CONTRIBUTING ZONE PLAN

FOR

S BELL BLVD COMMERCIAL

1005 S BELL BLVD

IN

CEDAR PARK, TEXAS







3100 Alvin Devane Boulevard, Suite 150 Austin, Texas 78741 Tel: 512.441.9493 Fax: 512.445.2286

AUGUST 2024



June 10, 2024

Water Section Manager Texas Commission on Environmental Quality Region 11 Office 12100 Park 35 Circle, Bldg A, Rm 179

RE: Contributing Zone Plan S. Bell Blvd Commercial Cedar Park, Tx 78613

To whom it may concern:

We are pleased to submit this Contributing Zone Plan Application on behalf of Bell South Commercial, LLC for your consideration. Please find enclosed the following items for your review:

- 1. Edwards Aquifer Application Cover Page (TCEQ-20705)
- 2. Contributing Zone Plan Application with Attachments A-P (TCEQ-10257)
- 3. Construction Plans (Attachment M of CZP Application)
- 4. Temporary Stormwater Section (TCEQ-0602)
- 5. Agent Authorization Form (TCEQ-0599)
- 6. Application Fee Form (TCEQ-0574)
- 7. TCEQ Core Data Form (TCEQ-10400)

If you have any questions or require additional information, please contact me at (512) 441-9493.

Sincerely,

Joshua V. Elledge

Texas Commission on Environmental Quality Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with <u>30 TAC 213</u>.

Administrative Review

1. <u>Edwards Aquifer applications</u> must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
- 3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
- 4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

- 5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
- 6. If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

- 1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
- 2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

- 3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
- 4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: S Bell Blvd Commercial				2. Regulated Entity No.:					
3. Customer Name: BELL SOUTH COMMERCIAL LLC				4. Customer No.:					
5. Project Type: (Please circle/check one)	New		Modification		Extension		Exception		
6. Plan Type: (Please circle/check one)	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Resider	ntial (ial Non-residential		tial		8. Sit	e (acres):	7.36 (*see note below)
9. Application Fee:	\$5,000	,000 10. Permanent		nent I	BMP(s):		Partial Sedime	ntation Filtration Pond	
11. SCS (Linear Ft.):	N/A 12. AST/UST (N		o. Tanks):		N/A				
13. County:	Willian	Williamson 14. Watershed:				Turkey Creek-H	Brushy Creek		

*Note: Area reflects the drainage area going to the proposed BMP as well as the drainage easement containing the BMP (metes and bounds attached for both)

Application Distribution

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Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region				
County:	Hays	Travis	Williamson	
Original (1 req.)	_	_	<u>X</u>	
Region (1 req.)		_	<u>_X</u>	
County(ies)		—	<u>X</u>	
Groundwater Conservation District(s)	Edwards Aquifer Authority Barton Springs/ Edwards Aquifer Hays Trinity Plum Creek	Barton Springs/ Edwards Aquifer	NA	
City(ies) Jurisdiction	Austin Buda Dripping Springs Kyle Mountain City San Marcos Wimberley Woodcreek	Austin Bee Cave Pflugerville Rollingwood Round Rock Sunset Valley West Lake Hills	Austin X Cedar Park Florence Georgetown Jerrell Leander Liberty Hill Pflugerville Round Rock	

	S	an Antonio Region			
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)					
Region (1 req.)					
County(ies)					
Groundwater Conservation District(s)	Edwards Aquifer Authority Trinity-Glen Rose	Edwards Aquifer Authority	Kinney	EAA Medina	EAA Uvalde
City(ies) Jurisdiction	Castle Hills Fair Oaks Ranch Helotes Hill Country Village Hollywood Park San Antonio (SAWS) Shavano Park	Bulverde Fair Oaks Ranch Garden Ridge New Braunfels Schertz	NA	San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.

Joshua V. Elledge Print Name of Customer/Authorized Agent

Signature of Customer/Authorized Agent

08/27/2024 Date

FOR TCEQ INTERNAL USE ONL	Y			
Date(s)Reviewed:	Da	Date Administratively Complete:		te:
Received From:	Co	Correct Number of Copies:		
Received By:	Dis	Distribution Date:		
EAPP File Number:	Co	Complex:		
Admin. Review(s) (No.):	No	No. AR Rounds:		
Delinquent Fees (Y/N):	Re	Review Time Spent:		
Lat./Long. Verified:	SO	SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):	Fe	Payable to TCEQ (Y/		/N):
Core Data Form Complete (Y/N):	Ch	Check: Signed (Y/N):	Signed (Y/N):	
Core Data Form Incomplete Nos.:		Less than 90 day		d (Y/N):

CONTRIBUTING ZONE PLAN APPLICATION (TCEQ-10257)

Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Joshua V. Elledge

Date: 08/27/2024

Signature of Customer/Agent:

Regulated Entity Name: S Bell Blvd. Commercial

Project Information

- 1. County: Williamson
- 2. Stream Basin: Turkey Creek/Brushy Creek
- 3. Groundwater Conservation District (if applicable): N/A
- 4. Customer (Applicant):

Contact Person: <u>Mr. Benny Nguyen</u> Entity: <u>BELL SOUTH COMMERCIAL LLC</u> Mailing Address: <u>675 Bering Drive, Suite 500</u> City, State: <u>Houston, Texas</u> Telephone: <u>(512)-965-4200</u> Email Address: <u>benny@halonare.com</u>

Zip: <u>77057</u> Fax: <u>N/A</u>

TCEQ-10257 (Rev. 02-11-15)

5. Agent/Representative (If any):

Contact Person: Joshua V. Elledge Entity: Quiddity Engineering Mailing Address: <u>3100 Alvin Devane Blvd, Suite 500</u> City, State: <u>Austin, Texas</u> Zip: <u>78741</u> Telephone: (512)-685-5160 Fax: (512)-455-2286 Email Address: jelledge@quiddity.com

6. Project Location:

The project site is located inside the city limits of <u>Cedar Park, Texas</u>.

- The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
- The project site is not located within any city's limits or ETJ.
- 7. The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

1005 S. Bell Blvd., Cedar Park, Texas 78613

- 8. Attachment A Road Map. A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.
- 9. Attachment B USGS Quadrangle Map. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') is attached. The map(s) clearly show:

Project site boundaries.

 \boxtimes USGS Quadrangle Name(s).

10. Attachment C - Project Narrative. A detailed narrative description of the proposed project is attached. The project description is consistent throughout the application and contains, at a minimum, the following details:



- Impervious cover
- \mathbb{X} Permanent BMP(s)
- Proposed site use
- Site history
- Previous development
- Area(s) to be demolished
- 11. Existing project site conditions are noted below:
 - Existing commercial site
 - Existing industrial site

Existing residential site

Existing paved and/or unpaved roads

Undeveloped (Cleared)

Undeveloped (Undisturbed/Not cleared)

Other: _____

12. The type of project is:

Residential: # of Lots: _____
 Residential: # of Living Unit Equivalents: _____
 Commercial
 Industrial
 Other: _____

13. Total project area (size of site): 7.36 Acres

Total disturbed area: 7.36 Acres

- 14. Estimated projected population: N/A
- 15. The amount and type of impervious cover expected after construction is complete is shown below:

Table 1 -	Impervious	Cover
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Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops		÷ 43,560 =	
Parking		÷ 43,560 =	
Other paved surfaces	23809	÷ 43,560 =	0.55
Total Impervious Cover	23809	÷ 43,560 =	0.55

Total Impervious Cover 0.55 + Total Acreage 7.36 X 100 = 7.47% Impervious Cover

16. Attachment D - Factors Affecting Surface Water Quality. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.

17. Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

For Road Projects Only

Complete questions 18 - 23 if this application is exclusively for a road project.

🛛 N/A

18.	Туре	of	project:
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TXDOT road project. County road or roads built to county specifications. City thoroughfare or roads to be dedicated to a municipality. Street or road providing access to private driveways. 19. Type of pavement or road surface to be used: Concrete Asphaltic concrete pavement Other: 20. Right of Way (R.O.W.): Length of R.O.W.: _____ feet. Width of R.O.W.: feet. $L \times W = Ft^2 \div 43,560 Ft^2/Acre = acres.$ 21. Pavement Area: Length of pavement area: _____ feet. Width of pavement area: feet. $L \times W = Ft^2 \div 43,560 Ft^2/Acre = acres.$ Pavement area acres ÷ R.O.W. area acres x 100 = % impervious cover.

22. A rest stop will be included in this project.

A rest stop will not be included in this project.

23. Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

Stormwater to be generated by the Proposed Project

24. Attachment E - Volume and Character of Stormwater. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

25. Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

N/A

26. Wastewater will be disposed of by:

On-Site Sewage Facility (OSSF/Septic Tank):

Attachment F - Suitability Letter from Authorized Agent. An on-site sewage facility
will be used to treat and dispose of the wastewater from this site. The appropriate
licensing authority's (authorized agent) written approval is attached. It states that
the land is suitable for the use of private sewage facilities and will meet or exceed
the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285
\square Each lat in this project/development is at least one (1) acro (43 560 square feet) in
size. The system will be designed by a licensed professional engineer or registered
size. The system will be designed by a licensed professional engineer of registered
205.
Sewage Collection System (Sewer Lines):
The sewage collection system will convey the wastewater to the Brushy Creek West
Regional Wastewater Treatment Plant (name) Treatment Plant. The treatment facility is:
V Evicting
N/A
ermanent Aboveground Storage Tanks(ASTs) ≥ 500

Per Gallons

Complete questions 27 - 33 if this project includes the installation of AST(s) with volume(s) greater than or equal to 500 gallons.

N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

AST Number	Size (Gallons)	Substance to be Stored	Tank Material
1			
2			
3			
4			
5			
	·	T	otal x 1.5 = Gallons

28. The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than

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one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

Attachment G - Alternative Secondary Containment Methods. Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are attached.

29. Inside dimensions and capacity of containment structure(s):

Table 3 - Secondary Containment

Length (L)(Ft.)	Width(W)(Ft.)	Height (H)(Ft.)	L x W x H = (Ft3)	Gallons

Total: _____ Gallons

30. Piping:

All piping, hoses, and dispensers will be located inside the containment structure.

Some of the piping to dispensers or equipment will extend outside the containment structure.

The piping will be aboveground

] The piping will be underground

- 31. The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of:
- 32. Attachment H AST Containment Structure Drawings. A scaled drawing of the containment structure is attached that shows the following:
 - Interior dimensions (length, width, depth and wall and floor thickness).
 - Internal drainage to a point convenient for the collection of any spillage.

Tanks clearly labeled

Piping clearly labeled

Dispenser clearly labeled

33. Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.

In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

Site Plan Requirements

Items 34 - 46 must be included on the Site Plan.

34. \square The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = <u>80</u>'.

35. 100-year floodplain boundaries:

Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): <u>48491C0605F & 48491C0610F eff. 12/20/2019</u>.

36. The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

- 37. \square A drainage plan showing all paths of drainage from the site to surface streams.
- 38. 🖂 The drainage patterns and approximate slopes anticipated after major grading activities.
- 39. \boxtimes Areas of soil disturbance and areas which will not be disturbed.
- 40. 🔀 Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
- 41. 🛛 Locations where soil stabilization practices are expected to occur.
- 42. Surface waters (including wetlands).

N/A

43. Locations where stormwater discharges to surface water.

There will be no discharges to surface water.

44. Temporary aboveground storage tank facilities.

Temporary aboveground storage tank facilities will not be located on this site.

45. Permanent aboveground storage tank facilities.

Permanent aboveground storage tank facilities will not be located on this site.

46. \square Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

Practices and measures that will be used during and after construction is completed.

47. Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

🖂 N/A

- 48. These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
 - The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.
 - A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____.

N/A

49. Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

🗌 N/A

50. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

The site will be used for low density single-family residential development and has 20% or less impervious cover.

The site will be used for low density single-family residential development but has more than 20% impervious cover.

The site will not be used for low density single-family residential development.

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rocessing
propriate

Attachment I - 20% or Less Impervious Cover Waiver. The site will be used for
multi-family residential developments, schools, or small business sites and has 20%
or less impervious cover. A request to waive the requirements for other permanent
BMPs and measures is attached.

The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

The site will not be used for multi-family residential developments, schools, or small business sites.

52. X Attachment J - BMPs for Upgradient Stormwater.

A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.

No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

53. X Attachment K - BMPs for On-site Stormwater.

A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.
 Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff.

54. Attachment L - BMPs for Surface Streams. A description of the BMPs and measures that prevent pollutants from entering surface streams is attached.

N/A

55. Attachment M - Construction Plans. Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are

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attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

N/A

56. X Attachment N - Inspection, Maintenance, Repair and Retrofit Plan. A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all of the following:
 Prepared and certified by the engineer designing the permanent BMPs and measures Signed by the owner or responsible party Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.
Contains a discussion of record keeping procedures
□ N/A
57. Attachment O - Pilot-Scale Field Testing Plan. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.
⊠ N/A
58. Attachment P - Measures for Minimizing Surface Stream Contamination. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that result in water quality degradation.
⊠ N/A
Responsibility for Maintenance of Permanent BMPs and

Measures after Construction is Complete.

- 59. The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.
- 60. A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development,

or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

Administrative Information

- 61. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions.
- 62. Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.
- 63. The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.
 - The Temporary Stormwater Section (TCEQ-0602) is included with the application.

S BELL BLVD COMMERCIAL CONTRIBUTING ZONE PLAN

Attachment A: Road Map



S BELL BLVD COMMERCIAL CONTRIBUTING ZONE PLAN

Attachment B: USGS





Produced by the United States Geological Survey North American Datum of 1983 (NAD83) World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

 Imagery......NAIP, September 2016 - November 2016

 Roads......U.S. Census Bureau, 2015 - 2019

 Names......GNIS, 1979 - 2022

 Hydrography......National Hydrography Dataset, 2002 - 2020

 Contours.....National Elevation Dataset, 2019

 Boundaries......Multiple sources; see metadata file 2019 - 2021

 Wetlands......FWS National Wetlands Inventory Not Available



 Expressway
 Local Connector

 Secondary Hwy
 Local Road

 Ramp
 4WD

 Interstate Route
 US Route
 State Route

JOLLYVILLE, TX

2022



Attachment C: Project Narrative

S Bell Blvd Commercial is located between Cypress Creek Road and Little Elm Trail and directly adjacent to the west of South Bell Boulevard in Cedar Park, Texas. The *S Bell Blvd Commercial* project is to be constructed on Lot 1, Block A of the TSSD3 subdivision, an approximately 10.34-acre undeveloped tract (considered total site area). No portion of the project site is located within the limits of the 100-year floodplain as shown on FIRM Panel No. 48491C0605F & 48491C0610F dated December 20, 2019. The site is located within the city limits of Cedar Park and the limits of the Brushy Creek-Turkey Creek watershed & Contributing Zone of the Edwards Aquifer.

Approximately 4.12 acres (DA-2) of the 10.34-acre property will flow into an existing pond, for which a CZP modification has been prepared under separate cover; these 4.12 acres (DA-2), for all intents and purposes, are not incorporated for the BMP's associated with this Contributing Zone Plan as they have already been accounted for in a separate CZP.

Approximately 6.09 acres (DA-1A and DA-1B) of the 10.34-acre property will flow into a proposed partial sedimentation-filtration pond, which is to be located on an adjacent property owned by Leander ISD. The proposed partial sedimentation-filtration pond will be located within a drainage easement which is 1.27 acres in area.

In addition to the 6.09 acres (DA-1A and DA-1B) from the S Bell Blvd Commercial tract being treated by the proposed pond, 8.49 acres (OS-1A) from the tract owned by Leander ISD will also be treated by the proposed pond per development agreement executed 03/18/2024. The pond has been sized assuming 75% impervious cover for both the 6.09-acre (DA-1A and DA-1B) and 8.49-acre (OS-1A) drainage area.

However, the tract owned by Leander ISD will not be developed at this time (except for the pond), and only the area within the pond's drainage easement is included in this CZP. Additionally, the S Bell Blvd Commercial tract is proposing minimal impervious cover as it is not being fully developed at this time. Therefore, where applicable in this CZP, the minimal impervious cover values are shown, rather than the assumed 75% impervious cover for the drainage areas flowing to the proposed partial sedimentation-filtration pond.

Attachment D: Factors Affecting Surface Water Quality

Factors that may affect surface water quality are as follows:

Site Development Criteria

- The site will be used for commercial development
- When necessary, rock rip-rap or concrete outfall aprons will be designed to reduce runoff velocities resulting in settlement of suspended solids and minimizing scouringconditions.

Construction Stage

- Clearing will disturb areas and create the potential for pollutants to runoff from rainfall.
- Temporary BMP's will be maintained throughout construction and will include measures such as a stabilized construction entrance/exit, silt fencing, inlet protection, rock berms, a temporary sediment basin and other measures which will reduce TSS in runoff leaving the site.

Vehicular Traffic

- Mud or fine particles may be dropped from vehicular traffic.
- Fluids may be dropped from vehicular traffic.

Landscape and Property Maintenance

- Pesticides or herbicides used for landscape maintenance may not be applied at a proper rate and may leak into groundwater or runoff into surface drains.
- Fine particles may be washed from driveway surfaces into roadways and drains.
- Natural vegetative filter strips and wet pond will be utilized to treat TSS coming from the site, which will minimize the impact of TSS from impervious areas.
- A maintenance plan will be implemented for all temporary BMP's in accordance with the SWPPP and for all permanent BMP's in accordance with **Attachment N**.

Attachment E: Volume and Character of Stormwater

The stormwater runoff calculations included in this section were based on the SCS Method using HEC-HMS modeling in conjunction with drainage criteria specified by the City of Cedar Park (defers to City of Austin Drainage Criteria Manual). In the attached drainage area maps (**Attachment J**) for the proposed *S. Bell Commercial* site (10.34 acres), the analysis point of study is for the southeast end of the project site titled "Analysis Point 1". The objective of the hydrologic analysis is to show that the proposed sedimentation-filtration/detention pond has the capacity to store runoff from the ultimate development using the Atlas 14 100-year storm event.

Drainage areas "DA-1A", "DA-1B", and "OS-1A" are considered undeveloped in its existing conditions and are proposed to reflect the construction of a driveway for future commercial development in postdeveloped conditions. A hydrologic analysis was conducted to convert precipitation data to runoff values for the given site. Precipitation values were taken from the City of Cedar Park Atlas-14 rainfall depths and converted to runoff using Depth Duration Frequencies and TR-55 methodologies in HEC- HMS v 4.8. The National Resources Conservation Service (NRCS) web soil survey shows the site to be a hydrologic soil type "D", which has a low infiltration rate when saturated and exhibits the highest runoff potential of all hydrological soil groups. For HEC-HMS modeling, the existing & proposed impervious cover numbers were held to match existing conditions. To reflect the post-developed conditions, the proposed curve numbers were modified in regard to the existing.

For pond sizing purposes, a proposed impervious cover value of 75% was assumed for all of the 14.58 acres constituting DA-1A, DA-1B, and OS-1A. However, this is an assumption and minimal impervious cover is being proposed at this time.

The attached Existing and Proposed Drainage Area Maps for the proposed site are included in this section and show the drainage areas and flow patterns within the project. The area utilized for this CZP application is shown/marked in the proposed drainage area map. The drainage area map sheets also show the pre- and post-development runoff rates at "Analysis Point 1" including the offsite runoff flow paths, as well as a table summarizing the components of the HEC-HMS model for both the existing and proposed conditions. In regard to "Analysis Point 1", the post-developed rates are decreased compared to the pre-developed conditions. Please see the drainage study for more information regarding these assumptions, calculations & findings provided as **Appendix A** at the end of this report.

The pre-development runoff coefficient is 0.56

The post-development runoff coefficient is 0.56

Attachment F: Suitability Letter from Authorized Agent

Attachment F is not applicable to this project

Attachment G: Alternative Secondary Containment Methods

Attachment G is not applicable to this project

Attachment H: Alternative Secondary Containment Methods

Attachment H is not applicable to this project

Attachment I: 20% or Less Impervious Cover Waiver

Attachment I is not applicable to this project

Attachment J: BMPs for Upgradient Stormwater

There is an 8.49-acre undeveloped offsite area that flows into the northwest corner of and across the *S Bell Blvd Commercial* site. This area designated "OS-1A" is undeveloped, and the same general drainage pattern will be maintained in post-development conditions. OS-1A will flow to the proposed detention and water quality pond located on Leander ISD's property in post development conditions. As mentioned previously, the impervious cover assumed for OS-1A is 75% for pond sizing purposes, but no impervious cover is proposed on this particular drainage area at this time. Please see the attached existing and proposed drainage area map sheets for the *S Bell Blvd Commercial Project*.



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Roads	0.00	0.00	100	0.00	Roads		0.00	100	0.00	
Fair Woods	0.00	0.00	0	0.00	Fair Woods	0.00	0.00	0	0.00	F
Fair Brush	0.00	0.00	0	0.00	Fair Brush	0.00	0.00	0	0.00	
1/8 Ac Single-Family	0.00	0.00	65	0.00	1/8 Ac Single-Family	0.00	0.00	65	0.00	1/8 A
Commercial	2.77	1.00	75	75.00	Commercial	3.32	1.00	75	75.00	C
Total	2.77		Composite:	75.00	Total	3.32		Composite:	75.00	
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 $\sim$   $\sim$   $\sim$  $\langle \cdot \rangle$ DA-2 Proposed Percent Impervious Calculation

1.27

8.51

/ /	Proposed Land Type	Area (ac)	Proportion	% Impervious Cover	%IC for each proportion
	Roads	0.00	0.00	100	0.00
	Fair Woods	0.00	0.00	0	0.00
	Fair Brush	0.00	0.00	0	0.00
7	1/8 Ac Single-Family	0.00	0.00	65	0.00
	Commercial	4.12	1.00	75	75.00
	Total	4.12		Composite:	75.00

0.15

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	OS-1B Propose	ed Percent	Impervio	us Calcula	ation	
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,	Proposed Land Type	Alea (ac)	Proportion	Cover	proportio
L	Roads	1.02	0.74	100.00	73.67
	Fair Woods	0.00	0.00	0.00	0.00
	Fair Brush	0.37	0.26	0.00	0.00
<	1/8 Ac Single-Family	0.00	0.00	65.00	0.00
-	Total	1.39		Composite:	73.67
-			>		1111111

Time of Concentration Calculation

3.96 in.

P2 =

Detention

Total

 $=\frac{0.007(n_{ol}L_{sh})^{0.8}}{P_2^{0.5}S_{sh}^{0.4}}$ 

0

Composite:

0.00

2.73

 $t_{sc} = \frac{L_{sc}}{3600 \ K S_{sc}^{0.5}}$ 

	L _{sh}	S _{sh}		P ₂	n _{ol}	t _{sh}	L _{sc}	S _{sc}	К	t _{sc}	Lp	
									16.13 - unpaved			
				2-yr, 24-hr		sheet flow			surf.			.
	sheet flow	sheet flow slope	surface	rainfall depth	overland flow roughness	travel time	shallow conc. flow	shallow conc.	20.33 - paved	shallow conc. flow		
catchment name	length	(ft/ft)	description	(in.)	coeff.	(hr)	length (ft)	flow slope (ft/ft)	surf.	time (hr)	Pipe flow length (ft)	
DA-1A			Concrete	3.96	0.015						443	
DA-1B			Concrete	3.96	0.015						397	
DA-1C	90.5	0.001	Concrete	3.96	0.015	0.07						Γ
DA-2	100	0.004	Concrete	3.96	0.015	0.04	522	0.050	20.33	0.03		
OS-1A	100	0.007	Med Brush	3.96	0.400	0.49	564	0.023	16.13	0.06		
OS-1B	100	0.015	Asphalt	3.96	0.016	0.03						

K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 DAMAP-P.dwg cbarczi: May 29, 2024



# Attachment K: BMPs FOR ON-SITE STORMWATER

The drainage analysis for this project was based on the applicable drainage requirements of the City of Cedar Park (defers to City of Austin Drainage Criteria Manual). Detention analysis was performed to ensure that the combined 14.58-acre drainage area will not cause the proposed pond to overtop during the 100-year storm event using Atlas 14 rainfall data.

Water quality analysis was performed to ensure that the proposed BMP will adequately remove the required amount of TSS in accordance with TCEQ RG-348 requirements.

Included below is the TSS calculation for the site area along with the offsite area that will utilize the proposed pond. Please note that 75% impervious cover is assumed for pond sizing purposes, but the impervious cover being proposed along with this CZP application is much less than that value.

Texas Commission on Environmental Quality

### TSS Removal Calculations 04-20-2009

Project Name: S Bell Blvd Commercial Date Prepared: 4/30/2024

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.

Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.

Characters shown in red are data entry fields.

Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project:

Calculations from RG-348 Pages 3-27 to 3-30 Page 3-29 Equation 3.3:  $L_M = 27.2(AN \times P)$ 

where: L_{M TOTAL PROJECT} = Required TSS removal resulting from the proposed development = 80% of increased load

 $A_{\mbox{\scriptsize N}}$  =Net increase in impervious area for the project

P =Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Williamson	Site IC
Total project area included in plan * =	7.36	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	0.55	acres
Total post-development impervious cover fraction * =	0.07	
P =	32	inches
		_
L _{M TOTAL PROJECT} =	479	lbs.
* The values entered in these fields should be for the total project area.		
Number of drainage basins / outfalls areas leaving the plan area =	1	
	•	
2. Drainage Basin Parameters (This information should be provided for each b	asin):	
Drainage Basin/Outfall Area No. =	1	
Total drainage basin/outfall area =	14 58	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	10.00	acres
Post-development impervious fraction within drainage basin/outfall area =	0.75	20163
r ost-development impervious naction within drainage basin/outian area -	0.75	

L_{M THIS BASIN} = **9522** Ibs.

#### 3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter Removal efficiency = 89 percent

#### 4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7:  $L_R = (BMP \text{ efficiency}) \times P \times (AI \times 34.6 + AP \times 0.54)$ 

where: A_C = Total On-Site drainage area in the BMP catchment area

A_I = Impervious area proposed in the BMP catchment area

A_P = Pervious area remaining in the BMP catchment area

 $L_R$  = TSS Load removed from this catchment area by the proposed BMP

A _C =	14.58	acres
A _I =	10.94	acres
A _P =	3.64	acres
L _R =	10836	lbs

#### 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M THIS BASIN}$ =	9522	lbs.
------------------------------	------	------

F = **0.88** 

#### 6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	1.50	inches
Post Development Runoff Coefficient =	0.56	
On-site Water Quality Volume =	44489	cubic feet

#### Calculations from RG-348 Pages 3-36 to 3-37

0.00 acres 0.00 acres 0 0.00 0 cubic fee	Off-site area draining to BMP = 0.0 Off-site Impervious cover draining to BMP = 0.0 Impervious fraction of off-site area = 0 Off-site Runoff Coefficient = 0.0 Off-site Water Quality Volume = 0	
0 cubic fee	Off-site Water Quality Volume = 0	

	Storage for Sediment =	8898	
Total Capture Volume (required water qu	uality volume(s) x 1.20) =	53387	cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.

#### 9. Filter area for Sand Filters

#### Designed as Required in RG-348 Pages 3-58 to 3-63

#### 9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = 53387 cubic feet

Minimum filter basin area = 2472 square feet

Maximum sedimentation basin area = 22245 square feet For minimum water depth of 2 feet Minimum sedimentation basin area = 5561 square feet For maximum water depth of 8 feet

#### 9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	53387	cubic feet
--------------------------------------------	-------	------------

Minimum filter basin area = 4449 square feet

Maximum sedimentation basin area = 17796 square feet For minimum water depth of 2 feet Minimum sedimentation basin area = 1112 square feet For maximum water depth of 8 feet


# Attachment L: BMPs for Surface Streams

Attachment L is not applicable to this project

# S BELL BLVD COMMERCIAL CONTRIBUTING ZONE PLAN

# Attachment M: Construction Plans

- 1. Cover Sheet & Index
- 2. General Notes
- 3. Final Plat (1 of 3)
- 4. Final Plat (2 of 3)
- 5. Final Plat (3 of 3)
- 6. Existing Conditions Plan
- 7. Pre-Construction Overall Erosion Control Plan
- 8. Pre-Construction Erosion Control PlanA
- 9. Pre-Construction Erosion Control PlanB
- 10. Mid-Construction Overall Erosion Control Plan
- 11. Mid-Construction Erosion Control PlanA
- 12. Mid-Construction Erosion Control PlanB
- 13. Overall Site Plan
- 14. Site Plan A
- 15. Site Plan B
- 16. North Decel Lane
- 17. South Decel Lane
- 18. Overall Storm Plan
- 19. Storm Plan A
- 20. Storm Plan B
- 21. Overall Grading Plan
- 22. Grading Plan A
- 23. Grading Plan B
- 24. Sidewalk Sections
- 25. Pavement Plan
- 26. Existing Drainage Area Map
- 27. Proposed Drainage Area Map
- 28. Pond Plan
- 29. Pond Drainage System
- 30. Pond Details & Calcs
- 31. Erosion Control Notes & Details
- 32. Drainage Details
- 33. Site Details
- 34. TxDOT Details (1 of 2)
- 35. TxDOT Details (2 of 2)

### DATE OF INITIAL SUBMITTAL: 10/30/23

# **DEVELOPER:**

TERRA HALONA, LLC 675 BERING DRIVE, SUIT 500 HOUSTON, TX 77057 512-965-4200 ATTN: BENNY NGUYEN

# ENGINEER:

QUIDDITY ENGINEERING, INC. 3100 ALVIN DEVANE BLVD, SUITE 150 AUSTIN, TEXAS 78741 512-441-9493 ATTN: GEMSONG N. RYAN PE

## LEGAL DESCRIPTION:

LOT 1, BLOCK A, TSSD3 SUBDIVISION, A SUBDIVISION IN WILLAMSON COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT THEREOF, RECORDED UNDER DOCUMENT NO. 2023009524 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS.

WATERSHED: CLUCK CREEK WITHIN EDWARDS UNSHADED ZONE X

### FEMA FIRM:

48491C0605F & 484916C0610F DECEMBER 20, 2019

OWNER:

BELL SOUTH COMMERCIAL, LLC 625 BERING DRIVE, SUITE 500 HOUSTON, TX 77057 512-965-4200 ATTN: BENNY NGUYEN

### ZONING: GB

WASTEWATER & WATER SERVICE

### **PROVIDER:** CITY OF CEDAR PARK

GENERAL PLAN NOTES:

- ALL RESPONSIBILITY FOR THE ACCURACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS. THE CITY OF CEDAR PARK MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
- 2. THIS SITE LIE WITHIN THE UNSHADED ZONE X AS SHOWN ON FEMA MAP PANELS 48491C0605F & 484916C0610F
- 3. FOR PAVEMENT RECOMMENDATIONS, PLEASE REFERENCE THE GEOTECHNICAL REPORT PREPARED BY RABA KISTNER (PROJECT NO. AAA23-121-00) FOR PAVEMENT LAYER COMPOSITIONS.

