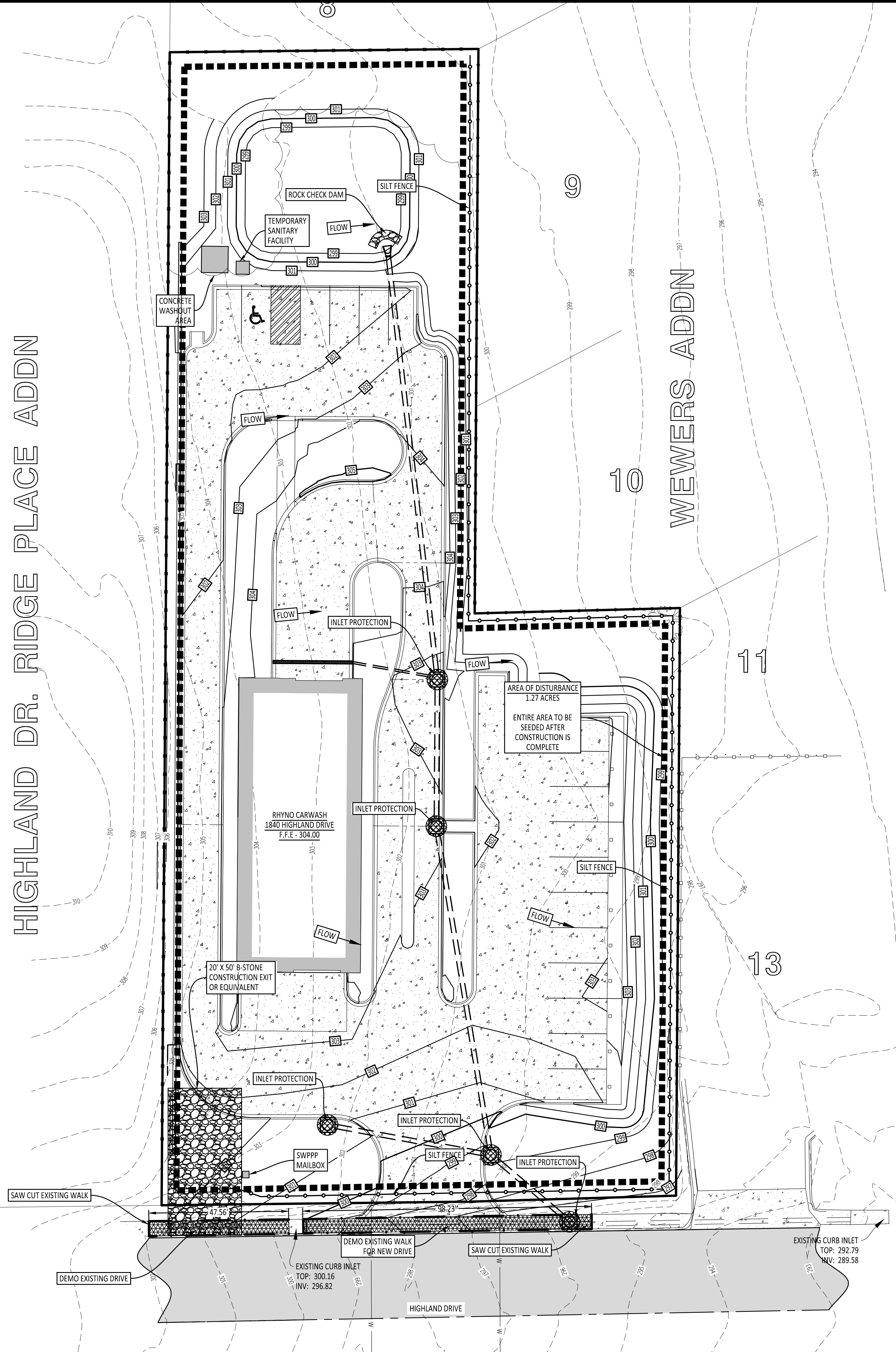
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3A

HIGHLAND DR. RIDGE PLACE ADDN



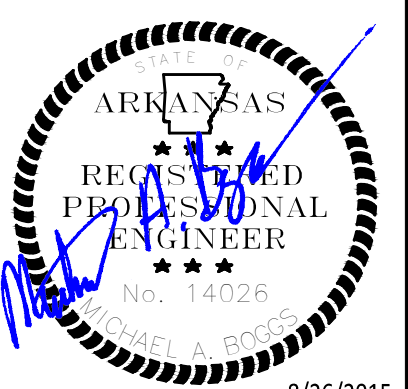
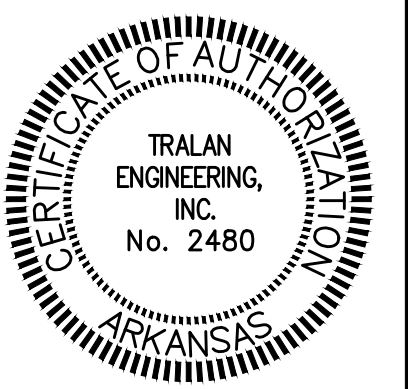
VICINITY MAP
NOT TO SCALE

ENGINEER'S NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED BEFORE THE COMMENCEMENT OF ANY LAND DISTURBANCE ACTIVITIES.
2. ALL TRAFFIC THAT EXITS THE CONSTRUCTION SITE MUST USE THE CONSTRUCTION ENTRANCE. ANY SEDIMENT THAT IS TRACKED OFF-SITE, MUST BE REMOVED IMMEDIATELY.
3. ALL CONCRETE TRUCK WASHOUT MUST BE CONFINED TO THE LOCATION SHOWN ON THIS PLAN.
4. A TEMPORARY SANITARY FACILITY MUST BE PLACED ON THIS JOBSITE.
5. ALL SWPPP DOCUMENTS MUST BE UPDATED IMMEDIATELY, IF ANY CHANGE IS MADE TO THIS PLAN DURING CONSTRUCTION.
6. ALL CONTROL MEASURES MUST BE WELL MAINTAINED DURING ALL CONSTRUCTION ACTIVITIES TO ENSURE MINIMAL OFF-SITE ACCUMULATION OF SEDIMENT.
7. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL LOCAL, STATE, AND FEDERAL PERMITS RELATED TO ALL CLEARING/DEMOLITION ACTIVITIES.
8. CONTRACTOR SHALL KEEP AN ORDERLY WORK SITE AND SHALL DISPOSE OF ALL CONSTRUCTION DEBRIS IN ACCORDANCE WITH ALL LOCAL, STATE, AND/OR FEDERAL REGULATIONS.
9. THE LOCATIONS AND SIZES OF EXISTING UNDERGROUND UTILITIES SHOWN ARE BASED FIELD MEASUREMENTS AND EXISTING UTILITY MAPS. TRALAN ENGINEERING, INC. MAKES NO GUARANTEE TO THE EXACT LOCATION OF THE UTILITIES SHOWN ON THESE PLANS. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATIONS SHOWN. NO EXCAVATIONS WERE MADE TO LOCATE BURIED UTILITIES OR STRUCTURES.
10. BEFORE ANY CLEARING OR EXCAVATIONS ARE MADE, THE CONTRACTOR SHALL CONTACT THE ARKANSAS ONE-CALL AT 811 AT LEAST TWO DAYS PRIOR TO THE COMMENCEMENT OF ANY SAID ACTIVITY.
11. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO EXISTING FACILITIES AND/OR ADJACENT PROPERTIES, AND SHALL BE RESPONSIBLE FOR DAMAGE THAT MAY OCCUR.
12. CONTRACTOR SHALL NOT CONSTRUCT A DRIVEWAY OF ANY TYPE UNTIL THE OWNER HAS SECURED A DRIVEWAY ACCESS PERMIT FROM THE ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT.
13. CONTRACTOR TO ENSURE ALL LANES CLOSURES ARE COORDINATED THROUGH AHTD.

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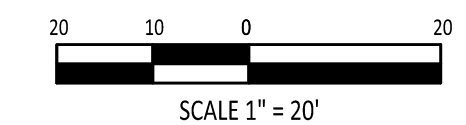


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SWPPP / DEMO PLAN

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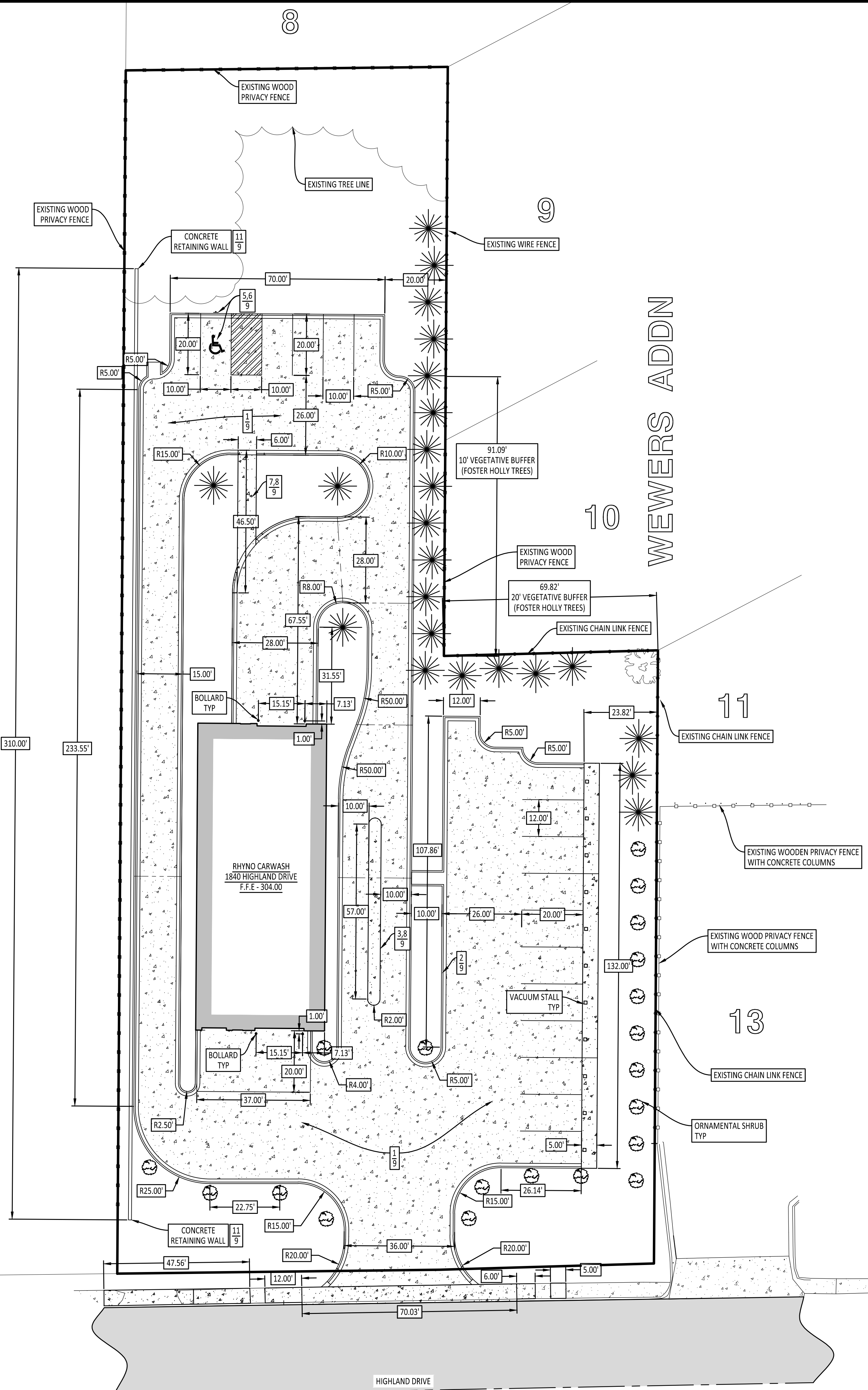


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HIGHLAND DR. RIDGE PLACE ADDN



VICINITY MAP
NOT TO SCALE

ENGINEER'S NOTES:

- ALL DIMENSIONS AND RADII ARE REFERENCED FROM THE BACK OF CURB. ALL RADII NOT LABELED SHALL HAVE A MINIMUM RADIUS OF 5 FEET.
- PARKING REQUIRED IS AS FOLLOWS:
5 SPACE / 1 SERVICE BAY
1 BAY X 5 SPACES = 5 SPACES

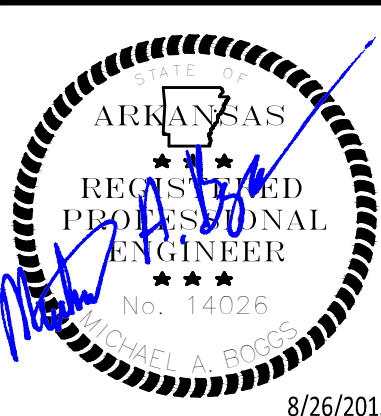
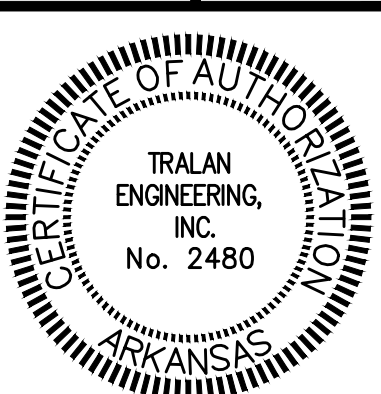
TOTAL SPACES REQUIRED - 5 SPACES
TOTAL SPACES PROVIDED - 6 SPACES
- ALL SIDEWALK AND PATIO CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4,000 PSI. ALL DRIVING, PARKING, AND DUMPSTER AREAS SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4,000 PSI AND REINFORCED WITH A 6X6 W2.9/2.9 WELDED WIRE MESH.
- SITE WILL UTILIZE A DUMPSTER.
- REFER TO DETAIL SHEETS FOR CONSTRUCTION MATERIAL SPECIFICATIONS.

LANDSCAPING NOTES:

- AT LEAST ONE (1) TREE & THREE (3), FIVE (5) GALLON SHRUBS SHALL BE PROVIDED FOR EVERY 10 PARKING SPACES
5 PARKING SPACES
5 SPACES / (1 TREE/10 SPACES) = 1 TREES REQUIRED
5 SPACES / (3 SHRUBS/10 SPACES) = 3 SHRUBS REQUIRED
- TREE PLANTING AREAS SHALL BE AT LEAST SEVEN (7) FEET WIDE AND PROTECTED BY RAISED CURBS TO PREVENT DAMAGE BY VEHICLES.
- ALL TREES SHALL BE OF ORNAMENTAL, EVERGREEN, OR OF THE LARGE DECIDUOUS TYPE.
- LARGE DECIDUOUS TREES SHALL HAVE A MINIMUM HEIGHT OF EIGHT (8) FEET, AND A MINIMUM DIAMETER OF THREE (3) INCHES, MEASURED AT A POINT THAT IS AT LEAST FOUR AND ONE-HALF (4.5) FEET ABOVE THE EXISTING GRADE LEVEL.
- ORNAMENTAL TREES SHALL HAVE A MINIMUM HEIGHT OF FOUR (4) FEET.
- CONIFERS OR UPRIGHT EVERGREEN TREES SHALL HAVE A MINIMUM HEIGHT, AFTER PLANTING, OF SIX (6) FEET.
- ALL LANDSCAPING SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES IN A MANNER DESIGNED TO ENCOURAGE VIGOROUS GROWTH.
- THIS PLAN MAY BE MODIFIED BY THE OWNER OR HIS/HER DESIGNATED REPRESENTATIVE, AS LONG AS THE ABOVE CRITERIA ARE MET.

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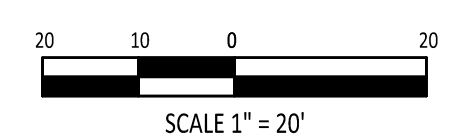
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SITE DIMENSION PLAN

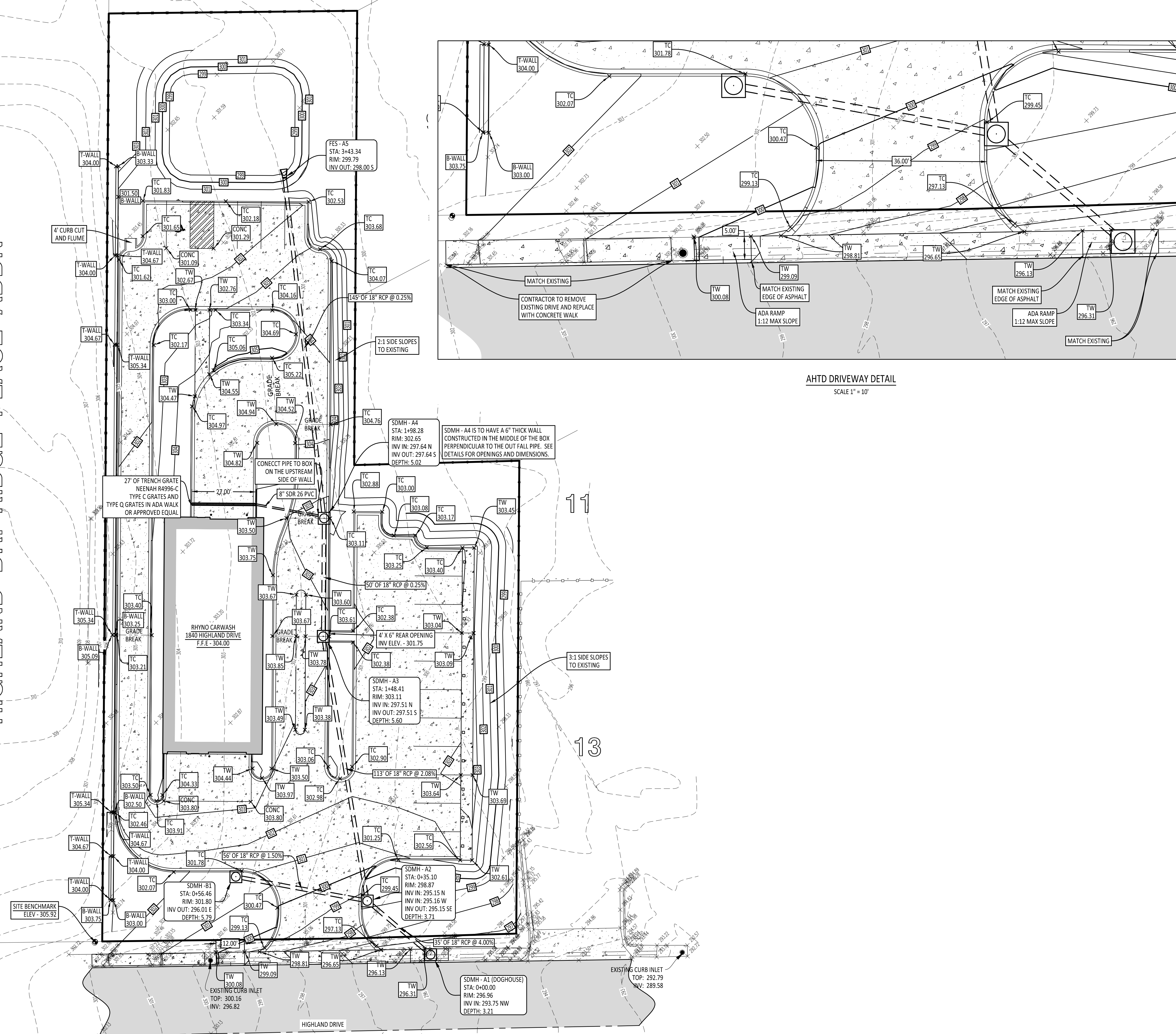
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HIGHLAND DR. RIDGE PLACE ADDN



VICINITY MAP
NOT TO SCALE

ENGINEER'S NOTES:

