

CITY COMMISSION WORKSHOP MEETING MINUTES
CITY OF TRUTH OR CONSEQUENCES, NEW MEXICO
CITY COMMISSION CHAMBERS, 405 W. 3RD St.
WEDNESDAY, OCTOBER 11, 2023

A. CALL TO ORDER:

The meeting was called to order by Mayor Amanda Forrister at 9:00 a.m., who presided and Angela A. Torres, City Clerk-Treasurer, acted as Secretary of the meeting.

B. INTRODUCTION:

1. ROLL CALL:

Upon calling the roll, the following Commissioners were reported present.

Hon. Amanda Forrister, Mayor
Hon. Rolf Hechler, Mayor Pro-Tem
Hon. Destiny Mitchell, Commissioner was absent
Hon. Merry Jo Fahl, Commissioner
Hon. Shelly Harrelson, Commissioner

Also Present: Angie Gonzales, City Manager
Traci Alvarez, Assistant City Manager
Angela A. Torres, City Clerk-Treasurer

There being a quorum present, the Commission proceeded with the business at hand.

2. APPROVAL OF AGENDA:

Commissioner Fahl moved to approve the agenda as submitted. Commissioner Harrelson seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

C. WORKSHOP:

1. Public Meeting/Workshop for the Downtown Master Drainage Plan Project.

WH Pacific gave a presentation of the Downtown Master Drainage Plan Project. (Copy of presentation attached hereto and made a part hereof).

Commissioner Fahl: The west arroyo is a joint partnership with the NRCS PL566 program. I think that the maintenance is part of the XDS-4 (listed on the presentation), and that is

part of the Maintenance Plan that the city has in place. That has always been part of that. That is a discharge channel out of that, so that PL566 program includes Morgan Street, and those channels to the river, and this one that captured everything on that side. NMDOT is in charge of XDS-1. I think that we just needed to re-affirm that we need to continue to do our required maintenance on that arroyo.

Commissioner Harrelson: On slide 25 and slide 26. Why are we going to invert it vs. putting old gutters on the side where the curbs are, and drain it out that way like you see in every other city?

WH Pacific: That was the first thing we looked at. There is a lot of land on the north side of the Rio Grande that is not owned by the city, so it would be hard to put in that infrastructure to discharge out to the Rio Grande. These roads are also so flat where it would be hard to get that slope for it to function properly without it silting in.

Commissioner Harrelson: Looking at that, that is private property in that area, so could that be a negotiated agreement between the private property owner and the city on making gutters like that? I am just looking at water flow when we do have a big rain storm filling up our street's vs having it guttered out, and the streets be clear.

WH Pacific: Yeah, definitely. If there can be agreements with the city and private property owners then yeah, they could definitely put in an infrastructure like that.

Mayor Forrister: Is that a better option, putting gutter in vs. doing the hole in the street?

WH Pacific: It could definitely be a suggestion of improvement. I guess the feasibility would come down to the project cost. I can put some figures together for you.

Mayor Pro-Tem Hechler: What are some of the potential funding sources, and what should we be looking at?

WH Pacific: We can look into that.

Assistant City Manager Alvarez: The Water Trust Board and Colonias does drainage, and there is also Capital Appropriation. In the past we applied for a Master Plan Drainage Plan through one of them. This plan is covered by the Capital Appropriation that we received for \$100,000.

Commissioner Fahl: Where it shows that you want to put some storm drains on Foch Street, isn't that where the hot water ditch is? I don't know if you are aware of that. That is used by most of our commercial bath houses. That has been in place for years. I know there is a lot of water that is already dedicated to that, so when you start looking at studies you are going to have to see what capacity is in the system that is already there. When NMDOT is going to be studying that, can you interact with them, so they can share the information they have.

Assistant City Manager Alvarez: Yes, that is a potential process. Andrew Gallegos is the Engineer on record for the city for the water and sewer line replacement at the roundabouts so he has some contacts with NMDOT.

Gordon Edelheit: I have been a commercial property owner at 517 Austin, and in the last 4 years on Daniels Street there have been several flooding situations. The primary danger is Broadway. I almost went through a window with the sandbag issues that we have. There have been other people that looked at ways of improving this with lift stations, and settling ponds across from Bullocks. Drains and lift stations in the two \$800,000 areas, when you look at those lift stations, and you look at carrying the water off Broadway, putting a settling pond, it is a different yet much more practical approach. Some people have told me that a lift station would better carry the water out, and it would tie into the system. I am hoping that there have been some other alternatives besides this \$9.9 million facing us.