4. THE TCEQ EDWARDS AQUIFER PROTECTION PROGRAM ID NUMBER IS _

5. THE TDLR LICENSE NUMBER IS _____

CITY OF CEDAR PARK MONUMENT:

NORTHING: 10,152,404.0382'

EASTING: 3,090,960.2387'

ELEV: 893.816'

CP 25:

# **REVISIONS/CORRECTIONS**

NO.	DESCRIPTION	SHEET # DELETE (D) REVISE (R) ADD (A)	PLAN SET SHEET TOTAL	IMP COVER NET CHANGE (SF)	IMP COVER TOTAL SITE (SF/%)	CEDAR PARK APPROVAL DATE	IMAGE DATE

BENCHMARK 1: NORTHING: 10,153,970.45' EASTING: 3,089,789.91' ELEV: 901.56' § IRON ROD W/ PLASTIC CAP BENCHMARK 2: NORTHING: 10,152,594.98' EASTING: 3,090,833.77' ELEV: 894.14' BOX CUT ON INLET

BENCHMARK INFORMATION:

# SITE DEVELOPMENT PLANS FOR **SBELL COMMERCIAL** 1005 S BELL BLVD CEDAR PARK, TEXAS 78613

FOR

# **TERRA HALONA, LLC**



PREPARED BY



TEXAS ONE CALL SYSTEM CALL BEFORE YOU. TEXAS ONE CALL PARTICIPANTS REQUEST 72 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST

PL	AN INDEX	AL:
Sheet Number	Sheet Title	Ĕα
1	Cover Sheet & Index	D3 S
2	General Notes	sul 20
3	Final Plat (1 of 3)	
4	Final Plat (2 of 3)	,3E
5	Final Plat (3 of 3)	O,O
6	Existing Conditions Plan	Ш
7	Tree Protection Plan	DA
8	Pre-Construction Overall Erosion Control Plan	
9	Pre-Construction Erosion Control Plan A	
10	Pre-Construction Erosion Control Plan B	
11	Mid-Construction Overall Erosion Control Plan	4
12	Mid-Construction Erosion Control Plan A	)2,
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14	Overall Site Plan	L C
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17	North Decel Lane	
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19	Overall Utility Plan	
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21	Utility Plan B	Ď
22	Wastewater - STA 0+00.00 to 7+50.00	
23	Wastewater - STA 7+50.00 to End	
24	Overall Storm Plan	
25	Storm Plan A	(0)
26	Storm Plan B	
27	Overall Grading Plan	A
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29	Grading Plan B	Ц.
30	Sidewalk Sections	F
31	Pavement Plan	Z
32	Existing Drainage Area Map	JE VE
33	Proposed Drainage Area Map	$\leq$
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39 40		
4U 11	Site Details	
41	TxDOT Details (2 of 2)	
43	TxDOT Traffic Control Details	0)
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PROJECT DESCRIPTION:

# A 10.34 ACRE DEVELOPMENT INCLUDING UTILITIES, PAVEMENT & WATER QUALITY/DETENTION POND. NO BUILDINGS ARE PROPOSED WITH THIS DEVELOPMENT.



OF 42

1-800-245-4545

- General Notes General Contractor shall call for all utility 16. No blasting is allowed on this project. locates prior to any construction. Contractor white paint (white lining) in accordance with 16 TAC 18.3. Water & wastewater owned by the City of Cedar Park can be located by calling Texas 811 at 1-800-344-8377. Allow three business days for utility locates by the City of Cedar Park.
- 2. All construction shall be in accordance with 18. The contractor shall keep the site clean and the latest City of Austin Standard Specifications. City of Austin standards shall be used unless otherwise noted.
- 3. Design procedures shall be in general compliance with the City of Austin Drainage Criteria Manual. All variances to the manual 19. Signs are not permitted in Public Utility are listed below: NONE
- 4. Benchmarks should be tied to the City of correctly "geo referenced" to state plane coordinates. A list of the City's benchmarks can be found at: http://www.cedarparktexas. gov/index.aspx?page=793.
- 5. Prior Prior to issuance of a certificate of right of way between the property line and edge of pavement / back of curb shall be revegetated according to COA specification 602S and 606S. Prior to City acceptance of subdivision improvements all graded and disturbed areas shall be re-vegetated in accordance with the City of Austin Specification Item #604 native seeding unless non-native is specifically approved.
- The Contractor shall provide the City of Cedar Park copies of all test results prior to acceptance of subdivision improvements.
- City, owner, engineer, contractor, representatives of all utility companies, and a representative from the testing lab shall attend pre-construction conference prior to start of construction. The contractor shall schedule the meeting with the City of Cedar Park Engineering Department a minimum of 48 hours prior to this pre-construction meeting (512-401-5000). Final construction plans shall be delivered to Engineering a minimum of seven business days prior to requesting a pre-construction meeting.
- 8. Excess soil shall be removed at the 23. All wet utilities shall be installed and all contractor's expense. Notify the City of Cedar Park if the disposal site is inside the City's iurisdictional boundaries.
- 9. Burning is prohibited.
- 10. Any changes or revisions to these plans must engineer for review and written approval prior to construction of the revision. All changes and revisions made to the design of utilities or impacts utilities shall use revision clouds to highlight all revisions or changes with each submittal. Revision triangles shall be used to mark revisions. All clouds and triangle markers from previous revisions may be updated in the appropriate areas of the Title Block
- 11. Minimum setback requirements for existing and newly planted trees from the edge of pavement to conform to the requirements as shown in Table 6-1 of the City of Austin's Transportation Criteria Manual.
- 12. The Contractor will reimburse the City for all cost incurred as a result of any damage to any City utility or any infrastructure within the Right-of-Way by the Contractor, regardless of these plans
- 13. An engineer's concurrence letter and electronic 22"x34" record drawings shall be submitted to the Engineering Department occupancy or subdivision acceptance. The Engineer and Contractor shall verify that all final revisions and changes have been made to record drawings prior to City submittal. Record construction drawings, including roadway and all utilities, shall be provided to the City in AutoCad ". dwg" files and ".PDF" format on a CD or DVD. Line weights, line types and text size shall be such that if half-size prints (11"x17") were produced, the plans would still be legible. All required digital files shall contain a minimum of two (2) control Coordinate System – Texas Central Zone (4203), in US feet and shall include rotation information and scale factor required to reduce surface coordinates to grid coordinates in US feet.
- 14. The City of Cedar Park has not reviewed these plans for compliance with the Americans With Disabilities Act. It is the responsibility of the owner to provide compliance with all legislation related to shown in these plans.
- 15. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE 32. All driveway approaches shall have a uniform CITY OF CEDAR PARK MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

- shall delineate areas of excavation using 17. A traffic control plan, in accordance with the Texas Manual on Uniform Traffic Control Devices, shall be submitted to the City for review and approval prior to any partial or complete roadway closures. Traffic control plans shall be site specific and seal by a registered professional engineer
  - maintained at all times, to the satisfaction of the City. The subdivision will not be accepted (or Certificate of Occupancy issued) until the site has been cleaned to the satisfaction of the City.
  - Easements, Set Backs or Drainage Fasements
- Cedar Park benchmarks and be 20. It shall be the responsibility of the Contractor to inspect temporary erosion controls on a 1. daily basis. Adjust the controls and/or remove any sediment buildup as necessary. A stop work order and/or fine may be imposed if the erosion controls are not maintained.
- occupancy for a site development permit, the 21. A final certificate of occupancy will not be issued on commercial sites until all disturbed areas have been re-vegetated. Substantial grass cover, as determined by Engineering Department, must be achieved prior to the issuance of a final certificate of occupancy. All erosion controls must remain in place and maintained until all disturbed areas have been re-vegetated to the acceptance of the City of Cedar Park Engineering Department. Prior to issuance of a certificate of occupancy for a site development permit, the right of way between the property line and edge o pavement / back of curb shall be revegetated according to COA specification 602S and 606S.
  - Contractor will be responsible for keeping 22. roads and drives adjacent to and near the site free from soil, sediment and debris. Contractor will not remove soil, sediment or debris from any area or vehicle by means of water, only shoveling and sweeping will be allowed. Contractor will be responsible for dust control from the site. Failure to comply with this requirement may result in a stop work order or a fine.
  - densities must have passed inspection(s) prior to the installation of dry utilities.
  - 24. A minimum of seven days of cure time is required for HMAC prior to the introduction of vehicular traffic to any streets.
- first be submitted to the City by the design 25. Prior to plan approval, the Engineer shall submit to the Engineering Department documentation of subdivision/site registration with the Texas Department of Licensing and Regulations (TDLR) and provide documentation of review and compliance of the subdivision/site construction plans with Texas Architectural Barriers Act (TABA).
- removed. Revision information shall be 26. Prior to subdivision/site acceptance, the engineer/developer-ownershall submit to the Engineering Department documentation that the subdivision/site was inspected by TDLR or a registered accessibility specialist (RAS) and the subdivision/site is in compliance with the requirements of the TABA.
  - 27. All construction and construction related activities shall be performed Monday thru Friday from 7:00 A.M. to 6:00 P.M. However construction activities within one hundred feet (100') of a dwelling or dwelling unit shall be performed between the hours of 8:00 a.m. and 6:00 p.m. Otherwise all construction and construction related activities shall conform to City of Cedar Park Code of Ordinances. specifically ARTICLE 8.08.
- prior to the issuance of certificate of 28. Approval for construction activities performed on Owner's Holidays, and/or Saturdays outside of Monday through Friday 8 am to 5 pm, or in excess of 8 hours per day shall be obtained in writing 48 hours in advance, and inspection fees at 1.5 times the hourly inspection rate shall be billed directly to the contractor. There shall be no construction or construction related activities performed on Sunday. The City reserves the right to require the contractor to uncover all work performed without City inspection.
- points referenced to the State Plane Grid 29. All poles to be approved by City and PEC, no conduit shall be installed down lot lines / between homes. All conduit shall be located in the public ROW or in an easement adjacent to and parallel to the public ROW.
  - 30. Dry utilities shall be installed after subgrade is cut and before first course base. No trenching of compacted base. If necessary dry utilities installed after first course base shall be bored across the full width of the ROW.
- accessibility within the limits of construction 31. No ponding of water shall be allowed to collect on or near the intersection of private driveway(s) and a public street. Reconstruction of the driveway approach shall be at the Contractor's expense.
  - two percent slope within the ROW unless approved in writing by the Engineering Department.

- 33. Contractors on site shall have an approved set of plans at all times. Failure to have an approved set may result in a stop work order.
- Contractor to clear five feet beyond all right of way to prevent future vegetative growth into the sidewalk areas.
- 35. There shall be no water or wastewater appurtenances, including but not limited to, valves, fittings, meters, clean-outs, manholes, or vaults in any driveway, sidewalk, traffic or pedestrian area.
- Sidewalks shall not use curb inlets as a partial walking surface. Sidewalks shall not use traffic control boxes, meter or check valve vaults, communication vaults, or other buried or partially buried infrastructure as a vehicular or pedestrian surface.

### Street Notes

6.

- No trenching of compacted base will be allowed. A penalty and/or fine may be imposed to the general contractor if trenching of compacted base occurs without City approval, regardless of who performed the trenching.
- All sidewalks shall comply with the Americans With Disabilities Act. The City of Cedar Park has NOT reviewed these plans for compliance with the Americans With Disabilities Act, or any other accessibility legislation, and does not warranty or approve these plans for any accessibility standards.
- Street barricades shall be installed on all dead end streets and as necessary during construction to maintain job safety.
- Any damage caused to existing pavement, curbs, sidewalks, ramps, etc., shall be repaired by the contractor to the satisfaction of the City prior to acceptance of the subdivision
- At intersections, which have valley drainage, the crown to the intersecting street will be culminated at a distance of 40 ft. from the intersecting curb line unless otherwise noted.
- The subgrade material was tested by Raba Kistner (512-339-1745) on October 27, 2023 the pavement sections were designed accordingly. The pavement sections are to be constructed as follows:
- Flexible Pavement Light Duty (20,000 ESALs): -HMAC Surface Course. Type "D": 2 Inch -Flexible Base (TxDOT Item 247, Type A,
- Grade 1-2): 8 Inch Flexible Pavement Medium Duty (80,000 ESALs) -HMAC Surface Course, Type "D": 2.5 Inch -Flexible Base (TxDOT Item 247, Type A, Grade 1-2): 10 Inch
- Rigid Pavement Light Duty (20,000 ESALs) -Portland Cement Concrete (28 day min. compressive strength of 4,000psi): 5 inch - Select Fill/Flexible Base (TxDOT Item 247,
- Type A, Grade 1-2)" 4 inch Rigid Pavement Medium Duty (80,000 ESALs) Portland Cement Concrete (28 day min. compressive strength of 4,000psi): 6 inch - Select Fill/Flexible Base (TxDOT Item 247, Type A, Grade 1-2)" 4 inch

(RK Project No. AAA23-121-00)

- 7. Density testing of compacted subgrade material, first course and second course compacted base, shall be made at 500 foot intervals.
- All density testing is the responsibility of the owner or contractor and shall be witnessed by the City of Cedar Park's project representative. The contractor is to notify the City 48 hours prior to scheduled density testing.
- Traffic control signs and pavement markings shall be in accordance with the Texas Manual on Uniform Traffic Control Devices and installed as directed by the City of Cedar Park prior to City acceptance of the Subdivision.
- 10 Slope of natural ground adjacent to the right-of-way shall not exceed 3:1. If a 3:1 slope is not possible, a retaining wall orsome other form of slope protection approved by the City shall be placed in a location acceptable to the City.
- 11. The City, engineer, contractor, and a representative from the asphalt testing lab shall attend a pre-paving conference prior to the start of HMAC paving. The contractor shall give the City a minimum of 48 hours notice prior to this meeting (512-401-5000).
- The Contractor or owner is responsible for 12. conducting tests on asphalt pavement in accordance with the requirements set forth in the City of Austin Standard Specification No. 340. Any re-testing of the asphalt pavement shall be conducted under the supervision of the engineer and the City of Cedar Park. Re-testing of the asphalt pavement shall be limited to one retest per project.
- 13. All pavement markings and signage shall comply with MUTCD standards. Street name lettersizing shall be in accordance with MUTCDTable2D-2.Pavement markings shall be thermoplastic unless otherwise noted.
- 14. All street name signs shall be high intensity retro grade.

- 15. No Fencing or Wall is allowed to be 13. City shall be given 48 hours notice prior to all constructed so that it obstructs the sight lines of drivers from an intersecting public roadway or from an intersecting private driveway. Sight lines are to be maintained as described in City Code Section 14.05.007. Installing a fence or wall which does not comply with the City's Sight Distance Requirements or Fencing Regulations is a violatio
- 16. Temporary rock crushing operations are not for review and approval.
- Acceptance of the Project Improvements.
- Stoppage.
- 19. Improvements that include reconstruction of
- driveway.

# Nastewater Notes

- Manhole frames and covers and water valve paving construction.
- project.
- at least 8 mil. Polyethylene wrap.
- engineer.
- pipe
- Gasketed PVC sewer main fittings shall be used to connect SDR-35 PVC to SDR-26 PVC pressure pipe or C-900.
- Pipe materials to be used for construction of utility lines: Wastewater- SDR-26 PVC Force Main- NONE (Note: If using PVC, SDR-26 is required, SDR-35 WW is not allowed. Forcemains shall
- of 30 days.
- unless noted on the bid form.
- Specifications
- 500 feet of installed pipe.

K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 COVER.dwg cbarczi: August 26, 2024

allowed. All sources for flexible base material are required to be approved by the City. Prior to base placement all current triaxial test reports for the proposed stockpiles are to be submitted to the City's project representative

17. Utility service boxes or other utility facilities shall not be installed within areas determined to be required sight lines of two intersecting public streets or within sight lines of a private driveway. Sight lines are to be maintained compliant with Table 1-1 of the Austin Transportation Criteria Manual. Utilities determined by the Director of Engineering to be placed within required sight lines may be required to be relocated at the expense of the Certificate of Occupancy or prior to the City's

18. All lane closures shall occur only between the hours of 9 AM and 4 PM. Any night time lane closures require approval by the Director of Engineering and shall occur between the hours of 8 PM and 6 AM. Lane closures observed by City during the peak hours of 6 AM to 9 AM, or 4 PM to 8 PM will be subject to fine per Chapter 1 of City Ordinance, and/or subsequent issuance of Work

an existing Type II driveway shall be done in a manner which retains operations of not less than half of the driveway at all times. Full closure of such driveway can be considered with written authorization retained by the Contractor from the property owner(s) or access easement right holder(s) of the driveway allowing full closure of the driveway.

20. Trees must not overhang within 10' vertically of a sidewalk, or 18' vertically of a roadway or

Refer to the City of Cedar Park Public Works Utility Policy and Specifications manual.

boxes shall be raised to finished pavement grade at the owner's expense by the contractor with the City approval. All utility adjustments shall be completed prior to final

The location of any existing utility lines shown on these plans may not be accurate. Any damage to existing utility lines, both known and unknown, shall be repaired at the expense of the contractor. The contractor shall locate all utilities prior to bidding the

4. All iron pipe and fittings shall be wrapped with

5. All water mains, wastewater mains and service lines shall meet City of Austin minimum cover specifications. All streets are to be cut to subgrade prior to installation of water mains or cuts will be issued by the

> Where 48-inches of cover below subgrade cannot be achieved for wastewater service lines alternate materials may be used. A minimum of 36-inches of cover below subgrade shall be achieved. Any wastewater service line with cover between 36-inch and 48- inches shall be SDR-26 PVC pressure

be epoxy lined ductile iron)

All sanitary sewers, excluding service lines, shall be mandrel tested per TCEQ (Texas Commission on Environmental Quality) criteria. A mandrel test will not be performed until backfill has been in place for a minimum

10. All wastewater lines 10" and larger shall be video inspected in accordance with City of Cedar Park Public Works Department Utility Policy and Standard Specifications Manual Appendix E: Requirements for Video Inspection of Wastewater Lines at the Contractor's expense. No separate pay

11. All sanitary sewers, including service lines, shall be air tested per City of Austin Standard

12. Density testing of compacted backfill shall be made at a rate of one test per two foot lifts per

- testing of water and wastewater lines. City inspection is required for all testing of water and wastewater lines.
- 14. Where a water or wastewater line crosses above (or below) a storm sewer structure and the bottom (or top) of the pipe is within 18 inches of the top (or bottom) of the utility structure, the pipe shall be encased with concrete for a distance of at least 1 ft. on either side of the ditch line of the utility structure or the storm sewer. Concrete encasement will not be required for ductile iron (thickness Class 50), AWWA C-900 (SDR- 18) 150 psi rated PVC in sizes to 12 inches or AWWA C-905 (SDR-25) 165 psi rated PVC in sizes larger than 12 inches. Concrete encasement shall conform to C.O.A. standard detail 505-1.
- 15. The allowable (maximum) adjustment for a manhole shall be 12" (inches) or less.
- 16 Where a sewer line crosses a water line, the sewer line shall be one 20 ft. joint of 150 psi rated PVC centered on crossing.
- contractor prior to the City issuing a 17. All manhole and inlet covers shall read "City of Cedar Park".
  - 18. Contractor to notify, and obtain approval from, the City of Cedar Park 48 hours prior to connecting to existing City utilities.
  - 19. All pipe bedding material shall conform to City of Austin Standard Specifications.
  - 20. Unless otherwise specified by the Engineer all concrete is to be Class "A" (5 sack, 3000 psi ~28-days), and all reinforcing steel to be ASTM A615 60.
  - 21. All wastewater manholes to be coated with organic materials and procedures listed in City of Austin Qualified Products List No. WW-511 (WW-511A and WW-511B are not allowed unless manhole is being structurally rehabilitated with approval by Public Works). All manholes will be pre-coated or coated AFTER testing.
  - 22. Polybrid Coatings on wastewater manholes will not be allowed. Any other product appearing on the COA SPL WW-511 is acceptable.
  - 23. All penetrations of existing wastewater manholes are required to be re-coated in accordance with the specifications listed in Note 20.
  - 24. All manholes will be vacuum tested only.
  - 25. Tracer tape AND marking tape shall be installed on all water and wastewater mains in accordance with City of Austin Standards. regardless of the type of pipe.
  - 26. All pressure pipe shall have mechanical restraint and concrete thrust blocking at all

valves, bends, tees, plugs, and other fittings.

Water Notes

- Refer to the City of Cedar Park Public Works Utility Policy and Specifications manual.
- 2. The top of valve stems shall be at least 18", and no more than 36", below finished grade. Valve stem risers shall be welded on each end to the Citv's satisfaction.
- Fire hydrant leads to be ductile iron. Class 350, and installed per City of Austin standard specifications and detail.
- Prior to installation of fire hydrants, the engineer will provide the Contractor one (1) cut from a hub pin, establishing the elevation of the bury line.
- The engineer shall provide cuts for all water lines at all storm sewer crossings to the City of Cedar Park
- Pipe materials to be used for construction of utility lines Water - 180 LF PVC
- Copper pipe and fittings are not permitted within the Right-of-Way. Minimum DR-14 12" dia and smaller. Minimum class 250 DI larger than 12" dia.
- Approved 5 1/4" fire hydrants:
  - American Flow Control, B84B Mueller Company, Super Centurion 250 Clow Medallion Hydrant
    - Requirements for private fire hydrants (Behind Double Check Backflow Prevention Assembly): Must be in accordance with City of Austin specifications.
  - All fire hydrants must meet City of Cedar Park thread specifications (National Thread)
- Blue reflector markers shall be located on the centerline of the pavement across from all fire hydrants. Pavement markers at intersections shall be four-sided.
- 8. Should a Tapping Saddle be approved by Public Works, the saddle shall be Smith-Blair 662 Stainless Steel Tapping Sleeves with all stainless hardware, or approved equal. Requests for alternate providers shall be made to the City of Cedar Park Public Works. No tap exceeding 2" in diameter will be approved.

- 9. pressure and leak tested per City of Austin Standard Specifications and witnessed by the City of Cedar Park representative. All testing is to be the responsibility of the contractor. and the contractor may be required to re-test lines if the testing is not witnessed by the City. Contractor must notify the City of Cedar Park 48 hours prior to any testing. Initial water line disinfection must meet a chlorine residual of 50ppm, and a chlorine residual of 25 ppm after a 24 hour detention period. Sections that are 20 – 30 feet can use granular or tablet disinfection, but anything beyond that must be liquid disinfection to evenly clean the pipe.
- 10. All water lines shall be sterilized and bacteriologically tested in accordance with City of Austin Standards. The contractor is responsible for sterilization and the City of Cedar Park is responsible for submitting bacteriological samples to the State. Public Works will require a contractor specialized in disinfection for large diameter lines or critical infrastructure, subsidiary to pipe installation.
- 11. Density testing of compacted backfill shall be made at a rate of one test per two foot lifts per 500 feet of installed pipe.
- 12. Contractor to obtain a water meter from the City of Cedar Park for any water that may be required during construction. (512-401-5000)
- 13. ALL WATER METER BOXES SHALL BE FORD GULF METER BOX WITH LOCKING
- SINGLE G-148-233
- DUAL DG-148-243 •
- 1" METER YL111 444 • 1 ½" – 2" METER 1730-R (LID) & 1730-12 (BOX)/ACCEPTABLE BOXES FOR THIS SIZE OF METER
- 14. Manhole frames and covers and water valve boxes shall be raised to finished pavement grade, when in public streets, at the owner's expense by the contractor with City inspection. All utility adjustments shall be completed prior to final paving construction.
- 15. The location of any existing utility lines shown on these plans is the best available and may not be accurate. Any damage to existing utility lines, both known and unknown, shall be repaired at the expense of the contractor
- 16. All iron pipe and fittings shall be wrapped with at least 8 mil. Polyethylene wrap.
- 17. All water mains, wastewater mains and service lines shall meet City of Austin Specifications for minimum cover requirements. All streets are to be cut to subgrade prior to installation of water mains or cuts will be issued by the engineer.
- 18. City to be given 48 hours notice prior to all 9. testing of water and wastewater lines. City inspection is required for all testing of water and wastewater lines
- 19. Where a water or wastewater line crosses the bottom (or top) of the pipe is within 18 inches of the top (or bottom) of the utility structure, the pipe shall be encased with concrete for a distance of at least 1 ft. on either side of the ditch line of the utility structure or the storm sewer. Concrete encasement will not be required for ductile iron (thickness Class 50), AWWA C-900 (SDR- 18) 150 psirated PVC in sizesto 12 inches or AWWA C-905 (SDR-25) 165 psi rated PVC in sizes larger than 12 inches. Concrete encasement shall conform to C.O.A. standard detail 505-1.
- 20. Contractor to notify the City of Cedar Park 48 hours prior to connecting to existing utilities.
- 21. All pipe bedding material shall conform to City of Austin Standard Specifications.
- 22. Tracer tape shall be installed on all water and wastewater mains regardless of the type of 2. pipe or depth of pipe installed.
- 23. Unless otherwise specified by the Engineer all concrete is to be Class "A" (5 sack, 3000 psi ~ 28-days), and all reinforcing steel to be ASTM 3. A615 60.
- 24. The City considers protection of its water system paramount to construction activities. City personnel will operate, or authorize the contractor to operate, all water valves that will pass through the City's potable water. The contractor may not operate any water valve, existing or proposed, that will allow water from the City's water system to flow to a proposed or existing water system without the express consent of the City. Notify the City two business days in advance of any request to operate a water valve. The general contractor may be fined \$500 or more, including additional theft of water fines, if a water valve is operated in an unauthorized manner, regardless of who operated the valve.
- 25. All water valves over 24" in size shall have a by-pass line and valve installed. By-pass valves and lines are subsidiary to the cost of the valve unless specifically identified on the bid form.
- 26. All water valves, including those over 12" in size, shall be gate valves.

- All water lines, including service lines, shall be 27. A double check backflow device in a vault 6. shall be installed at the property line on all private fire lines. A detector water meter will be installed on this backflow device, and it 7. must be a Sensus SRII 3/4" meter with AMI radio read capability. The City will provide this meter. Please reference the City of Cedar Park Double Check Backflow Prevention Assembly Detail.
  - 28. All potable water system components installed after January 4, 2014, shall be "lead free" according to the United States Safe Drinking 10. Permanent water quality ponds or controls will be Water Act. The only components exempt from this requirement are fire hydrants. Components that are not clearly identified by the manufacturer as meeting this requirement by marking, or on the product packaging, or by pre-approved submittal, will be rejected for use. A NSF certification will be adequate if the 12. Upon completion of the site construction and certification has not expired as of January 4. 2014 and remains unexpired at the time of construction.
  - 29. All pressure pipe shall have mechanical restraint and concrete thrust blocking at all valves, bends, tees, plugs, and other fittings.

# Storm Sewer Notes:

- Manhole frames and covers and water valve 13. Upon completion of landscape installation of a boxes shall be raised to finished pavement grade at the owner's expense by the contractor with City inspection. All utility adjustments shall be completed prior to final paving construction. Contractor shall backfill around manholes and junction boxes with Class A concrete.
- 2. All manhole lids shall be 32" or larger, unless expressly approved in writing by the Engineering Department.
- 3. The location of any existing utility lines shown on these plans is the best available and may not be accurate. Any damage to existing utility lines, both known and unknown, shall be repaired at the expense of the contractor.
- Pipe materials to be used for construction of utility lines: Unless otherwise specified by the Engineer, all storm sewer RCP shall be Class III. Corrugated Metal Pipe is not permitted.
- All manhole and inlet covers shall read "City of Cedar Park".
- Contractor to notify the City of Cedar Park 48 hours prior to connecting to existing utilities.
- All pipe bedding material shall conform to City of Austin Standard Specifications.
- Unless otherwise specified by the Engineer all concrete is to be Class "A" (5 sack, 3000 psi ~ 28-days), and all reinforcing steel to be ASTM A615 60.
- Contractor to install and maintain geo-textile fabric barrier (inlet protection) around storm sewer leads and inlets to prevent silt and other material from entering the storm sewer collection system.
- above (or below) a storm sewer structure and 10. Install concrete safety end treatments to all culverts and ends of drainage pipe.
  - 11. All curb inlets shall have an Almetek 4" Disc "No Dumping Drains to Waterway" marker.

Sequence of Construction Notes:

- The following sequence of construction shall be used for all development. The applicant is encouraged to provide any additional details 5. appropriate for the particular development.
- Temporary erosion and sedimentation controls are to be installed as indicated on the approved site plan or subdivision construction 6. plan and in accordance with the Erosion Sedimentation Control Plan (ESC) and Stormwater Pollution Prevention Plan (SWPPP) that is required to be posted on the 7. site. Install tree protection and initiate tree mitigation measures
- The General Contractor must contact the City 8. Inspector at 512-401-5000, 72 hours prior to the scheduled date of the required on-site preconstruction meeting.
- The General Contractor will follow the Erosion Sedimentation Control Plan (ESC) and Storm Water Pollution Prevention Plan (SWPPP) posted on the site. Temporary erosion and sedimentation controls will be revised, if needed, to comply with City Inspectors' directives, and revised construction schedule relative to the water quality plan requirements and the erosion plan.
- Rough grade the pond(s) at 100% proposed capacity. Either the permanent outlet structure or a temporary outlet must be constructed prior to development of embankment or excavation that leads to ponding conditions. The outlet system must consist of a sump pit outlet and an emergency spillway meeting the requirements of the City of Austin Drainage Criteria Manual, as required. The outlet system shall be protected from erosion and shall be maintained throughout the course of construction until installation of the permanent water quality pond(s).
- Temporary erosion and sedimentation controls will be inspected and maintained in accordance with the Erosion Sedimentation Control Plan (ESC) and Storm Water Pollution Prevention Plan (SWPPP) posted on the site.

feature

- activities. hvdrants

- - City Inspector.

8. Fire Department access will be installed where required by approved site plan.

9. Vertical construction may occur after the Pre-vertical Inspection has been cleared by the Fire Marshal.

cleaned out and filter media will be installed prior to/concurrently with revegetation of site.

11. Complete construction and start revegetation of the B. site and installation of landscaping.

revegetation of a project site, the design engineer shall submit an engineer's letter of concurrence bearing the engineer's seal, signature, and date to D. the City indicating that construction, including revegetation, is complete and in substantial compliance with the approved plans. After receiving this letter, a final inspection will be scheduled by the City Inspector.

project site, the Landscape Architect shall submit a letter of concurrence to the City indicating that the required landscaping is complete and in substantial conformity with the approved plans. After receiving this letter, a final inspection will be scheduled by the

14. After a final inspection has been conducted by the City Inspector and with approval from the City Inspector, remove the temporary erosion and sedimentation controls and complete any necessary final revegetation resulting from removal of the controls. Conduct any maintenance and rehabilitation of the water quality ponds or controls.

Texas Commission on Environmental Quality Contributing Zone Plan General Construction Notes

A written notice of construction must be submitted to the TCEQ regional office at least 48

hours prior to the start of any ground disturbance or construction activities. This notice must include: the name of the approved project;

the activity start date; and the contact information of the prime contractor

2. All contractors conducting regulated activities associated with this project should be provided with complete copies of the approved Contributing Zone Plan (CZP) and the TCEQ letter

> indicating the specific conditions of its approval During the course of these regulated activities, the contractor(s) should keep copies of the approved plan and approval letter onsite.

3. No hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive

4. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the

manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify

the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.

Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.

Sediment must be removed from the sediment traps or sedimentation basins when it occupies 50% of the basin's design capacity.

Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.

All excavated material that will be stored on-site must have proper E&S controls.