- ALL HANDICAP SPACES AND UNLOADING ZONES SHALL HAVE A MAXIMUM SLOPE OF 2% IN ALL DIRECTIONS.
- ALL HANDICAP ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM CROSS-SLOPE OF 2% AND A MAXIMUM RUNNING SLOPE OF 5%.
- THE SITE VERTICAL BENCHMARK IS A COTTON PICKER SPINDLE IN EAST SIDE OF POWER POLE AT THE SOUTHWEST CORNER OF SITE AS SHOWN ON PLANS.
ELEV = 305.92
VERTICAL CONTROL - NAVD 88
HORIZONTAL CONTROL - AR STATE PLANE NORTH ZONE-NAD 83
- ALL PIPE SHALL BE REINFORCED CONCRETE PIPE, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH THE GRADES SHOWN ON THIS PLAN. ALL COMBINATION CURB AND GUTTER SECTIONS SHALL HAVE THE GUTTER PORTION PITCHED IN THE SAME DIRECTION OF THE INTENDED FLOW.
- THROUGHOUT ALL SITE GRADING AND EXCAVATING ACTIVITIES, THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN CONFORMANCE WITH THE GRADES AND SLOPES SHOWN HEREON.
- CONTRACTOR SHALL KEEP AN ORDERLY WORK SITE AND SHALL DISPOSE OF ALL CONSTRUCTION DEBRIS IN ACCORDANCE WITH ALL LOCAL, STATE, AND/OR FEDERAL REGULATIONS.
- THE LOCATIONS AND SIZES OF EXISTING UNDERGROUND UTILITIES SHOWN ARE BASED FIELD MEASUREMENTS AND EXISTING UTILITY MAPS. TRALAN ENGINEERING, INC. MAKES NO GUARANTEE TO THE EXACT LOCATION OF THE UTILITIES SHOWN ON THESE PLANS. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATIONS SHOWN. NO EXCAVATIONS WERE MADE TO LOCATE BURIED UTILITIES OR STRUCTURES.
- BEFORE ANY EXCAVATIONS ARE MADE, THE CONTRACTOR SHALL CONTACT THE ARKANSAS ONE-CALL AT 811 AT LEAST TWO DAYS PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION ACTIVITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKEOUT. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS, ELEVATIONS, STATIONS, ETC. BEFORE ORDERING MATERIALS OR PROCEEDING WITH WORK, AND IS RESPONSIBLE FOR SAME. IF ANY DISCREPANCY IN THE PLANS OR SPECIFICATIONS ARISES, THE CONTRACTOR SHALL CONTACT THE ENGINEER BEFORE INITIATING WORK AFFECTED BY THE DISCREPANCY.
- THE CONTRACTOR IS CAUTIONED AND SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER'S REPRESENTATIVE OF ANY ERROR OR OMISSION ON THE PLANS WHICH MAY CREATE ADDITIONAL WORK OR EXPENSE BY THE CONTRACTOR, AND SHALL OBTAIN A WRITTEN WORK ORDER FROM THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH ANY EXTRA WORK WHICH MAY BE CAUSED FROM SUCH ERROR OR OMISSION ON THESE PLANS.
- CONTRACTOR SHALL NOT CONSTRUCT A DRIVEWAY OF ANY TYPE UNTIL THE OWNER HAS SECURED A DRIVEWAY ACCESS PERMIT FROM THE ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT.
- CONTRACTOR TO ENSURE ALL LANES CLOSURES ARE COORDINATED THROUGH AHTD.

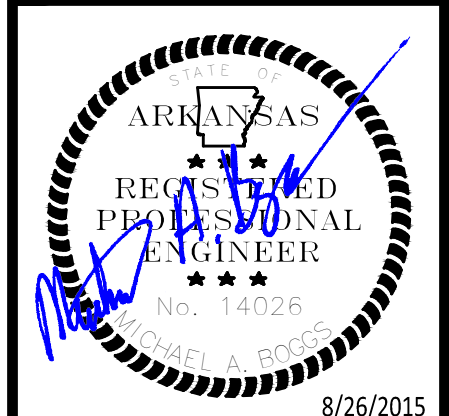
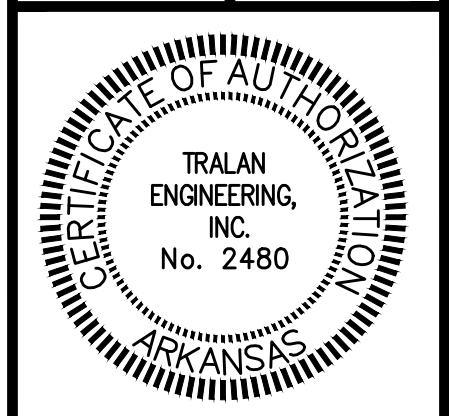
AHTD DRIVEWAY DETAIL
SCALE 1" = 10'

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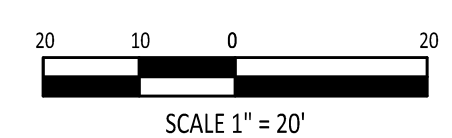
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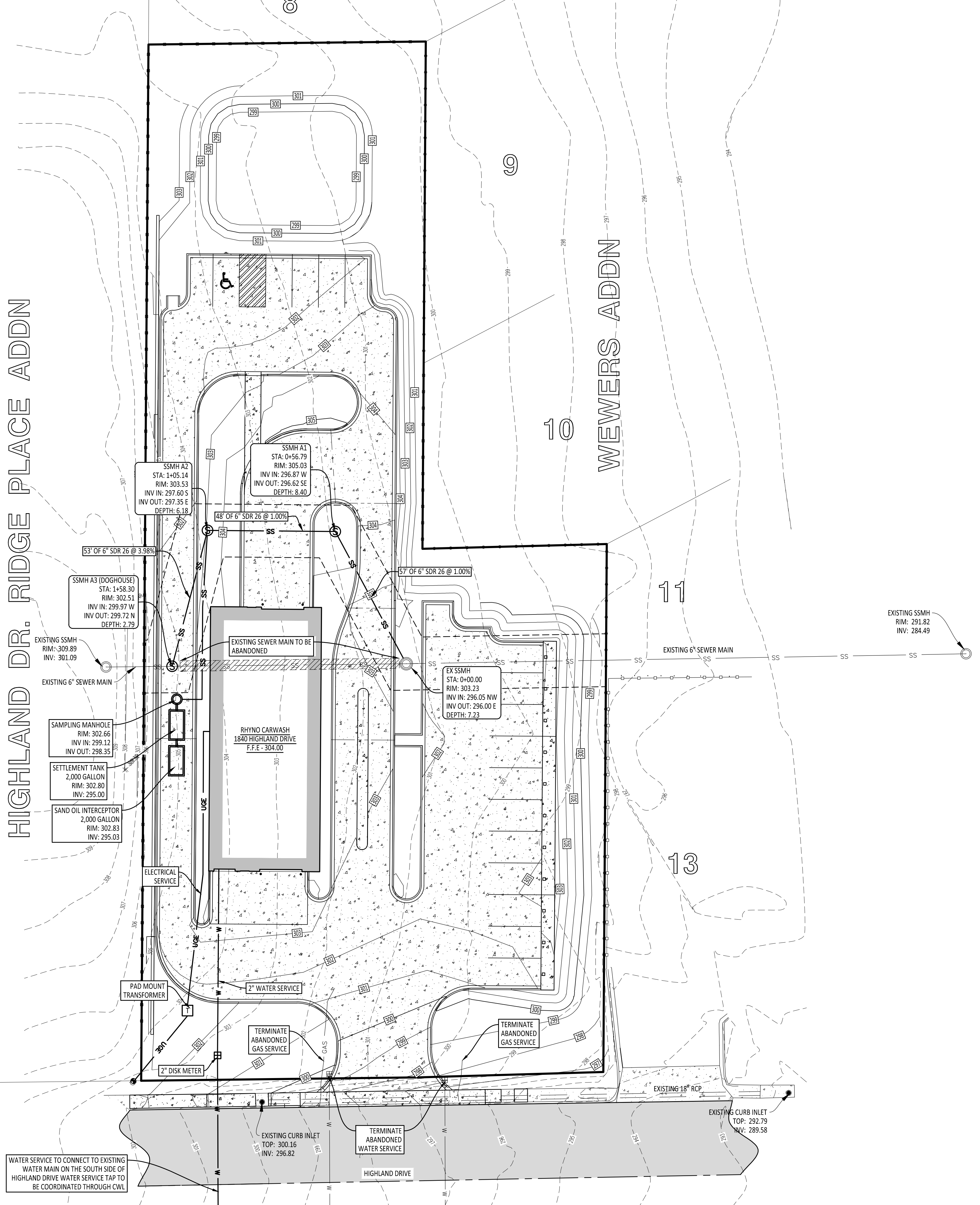
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GRADING & DRAINAGE PLAN

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3A

HIGHLAND DR. RIDGE PLACE ADDN

WEWERS ADDN

WATER SERVICE TO CONNECT TO EXISTING WATER MAIN ON THE SOUTH SIDE OF HIGHLAND DRIVE WATER SERVICE TAP TO BE COORDINATED THROUGH CIVIL



VICINITY MAP
NOT TO SCALE

ENGINEER'S NOTES:

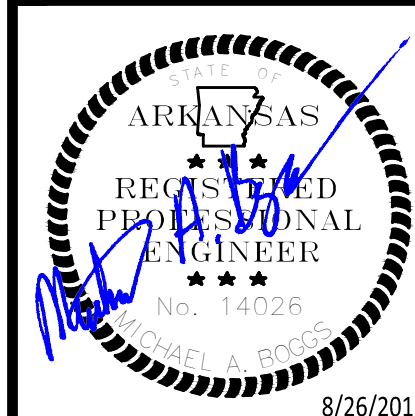
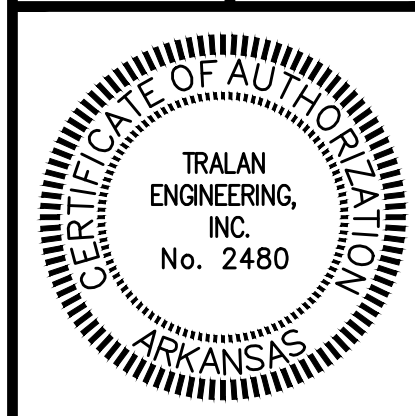
- ALL MATERIALS USED FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL MEET ALL CIVIL SPECIFICATIONS AND BE INSTALLED IN CONFORMANCE WITH DETAILS SHOWN ON THESE PLANS.
- ALL WORK PERFORMED ON THIS PROJECT ASSOCIATED WITH THE WATER OR SEWER SYSTEM SHALL COMPLY WITH THE RECOMMENDED STANDARDS FOR WATER WORKS (TEN STATE STANDARDS) AND THE ARKANSAS BOARD OF HEALTH RULES AND REGULATIONS PERTAINING TO PUBLIC WATER SYSTEM AS DESIGNED AND SHOWN ON THESE PLANS.
- ARKANSAS STATE LICENSING LAW FOR COMMERCIAL CONTRACTORS ACT 150 OF 1965 AND ACT 162 OF 1987 (AS AMENDED) REQUIRES THE INSTALLATION CONTRACTOR TO HAVE A CONTRACTORS LICENSES CLASSIFICATION OF MUNICIPAL AND UTILITY CONSTRUCTION.
- ALL SEWER SERVICE LINES SHALL MEET WITH THE REQUIREMENTS OF THE ARKANSAS STATE PLUMBING CODE AND OTHER CITY PLUMBING CODE (IF APPLICABLE). SERVICE LINES UNDER PAVED AREAS SHALL BE BEDDED, AS REQUIRED FOR MAINS, FROM THE MAIN TO THE LIMITS OF THE PAVEMENT.
- ALL GRAVITY SEWER MAINS AND SERVICE LATERAL SHALL BE LAID IN STRAIGHT ALIGNMENT AT NO LESS THAN THE MINIMUM GRADE FOR THE PIPE SIZE AS FOLLOWS:
 4 INCH: 1.00%
 6 INCH: 0.60%
 8 INCH: 0.40%
 12 INCH: 0.22%
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKEOUT. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS, ELEVATIONS, STATIONS, ETC. BEFORE ORDERING MATERIALS OR PROCEEDING WITH WORK, AND IS RESPONSIBLE FOR SAME. IF ANY DISCREPANCY IN THE PLANS OR SPECIFICATIONS ARISES, THE CONTRACTOR SHALL CONTACT THE ENGINEER BEFORE INITIATING WORK AFFECTED BY THE DISCREPANCY.
- THE CONTRACTOR IS CAUTIONED AND SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER'S REPRESENTATIVE OF ANY ERROR OR OMISSION ON THE PLANS WHICH MAY CREATE ADDITIONAL WORK OR EXPENSE BY THE CONTRACTOR, AND SHALL OBTAIN A WRITTEN WORK ORDER FROM THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH ANY EXTRA WORK WHICH MAY BE CAUSED FROM SUCH ERROR OR OMISSION ON THESE PLANS.
- CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO EXISTING FACILITIES AND/OR ADJACENT PROPERTIES, AND SHALL BE RESPONSIBLE FOR DAMAGE THAT MAY OCCUR.
- ACCESS ALONG ROADWAYS SHALL BE MAINTAINED AT ALL TIMES. CONSTRUCTION IN CITY, COUNTY OR STATE RIGHTS-OF-WAY SHALL BE COORDINATED BY CONTRACTOR WITH THE APPROPRIATE PARTY.
- CONTRACTOR SHALL KEEP AN ORDERLY WORK SITE AND SHALL DISPOSE OF ALL CONSTRUCTION DEBRIS IN ACCORDANCE WITH ALL LOCAL, STATE, AND/OR FEDERAL REGULATIONS.
- THE LOCATIONS AND SIZES OF EXISTING UNDERGROUND UTILITIES SHOWN ARE BASED FIELD MEASUREMENTS AND EXISTING UTILITY MAPS. TRALAN ENGINEERING, INC. MAKES NO GUARANTEE TO THE EXACT LOCATION OF THE UTILITIES SHOWN ON THESE PLANS. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATIONS SHOWN. NO EXCAVATIONS WERE MADE TO LOCATE BURIED UTILITIES OR STRUCTURES.
- BEFORE ANY EXCAVATIONS ARE MADE, THE CONTRACTOR SHALL CONTACT THE ARKANSAS ONE-CALL AT 811 AT LEAST TWO DAYS PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION ACTIVITY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO ALL UTILITIES AND SERVICES DAMAGED DURING CONSTRUCTION OF THE WORK SHOWN ON THESE PLANS.
- THIS PLAN DEPICTS THE PLANNED UTILITY SERVICE ROUTES ONLY. THE OWNER/OWNER'S REPRESENTATIVE SHALL COORDINATE ALL UTILITY SERVICES WITH THE APPROPRIATE PROVIDER AND TRADE. THE LOCATION, SIZE, AND ROUTES OF ALL SERVICES SHOWN MAY CHANGE AT THE REQUEST OF SAID PROVIDERS.
- UTILITY SERVICES TO BE COORDINATED WITH ARCHITECTURAL AND OR M.E.P. DRAWINGS FOR SIZES AND MATERIALS.
- UTILITY CONSTRUCTION SHALL NOT OCCUR UNTIL ALL SOIL FILL MATERIAL IS INSTALLED AND COMPACTED TO 95% STANDARD PROCTOR.

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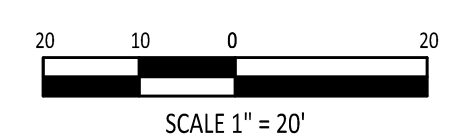
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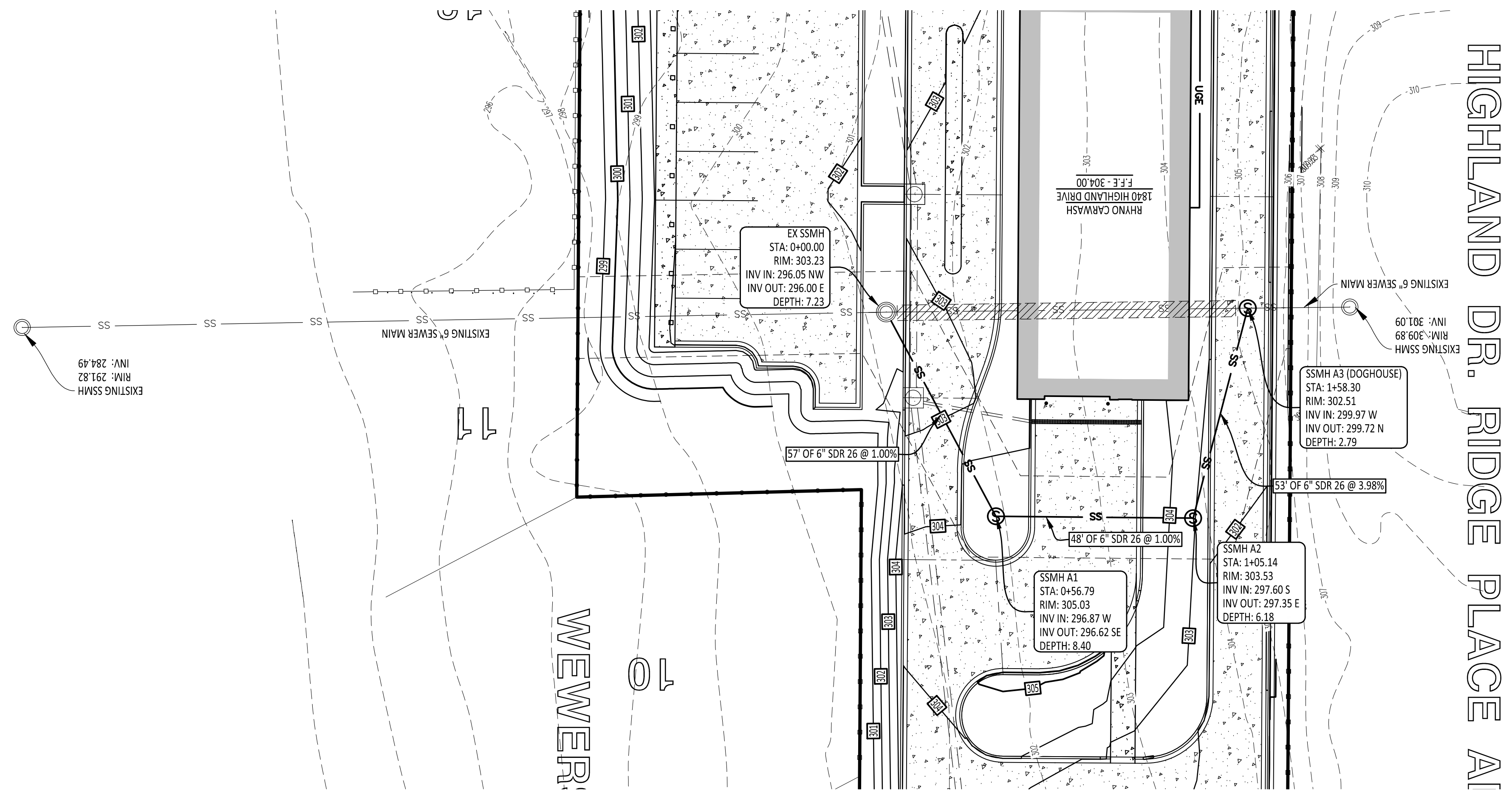
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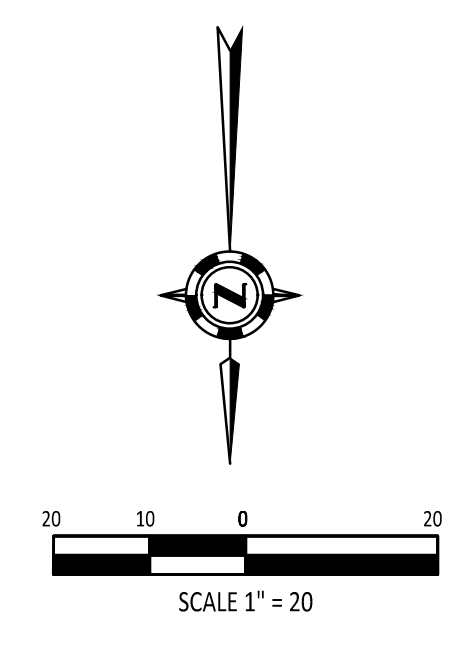
SITE UTILITY PLAN