Kathleen Sloan: I didn't understand, when you were saying it is 7ft. of water, were you looking at capacity, or the 100-year flood or were you looking at a flood mark on the arroyo? I didn't understand how you were measuring that.

WH Pacific: It is all put into a model that maps out all of the flooding within the downtown area. That is where the blue shading on the presentation came from. It makes a whole surface, and it applies all of the rain fall and water distribution along that. It was based off of the 100-year flood.

Kathleen Sloan: Where are we in the process of this capital project. When was this approved by the City Commission? We aren't even at the Preliminary Engineering Report stage. I don't understand where we are in the project.

WH Pacific: We are at the planning stage. This is a planning document.

Kathleen Sloan: But it is a Preliminary Engineering Plan.

WH Pacific: Yes.

Kathleen Sloan: Was this associated with the Sierra County Drainage Plan?

Commissioner Fahl: Kathleen, the Sierra County Drainage plan focused on some major arroyos that did not come anywhere to the City of T or C, so it would not benefit their study at all.

Nate Stephens: I want to commend everybody for working on this. Great job. I think it is something that has to be taken care of. Also, on the other side, we need to remember that all of that land is privately owned land when you go on the other side of Wyona and you go over the ditch, that is all privately owned land. This plan is concerning all of the spots that have the potential of development so if we are talking about a drainage plan, lets make sure that we incorporate that so it doesn't get left behind like it has in the

CITY COMMISSION OCTOBER 11, 2023 WORKSHOP MEETING MINUTES

past. So, when we look at this thing, let's look at it as a whole downtown basin, and not just the streets that are paid through funds.

Gordon Edelheit: Has anybody looked at settling ponds and lift stations to get the water associated with the downtown area in several channels. You mentioned if you did that in the middle of those streets, and it went out and it didn't impact the hot water system. That would obviously be a different kind of collection. With lift stations, it is different pricing, but it is far more competitive.

WH Pacific: Thank you for your comments. We will take any feedback that you give us and we will put it back in the reports.

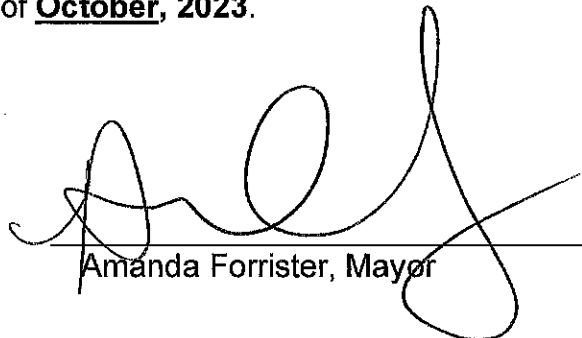
Commissioner Fahl: The city paid for a rainwater catchment study a number of years ago, if we determined using that study, if we factored in some key buildings, that would reduce some of the water impact downtown. That is what that study showed. They focused a lot on Foch Street, and that is why they put in that holding pond, but there were a lot of other options in that plan, so maybe you can get a copy from Traci, so you can see if that would reduce some of the water flow into those streets.

Assistant City Manager Alvarez: I can send that to them. It was the Storm Water Harvesting Plan.

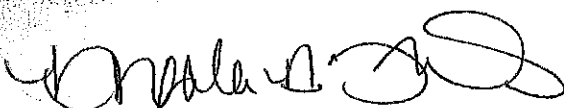
D. ADJOURNMENT:

Mayor Forrister adjourned the meeting at 9:39 a.m.

Passed and Approved this 25th day of October, 2023.