9. If portions of the site will have a cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of

inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.

made available to the TCEQ upon request: - the dates when major grading activities occur; Underground utilities will be installed, including fire - the dates when construction activities temporarily o permanently cease on a portion of the site; and the dates when stabilization measures are initiated. 11. The holder of any approved CZP must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following: any physical or operational modification of any

10. The following records should be maintained and

best management practices (BMPs) or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures: any change in the nature or character of the regulated activity from that which was

- originally approved any change that would significantly impact the ability to prevent pollution of the Edwards
- Aquifer: or any development of land previously identified as undeveloped in the approved contributing zone plan

TCEQ OFFICE OF WATER: 512-239-6696 TCEQ WATER QUALITY DIVISION: 512-239-467 TCEQ WATER QUALITY PLANNING DIVISION: 512-239-4671

12100 PARK 35 CIRCLE AUSTIN, TEXAS 78753

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BELL SC
CITY OF CEDAR PARK STANDARD PLAT NOTES: November 2, 2021
by the City of Cedar Park prior to any construction within the subdivision.
<ol> <li>An subdivision construction shall comove to the city of cedar Fark code of ordinances, construction standards, and generally accepted engineering practices.</li> <li>On-site storm water detention facilities will be provided to reduce post development pagk rates of</li> </ol>
discharge of the 2, 10, 25 and 100-yr. storm events.
4. The owner of this subdivision, and his or her successors and assigns, assumes responsibility for plans for construction of subdivision improvements which comply with applicable codes and requirements of the City of Cedar Park. The owner understands and acknowledges that plat vacation or replatting may be required, at the owner's sole expense, if plans to construct this subdivision do not comply with such codes and requirements.
5. No lot in this subdivision shall be occupied until connected to the City of Cedar Park water distribution and wastewater collection facilities.
6. This subdivision plat was approved and recorded before the construction and acceptance of streets and/or other subdivision improvements. The owner of this subdivision and his or her successors and assigns, are responsible for the construction of all streets, water systems, wastewater systems, and other facilities necessary to serve the lots within the subdivision.
7. Site development construction plans shall be reviewed and approved by the City of Cedar Park prior to any construction.
8. Wastewater and Water systems shall conform to TCEQ (Texas Commission on Environmental Quality) and State Board of Insurance requirements. The owner understands and acknowledges the plat vacation or re-platting may be required, at the owner's sole expense, if plans to develop this subdivision do not comply with such codes and requirements.
9. No buildings, fences, landscaping or other structures are permitted within drainage easements shown except as approved by the City of Cedar Park Public Works Department.
10. Property owner shall provide for access to drainage easements as may be necessary and shall not prohibit access by City of Cedar Park.
11. All easements on private property shall be maintained by the property owner or his or her assigns.
12. Fiscal surety for subdivision construction, in a form acceptable to the City of Cedar Park, shall be provided prior to plat approval by the Planning and Zoning Commission.
13. In addition to the easement shown hereon, a ten (10) foot wide public utility easement (P.U.E.) is hereby dedicated adjacent to street ROW on all lots. A five (5) foot wide P.U.E. is hereby dedicated along each side lot line. A seven and one half (7 ½) foot wide P.U.E. is hereby dedicated adjacent to all rear lot lines.
14. Community impact fees for individual lots to be paid prior to issuance of any building permits.
<ol> <li>Developer shall be responsible for all relocation and modifications to existing utilities.</li> <li>No portion of this tract is within a flood hazard area as shown on the Flood Insurance Rate Map Panels # 48491C0605F &amp; 48491C0610F, effective 12/20/2019.</li> </ol>
17. Temporary and permanent easements to be provided as required for off—site water, wastewater and drainage improvements.
18. All proposed access points and/or access easements intersecting with public roadway ROW shall be in compliance with City Access Standards as described in Chapter 14 of City Code.
19. This site is located within the Edwards Aquifer Contributing Zone. Development of this site will comply with all applicable TCEQ Edwards Aquifer rules.
21. Prior to subdivision/site plan approval, the Engineer shall submit to the City of Cedar Park (COCP) documentation of subdivision/site registration with the Texas Department of Licensing and Regulations (TDLR) and provide documentation of review and compliance of the subdivision construction plans with Texas Architectural Barriers Act (TABA).
22. All proposed fences and walls adjacent to intersecting public roadway right—of—way or adjacent to private access points shall be in compliance with City Code Section 14.05.007 Sight Distance Requirements. Installing a fence or wall which does not comply with the City's Sight Distance Requirements or Fencing Regulations is a violation of the City's Ordinance and may be punishable
23. No buildings, fences, retaining walls, signs, ponds, trees, parking lots, or other structures are permitted within any of the Public Water or Wastewater Easements shown on this plat except as approved by the City of Cedar Park Public Works Department.
ADDITIONAL PLAT NOTES: 1. Sidewalks shall be installed on the subdivision side of S. Bell Blvd (Hwy 183). Those sidewalks not abutting a residential, commercial or industrial lot shall be installed when the adjoining street is constructed. Where there are double frontage lots, sidewalks on the street to which access is prohibite

# TH COMMERCIAL SUBDIVISION REPLAT

10.344 ACRES OUT OF THE SAMUEL DAMON SURVEY ABSTRACT NO. 170 WILLIAMSON COUNTY, TEXAS

. This subdivision will be in full compliance with the Landscape and Tree Ordinance of the City of edar Park,Texas.

3. This subdivision shall comply with the Major Corridor Ordinance of the City of Cedar Park.

4. Prior to construction of any improvements on lots in this subdivision, building permits will be obtained from the City of Cedar Park.

5. All building lines shall conform to the City of Cedar Park Zoning Ordinance requirements.

6. This subdivision complies with the Cedar Park zoning ordinance.

7. Water and Wastewater services to be provided by the City of Cedar Park, Texas.

8. Prior to grading, any type of earth moving work, construction of, on or under the land in this subdivision, a drainage plan designed by a registered engineer shall be submitted for the purpose of development, and modification therefor to the City of Cedar Park for review and approval. It is further understood that the enforcement of the plat restrictions through appropriate legal procedure to prohibit the construction, connection of utilities or issuing permits unless or until the requirements of the plat restrictions have been achieved.

9. Driveways shall be located no closer than 60% of the parcels frontage, to the corner of intersecting right—of—way.

10. No Certificate of Occupancy (temporary or permanent) will be issued for any lot in this Subdivision until water and wastewater improvements to serve the lots have been constructed.

11. Access Provided with this subdivision will be in compliance with the recommendations of the City-Approved Traffic Impact Analysis and access points and connections will be appropriately provided with development.

12. Lot 1 of this Final Plat is required to provide and extend a construction and a cross access easement from Bell Blvd to the adjacent lot to the North. Lot 9 of this Final Plat is required to provided and extend a cross access easement from Bell Blvd to the adjacent lot to the South. The access easement(s) shall be provided at the time of platting, or by a separate instrument recorded with the County Clerk and referenced in the Final Plat which includes Lot 1 and/or Lot 9.

13. A construction and an access easement shall be provided across and between all lots of this subdivision with the Final Plat

14. Direct access to Bell Boulevard is prohibited from lots 2, 3, 4, 5, 6, 7, 9, & 10. Direct access to Bell Boulevard will only be permitted from lot 1 and from lot 8.

15. Development of Lot 10 shall provide and record an access easement by separate instrument extending from the access easement within lot 9 with access to Bell Boulevard and connecting to the access easement within the adjacent lot to the south with access to Little Elm Trail

LEGAL DESCRIPTION

BEING a 10.344 acre tract of land situated in the Samuel Damon Cedar Park, Williamson County, Texas, and being all of Lot 1, Block recorded in Document No. 2023009524 of the Official Public Records of the same property described in that Special Warranty Deed with Vendo LLC in Document No. 2023029877 of the Official Public Records of 10.378 acre tract of land being more particularly described as follo Texas Coordinate System of 1983, Central Zone:

BEGINNING: at a 1/2-inch iron rod found on the southwestern right-(variable width right-of-way) for the northernmost corner of the easternmost corner of a called 53.9395 acre tract of land describe Board of Trustees, Leander Independent School District in Document Public Records of Williamson County, Texas for the POINT OF BEGINNING this herein described tract;

THENCE: along the southwestern right—of—way line of U.S. Highway said Lot 1, Block A the following courses and distances;

1. South 3819'34" East a distance of 124.07 feet to a TxDot Type corner of U.S. Highway 183, a corner of the said Lot 1, Block A, for tract;

2. South 39°19'32" East a distance of 993.15 feet to a TxDot Type corner of U.S. Highway 183, a corner of the said Lot 1, Block A, for tract;

3. With a non-tangent curve to the right with a Delta angle of 06 and an Arc length of 328.06 feet having a Chord bearing of South 327.88 feet to a 1/2-inch iron rod with cap stamped "ATS Engineers" of the said Lot 1, Block A, the northernmost corner of Lot 2, Block A as recorded in Document No. 2013106218 of the Official Public Record the easternmost corner of this herein described tract;

THENCE: South 69°59'47" West a distance of 333.93 feet along the Block A, the northern line of the said Lot 2, Block A to a 5/8– "Quiddity Eng" set for the southernmost corner of the said Lot 1, Blo the said 53.9395 acre tract, for the southernmost corner of this here

THENCE: along the common line of the said Lot 1, Block A and following courses and distances;

1. With a non-tangent curve to the left with a Delta angle of 05' and an Arc length of 217.58 feet having a Chord bearing of North 3 217.51 feet to a 1/2-inch iron rod with broken orange cap found for A, a corner of the said 53.9395 acre tract, for a corner of this hereir 2. North 39'13'22" West a distance of 1116.43 feet to a 5/8-i "Quiddity Eng" set for the westernmost corner of the said Lot 1, Block 53.9395 acre tract, for the westernmost corner of this herein describe 3. North 50'37'37" East a distance of 325.22 feet to the POINT (area of 10.378 acres of land.

	F	
		App.
		REVISIONS
the Samuel Damon Survey No. 11, Abstract No 170, g all of Lot 1, Block A of the TSSD3 Subdivision as ficial Public Records of Williamson County, Texas, being anty Deed with Vendor's Lien to Bell South Commercial, cial Public Records of Williamson County, Texas; said rly described as follows, with bearings based on the		No. Date
e southwestern right-of-way line of U.S. Highway 183 most corner of the said Lot 1, Block A, for the ract of land described in that Warranty Deed to the District in Document No. 2011084700 of the Official e POINT OF BEGINNING and the northernmost corner of ine of U.S. Highway 183, the northeastern line of the tances; feet to a TxDot Type I concrete monument found for a d Lot 1, Block A, for a corner of this herein described		Suite 150 • Austin, Texas 78741 • 512.441.9461 Suite 150 • Austin, Texas 78741 • 512.441.9461 ESIGNED BY .: JVE CHECKED BY .: JVE DRAWN BY : CCB
eet to a TxDot Type I concrete monument found for a d Lot 1, Block A, for a corner of this herein described a Delta angle of 06°41'47", a Radius of 2806.93 feet rd bearing of South 35°47'14" East and a distance of mped "ATS Engineers" found for the easternmost corner ner of Lot 2, Block A of the Little Elm Subdivision Plat Official Public Records of Williamson County, Texas, for tract;		E: AS SHOWN DIevane Boulevard, 28106-0001-02 C
Block A to a 5/8-inch iron rod with cap stamped f the said Lot 1, Block A, the southeastern corner of st corner of this herein described tract; not 1, Block A and the said 53.9395 acre tract the a Delta angle of 05°01'22", a Radius of 2481.93 feet rd bearing of North 36°36'43" West and a distance of brange cap found for a corner of the said Lot 1, Block a corner of this herein described tract; 43 feet to a 5/8-inch iron rod with cap stamped the said Lot 1, Block A, an interior corner of the said of this herein described tract; feet to the POINT OF BEGINNING and CONTAINING an		TE OF TELAS * University of the second seco
		NA, LLC IMERCIAL BLVD <b>T (2 OF 3)</b>
Image: Constraint of professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100         SHEET:       2 OF 3         DATE:       8/12/2024         JOB NO:       28106-0001-02		TERRA HALO S BELL COM 1005 S BELL FINAL PLA
		SHEET NO. OF 42

<form>  SIATE OF TEXAS</form>	<form></form>		BELL S
NOW ALL MEN BY THESE PRESENTS:         COUNTY OF WILLIASON \$         L REL SOJH COMMERCIAL LLC, a Taxas limited lipolity company, sole owen of the certain 10.344         I rot of lipoling show hereon and described in a dead recorded in Document holders accept of the difficial Records of Willemson County, Texas, do hereby certify there or no essement holders accept persons so the CRY of Cedar Perk may deam agaroprice 1. hereby bid in the Subsection of such public places shown hereon in the reset of such public places shown hereon in the press, and against to export of underseef shown become of my port thereof. This autobidion is to be known as         BEL SOUTH COMMERCIAL SUBDIMSON REPLAT.         TO CERTIFY WHICH, WITNESS MY HAND, this the day of2020	COUNTY OF MILLIANSIN \$  LELL SOUTH COMMERCIAL LLC, a trace invited inability company, sete owner of the certain 10.344 tracts of find shown hereon and described in a dead recorded in Document No. 2020/2897.01 the Official fleecras of Milliomaon County, Teace, do hereity deciting there are a searned: holders and provide in the a treat, direy, rights—of-way, assements and public places shown herein for such public provides and the owner of the decide the decide official of hereby decided to the OLY of Coder Perc against every passon, whomsever cloning or to cloim the some of ony part thereof. This subdivision is to be known os  ELL SOUTH COMMERCIAL SUBDIVISION REPLAT. TO CRETERY WICH, WITNESS MY HANG, this the day of		STATE OF TEXAS §
BELL SOUTH COMMERCIAL SUBDIVISION REPLAT.         TO CERTIFY WHICH, WITNESS MY HAND, this the doy of, 20,         By: BELL SOUTH COMMERCIAL, LLC	BELL SOUTH COMMERCIAL SUBDIVISION REPLAT:         10 CERTIFY WHICH, WITNESS MY HAND, this the day of 20         By: BELL SOUTH COMMERCIAL, LLC         Berny Nayuen         675 Berng Drue, Sulte 500         Houston, TX 77037         STATE OF TEXAS       \$         COUNTY OF WILLAMSON       \$         Bernorem, the undersk a notory public in and for soid county and state, on this day personally appeared Berny Nayuen, known to me to be the person whose nome is subscribed to the foregoing instrument.         GIVEN UNDER MY HAND AND SEAL of office this day of		KNOW ALL MEN BY THESE PRESENTS: COUNTY OF WILLIAMSON § I, BELL SOUTH COMMERCIAL, LLC, a Texas limited liability company, sole owner of the certain 10.344 tract of land shown hereon and described in a deed recorded in Document No. 2023029877 of the Official Records of Williamson County, Texas, do hereby certify there are no easement holders except as shown hereon; do hereby resubdivide said tract as shown hereon; do hereby covenant to all restrictions listed herein, which shall run with the land; and do hereby dedicate to the City of Cedar Park the streets, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Cedar Park may deem appropriate. I hereby bind my heirs, successors, and assigns to warrant and forever defend such dedications, all and singular, to the City of Cedar Park against every person whomsoever claiming or to claim the same or any part thereof. This subdivision is to be known as
TO CERTIFY WHICH, WITNESS MY HAND, this the day of 20       20	TO CERTIFY WHICH, WITNESS MY HAND, this the day of, 20,       gy		BELL SOUTH COMMERCIAL SUBDIVISION REPLAT.
Benny Nguyen       675 Bering Drive, Suite 500         Houston, TX 77057       STATE OF TEXAS       \$         STATE OF TEXAS       \$       KNOW ALL MEN BY THESE PRESENTS:         COUNTY OF WILLIAMSON       \$       Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared Benny Nguyen, known to me to be the person whose name is subscribed to the foregoing instrument.         GIVEN UNDER MY HAND AND SEAL of office this day of 20	Berny Nguyen         BY Berng Drive, Suite 500         Houston, TX 77057         STATE OF TEXAS       \$         COUNTY OF MULLMISON       \$         Before me, hu undersigned, a notory public in and for soid county and state, on this day personally instrument.         GVEN UNDER MY HAND AND SEAL of office this day of		TO CERTIFY WHICH, WITNESS MY HAND, this the day of, 20, By: BELL SOUTH COMMERCIAL, LLC
STATE OF TEXAS       \$         COUNTY OF WILLIAMSON       \$         Before me, the undersigned, a notary public in and for said county and state, on this day personally anstrument.       Quert         GIVEN UNDER MY HAND AND SEAL of office this day of 20	STATE OF TEXAS       §         COUNTY OF WILLIAMSON       §         Before me, the undersigned, a notory public in and for soid county and state, on this day personally dynamic time in the best the person whose name is subscribed to the foregoing instrument.         GVEN UNDER MY HAND AND SEAL of office this day of, 20		Benny Nguyen 675 Bering Drive, Suite 500 Houston, TX 77057
Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared Benny Nguyen, known to me to be the person whose name is subscribed to the foregoing instrument.         GIVEN UNDER MY HAND AND SEAL of office this day of, 20         Notary Public in and for the State of Texas         My Commission Expires on:	Before me, the undersigned, a notary public in and for sold county and state, on this day personally appeared Banny Nguyen, known to me to be the person whose name is subscribed to the foregoing instrument.         GIVEN UNDER MY HAND AND SEAL of office this day of20         Notary Public in and for the State of Texas         My Commission Expires on:		STATE OF TEXAS \$ KNOW ALL MEN BY THESE PRESENTS: COUNTY OF WILLIAMSON \$
Notary Public in and for the State of Texas         My Commission Expires on:	Notary Public in and for the State of Texas         My Commission Expires on:         STATE OF TEXAS       \$         KNOW ALL MEN BY THESE PRESENTS:         COUNTY OF TRANS       \$         I. 155.D. III, LTD., Lian Holder of the certain 10.344 tracet of land shown hereon and described in a decreated in Document No. 202302878 of thereby decords of Willimson County, Texas, do hereby declared to the Cirito of Eador Park may deem appropriate. This subdivision is to be known as:         EEL SOUTH COMMERCIAL SUBDIVISION REPLAT.         TO CERTIFY WHICH, WITNESS MY HAND, this the day of 20         TSS.D. III, LTD		Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared Benny Nguyen, known to me to be the person whose name is subscribed to the foregoing instrument. GIVEN UNDER MY HAND AND SEAL of office this day of, 20
STATE OF TEXAS       \$         NOW ALL MEN BY THESE PRESENTS:         COUNTY OF TRAVIS       \$         In School (1, LTD), Lien Holder of the certain 10.344 tract of land shown hereon and described in a ded recorded in Document No. 2023029878 of the Official Records of Williamson County, Texas, and hereby consent to the resubdivision of said tract as shown hereon; do further hereby join, approve and covenant to all restrictions listed herein; and do hereby dedicate to the City of Cedar Park the streets, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Cedar Park may deem appropriate. This subdivision is to be known as         BEL SOUTH COMMERCIAL SUBDIVISION REPLAT.         TO CERTIFY WHICH, WITNESS MY HAND, this the day of, 20,         T.SS.D. III, LTD.         T.SS.D. III, LTD.         T.SS.D. III, LTD.         TATE OF TEXAS       \$         KNOW ALL MEN BY THESE PRESENTS:         COUNTY OF WILLIAMSON       \$         Before me, the undersigned, a notary public in and for soid county and state, on this day personally appared, known to me to be the person whose name is subscribed to the foregoing instrumet.         GVEN UNDER MY HAND AND SEAL of office this day of, 20         There y Public in and for the State of Texas         My Commission Expires on:	STATE OF TEXAS <pre>             MOW ALL MEN BY THESE PRESENTS:             SOURCE OF TEXAS</pre> Source of the certain 10.344 tract of finds shown hereon and described in a deed recorded in Document No. 2023029378 of the Official Records of Williamson County, Texas, and thereby consent to the resubdivision of soid tract as shown hereon for such public purposes as the city of Cedar Park may deem appropriate This subdivision is to be known as                 Discretions listed hereby decide to the city of Cedar Park the stretes, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Cedar Park may deem appropriate This subdivision is to be known as                 DISCONTECOMMERCIAL SUBDIVISION REPLAT:                 To CERTIFY WHICH, WITNESS MY HAND, this the day of 20		Notary Public in and for the State of Texas My Commission Expires on:
I, T.SS.D. III, LTD., Lie Holder of the certain 10.344 tract of land shown hereon and described in a deed recorded in Document No. 2023029878 of the Official Records of Williamson County, Texas, do hereby consent to the resubdivision of said tract as shown hereon; do further hereby join, approve and covenant to all restrictions listed herein; and do hereby dedicate to the City of Cedar Park the streets, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Cedar Park may deem appropriate. This subdivision is to be known as <b>BELL SOUTH COMMERCIAL SUBDIVISION REPLAT</b> . TO CERTIFY WHICH, WITNESS MY HAND, this the day of, 20, T.SS.D. III, LTD. T.SS.D. IIII, LTD. T.SS.D. III, LTD. T.SS.D. III, LTD. T.SS.	I, T.SS.D. III, LTD., Lien Holder of the certain 10.344 tract of land shown hereon and described in a deed recorded in Document No. 2023029378 of the Official Records of Williamson County, Texas, do hereby consent to all restrictions listed herein; and do hereby dedicate to the City of Cedar Park the streets, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Cedar Park may deem appropriate. This subdivision is to be known as  ELL SOUTH COMMERCIAL SUBDIVISION REPLAT.  TO CERTIFY WHICH, WITNESS MY HAND, this the day of, 20,  T.SS.D. III, LTD.  T.SS.D. III, LTD.  T.SS.D. III, LTD.  STATE OF TEXAS §  KNOW ALL MEN BY THESE PRESENTS: COUNTY OF WILLIAMSON §  Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared, known to me to be the person whose name is subscribed to the foregoing instrument.  GIVEN UNDER MY HAND AND SEAL of office this day of, 20		STATE OF TEXAS § KNOW ALL MEN BY THESE PRESENTS: COUNTY OF TRAVIS §
TO CERTIFY WHICH, WITNESS MY HAND, this the day of, 20,         T.SS.D. III, LTD.         7320 N. MoPac Expressway, Suite 211         Austin, Texas 78731         STATE OF TEXAS       §         KNOW ALL MEN BY THESE PRESENTS:         COUNTY OF WILLIAMSON       §         Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared, known to me to be the person whose name is subscribed to the foregoing instrument.         GIVEN UNDER MY HAND AND SEAL of office this day of, 20         Notary Public in and for the State of Texas         My Commission Expires on:	TO CERTIFY WHICH, WITNESS MY HAND, this the day of, 20,         T.SS.D. III, LTD.         7320 N. MoPac Expressway, Suite 211         Austin, Texas 78731         STATE OF TEXAS §         KNOW ALL MEN BY THESE PRESENTS:         COUNTY OF WILLIAMSON §         Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared		I, T.SS.D. III, LTD., Lien Holder of the certain 10.344 tract of land shown hereon and described in a deed recorded in Document No. 2023029878 of the Official Records of Williamson County, Texas, do hereby consent to the resubdivision of said tract as shown hereon; do further hereby join, approve an covenant to all restrictions listed herein; and do hereby dedicate to the City of Cedar Park the streets, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Cedar Park may deem appropriate. This subdivision is to be known as
T.SS.D. III, LTD.         7320 N. MoPac Expressway, Suite 211         Austin, Texas 78731         STATE OF TEXAS       \$         KNOW ALL MEN BY THESE PRESENTS:         COUNTY OF WILLIAMSON       \$         Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared, known to me to be the person whose name is subscribed to the foregoing instrument.         GIVEN UNDER MY HAND AND SEAL of office this day of, 20         Motary Public in and for the State of Texas         My Commission Expires on:	T.SS.D. III, LTD.         7320 N. MoPac Expressway, Suite 211         Austin, Texas 78731         STATE OF TEXAS       §         KNOW ALL MEN BY THESE PRESENTS:         COUNTY OF WILLIAMSON       §         Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared, known to me to be the person whose name is subscribed to the foregoing instrument.         GIVEN UNDER MY HAND AND SEAL of office this day of, 20         Notary Public in and for the State of Texas         My Commission Expires on:		TO CERTIFY WHICH, WITNESS MY HAND, this the day of, 20,
STATE OF TEXAS \$ KNOW ALL MEN BY THESE PRESENTS: COUNTY OF WILLIAMSON \$ Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared, known to me to be the person whose name is subscribed to the foregoing instrument. GIVEN UNDER MY HAND AND SEAL of office this day of, 20 Notary Public in and for the State of Texas My Commission Expires on:	STATE OF TEXAS § KNOW ALL MEN BY THESE PRESENTS: COUNTY OF WILLIAMSON § Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared, known to me to be the person whose name is subscribed to the foregoing instrument. GIVEN UNDER MY HAND AND SEAL of office this day of, 20 Motary Public in and for the State of Texas My Commission Expires on:		T.S.—S.D. III, LTD. 7320 N. MoPac Expressway, Suite 211 Austin, Texas 78731
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GIVEN UNDER MY HAND AND SEAL of office this day of, 20 	GIVEN UNDER MY HAND AND SEAL of office this day of, 20, 		Before me, the undersigned, a notary public in and for said county and state, on this day personally
Notary Public in and for the State of Texas My Commission Expires on:	Notary Public in and for the State of Texas My Commission Expires on:		appeared, known to me to be the person whose name is subscribed to the foregoin instrument.
			appeared, known to me to be the person whose name is subscribed to the foregoin instrument. GIVEN UNDER MY HAND AND SEAL of office this day of, 20, 20
		0001-02 1201 S. Bell Blvd Commerical Subdivision\2 Design Phase\CAD\Platt28106-	appeared, known to me to be the person whose name is subscribed to the foregoin instrument. GIVEN UNDER MY HAND AND SEAL of office this day of, 20, 

# JTH COMMERCIAL SUBDIVISION REPLAT

10.344 ACRES OUT OF THE SAMUEL DAMON SURVEY ABSTRACT NO. 170

WILLIAMSON COUNTY, TEXAS

STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS: COUNTY OF WILLIAMSON §

I, Rex L. Hackett, Registered Professional Land Surveyor in the State of Texas, do hereby certify that this plat is true and correctly made from an actual survey made on the ground of the property legally described hereon, that all existing easements on or adjacent to the proposed subdivision are shown as noted in the most recent title survey or discovered with a title search prepared in conjunction with the most recent purchase of the property, and that there are no apparent discrepancies, conflicts, overlapping of improvements, visible utility lines or roads in place, except as shown on the accompanying plat, and that the corner monuments shown thereon were properly placed under my supervision in accordance with the subdivision regulations of the City of Cedar Park, Texas.

TO CERTIFY WHICH, WITNESS my hand and seal at Cedar Park, Williamson County, Texas,, this the _____ day of _____, 20__,

> Rex L. Hackett Registered Professional Land Survevor No. 5573 State of Texas

l, Gemsong N. Ryan, Registered Professional Engineer in the State of Texas, do hereby certify that this subdivision is in the Edwards Aquifer Contributing Zone and is not encroached by a Zone A flood area, as denoted herein, and as defined by Federal Emergency Management Administration Flood Hazard Boundary Map, Community Panel Numbers 48491C0605F & 48491C0610F, effective date 12/20/2019, and that each lot conforms to the City of Cedar Park regulations. The fully developed, concentrated stormwater runoff resulting from the one hundred (100) year frequency storm is contained within the drainage easements shown and/or public rights-of-way dedicated by this plat.

TO CERTIFY WHICH, WITNESS my hand and seal at Cedar Park, Williamson County, Texas,, this the _____ day of _____, 20__,

> Gemsong N. Ryan Registered Professional Engineer No. 99300

This subdivision to be known as **BELL SOUTH COMMERCIAL SUBDIVISION REPLAT** has been accepted and approved for filing of record with the County Clerk of Williamson County, Texas, according to the minutes of the meeting of the Cedar Park Planning and Zoning Commission on the ____ day of _____, 20^{_}___, A.D.

Ralph E. Strader, II, Chair

Date

Kimberly Bradford-Brown, Secretary

Date

I, Amy Link, Director of Development Services of the City of Cedar Park, Texas, do hereby certify attest and authorize this plat to be filed for record with the County Clerk of Williamson County, Texas.

Amy Link, AICP, Director of Development Services City of Cedar Park, Texas

SURVEY NOTES:

- 1. The survey shown hereon has been prepared as the result of an on the ground survey completed on June 8, 2023.
- 2. The bearings shown hereon are referenced to the Texas Coordinate System of 1983, Central Zone.
- 3. The recorded easements, setbacks and encumbrances shown hereon are from Schedule B of the commitment for title insurance issued by First American Title Insurance Company, GF No. 5025648-0204408e, issue date April 17, 2023. The Surveyor has relied upon the accuracy and completeness of the information described above and has made no independent investigation or search for this information.
- 4. Surveyor has not identified any geological or environmental conditions in connection with the subject property and Surveyor fully disclaims any and all responsibility related to issues or claims related thereto or resulting there from.
- By scaling the subject property onto the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No.'s 48491C0605F & 48491C0610F, effective 12/20/2019, the subject property is in ZONE X (unshaded), defined as areas determined to be outside the 0.2% annual chance floodplain. The Surveyor makes no representation as to the accuracy of said FIRM, or that it is the most current published flood map.

STATE OF TEXAS § KNOW ALL MEN BY THESE PRESENTS: COUNTY OF WILLIAMSON §

I, Nancy Rister, Clerk of the County Court of said County, do hereby certify that the foregoing instrument in writing, with its certificate of authentication was filed for record in my office on the ____ day of _____, 20___, 20___, A.D., at ____ o'clock, __.M., and duly recorded this the ____ day of ______, 20___, A.D., at ____ o'clock, __.M., in the Official Public Records of said County in Document No. ______.

TO CERTIFY WHICH, WITNESS my hand and seal at the County Court of said County, at my office in Georgetown, Texas, the date last shown above written.

Nancy Rister, Clerk County Court of Williamson County, Texas

By: Deputy













K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 EROSION.dwg cbarczi: August 26, 2024



3-29-5











![](_page_52_Figure_0.jpeg)

![](_page_53_Figure_0.jpeg)

K:\28106\28106-0001-02 TURN LANE IMPROVEMENTS.dwg cbarczi: August 26, 202-

# **TXDOT PAVEMENT SECTION**

![](_page_53_Figure_6.jpeg)

![](_page_54_Figure_0.jpeg)

K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 TURN LANE IMPROVEMENTS.dwg cbarczi: August 26, 2024

# **GENERAL NOTES:**

- INSTALLED, CONTRACTOR SHALL SAWCUT THE EXISTING PAVEMENT TO A SMOOTH LINE FOR THE FULL DEPTH OF EXISTING PAVEMENT.
- EXPANSION JOINTS (COLD-JOINT) SHALL BE INSTALLED FOR ALL DRIVEWAYS AT EXISTING STATE RIGHT OF WAY.
- TURN LANE PAVEMENT SECTION PER DETAIL THIS
- 4. TRAFFIC CONTROL MEASURES ARE REQUIRED FOR THE CONSTRUCTION OF THE DECEL LANE. THE TRAFFIC CONTROL PLAN SHALL FOLLOW THE STANDARD TXDOT TCP DETAILS SHOWN ON SHEET 43. S. BELL BLVD. POSTED SPEED LIMIT IS 55 MPH.