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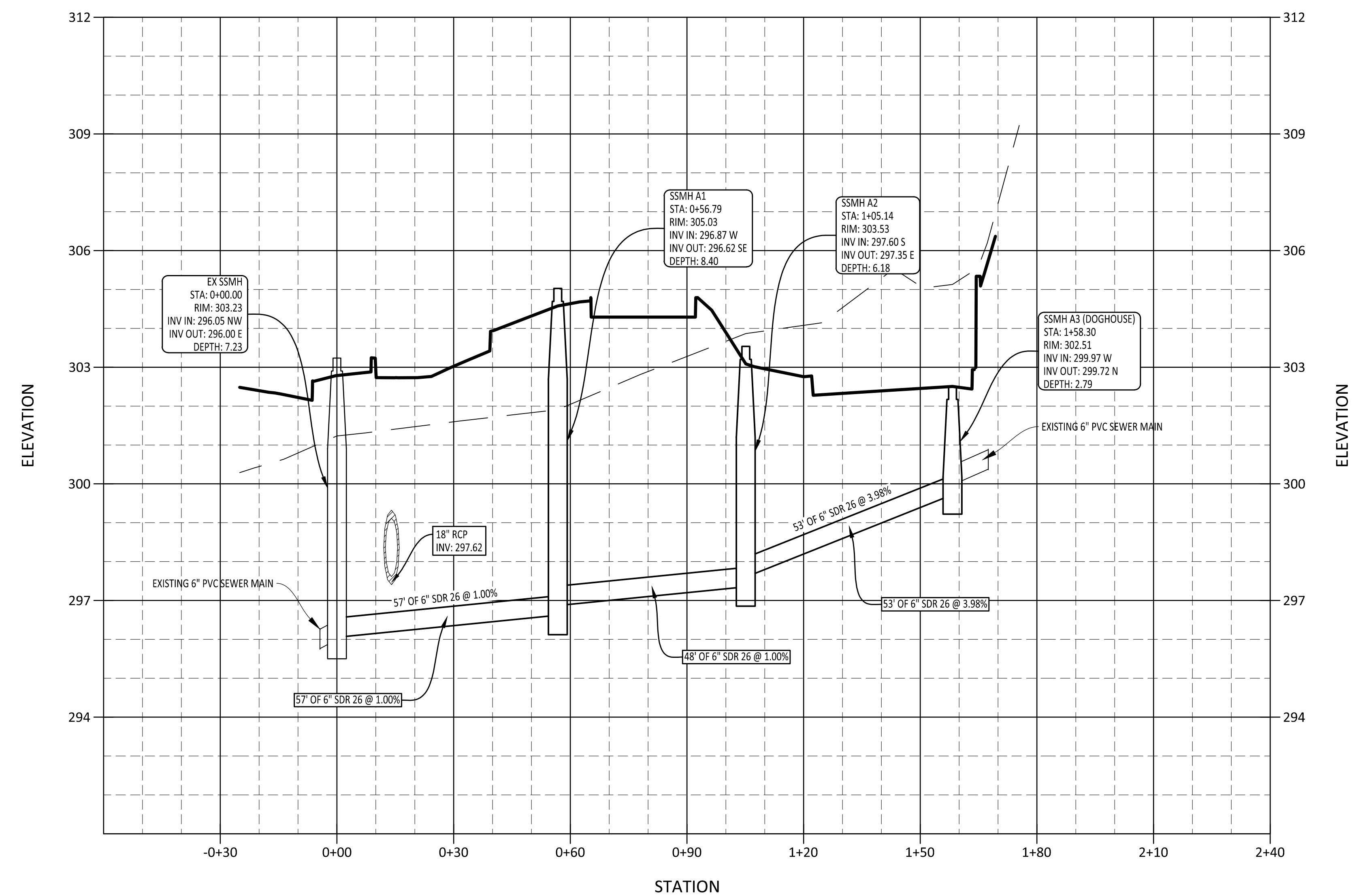




3A



Sewer Main (-0+60 to 2+40)

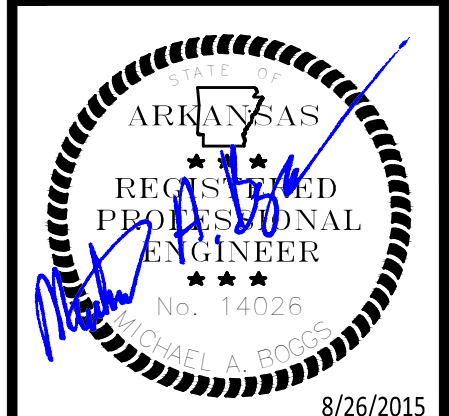
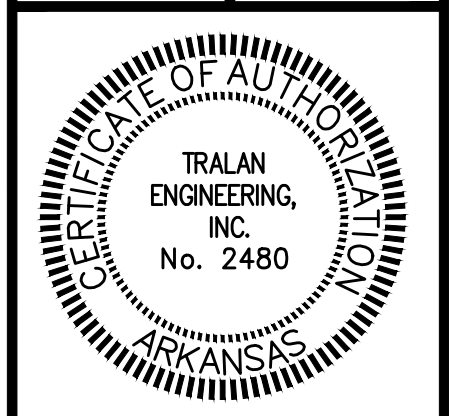


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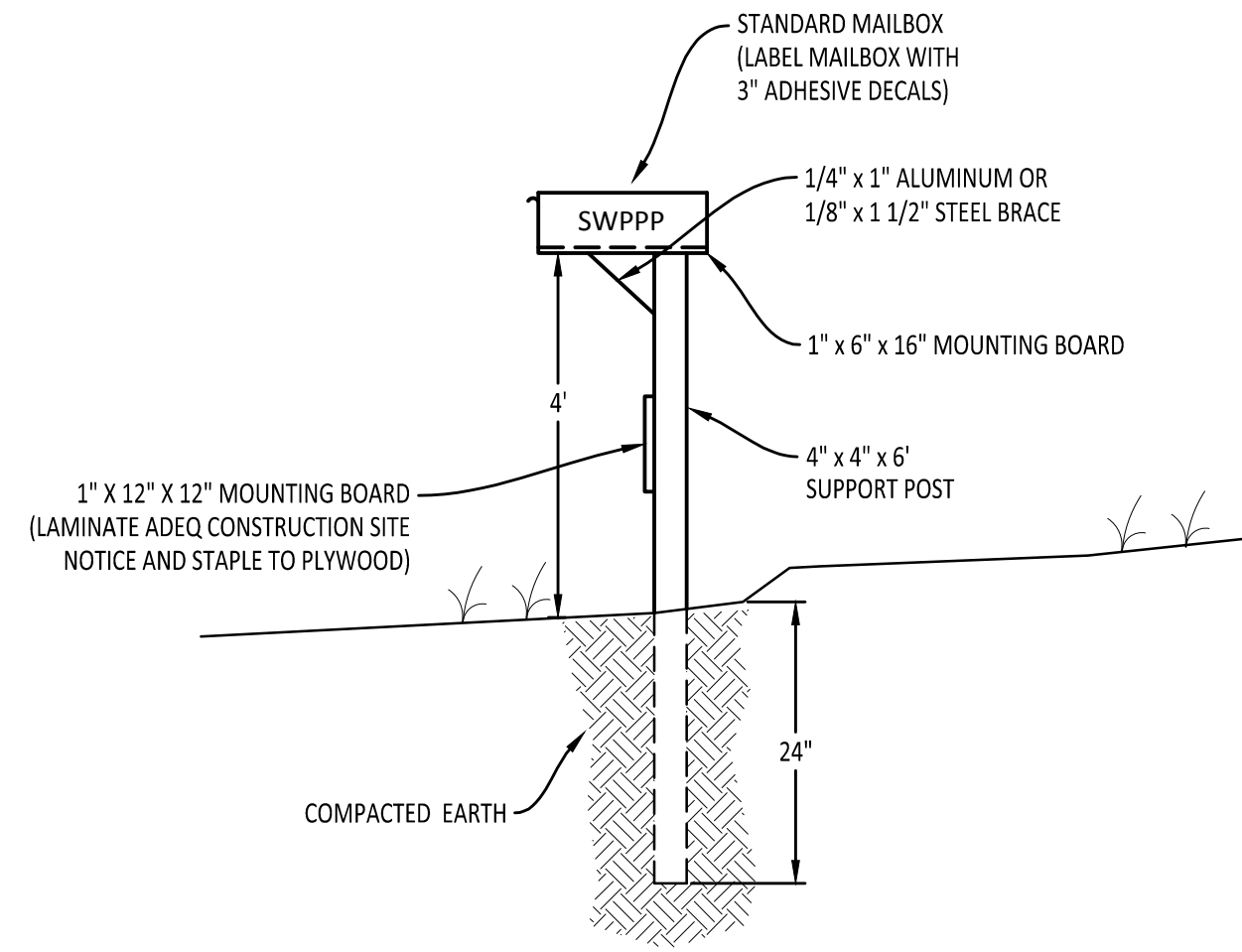
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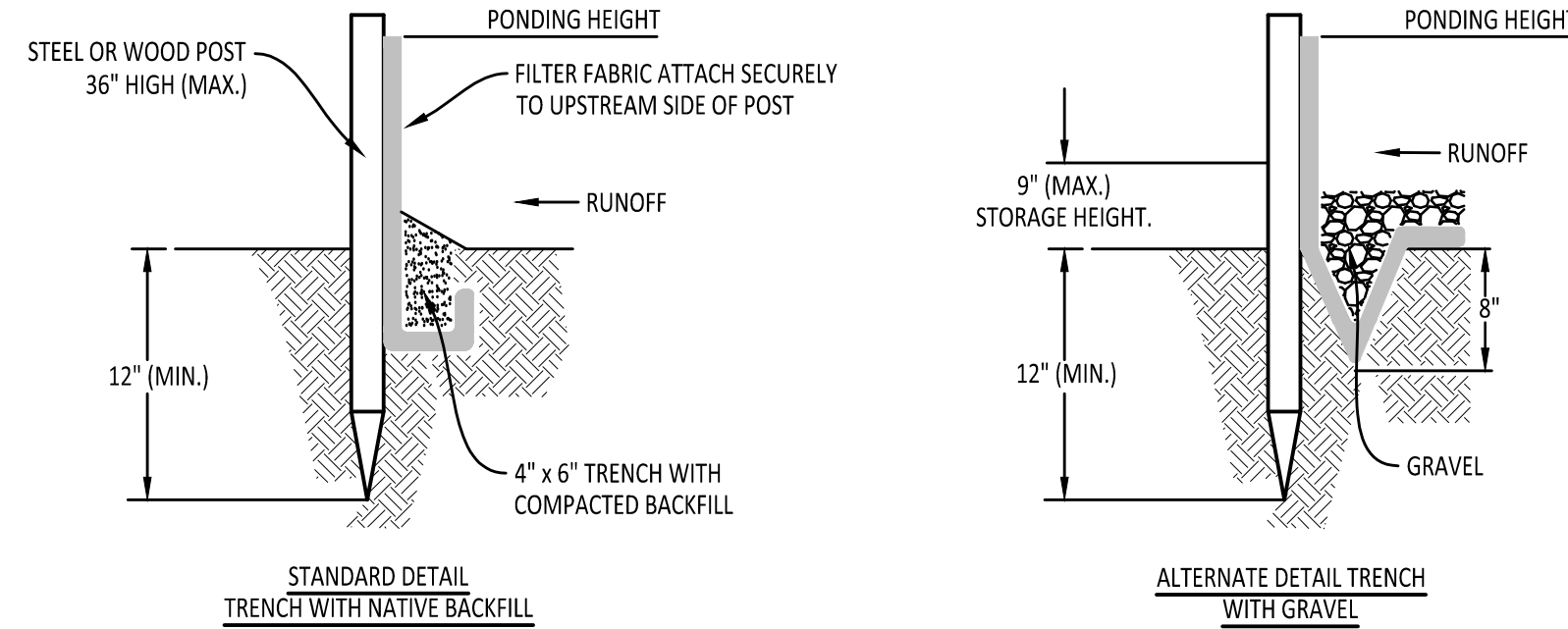
SANITARY SEWER
PLAN & PROFILE

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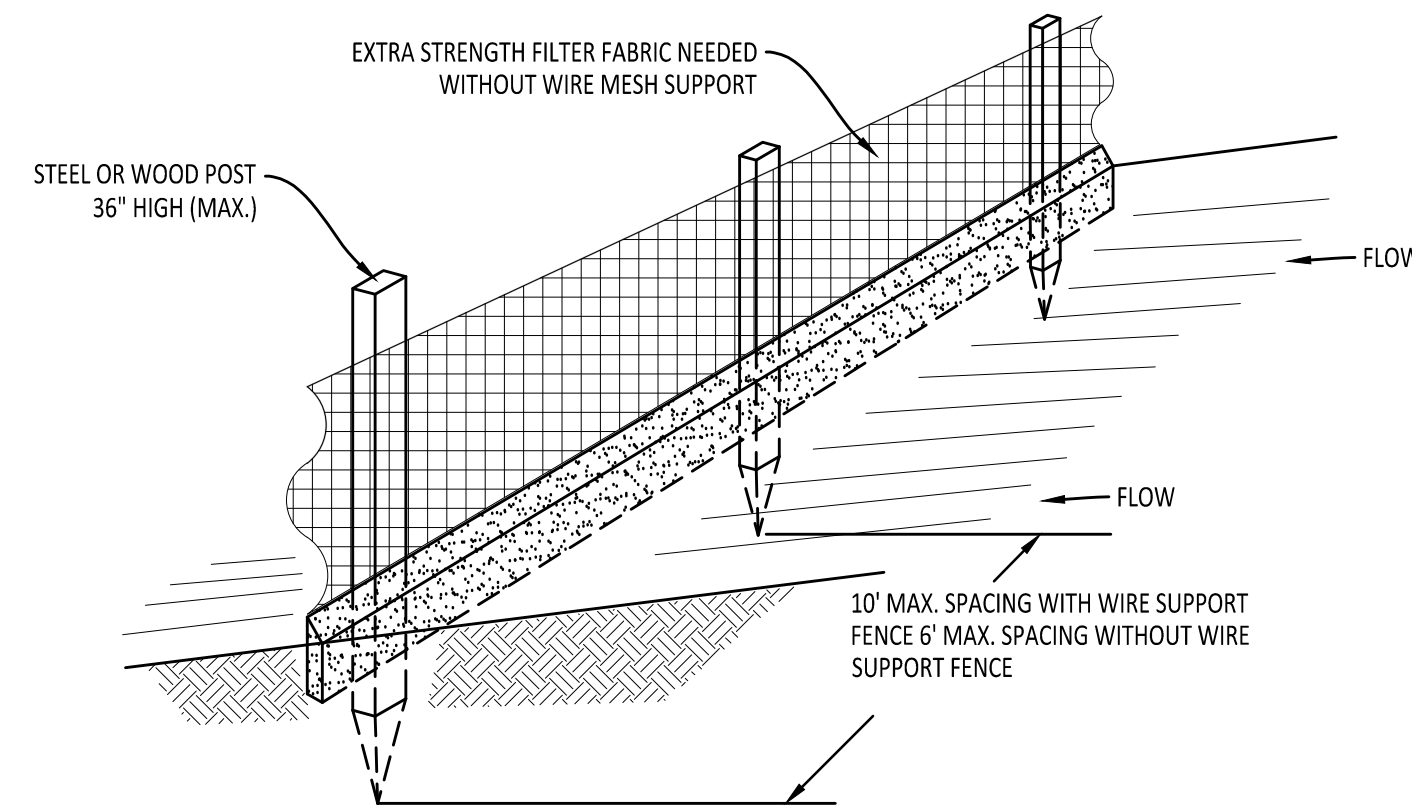
SWPPP MAILBOX

1



RIP RAP CHECK DAM

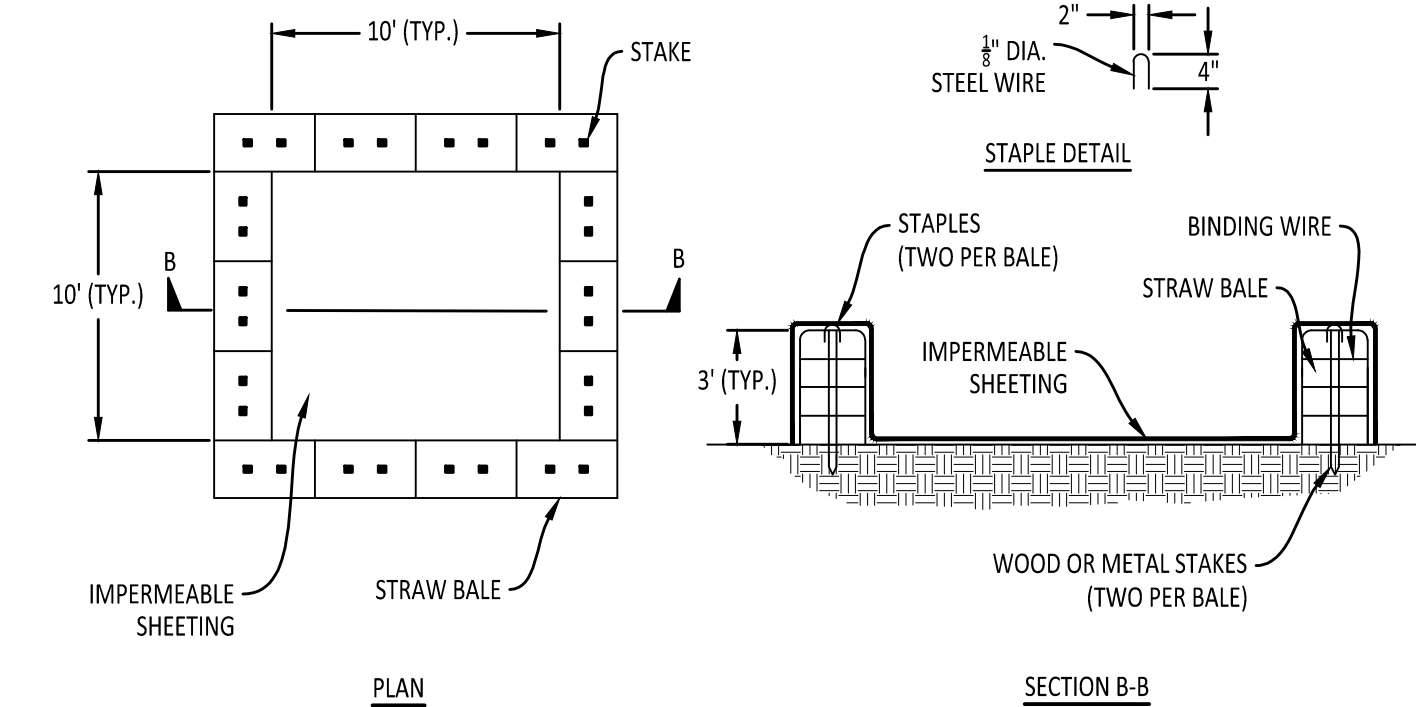
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SILT FENCE