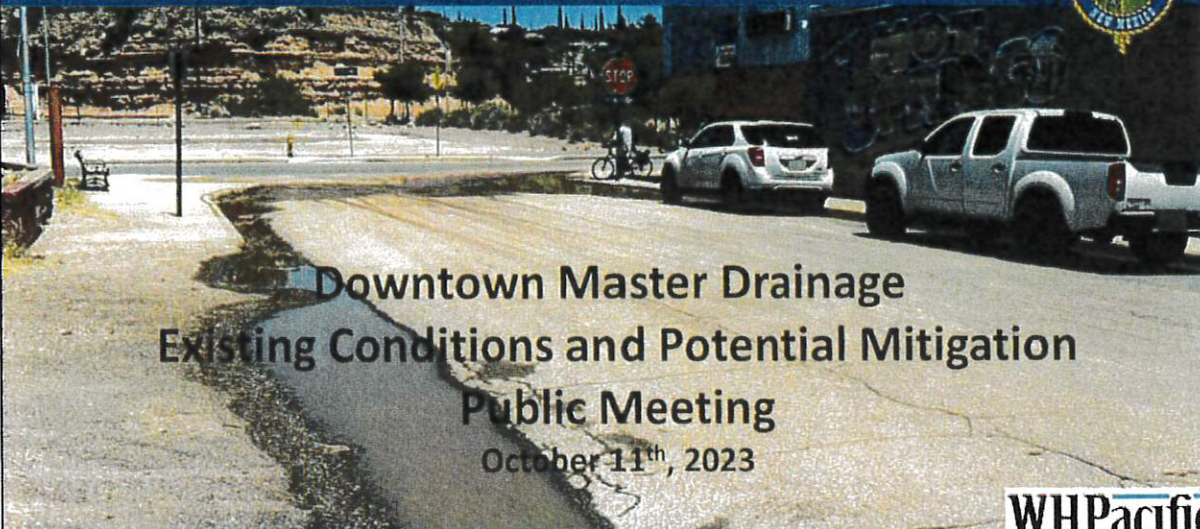


Amanda Forrister, Mayor



Angela A. Torres, CMC, City Clerk

Truth of Consequence Downtown
Master Drainage Plan



**Downtown Master Drainage
Existing Conditions and Potential Mitigation
Public Meeting
October 11th, 2023**

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**T OR C DOWNTOWN MASTER DRAINAGE PLAN
PURPOSE AND SCOPE**



PURPOSE AND SCOPE STATEMENT

The purpose of the Downtown Master Drainage Plan Project is to analyze the two arroyos draining to the downtown area, evaluate existing drainage patterns, and develop and prioritize potential projects to mitigate flooding concerns to improve safety, and improve drainage infrastructure. This may be accomplished by upgrading existing drainage facilities or constructing new facilities.

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T OR C DOWNTOWN MASTER DRAINAGE PLAN

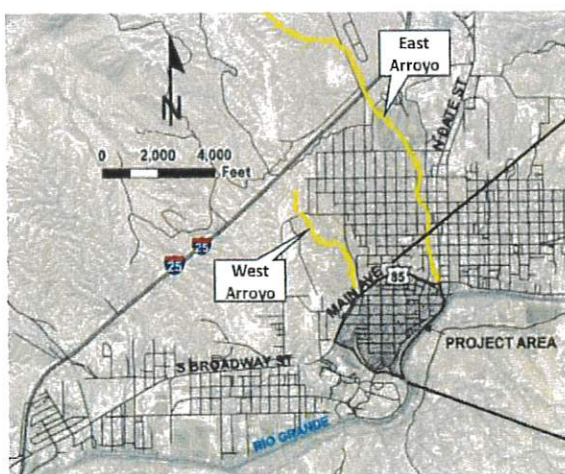


PRESENTATION OVERVIEW

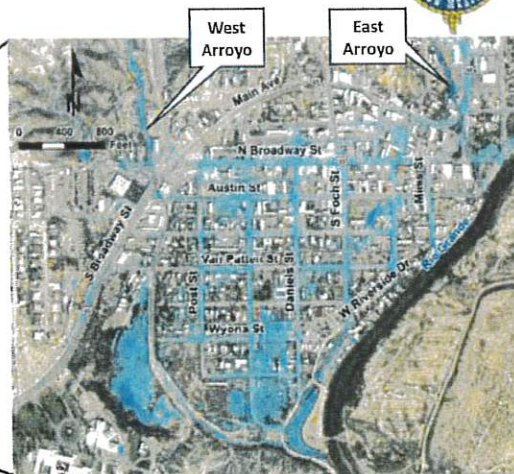
- Project Study Area Extent
- Hydrological Analysis (Existing Conditions)
- Hydraulic Results (Existing Conditions)
 - West Arroyo
 - East Arroyo
 - Downtown Street Drainage
- Suggestions of Improvement
 - West Arroyo
 - East Arroyo
 - Downtown Street Drainage
- Estimated Project Costs
- Project Schedule
- Questions or Comments

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T OR C DOWNTOWN MASTER DRAINAGE PLAN STUDY AREA



Study Area Extents



Downtown Section

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T OR C DOWNTOWN MASTER DRAINAGE PLAN EVALUATION



HYDROLOGY EXISTING CONDITIONS

- New Mexico Department of Transportation (NMDOT) criteria used to estimate a 1-percent storm event or 100-year storm event peak flows in the T or C area.
- Estimated stormwater flow were modeled to map out flow flood areas in the T or C area.
- The results includes 100-year water depths shown with blue shading and blue 1-ft contour lines for the water depths.