SELECT FILL OR COMPETENT NATIVE

![](_page_54_Figure_10.jpeg)

![](_page_55_Picture_0.jpeg)

![](_page_55_Figure_1.jpeg)

![](_page_55_Figure_3.jpeg)

![](_page_56_Figure_0.jpeg)

![](_page_57_Figure_0.jpeg)

K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 STORM.dwg cbarczi: August 26, 2024

![](_page_57_Figure_2.jpeg)

![](_page_58_Figure_0.jpeg)

![](_page_58_Figure_1.jpeg)

![](_page_59_Figure_0.jpeg)

K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 GRADING.dwg cbarczi: August 26, 2024

# PROPOSED LEGEND

	WATER
	WASTEWATER
	STORM SEWER
	OVERHEAD ELEC
700	GROUND CONTC

	STORIVI SEVER W/ WAINHO
	CURB INLET
	GRATE INLET
o	LANDSCAPE DRAIN
700	GROUND CONTOUR
TC	TOP OF CURB
TP	TOP OF PAVEMENT
FG	FINISHED GROUND
Т₩	TOP OF WALL
BW	BOTTOM OF WALL AT FINIS
TS	TOP OF SIDEWALK
	ADA ROUTE
	RETAINING WALL

![](_page_59_Figure_8.jpeg)

![](_page_60_Figure_0.jpeg)

![](_page_61_Figure_0.jpeg)

K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 GRADING.dwg cbarczi: August 26, 2024

![](_page_61_Figure_3.jpeg)

![](_page_61_Figure_4.jpeg)

D

F

![](_page_61_Figure_8.jpeg)

![](_page_61_Figure_9.jpeg)

Sta. 13+50.00 SCALE: 1" = 10'H 1" = 10'V 910.00 Natural Finished 900.00 Ground Grade 890.00 Prop 6' Wide Conc Sidewalk w/ Flat Cross-slope 880.00 870.00 **L**_____ -30.00 -20.00 10.00 20.00 -10.00 0.00

SHEE	TERR HALONA, LLC		No. Date	REVISIONS	App.
T NO. 3		Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100 3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493			
0	SIDEWALK SECTIONS	SCALE: AS SHOWN DESIGNED BY JVE SCALE: AS SHOWN DESIGNED BY JVE NY MAY SA 194 1 DATE: U2 - AUGUST 2024 CHECKED BY GNR 28106-0001-02			
DS-62-202		2024			

![](_page_62_Figure_0.jpeg)

![](_page_63_Figure_0.jpeg)

		DA-1 Existing Percen	t Impervious (	Calculation		DA-2 Existing Percent	Impervious (	Calculation			OS-18 Evisting Percen	t Impervious	Calculation			<b>D</b>	AMAP LEGEND
X	$\mathbf{X}$	Proposed Land Type	Area (ac)	Proportion	% Impervious %IC for each Cover proportion	Proposed Land Type	Area (ac)	Proportion	% Imperviou Cover	s %IC for each proportion	Proposed Land Type	Area (ac)	Proportion	% Impervious Cover	5 %IC for each proportion		
		Roads Fair Woods	0.00 14.38	0.00 0.98	100         0.00           0         0.00	Roads Fair Woods	0.00 0.55	0.00 0.13	100 0	0.00	Roads Fair Woods	1.02 0.00	0.74 0.00	100 0	73.67 0.00	(1.82 Ac.	DRAINAGE AREA IN ACRES
		Fair Brush 1/8 Ac Single-Family	0.00	0.00	0 0.00 65 1.57	Fair Brush 1/8 Ac Single-Family	3.57 0.00	0.87	0 65	0.00	Fair Brush 1/8 Ac Single-Family	0.37	0.26	0 65	0.00	Δ-1	DRAINAGE AREA LINE DRAINAGE AREA NUMBER
80	0 40 80	Total	14.74		Composite: 1.57	Total	4.12		Composite:	0.00	Total	1.39		Composite:	73.67		FLOW DIRECTION
SCALE	: 1" = 80'	//] [	//	((),()) )	,	C.	- 4-					>~	1 1 5	( }		רשיי טין <i>יי</i> קאַר. אויי טין <i>יי</i> קאַר.	
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						3524				. EASEMI G. 964	C.T.						
				# <u> </u>		B.S.L.		.U.E. 20230095 W.C.T.		1635, P	5: PUBLIG	n in in			EASEME		L=328.20' R=2806.93'
			+		(S38°12'34"E 123.7	,, 2, 2, 2, 2, 2, ,, 0, 0, 0, ,, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,		OC NO. 2			Ň	HWY 1	83/S BEI	L BLVD.	P16 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 + 916 +	OC- 834 OC- 83	<b>1B</b> 1.39 CHD.BRG.=535°50 Ac.
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_	L _{sh} S _{sh}	P ₂	n _{ol}	t _{sh}	L _{sc} S	с К	<b>t</b> _{sc}	L _{ch} S _c	h n	R t	t _c t _c t _L		150				A HAC
catchment name	sheet flow sheet flow surface length slope (ft/ft) description	2-yr, 24-hr rainfall overland depth (in.)	d flow roughness coeff.	sheet flow travel	shallow conc. flow s time (hr) flow length (ft) (ft/	conc. lope 16.13 - unpaved si ft) surface fi	hallow conc. low time (hr) Le	chan channel flow sl ength (ft) (ft/f	nnel Manning's lope roughness ft) coeff.	hydraulic t radius(ft) TC cc	time of time of conc. onc. (hr) (min) lag time (mi	in)	5				
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Fair Brus	sh	0.00 0	0.00	0	0.00	Fair Brush	0.00	0.00	0	0.00	Fair Bru
1/8 Ac Single-	-Family	0.00 0	0.00	65	0.00	1/8 Ac Single-F	<b>amily</b> 0.00	0.00	65	0.00	1/8 Ac Single
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CP. FL 896 12	rammy cial	2.77 1 2.77 1 2.77 1 	.00 Cor Cor Analysis Point 2: udes Flow From	T5 mposite: DA-2 & OS-2 (Pri Larger DA "A1" a 2-YR STC 10-YR ST 25-YR STC 100-YR ST 25-YR STC 00-YR ST 25-YR STC 100-YR ST 25-YR STC 100-YR ST 25-YR STC 100-YR ST 25-YR STC	0.00 75.00 75.00 75.00 0 to the second secon	1/8 Ac Single-F Commercia Total	amily 0.00 al 3.32 3.32 3.32		65 75 Composite: 8°12'34''E 123.7 8°12'34''E 123.7 900 910 97, 8°12'34''E 123.7 8°00 910 97, 5' P 166 AC. 8°12'34''E 123.7 8 900 910 97, 5' P	0.00 75.00 75.00 52: B:S:T. 52: B:S:T. 50 50: NO. 2023009524	Т/в Ас Single Соттет Тота
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S-1A Prop	boosed Perc	ent Imperv Area (ac)	rious Calculat	CALLE BOARD OF INDEPENDI DOC	TRACT 2 ED 53.9395 TRUSTEES ENT SCHOC . NO. 20110 O.P.R.W.C. %IC for eac proportion	ACRES 5, LEANDER 0L DISTRICT 84700		HIPOTON SOOD		PROPOSED PRIVATE 15' PROPOSED PRIVATE 15' DRAINAGE EASEMENT	5-2 1. 5-2
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luiddity Engineering

![](_page_64_Figure_5.jpeg)

![](_page_65_Figure_0.jpeg)

	А			В		
±10 LF ~ 6" PV	A Cleanout Rim=901.00 6" FL=898.38 VC,	Cleanout Rim=901.00 6" FL=898.18	Cleanout Rim=901.00 5" FL=898.08	B Cleanout Rim=901.00 6" FL=897.88 ±10 LF ~ 6" PVC,	Cleanout Rim=901.00 6" FL=897.78 Cleanout Rim=901.00 6" FL=897.68 ±10 LF ~ 6" Perf @ 1.000	Cleanout Rim=901.00 6" FL=897.58 Rim=901 6" FL=89
137 LF ~ 6" PVC, Perf @ 1.00%	±10 LF ~ 6" PVC, Perf @ 1.00% ±10 LF ~ Perf @ 1.00% Cleanout Bim=001 00	- 6" PVC, @ 1.00% ±37 LF ~ 6" PVC, Perf @ 1.00%	±10 LF ~ 6" PVC, Perf @ 1.00% #37 LF ~ 6" PVC, Perf #37 LF ~ 6" PVC, Perf 0 1.00% Cleanout Rim=901.00	LF ~ 6" PVC, f@ 1.00%	±10 LF ~ 6" PV Perf @ 1.00% ±37 LF ~ 6" PVC, Perf @ 1.00% Cleanout Rim=901.00	/C, ±10 LF ~ Perf @ 1 ±37 LF ~ 6" PVC, Perf @ 1.00%
	Cleanout Rim=901.00 6" FL=898.55 Cleanout Rim=90 6" FL=8 898.75	It 1.00 98.65 Clean Rim= 6" FL	6" FL=898.25 fout 901.00 =898.45 Cleanout Rim=901 6" FL=89	.00 8.35 Cleanoo Rim=90 6" FL=8	6" FL=897.95 Cleanout Rim=901.0 6" FL=898.	) Cleanout Rim=901.00 6" FL=897.85
<b>A2</b> 1" = 10'	FILTR	ATION BAS	SIN UNDERD	RAIN SYST	EM	
Analy	ysis Point 1 Flow (cfs)	Existing (	Proposed Pre-Detention) (	Proposed (Post-Detention)	Ultimate (Pre-Detention)	Ultimate (Post-Detention)
	∠-year 10-vear	24.2 46.8	52.3 87.6	14.4 26 6	81.4 128 5	22 ۵٦
	25-year	62.9	112.2	38.1	161.1	58
	100-year	90.9	155.3	59.2	217.9	89
Analy	ysis Point 2 Flow (cfs)	Existing (	Proposed Pre-Detention) (	Proposed (Post-Detention)	Ultimate (Pre-Detention)	Ultimate (Post-Detention)
	2-year	99.0	206.7	102.1	269.7	142
	20-year 25-vear	180.5 235 A	365.4 <u>476 2</u>	183.6 728 1	447.8 570 a	232 วรร
	100-year	317.1	668.4	319.0	785.1	364
A3 NTS			OMPARISO			
	ELEV	ATION-AREA Area	A- STORAGE	CUMULATIVE STORAGE		
	FEET 905	SF 37854	CF 0	CF 0		Riprap S <b>Riprap</b>
	906	40424	39132	39132		Riprap (
	907	42994	41702	80834		Riprap (
	909	45694 <u>48305</u>	44337 47038	125172	—	D15
	910	51183	49782	221992		D50
	L				]	D85
	1					D100
<b>R1</b>	WATER	QUALITY P	OND TABLE			<b>□</b> 4
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K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 POND.dwg cbarczi: August 26, 2024