3

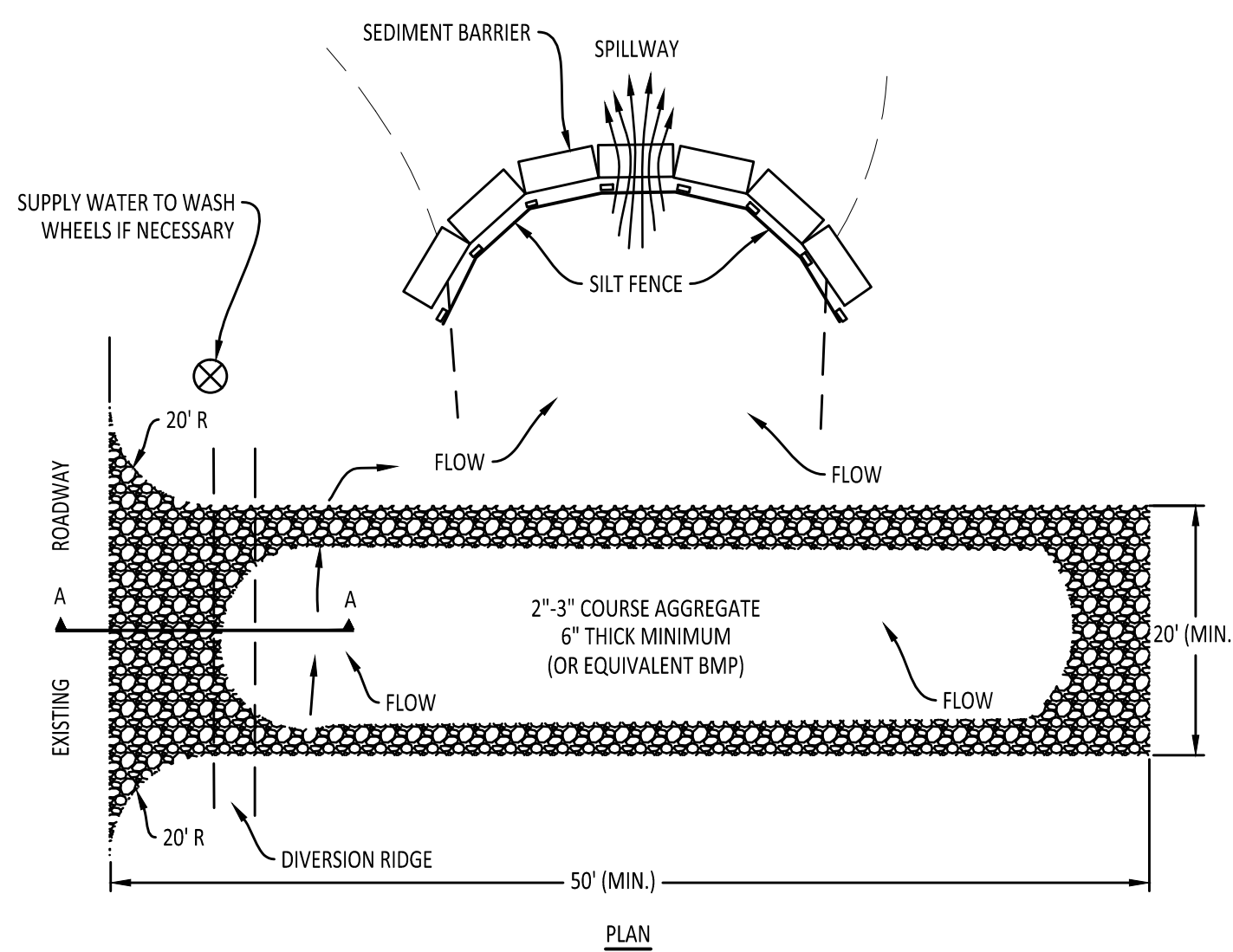
- NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
 2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
 3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.



CONCRETE WASHOUT

6

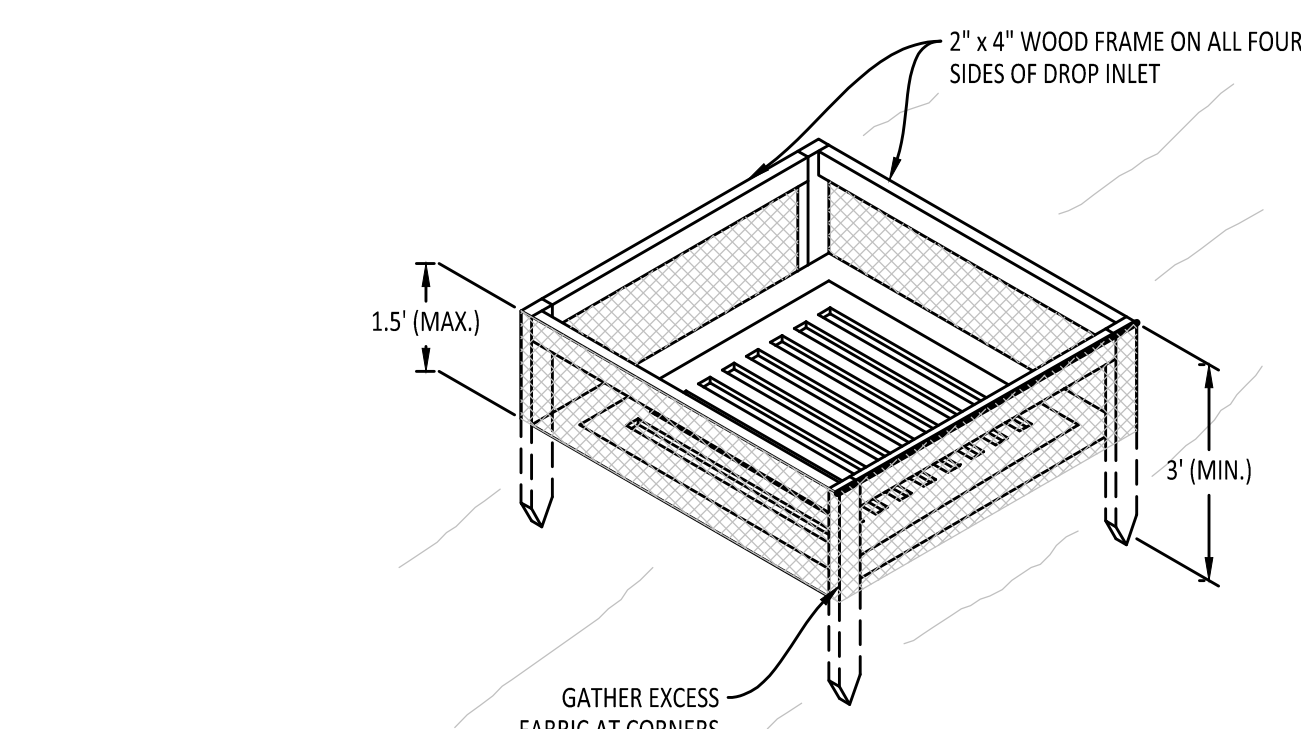
- NOTES:
1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
 2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
 3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
 4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
 5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED [E.G., RIPPED OR PUNCTURED]. EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.



CONSTRUCTION EXIT W/ DIVERSION BERM

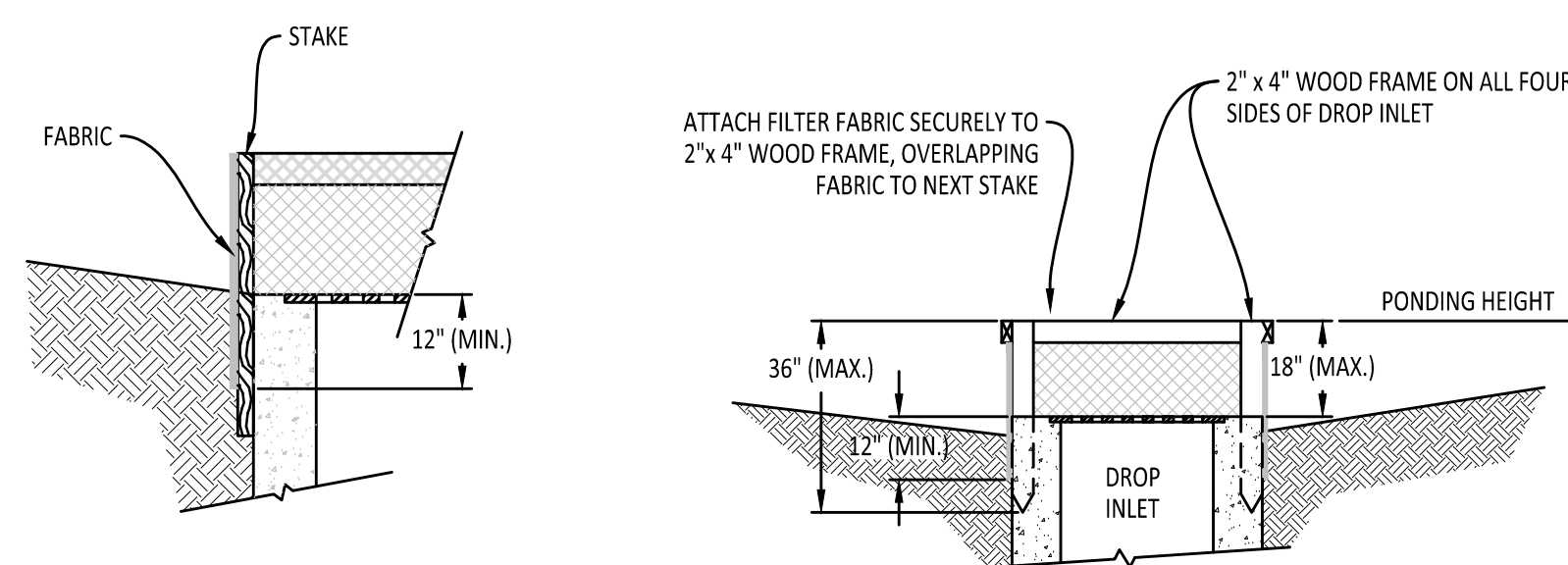
2

- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
 4. USE SANDBAGS, STRAW BALES OR OTHER APPROVED METHODS TO CHANNEL RUNOFF TO BASIN AS REQUIRED. WHEN STRAW BALES ARE USED IN THIS APPLICATION A SILT FENCE IS TO BE INCLUDED AS SHOWN ON THE UPSTREAM SIDE OF THE SEDIMENT BARRIER.

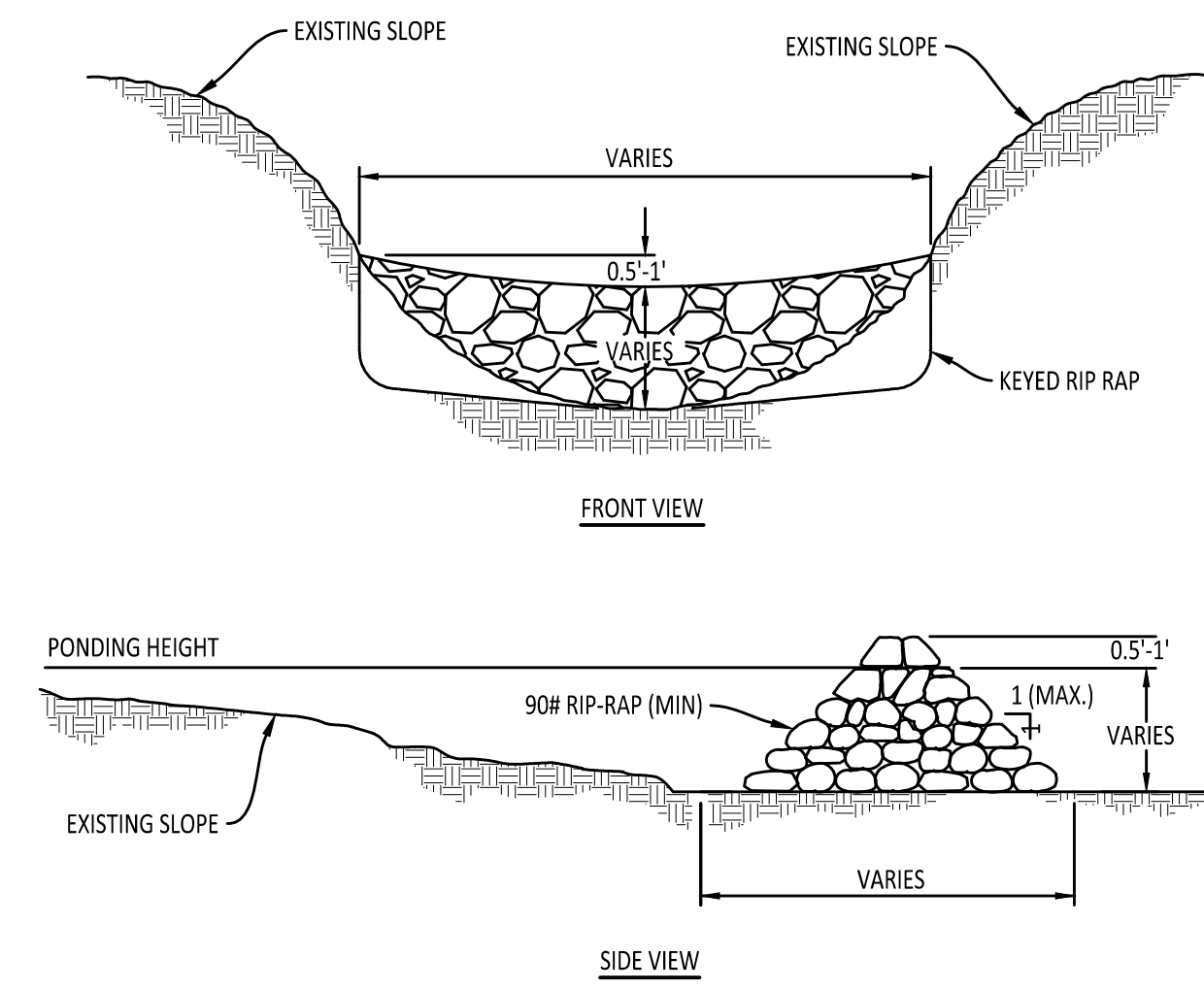


SEDIMENT BARRIER AT DROP INLET

4

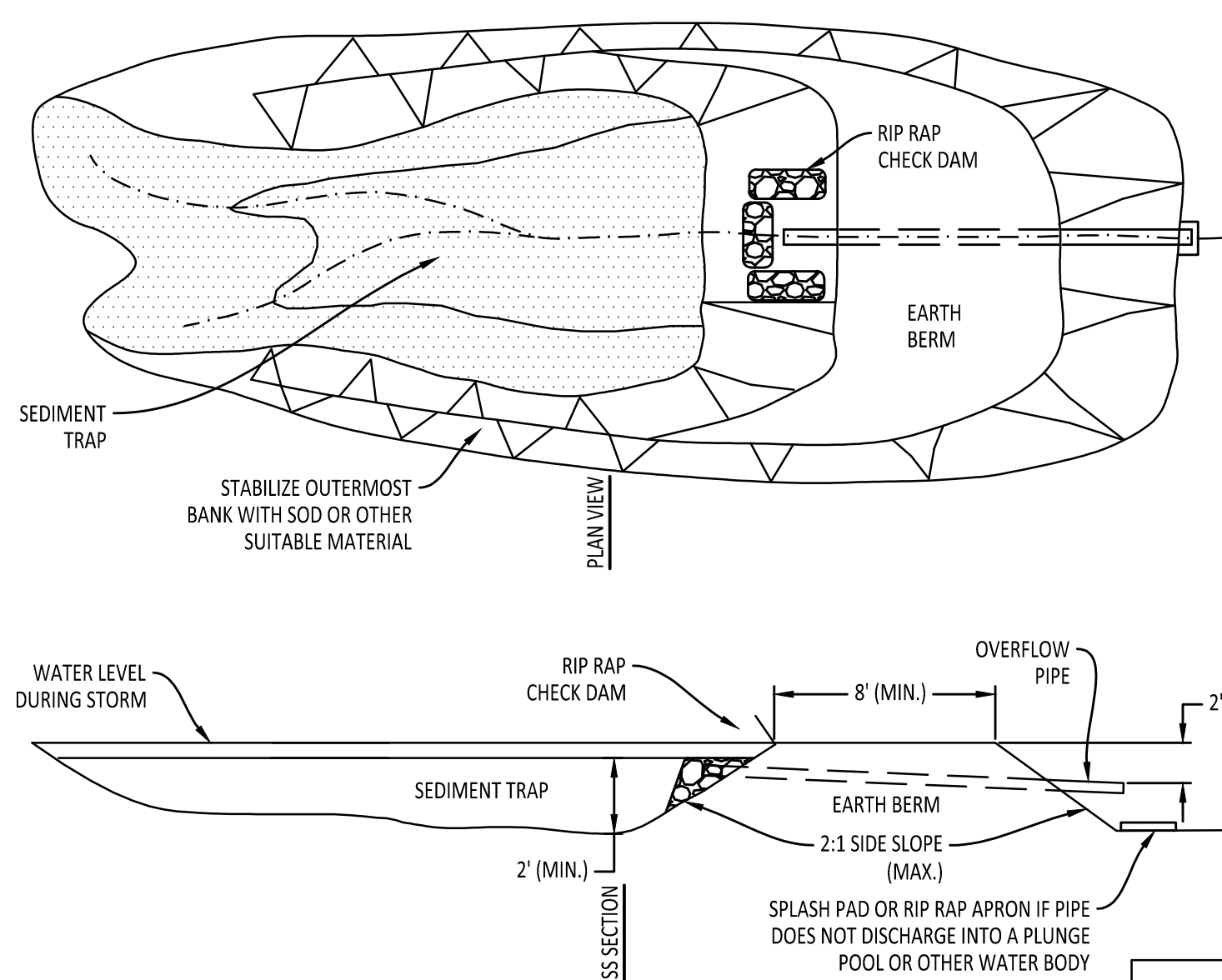


- NOTES:
1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%)
 2. USE 2"x 4" WOOD OR EQUIVALENT METAL STAKES. (3 FT. MIN. LENGTH)
 3. INSTALL 2"x 4" WOOD TOP FRAME TO INSURE STABILITY.
 4. THE TOP OF THE FRAME (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.