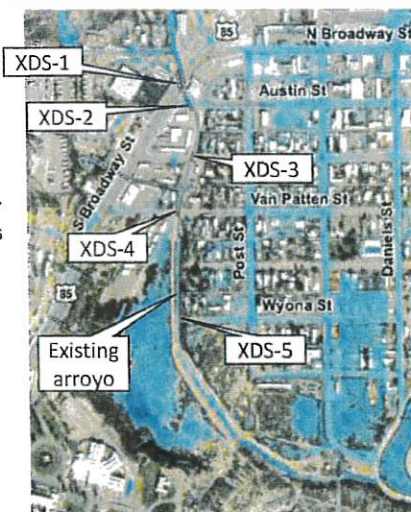
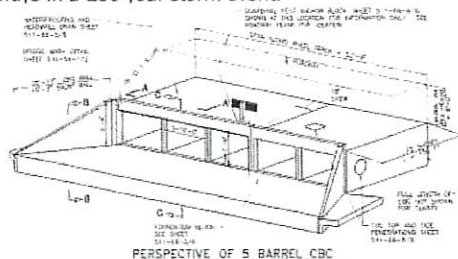


T OR C DOWNTOWN MASTER DRAINAGE PLAN WEST ARROYO EVALUATION




WEST ARROYO EXISTING CONDITIONS

- The model done for this area was pre-development of the new Wyona St crossing and development.
- Series of concrete box culvert (CBC) along the west arroyo identified as XDS-#.
- New roadway crossing at XDS-5 with a corrugated metal arch pipe (CMAP) which serves a recently constructed development.
- Culverts are being analyzed for capacity if stormwater overtops roadways in a 100-year storm event.




T OR C DOWNTOWN MASTER DRAINAGE PLAN WEST ARROYO EVALUATION



XDS-1 WEST ARROYO EXISTING CONDITIONS

- 3 – 132'L x 13'W x 2'H Concrete Box Culvert (CBC)
- Sediment Buildup
- 3-feet of water depth upstream of CBC
- 4-feet of water depth downstream of CBC
- Culvert under a State Road with no access for maintenance.



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T OR C DOWNTOWN MASTER DRAINAGE PLAN WEST ARROYO EVALUATION



XDS-2 WEST ARROYO EXISTING CONDITIONS

- 1 – 73'L x 12'W x 2'H Concrete Box Culvert (CBC)
- 4-feet of water depth upstream of CBC
- 2-feet of water depth downstream of CBC



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T OR C DOWNTOWN MASTER DRAINAGE PLAN WEST ARROYO EVALUATION



XDS-3 WEST ARROYO EXISTING CONDITIONS

- 1 – 67'L x 12'W x 3'H Concrete Box Culvert (CBC)
- 1-foot of water depth upstream of CBC
- 1-foot of water depth downstream of CBC



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T OR C DOWNTOWN MASTER DRAINAGE PLAN WEST ARROYO EVALUATION



XDS-4 WEST ARROYO EXISTING CONDITIONS

- 1 – 63'L x 12'W x 3'H Concrete Box Culvert (CBC)
- 3-feet of water depth upstream of CBC
- 2-feet of water depth downstream of CBC




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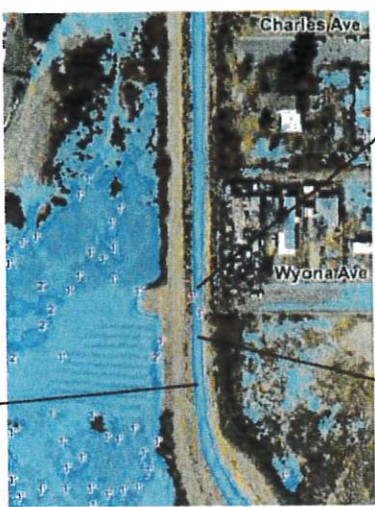
T OR C DOWNTOWN MASTER DRAINAGE PLAN WEST ARROYO EVALUATION