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Flow<br>Capacity<br>(cfs)<br>68.18<br>102.01<br>37.70<br>38.00<br>48.85<br>387.08<br>421.68<br>186.72<br>188.11<br>119.41<br>119.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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lydraulic<br>Gradient<br>(ft/ft)<br>0.0065<br>0.0065<br>0.0064<br>0.0045<br>0.0044<br>0.0017<br>0.0022<br>0.0022<br>0.0022<br>0.0022<br>0.00022<br>0.00022<br>0.00022<br>0.00022<br>0.00022<br>0.00022<br>0.00022<br>0.00022<br>0.00022<br>0.00022<br>0.00066<br>0.00066<br>0.00066<br>0.00066<br>0.00066<br>0.00066<br>0.00066<br>0.00066<br>0.00066<br>0.00066<br>0.00066<br>0.00066<br>0.0006<br>0.00066<br>0.0006<br>0.0006<br>0.0006<br>0.0006<br>0.0000<br>0.0002<br>0.0000<br>0.0002<br>0.0000<br>0.0002<br>0.0000<br>0.0002<br>0.0000<br>0.0002<br>0.0000<br>0.0002<br>0.0000<br>0.0002<br>0.0000<br>0.0002<br>0.0000<br>0.0002<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.0000000<br>0.00000000 | <pre>"*" Indicates a     Junction/     MH     Loss ant) (feet)      0.2939     0     0.2096     0.2096     0.2093     0.2093     0.0971     0     0.1912     0.1912     0.1912     0.1912     0.1917     0.1917     0.3047     0.3025</pre>                                                                                                                                                                                                                                                                                                 | n inlet lateral co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>910.28<br>909.58<br>909.10<br>908.90<br>907.32<br>900.00<br>898.73<br>924.47<br>917.95                                                                                                                                                                                                                                                                                                              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            | Rise in<br>Pipe<br>(ft)<br>2.96<br>1.94<br>0.53<br>0.32<br>0.20<br>1.59<br>1.02<br>0.21<br>2.73<br>6.52<br>4.35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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| DA-1B         Inlet A-1           MH         Area           DA-1B         Inlet A-1           MH 3A         MH           DA-1A         MH 1A           Wye 1         MH 2A           OS-1A         Pond           Bend 1B         MH 1B           DA-2         MH C1           Wye C2         Wye C3           MH C2         Inlet C-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>910.28<br>909.58<br>909.10<br>908.90<br>907.32<br>900.00<br>898.73<br>900.00<br>898.73<br>924.47<br>917.95<br>913.60<br>906.70<br>900.18<br>899.48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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lydraulic<br>Gradient<br>(ft/ft)<br>0.0065<br>0.0064<br>0.0045<br>0.0045<br>0.0044<br>0.0017<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0022<br>0.<br>0.0024<br>0.<br>0.0024<br>0.<br>0.0024<br>0.<br>0.0024<br>0.<br>0.0024<br>0.<br>0.<br>0.0024<br>0.<br>0.<br>0.0024<br>0.<br>0.<br>0.0024<br>0.<br>0.<br>0.<br>0.<br>0.<br>0.<br>0.<br>0.<br>0.<br>0. 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"*" Indicates a         Junction/         MH         Loss         ant)       (feet)         5       0.3011         5       0.2939         5       0.2096         5       0.2093         6       0.2093         5       0.2043         5       0.1922         5       0.1920         5       0.1917         5       0.1917         5       0.3047         5       0.3025         5       0.3011         5       0.3013         5       0.1435         5       0.1408                                                                         | n inlet lateral co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>910.28<br>909.58<br>909.10<br>907.32<br>900.00<br>898.73<br>924.47<br>917.95<br>913.60<br>906.70<br>900.18<br>899.48                                                                                                                                                                                                                                                                                  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                                                                                                                                                       | Rise in<br>Pipe<br>(ft)<br>2.96<br>1.94<br>0.53<br>0.32<br>0.20<br>1.59<br>1.02<br>0.21<br>2.73<br>6.52<br>4.35<br>6.90<br>3.97<br>0.60<br>0.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Pipe Diam.       G         or Box Rise       G         (in.)       (f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         36       0         36       0                                                                                                                                                                                | Full Flow           Full Flow           velocity           (fps)           .0164         13.89           .0366         20.78           .0050         7.68           .0051         7.74           .0032         6.91           .0430         30.80           .0510         14.86           .0101         14.97           .0502         24.33           .0500         24.29           .0503         24.35           .0049         8.60           .0050         8.67                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Design<br>Full Flow<br>Capacity<br>(cfs)<br>68.18<br>102.01<br>37.70<br>38.00<br>48.85<br>387.08<br>421.68<br>188.11<br>119.41<br>119.22<br>119.22<br>119.53<br>60.80<br>61.31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Actual       H         Velocity       G         (out)       G         8.81       G         8.70       G         7.35       G         7.35       G         7.35       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         8.86       G         8.83       G         8.83       G         6.08       G         6.02       G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
| lydraulic<br>Gradient<br>(ft/ft) (Cons<br>0.0065 0.<br>0.0065 0.<br>0.0064 0.<br>0.0044 0.<br>0.0017 0.<br>0.0022 0.<br>0.0022 0.<br>0.0022 0.<br>0.0022 0.<br>0.0022 0.<br>0.0022 0.<br>0.0022 0.<br>0.0022 0.<br>0.0066 0.<br>0.0066 0.<br>0.0065 0.<br>0.0065 0.<br>0.0024 0.<br>0.0024 0.<br>0.0024 0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | "*" Indicates a         Junction/         MH         Loss         ant)       (feet)         5       0.3011         5       0.2096         5       0.2096         5       0.2096         5       0.2043         5       0.1922         5       0.1922         5       0.1917         5       0.3047         5       0.3047         5       0.3011         5       0.3011         5       0.1435         5       0.1408                                                                                                                       | n inlet lateral co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>910.28<br>909.58<br>909.10<br>908.90<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>900.00<br>898.73<br>900.18<br>899.48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Dwnstm<br>Flowline<br>(ft)<br>907.25<br>905.20<br>905.20<br>905.86<br>905.54<br>905.54<br>905.54<br>905.00<br>903.31<br>902.30<br>895.79<br>892.00<br>915.45<br>911.10<br>904.20<br>900.23<br>896.58<br>896.35                                                       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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Rise in<br>Pipe<br>(ft)<br>2.96<br>1.94<br>0.53<br>0.32<br>0.20<br>1.59<br>1.02<br>0.21<br>2.73<br>6.52<br>4.35<br>6.90<br>3.97<br>0.60<br>0.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Pipe<br>Crown<br>(ft)<br>912.71<br>909.64<br>908.89<br>908.36<br>908.20<br>908.20<br>908.90<br>907.32<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Top of<br>MH/Inlet<br>Elevation<br>(ft)<br>915.50<br>916.32<br>916.32<br>912.00<br>912.00<br>912.00<br>912.00<br>910.98<br>910.81<br>907.55<br>908.14<br>908.14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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| STORM SEWER           100-yr Inten           a100 =           b100 =           C100 =           C100 =           MH           Area           DA-1B           Inlet /           MH           Area           DA-1B           MH 3A           MH           MH 3A           MH           MH 2A           OS-1A           MH 1B           Bend 1B           MH 1B           DA-2           MH 1B           Bend 2B           DA-2           MH 2A           OS-1A           Pond           Bend 1B           MH 1C1           Wye C2           Wye C3           MH C2           Inlet C-1           STORM SEV           Inlet C-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 100 yr         nsity = a/(t+b)^c         nsity = a/(t+b)^c         Inlet /         MH         MH <td>76.9         6.726         0.6554         0.6554         a         Area         (acres)         320         3.320         000         3.320         000         000         2.770         000         2.770         000         2.770         000         11.260         000         11.260         000         11.260         000         11.260         000         120         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000</td> <td>Time     ////////////////////////////////////</td> <td>Runoff<br/>"C"<br/>0.85<br/>0.00<br/>0.85<br/>0.00<br/>0.00<br/>0.00<br/>0.00<br/>0.00</td> <td>C<br/>(Weighted)<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85</td> <td>Intensity<br/>" "<br/>(in/hr)<br/>15.32<br/>15.13<br/>15.12<br/>15.12<br/>15.12<br/>15.01<br/>9.23<br/>9.23<br/>9.23<br/>9.23<br/>9.23<br/>9.23<br/>9.23<br/>9.23</td> <td>Q100<br/>(cfs)<br/>43.23<br/>42.71<br/>35.61<br/>35.35<br/>35.35<br/>88.42<br/>88.38<br/>88.36<br/>88.30<br/>43.43<br/>43.23<br/>43.23<br/>43.23<br/>43.23<br/>43.23<br/>43.23<br/>43.23<br/>43.23</td> <td>Mannings       ////////////////////////////////////</td> <td>Length<br/>(ft.) 1<br/>181.0 1<br/>53.0 1<br/>53.0 1<br/>106.0 1<br/>63.0 1<br/>63.0 1<br/>37.0 1<br/>20.0 1<br/>20.0 1<br/>21.0 1<br/>22.0 1<br/>130.0 1<br/>138.0 1<br/>138.0 1<br/>138.0 1<br/>138.0 1<br/>138.0 1<br/>138.0 1<br/>138.0 1<br/>26.9 1<br/>138.0 1<br/>138.0 1<br/>26.9 1<br/>138.0 1<br/>139.0 1<br/>149.0 149.</td> <td>Pipe Diam.<br/>or Box Rise<br/>(in.)       G<br/>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         48       0         48       0         48       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         36       0         36       0          9       9          9       9          9       9          36       0          36       0          36       0    </td> <td>Trunk Line I         Full Flow         Velocity         (fps)         0164       13.89         .0164       13.89         .0050       7.68         .0051       7.74         .0032       6.91         .0430       30.80         .0510       14.86         .0101       14.97         .0502       24.33         .0503       24.29         .0503       24.29         .0503       24.35         .0049       8.60         .0050       8.67</td> <td>Design<br/>Full Flow<br/>Capacity<br/>(cfs)<br/>68.18<br/>102.01<br/>37.70<br/>38.00<br/>48.85<br/>387.08<br/>421.68<br/>186.72<br/>188.11<br/>119.22<br/>119.22<br/>119.53<br/>60.80<br/>61.31<br/>Trunk Line D</td> <td>Actual       H         Velocity       G         (out)       G         8.81       G         7.25       G         7.25       G         7.04       G        
7.03       G         7.03       G         7.03       G         8.81       G         8.83       G         6.08       G         6.08       G         6.02       G</td> <td>lydraulic         Gradient         (ft/ft)         0.0065         0.0064         0.0064         0.0043         0.0044         0.0017         0.0022         0.0022         0.0022         0.0066         0.0065         0.0022         0.0022         0.0022         0.0066         0.0065         0.0065         0.0024         0.0024</td> <td>"*" Indicates a          Junction/<br/>MH         Loss         ant)       (feet)         5       0.3011         5       0.2939         5       0.2096         5       0.2043         5       0.1922         5       0.1920         5       0.1917         5       0.3047         5       0.3011         5       0.3011         5       0.3011         5       0.3047         5       0.3041         5       0.1918         6       0.1435         5       0.1408</td> <td>n inlet lateral co<br/>Hydraulic<br/>Grade<br/>Elevation<br/>(ft)<br/>912.71<br/>909.64<br/>910.28<br/>909.58<br/>909.10<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>900.18<br/>899.48</td> <td>Dwnstm<br/>Flowline<br/>(ft)<br/>907.25<br/>905.20<br/>905.20<br/>905.20<br/>905.54<br/>905.54<br/>905.54<br/>903.31<br/>902.30<br/>895.79<br/>892.00<br/>895.79<br/>892.00<br/>904.20<br/>904.20<br/>904.20<br/>904.20<br/>900.23<br/>896.58<br/>896.35</td> <td>h unique fo</td> <td>Upstrm<br/>Flowline<br/>(ft)<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>907.14<br/>90</td> <td>unction loss<br/>Rise in<br/>Pipe<br/>(ft)<br/>2.96<br/>1.94<br/>0.53<br/>0.32<br/>0.20<br/>1.59<br/>1.02<br/>0.21<br/>2.73<br/>6.52<br/>4.35<br/>6.90<br/>3.97<br/>0.60<br/>0.13<br/>Upstrm</td> <td>Pipe<br/>Crown<br/>(ft)<br/>912.71<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>899.48<br/>900.18<br/>900.18<br/>900.18<br/>900.18<br/>900.18<br/>900.18</td> <td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)<br/>915.50<br/>916.32<br/>910.32<br/>912.00<br/>912.00<br/>912.00<br/>910.81<br/>907.55<br/>907.55<br/>908.14<br/>908.14<br/>908.14</td> <td>Cover<br/>2.79<br/>6.68<br/>3.11<br/>2.08<br/>3.49<br/>7.59<br/>3.59<br/>7.96</td> <td>HGL</td>                                                                                                                                                                                              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G<br>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         48       0         48       0         48       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         36       0         36       0          9       9          9       9          9       9          36       0          36       0          36       0                                          | Trunk Line I         Full Flow         Velocity         (fps)         0164       13.89         .0164       13.89         .0050       7.68         .0051       7.74         .0032       6.91         .0430       30.80         .0510       14.86         .0101       14.97         .0502       24.33         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Flow<br>Capacity<br>(cfs)<br>68.18<br>102.01<br>37.70<br>38.00<br>48.85<br>387.08<br>421.68<br>186.72<br>188.11<br>119.22<br>119.22<br>119.53<br>60.80<br>61.31<br>Trunk Line D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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  0.0066         0.0065         0.0022         0.0022         0.0022         0.0066         0.0065         0.0065         0.0024         0.0024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | "*" Indicates a          Junction/<br>MH         Loss         ant)       (feet)         5       0.3011         5       0.2939         5       0.2096         5       0.2043         5       0.1922         5       0.1920         5       0.1917         5       0.3047         5       0.3011         5       0.3011         5       0.3011         5       0.3047         5       0.3041         5       0.1918         6       0.1435         5       0.1408                                                                             | n inlet lateral co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>910.28<br>909.58<br>909.10<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>900.18<br>899.48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Dwnstm<br>Flowline<br>(ft)<br>907.25<br>905.20<br>905.20<br>905.20<br>905.54<br>905.54<br>905.54<br>903.31<br>902.30<br>895.79<br>892.00<br>895.79<br>892.00<br>904.20<br>904.20<br>904.20<br>904.20<br>900.23<br>896.58<br>896.35                                                                                                                                                                                                                                                                                                                                 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Upstrm<br>Flowline<br>(ft)<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>907.14<br>90             | unction loss<br>Rise in<br>Pipe<br>(ft)<br>2.96<br>1.94<br>0.53<br>0.32<br>0.20<br>1.59<br>1.02<br>0.21<br>2.73<br>6.52<br>4.35<br>6.90<br>3.97<br>0.60<br>0.13<br>Upstrm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                            | Pipe<br>Crown<br>(ft)<br>912.71<br>909.64<br>908.89<br>908.36<br>908.20<br>908.20<br>908.20<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>899.48<br>900.18<br>900.18<br>900.18<br>900.18<br>900.18<br>900.18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Top of<br>MH/Inlet<br>Elevation<br>(ft)<br>915.50<br>916.32<br>910.32<br>912.00<br>912.00<br>912.00<br>910.81<br>907.55<br>907.55<br>908.14<br>908.14<br>908.14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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| STORM SEWER           100-yr Inten           a100 =           b100 =           C100 =           C100 =           MH           Area           DA-1B         Inlet /           MH           Area           DA-1B         Inlet A-1           MH 3A           DA           MH 2A           OS-1A         Pond           Bend 1B           MH 1B           Bend 2B           DA-2         MH C1           Wye C1           Wye C2           Wye C3           MH C2           Inlet C-1           STORM SEV           Inlet C-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Runoff       "C"       0.85       0.00       0.85       0.00       0.85       0.00       0.85       0.00       0.85       0.00       0.85       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00 <td>C<br/>(Weighted)<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85</td>
<td>Intensity<br/>"I"<br/>(in/hr)<br/>15.32<br/>15.13<br/>15.32<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32<br/>15.32</td> <td>Q100         (cfs)         43.23         42.71         36.07         35.35         35.35         88.42         88.38         88.38         88.36         43.23         43.49         43.49         43.49         43.23         43.23         43.49         43.49         43.49         43.49         43.49         43.49         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         443.44         443.45         443.45         443.45         443.45         443.45         443.45         443.45         443.45         443.45         443.45</td> <td>Mannings       "n"         0.01       0         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1         0.01       1</td> <td>Iast.ou     P       1ast.ou     P       53.0     1       53.0     1       106.0     1       63.0     1       20.0     1       269.0     1       130.0     1       130.0     1       269.0     1       122.0     1       269.0     1       138.0     1       269.0     1       130.0     1       26.0     1       138.0     1       26.0     1</td> <td>Dipe Diam.       G         or Box Rise       G         (in.)       (f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         36       0         36       0         36       0         36       0         36       0         36       0         36       0</td> <td>Full Flow         Full Flow         irade       Full Flow         irade       Velocity         .0164       13.89         .0366       20.78         .0050       7.68         .0051       7.74         .0032       6.91         .0430       30.80         .0510       33.56         .0100       14.86         .0101       14.97         .0502       24.33         .0503       24.35         .0049       8.60         .0050       8.67         .0503       24.35         .0049       8.60         .0050       8.67         .0050       8.67</td> <td>Design         Full Flow         Capacity         (cfs)         68.18         102.01         38.00         48.85         387.08         421.68         188.11         119.41         119.22         119.53         60.80         61.31</td> <td>Actual Velocity G<br/>(out) G<br/>8.81 (0)<br/>7.35 (0)<br/>7.25 (0)<br/>7.25 (0)<br/>7.03 (0)<br/>7.03 (0)<br/>7.03 (0)<br/>7.03 (0)<br/>7.03 (0)<br/>7.03 (0)<br/>7.03 (0)<br/>6.02 (0)<br/>8.881 (0)<br/>8.831 (0)<br/>6.02 (0)<br/>8.831 (0)<br/>6.02 (0)<br/>6</td> <td>lydraulic         Gradient       (Construction)         0.0065       0.         0.0064       0.         0.0045       0.         0.0044       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0024       0.         0.0024       0.         0.0024       0.         0.0024       0.</td> <td>"*" Indicates a         Junction/         MH         Loss         ant)       (feet)         5       0.3011         5       0.2939         6       0.2096         5       0.2043         5       0.1922         5       0.1920         5       0.1917         5       0.3047         5       0.3047         5       0.3011         5       0.3047         5       0.3047         5       0.3011         5       0.3047         5       0.3047         5       0.3047         5       0.1435         5       0.14435         5       0.1408</td> <td>n inlet lateral co<br/>Hydraulic<br/>Grade<br/>Elevation<br/>(ft)<br/>912.71<br/>909.64<br/>910.28<br/>909.58<br/>909.10<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>900.18<br/>899.48<br/>990.18<br/>899.48</td>
<td>Dwnstm<br/>Flowline<br/>(ft)<br/>907.25<br/>905.20<br/>905.20<br/>905.20<br/>905.36<br/>905.54<br/>905.54<br/>905.30<br/>902.30<br/>895.79<br/>892.00<br/>895.79<br/>892.00<br/>901.23<br/>901.10<br/>904.20<br/>901.23<br/>895.79<br/>892.00<br/>895.79<br/>892.00<br/>895.79<br/>892.00<br/>895.79<br/>895.79<br/>892.00<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>905.20<br/>895.79<br/>905.20<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.70<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>895.79<br/>995.70<br/>905.70<br/>905.70<br/>905.70<br/>905.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>805.70<br/>80</td> <td>teral conne<br/>Dwnstm<br/>Flowline<br/>(ft)</td> <td>Upstrm<br/>Flowline<br/>(ft)<br/>910.21<br/>907.14<br/>907.14<br/>905.86<br/>905.20<br/>904.90<br/>905.20<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48</td> <td>unction loss<br/>Rise in<br/>Pipe<br/>(ft)<br/>2.96<br/>1.94<br/>0.53<br/>0.32<br/>0.20<br/>1.59<br/>1.02<br/>0.21<br/>2.73<br/>6.52<br/>4.35<br/>6.90<br/>3.97<br/>0.60<br/>0.13<br/>unique form<br/>Flowline<br/>(ft)</td> <td>Pipe<br/>Crown<br/>(ft)<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>908.20<br/>907.32<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>907.32<br/>900.00<br/>900.18<br/>899.48<br/>913.60<br/>906.70<br/>900.18<br/>899.48</td> <td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)<br/>915.50<br/>916.32<br/>916.32<br/>912.00<br/>912.00<br/>910.98<br/>910.81<br/>907.55<br/>907.55<br/>907.55<br/>907.55<br/>907.55<br/>908.14<br/>908.14<br/>908.14<br/>908.14<br/>10<br/>908.14<br/>10<br/>908.14<br/>10<br/>908.14</td> <td>Cover<br/>2.79<br/>6.68<br/>3.11<br/>2.08<br/>3.49<br/>7.55<br/>3.55<br/>7.96</td> <td>HGL</td> | C<br>(Weighted)<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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Intensity<br>"I"<br>(in/hr)<br>15.32<br>15.13<br>15.32<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32<br>15.32                                                                                                                                                                                                       
                                                                                                                                                                                                                                               | Q100         (cfs)         43.23         42.71         36.07         35.35         35.35         88.42         88.38         88.38         88.36         43.23         43.49         43.49         43.49         43.23         43.23         43.49         43.49         43.49         43.49         43.49         43.49         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         43.43         443.44         443.45         443.45         443.45         443.45         443.45         443.45         443.45         443.45         443.45         443.45                                             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G         or Box Rise       G         (in.)       (f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         36       0         36       0         36       0         36       0         36       0         36       0         36       0                                                              | Full Flow         Full Flow         irade       Full Flow         irade       Velocity         .0164       13.89         .0366       20.78         .0050       7.68         .0051       7.74         .0032       6.91         .0430       30.80         .0510       33.56         .0100       14.86         .0101       14.97         .0502       24.33         .0503       24.35         .0049       8.60         .0050       8.67         .0503       24.35         .0049       8.60         .0050       8.67         .0050       8.67                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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      (cfs)         68.18         102.01         38.00         48.85         387.08         421.68         188.11         119.41         119.22         119.53         60.80         61.31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Actual Velocity G<br>(out) G<br>8.81 (0)<br>7.35 (0)<br>7.25 (0)<br>7.25 (0)<br>7.03 (0)<br>7.03 (0)<br>7.03 (0)<br>7.03 (0)<br>7.03 (0)<br>7.03 (0)<br>7.03 (0)<br>6.02 (0)<br>8.881 (0)<br>8.831 (0)<br>6.02 (0)<br>8.831 (0)<br>6.02 (0)<br>6 | lydraulic         Gradient       (Construction)         0.0065       0.         0.0064       0.         0.0045       0.         0.0044       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0024       0.         0.0024       0.         0.0024       0.         0.0024       0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | "*" Indicates a         Junction/         MH         Loss         ant)       (feet)         5       0.3011         5       0.2939         6       0.2096         5       0.2043         5       0.1922         5       0.1920         5       0.1917         5       0.3047         5       0.3047         5       0.3011         5       0.3047         5       0.3047         5       0.3011         5       0.3047         5       0.3047         5       0.3047         5       0.1435         5       0.14435         5       0.1408   | n inlet lateral co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>910.28<br>909.58<br>909.10<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>900.18<br>899.48<br>990.18<br>899.48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
     | Dwnstm<br>Flowline<br>(ft)<br>907.25<br>905.20<br>905.20<br>905.20<br>905.36<br>905.54<br>905.54<br>905.30<br>902.30<br>895.79<br>892.00<br>895.79<br>892.00<br>901.23<br>901.10<br>904.20<br>901.23<br>895.79<br>892.00<br>895.79<br>892.00<br>895.79<br>892.00<br>895.79<br>895.79<br>892.00<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>905.20<br>895.79<br>905.20<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.70<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>895.79<br>995.70<br>905.70<br>905.70<br>905.70<br>905.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>805.70<br>80 | teral conne<br>Dwnstm<br>Flowline<br>(ft) | Upstrm<br>Flowline<br>(ft)<br>910.21<br>907.14<br>907.14<br>905.86<br>905.20<br>904.90<br>905.20<br>904.90<br>903.32<br>896.00<br>894.73<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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loss<br>Rise in<br>Pipe<br>(ft)<br>2.96<br>1.94<br>0.53<br>0.32<br>0.20<br>1.59<br>1.02<br>0.21<br>2.73<br>6.52<br>4.35<br>6.90<br>3.97<br>0.60<br>0.13<br>unique form<br>Flowline<br>(ft)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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Pipe<br>Crown<br>(ft)<br>909.64<br>908.89<br>908.36<br>908.20<br>908.20<br>908.20<br>908.20<br>907.32<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>907.32<br>900.00<br>900.18<br>899.48<br>913.60<br>906.70<br>900.18<br>899.48                                                         
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| Intensity         "I"         (in/hr)         15.32         15.13         15.32         15.12         15.12         15.12         15.12         9.23         9.23         9.23         12.42         12.37         12.34         12.37         12.16         12.16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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G<br>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         36       0         36       0         36       0         36       0         36       0         36       0         37       0         38       0         39       0     < | Trunk Line I         Full Flow         Velocity         (fps)         .0164       13.89         .0366       20.78         .0050       7.68         .0051       7.74         .0032       6.91         .0430       30.80         .0510       14.86         .0101       14.97         .0502       24.33         .0503       24.35         .0049       8.60         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       8.67         .0050       9.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Pessign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         102.01         110.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         110.01         110.01         119.11         119.22         119.53         60.80         61.31         Full Flow         Velocity         (fps)         13.89         20.24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Actual Velocity G<br>(out) G<br>8.81 (0)<br>7.35 (0)<br>7.25 (0)<br>7.25 (0)<br>7.25 (0)<br>7.03 (0)<br>7.04 | lydraulic         Ivdraulic           Gradient         (Cons           0.0065         0.           0.0064         0.           0.0064         0.           0.0045         0.           0.0044         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0065         0.           0.0066         0.           0.0065         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0025         0.           0.0024         0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | "*" Indicates a         Junction/<br>MH         Loss         ant)       (feet)         5       0.3011         5       0.2939         6       0.2043         5       0.2043         5       0.1922         5       0.1910         5       0.1917         5       0.3047         5       0.3025         5       0.3011         5       0.3011         5       0.3011         5       0.3011         5       0.3011         5       0.1408                                                                                                     | n inlet lateral co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>910.28<br>909.58<br>909.10<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>900.10<br>899.48<br>900.18<br>899.48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Dwnstm<br>Flowline<br>(ft)<br>907.25<br>905.20<br>905.20<br>905.34<br>905.54<br>905.54<br>905.54<br>905.54<br>905.30<br>895.79<br>892.00<br>902.30<br>895.79<br>892.00<br>900.23<br>895.79<br>892.00<br>900.23<br>895.58<br>911.10<br>904.20<br>900.23<br>896.58<br>896.35<br>896.35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | h unique for<br>Vert<br>Adj<br>(ft)       | Upstrm<br>Flowline<br>(ft)<br>910.21<br>907.14<br>906.39<br>905.86<br>905.20<br>904.90<br>905.20<br>904.90<br>903.32<br>896.00<br>894.73<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>20<br>897.18<br>896.48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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in<br>Pipe<br>(ft)<br>2.96<br>1.94<br>0.53<br>0.32<br>0.20<br>1.59<br>1.02<br>0.21<br>2.73<br>6.52<br>4.35<br>6.90<br>3.97<br>0.60<br>0.13<br>Upstrm<br>Flowline<br>(ft)<br>910.21<br>907.14<br>0.22<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.21<br>0.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Pipe<br>Crown<br>(ft)<br>909.64<br>908.89<br>908.36<br>908.20<br>908.20<br>908.20<br>907.32<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>907.32<br>900.00<br>907.32<br>900.00<br>900.18<br>899.48<br>913.60<br>906.70<br>900.18<br>899.48<br>913.60<br>906.70<br>900.18<br>899.48<br>913.60<br>906.70<br>900.18<br>899.48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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of<br>MH/Inlet<br>Elevation<br>(ft)<br>915.50<br>916.32<br>916.32<br>912.00<br>912.00<br>912.00<br>912.00<br>910.98<br>910.81<br>907.55<br>9908.14<br>907.55<br>909.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>9008.14<br>900                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Cover<br>2.79<br>6.68<br>3.11<br>2.08<br>3.49<br>7.55<br>3.55<br>3.55<br>7.96                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | HGL                                                                      |
| STORM SEWER           100-yr Inten           a100 =           b100 =           C100 =           C100 =           MH           Area           DA-1B         Inlet /           MH           Area           DA-1B         Inlet A-1           MH 3A           DA         MH 1A           Wye 1         MH 2A           OS-1A         Pond           Bend 1B         MH 1B           DA-2         MH C1           Wye 1         MH 2A           OS-1A         Pond           Bend 2B         MH 1B           DA-2         MH C1           Wye 23         MH 2A           MY 20         Wye 23           MH 22         Inlet C-1           STORM SEV         25-yr           Area         In           Drainage         In           Area         F           MH 2A         In           In         In           DA-1B         In           In         In           In         In           In         In           In <t< td=""><td>a       100 yr         nsity = a/(t+b)^c         nsity = a/(t+b)^c         Inlet /         MH         &lt;</td><td>76.9         6.726         0.6554         7010         320         3.320         320         3.320         3.320         3.320         3.320         3.320         3.320         3.320         3.320         3.320         3.320         3.320         11.260         900         11.260         900         11.260         900         11.260         900         11.260         900         11.260         900         11.260         900         11.260         900         11.260         900         4.120         900         4.120         900         4.120         900         4.120         900         4.120         900         4.120         900         4.120         900         1.1260         90</td><td>Time    </td><td>Runoff           "C"           0.85           0.00           0.85           0.00           0.85           0.00           0.85           0.00           0.00           0.85           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00</td><td>C<br/>(Weighted)<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85<br/>0.85</td><td>Intensity<br/>"I"<br/>(in/hr)<br/>15.32<br/>15.13<br/>15.13<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>15.12<br/>12.37<br/>12.34<br/>12.37<br/>12.34<br/>12.37<br/>12.34<br/>12.37<br/>12.34<br/>12.37<br/>12.34<br/>12.30<br/>12.27<br/>12.34<br/>12.30<br/>12.27<br/>12.34<br/>12.30<br/>12.27<br/>12.34<br/>12.30<br/>12.37<br/>12.34<br/>12.30<br/>12.37<br/>12.34<br/>12.30<br/>12.37<br/>12.30<br/>12.37<br/>12.30<br/>12.30<br/>12.37<br/>12.30<br/>12.30<br/>12.37<br/>12.30<br/>12.30<br/>12.30<br/>12.37<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12.30<br/>12</td><td>Q100           (cfs)           43.23           42.71           42.71           36.07           35.61           35.35           42.71           36.07           35.61           43.33           88.36           43.33           43.33           43.23           43.43.9           43.33           43.23           43.43.9           43.43.9           43.43.9           43.43.9           143.57           143.9           143.9           143.9           11.62           11.49           11.49           11.43           11.40</td><td>Mannings     "n"       0.01     0       0.01     0       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1  
    0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01</td></t<> <td>Length     P       181.0     1       53.0     1       37.0     1       269.0     1       138.0     1       21.0     1       269.0     1       138.0     1       269.0     1       138.0     1       269.0     1       138.0     1       269.0     1       138.0     1       26.0     1       138.0     1       138.0     1       26.0     1       0.01     2       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1</td> <td>Dipe Diam.<br/>or Box Rise<br/>(in.)       G<br/>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0     &lt;</td> <td>Full Flow           Full Flow           irade         Full Flow           velocity           (fps)           .0164         13.89           .0366         20.78           .0050         7.68           .0051         7.74           .0032         6.91           .0430         30.80           .0510         33.56           .0101         14.97           .0502         24.33           .0503         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0500         24.35           .0049         8.60           .0050         8.67           .0050         8.67           .0050         0.14.86           .0050         8.67           .0050         8.67           .0050         0.016           .0050         0.016           .0050         0.016           .0050         0.016           .0050         0.016           .00         0.034           .01         .0005           .02         0.003</td> <td>Pesign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         102.01         110.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         102.01         119.11         119.22         119.53         60.80         61.31         119.53         60.80         61.31         Particle Particle</td> <td>Actual (000)<br/>Velocity (000)<br/>8.81 (000)<br/>8.870 (000)<br/>7.35 (000)<br/>7.35 (000)<br/>7.35 (000)<br/>7.03 (000)</td> <td>lydraulic<br/>Gradient<br/>(ft/ft)       K         0.0065       0.         0.0064       0.         0.0064       0.         0.0045       0.         0.0044       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0023       0.         0.0024       0.         0.0055       0.         0.0066       0.         0.0024       0.         0.0024       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0024       0.         0.0024       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0026       0.         0.0027       0.</td> <td>"*" Indicates a         Junction/<br/>MH         Loss         ant)       (feet)         5       0.3011         5       0.2939         6       0.2043         5       0.2043         5       0.1920         5       0.1920         5       0.19103375         5       0.19103375         5       0.19103375         5       0.3011         5       0.3025         5       0.3013         5       0.1920         5       0.1919         5       0.3011         5       0.1928         6       0.3025         5       0.1408</td> <td>n inlet lateral co<br/>Hydraulic<br/>Grade<br/>Elevation<br/>(ft)<br/>912.71<br/>909.64<br/>909.64<br/>910.28<br/>909.58<br/>909.10<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>10.28<br/>(feet)<br/>5<br/>0.1404<br/>5<br/>0.0977<br/>5<br/>0.0953<br/>5<br/>0.0453<br/>5</td> <td>Dwnstm         Flowline         (ft)         907.25         905.20         905.20         905.20         905.20         905.31         905.54         905.00         905.31         902.30         895.79         892.00         904.20         904.20         900.23         896.58         896.58         896.35</td> <td>h unique fo</td> <td>Upstrm<br/>Flowline<br/>(ft)<br/>910.21<br/>907.14<br/>906.39<br/>905.86<br/>905.20<br/>904.90<br/>905.20<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48</td> <td>Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60         0.13</td> <td>Pipe<br/>Crown<br/>(ft)<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>907.32<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>907.32<br/>900.00<br/>900.18<br/>899.48<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.84<br/>2.96<br/>1.94<br/>1.94<br/>1.94<br/>1.94<br/>1.94<br/>1.94<br/>1.94<br/>1.94</td> <td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)         915.50         916.32         916.32         916.32         916.32         912.00         912.00         910.81         907.55         910.81         907.55         910.81         907.55         910.98         910.81         907.55         908.814         908.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.15         909.16         909.16         909.16         909.16         909.16         909.16</td> <td>Cover<br/>2.79<br/>6.68<br/>3.11<br/>2.08<br/>3.49<br/>7.59<br/>3.59<br/>7.96<br/>7.96</td> <td>HGL<br/>2.49<br/>6.68<br/>3.11<br/>3.80</td>                                                                                    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C<br>(Weighted)<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85<br>0.85 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Intensity<br>"I"<br>(in/hr)<br>15.32<br>15.13<br>15.13<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>15.12<br>12.37<br>12.34<br>12.37<br>12.34<br>12.37<br>12.34<br>12.37<br>12.34<br>12.37<br>12.34<br>12.30<br>12.27<br>12.34<br>12.30<br>12.27<br>12.34<br>12.30<br>12.27<br>12.34<br>12.30<br>12.37<br>12.34<br>12.30<br>12.37<br>12.34<br>12.30<br>12.37<br>12.30<br>12.37<br>12.30<br>12.30<br>12.37<br>12.30<br>12.30<br>12.37<br>12.30<br>12.30<br>12.30<br>12.37<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12.30<br>12 | Q100           (cfs)           43.23           42.71 
         42.71           36.07           35.61           35.35           42.71           36.07           35.61           43.33           88.36           43.33           43.33           43.23           43.43.9           43.33           43.23           43.43.9           43.43.9           43.43.9           43.43.9           143.57           143.9           143.9           143.9           11.62           11.49           11.49           11.43           11.40                                                                                                                                                                                                                                                                                                                                                                   | Mannings     "n"       0.01     0       0.01     0       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1 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G<br>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0     < | Full Flow           Full Flow           irade         Full Flow           velocity           (fps)           .0164         13.89           .0366         20.78           .0050         7.68           .0051         7.74           .0032         6.91           .0430         30.80           .0510         33.56           .0101         14.97           .0502         24.33           .0503         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0500         24.35           .0049         8.60           .0050         8.67           .0050         8.67           .0050         0.14.86           .0050         8.67           .0050         8.67           .0050         0.016           .0050         0.016           .0050         0.016           .0050         0.016           .0050         0.016           .00         0.034           .01         .0005           .02         0.003                                                                                                                                                                                                                                                                                                                                                                                         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      102.01         102.01         102.01         102.01         119.11         119.22         119.53         60.80         61.31         119.53         60.80         61.31         Particle | Actual (000)<br>Velocity (000)<br>8.81 (000)<br>8.870 (000)<br>7.35 (000)<br>7.35 (000)<br>7.35 (000)<br>7.03 (000)                                                                                                                                                                                                                                                                                                                                                      | lydraulic<br>Gradient<br>(ft/ft)       K         0.0065       0.         0.0064       0.         0.0064       0.         0.0045       0.         0.0044       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0023       0.         0.0024       0.         0.0055       0.         0.0066       0.         0.0024      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                                                            | "*" Indicates a         Junction/<br>MH         Loss         ant)       (feet)         5       0.3011         5       0.2939         6       0.2043         5       0.2043         5       0.1920         5       0.1920         5       0.19103375         5       0.19103375         5       0.19103375         5       0.3011         5       0.3025         5       0.3013         5       0.1920         5       0.1919         5       0.3011         5       0.1928         6       0.3025         5       0.1408                    | n inlet lateral co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>909.64<br>910.28<br>909.58<br>909.10<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>900.18<br>899.48<br>917.95<br>913.60<br>906.70<br>906.70<br>900.18<br>899.48<br>917.95<br>913.60<br>906.70<br>900.18<br>899.48<br>10.28<br>(feet)<br>5<br>0.1404<br>5<br>0.0977<br>5<br>0.0953<br>5<br>0.0453<br>5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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900.23         896.58         896.58         896.35                                                                                                                                                                                                                                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | h unique fo                               | Upstrm<br>Flowline<br>(ft)<br>910.21<br>907.14<br>906.39<br>905.86<br>905.20<br>904.90<br>905.20<br>904.90<br>903.32<br>896.00<br>894.73<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>1<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60         0.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
Pipe<br>Crown<br>(ft)<br>909.64<br>908.89<br>908.36<br>908.20<br>908.20<br>908.20<br>907.32<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>907.32<br>900.00<br>900.18<br>899.48<br>913.60<br>906.70<br>900.18<br>899.48<br>913.60<br>906.70<br>900.18<br>899.48<br>913.60<br>906.70<br>900.18<br>899.48<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.84<br>2.96<br>1.94<br>1.94<br>1.94<br>1.94<br>1.94<br>1.94<br>1.94<br>1.94                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Top of<br>MH/Inlet<br>Elevation<br>(ft)         915.50         916.32         916.32         916.32         916.32         912.00         912.00         910.81         907.55         910.81         907.55         910.81         907.55         910.98         910.81         907.55         908.814         908.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.14         909.15         909.16         909.16         909.16         909.16         909.16         909.16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cover<br>2.79<br>6.68<br>3.11<br>2.08<br>3.49<br>7.59<br>3.59<br>7.96<br>7.96                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | HGL<br>2.49<br>6.68<br>3.11<br>3.80                                      |
| STORM SEWER           100-yr Inten           a100 =           b100 =           C100 =           C100 =           C100 =           MH           Area           DA-1B         Inlet A-1           MH 3A           DA-1B         MH 1A           Wye 1         MH 2A           DA-1A         MH 1A           Wye 1         MH 2A           OS-1A         Pond           Bend 1B         MH 1B           DA-2         MH C1           Wye 1         MH 2A           OS-1A         Pond           Bend 2B         MH 1B           DA-2         MH C1           Wye 23         MH 2A           MH 20         Wye 23           MH C2         Inlet C-1           STORM SEV         Inlet C-1           Drainage         Inlet C-1           Drainage         Inlet C-1           MH 2A         Inlet C-1           MH 2A         Inlet C-1           Inlet C-1         Inlet C-1           MH 2A         Inlet C-1           Inlet C-1         Inlet C-1           Inlet C-1         Inlet C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 100 yr         nsity = a/(t+b)^c         nsity = a/(t+b)^c         Inlet /         MH         MH </td <td>76.9           6.726           0.6554           Area           (acres)           320           3.320           000           3.320           000           2.770           2.770           2.770           2.770           2.770           000           2.770           000           2.770           000           11.260           000           11.260           000           11.260           000           11.260           000           11.20           000           11.20           000           12.20           4.120           000           12.20           4.120           000           4.120           000           4.120           000           4.120           000           4.120           000           4.120           000           2.770           &lt;</td> <td>Time       0         5.00       0         5.22       0         5.23       0         5.23       0         5.23       0         5.37       0         18.64       0         18.65       0         18.64       0         9.42       0         9.51       0         9.57       0         9.57       0         9.56       0         9.57       0         9.51       0         9.55       0         9.56       0         9.57       0         9.56       0         9.57       0         9.56       0         9.57       0         9.57       0         9.57       0         9.72       0         9.72       0         9.90       0         56       0         60       5.00         70       5.00         70       5.00         70       5.00         70       5.00         70       5.00</td> <td>Runoff           "C"           0.85           0.00           0.85           0.00           0.85           0.00           0.85           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00</td> <td>C (Weighted)  0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.8</td> <td>Intensity       " "         115.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         9.23       9         9.23       9         9.23       1         9.23       1         12.30       1         12.31       1         12.33       1         12.34       1         12.35       1         12.36       1         12.37       1         12.38       1         12.39       1         12.316       1         12.32       1         12.33       1         13.34       1         14.35       1         15.32       1         12.33       1         13.34       1         14.35       1         15.35       1         15.35</td> <td>Q100           (cfs)           43.23           43.23           42.71          
36.07           35.61           35.35           42.71           36.07           35.61           35.35           42.71           43.43           43.43           43.43           43.33           43.33           43.43.9           43.43.9           43.43.9           43.43.9           43.43.9           43.43.9           143.57           43.43.9           143.9           143.9           143.9           143.9           143.9           143.9           143.9           143.9           11.62           11.48           11.48           11.48           11.40           11.40           11.40           11.40           11.40           11.40           11.40           11.40           11.40           11.40</td> <td>Mannings         """           0.01         0           0.01         0           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1<td>Length     P       181.0     1       53.0     1       37.0     1       269.0     1       138.0     1       130.0     1       269.0     1       138.0     1       269.0     1       138.0     1       138.0     1       269.0     1       138.0     1       79.0     1       26.0     1       138.0     1       9     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.</td><td>Dipe Diam.<br/>or Box Rise<br/>(in.)       G<br/>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0     &lt;</td><td>Trunk Line I         Full Flow         irade       Full Flow         velocity         t./ft.)       (fps)         .0164       13.89         .0366       20.78         .0050       7.68         .0051       7.74         .0032       6.91         .0050       7.68         .0051       7.74         .0032       6.91         .0101       14.86         .0101       14.97         .0500       24.29         .0500       24.29         .0500       24.29         .0500       24.35         .0049       8.60         .0050       8.67         .0500       24.29         .0500       24.29         .0501       3.56         .0049       8.60         .0050       8.67         .0050       8.67         .0050       9.03         .0050       9.03         .0050       0.034         .0050       0.034         .0050       0.005         .0050       0.005         .0050       0.005         <t< td=""><td>Pesign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         48.85         102.01         387.08         48.85         119.41         119.22         119.41         119.23         60.80         61.31         Full Flow         Velocity         (fps)         4       13.89         7       20.24         0       7.68         1       7.74         0       33.56         0       33.56         0       33.56         0       33.56         0       14.97</td><td>Actual<br/>Velocity<br/>(out)       H         8.81       G         8.81       G         7.35       G         7.35       G         7.35       G         7.35       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         8.86       G         8.83       G         8.83       G         6.02       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.05       G         6.05       G         6.02       G         6.03       G         6.04       G         7       G         7       G         6.05       G</td><td>lydraulic         i           Gradient         (Cons           0.0065         0.           0.0065         0.           0.0064         0.           0.0044         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0023         0.           0.0065         0.           0.0065         0.           0.0065         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0026         0.           0.0027         0.</td><td>"*" Indicates a         Junction/<br/>MH         Loss         ant)       (feet)         5       0.3011         5       0.2096         6       0.2043         5       0.1920         5       0.1920         5       0.1920         5       0.1920         5       0.3011         5       0.3025         5       0.3013         5       0.3011         5       0.3011         5       0.3011         5       0.1919         6       0.298         6       0.3047         5       0.1408</td><td>n inlet lateral co<br/>Hydraulic<br/>Grade<br/>Elevation<br/>(ft)<br/>912.71<br/>909.64<br/>909.64<br/>910.28<br/>909.58<br/>909.10<br/>908.90<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>5<br/>0.0077<br/>5<br/>0.0977<br/>5<br/>0.0953<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>0.085</td><td>Dwnstm         Flowline         (ft)         907.25         905.20         905.20         905.20         905.20         905.31         905.54         905.30         903.31         902.30         895.79         892.00         901.10         904.20         901.31         904.20         900.23         896.58
        896.58         896.58         896.58         896.58         909.21         909.23         909.24         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.50         900.00</td><td>h unique fo</td><td>Upstrm<br/>Flowline<br/>(ft)<br/>910.21<br/>907.14<br/>906.39<br/>905.86<br/>905.20<br/>905.20<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>904.90<br/>903.32<br/>904.90<br/>903.42<br/>896.48<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>911.10<br/>904.20<br/>804.10<br/>904.20<br/>804.10<br/>904.20<br/>804.10<br/>904.20<br/>804.10<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.</td><td>Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60         0.13</td><td>Pipe<br/>Crown<br/>(ft)<br/>912.71<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>907.32<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>899.48<br/>900.18<br/>899.48<br/>900.18<br/>900.18<br/>899.48<br/>100.00<br/>900.18<br/>899.48<br/>100.00<br/>900.18<br/>80<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>9000</td><td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)           915.50           916.32           916.32           912.00           912.00           910.98           910.98           910.98           910.91           907.55           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.15    
<td>Cover<br/>2.79<br/>6.68<br/>3.11<br/>2.08<br/>3.49<br/>7.59<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96</td><td>HGL<br/>2.49<br/>6.68<br/>3.11<br/>3.80<br/>2.08<br/>3.49<br/>7.55</td></td></t<></td></td> | 76.9           6.726           0.6554           Area           (acres)           320           3.320           000           3.320           000           2.770           2.770           2.770           2.770           2.770           000           2.770           000           2.770           000           11.260           000           11.260           000           11.260           000           11.260           000           11.20           000           11.20           000           12.20           4.120           000           12.20           4.120           000           4.120           000           4.120           000           4.120           000           4.120           000           4.120           000           2.770           <                                                          | Time       0         5.00       0         5.22       0         5.23       0         5.23       0         5.23       0         5.37       0         18.64       0         18.65       0         18.64       0         9.42       0         9.51       0         9.57       0         9.57       0         9.56       0         9.57       0         9.51       0         9.55       0         9.56       0         9.57       0         9.56       0         9.57       0         9.56       0         9.57       0         9.57       0         9.57       0         9.72       0         9.72       0         9.90       0         56       0         60       5.00         70       5.00         70       5.00         70       5.00         70       5.00         70       5.00                                                                                                                                                                                                                                                                                                                                                                                                                                                  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      "C"           0.85           0.00           0.85           0.00           0.85           0.00           0.85           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00                                                                                                                                                                                                                                                                                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143.9           11.62           11.48           11.48           11.48           11.40           11.40           11.40           11.40           11.40           11.40           11.40           11.40           11.40           11.40                                                                                               | Mannings         """           0.01         0           0.01         0           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1 <td>Length     P       181.0     1       53.0     1       37.0     1       269.0     1       138.0     1       130.0     1       269.0     1       138.0     1       269.0     1       138.0     1       138.0     1       269.0     1       138.0     1       79.0     1       26.0     1       138.0     1       9     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.</td> <td>Dipe Diam.<br/>or Box Rise<br/>(in.)       G<br/>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0     &lt;</td> <td>Trunk Line I         Full Flow         irade       Full Flow         velocity         t./ft.)       (fps)         .0164       13.89         .0366       20.78         .0050       7.68         .0051       7.74         .0032       6.91         .0050       7.68         .0051       7.74         .0032       6.91         .0101       14.86         .0101       14.97         .0500       24.29         .0500       24.29         .0500       24.29         .0500       24.35         .0049       8.60         .0050       8.67         .0500       24.29         .0500       24.29         .0501       3.56         .0049       8.60         .0050       8.67         .0050       8.67         .0050       9.03         .0050       9.03         .0050       0.034         .0050       0.034         .0050       0.005         .0050       0.005         .0050       0.005         <t< td=""><td>Pesign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         48.85         102.01         387.08         48.85         119.41         119.22         119.41         119.23         60.80         61.31         Full Flow         Velocity         (fps)         4       13.89         7       20.24         0       7.68         1       7.74         0       33.56         0       33.56       
 0       33.56         0       33.56         0       14.97</td><td>Actual<br/>Velocity<br/>(out)       H         8.81       G         8.81       G         7.35       G         7.35       G         7.35       G         7.35       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         8.86       G         8.83       G         8.83       G         6.02       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.05       G         6.05       G         6.02       G         6.03       G         6.04       G         7       G         7       G         6.05       G</td><td>lydraulic         i           Gradient         (Cons           0.0065         0.           0.0065         0.           0.0064         0.           0.0044         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0023         0.           0.0065         0.           0.0065         0.           0.0065         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0026         0.           0.0027         0.</td><td>"*" Indicates a         Junction/<br/>MH         Loss         ant)       (feet)         5       0.3011         5       0.2096         6       0.2043         5       0.1920         5       0.1920         5       0.1920         5       0.1920         5       0.3011         5       0.3025         5       0.3013         5       0.3011         5       0.3011         5       0.3011         5       0.1919         6       0.298         6       0.3047         5       0.1408</td><td>n inlet lateral co<br/>Hydraulic<br/>Grade<br/>Elevation<br/>(ft)<br/>912.71<br/>909.64<br/>909.64<br/>910.28<br/>909.58<br/>909.10<br/>908.90<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>5<br/>0.0077<br/>5<br/>0.0977<br/>5<br/>0.0953<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>0.085</td><td>Dwnstm         Flowline         (ft)         907.25         905.20         905.20         905.20         905.20         905.31         905.54         905.30         903.31         902.30         895.79         892.00         901.10         904.20         901.31         904.20         900.23         896.58         896.58         896.58         896.58         896.58         909.21         909.23         909.24         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.50         900.00</td><td>h unique fo</td><td>Upstrm<br/>Flowline<br/>(ft)<br/>910.21<br/>907.14<br/>906.39<br/>905.86<br/>905.20<br/>905.20<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>904.90<br/>903.32<br/>904.90<br/>903.42<br/>896.48<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>911.10<br/>904.20<br/>804.10<br/>904.20<br/>804.10<br/>904.20<br/>804.10<br/>904.20<br/>804.10<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.</td><td>Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60        
0.13</td><td>Pipe<br/>Crown<br/>(ft)<br/>912.71<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>907.32<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>899.48<br/>900.18<br/>899.48<br/>900.18<br/>900.18<br/>899.48<br/>100.00<br/>900.18<br/>899.48<br/>100.00<br/>900.18<br/>80<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>9000</td><td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)           915.50           916.32           916.32           912.00           912.00           910.98           910.98           910.98           910.91           907.55           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.15     <td>Cover<br/>2.79<br/>6.68<br/>3.11<br/>2.08<br/>3.49<br/>7.59<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96</td><td>HGL<br/>2.49<br/>6.68<br/>3.11<br/>3.80<br/>2.08<br/>3.49<br/>7.55</td></td></t<></td> | Length     P       181.0     1       53.0     1       37.0     1       269.0     1       138.0     1       130.0     1       269.0     1       138.0     1       269.0     1       138.0     1       138.0     1       269.0     1       138.0     1       79.0     1       26.0     1       138.0     1       9     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.01     1       0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Dipe Diam.<br>or Box Rise<br>(in.)       G<br>(f         30       0         30       0         30  
    0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0     < | Trunk Line I         Full Flow         irade       Full Flow         velocity         t./ft.)       (fps)         .0164       13.89         .0366       20.78         .0050       7.68         .0051       7.74         .0032       6.91         .0050       7.68         .0051       7.74         .0032       6.91         .0101       14.86         .0101       14.97         .0500       24.29         .0500       24.29         .0500       24.29         .0500       24.35         .0049       8.60         .0050       8.67         .0500       24.29         .0500       24.29         .0501       3.56         .0049       8.60         .0050       8.67         .0050       8.67         .0050       9.03         .0050       9.03         .0050       0.034         .0050       0.034         .0050       0.005         .0050       0.005         .0050       0.005 <t< td=""><td>Pesign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         48.85         102.01         387.08         48.85         119.41         119.22         119.41         119.23         60.80         61.31         Full Flow         Velocity         (fps)         4       13.89         7       20.24         0       7.68         1       7.74         0       33.56         0       33.56         0       33.56         0       33.56         0       14.97</td><td>Actual<br/>Velocity<br/>(out)       H         8.81       G         8.81       G         7.35       G         7.35       G         7.35       G         7.35       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         8.86       G         8.83       G         8.83       G         6.02       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.05       G         6.05       G         6.02       G         6.03       G         6.04       G         7       G         7       G         6.05       G</td><td>lydraulic         i           Gradient         (Cons           0.0065         0.           0.0065         0.           0.0064         0.           0.0044         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0023         0.           0.0065         0.           0.0065         0.           0.0065         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0026         0.           0.0027         0.</td><td>"*" Indicates a         Junction/<br/>MH         Loss         ant)       (feet)         5       0.3011         5       0.2096         6       0.2043         5       0.1920         5       0.1920         5       0.1920         5       0.1920         5       0.3011         5       0.3025         5       0.3013         5       0.3011         5       0.3011         5       0.3011         5       0.1919         6       0.298         6       0.3047         5       0.1408</td><td>n inlet lateral co<br/>Hydraulic<br/>Grade<br/>Elevation<br/>(ft)<br/>912.71<br/>909.64<br/>909.64<br/>910.28<br/>909.58<br/>909.10<br/>908.90<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>5<br/>0.0077<br/>5<br/>0.0977<br/>5<br/>0.0953<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>0.085</td><td>Dwnstm         Flowline         (ft)         907.25         905.20         905.20         905.20         905.20         905.31         905.54         905.30         903.31         902.30         895.79         892.00         901.10         904.20         901.31         904.20         900.23         896.58         896.58         896.58         896.58         896.58         909.21         909.23         909.24         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.50         900.00</td><td>h unique
fo</td><td>Upstrm<br/>Flowline<br/>(ft)<br/>910.21<br/>907.14<br/>906.39<br/>905.86<br/>905.20<br/>905.20<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>904.90<br/>903.32<br/>904.90<br/>903.42<br/>896.48<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>921.97<br/>915.45<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>1<br/>911.10<br/>904.20<br/>804.10<br/>904.20<br/>804.10<br/>904.20<br/>804.10<br/>904.20<br/>804.10<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.20<br/>905.</td><td>Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60         0.13</td><td>Pipe<br/>Crown<br/>(ft)<br/>912.71<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>907.32<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>899.48<br/>900.18<br/>899.48<br/>900.18<br/>900.18<br/>899.48<br/>100.00<br/>900.18<br/>899.48<br/>100.00<br/>900.18<br/>80<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.18<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>100.00<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>900.10<br/>9000</td><td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)           915.50           916.32           916.32           912.00           912.00           910.98           910.98           910.98           910.91           907.55           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.15    
<td>Cover<br/>2.79<br/>6.68<br/>3.11<br/>2.08<br/>3.49<br/>7.59<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96</td><td>HGL<br/>2.49<br/>6.68<br/>3.11<br/>3.80<br/>2.08<br/>3.49<br/>7.55</td></td></t<> | Pesign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         48.85         102.01         387.08         48.85         119.41         119.22         119.41         119.23         60.80         61.31         Full Flow         Velocity         (fps)         4       13.89         7       20.24         0       7.68         1       7.74         0       33.56         0       33.56         0       33.56         0       33.56         0       14.97                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Actual<br>Velocity<br>(out)       H         8.81       G         8.81       G         7.35       G         7.35       G         7.35       G         7.35       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         8.86       G         8.83       G         8.83       G         6.02       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.05       G         6.05       G         6.02       G         6.03       G         6.04       G         7       G         7       G         6.05       G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | lydraulic         i           Gradient         (Cons           0.0065         0.           0.0065         0.           0.0064         0.           0.0044         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0022         0.           0.0023         0.           0.0065         0.           0.0065         0.           0.0065         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0024         0.           0.0025         0.           0.0024         0.           0.0025         0.           0.0026         0.           0.0027         0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | "*" Indicates a         Junction/<br>MH         Loss         ant)       (feet)         5       0.3011         5       0.2096         6       0.2043         5       0.1920         5       0.1920         5       0.1920         5       0.1920         5       0.3011         5       0.3025         5       0.3013         5       0.3011         5       0.3011         5       0.3011         5       0.1919         6       0.298         6       0.3047         5       0.1408                                                        | n inlet lateral
co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>909.64<br>910.28<br>909.58<br>909.10<br>908.90<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>900.18<br>899.48<br>917.95<br>913.60<br>906.70<br>906.70<br>900.18<br>899.48<br>917.95<br>913.60<br>906.70<br>900.18<br>899.48<br>917.95<br>913.60<br>906.70<br>900.18<br>899.48<br>5<br>0.0077<br>5<br>0.0977<br>5<br>0.0953<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.085<br>5<br>0.085<br>5<br>0.085<br>5<br>0.085<br>0.085          | Dwnstm         Flowline         (ft)         907.25         905.20         905.20         905.20         905.20         905.31         905.54         905.30         903.31         902.30         895.79         892.00         901.10         904.20         901.31         904.20         900.23         896.58         896.58         896.58         896.58         896.58         909.21         909.23         909.24         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.54         909.50         900.00                                                                                                                                                                                                                                                         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Upstrm<br>Flowline<br>(ft)<br>910.21<br>907.14<br>906.39<br>905.86<br>905.20<br>905.20<br>904.90<br>903.32<br>896.00<br>894.73<br>904.90<br>903.32<br>904.90<br>903.42<br>896.48<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>911.10<br>904.20<br>897.18<br>896.48<br>1<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>1<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>1<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>1<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>1<br>921.97<br>915.45<br>911.10<br>904.20<br>897.18<br>896.48<br>1<br>911.10<br>904.20<br>804.10<br>904.20<br>804.10<br>904.20<br>804.10<br>904.20<br>804.10<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905.20<br>905. | Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60         0.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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Pipe<br>Crown<br>(ft)<br>912.71<br>909.64<br>908.89<br>908.36<br>908.20<br>908.20<br>908.20<br>907.32<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>899.48<br>900.18<br>899.48<br>900.18<br>900.18<br>899.48<br>100.00<br>900.18<br>899.48<br>100.00<br>900.18<br>80<br>900.18<br>100.00<br>900.18<br>100.00<br>900.18<br>100.00<br>900.18<br>100.00<br>900.18<br>100.00<br>900.18<br>100.00<br>900.18<br>100.00<br>900.18<br>100.00<br>900.18<br>100.00<br>900.10<br>100.00<br>900.10<br>100.00<br>900.10<br>100.00<br>900.10<br>100.00<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>900.10<br>9000 | Top of<br>MH/Inlet<br>Elevation<br>(ft)           915.50           916.32           916.32           912.00           912.00           910.98           910.98           910.98           910.91           907.55           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.15 <td>Cover<br/>2.79<br/>6.68<br/>3.11<br/>2.08<br/>3.49<br/>7.59<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96</td> <td>HGL<br/>2.49<br/>6.68<br/>3.11<br/>3.80<br/>2.08<br/>3.49<br/>7.55</td> |
Cover<br>2.79<br>6.68<br>3.11<br>2.08<br>3.49<br>7.59<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96                                                                                                                                 | HGL<br>2.49<br>6.68<br>3.11<br>3.80<br>2.08<br>3.49<br>7.55              |
| STORM SEWER           100-yr Inten           a100 =           b100 =           C100 =           C100 =           0           Drainage         Inlet /           MH           Area         From           DA-1B         Inlet A-1           MH 3A         MH           DA-1A         MH 1A           Wye 1         MH 2A           OS-1A         Pond           Bend 1B         MH 1B           DA-2         MH C1           Wye 23         MH 2A           DA-2         MH 2A           MH 1B         Bend 2B           DA-2         MH 2A           Wye C1         Wye C2           Wye C2         Wye C3           MH C2         Inlet C-1           DA-2         MH C2           Inlet C-1         In           Da         MH 2A           MH C2         MH C2           Inlet C-1         In           MH C2         MH C2           Inlet C-1         M           MA         M           MA         M           M         M <t< td=""><td>$\frac{100 \text{ yr}}{100 \text{ yr}}$ $\frac{100 \text{ yr}}{100 \text{ yr}}$</td><td>76.9         6.726         0.6554         Area         (acres)         320         3.320         000         3.320         000         2.770         2.770         2.770         000         2.770         000         2.770         000         2.770         000         11.260         000         11.260         000         11.260         000         11.260         000         11.260         000         11.260         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         0.664.         7.3         0.000         3.320         3.320         3.320         3.320         3.3320         0.0</td><td>Time         Conc.         (min)         5.00         5.22         5.37         5.37         5.37         18.64         18.64         18.64         18.64         18.65         9.42         9.51         9.52         9.57         9.57         9.57         9.57         9.57         9.51         9.52         9.53         9.54         9.55         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.50         5.00         20         5.00         20         5.00         20         5.00         20         5.00      <tr< td=""><td>Runoff           "C"           0.85           0.00           0.85           0.00           0.85           0.00           0.85           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00</td><td>C (Weighted)  0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.8</td><td>Intensity       " "         (in/hr)       15.32         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         9.23       9         9.23       9         9.23       1         9.23       1         12.30       1         12.34       1         12.35       1         12.34       1         12.35       1         0.77       1         12.36       1         12.37       1         12.38       1         12.39       1         12.30       1         12.316       1         12.33       1         13.34       1         14.35       1         15.32       1         12.316       1         13.35       1         14.35       1         15.35       1         16.77</td><td>Q100         (cfs)           43.23         4           43.23         4           42.711         1           36.07         3           35.61         3           35.35         1           38.36         1           38.38         1           43.23         4           43.43         1           43.33         1           43.33         1           43.33         1           43.43.97         1           43.33         1           43.43.97         1           43.43.97         1           143.57         1           143.57         1           143.97         1           143.91         1           143.91         1           11.62         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1</td><td>Mannings         """           0.01         0           0.01         0           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1<td>Length         P           181.0         1           53.0         1           106.0         1           37.0         1           20.0         1           21.0         1           138.0         1           138.0         1           269.0         1           138.0         1           269.0         1           26.0         1           37.0         1           26.0         1           0.01         2           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1&lt;</td><td>Dipe Diam.<br/>or Box Rise<br/>(in.)       G<br/>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         48       0         48       0         48       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0     &lt;</td><td>Full Flow           Full Flow           irade         Full Flow           velocity           (fps)           .0164         13.89           .0366         20.78           .0050         7.68           .0051         7.74           .0032         6.91           .0430         30.80           .0510         7.74           .0051         7.74           .0052         24.33           .0500         24.29           .0500         24.29           .0501         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0500         24.29           .0503         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0501         24.35           .0049         8.60           .0050         8.67           .0050         0.016           .0050         0.005           .0050         0.005           .0050         0.005           .00         0.005</td><td>Pesign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         421.68         119.41         119.22         119.41         119.53         60.80         61.31         Full Flow         Velocity         (fps)         Full Flow         Velocity         7       20.24         6       33.80         60.80         61.31         9       20.24         9       20.24         13.89         7       20.24         0       33.56         0       33.56         14.86       14.97         12       24.33         14.86       14.86         14.86       14.86         14.86       14.86         14.86       14.86</td><td>Actual<br/>Velocity<br/>(out)       H         8.81       G         8.81       G         7.35       G         7.35       G         7.35       G         7.35       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         8.86       G         8.83       G         8.83       G         6.02       G         6.03       G         6.04       G         6.05       G         6.06       G         6.07       G         6.08       G         6.09       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.05       G         7       G         7       G         6.02       G</td><td>Jydraulic<br/>Gradient<br/>(ft/ft)       (Cons         0.0065       0.         0.0064       0.         0.0064       0.         0.004       0.         0.0045       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0065       0.        
0.0065       0.         0.0065       0.         0.0065       0.         0.0024       0.         0.0025       0.         0.0065       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0024       0.         0.0024       0.         0.0024       0.         1       5.94         1       5.92         1       3.42         1       4.80         1       4.80         1       4.80         4.80       1</td><td>"*" Indicates a         Junction/<br/>MH         Loss         ant)       (feet)         5       0.3011         5       0.2096         6       0.2043         6       0.1920         5       0.1920         5       0.1920         5       0.1917         6       0.3047         5       0.3011         5       0.3013         5       0.1920         5       0.1913375         5       0.3011         5       0.3011         5       0.1408         6       0.2988         6       0.1405         6       0.2010         0.1030       0.1408</td><td>n inlet lateral co<br/>Hydraulic<br/>Grade<br/>Elevation<br/>(ft)<br/>912.71<br/>909.64<br/>910.28<br/>909.58<br/>909.10<br/>908.90<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>5<br/>0.009<br/>5<br/>0.1404<br/>5<br/>0.0977<br/>5<br/>0.0977<br/>5<br/>0.0953<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0</td><td></td><td>h unique fo<br/>Vert<br/>Adj<br/>(ft)</td><td>Upstrm<br/>Flowline<br/>(ft)<br/>910.21<br/>907.14<br/>906.39<br/>905.86<br/>905.20<br/>905.20<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>904.90<br/>903.32<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>80<br/>80<br/>91.10<br/>904.20<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80</td><td>Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60         0.13         4.35         6.90         3.97         0.60         0.13         906.39         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86<!--</td--><td>Pipe<br/>Crown<br/>(ft)<br/>912.71<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>900.18<br/>899.48<br/>900.18<br/>906.70<br/>900.18<br/>899.48<br/>900.18<br/>899.48<br/>0.53<br/>900.18<br/>899.48<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.10<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>1</td><td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)           915.50           916.32           916.32           912.00           912.00           910.98           910.98           910.81           907.55           910.98           910.81           907.55           910.98           910.98           907.55           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14    
</td></td></td></tr<><td>Cover<br/>2.79<br/>6.68<br/>3.11<br/>2.08<br/>3.49<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96</td><td>HGL<br/>1<br/>2.49<br/>6.68<br/>3.11<br/>3.80<br/>2.08<br/>3.49<br/>7.55<br/>3.55</td></td></t<> | $\frac{100 \text{ yr}}{100 \text{ yr}}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 76.9         6.726         0.6554         Area         (acres)         320         3.320         000         3.320         000         2.770         2.770         2.770         000         2.770         000         2.770         000         2.770         000         11.260         000         11.260         000         11.260         000         11.260         000         11.260         000         11.260         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         000         4.120         0.664.         7.3         0.000         3.320         3.320         3.320         3.320         3.3320         0.0                                                                                                                          | Time         Conc.         (min)         5.00         5.22         5.37         5.37         5.37         18.64         18.64         18.64         18.64         18.65         9.42         9.51         9.52         9.57         9.57         9.57         9.57         9.57         9.51         9.52         9.53         9.54         9.55         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.57         9.50         5.00         20         5.00         20         5.00         20         5.00         20         5.00 <tr< td=""><td>Runoff           "C"           0.85           0.00           0.85           0.00           0.85           0.00           0.85           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00</td><td>C (Weighted)  0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.8</td><td>Intensity       " "         (in/hr)       15.32         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         9.23       9         9.23       9         9.23       1         9.23       1         12.30       1         12.34       1         12.35       1         12.34       1         12.35       1         0.77       1         12.36       1         12.37       1         12.38       1         12.39       1         12.30       1         12.316       1         12.33       1         13.34       1         14.35       1         15.32       1         12.316       1         13.35       1         14.35       1         15.35       1         16.77</td><td>Q100         (cfs)           43.23         4           43.23         4           42.711         1           36.07         3           35.61         3           35.35         1           38.36         1           38.38         1           43.23         4           43.43         1           43.33         1           43.33         1           43.33         1           43.43.97         1           43.33         1           43.43.97         1           43.43.97         1           143.57         1           143.57         1           143.97         1           143.91         1           143.91         1           11.62         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1</td><td>Mannings         """           0.01         0           0.01         0           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01        
1<td>Length         P           181.0         1           53.0         1           106.0         1           37.0         1           20.0         1           21.0         1           138.0         1           138.0         1           269.0         1           138.0         1           269.0         1           26.0         1           37.0         1           26.0         1           0.01         2           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1&lt;</td><td>Dipe Diam.<br/>or Box Rise<br/>(in.)       G<br/>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         48       0         48       0         48       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0     &lt;</td><td>Full Flow           Full Flow           irade         Full Flow           velocity           (fps)           .0164         13.89           .0366         20.78           .0050         7.68           .0051         7.74           .0032         6.91           .0430         30.80           .0510         7.74           .0051         7.74           .0052         24.33           .0500         24.29           .0500         24.29           .0501         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0500         24.29           .0503         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0501         24.35           .0049         8.60           .0050         8.67           .0050         0.016           .0050         0.005           .0050         0.005           .0050         0.005           .00         0.005</td><td>Pesign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         421.68         119.41         119.22         119.41         119.53         60.80         61.31         Full Flow         Velocity         (fps)         Full Flow         Velocity         7       20.24         6       33.80         60.80         61.31         9       20.24         9       20.24         13.89         7       20.24         0       33.56         0       33.56         14.86       14.97         12       24.33         14.86       14.86         14.86       14.86         14.86       14.86         14.86       14.86</td><td>Actual<br/>Velocity<br/>(out)       H         8.81       G         8.81       G         7.35       G         7.35       G         7.35       G         7.35       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         8.86       G         8.83       G         8.83       G         6.02       G         6.03       G         6.04       G         6.05       G         6.06       G         6.07       G         6.08       G         6.09       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.05       G         7       G         7       G         6.02       G</td><td>Jydraulic<br/>Gradient<br/>(ft/ft)       (Cons         0.0065       0.         0.0064       0.         0.0064       0.         0.004       0.         0.0045       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0024       0.         0.0025       0.         0.0065       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0024       0.         0.0024       0.         0.0024       0.         1       5.94         1       5.92         1       3.42         1       4.80         1       4.80         1       4.80         4.80       1</td><td>"*" Indicates a         Junction/<br/>MH         Loss         ant)       (feet)         5       0.3011         5       0.2096         6       0.2043         6       0.1920         5       0.1920         5       0.1920         5       0.1917         6       0.3047         5       0.3011         5       0.3013         5       0.1920         5       0.1913375         5       0.3011         5       0.3011         5       0.1408         6       0.2988         6       0.1405         6       0.2010         0.1030       0.1408</td><td>n inlet lateral co<br/>Hydraulic<br/>Grade<br/>Elevation<br/>(ft)<br/>912.71<br/>909.64<br/>910.28<br/>909.58<br/>909.10<br/>908.90<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>5<br/>0.009<br/>5<br/>0.1404<br/>5<br/>0.0977<br/>5<br/>0.0977<br/>5<br/>0.0953<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0</td><td></td><td>h unique fo<br/>Vert<br/>Adj<br/>(ft)</td><td>Upstrm<br/>Flowline<br/>(ft)<br/>910.21<br/>907.14<br/>906.39<br/>905.86<br/>905.20<br/>905.20<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>904.90<br/>903.32<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>80<br/>80<br/>91.10<br/>904.20<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80</td><td>Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60         0.13         4.35         6.90         3.97         0.60         0.13         906.39         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86        
905.86<!--</td--><td>Pipe<br/>Crown<br/>(ft)<br/>912.71<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>900.18<br/>899.48<br/>900.18<br/>906.70<br/>900.18<br/>899.48<br/>900.18<br/>899.48<br/>0.53<br/>900.18<br/>899.48<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.10<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>1</td><td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)           915.50           916.32           916.32           912.00           912.00           910.98           910.98           910.81           907.55           910.98           910.81           907.55           910.98           910.98           907.55           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14     </td></td></td></tr<> <td>Cover<br/>2.79<br/>6.68<br/>3.11<br/>2.08<br/>3.49<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96<br/>7.96</td> <td>HGL<br/>1<br/>2.49<br/>6.68<br/>3.11<br/>3.80<br/>2.08<br/>3.49<br/>7.55<br/>3.55</td> | Runoff           "C"           0.85           0.00           0.85           0.00           0.85           0.00           0.85           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00           0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | C (Weighted)  0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Intensity       " "         (in/hr)       15.32         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         15.32       1         9.23       9         9.23       9         9.23       1         9.23       1         12.30       1         12.34       1         12.35       1         12.34       1         12.35       1         0.77       1         12.36       1         12.37       1         12.38       1         12.39       1         12.30       1         12.316       1         12.33       1         13.34       1         14.35       1         15.32       1         12.316       1         13.35       1         14.35       1         15.35       1         16.77                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Q100         (cfs)           43.23         4           43.23         4           42.711         1           36.07         3           35.61         3           35.35         1           38.36         1           38.38         1           43.23         4           43.43         1           43.33         1           43.33         1           43.33         1           43.43.97         1           43.33         1           43.43.97         1           43.43.97         1           143.57         1           143.57         1           143.97         1           143.91         1           143.91         1           11.62         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1           11.43         1 | Mannings         """           0.01         0           0.01         0           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1 <td>Length         P           181.0         1           53.0         1           106.0         1           37.0         1           20.0         1           21.0         1           138.0         1           138.0         1           269.0         1           138.0         1           269.0         1           26.0         1           37.0         1           26.0         1           0.01         2           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01    
    1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1&lt;</td> <td>Dipe Diam.<br/>or Box Rise<br/>(in.)       G<br/>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         48       0         48       0         48       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0     &lt;</td> <td>Full Flow           Full Flow           irade         Full Flow           velocity           (fps)           .0164         13.89           .0366         20.78           .0050         7.68           .0051         7.74           .0032         6.91           .0430         30.80           .0510         7.74           .0051         7.74           .0052         24.33           .0500         24.29           .0500         24.29           .0501         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0500         24.29           .0503         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0501         24.35           .0049         8.60           .0050         8.67           .0050         0.016           .0050         0.005           .0050         0.005           .0050         0.005           .00         0.005</td> <td>Pesign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         421.68         119.41         119.22         119.41         119.53         60.80         61.31         Full Flow         Velocity         (fps)         Full Flow         Velocity         7       20.24         6       33.80         60.80         61.31         9       20.24         9       20.24         13.89         7       20.24         0       33.56         0       33.56         14.86       14.97         12       24.33         14.86       14.86         14.86       14.86         14.86       14.86         14.86       14.86</td> <td>Actual<br/>Velocity<br/>(out)       H         8.81       G         8.81       G         7.35       G         7.35       G         7.35       G         7.35       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         8.86       G         8.83       G         8.83       G         6.02       G         6.03       G         6.04       G         6.05       G         6.06       G         6.07       G         6.08       G         6.09       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.05       G         7       G         7       G         6.02       G</td> <td>Jydraulic<br/>Gradient<br/>(ft/ft)       (Cons         0.0065       0.         0.0064       0.         0.0064       0.         0.004       0.         0.0045       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0024       0.         0.0025       0.         0.0065       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0024       0.         0.0024       0.         0.0024       0.         1       5.94         1       5.92         1       3.42         1       4.80         1       4.80         1       4.80         4.80       1</td> <td>"*" Indicates a         Junction/<br/>MH         Loss         ant)       (feet)         5       0.3011         5       0.2096         6       0.2043         6       0.1920         5       0.1920         5       0.1920         5       0.1917         6       0.3047         5       0.3011         5       0.3013         5       0.1920         5       0.1913375         5       0.3011         5       0.3011         5       0.1408         6       0.2988         6       0.1405         6       0.2010         0.1030       0.1408</td> <td>n inlet lateral co<br/>Hydraulic<br/>Grade<br/>Elevation<br/>(ft)<br/>912.71<br/>909.64<br/>910.28<br/>909.58<br/>909.10<br/>908.90<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.00<br/>898.73<br/>907.32<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>906.70<br/>900.18<br/>899.48<br/>917.95<br/>913.60<br/>906.70<br/>900.18<br/>899.48<br/>5<br/>0.009<br/>5<br/>0.1404<br/>5<br/>0.0977<br/>5<br/>0.0977<br/>5<br/>0.0953<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.0895<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0.085<br/>5<br/>0</td> <td></td> <td>h unique fo<br/>Vert<br/>Adj<br/>(ft)</td> <td>Upstrm<br/>Flowline<br/>(ft)<br/>910.21<br/>907.14<br/>906.39<br/>905.86<br/>905.20<br/>905.20<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>904.90<br/>903.32<br/>904.90<br/>903.32<br/>896.00<br/>894.73<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>911.10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>897.18<br/>896.48<br/>10<br/>904.20<br/>80<br/>80<br/>91.10<br/>904.20<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80<br/>80</td> <td>Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60         0.13         4.35         6.90         3.97         0.60         0.13         906.39         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86        
905.86<!--</td--><td>Pipe<br/>Crown<br/>(ft)<br/>912.71<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>900.18<br/>899.48<br/>900.18<br/>906.70<br/>900.18<br/>899.48<br/>900.18<br/>899.48<br/>0.53<br/>900.18<br/>899.48<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.10<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>1</td><td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)           915.50           916.32           916.32           912.00           912.00           910.98           910.98           910.81           907.55           910.98           910.81           907.55           910.98           910.98           907.55           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14     </td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Length         P           181.0         1           53.0         1           106.0         1           37.0         1           20.0         1           21.0         1           138.0         1           138.0         1           269.0         1           138.0         1           269.0         1           26.0         1           37.0         1           26.0         1           0.01         2           0.01         1
          0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1           0.01         1<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Dipe Diam.<br>or Box Rise<br>(in.)       G<br>(f         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         36       0         48       0         48       0         48       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0         30       0     < | Full Flow           Full Flow           irade         Full Flow           velocity           (fps)           .0164         13.89           .0366         20.78           .0050         7.68           .0051         7.74           .0032         6.91           .0430         30.80           .0510         7.74           .0051         7.74           .0052         24.33           .0500         24.29           .0500         24.29           .0501         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0500         24.29           .0503         24.35           .0049         8.60           .0050         8.67           .0500         24.29           .0501         24.35           .0049         8.60           .0050         8.67           .0050         0.016           .0050         0.005           .0050         0.005           .0050         0.005           .00         0.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Pesign         Full Flow         Capacity         (cfs)         68.18         102.01         37.70         38.00         48.85         421.68         119.41         119.22         119.41         119.53         60.80         61.31         Full Flow         Velocity         (fps)         Full Flow         Velocity         7       20.24         6       33.80         60.80         61.31         9       20.24         9       20.24         13.89         7       20.24         0       33.56         0       33.56         14.86       14.97         12       24.33         14.86       14.86         14.86       14.86         14.86       14.86         14.86       14.86                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Actual<br>Velocity<br>(out)       H         8.81       G         8.81       G         7.35       G         7.35       G         7.35       G         7.35       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         7.03       G         8.86       G         8.83       G         8.83       G         6.02       G         6.03       G         6.04       G         6.05       G         6.06       G         6.07       G         6.08       G         6.09       G         6.02       G         6.03       G         6.04       G         6.05       G         6.02       G         6.03       G         6.04       G         6.05       G         6.05       G         7       G         7       G         6.02       G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Jydraulic<br>Gradient<br>(ft/ft)       (Cons         0.0065       0.         0.0064       0.         0.0064       0.         0.004       0.         0.0045       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0022       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0065       0.         0.0024       0.         0.0025       0.         0.0065       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0025       0.         0.0024       0.         0.0024       0.         0.0024       0.         0.0024       0.         1       5.94         1       5.92         1       3.42         1       4.80         1       4.80         1       4.80         4.80       1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | "*" Indicates a         Junction/<br>MH         Loss         ant)       (feet)         5       0.3011         5       0.2096         6       0.2043         6       0.1920         5       0.1920         5       0.1920         5       0.1917         6       0.3047         5       0.3011         5       0.3013         5       0.1920         5       0.1913375         5       0.3011         5       0.3011         5       0.1408         6       0.2988         6       0.1405         6       0.2010         0.1030       0.1408 | n inlet lateral
co<br>Hydraulic<br>Grade<br>Elevation<br>(ft)<br>912.71<br>909.64<br>910.28<br>909.58<br>909.10<br>908.90<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.00<br>898.73<br>907.32<br>900.18<br>899.48<br>917.95<br>913.60<br>906.70<br>906.70<br>900.18<br>899.48<br>917.95<br>913.60<br>906.70<br>900.18<br>899.48<br>5<br>0.009<br>5<br>0.1404<br>5<br>0.0977<br>5<br>0.0977<br>5<br>0.0953<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.0895<br>5<br>0.085<br>5<br>0.085<br>5<br>0.085<br>5<br>0.085<br>5<br>0.085<br>5<br>0 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Upstrm<br>Flowline<br>(ft)<br>910.21<br>907.14<br>906.39<br>905.86<br>905.20<br>905.20<br>904.90<br>903.32<br>896.00<br>894.73<br>904.90<br>903.32<br>904.90<br>903.32<br>896.00<br>894.73<br>911.10<br>904.20<br>897.18<br>896.48<br>911.10<br>904.20<br>897.18<br>896.48<br>911.10<br>904.20<br>897.18<br>896.48<br>911.10<br>904.20<br>897.18<br>896.48<br>10<br>904.20<br>897.18<br>896.48<br>10<br>904.20<br>897.18<br>896.48<br>10<br>904.20<br>897.18<br>896.48<br>10<br>904.20<br>80<br>80<br>91.10<br>904.20<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Rise in         Pipe         (ft)         2.96         1.94         0.53         0.32         0.20         1.59         1.02         0.21         2.73         6.52         4.35         6.90         3.97         0.60         0.13         4.35         6.90         3.97         0.60         0.13         906.39         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86         905.86 </td
<td>Pipe<br/>Crown<br/>(ft)<br/>912.71<br/>909.64<br/>908.89<br/>908.36<br/>908.20<br/>908.20<br/>908.20<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>898.73<br/>900.00<br/>900.18<br/>899.48<br/>900.18<br/>906.70<br/>900.18<br/>899.48<br/>900.18<br/>899.48<br/>0.53<br/>900.18<br/>899.48<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.10<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>900.18<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>100<br/>1</td> <td>Top of<br/>MH/Inlet<br/>Elevation<br/>(ft)           915.50           916.32           916.32           912.00           912.00           910.98           910.98           910.81           907.55           910.98           910.81           907.55           910.98           910.98           907.55           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14     </td> | Pipe<br>Crown<br>(ft)<br>912.71<br>909.64<br>908.89<br>908.36<br>908.20<br>908.20<br>908.20<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>898.73<br>900.00<br>900.18<br>899.48<br>900.18<br>906.70<br>900.18<br>899.48<br>900.18<br>899.48<br>0.53<br>900.18<br>899.48<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.10<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>900.18<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Top of<br>MH/Inlet<br>Elevation<br>(ft)           915.50           916.32           916.32           912.00           912.00           910.98           910.98           910.81           907.55           910.98           910.81           907.55           910.98           910.98           907.55           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14           908.14                                                                                                                                                                                                                                                       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Cover<br>2.79<br>6.68<br>3.11<br>2.08<br>3.49<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96<br>7.96 | HGL<br>1<br>2.49<br>6.68<br>3.11<br>3.80<br>2.08<br>3.49<br>7.55<br>3.55 |