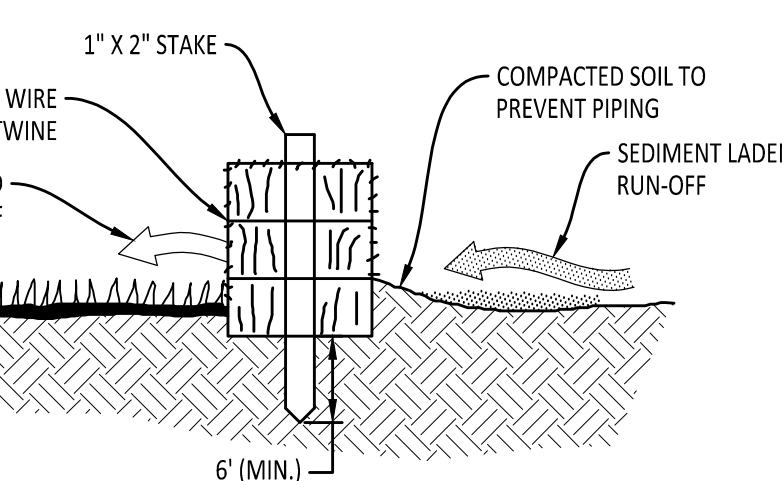
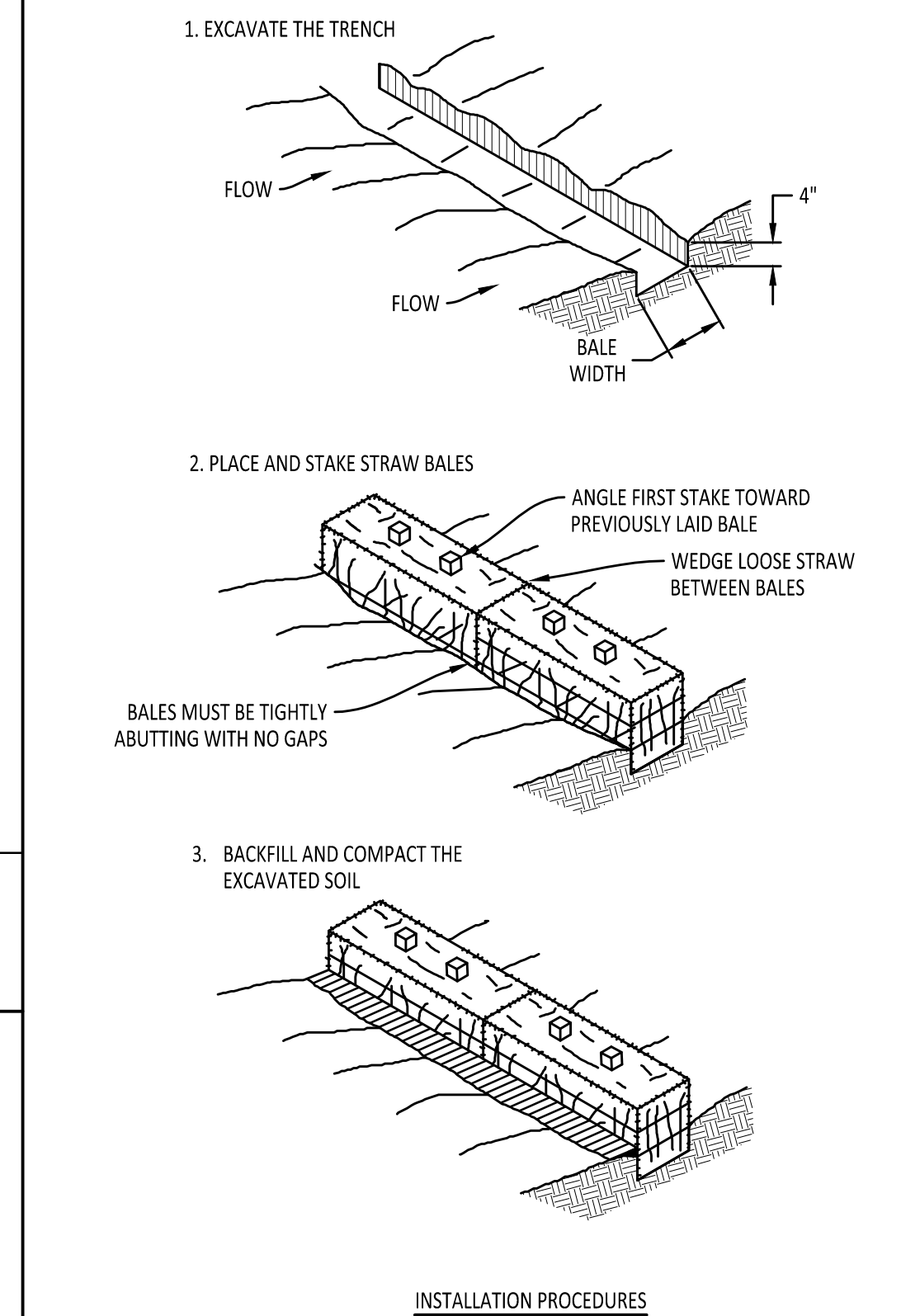
EROSION CONTROL SEDIMENT BASIN

7



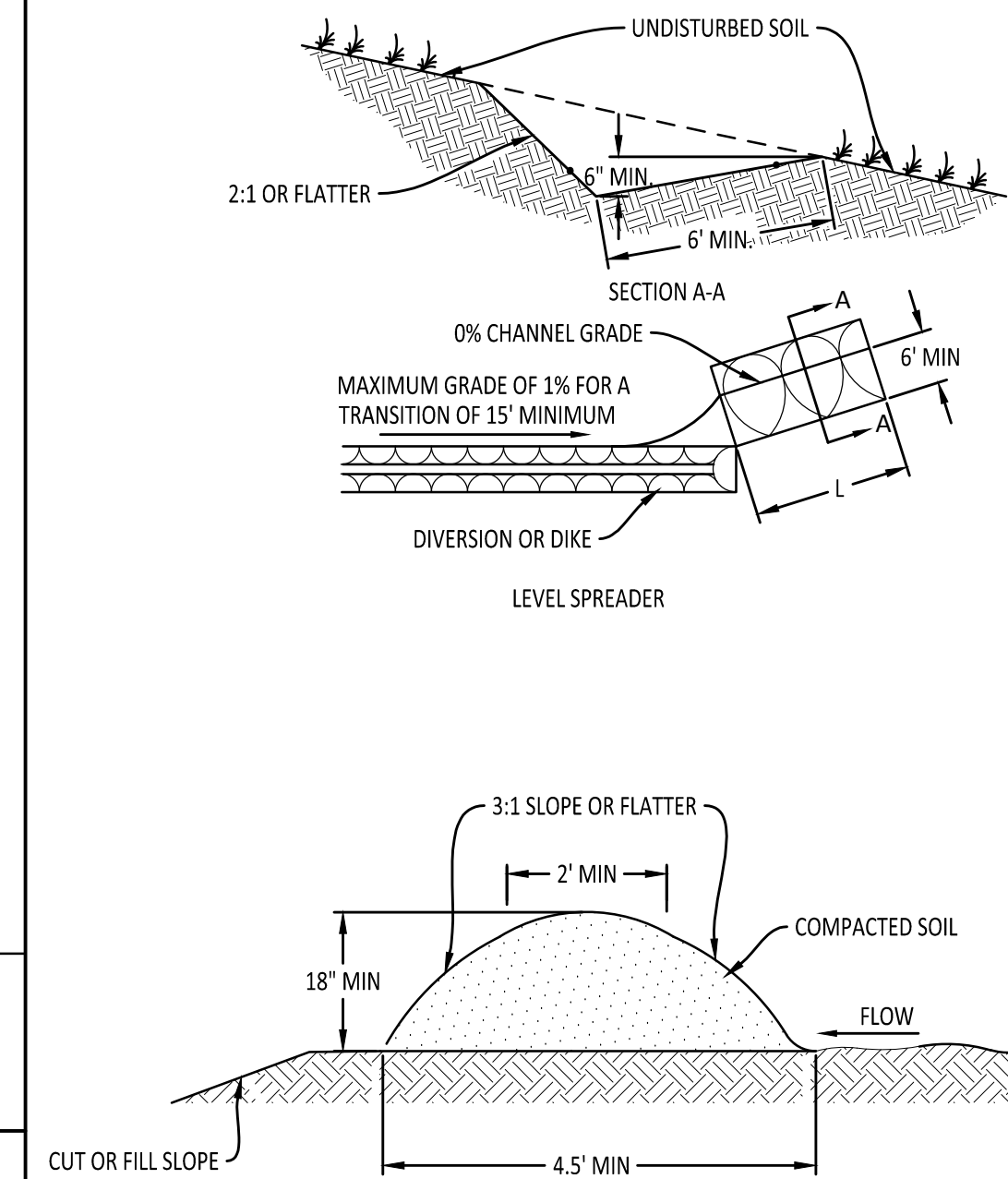
STRAW BALE BARRIER

9



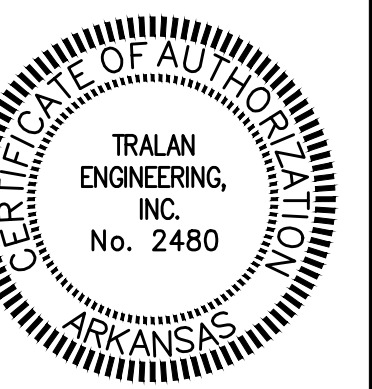
TEMPORARY DIVERSION DIKE

8



PROJECT:
Rhyno Carwash

CLIENT:
Rhyno Land J, LLC



REVISIONS

DATE	BY	DESCRIPTION

DRAWING INFO.

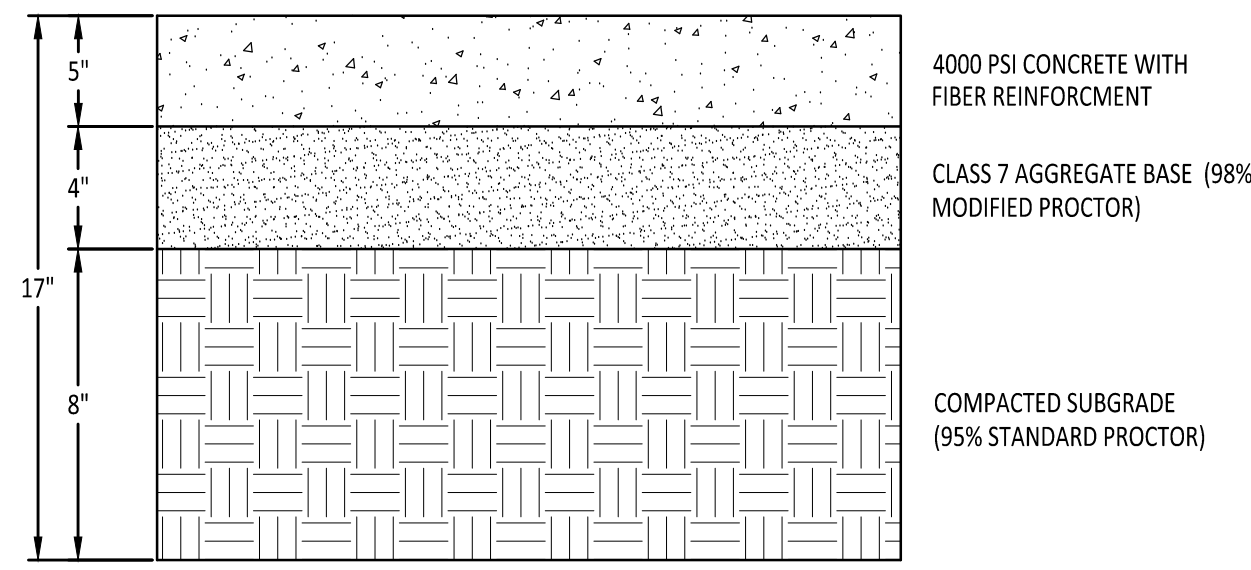
DRAWN BY:	MAB
DATE:	08/26/2015
SCALE:	1" = 30'
JOB NO.:	15-064
CAD NO.:	

SWPPP DETAILS

SHEET NUMBER:
8 of 10

COMPANY INFO:
2916 WOOD STREET
JONESBORO, AR 72404
PH: 1-870-203-9939
WWW.TRALANENG.COM

TRALAN
ENGINEERING

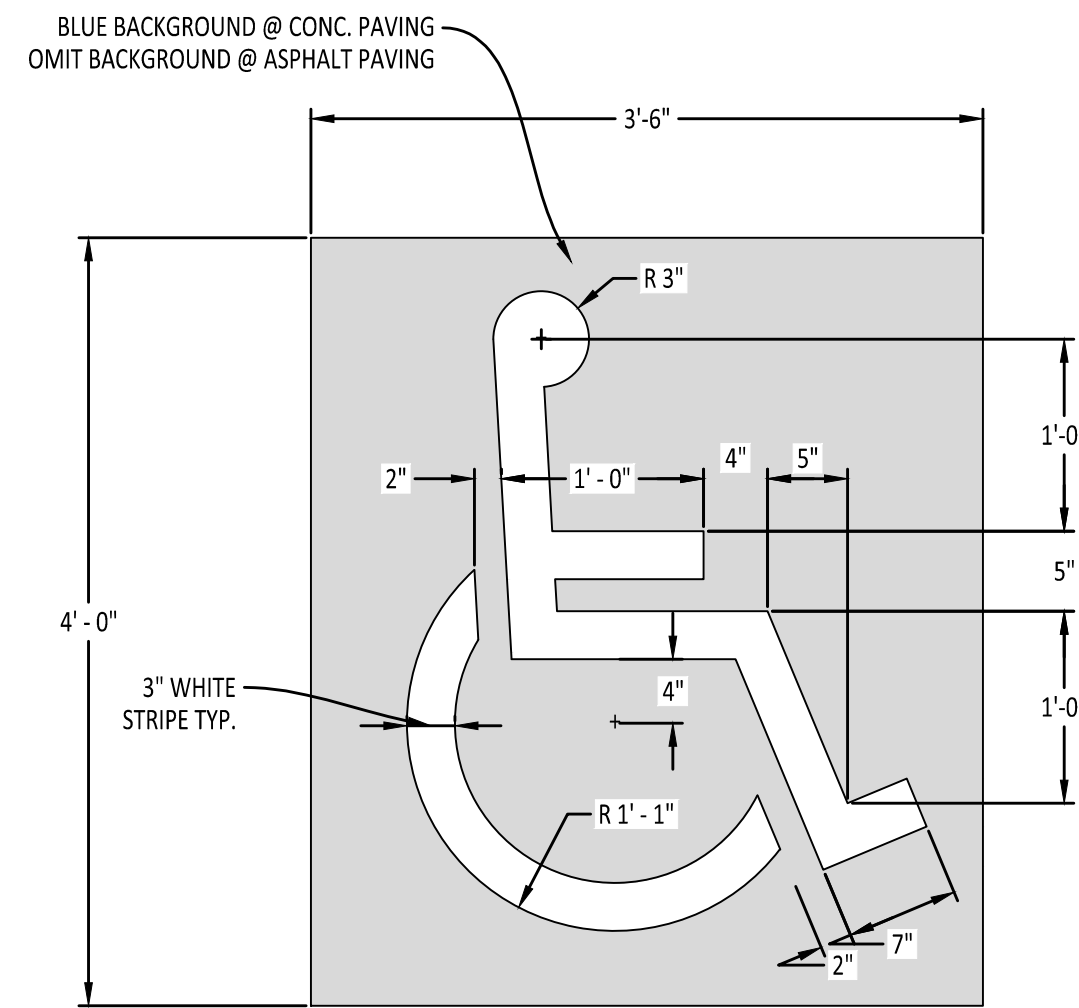


CONCRETE PAVING SECTION

N.T.S.

NOTE:
CONSTRUCT CONTRACTION JOINTS ON A MAXIMUM OF 15' CENTERS EACH WAY.
PROVIDE EXPANSION JOINTS WHERE PAVEMENT ABUTTS CURB AND SIDEWALKS.

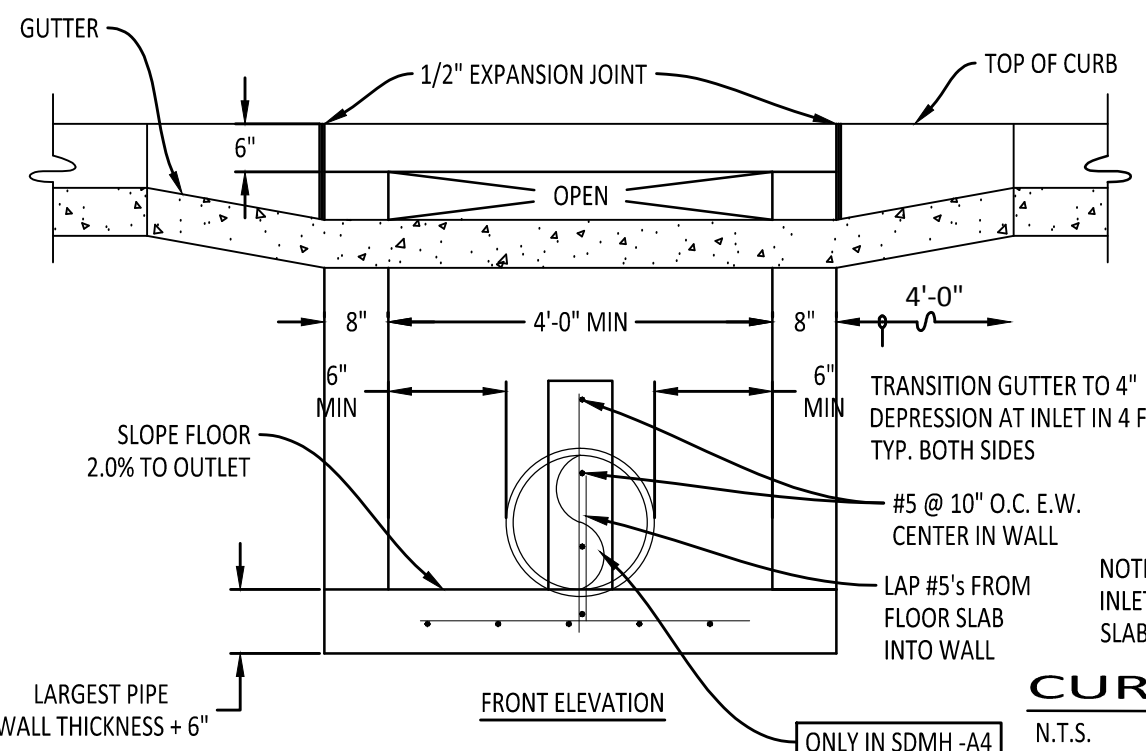
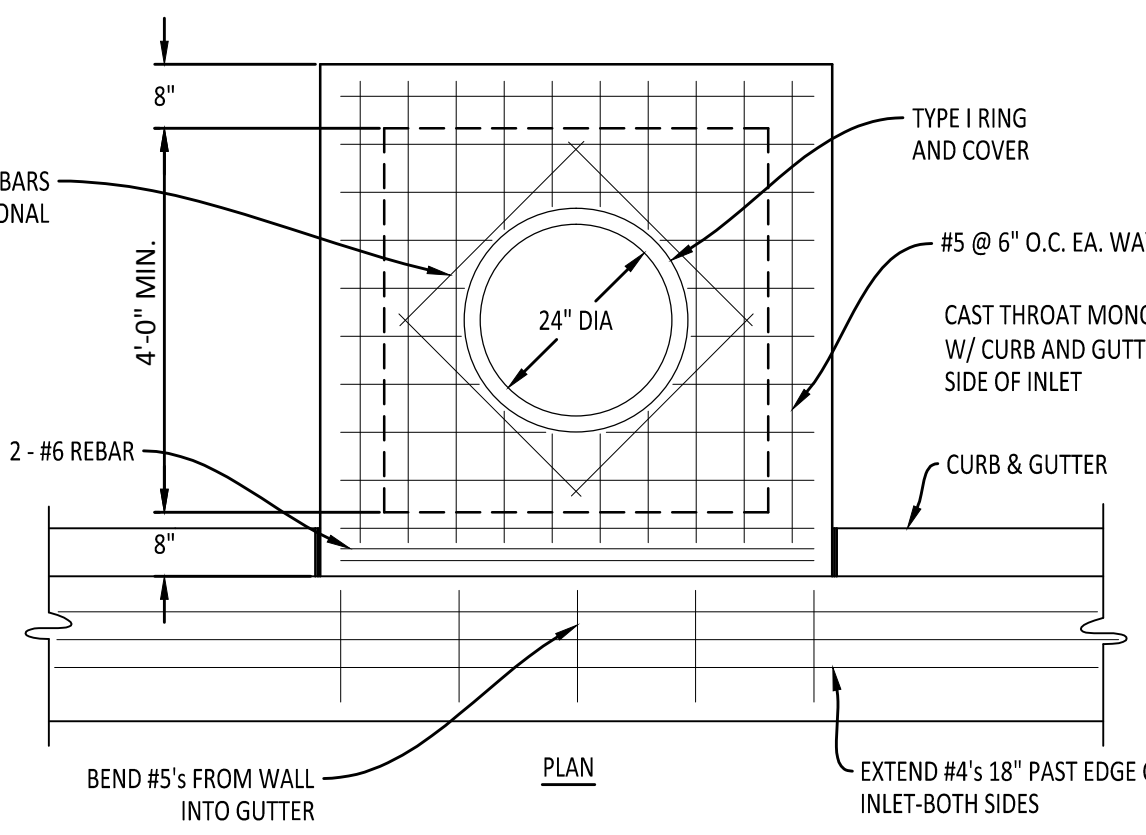
1