XDS-5 WEST ARROYO

EXISTING CONDITIONS


- The flood map model shows the predevelopment of this area.
- 1 – Corrugated Metal Arch Pipe, size and ground surface data unavailable because this was built after it was surveyed.
- Crossing pipe not modeled because pipe did not exist at the time of the existing analysis




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T OR C DOWNTOWN MASTER DRAINAGE PLAN EAST ARROYO EVALUATION



EAST ARROYO


EXISTING CONDITIONS

- 1 concrete box culvert (CBC) along the east arroyo identified as XDS-#.
- 2 roads where stormwater flows over roadway before discharging into Rio Grande. Also identified these areas as XDS-#.



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T OR C DOWNTOWN MASTER DRAINAGE PLAN EAST ARROYO EVALUATION



XDS-6 EAST ARROYO EXISTING CONDITIONS

- 1 – 408'L x 13'W x 5'H Concrete Box Culvert (CBC)
- 7-feet of water depth upstream of CBC
- 4-feet of water depth downstream of CBC



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T OR C DOWNTOWN MASTER DRAINAGE PLAN EAST ARROYO EVALUATION



XDS-7 EAST ARROYO EXISTING CONDITIONS

- 2-feet of water depth upstream of CBC
- 3-feet of water depth downstream of CBC



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T OR C DOWNTOWN MASTER DRAINAGE PLAN EAST ARROYO EVALUATION



XDS-8 EAST ARROYO EXISTING CONDITIONS

- 2-feet of water depth upstream of CBC
- Discharges to Rio Grande



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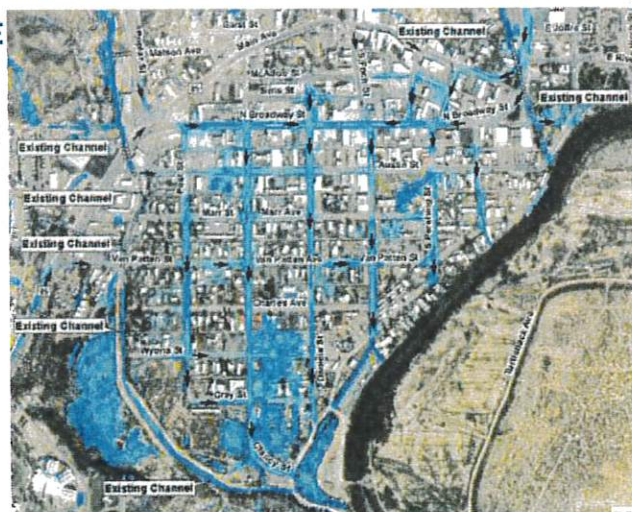
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T OR C DOWNTOWN MASTER DRAINAGE PLAN ADDITIONAL EVALUATION OF ROADWAY DRAINAGE



DOWNTOWN STREET DRAINAGE EXISTING CONDITIONS

- Rainfall collects along the downtown area and conveys south in the streets eventually discharging into the Rio Grande.
- The drainage from the east and west arroyos have little impact to downtown flood areas.
- Streets in downtown area have little drainage infrastructure to address flooding.



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T OR C DOWNTOWN MASTER DRAINAGE PLAN ADDITIONAL EVALUATION OF ROADWAY DRAINAGE



NORTH BROADWAY STREET DRAINAGE EXISTING CONDITIONS

- N Broadway Street gives access to many local businesses while most of the flooding occurs along this roadway.
- The N Broadway St and Post St intersection receives the most perceived flooding here affecting the nearby business reaching water depths up to 1-foot.



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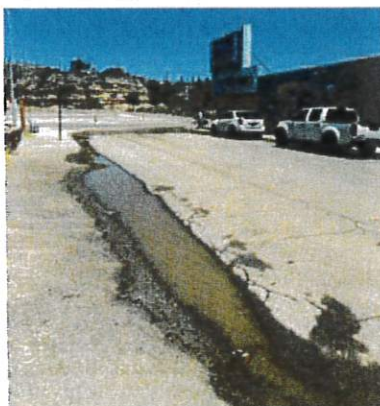
17

T OR C DOWNTOWN MASTER DRAINAGE PLAN ADDITIONAL EVALUATION OF ROADWAY DRAINAGE



N BROADWAY ST AND POST ST INTERSECTION EXISTING CONDITIONS

- This area is a low spot in the roadway. Stormwater drains east down N Broadway St.
- Pavement has been recently repaired and patched at this location. Photos shown are before maintenance.