K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 POND.dwg cbarczi: August 26, 2024

NTS

![](_page_67_Figure_2.jpeg)

![](_page_67_Figure_3.jpeg)

![](_page_68_Figure_0.jpeg)

![](_page_68_Figure_3.jpeg)

![](_page_69_Figure_0.jpeg)

![](_page_69_Figure_2.jpeg)

CONCRETE RIP-RAP FOR SLOPES

(NTS)

OF	TERRA HALONA, LLC		No. Date	REVISIONS	App.
42	S BELL COMMERCIAL	S GEN			
iU.	1005 S BELL BLVD	Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-2320 & 10046100 3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493			
3		A SCALE: AS SHOWN DESIGNED BY JUE			
9		DATE: U2 - AUGUST 2024 CHECKED BY: GNR			
		JOB NO.: 28106-0001-02 DRAWN BY: CCB			
		24			

![](_page_70_Figure_0.jpeg)

K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 DETAILS.dwg cbarczi: August 26, 2024

![](_page_70_Figure_6.jpeg)

![](_page_71_Figure_0.jpeg)


# Attachment N: Inspection, Maintenance, Repair, and Retrofit Plan

#### CZP - ATTACHMENT N

#### Inspection, Maintenance, Repair, and Retrofit Plan

Project:	S Bell Blvd Commercial
Address:	1005 S Bell Blvd.
City, State, Zip:	Cedar Park, Texas, 78613

#### **General Site Maintenance**

The following guidelines should be used as an inspection and maintenance plan that should be performed at least twice annually:

- (1) Identify, replant, and restore eroded areas. Add a level spreader, energy dissipation, or other repairs as required to ensure that erosion is not repeated.
- (2) Identify areas that do not have acceptable vegetated covers (80% or higher for most BMPs). Reseed, add soil, and irrigate as required to ensure that coverage requirements are met.
- (3) Mow sites twice annually and as required to keep grass height under 18 inches. Additional mowing may be performed for site aesthetics. Export clippings from site to prevent release of nutrients from decaying plant matter. Remove any woody growth, especially from embankments, berms, and swales. For swales, grass should not be regularly mowed below four inches.
- (4) Use non-chemical methods for maintaining health of vegetation. Pesticides, herbicides, or fertilizers should only be used as a last option, and then as minimally as possible. Fertilizer should rarely be required because runoff will typically contain sufficient nutrient loads.
- (5) Irrigation may be required in order to maintain acceptable levels of vegetated coverage, especially for engineered vegetated strips.
- (6) Never deposit grass clippings, brush, or other debris in BMPs or buffers.
- (7) Prevent over-compaction of BMP components that rely partially or wholly on infiltration (vegetation strips, bioretention bed, infiltration trenches and basins). Mowing and other maintenance should be performed with hand equipment or a light-weight lawn tractor.
- (8) Remove any built-up sediment and debris, especially along uphill edges, berms, swales, and level spreaders; and around BMP inlets and outlets
- (9) Identify any other problems. A detailed inspection may be required.