PARKING STALL SYMBOL

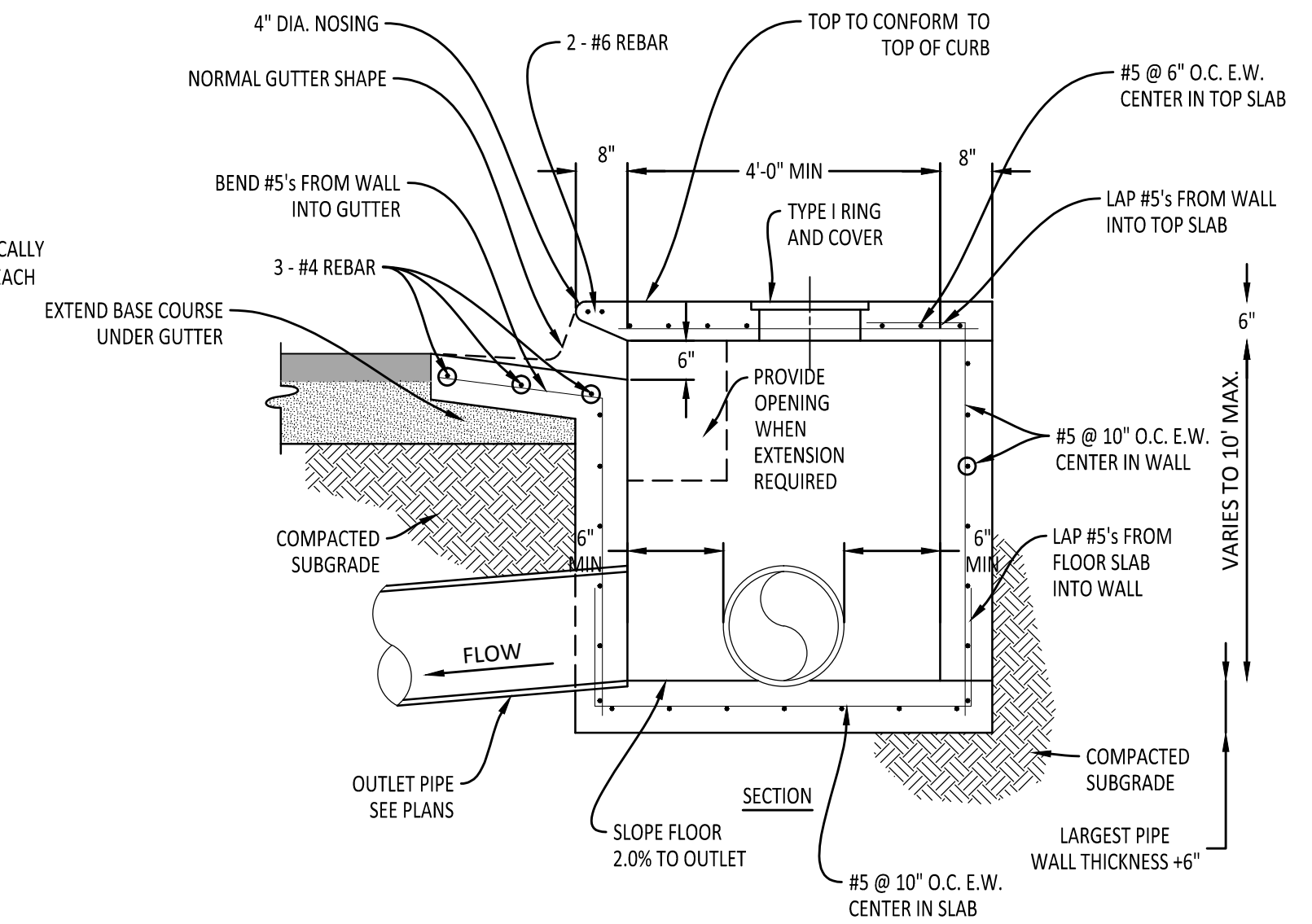
N.T.S.

5

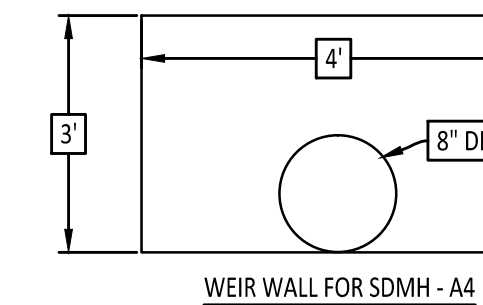


CURB INLET DETAIL

N.T.S.

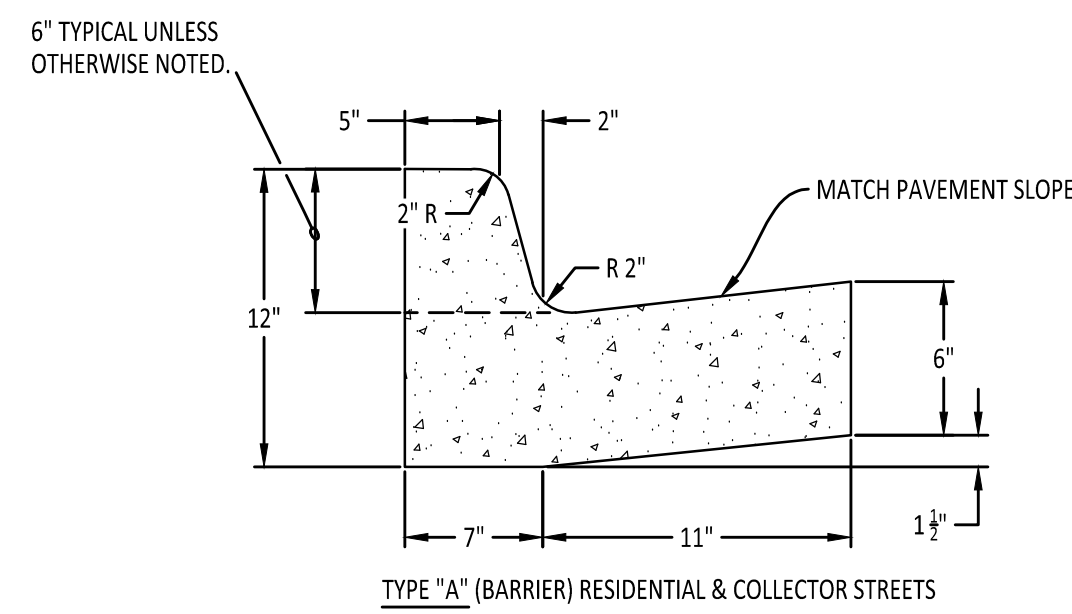


NOTE:
INLETS MORE THAN 3'-0" DEEP SHALL HAVE STANDARD MANHOLE STEPS PLACED AT 15" O.C. - MANHOLE FRAME AND COVER SHALL BE PLACED ADJACENT TO THE WALL WITH THE STEPS.
AS APPROVED BY ENGINEER, WALLS MAY BE 8" BLOCK WITH 1/2" MORTAR. FILL CELLS WITH CONCRETE AND WITH #4 @ 16" O.C. MINIMUM DISTANCE FROM WALL TO PIPE SHALL BE 8" IF BLOCK WALLS ARE CONSTRUCTED.



WEIR WALL FOR SDMH-A4

9

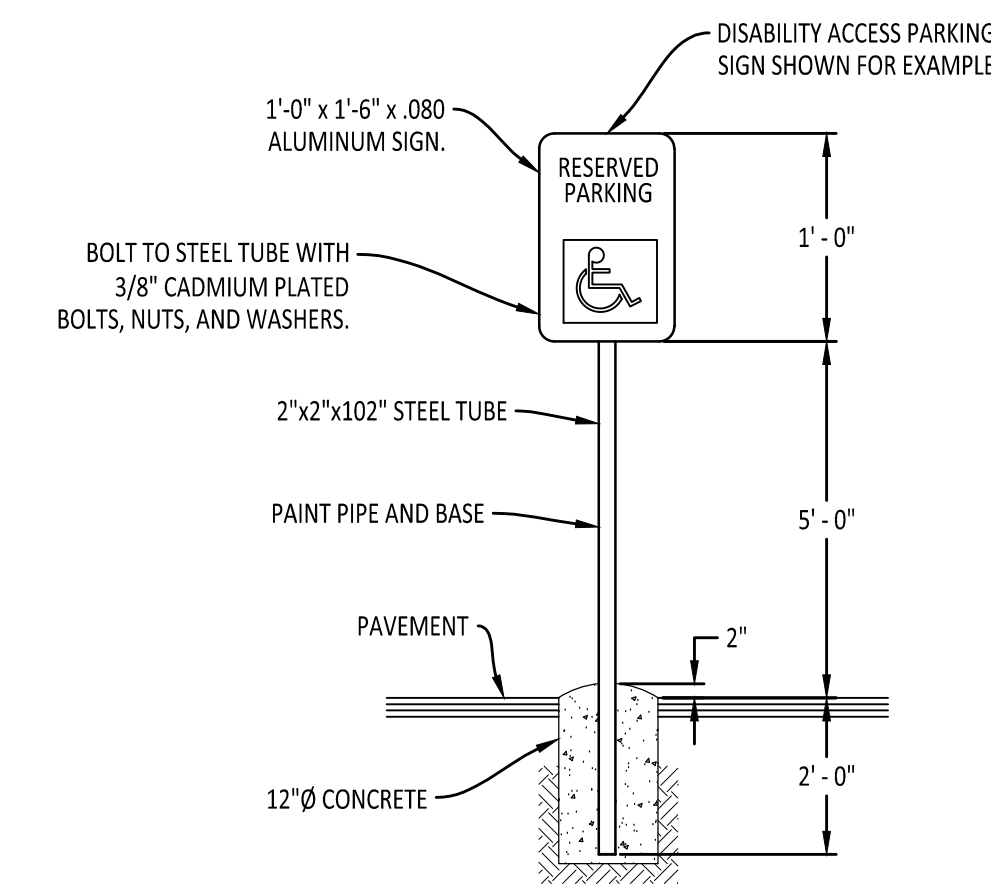


COMBINATION CURB AND GUTTER

N.T.S.

NOTE:
CONTRACTION JOINTS SHALL BE CONSTRUCTED EVERY FIFTEEN FEET.
EXPANSION JOINTS SHALL BE CONSTRUCTED AT FIXED STRUCTURAL OBJECTS, SUCH AS DRAINAGE INLETS AND SIDEWALKS.

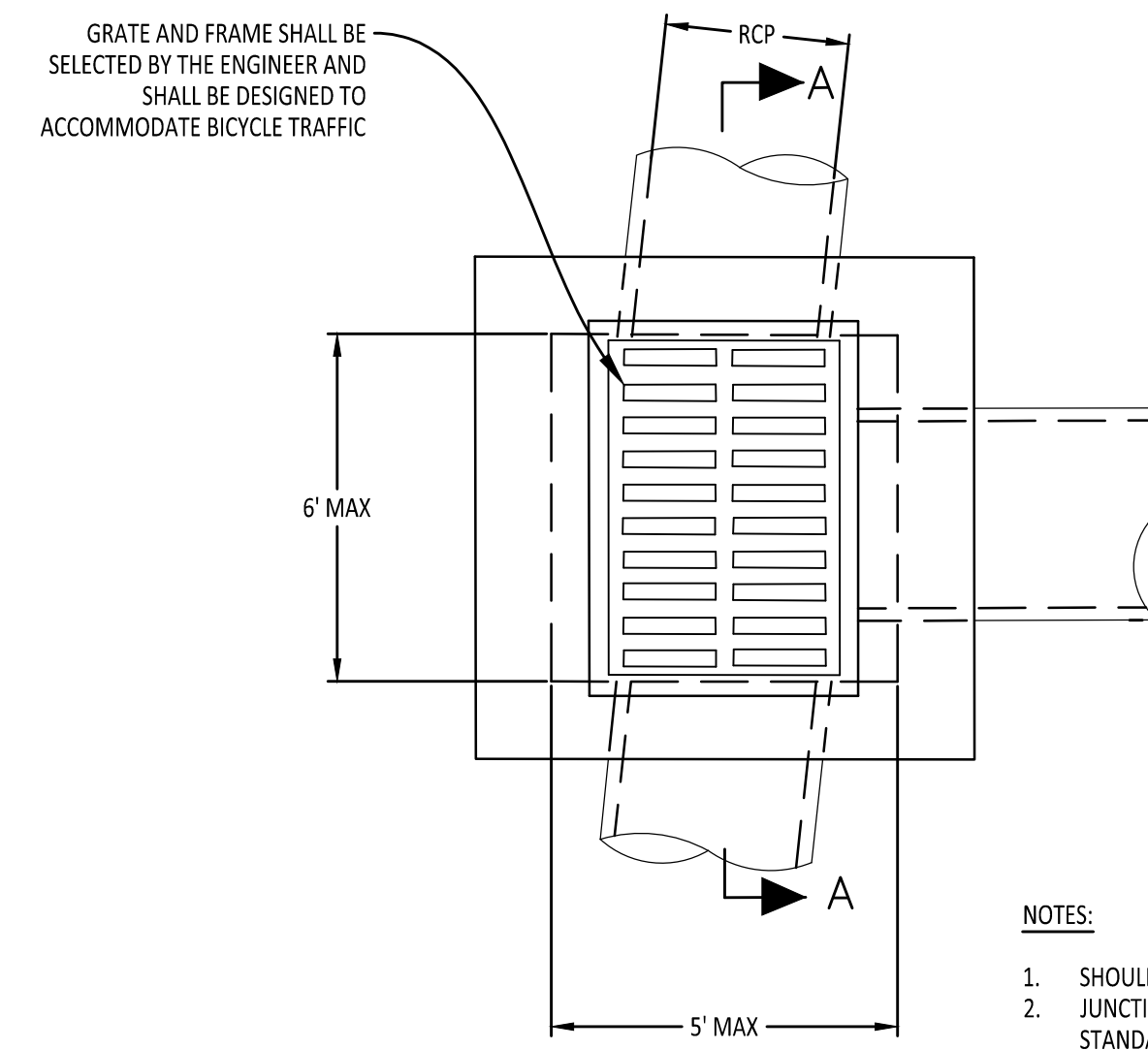
2



ACCESSIBLE PARKING SIGN DETAIL

NOTE:
ALL SIGNS SHALL CONFORM TO MUTCD AND SHALL BE HIGH INTENSITY.

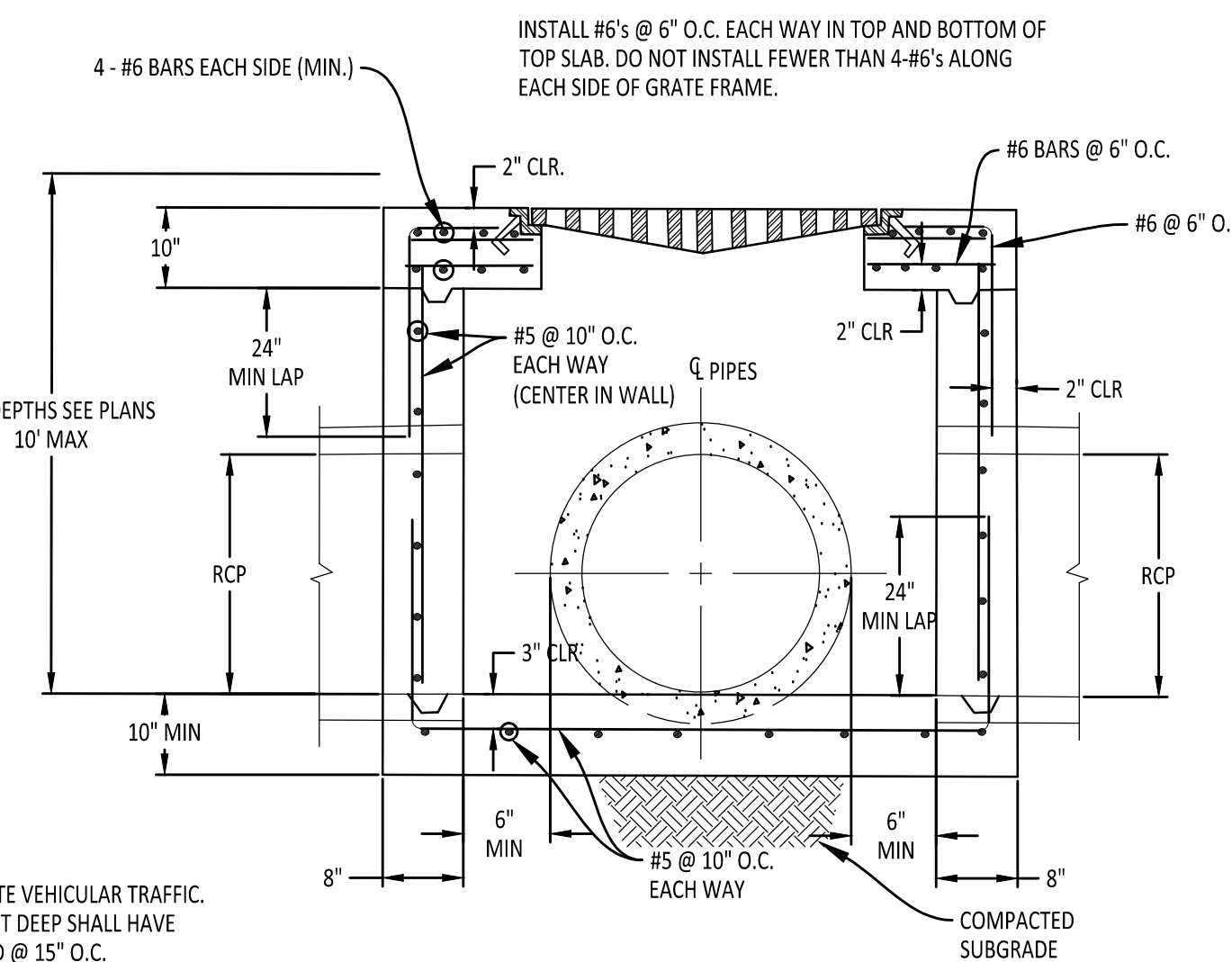
6



PLAN - GRATE INLET - HEAVY

N.T.S.

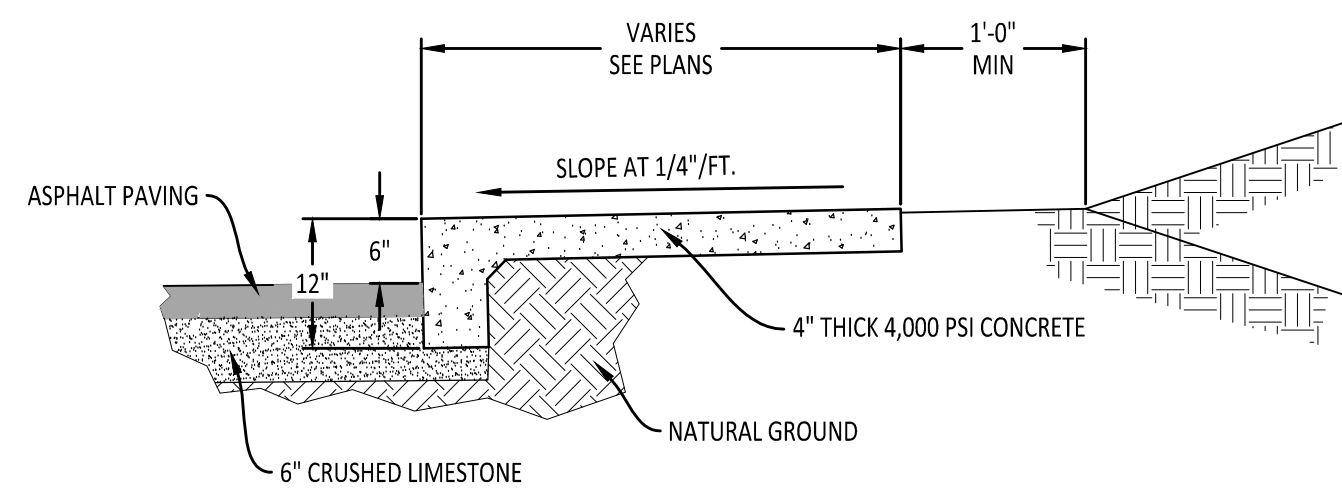
NOTES:
1. SHOULD BE USED TO ACCOMMODATE VEHICULAR TRAFFIC.
2. JUNCTION BOXES MORE THAN 3 FEET DEEP SHALL HAVE STANDARD MANHOLE STEPS PLACED @ 15" O.C.
3. SEE REINFORCING DETAIL FOR OPENING IN WALL OR SLAB.