Looking North To Intersection



Looking South Down Post St

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T OR C DOWNTOWN MASTER DRAINAGE PLAN ADDITIONAL EVALUATION OF ROADWAY DRAINAGE

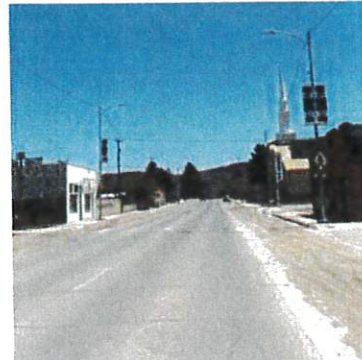


N BROADWAY ST AND EXISTING CONDITIONS

- New Mexico Department of Transportation to repave surface in 2024.
- Construction plans completed for S Foch St north of N Broadway St for roadway and drainage improvements.
- N Broadway has been cleaned and patched by the City.



Looking East Down N Broadway St



Looking East Down N Broadway St

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T OR C DOWNTOWN MASTER DRAINAGE PLAN ADDITIONAL EVALUATION OF ROADWAY DRAINAGE



DOWNTOWN EXISTING DRAINAGE INFRASTRUCTURE

- Existing grate inlets along Date St intercepts flow before it drains into Main Avenue.
- Existing grate inlet at intersection of Austin St and Daniels St. The pipe connected to grate inlet was shallow and ran south.



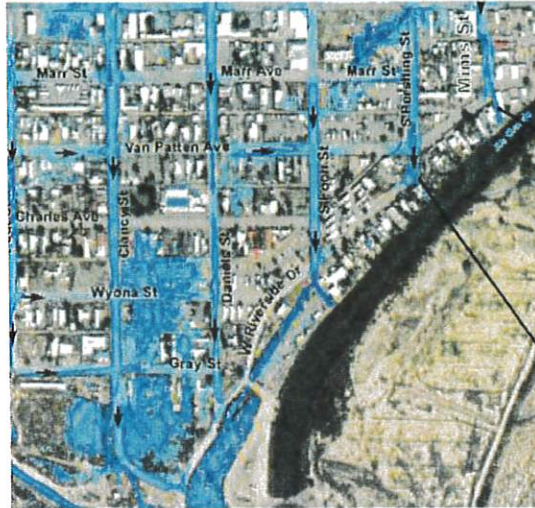
20

T OR C DOWNTOWN MASTER DRAINAGE PLAN ADDITIONAL EVALUATION OF ROADWAY DRAINAGE



EXISTING DRAINAGE AT THE RIO GRANDE

- Stormwater is conveyed as surface runoff down S Pershing St and Mims St from N Broadway St.
- Mims St and S Pershing St surface runoff outfalls into Rio Grande through existing concrete channels.



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T OR C DOWNTOWN MASTER DRAINAGE PLAN ADDITIONAL EVALUATION OF ROADWAY DRAINAGE



EXISTING DRAINAGE AT THE RIO GRANDE

- Stormwater is conveyed as surface runoff down Post St, Clancy St, Daniels St, and S Foch St from N Broadway St.
- S Foch St surface runoff outfalls into an existing concrete channel that feeds into an existing wetland.
- Clancy St and Daniels St surface runoff outfalls into earthen ditches into Rio Grande.



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T OR C DOWNTOWN MASTER DRAINAGE PLAN WEST ARROYO EVALUATION

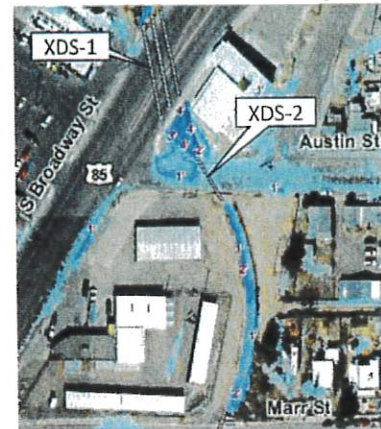


WEST ARROYO SUGGESTIONS OF IMPROVEMENT

- **Maintenance**
 - Cleaning
- XDS-1 concrete box culvert under S Broadway St/US 85 will require maintenance to remove sediment buildup. NMDOT responsible party for maintenance.
- XDS-2 concrete box culvert has a capacity issue where water is overtopping into roadway. Culvert will also require maintenance due to sediment coming upstream from XDS-1. Clearing out the culvert will increase its capacity.