#### Sedimentation Basins

The level of accumulation shall be checked quarterly. If the depth of silt exceeds 6 inches, the silt shall be removed and properly disposed of.

#### **Filtration Basins**

The level of accumulation shall be checked quarterly. If the depth of silt exceeds 1/2 inch, or the drainage time exceeds 48 hours the silt shall be removed and properly disposed of.

The pollutants/oils accumulation shall be checked quarterly. If the pollutants have reduced the sand filter design capacity significantly, the pollutants shall be removed.

#### Routine Maintenance.

- *Mowing.* The side-slopes, embankment, and emergency spillway of the basin should be mowed at least twice a year to prevent woody growth and control weeds.
- Inspections. Sedimentation/filtration basins should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. When possible, inspections should be conducted during wet weather to determine if the basin is functioning properly. There are many functions and characteristics of these BMPs that should be inspected. The embankment should be checked for subsidence, erosion, leakage, cracking, and tree growth. The condition of the emergency spillway should be checked. The inlet, barrel, and outlet should be inspected for clogging. The adequacy of upstream and downstream channel erosion protection measures should be checked. Stability of the side slopes should be checked. Modifications to the basin structure and contributing watershed should be evaluated. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage. The inspections should be carried out with asbuilt pond plans in hand.
- Debris and Litter Removal. As part of periodic mowing operations and inspections, debris and litter should be removed from the surface of the basin. Particular attention should be paid to floatable debris around the riser, and the outlet should be checked for possible clogging.
- *Erosion Control.* The basin side slopes, emergency spillway, and embankment all may periodically suffer from slumping and erosion. Corrective measures such as regrading and revegetation may be necessary. Similarly, the riprap protecting the channel near the outlet may need to be repaired or replaced.

 Nuisance Control. Most public agencies surveyed indicate that control of insects, weeds, odors, and algae may be needed in some ponds. Nuisance control is probably the most frequent maintenance item demanded by local residents. If the ponds are properly sized and vegetated, these problems should be rare in wet ponds except under extremely dry weather conditions. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.). Biological control of algae and mosquitoes using fish such as fathead minnows is preferable to chemical applications.

#### Non-routine maintenance.

• Structural Repairs and Replacement. Eventually, the various inlet/outlet and riser works in the sedimentation/filtration basin will deteriorate and must be replaced. Some public works experts have estimated that corrugated metal pipe (CMP) has a useful life of about 25 yr, while concrete barrels and risers may last from 50 to 75 yr. The actual life depends on the type of soil, pH of runoff, and other factors. Polyvinyl chloride (PVC) pipe is a corrosion resistant alternative to metal and concrete pipes. Local experience typically determines which materials are best suited to the site conditions. Leakage or seepage of water through the embankment can be avoided if the embankment has been constructed of impermeable material, has been compacted, and if anti-seep collars are used around the barrel. Correction of any of these design flaws is difficult.

#### **Basin Dewatering**

• A common sign of failure of some BMPs is standing water long after the rain event ends. This is especially true in sand filters, dry extended detention basins, and retention basins. In addition, wet ponds may also need to be drained for maintenance purposes. The water in each of these systems can be pumped into the storm drain conveyance system downstream of the BMP as long as it has been at least 48 hours since the last rain event. This delay usually provides sufficient time for most of the pollutants to settle out of the standing water; however, the discharge of sediment laden water is not allowed at any time. A wet basin that has been completely drained should not be left dry for an extended period of time. The wet basin should be refilled as soon as possible to prevent the clay liner from drying out.

The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another's entity having ownership or control of the property (such as without limitation, an owner's association, new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity assumes such obligation in writing or ownership is transferred.

An amended copy of this document will be provided to the TCEQ within thirty days of any changes in the following information

Responsible Party for Maintenance: Address: Bell South Commercial, LLC.675 Bering Drive, Suit 500, Houston, Texas 77057

Developer Contact: Telephone Number: Benny Nguyen (512) 965-4200

Signature of Responsible Party: _____

Belan

### Attachment O: Pilot Scale Field Testing Plan

Attachment O is not applicable to this project

### **Attachment P: Measures for Minimizing Surface Stream** Contamination

Attachment P is not applicable to this project

# STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

STORMWATER POLLUTION PREVENTION PLAN

FOR

#### S BELL BLVD COMMERCIAL

#### **1005 S BELL BLVD**

IN

#### **CEDAR PARK, TEXAS**





3100 Alvin Devane Boulevard, Suite 150 Austin, Texas 78741 Tel: 512.441.9493 Fax: 512.445.2286

MAY 2024

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#### **1.0** Contact Information

<u>Project Name and Location</u>: Name: S Bell Blvd Commercial Address: 1005 S Bell Blvd Cedar Park, TX 78613

Primary Operator Name and Address (Developer): Benny Nguyen Bell South Commercial, LLC 675 Bering Drive, Suite 500 Houston, TX 77057 Phone: 512-965-4200

<u>Texas Commission on Environmental Quality in the event of a significant spill:</u> https://www.tceq.texas.gov/response/spills Phone: 1-800-832-8224

#### 2.0 Site Description

#### a. Description of the Construction Activity:

The proposed S Bell Blvd Commercial project consists of 10.34 acres, to be developed into 10 commercial lots. The project will include the construction of two driveways, accompanying curbing, sidewalks, landscaping, drainage infrastructure, and sanitary lines. A water quality/detention pond will be built on an adjacent tract owned by Leander ISD.

#### b. Potential Pollutants and Sources:

The following substances are expected to be present onsite during construction: concrete, petroleum-based products, fuels, lubricants, detergents, wood, soil stabilizing additives, pesticides, acids, and concrete additives. The following are sources of the previous substances listed: construction equipment, construction materials, disturbed soil, and vehicles onsite.

#### c. Sequence of Major Activities:

Prior to beginning clearing and excavation, all SWPPP measures will be installed or constructed in accordance with this plan. The areas required for construction of improvements will then be cleared and stripped of vegetation. Underground utilities will be placed and backfilled. Immediately following the construction of underground utilities, the paving contractor will begin construction of driveways, parking, and trucking loading areas. The contractor will also construct the buildings' foundations after completion of underground utilities. After the foundation is poured, building construction will proceed which includes floor slabs, concrete wall panels, structural steel, roofing and interior equipment and finish.

#### d. Estimated Total Site and Disturbed Acreages:

The total area of the site (10.34 acres) and an additional 1.27 acres on the adjacent Tract 2 will be disturbed during construction of utilities, pond, and paving construction.

#### e. Vicinity Map:

A vicinity map is attached. See Exhibit B.

#### f. Detailed Site Map:

See Exhibit C (Grading Plan). Detailed site maps reference the following: drainage patterns and approximate slopes anticipated after major grading activities; areas where soil disturbance will occur; locations of all major structural controls either planned or in place; locations where temporary or permanent stabilization practices are expected to be used; locations of construction support activities, including material, waste, borrow, fill, or equipment storage areas; surface waters at, adjacent to, or in close proximity to the site; locations where storm water discharges from the site directly to a surface water body or a municipal separate storm system; and vehicle wash areas.

#### g. Support Activities:

Expected support activities include equipment staging and materials storage areas. Equipment staging and materials storage areas will be located on-site.

#### h. Name of Receiving Water and Extend of Wetlands:

The project site is located in the Brushy Creek-Turkey Creek watershed & contributing zone of the Edwards Aquifer.

#### i. Notice of Intent and Site Notice:

NOI and Construction Site Notices are included in Appendix B.

#### j. Endangered or Threatened Species or Critical Habitats:

Federally and State listed endangered and threatened species for Williamson County as listed by the Texas Parks and Wildlife Department are included in Appendix C.

#### k. Historical Places:

The storm water discharge and related activities will not affect properties listed or eligible for listing on the National Registry of Historic Places.

#### 3.0 Best Management Practices

#### a. **General Requirements:**

Sediment will be retained on-site to the maximum extent practicable.

Control measures will be properly selected, installed, and maintained in accordance with manufacturer's specifications and good engineering practice. If damaged or rendered ineffective during site development, erosion and sediment controls will be repaired or replaced immediately.

Controls will minimize the offsite transport of litter, construction debris, and construction materials.

Major erosion and sediment controls are shown on the Storm Water Pollution Prevention Site Plan, Exhibit D.

#### b. Erosion Control and Stabilization Practices:

- (1) Erosion Control and Stabilization Practices
  - (A) Filter fabric fencing or rock berms will be placed around the perimeter of the site and proposed interceptor structures upon their construction and shall remain until the owner accepts the project or as is deemed necessary to prevent discharge to the receiving water. The location of these SWPPP measures are shown on the Storm Water Pollution Prevention Site Plan (Exhibit D) or as directed by the Engineer.

- (B) Sedimentation Basins and Diversion Dams may be used to direct and control site runoff where drainage areas exceed 10 acres. These measures, shown on Exhibit D, are placed in so that all site runoff during the construction phase of the project are directed towards these facilities to prevent sediment runoff.
- (C) Filter fabric fencing or approved other will be maintained on either side of existing inlets where runoff from this construction site might enter the storm sewer system. The location of these fences is shown on the Storm Water Pollution Prevention Site Plan (Exhibit D) or as directed by the Engineer.
- (D) Upon their construction, the lower stage of inlets will be covered with a timber grate and filter fabric.
- (E) After paving is constructed, provide an approved inlet protection measure as provided in the plans.
- (F) Hydro-mulch or seeding will be applied to disturbed areas after completion of construction of the facilities.
- (G) Seeding may be applied, in lieu of hydro-mulch, to portions of the site after final grading.
- (2) Record of Erosion Control and Stabilization Practices

The Operator will maintain record of: dates of major grading activities, dates when construction temporarily or permanently ceases on a portion of the site, and the dates when stabilization measures are initiated.

- (3) If the interim period between construction of utilities and paved areas will be more than 21 days, the paved area location will be mulched or otherwise stabilized within 14 days.
- (4) After paving completion, newly graded areas and all exposed soils will be completely stabilized.
- (5) Final stabilization will be achieved prior to termination of permit coverage.

#### c. <u>Sediment Control Practices:</u>

- (1) Silt fences, vegetative buffer strips, or equivalent sediment controls are provided where deemed appropriate as shown on the Storm Water Pollution Prevention Site Plan, Exhibit D.
- (2) Where the disturbed area is larger than 10 acres a sedimentation basin is required.
- (3) Filter fabric fence or rock berms will be set up prior to the commencement of excavation and temporary stockpiling operations. All surplus excavated material will be hauled off-site and disposed of in a suitable manner.
- (4) All disturbed soils will be hydro-mulch or seeded. When all construction activity is complete and the site is stabilized, temporary structural controls will be removed, and soils disturbed by their removal will be re-seeded.

#### 4.0 Other Required Controls and BMPs

#### a. Offsite Vehicle Tracking:

A stabilized construction entrance may be provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the site entrance will be cleaned daily, if necessary, to remove any excess mud, dirt, or rock tracked from the site.

#### b. Dust Control and Street Cleaning:

Dust will be minimized by using water trucks to keep the ground moist, if necessary. Watering will be limited to prevent excessive runoff of water from dust control. Silt fencing will prevent water from this activity from washing dust into the storm drain. For sediment accumulations on new internal paved surfaces, as well as off-site accumulations, using sweepers or other devices to remove sediment by creating airborne dust and sediment is not acceptable. The accumulations must be cleaned up by hand, or with a vacuum truck. Sediment removed by hand can be returned to the site provided it is placed behind an adequate control device such as a filter fence. Under no circumstances will sediment be washed, shoveled, or otherwise introduced into a drainage system during clean up.

The paved streets adjacent to the site entrance will be cleaned as necessary to remove any excess mud, dirt, or rock tracked from the site.

#### c. Construction and Waste Materials:

#### Construction Materials Waste

All waste materials will be collected, stored and disposed of in a securely lidded metal dumpster. The dumpster will meet all local and state solid waste management regulations. No construction waste material will be buried onsite. All personnel will be instructed regarding the correct procedure for waste disposal.

#### Hazardous Waste

No hazardous waste is expected to be generated or encountered in this project. In the event that hazardous waste is encountered, the Owner will be notified immediately. All hazardous waste materials will be disposed of in the manner specified by local or state regulations or by the manufacturer.

#### Sanitary Waste

All sanitary waste will be regularly collected from portable units.

#### Spill Prevention

<u>Texas Commission on Environmental Quality in the event of a significant spill:</u> https://www.tceq.texas.gov/response/spills Phone: 1-800-832-8224

In Texas, upon determining that a reportable discharge or spill has occurred, the responsible person must notify the state. The threshold quantity that triggers the requirement to report a spill is called the reportable quantity (RQ). The reportable quantity depends on the type of substance released and where released (e.g. into water vs. on land); different kinds of spills are subject to different provisions of state and federal rules.

Kind of spill	Where discharged	Reportable quantity	Rule, statute, or responsible agency
Hazardous substance	onto land	"Final RQ" in Table 302.4 in <b>40 CFR 302.4</b> & (PDF)	30 TAC 327®
	into water	"Final RQ" or 100 lbs, whichever is <b>less</b>	
Any oil	coastal waters	as required by the Texas General Land Office	Texas General Land Office∦
Crude oil, oil that is neither a petroleum product nor used oil	onto land	210 gallons (five barrels)	30 TAC 327@
	directly into water	enough to create a sheen	
Petroleum product, used oil	onto land, from an exempt PST facility	210 gallons (five barrels)	30 TAC 327@
	onto land, or onto land from a non-exempt PST facility	25 gallons	
	directly into water	enough to create a sheen	
Associated with the exploration, development and production of oil, gas, or geothermal resources	under the jurisdiction of the Railroad Commission of Texas	as required by the Railroad Commission of Texas	Railroad Commission of Texas&
Industrial solid waste or other substances	into water	100 lbs	30 TAC 327&
From petroleum storage tanks, underground or aboveground	into water	enough to create a sheen on water	<b>30 TAC 334</b> @.75-81
From petroleum storage tanks, underground or aboveground	onto land	25 gallons or equal to the RQ under <b>40 CFR</b> <b>302</b> ₆ 9	30 TAC 327@
Other substances that may be useful or valuable and are not ordinarily considered to be waste, but will cause	into water	100 lbs	30 TAC 327@

pollution if discharged into water in the state

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of the materials and substances described above to storm water runoff.

#### Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project.

1. An effort will be made to store only enough product required to do the job.

- 2. All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- 3. Products will be kept in their original containers with the original manufacturer's label.
- 4. Substances will not be mixed with one another unless recommended by the manufacturer.
- 5. Whenever possible, all of a product will be used up before disposing of the container.
- 6. Manufacturers' recommendations for proper use and disposal will be followed.
- 7. The site superintendent will inspect daily to ensure proper use and disposal of materials onsite.
- 8. All litter, trash, and floatable debris will be contained.

#### Hazardous Products

These practices will be used to reduce the risks associated with hazardous materials, if hazardous materials are used.

- 1. Products will be kept in original containers unless they are not resealable.
- 2. Original labels and material safety data will be retained.
- 3. If surplus product must be disposed of, manufacturers' or local and state recommended methods for proper disposal will be followed.

#### Product Specific Practices

The product specific practices to be followed are listed in Appendix D.

#### Spill Prevention Practices

The spill prevention practices to be followed are listed in Appendix D.

#### Concrete Truck Wash Out

Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site, unless they are using a properly designed and designated concrete washout area.

- a. Concrete truck wash out must not directly discharge to surface water or storm sewers.
- b. Concrete truck washout should be discharged to areas at the construction site where minimal slope allows infiltration and filtering of wash out water or structural controls have been established to prevent direct discharge to surface waters.
- c. Concrete truck washout during rainfall events should be minimized. The Operator will ensure BMPs in-place are sufficient to prevent the discharge of concrete wash out in rainfall events.
- d. Discharge of concrete truck wash out water should not cause or contribute to groundwater contamination.

#### d. Non-Construction Pollutant Sources:

There are no potential pollutant sources associated with industrial activities other than the construction activities described in sections 1.0.b and 8.0.

#### e. <u>Velocity Dissipation Devices:</u>

Velocity dissipation devices will be installed as needed as defined by local site conditions.

#### f. Controls for Pumping or Channeling Standing Water Onsite

When dewatering (pumping) the site, the sediment-laden discharge will be detained for a sufficient time to allow the majority of the sediment to settle out. Direct discharge into a storm sewer or off-site channel will not be allowed.

#### 5.0 Approved State or Local Plans

This work is to be completed under TPDES General Permit TXR150000, effective March 5, 2018.

The Storm Water Pollution Prevention Plan will be updated as necessary by the Operator to remain consistent with any changes applicable to protecting surface water resources.

#### 6.0 Maintenance

The following is a list of erosion control, sediment control, and stabilization practices implemented on this project that require maintenance:

Stabilization of construction access area. Hydro-mulch seeding/ broadcast seeding. Filter fabric fences/ rock berms. Inlet protection. Sediment Basins. To maintain the above practices, the following will be performed:

Maintenance and repairs will be conducted within 24 hours of inspection report (see Section 8.0 below).

Erosion and sediment control measures that have been improperly installed or have been disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately.

Sediment will be removed from behind the sediment fences when it becomes about 1/3 the height of the fence.

Sediment will be removed from around inlet barriers and dikes when the storage capacity has been approximately 50% filled.

If sediment leaves the site, accumulations must be removed such that offsite impacts are minimized.

#### 7.0 Inspections

- (a) The contractor will designate a qualified person or persons to perform the following inspections:
  - (1) Disturbed areas, areas used for storage of materials that are exposed to precipitation, discharge locations, and structural controls will be inspected for evidence of, or the potential for, pollutants entering the drainage system.
  - (2) Erosion and sediment control measures identified in the plan will be observed to ensure that they are operating correctly.
  - (3) Where discharge locations or points are accessible, they will be inspected to ascertain if erosion control measures are effective in preventing significant impacts to receiving waters.
  - (4) Locations where vehicles enter or exit the site will be inspected for evidence of offsite sediment tracking.

(5) Erosion and sediment control measures that have been improperly installed or have been disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately.

The inspection will be conducted by the responsible person at least once every seven (7) calendar days and within 24 hours after a storm of 0.5 inch or greater.

After a portion of the site is finally stabilized, inspection will be conducted at least once every month.

- (b) Based on the results of the inspections, the SWPPP will be modified as necessary to better control pollutants in runoff. Necessary revisions to the SWPPP are to be completed within 7 calendar days following the inspection. Revisions should include an implementation schedule for additional or modified BMPs.
- (c) For each inspection, a report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations will be made and retained as part of the storm water pollution plan for at least three years from the date that the site is finally stabilized. Major observations include: implementation of the storm water pollution prevention plan, actions taken in accordance with item "(b)" above, locations of discharges of sediment or other pollutants from the site, location of BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. The personnel making the inspections will sign these reports in accordance with 30 TAC § 305.128, see the included form.

Copies of the forms to be used for the Inspection and Maintenance report are included in the following pages as a part of this "SWPPP."

#### 8.0 Non-Storm Water Discharges

Appropriate pollution prevention measures must be implemented for eligible non-storm water components of the discharge from the site including: discharges from firefighting activities, water from routine external washing of vehicles without soaps and detergents, water used for dust control, uncontaminated air conditioning condensate, uncontaminated groundwater, irrigation.

#### 9.0 Responsibility of Operators

Primary and Secondary Operators with Control Over Construction Plans and Specifications. Also see Appendix E.

- (a) ensure the project specifications allow or provide that adequate BMPs are developed to meet the requirements of Part III of TPDES General Permit TXR150000, effective March 5, 2018.
- (b) ensure that the SWPPP indicates the areas of the project where Operators have control over project specifications, including the ability to make modifications in specifications.
- (c) ensure all other operators affected by modifications in project specifications are

notified in a timely manner so that those operators may modify their BMPs as necessary to remain compliant with the conditions of TPDES General Permit TXR150000, effective March 5, 2018.

(d) ensure that the SWPPP for portions of the project where they are operators indicates the name and site specific TPDES authorization numbers for permittees with the dayto-day operational control over those activities necessary to ensure compliance with the SWP3 and other permit conditions. If the Operator with day-to-day operational control has not been authorized or has abandoned the site, the Operator with control over project specifications is considered to be the responsible party until the authority is transferred to another party and the SWP3 is updated.

#### S BELL BLVD COMMERCIAL STORM WATER POLLUTION PREVENTION PLAN INSPECTION AND MAINTENANCE REPORT

PHASE: INSPECTOR: DAYS SINCE LAS	T RAINFALL:	STABILIZATI	AMOUNT OF	DATE: LAST RAINFALL: _	INCHES
INSPECTOR: DAYS SINCE LAS	T RAINFALL:	STABILIZATI	AMOUNT OF	DATE: LAST RAINFALL: _	INCHES
DAYS SINCE LAS	T RAINFALL:	STABILIZATI	AMOUNT OF	LAST RAINFALL:	INCHES
AREA	DATE SINCE	STABILIZATI			
AREA	DATE SINCE		ON MEASURES		
	LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABILIZED?	STABILIZED WITH	CONDITION
TO BE PERFORM WAS PERFOR	1ED BY: MED BY:		ON OR	BEFORE:	ON:
		STRUCTUR	AL CONTROLS TION BARRIERS:		
LOCATION IN PLACE?/ DEPTH CONDITION?		DEPTH OF SEDII	DEPTH OF SEDIMENT CO		
MAINTENANCE I	REQUIRED FOR I	NLET PROTECTION E	ARRIER:		
TO BE PERFORM	IED BY: WAS PERFC	DRMED BY:	ON OR	BEFORE:	

#### S BELL BLVD COMMERCIAL STRUCTURAL CONTROLS FILTER FABRIC FENCE:

LOCATION	BOTTOM OF FABRIC STILL BURIED?	FABRIC TORN OR SAGGING?	POSTS TIPPING OVER?	HOW DEEP IS THE SEDIMENT?
MAINTENANCE	EREQUIRED FOR SILT			
TO BE PERFORM	MED BY: PERFORMED	BY:	ON OR BEFORE:	
UN:	STABILIZED	O CONSTRUCTION ENTRAN	ICE/STAGING AREA:	
DOES MUCH SI GET TRACKEI	EDIMENT D ONTO	ENTRY SURFACE CLEAN OR SEDIMENT FILLED?		DOES ALL TRAFFIC USE ENTRANCE? ROAD?
MAINTENANCE	REQUIRED FOR STAI		NTRANCE/STAGING A	 AREA:
TO BE PERFORM	MED BY: PERFORMED	BY:	ON OR BEFORE: _	
ON:	UIRED TO THE POLLU	JTION PREVENTION PLAN		
REASONS FOR	CHANGE:			

BASED ON MY INSPECTION, THE SITE IS IN GENERAL CONFORMANCE WITH THE SWPPP AND TPDES GENERAL PERMIT TXR150000.

UPON COMPLETION OF THE ABOVE MAINTENANCE AND MODIFICATIONS, THE SITE WILL BE IN GENERAL CONFORMANCE WITH THE SWPPP AND TPDES GENERAL PERMIT TXR150000.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHEMENTS WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OF PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

INSPECTOR'S SIGNATURE: _____ DATE: _____

TITLE/QUALIFICATION: _____

#### S BELL BLVD COMMERCIAL

#### INSPECTOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed: _____

Name: _____

Inspector: _____

Company: _____

Date: _____

#### S BELL BLVD COMMERCIAL

#### STORM WATER POLLUTION PREVENTION PLAN (SWP3) CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed:

Ву:			
Name:			
Title:			
Date:			

#### S BELL BLVD COMMERCIAL

#### CONTRACTOR/SUB-CONTRACTOR CERTIFICATION

Approximate location of Site:

Williamson County, along the west side of C-Bar Ranch Trail approximately 650 ft south of the intersection of Whitestone Blvd and C-Bar Ranch Trail.

Latitude:	30°31′29″N
Longitude:	97°48'41"W

I certify under penalty of law that I understand the terms and conditions of the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR150000 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature:

<u>For</u>:

Responsible for:

General Contractor: Construction of Commercial Buildings with associated Clearing, Grading, Parking, Drives, and Utilities.

Title:_____

Name:_____

Date:_____

11.0 Exhibits

A. Web Soil Survey



United States Department of Agriculture

Natural Resources Conservation

Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Williamson County, Texas



## Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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## **How Soil Surveys Are Made**

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

#### Custom Soil Resource Report Soil Map



	MAP LEGEND			MAP INFORMATION	
Area of In	<b>terest (AOI)</b> Area of Interest (AOI)	88	Spoil Area Stony Spot	The soil surveys that comprise your AOI were mapped at 1:20,000.	
Soils	Soil Map Unit Polygons	å	Very Stony Spot	Warning: Soil Map may not be valid at this scale.	
~	Soil Map Unit Lines	\$¢ ∆	Wet Spot Other	Enlargement of maps beyond the scale of mapping can cause	
Special	Soil Map Unit Points Point Features		Special Line Features	line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed	
o X	Blowout Borrow Pit		Streams and Canals	scale.	
*	Clay Spot	Transporta	ation Rails	Please rely on the bar scale on each map sheet for map measurements.	
×	Gravel Pit	~	Interstate Highways US Routes	Source of Map: Natural Resources Conservation Service Web Soil Survey URL:	
.: 0	Gravelly Spot Landfill	~	Major Roads	Coordinate System: Web Mercator (EPSG:3857)	
Ã.	Lava Flow	Backgrou	Local Roads	Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the	
يد ج	Marsh or swamp Mine or Quarry	The second	Aerial Photography	Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.	
0	Miscellaneous Water			This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.	
~	Rock Outcrop			Soil Survey Area: Williamson County, Texas	
+	Saline Spot Sandy Spot			Survey Area Data: Version 24, Sep 5, 2023	
-	Severely Eroded Spot			1:50,000 or larger.	
⊘ ≽	Slide or Slip			Date(s) aerial images were photographed: Data not available.	
ø	Sodic Spot			I ne orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.	

## **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
DnB	Denton silty clay, 1 to 3 percent slopes	0.1	0.8%	
EaD	Eckrant cobbly clay, 1 to 8 percent slopes	7.3	60.0%	
EeB	Eckrant stony clay, 0 to 3 percent slopes, stony	4.7	39.2%	
Totals for Area of Interest		12.1	100.0%	

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Williamson County, Texas

#### DnB—Denton silty clay, 1 to 3 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2t26l Elevation: 570 to 1,870 feet Mean annual precipitation: 31 to 36 inches Mean annual air temperature: 65 to 68 degrees F Frost-free period: 220 to 260 days Farmland classification: All areas are prime farmland

#### **Map Unit Composition**

Denton and similar soils: 88 percent Minor components: 12 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Denton**

#### Setting

Landform: Hillslopes Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope Down-slope shape: Convex Across-slope shape: Linear Parent material: Silty and clayey slope alluvium over residuum weathered from limestone

#### **Typical profile**

A - 0 to 14 inches: silty clay Bw - 14 to 25 inches: silty clay Bk - 25 to 33 inches: silty clay Ck - 33 to 36 inches: gravelly silty clay R - 36 to 80 inches: bedrock

#### **Properties and qualities**

Slope: 1 to 3 percent
Depth to restrictive feature: 22 to 60 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 80 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3s Hydrologic Soil Group: D Ecological site: R081CY357TX - Clay Loam 29-35 PZ Hydric soil rating: No

#### **Minor Components**

#### Krum

Percent of map unit: 6 percent Landform: Drainageways Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread Down-slope shape: Linear Across-slope shape: Concave Ecological site: R081CY357TX - Clay Loam 29-35 PZ Hydric soil rating: No

#### Doss

Percent of map unit: 4 percent Landform: Hillslopes Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Convex Across-slope shape: Linear Ecological site: R081BY343TX - Shallow 23-31 PZ Hydric soil rating: No

#### Anhalt

Percent of map unit: 2 percent Landform: Hillslopes Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope Down-slope shape: Linear Across-slope shape: Linear Ecological site: R081CY358TX - Deep Redland 29-35 PZ Hydric soil rating: No

#### EaD—Eckrant cobbly clay, 1 to 8 percent slopes

#### Map Unit Setting

National map unit symbol: 2t0sg Elevation: 650 to 1,900 feet Mean annual precipitation: 30 to 35 inches Mean annual air temperature: 65 to 69 degrees F Frost-free period: 210 to 250 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Eckrant and similar soils:* 85 percent *Minor components:* 15 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Eckrant**

#### Setting

Landform: Ridges Landform position (two-dimensional): Summit, shoulder, backslope Landform position (three-dimensional): Interfluve, side slope Down-slope shape: Convex Across-slope shape: Convex Parent material: Residuum weathered from limestone

#### **Typical profile**

A1 - 0 to 4 inches: cobbly clay

A2 - 4 to 11 inches: very cobbly clay

R - 11 to 80 inches: bedrock

#### **Properties and qualities**

Slope: 1 to 8 percent
Surface area covered with cobbles, stones or boulders: 2.3 percent
Depth to restrictive feature: 4 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.0 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6s Hydrologic Soil Group: D Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ Hydric soil rating: No

#### **Minor Components**

#### Brackett

Percent of map unit: 7 percent Landform: Ridges Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Convex Across-slope shape: Convex Ecological site: R081CY355TX - Adobe 29-35 PZ Hydric soil rating: No

#### Bexar

Percent of map unit: 5 percent Landform: Ridges Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope Down-slope shape: Linear Across-slope shape: Linear Ecological site: R081CY361TX - Redland 29-35 PZ Hydric soil rating: No

#### Krum

Percent of map unit: 3 percent Landform: Ridges Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope Down-slope shape: Linear Across-slope shape: Linear Ecological site: R081CY357TX - Clay Loam 29-35 PZ Hydric soil rating: No

#### EeB—Eckrant stony clay, 0 to 3 percent slopes, stony

#### Map Unit Setting

National map unit symbol: djpv Elevation: 650 to 1,320 feet Mean annual precipitation: 30 to 35 inches Mean annual air temperature: 65 to 69 degrees F Frost-free period: 210 to 250 days Farmland classification: Not prime farmland

#### Map Unit Composition

*Eckrant, stony, and similar soils:* 85 percent *Minor components:* 15 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Eckrant, Stony**

#### Setting

Landform: Ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve Down-slope shape: Convex Across-slope shape: Convex Parent material: Residuum weathered from limestone

#### **Typical profile**

A1 - 0 to 4 inches: stony clay A2 - 4 to 11 inches: extremely stony clay R - 11 to 80 inches: bedrock

#### **Properties and qualities**

Slope: 0 to 3 percent Surface area covered with cobbles, stones or boulders: 0.0 percent Depth to restrictive feature: 4 to 20 inches to lithic bedrock Drainage class: Well drained Runoff class: Medium

#### **Custom Soil Resource Report**

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 0.8 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6s Hydrologic Soil Group: D Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ Hydric soil rating: No

#### Minor Components

#### Georgetown

Percent of map unit: 8 percent Landform: Ridges Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve Down-slope shape: Linear Across-slope shape: Linear Ecological site: R081CY361TX - Redland 29-35 PZ Hydric soil rating: No

#### Doss

Percent of map unit: 7 percent Landform: Ridges Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Interfluve Down-slope shape: Convex Across-slope shape: Convex Ecological site: R081CY355TX - Adobe 29-35 PZ Hydric soil rating: No

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B. Vicinity Map



C. Grading Plan







K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 GRADING.dwg cbarczi: August 26, 2024

## PROPOSED LEGEND

W	WATER
	WASTEWATER
	STORM SEWER
	OVERHEAD ELEC
700	GROUND CONTC

; <b></b>	STORIVI SEVER W/ WAINHO
	CURB INLET
	GRATE INLET
o	LANDSCAPE DRAIN
700	GROUND CONTOUR
TC	TOP OF CURB
TP	TOP OF PAVEMENT
FG	FINISHED GROUND
Т₩	TOP OF WALL
BW	BOTTOM OF WALL AT FINIS
TS	TOP OF SIDEWALK
	ADA ROUTE
	RETAINING WALL





#### **D. SWPPP & SWPPP Details**







K:\28106\28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision\2 Design Phase\CAD\Subdivision\28106-0001-02 EROSION.dwg cbarczi: August 26, 2024