SECTION "A-A" - GRATE INLET - HEAVY

N.T.S.

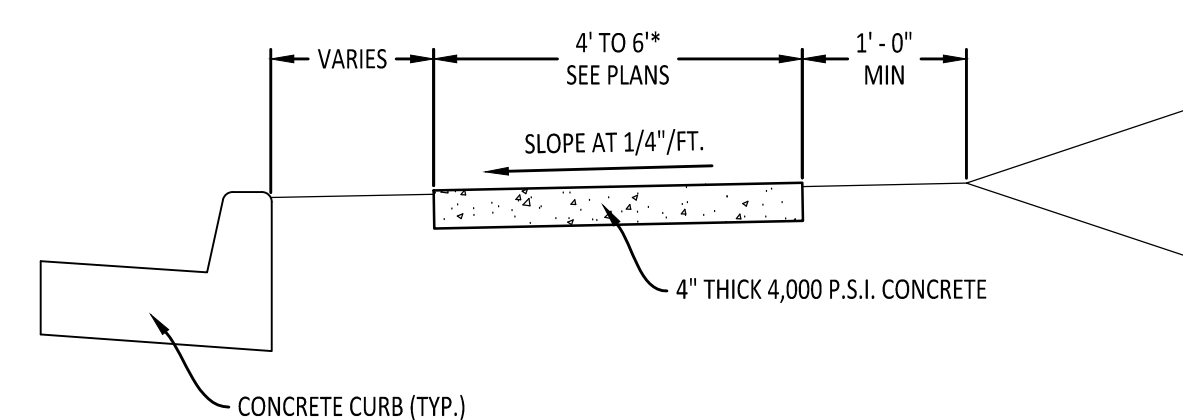
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SIDEWALK AT ASPHALT PAVING

N.T.S.

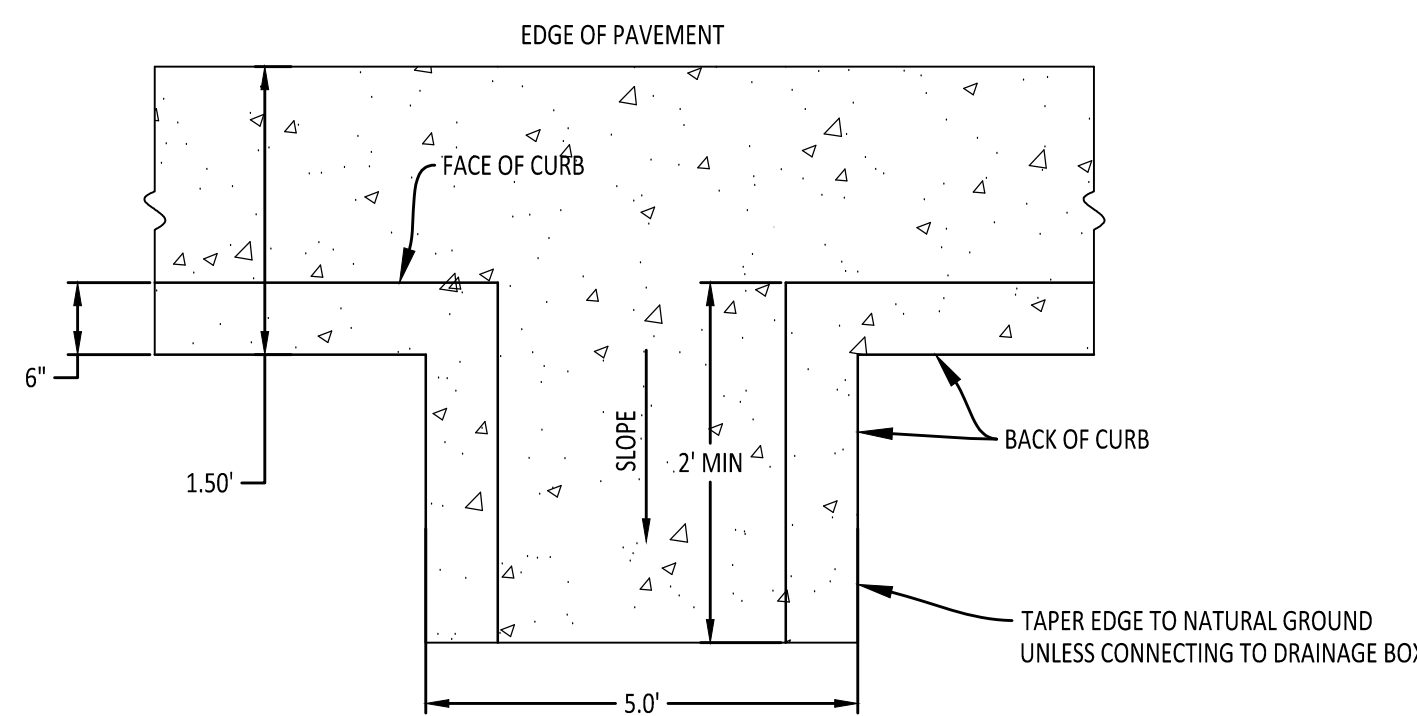
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TYPICAL SIDEWALK SECTION

N.T.S.

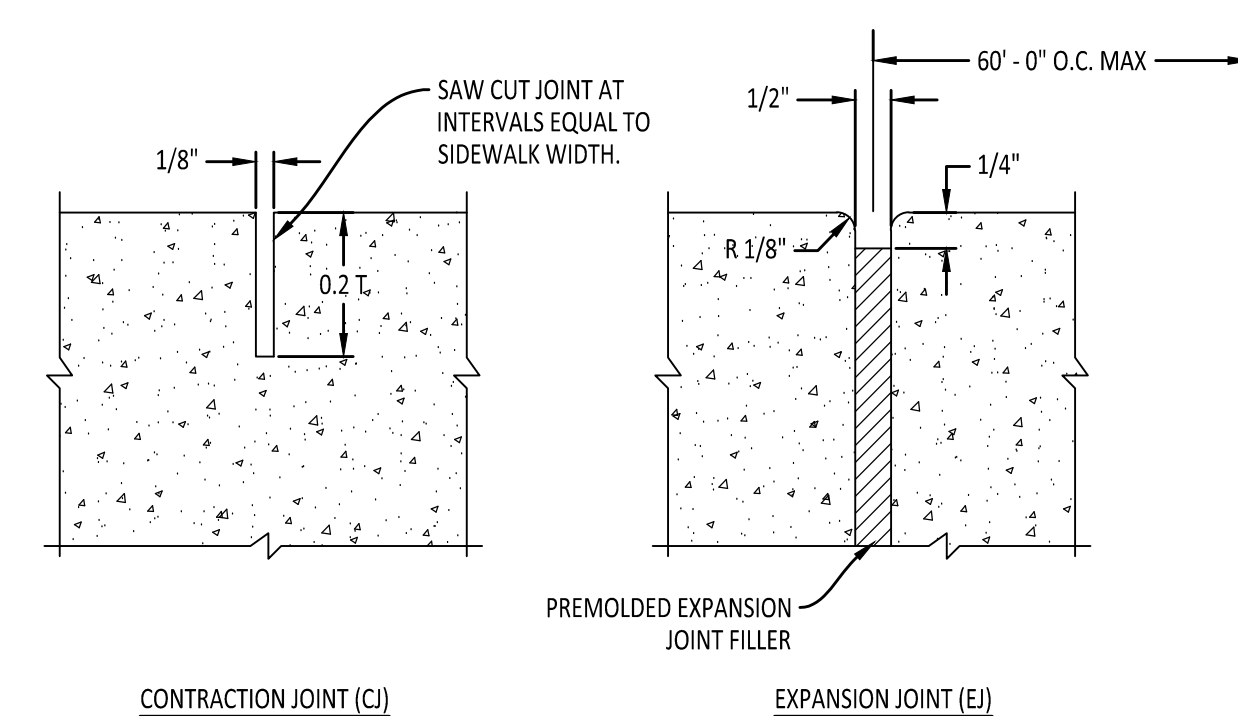
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CURB CUT/FLUME

N.T.S.

4

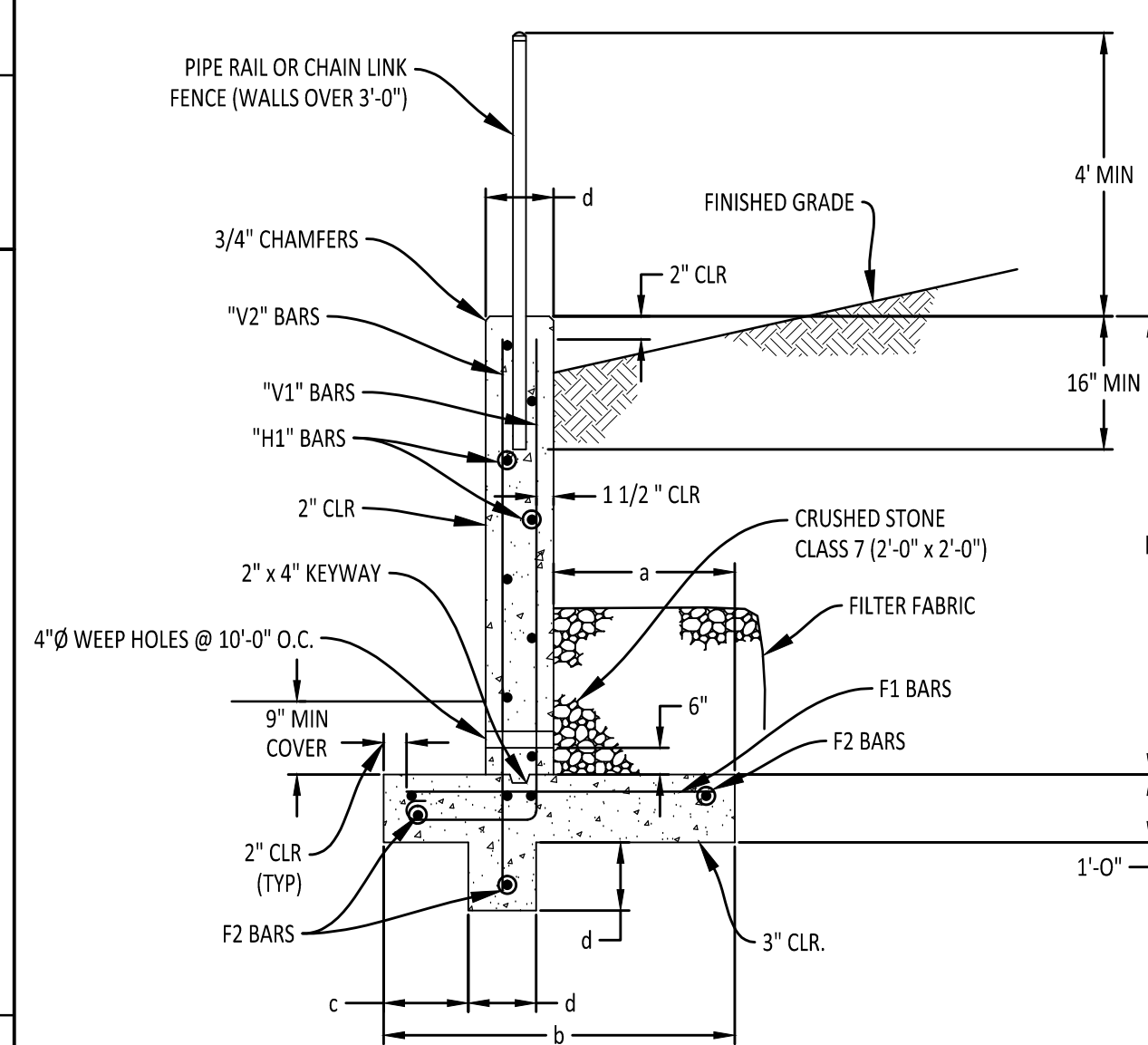


SIDEWALK JOINT DETAILS

N.T.S.

NOTE:
PROVIDE EXPANSION JOINT WHERE SIDEWALK ABUTTS CURB AND NEXT TO STRUCTURES AND DRIVEWAYS.

8



RETAINING WALL SECTION

N.T.S.

STEEL SCHEDULE											
"c"	"d"	"h"	"a"	"b"	V1 BARS		F1 BARS		#4 BARS		
					Size	Spacing	Size	Spacing	Spacing	No. Req'd.	
8"	8"	1'-0"	8"	2'-0"	#4	12"	#4	18"	18"	18"	6
8"	8"	2'-0"	8"	2'-0"	#4	12"	#4	18"	18"	18"	6
8"	8"	3'-0"	8"	2'-0"	#4	12"	#4	18"	18"	18"	6
8"	8"	4'-0"	1'-2"	2'-6"	#4	12"	#4	12"	18"	18"	6
8"	8"	5'-0"	1'-8"	3'-0"	#4	9"	#4	9"	18"	18"	6
8"	8"	6'-0"	2'-2"	3'-6"	#4	6"	#4	6"	18"	18"	7

BENDING DIAGRAM		
BAR SIZE	K	PIN DIA.
#4	4 1/2"	2 1/2"

NOTES:
1. CONSTRUCTION CONTROL JOINTS SHALL BE PLACED ON 20' TO 25' CENTERS USING 3/4" CHAMFER STRIPS. EXPANSION JOINTS SHALL BE PLACED ON 60' TO 75' CENTERS WITH 1/2" DOWEL, AND 1/2" PREMOLDED EXPANSION JOINT FILLER.
2. WEEP HOLES SHALL HAVE GALVANIZED WIRE MESH SCREEN INSTALLED BETWEEN 4" WEEP HOLE TUBING AND GRAVEL AT FACE OF WALL. GRAVEL SHALL BE CONTINUOUS WITH LENGTH OF WALL SECTION.
3. RETAINING WALLS GREATER THAN 6'-0" HIGH REQUIRE INDIVIDUAL DESIGN.
4. DO NOT USE FOR ACCOMMODATING SURCHARGE LOADING.

RETAINING WALL NOTES

N.T.S.

11



REVISIONS		
DATE	BY	DESCRIPTION

DRAWING INFO.	
DRAWN BY:	MAB
DATE:	08/26/2015
SCALE:	1" = 30'
JOB NO.:	15-064
CAD NO.:	

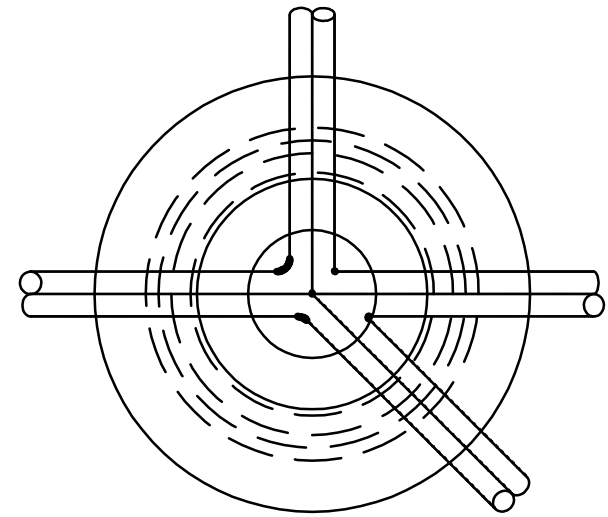
SITE CONSTRUCTION DETAILS

SHEET NUMBER:
9 of 10

NOTES TYPICAL TO ALL MANHOLES

- MANHOLE BASES TO BE 4000 PSI, 28 DAY STRENGTH, LIMESTONE MIX CONCRETE ON UNDISTURBED SUB-GRADE OR ON COMPACTED SELECT FILL MATERIAL AS AUTHORIZED.
- MANHOLE SIDEWALL MATERIAL TO BE CONCRETE IN ACCORDANCE WITH PROPOSAL FORM REQUIREMENTS.
 - 4' I.D. FOR SEWER SIZES 6" THRU 24"
 - 5' I.D. FOR SEWER SIZES 24" THRU 30"
 - 6' I.D. FOR SEWER SIZES 36" THRU 42"
- SET MANHOLE TOPS AS FOLLOWS:
 - IN STREETS, ROADS, HIGHWAYS, AND OTHER PAVED AREAS: FLUSH WITH FINISHED PAVING GRADE.
 - UNDEVELOPED AREAS, SUCH AS FIELDS, WOODS, ETC...: 12" ABOVE GROUND.
 - OTHER AREAS: 1" ABOVE GROUND.
- MANHOLE FRAMES SHALL HAVE MIN. OPENING OF 22" DIA.

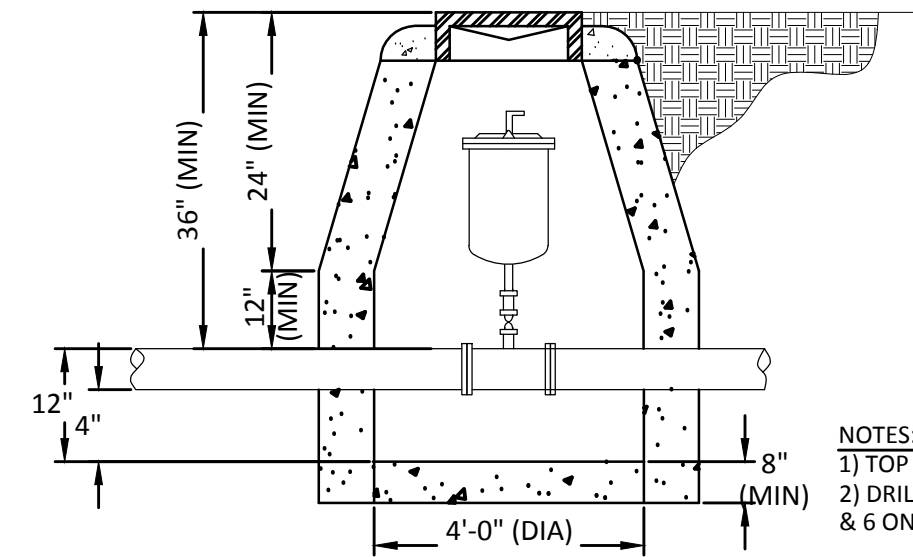
STANDARD MANHOLE



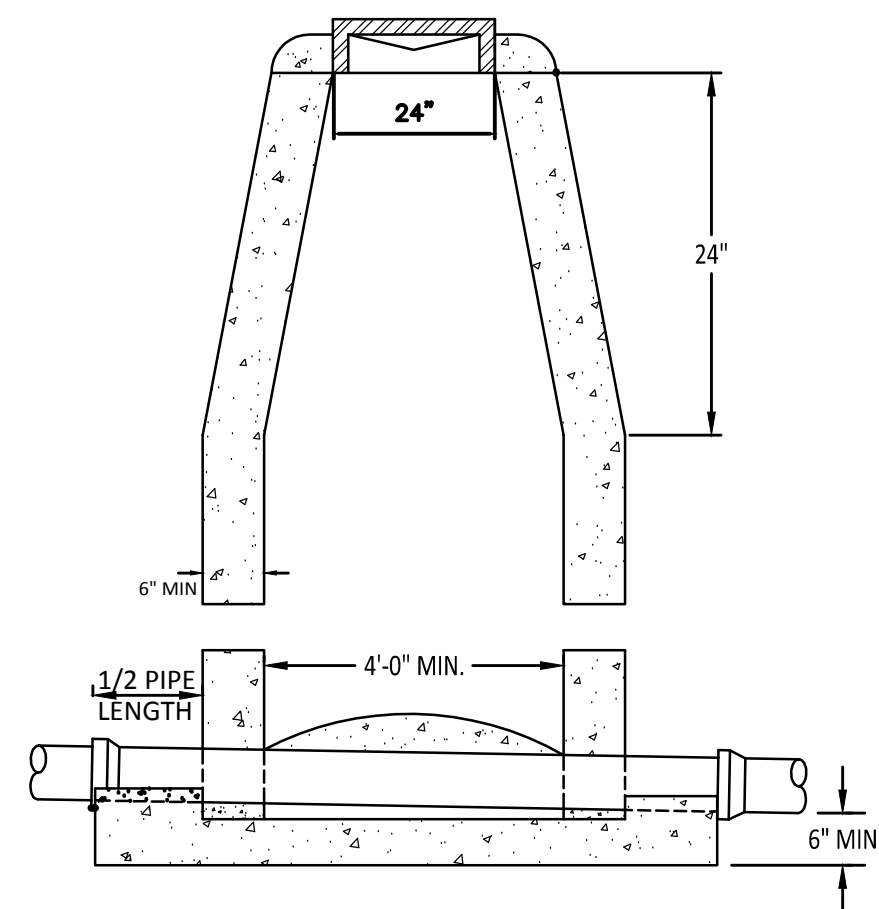
PLAN
N.T.S.