Downstream of XDS-1



XDS-2 Plan View

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T OR C DOWNTOWN MASTER DRAINAGE PLAN EAST ARROYO EVALUATION



EAST ARROYO

SUGGESTIONS OF IMPROVEMENT

- **Storm Drain Improvement**
 - Placing of new culverts
- XDS-7 no culvert under N Broadway St. Installation of a culvert under roadway would require grading of ditch. Ditch property not owned by City. Requires land acquisition.
- XDS-8 no culvert under East Riverside Dr. Installation of a culvert under roadway would also require grading of ditch. Ditch property not owned by City. Requires land acquisition.
- Improvements not feasible due to land acquisition.



Upstream of XDS-7



Upstream of XDS-8



XDS-2 Plan View

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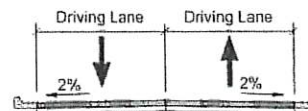
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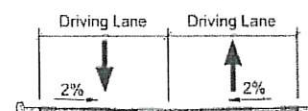
DOWNTOWN T OR C

SUGGESTIONS OF IMPROVEMENT

- Drainage Improvements
 - Invert roadway crowns
 - Alter grading at intersection to drain N Broadway south.
- Invert crowns on Post St, S Foch St, S Pershing St, Mims St.
- A 6-ft valley gutter may also be required to improve water conveyance at inverted crowns.
- Clancy St and Daniels St are already inverted and can be improved by installing a 6-ft valley gutter to improve water conveyance.



EXISTING TYPICAL ROAD SECTION



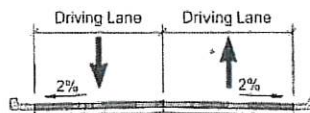
6' VALLEY GUTTER
PROPOSED TYPICAL ROAD SECTION

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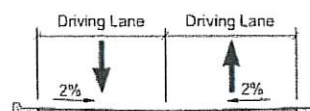
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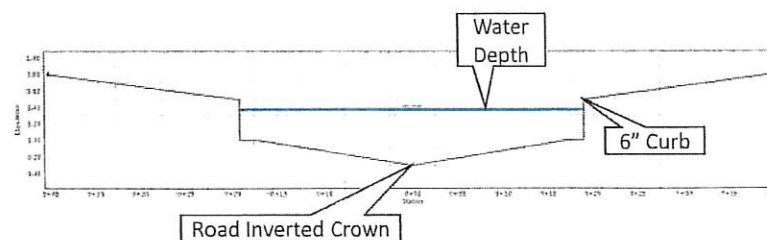
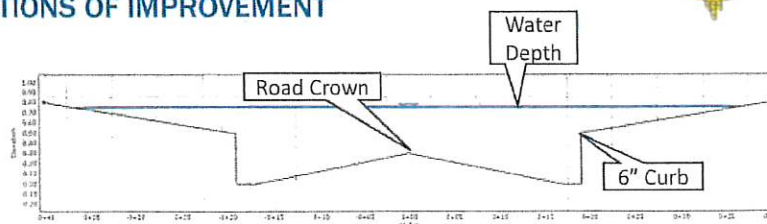
DOWNTOWN T OR C SUGGESTIONS OF IMPROVEMENT



EXISTING TYPICAL ROAD SECTION




6' VALLEY GUTTER
PROPOSED TYPICAL ROAD SECTION



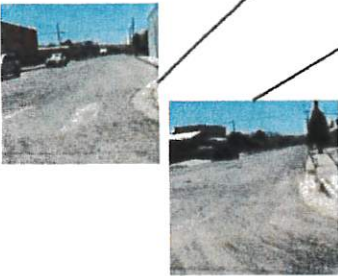

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T OR C DOWNTOWN MASTER DRAINAGE PLAN EVALUATION



DOWNTOWN T OR C SUGGESTIONS OF IMPROVEMENT

- Drainage Improvements
 - Invert roadway crowns
 - Alter grading at intersection to drain N Broadway south.