)23-29-SI











# Signed Agent Authorization (TCEQ-0599)

Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213			
Sha	ine Rotter		
Enviro	nmental Project Planner		
of	Title - Owner/President/Other		
	Corporation/Partnership/Entity Name		
have authorized	Joshua V. Elledge Print Name of Agent/Engineer		
of	Quiddity Engineering Print Name of Firm		

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

- 1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
- 2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
- 3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
- 4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
- 5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

#### SIGNATURE PAGE:

Applicant's Signature

124 6 Date

THE STATE OF _____ 8 County of _____§

BEFORE ME, the undersigned authority, on this day personally appeared ______known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this _____ day of _____

NOTARY PUBLIC

Typed or Printed Name of Notary

MY COMMISSION EXPIRES:

## Agent Authorization Form

For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999

I	Benny Nguyen	,
	Print Name	
	Managing Partner	,
	Title - Owner/President/Other	
of	Bell South Commercial LLC	,
	Corporation/Partnership/Entity Name	
have authorized	Joshua V. Elledge Print Name of Agent/Engineer	
of	Quiddity Engineering Print Name of Firm	

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

- 1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
- 2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
- 3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
- 4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
- 5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

11/20/2023

Date

	ARLENE JACKSON
(Starrage	Notary Public
	My Comm. Exp. 07-07-26
Ver	Netary ID # 12574131-2

THE STATE OF Lexas	_§
County of Travis	_§

Benny D

BEFORE ME, the undersigned authority, on this day personally appeared <u>NGTY</u> known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal	of office on this 20th day of November 2033
	NOTARY PUBLIC
	Ariene Jackson
	Typed or Printed Name of Notary

MY COMMISSION EXPIRES:

07-07-2026

TCEQ-0599 (Rev.04/01/2010)

# Signed Application Fee Form (TCEQ-0574)

# **Application Fee Form**

Texas Commission on Environmental Quality			
Name of Proposed Regulated Entity: S E	<u> 3ell Blvd Commerc</u>	<u>ial</u>	
Regulated Entity Location: 1005 S Bell B	Blvd., Cedar Park, T	exas 78613	
Name of Customer: Bell South Commer	cial LLC		
Contact Person: <u>Mr. Benny Nguyen</u>	Phone	e: <u>(512)-965-4200</u>	
Customer Reference Number (if issued)	:CN		
Regulated Entity Reference Number (if	issued):RN		
Austin Regional Office (3373)			
Hays	Travis	🖂 Wil	liamson
San Antonio Regional Office (3362)			
Bexar	Medina	Uva	lde
 Comal	 Kinney	—	
Application fees must be paid by check,	certified check, o	r money order, payable	e to the <b>Texas</b>
Commission on Environmental Quality	. Your canceled ch	neck will serve as your	receipt. <b>This</b>
form must be submitted with your fee	payment. This pa	yment is being submit	ted to:
Austin Regional Office	Austin Regional Office San Antonio Regional Office		
🔀 Mailed to: TCEQ - Cashier	<u> </u>	vernight Delivery to: T	CEQ - Cashier
Revenues Section	12	2100 Park 35 Circle	
Mail Code 214	Mail Code 214 Building A, 3rd Floor		
P.O. Box 13088 Austin, TX 78753			
Austin, TX 78711-3088 (512)239-0357			
Site Location (Check All That Apply):			
Recharge Zone	ontributing Zone	Transit	ion Zone
Type of Plan		Size	Fee Due
Water Pollution Abatement Plan, Cont	ributing Zone		
Plan: One Single Family Residential Dwelling		Acres	\$
Water Pollution Abatement Plan, Contributing Zone			
Plan: Multiple Single Family Residential and Parks		Acres	\$
Water Pollution Abatement Plan, Contributing Zone			
Plan: Non-residential		7.36 Acres	\$ 5 <i>,</i> 000
Sewage Collection System		L.F.	\$
Lift Stations without sewer lines		Acres	\$
Underground or Aboveground Storage	e Tank Facility	Tanks	\$
Piping System(s)(only)		Each	\$
Excontion		E a a la	ć
LXCeption		Each	\$

Signature: ____

Belan

## **Application Fee Schedule**

#### Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

## Water Pollution Abatement Plans and Modifications

#### Contributing Zone Plans and Modifications

	Project Area in	
Project	Acres	Fee
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial,	< 1	\$3,000
institutional, multi-family residential, schools, and	1 < 5	\$4,000
other sites where regulated activities will occur)	<mark>5 &lt; 10</mark>	<mark>\$5,000</mark>
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

#### **Organized Sewage Collection Systems and Modifications**

Project	Cost per Linear Foot	Minimum Fee- Maximum Fee
Sewage Collection Systems	\$0.50	\$650 - \$6,500

## Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	Cost per Tank or Piping System	Minimum Fee- Maximum Fee
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

#### **Exception Requests**

Project	Fee
Exception Request	\$500

### Extension of Time Requests

Project	Fee
Extension of Time Request	\$150
# Signed Core Data Form (TCEQ 10400)



# **TCEQ Core Data Form**

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

#### **SECTION I: General Information**

1. Reason for Submission (If other is checked please describe in space provided.)									
New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)									
Renewal (Core Data Form should b	e submitted v	Other							
2. Customer Reference Number (if iss	ued)	3. Regulated Entity Reference	lumber <i>(if issued)</i>						
CN		for CN or RN numbers in Central Registry**	RN						
SECTION II: Customer Information									
4. General Customer Information	5. Effective	e Date for Customer Info	mation Updates (mm/dd/yyyy)						
New Customer		Update to Customer Inform	nation 🛛 Change in Re	egulated Entity Ownership					
Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)									
The Customer Name submitted here may be updated automatically based on what is current and active with the									
Texas Secretary of State (SOS)	or Texas C	Comptroller of Public	Accounts (CPA).						

6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)							<u>I</u>	If new Customer, enter previous Customer below:			
Bell South	Comme	ercial LLC									
7. TX SOS/CP	8. TX State Ta	<b>IX ID</b> (11 digit	s)		ç	9. Federal Tax ID (9 digits) 10. DUNS Number (if a					
0804929188											
11. Type of Customer: 🛛 Corporation				Individ	lual		P	artnership: 🗌 Gener	al 🗌 Limited		
Government: City County Federal State Other							orship		Other:		
12. Number of Employees								3. Ind	ependently Owned	and Opera	ted?
⊠ 0-20											
14. Customer	Role (Pro	posed or Actual) -	as it relates to the	e Regulated	Entity I	isted on	this fo	orm. Ple	ase check one of the	following	
Owner		🗌 Operat	or	0	wner 8	opera	ator				
	al License	e 🛛 Respo	nsible Party	🗌 Va	oluntar	y Clea	nup A	pplicar	t Other:		
	625 Be	ring Drive									
15. Mailing Address:	Suite 5	00									
	City	Houston		State	ΤX		ZIP	770	057	ZIP + 4	
16. Country M	lailing Info	ormation (if outsi	de USA)			17. E	-Mail	Addre	SS (if applicable)		
						ben	benny@halonare.com				
18. Telephone Number 19. Extension or					on or (	Code		20. Fax Number (if applicable)			ole)
( 512 ) 965-4200									( )	-	

### **SECTION III: Regulated Entity Information**

21. General Regulated Ent	ity Information (If 'New Regulated Entity'	" is selected below this form should be accompanied by a permit application)
New Regulated Entity	Update to Regulated Entity Name	Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)

S Bell Blvd Commercial

23 Street Address of	1005 S	Bell Blvd.								
the Regulated Entity:										
<u>(No PO Boxes)</u>	City	Cedar Par	·k State	Т	Х	ZIP	78613	3	ZIP + 4	
24. County	Willian	nson								•
Enter Physical Location Description if no street address is provided.										
25. Description to Physical Location:	5. Description to hysical Location:Located off South Bell Blvd. approximately 750 ft north of its intersection with Little Elm Trail in Cedar Park, TX									
26. Nearest City	State Nearest ZIP Code									
Cedar Park							TX		78	613
27. Latitude (N) In Decin	nal:	30.49590			28. L	ongitude (	W) In Dec	imal:	97.81251	[
Degrees	Minutes		Seconds		Degree	es	М	linutes		Seconds
30	29 45.24 97 48					45.04				
29. Primary SIC Code (4 digits)   30. Secondary SIC Code (4 digits)   31. Primary NAICS Code (5 or 6 digits)   32. Secondary NAICS Code (5 or 6 digits)										
6552 5940 236220										
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)										
Commercial										
34. Mailing										
Address:	Citv		Sta	ate		ZIP			ZIP + 4	
35. E-Mail Address	:									
36. Telepho	one Numbe	r	37. Ex	tension or	Code		38.	. Fax Nu	mber <i>(if app</i> l	licable)
( )	-							(	) -	
39. TCEQ Programs and ID	) Numbers	Check all Progran	ns and write ir ance.	the permits	/registrat	ion numbers	s that will be	e affected	by the updates	s submitted on this
Dam Safety	Distric	ts	🖾 Edwar	ds Aquifer		Emissi	ions Invento	ory Air	🗌 Industria	al Hazardous Waste
Municipal Solid Waste	New S	Source Review Air	OSSF			Petrole	eum Storag	e Tank	PWS	
Sludge	Storm	Water	🗌 Title V	Air		Tires Used Oil				1
Voluntary Cleanup	U Waste	Water	U Waste	water Agricu	Ilture	U Water	Rights		Other:	

## **SECTION IV: Preparer Information**

40. Name:	Joshua V.	Elledge		41. Title:	Senior Project Manager
42. Tele	phone Number	43. Ext./Code	44. Fax Number	45. E-Mail	Address
(512)	685-5160		(512)445-2286	jelledge	@quiddity.com

## **SECTION V:** Authorized Signature

**46.** By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Terra Halona, LLC	Job Title:	Mana	ging Partner	
Name (In Print):	Benny Nguyen			Phone:	( 512 ) 965- <b>4200</b>
Signature:	Belan			Date:	2/14/2024



# **TCEQ Core Data Form**

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

## **SECTION I: General Information**

1. Reason for Submission (If other is checked please describe in space provided.)									
New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)									
Renewal (Core Data Form should be submitted with the renewal form) Other									
2. Customer Reference Number (if issued)	Follow this link to search	3. Regulated Entity Reference Number (if issued)							
CN	<u>Central Registry**</u>	RN							

# **SECTION II: Customer Information**

4. General Cu	istomer In	formati	ion	5. Effective	Date for Cu	istome	er Info	ormation	Updat	es (mm/dd/	γγγγ)		
New Custor	New Customer   Update to Customer Information   Change in Regulated Entity Ownership     Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)												
The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).													
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John) If new Customer, enter previous Customer below:													
Leander Independent School District													
7. TX SOS/CPA Filing Number     8. TX State Tax ID (11 digits)       17460145737				<b>9. Fe</b> (9 dig	z <b>deral Tax I</b> ( gits)	D	<b>10. DUNS</b> applicable)	Number (if					
11. Type of Customer: Corporation							ual Partnership: 🗌 General 🔲 Limited			eral 🔲 Limited			
Government:	City 🗌 C	County [	] Federal 🗌	Local 🗌 State	🗌 Other			Sole P	Proprietorship 🛛 Other: School District				nool District
12. Number o	of Employ	ees							13. Independently Owned and Operated?				
0-20	21-100 [	] 101- <b>2</b> !	50 🗌 251-	500 🛛 501 a	and higher				🗌 Yes 🗌 No				
14. Customer	Role (Pro	posed or	Actual) – as i	t relates to the l	Regulated Er	ntity list	ed on	this form.	Please (	check one of	the follo	owing	
Owner	al Licensee	Ope	erator esponsible Pa	□ Ow rty □ V	ner & Opera CP/BSA App	itor Ilicant				Other:			
15. Mailing	P.O.	Box 2	218										
Address:													
	City	Lea	nder		State	ТХ		ZIP	786	646		ZIP + 4	0218
16. Country Mailing Information (if outside USA)						17. E-Mail Address (if applicable)							
18. Telephone Number 19. Extension or C						ode			20. Fax N	umber	(if applicable)		

(512) - 570-5000
------------------

## **SECTION III: Regulated Entity Information**

21. General Regulated Entity Information (if 'New Regulated Entity" is selected, a new permit application is also required.)

🛛 New Regulated Entity 🔲 Update to Regulated Entity Name 🔛 Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)

#### S Bell Blvd Commercial

23. Street Address of the Regulated Entity: (No PO Boxes)	1005 S	1005 S Bell Blvd.									
	City	Cedar Park	State	ТХ	ZIP	78613	ZIP + 4				
24. County	Williams	son	4		- <b>I</b>						

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	Image: Source of the section with a										
26. Nearest City	<u> </u>					State		Nea	rest ZIP Code		
Cedar Park TX 78613											
Latitude/Longitude are r used to supply coordinat	equired and es where no	f may be added/up one have been pro	odated to meet i vided or to gain	TCEQ Core D accuracy).	ata Standa	rds. (Geoc	oding of th	e Physical	Address may be		
<b>27. Latitude (N) In Decimal:</b> 30.49590				28. Lo	ongitude (W	/) In Decin	nal:	97.81	251		
Degrees	Minutes	Se	conds	Degree	25	Mi	nutes		Seconds		
30	29		45.24	97			48		45.04		
29. Primary SIC Code	30.	30. Secondary SIC Code			31. Primary NAICS Code			32. Secondary NAICS Code			
(4 digits)	(4 c	ligits)		(5 or 6 digit	s)		(5 or 6 digi	its)			
6552		5940		23622	236220						
33. What is the Primary I	Business of	this entity? (Do n	ot repeat the SIC o	r NAICS descri	ption.)						
24 Mailing						,					
54. Walling											
Address:	City		State		ZIP			ZIP + 4			
35. E-Mail Address:	•	<b>t</b>	- <b>·</b>	l					I		
36. Telephone Number	36. Telephone Number 37. Extension or Code 38. Fax Number (if applicable)										
( ) -					( )	-					

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

Dam Safety	Districts	Edwards Aquifer	Emissions Inventory Air	Industrial Hazardous Waste	
			······································		
Municipal Solid Waste	New Source Review Air	□ OSSF	Petroleum Storage Tank	PWS	
Sludge	Storm Water	Title V Air		Used Oil	
		·			
Voluntary Cleanup	U Wastewater	Wastewater Agriculture	Water Rights	Other:	

# **SECTION IV: Preparer Information**

40. Name: Michael Shangreaux			41. Title:	Senior Project Manager	
42. Telephone Number		43. Ext./Code	44. Fax Number	45. E-Mail Address	
(512)3401193			( ) -	michael	.shangreaux@atkinsrealis.com

## **SECTION V: Authorized Signature**

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Leander Independent School District	Job Title:	Superintendent	
Name (In Print):	Dr. Bruce Gearing	-1	Phone:	1512150 0005
Signature:	St-g.	Date:	08/26/2024	

8126/24

# Appendix

A. Development Agreement

#### <u>DEVELOPMENT AGREEMENT</u> (for Shared Detention and Drainage Facilities)

THIS DEVELOPMENT AGREEMENT (for Shared Detention and Drainage Facilities) (this "<u>Agreement</u>") is made to be effective on the date of the last to sign below, by and between **LEANDER INDEPENDENT SCHOOL DISTRICT** ("<u>LISD</u>") and **BELL SOUTH COMMERCIAL, LLC**, a Texas limited liability company ("<u>Bell South</u>"). LISD and Bell South are sometimes collectively referred to herein as the "<u>Owners</u>".

#### **RECITALS**

A. LISD is the fee simple owner of certain real property located in Williamson County, Texas, as indicated and labeled on **Exhibit "A"** attached hereto (the "**LISD Property**").

B. Bell South is the fee simple owner of certain real property located in Williamson County, Texas, as indicated and labeled on **Exhibit "B"** attached hereto (the "<u>Bell South</u> <u>Property</u>").

C. LISD intends to construct school facilities on the LISD Property. However, in order to construct such facilities, LISD will be required to design and construct a detention and drainage facility on the LISD Property. Bell South intends to develop the Bell South Property into a commercial development. However, in order to develop such property, Bell South would be required to design and construct a detention and drainage facility on the Bell South Property.

D. The Owners believe that a shared detention and drainage facility would greatly reduce the overall cost of constructing and maintaining such facilities to each Owner, thus providing a great benefit to the taxpayers of LISD.

E. LISD and Bell South desire to memorialize their agreements regarding the foregoing.

NOW, THEREFORE, for a good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto covenant and agree as follows:

1. **Detention and Drainage Easement**. LISD shall grant to Bell South a perpetual easement for a stormwater drainage, detention, and water quality pond on the LISD Property in the approximate location shown on the attached **Exhibit "C"**, and for construction, operation and maintenance of a joint stormwater facility. Bell South shall grant to LISD a perpetual easement for stormwater drainage across the Bell South Property for an outfall storm sewer/drainage channel for outfall from the pond toward Highway 183, in a location chosen by Bell South that is both suitable for the intended development of the Bell South Property, and for the efficient functioning of the pond. The easements shall be collectively contained within a Stormwater Easement to be executed and agreed by both Owners. The pond and all associated drainage facilities shall be referred to herein as the "**Facilities**". The Stormwater Easement to be executed must provide for the following:

- a) Agreement on the actual location and size of all property within the easement areas described in the Stormwater Easement (with all detention pond and maintenance berms intended to be located within the LISD Property);
- b) Agreement on the design of the Facilities, which must meet all governmental regulations and requirements;
- c) Agreement on the maximum impervious cover or land area for which each Owner is entitled to convey stormwater into the Facilities;
- d) If desired by either Owner, a description by each Owner of that Owner's tract that is entitled to use the Facilities and is benefitted by the Stormwater Easement;
- e) Provisions for accessing the Facilities for ongoing maintenance;
- f) Bell South shall be responsible for all design, permitting, and construction of the Facilities, and all the costs thereof. Construction of the Facilities shall be started and completed in one phase;
- g) Construction contract must provide protection to LISD for work to be performed on LISD Property, including standard provisions for insurance, as well as payment and performance bond, and indemnification provisions;
- b) Bell South shall be responsible for the maintenance of the Facilities, and 100% of the cost thereof, without participation by LISD. Maintenance obligations may be assigned by Bell South to a property owners association created for the benefit of the Bell South Property without LISD consent;
- i) Subordination agreement of any lienholders of the Bell South Property and the LISD Property, if any;
- j) Termination of the Stormwater Easement if the Facilities have not been constructed within two years from the effective date of the Stormwater Easement. Reasonable provisions for notice and opportunity to cure shall be provided.

2. <u>Time for Performance</u>. LISD and Bell South shall use commercially reasonable efforts to agree upon the provisions of the Stormwater Easement, and then execute and record same in the real property records of Williamson County, Texas. The LISD Superintendent shall have the authority to negotiate and execute the Stormwater Easement and all related documents on behalf of LISD. This Agreement shall automatically terminate if the Stormwater Easement has not been executed within one year from the effective date hereof.

3. <u>Expenses of Conveyance</u>. LISD and Bell South shall each be responsible for the costs of their consultants (attorneys, engineers, etc.). However, any closing costs (such as recording fees or desired title policy) shall be the responsibility of Bell South.

4. **<u>Right of Entry</u>**. LISD shall provide Bell South with a right of entry on the LISD Property to perform the necessary design, surveying, and other matters related to the Stormwater

Easement prior to actual execution of the Stormwater Easement. LISD may require reasonable entry rules, such as execution of an indemnification agreement and/or insurance, prior to such entry.

5. <u>Assignment</u>. Bell South may not assign this Agreement without the express, written approval of LISD.

6. <u>Notice</u>. All formal notices and demands hereunder shall be in writing and shall be delivered by personal delivery, overnight mail or delivery service, or United States certified mail, return receipt requested, postage or delivery charges prepaid, addressed as follows:

#### If to LISD:

Leander Independent School District Attn: Bruce Gearing, Superintendent P. O. Box 218 Leander, Texas 78646-0218

With copy to:

Jimmy Disler Leander Independent School District P. O. Box 218 Leander, Texas 78646-0218 jimmy.disler@leanderisd.org

#### If to Bell South :

Bell South Commercial, LLC Attn: Benny Nguyen 675 Bering Drive, Suite 500 Houston, Texas 77057 benny@halonare.com

or to such other address as either party may from time to time designate by notice in writing to the other party. Any such formal notice or demand or communications shall be deemed to have been delivered and received as of the date (i) personally delivered, or (ii) three business days after deposit in the United States certified mail, return receipt requested, or (iii) the next business day after deposit with an overnight delivery service. Refusal by any party to accept delivery shall constitute delivery hereunder. Standard communications between the parties may be conducted by email at the email addresses listed above.

7. <u>Governing Law</u>. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas. Venue shall be in Williamson County, Texas.

8. <u>Counterparts and Amendments</u>. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed to constitute an original. Amendments must be in writing and executed by both Owners.

9. <u>HB 1295 Compliance and No Boycott</u>. Bell South shall verify compliance with HB 1295 and No Boycott requirements of state law, attached and Exhibit "D".

[Signature Page Follows]

LISD:

# LEANDER INDEPENDENT SCHOOL DISTRICT

03/18/2024 ate Date

By:

Dr. Bruce Gearing, Superintendent

**BELL SOUTH COMMERCIAL, LLC** 

 $\frac{3/8/2024}{Date}$ 

By:

Benny Nguyen, President







#### EXHIBIT "D"

#### HB 1295 COMPLIANCE AND NO BOYCOTT PROVISIONS+

#### A. HB 1295 Compliance.

+

+

Section 2252.908 of the Texas Government Code requires that for certain types of contracts, the Owner must fill out a conflict-of-interest form ("Disclosure of Interested Parties") and file with the Texas Ethics Commission at the time the signed contract is submitted to the City. For further information please go to the Texas Ethics Commission website via the following link. https://www.ethics.state.tx.us/whatsnew/elf info form1295.htm. +

#### B. No Boycott of Israel; No Terrorist Organization.

Pursuant to Section 2270.002, Texas Government Code, the Owner hereby represents that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not boycott Israel and, to the extent this Indenture is a contract for goods or services, will not boycott Israel during the term of this Indenture. The foregoing verification is made solely to comply with Section 2270.002, Texas Government Code, and to the extent such Section does not contravene applicable Federal law. As used in the foregoing verification, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. +

The Owner understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Owner and exists to make a profit. +

Pursuant to Subchapter F, Chapter 2252, Texas Government Code, the Owner represents that neither it nor any of its parent company, wholly- or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet website: +

https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf, + https://comptroller.texas.gov/purchasing/docs/iran-list.pdf, or + https://comptroller.texas.gov/purchasing/docs/fto-list.pdf. +

The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, and to the extent such Section does not contravene applicable Federal law and excludes the Owner and each of its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. The Owner understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with the Owner and exists to make a profit. +

#### C. Verification Regarding Energy Company Boycotts.

To the extent this Agreement constitutes a contract for goods or services for which a written verification is required under Section 2274.002, Texas Government Code, (as added by Senate Bill 13, 87th Texas Legislature, Regular Session) as amended, the Owner hereby verifies that it and its parent company, wholly- or majority- owned subsidiaries, and other affiliates, if any, do not boycott energy companies and, will not boycott energy companies during the term of this Agreement. The foregoing verification is made solely to comply with Section 2274.002, Texas Government Code, as amended, to the extent Section 2274.002, Texas Government Code does not contravene applicable Texas or federal law. As used in the foregoing verification, "boycott energy companies" shall have the meaning assigned to the term "boycott energy company" in Section 809.001, Texas Government Code. The Owner understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Owner and exists to make a profit. +

# D. Verification Regarding Discrimination Against Firearm Entity or Trade Association.

To the extent this Agreement constitutes a contract for the purchase of goods or services for which a written verification is required under Section 2274.002, Texas Government Code, (as added by Senate Bill 19, 87th Texas Legislature, Regular Session, "SB 19"), as amended, the hereby verifies that it and its parent company, wholly- or majority- owned subsidiaries, and other affiliates, if any, +

(1) do not have a practice, policy, guidance or directive that discriminates against a firearm entity or firearm trade association; and +

(2) will not discriminate during the term of this Agreement against a firearm entity or firearm trade association. +

The foregoing verification is made solely to comply with Section 2274.002, Texas Government Code, as amended, to the extent Section 2274.002, Texas Government Code does not contravene applicable Texas or federal law. As used in the foregoing verification, "discriminate against a firearm entity or firearm trade association" shall have the meaning assigned to such term in Section 2274.001(3), Texas Government Code (as added by SB 19). The Owner understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Owner and exists to make a profit. +

**B. Drainage Easement Metes and Bounds** 

Exhibit " "

#### LEGAL DESCRIPTION

BEING a 1.2726 acre (55,435 sq. ft.) tract of land situated in the Samuel Damon Survey No. 11, Abstract No 170, Cedar Park, Williamson County, Texas, and being a portion of a called 53.9395 acre tract of land described in that Warranty Deed to the Board of Trustees, Leander Independent School District in Document No. 2011084700 of the Official Public Records of Williamson County, Texas; said 1.2726 acre tract of land being more particularly described as follows, with bearings based on the Texas Coordinate System of 1983, Central Zone:

BEGINNING: at a 1/2-inch iron rod with orange cap found on the northeastern line of the said 53.9395 acre tract, the southwestern line of Lot 1, Block A of the TSSD3 Subdivision as recorded in Document No. 2023009524 of the Official Public Records of Williamson County, Texas for a corner of the said 53.9395 acre tract, a corner of the said Lot 1, Block A, for the POINT OF BEGINNING of this herein described tract;

THENCE: along the northeastern line of the said 53.9395 acre tract, the southwestern line of the said Lot 1, Block A with a non-tangent curve to the right with a Delta angle of 05°01'22", a Radius of 2481.93 feet and an Arc length of 217.58 feet having a Chord bearing of South 36°36'43" East and a distance of 217.51 feet to a calculated point on the northern line of Lot 2, Block A of the Little Elm Subdivision Plat as recorded in Document No. 2013106218 of the Official Public Records of Williamson County, Texas for the easternmost corner of the said 53.9395 acre tract, the southernmost corner of the said Lot 1, Block A, for the easternmost corner of this herein described tract;

THENCE: South 69°59'47" West along the southern line of the said 53.9395 acre tract, the northern line of the said Lot 2, Block A pass at 194.89 feet a 1/2-inch iron rod with cap stamped "ATS Engineers" found for the westernmost corner of the said Lot 2, Block A, the northernmost corner of Lot 1, Block A of the said Little Elm Subdivision Plat, **a distance in all of 203.47 feet** to a calculated point for the southernmost corner of this herein described tract;

THENCE: across the said 53.9395 acre tract the following courses and distances;

- 1. North 31°52'53" West a distance of 246.27 feet to a calculated point;
- With a tangent curve to the right with a Delta angle of 82°49'46", a Radius of 25.00 feet and an Arc length of 36.14 feet having a Chord bearing of North 09°32'00" East and a distance of 33.08 feet to a calculated point for the northwestern corner of this herein described tract;
- 3. North 50°55'22" East a distance of 145.70 feet to a calculated point on the northeastern line of the said 53.9395 acre tract, the southwestern line of the said Lot 1, Block A, TSSD3 Subdivision for the northernmost corner of this herein described tract;

THENCE: South 39°13'22" East a distance of 115.38 feet along the northeastern line of the said 53.9395 acre tract, the southwestern line of the said Lot 1, Block A, TSSD3 Subdivision to the POINT OF BEGINNING and CONTAINING an area of 1.2726 acres (55,435 sq. ft.) of land.

**Bearing Basis:** 

All bearings shown are based on the Texas Coordinate System, Central Zone, NAD 83.

REX L HACKETT

Rex L. Hackett Registered Professional Land Surveyor No. 5573 rhackett@quiddity.com

03/22/2024

Date



K: \28106 \28106-0001-02 1201 S. Bell Blvd. - Commerical Subdivision \1 Surveying Phase \CAD Files \Working Dwg \28106-0001-02 Easements.dwg

C. Drainage Area Metes and Bounds

#### LEGAL DESCRIPTION

BEING a 6.0945 acre (265,478 sq. ft.) tract of land situated in the Samuel Damon Survey No. 11, Abstract No 170, Cedar Park, Williamson County, Texas, and being a portion of Lot 1, Block A of the TSSD3 Subdivision as recorded in Document No. 2023009524 of the Official Public Records of Williamson County, Texas, being the same property described in that Special Warranty Deed with Vendor's Lien to Bell South Commercial, LLC in Document No. 2023029877 of the Official Public Records of Williamson County, Texas; said 6.0945 acre tract of land being more particularly described as follows, with bearings based on the Texas Coordinate System of 1983, Central Zone:

COMMENCING: at a 1/2-inch iron rod with cap stamped "ATS Engineers" found on the southwestern rightof-way line of U.S. Highway 183 for the easternmost corner of the said Lot 1, Block A, the northernmost corner of Lot 2, Block A of the Little Elm Subdivision Plat as recorded in Document No. 2013106218 of the Official Public Records of Williamson County, Texas;

THENCE: South 69°59'47" West a distance of 45.91 feet along the southern line of the said Lot 1, Block A, the northern line of the said Lot 2, Block A to a calculated point for the POINT OF BEGINNING and the southeastern corner of this herein described tract;

THENCE: South 69°59'47" West a distance of 288.02 feet continuing along the southern line of the said Lot 1, Block A, the northern line of the said Lot 2, Block A to a calculated point for the southernmost corner of the said Lot 1, Block A, the southeastern corner of a called 53.9395 acre tract of land described in that Warranty Deed to the Board of Trustees, Leander Independent School District in Document No. 2011084700 of the Official Public Records of Williamson County, Texas, for the southwestern corner of this herein described tract;

THENCE: along the southwestern line of the said Lot 1, Block A, the northeastern line of the said 55.9395 acre tract the following courses and distances;

- With a non-tangent curve to the left with a Delta angle of 05°01'22", a Radius of 2481.93 feet and an Arc length of 217.58 feet having a Chord bearing of North 36°36'43" West and a distance of 217.51 feet to a 1/2-inch iron rod with orange cap found for a corner of the said Lot 1, Block A, a corner of the said 55.9395 acre tract, for a corner of this herein described tract;
- 2. North 39°13'22" West a distance of 559.02 feet to a calculated point for the northwestern corner of this herein described tract;

THENCE: across the said Lot 1, Block A the following courses and distances;

- 1. North 30°22'45" East a distance of 25.26 feet to a calculated point;
- 2. North 42°35'20" East a distance of 93.38 feet to a calculated point;
- 3. North 58°48'54" East a distance of 61.69 feet to a calculated point;
- 4. North 65°31'15" East a distance of 93.85 feet to a calculated point;
- North 82°52'30" East a distance of 66.32 feet to a calculated point on the southwestern line of U.S. Highway 183, the northeastern line of the said Lot 1, Block A for the northeastern corner of this herein described tract;

THENCE: along the southwestern line of U.S. Highway 183, the northeastern line of the said Lot 1, Block A the following courses and distances;

- 1. South 39°19'32" East a distance of 513.29 feet to a TxDot Type I concrete monument found for a corner of Lot 1, Block A, for a corner of this herein described tract;
- With a non-tangent curve to the right with a Delta angle of 03°56'16", a Radius of 2806.93 feet and an Arc length of 192.91 feet having a Chord bearing of South 37°10'00" East and a distance of 192.87 feet to a calculated point for a corner of this herein described tract;

THENCE: across the said Lot 1, Block A the following courses and distances;

- 1. South 54°11'10" West a distance of 44.71 feet to a calculated point;
- 2. South 33°51'57" East a distance of 122.62 feet to the POINT OF BEGINNING and CONTAINING an area of 6.0945 acres (265,478 sq. ft.) of land.

#### **Bearing Basis:**

All bearings shown are based on the Texas Coordinate System, Central Zone, NAD 83.



_____05/06/2024 Date

Rex L. Hackett Registered Professional Land Surveyor No. 5573 rhackett@quiddity.com



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