MANHOLE DETAILS

AIR/VACUUM RELEASE VALVE DETAIL

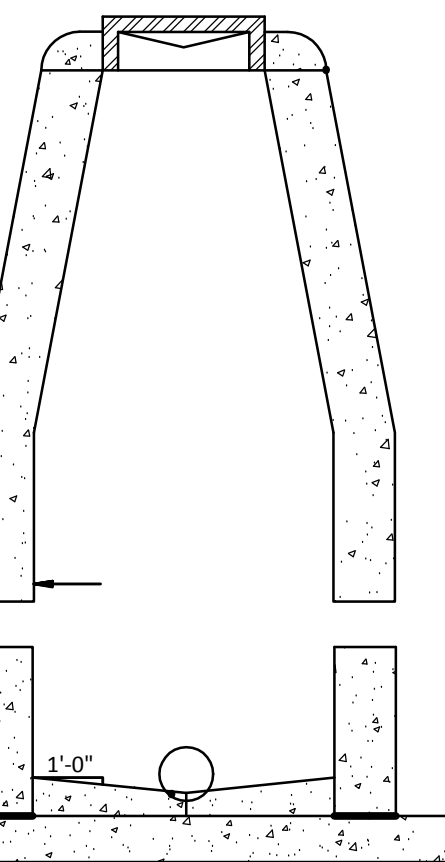


- NOTES:
 1) TOP & WALL CONST TO BE SAME AS MANHOLE
 2) DRILL 12-5/8" HOLES IN COVER: 6 ON 8" CIRCLE & 6 ON 16" CIRCLE



SIDE ELEVATION

STANDARD MANHOLE

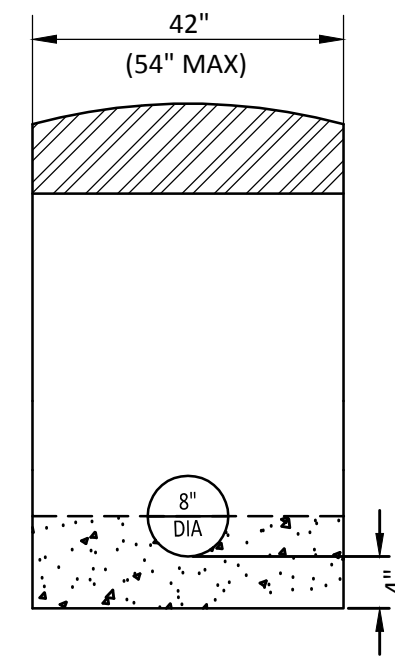


SECTION A-A

NOTE: MANHOLES SHALL BE PRECAST W/ NEOPRENE GASKETS AS APPROVED BY ENGINEER AND/OR UTILITY COMPANY

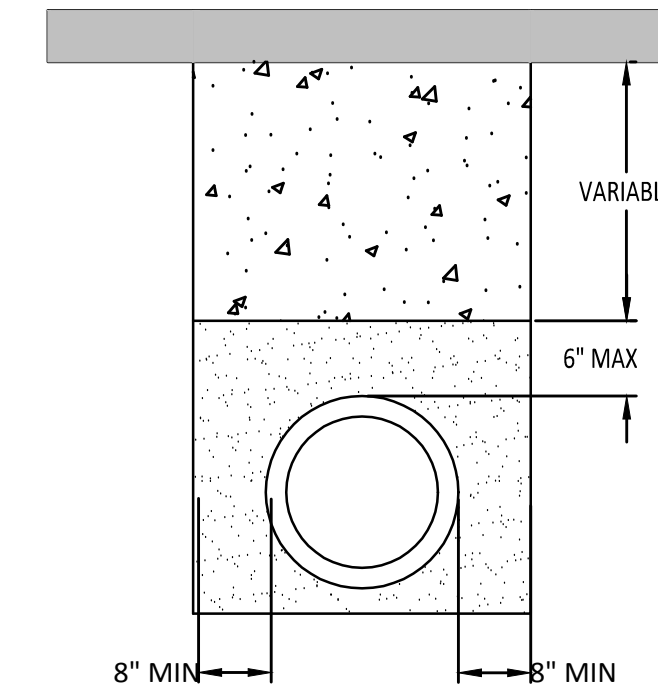
STANDARD MANHOLE

NON-EXISTING STREET LOCATIONS



PVC SDR-35 DETAIL

EXISTING STREET LOCATIONS

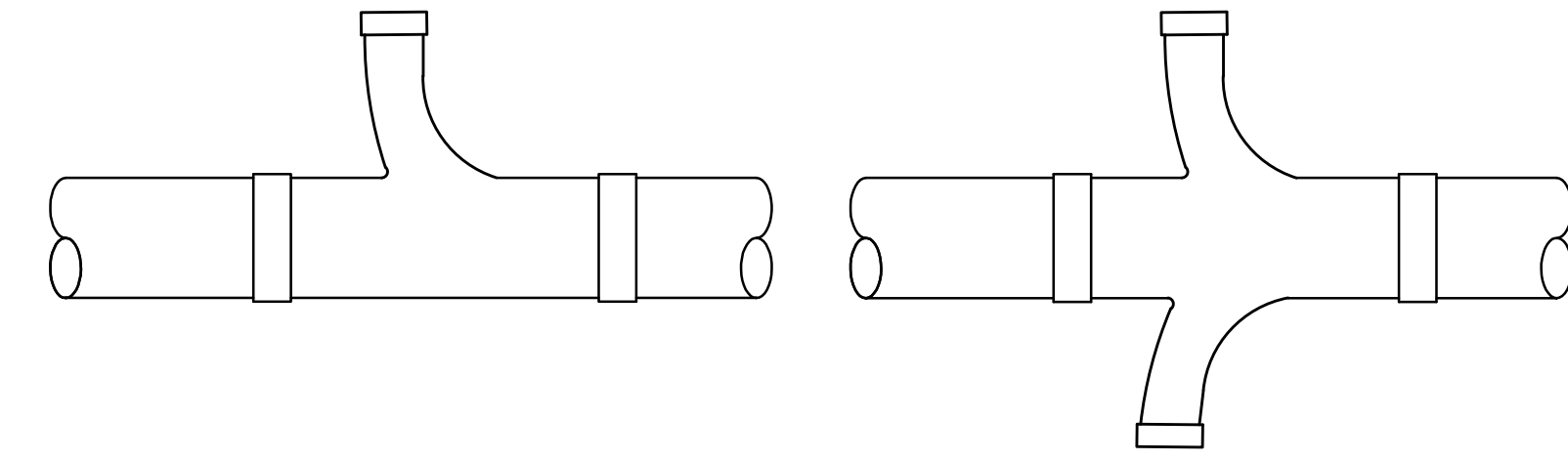


8" MIN 8" MIN

PVC TRENCH DETAIL

- NOTE:
 (1) CONTRACTOR SHALL OBTAIN A STREET CROSSING PERMIT FROM THE CITY OF JONESBORO PRIOR TO CUTTING STREET.
 (2) EXCAVATED MATERIAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR
 (3) THIS REPAIR DETAIL IS REQUIRED FOR ALL EXCAVATION WITHIN 5' OF PAVED EDGE AND ALL TRANSVERSE EXCAVATIONS TO EXTEND 3' BEYOND PAVED EDGE.

LEAVE FLOWABLE FILL:
 2" BELOW ASPHALT SURFACE
 6" BELOW CONCRETE SURFACE
 6" BELOW GRAVEL SURFACE



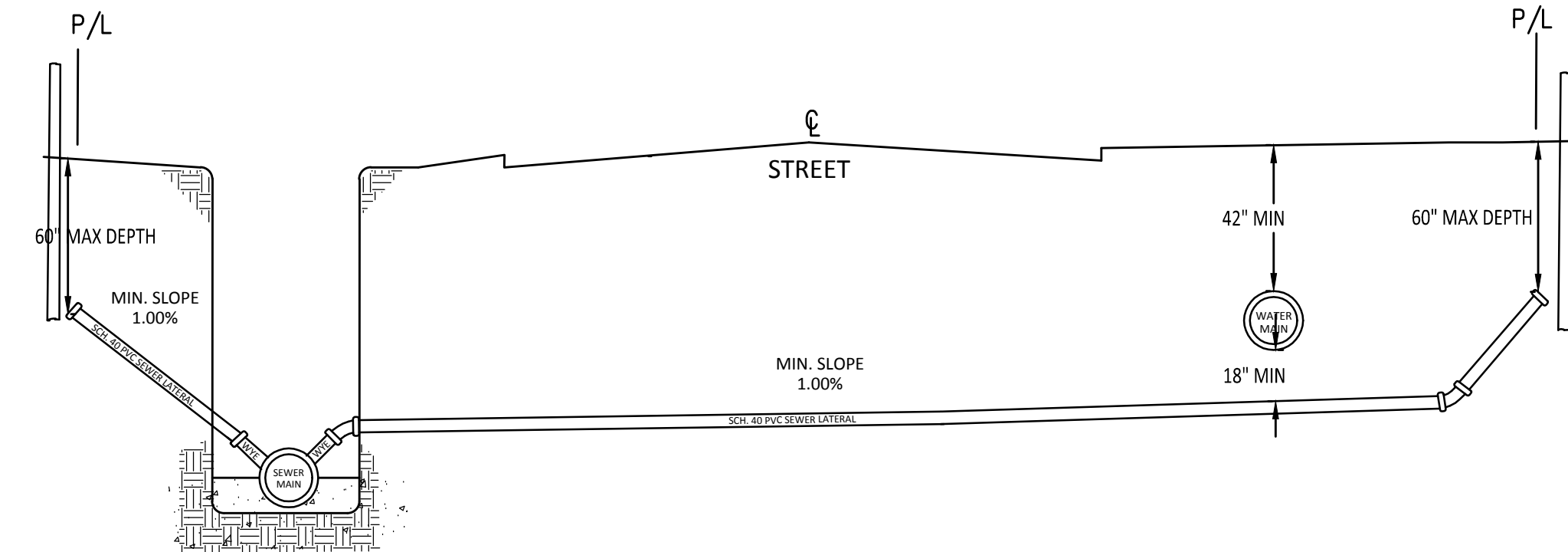
FROM DEEP MAIN

NORMAL DEPTH

(SUGGEST USING WOOD MARKERS @ END OF LATERALS 1'-2' ABOVE GROUND & PAINT GREEN FOR IDENTIFICATION & LOCATION OF LATERAL END)

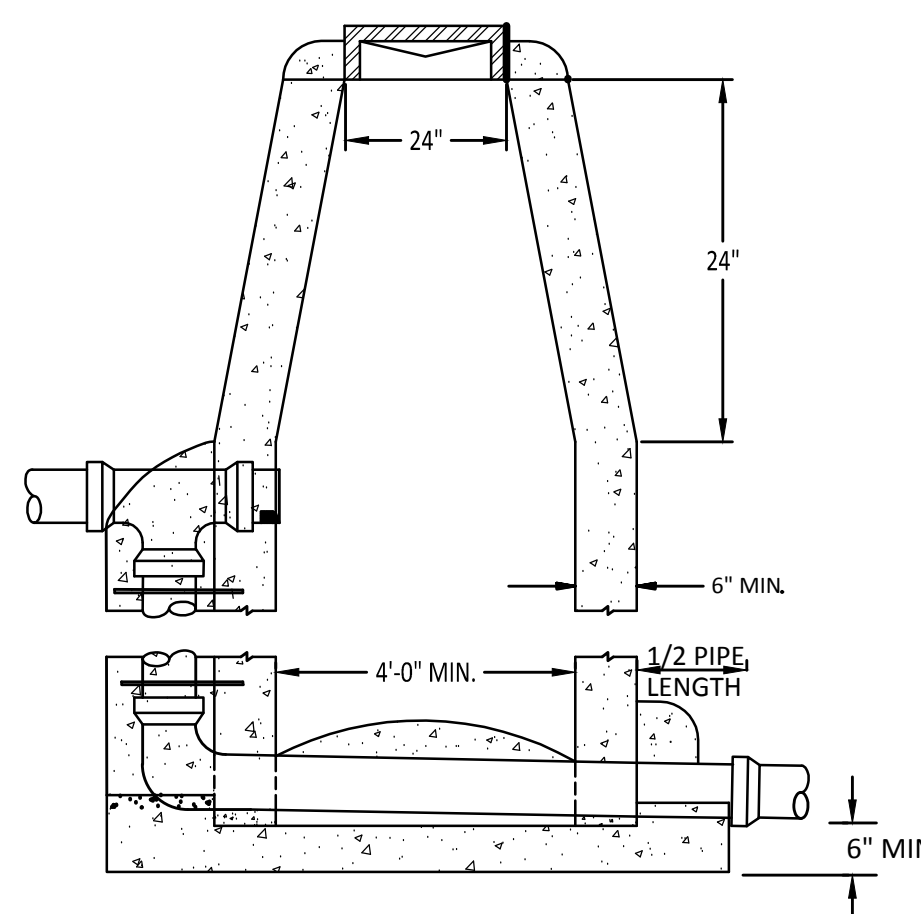
SEWER LATERAL STUBOUT PERMITS REQUIRED BEFORE INSTALLATION

USE SAME CONFIGURATION FOR MANHOLE STUBOUTS



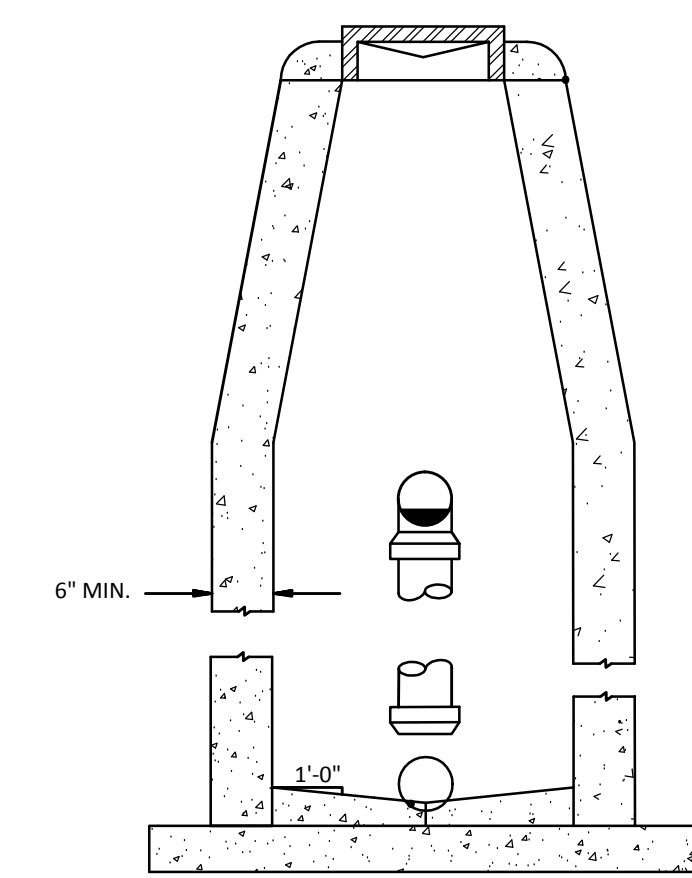
SERVICE CONNECTIONS

MANHOLE CONSTRUCTION DETAIL

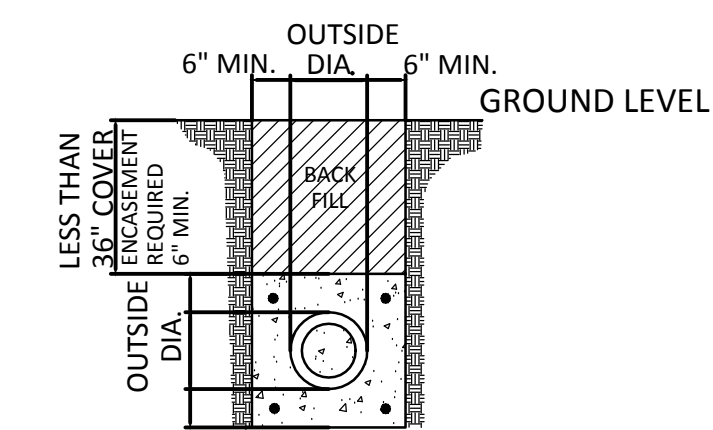


SIDE ELEVATION

DROP MANHOLE



SECTION A-A



CONCRETE ENCASEMENT FOR DITCH CROSSINGS

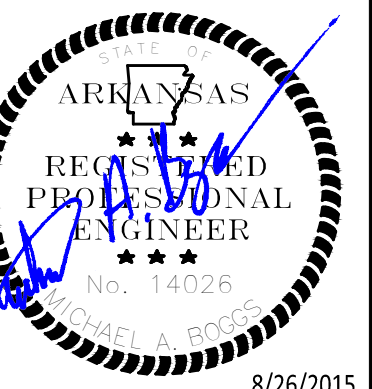
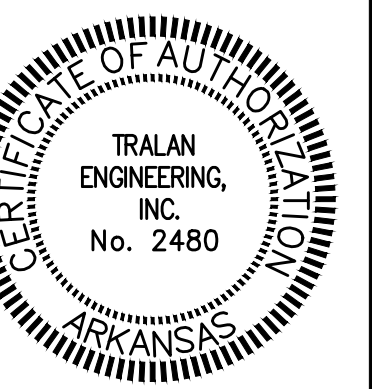
NOTE: ENCASEMENT PIPE MUST PRESSURE CLASS 350 DUCTILE IRON AND WRAP DUCTILE IRON PIPE WITH 8 MILL PLASTIC NOTE: WHEN 18" SEPERATION CANNOT BE MAINTAINED, JOINTS SHALL BE LOCATED SUCH THAT THEY ARE EQUAL DISTANCE BEFORE AND AFTER CROSSING.

COMPANY INFO:
 2916 WOOD STREET
 JONESBORO, AR 72404
 PH: 1-870-203-9959
 WWW.TRALANENG.COM

TRALAN ENGINEERING

PROJECT:
 Rhyno Carwash

CLIENT:
 Rhyno Land J, LLC



REVISIONS		
DATE	BY	DESCRIPTION

DRAWING INFO.	
DRAWN BY:	MAB
DATE:	08/26/2015
SCALE:	NTS
JOB NO.:	15-064
CAD NO.:	

CWL SEWER DETAILS

SHEET NUMBER:

10 of 10