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T OR C DOWNTOWN MASTER DRAINAGE PLAN EVALUATION



DOWNTOWN T OR C SUGGESTIONS OF IMPROVEMENT

- Drainage Improvements
 - Invert roadway crowns
 - Alter grading at intersection to drain N Broadway south.




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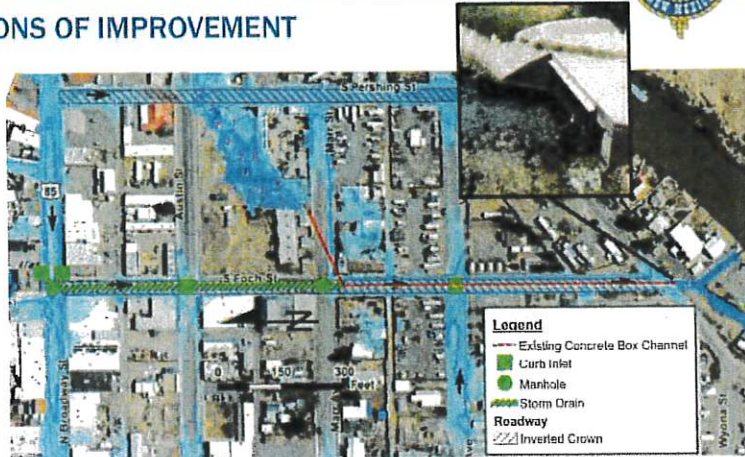
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T OR C DOWNTOWN MASTER DRAINAGE PLAN EVALUATION



DOWNTOWN T OR C SUGGESTIONS OF IMPROVEMENT

- Storm Drain Improvements
 - Placement of new drop/curb inlets as required.
 - Placement of new storm drain
- The roadways in the downtown area are very flat ranging in slopes of 0.2% - 0.8% in the roadways that are conveying stormwater to the Rio Grande (ie. Post St, Clancy St, Daniels St, S Foch St, S Pershing St and Mims St).
- S Foch St has an underground concrete box culvert that drains geothermal water from the museum down to the Rio Grande. It is approximately shown in red.



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T OR C DOWNTOWN MASTER DRAINAGE PLAN EVALUATION



IMPROVEMENT COSTS

LOCATION	IMPROVEMENT COST	IMPROVEMENT DESCRIPTION
POST ST	\$1,900,000	ROADWAY DRAINAGE IMPROVEMENT (INVERTED CROWN)
CLANCY ST	\$800,000	ROADWAY DRAINAGE IMPROVEMENT (6-FT VALLEY GUTTER)
DANIELS ST	\$800,000	ROADWAY DRAINAGE IMPROVEMENT (6-FT VALLEY GUTTER)
S FOCH ST	\$2,600,000	ROADWAY & STORM DRAINAGE IMPROVEMENTS (INVERTED CROWN)
S PERSHING ST	\$1,500,000	ROADWAY DRAINAGE IMPROVEMENT (INVERTED CROWN)
MIMS ST	\$1,100,000	ROADWAY DRAINAGE IMPROVEMENT (INVERTED CROWN)
XDS-1	MAINTENANCE	MAINTENANCE – CULVERT CLEANING
XDS-2	MAINTENANCE	MAINTENANCE – CULVERT CLEANING

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T OR C DOWNTOWN MASTER DRAINAGE PLAN PROJECT SCHEDULE



CURRENT STUDY SCHEDULE

- Existing Conditions Analysis October 11, 2023 **(Complete)**
 - Public Meeting – October 11, 2023
 - Last Day for Public Comments – October 25, 2023
- Finalize Master Drainage Report – December 1, 2023 **(Pending)**
 - Complete Master Plan Writeup – October 25, 2023
 - Complete Internal QC Submittal – November 1, 2023
 - Preliminary Master Plan Submittal to City – November 8, 2023
 - City Review Period – November 22, 2023
 - Final Master Plan Submittal – December 1, 2023
- Begin Preliminary Design – To Be Determined
- Anticipated Construction – To Be Determined

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QUESTIONS OR COMMENTS?



Call Us
505-348-5212

Email Us
Craig.tom@nv5.com

Mail Us
NV5
Attn. T or C Downtown Master Drainage Plan
6501 Americas Pkwy NE, Ste 400
Albuquerque, NM 87110

Comments are requested by October 25

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